

# Social Implications of the Indonesian Economic Crisis

*Ari A. Perdana and Arya B. Gaduh*

## INTRODUCTION

**A** MIDST a five-year long crisis, the Indonesian economy has been undergoing structural adjustments which, coupled with their effects on future economic performance, have had social implications. Feridhanusetyawan (1999) suggested three channels through which structural adjustments may have social implications: (1) the labor market adjustments associated with structural adjustments; (2) the changing pattern of household expenditure, initiated by reduction in real incomes; and, (3) adjustment effects on government spending for social programs. At the onset of the crisis, many feared that the social implications might be very significant and negative. However, the economy has adjusted very well to the crisis; and more importantly, a set of fiscal policies—despite imperfections and inefficiencies—have managed to lessen the adverse impacts of adjustments to poor households.

This article documents those implications, focusing on adjustments in the labor market and the impacts on poverty. First, it discusses labor market adjustments that resulted from the crisis. Generally, these adjustments follow the pattern in the real sector, where deindustrialization and deformatization of the economy occurred.<sup>1</sup> As in previous crises, the rural economy cushioned the economy from the worst effects of the crisis by absorbing a lot of the increased unemployment caused by the contraction of the urban economy. The next section discusses the effects of adjustment at the micro-level, particularly on poor households and a regional and sectoral analysis based on headcount poverty. In addition to some issues regarding the severity, depth and vulnerability of poverty, this article also presents some of the policy measures imple-

---

<sup>1</sup>For a review of the real sector adjustments during the crisis, see Aswicahyono and Maidir (2003) elsewhere in this issue.

Table 1

## OPEN UNEMPLOYMENT AND UNDEREMPLOYMENT: 1997-1999

	Aug-97	Aug-98	Aug-99
Open unemployem <sup>t</sup> (in million)	4.18	5.05	6.03
Open unemployment rate	4.69%	5.46%	6.36%
Underemployment (in million)	10.67	8.57	11.98
Underemployment rate	11.96%	9.28%	12.63%
Open unemployment + Underemployment (in million)	14.86	13.61	18.01
Open unemployment + Underemployment rate	16.65%	14.74%	18.98%

Source: CBS (2000)

Note: Underemployment excludes voluntary underemployment

mented as part of the adjustment strategy to protect the poor from the adverse impacts of structural adjustments. The entire discussion is then concluded in the final section.

### LABOR MARKET ADJUSTMENTS

The initial impacts of the crisis were translated into massive output contractions in the various sectors. These contractions initiated massive layoffs in the modern sector, prompting concerns over serious unemployment problems. These concerns over an immediate increase in unemployment, however, did not materialize because the labor market adjusted well enough to allow sectoral mobility from modern to more traditional sectors. Instead, the labor market adjusted by depressing real wages accompanied by an increase in labor participation, compensating for reductions in real incomes. In this sense, the neoclassical flexible wages model is more appropriate than the Keynesian fixed wage model in describing the

adjustment of the labor market during the crisis.<sup>2</sup>

Table 1 above summarizes what happened to employment between 1997-99. Open unemployment rate, defined by the Central Board of Statistics (CBS) as the number of people working at least an hour a week divided by the labor force, increased slightly from 4.7% just before the crisis to 6.4% in 1999 — an increase of about 2 million people. Given its slackness, one might suspect that the definition of unemployment rate hid an important dynamics with regard to unemployment rates. Yet, when we look at the underemployment rate (defined as the number of people working less than 35 hours a week divided by total labor force), as well as the total of unemployment and underemployment, we see a similarly slight increase in the total rate. Although still significant in absolute terms, this increase in

<sup>2</sup>See also Manning (2000); Feridhanu-setyawan (2000).

Table 2

## GROWTH OF WAGES AND PRODUCTIVITY, 1995-2000

	95-96	96-97	97-98	98-99	99-00	97-00
Labor Productivity	5.5	3.1	-13.7	-0.4	3.6	-11.1
Nominal Wages	15.7	16.2	17.2	22.9	24	78.7
Real Wages	6.5	3.3	-33.1	6.7	11.7	-20.2

Source: Calculated from CBS data

Note: Deflated by sectoral GDP price deflator

unemployment and underemployment rate was relatively mild.

What explains this mild adjustment in the number of unemployed and underemployed? One plausible explanation is that in the absence of social security benefits, workers could not afford to be unemployed. As such, for the labor market to accommodate the massive contraction in the real sector, adjustment must happen elsewhere. Given the flexibility of the labor market, mainly due to the low bargaining power of labor in the pre-crisis era, the adjustment to the crisis ended up in the fall of real wages. That is, workers chose to take pay cuts (which, in real terms, can be seen as a nominal raise below the inflation rate) over getting laid off.

Table 2 above shows that this is indeed what happened between 1997-98. Immediately after the crisis, real wages fell by 33.1%, falling more sharply than labor productivity that fell by 13.7%.<sup>3</sup> This imbalance in between the

fall of productivity and real wages was, to a certain extent, a result of the politics at the time, as the government, in its attempt to help failing enterprises, delayed the annual increase in minimum wages in 1998. The government partly compensated with subsequent increases in 1999 and 2000, but these increases had not kept up with inflation — which partly explained why between 1997-2000 the fall in real wages was still larger than that in productivity. However, with stronger labor unions in a more democratized environment, there was a trend of real wages increasing faster than productivity: between 1999 and 2000, real wages grew by 11.7% while productivity only grew by 3.6%. Whether this trend would continue depends on the relative strength of labor unions vis-à-vis capital owners in future Indonesian politics.

ment. Given the limited availability of data on employment in the informal sector, the labor productivity figures above need to be taken with a grain of salt, because figures for the real GDP describe the whole economy, while those for employment only describe employees of the formal sector.

<sup>3</sup>Labor productivity is real gross domestic product (GDP) divided by employ-

Table 3

## EMPLOYMENT STATUS OF INDONESIAN WORKERS, 1990-1999

	Number (million)			Percent			Growth (% p.a.)			
	1997	1998	1999	1997	1998	1999	90-96	97-98	98-99	97-00
<b>Total</b>	<b>85.41</b>	<b>87.67</b>	<b>88.81</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>2.2</b>	<b>2.7</b>	<b>1.3</b>	<b>3.8</b>
Formal	31.74	30.33	31.93	37.2	34.6	36.0	5.6	-4.4	5.3	0.6
Informal	53.66	57.34	56.88	62.8	65.4	64.0	0.6	6.9	-0.8	5.7
<b>Urban</b>	<b>29.35</b>	<b>30.30</b>	<b>32.32</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>6.9</b>	<b>3.2</b>	<b>6.7</b>	<b>9.2</b>
Formal	16.80	16.45	17.53	57.2	54.3	54.2	7.4	-2.0	6.6	4.2
Informal	12.56	13.85	14.79	42.8	45.7	45.8	6.3	10.3	6.8	15.1
<b>Rural</b>	<b>56.05</b>	<b>57.37</b>	<b>56.49</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>0.3</b>	<b>2.3</b>	<b>-1.5</b>	<b>0.8</b>
Formal	14.95	13.88	14.40	26.7	24.2	25.5	3.7	-7.2	3.8	-3.8
Informal	41.10	43.49	42.09	73.3	75.8	74.5	-0.6	5.8	-3.2	2.3

Source: Central Board of Statistics, *Sakernas* Data, various years

### The "Three D's" of Adjustment

The early labor market adjustment resulting from the crisis can be characterized by the "three D's" — deindustrialization, de-formalization, and deurbanization. These characteristics are somewhat intuitive once we recognize that the sharp depreciation of the Rupiah paralyzed mainly industries in the formal sector that relied heavily on import and foreign money, such as manufacturing and construction which were mostly built in major urban areas. Immediately after the crisis hit and massive layoffs occurred, workers—who needed to find substitute employment—had found jobs in traditional and informal sectors, most of which were located in the rural areas. In this sense, the crisis was an urban phenomenon. Yet, this trend lasted only in so far as the recovery of the modern sector took place.

Concerning the other two characteristics of adjustment, Table 3 above

supports the notion of de-formalization and de-urbanization of the labor market — at least early in the crisis. The annual growth of employment in the formal sector, which had been strong at 5.6% between 1990-1996, suddenly turned negative at -4.4% immediately after the crisis. On the other hand, between 1997-1998, when the crisis was at its worst, the informal sector experienced an unprecedented annual growth relative to the previous six years, jumping from 0.6% to 6.9%. A similar trend can be seen in urban-rural unemployment, with a drop of the annual growth of urban employment from 6.9% between 1990-1999, to 3.2% in 1997-1998, in contrast to the increase of the annual growth of rural employment from 0.3% to 2.3% in the same periods.<sup>4</sup>

<sup>4</sup>When we trace actual displacements, using the specialized 1998 *Sakernas*, we found displacement patterns that conform to the notions of deindustrialization, de-formalization, and deurbanization. See Feridhanusetyawan and Gaduh (2000).

Table 4

## REAL WAGE GROTH BY URBAN-RURAL, 1990-1999

	1997-98	1998-99	1999-00	1997-00
Urban (deflated by Non-Agriculture GDP Deflator)	-35.1	6.3	8.6	-25.1
Rural (deflated by Non-Agriculture GDP Deflator)	-29.8	2.4	21.5	-12.7

Source: Calculated from *Sakernas* Data

Table 5

## PATTERN OF SECTORAL EMPLOYMENT, 1990-1999

Sector	Number (million)			Percent			Growth			
	1997	1998	1999	1997	1998	1999	90-96	97-98	98-99	97-99
Total	85.41	87.67	88.81	100.0	100.0	100.0	2.0	2.7	1.3	3.8
1. Agriculture	34.79	39.41	38.38	40.7	45.0	43.2	-1.9	13.3	-2.6	9.3
2. Mining	0.88	0.67	0.73	1.0	0.8	0.8	6.4	-23.0	7.7	-20.6
3. Manufacturing	11.01	9.93	11.52	12.9	11.3	13.0	5.6	-9.8	15.9	4.4
4. Utilities	0.23	0.15	0.19	0.3	0.2	0.2	3.2	-37.0	28.1	-23.9
5. Construction	4.18	3.52	3.42	4.9	4.0	3.8	10.2	-15.9	-3.0	-22.5
6. Trade	16.95	16.81	17.53	19.9	19.2	19.7	6.3	-0.8	4.2	3.3
7. Transport & Communication	4.13	4.15	4.20	4.8	4.7	4.7	8.9	0.7	1.3	1.9
8. Financial Services	0.66	0.62	0.63	0.8	0.7	0.7	6.1	-6.0	2.7	-3.6
9. Services	12.57	12.39	12.22	14.7	14.1	13.8	4.3	-1.4	-1.4	-2.9

Source: CBS, *Sakernas* Data, various years

Table 4 further supports the notion of deurbanization, and that the crisis was mainly an urban phenomenon. Immediately after the crisis, real wages in the urban sector contracted by 35.1%, much higher than 29.8% contraction in the rural sector. Between 1997-2000, real wages in the urban sector contracted by 25% — almost doubled that in the rural sector. This has important social implications since, intuitively, there would be more traditional social safety nets in the rural areas. A sharp fall in real wages in the urban sector would have more serious implications to the poor, than a similar fall in the rural sector. That real wages actually fell more sharply

in the urban sector partly explained why poverty was more severe in the urban than in the rural area.

Sectoral analysis confirms the first characteristic of adjustment, namely deindustrialization. After experiencing positive annual growth averaging 5.6% between 1990-1996, employments in the manufacturing sector contracted by almost 10% between 1997-1998. Similarly, the annual growth of employment in the construction sector dropped from 10.2% prior to the crisis to -15.9% in 1997-1998. A similar pattern can be seen in most other modern sectors. In contrast, agriculture —which experienced negative growth prior to the crisis— suddenly grew significantly

Table 6

## GROWTH OF WAGES AND PRODUCTIVITY, 1995-2000

	95-96	96-97	97-98	98-99	99-00	97-00
<b>Agriculture</b>						
Labor Productivity	3.3	6.3	-10.3	5.5	-3.8	-8.9
Nominal Wages	13.9	11.4	30.7	22.7	20.9	93.9
Real Wages	3	-1.1	-24.6	0.4	22.1	-7.6
<b>Manufacturing</b>						
Labor Productivity	11.9	1.1	0.0	-10.5	4.9	-6.1
Nominal Wages	17.7	18.4	11.0	19.7	32.6	76.2
Real Wages	5.6	1.1	-30.8	3.2	20.6	-6.5
<b>Services</b>						
Labor Productivity	-2.9	-2.9	-1.9	0.1	5.4	3.5
Nominal Wages	18.1	8.4	20.8	18.2	28.6	83.5
Real Wages	7.3	-7.1	-20.8	-5.8	13.3	-10.7

Source: Calculated from CBS data

Note: Deflated by sectoral GDP price deflator

by 13.3% in 1997-1998. With the additional data on labor displacements from the 1998 Sakernas, we can see that agriculture (and the rural economy) had cushioned the economy by absorbing a lot of employment shed by the modern sectors.<sup>5</sup>

These movements of employment affected labor productivity. In 1997-1998, with the crisis at its worst, the massive inflow of workers into the agricultural sector pulled the labor productivity down (see Table 6). Meanwhile, productivity in the manufacturing was not significantly changed even though it was among the sectors with massive contractions. This phenomenon perhaps can be attributed to the flexibility of the labor market in manufacturing, where capital owners

can layoff workers easily at the dawn of the crisis.

The phenomenon described by the three D's that characterized the early adjustment period had raised concerns among economists. Generally, it suggested that the economy was moving towards less productive sectors. If the trend persisted, this would imply that the economy would reach a low-equilibrium path, which in the long run, would result in lower overall welfare. However, the data for 1999 in Table 3 and Table 5 suggest that the shift towards traditional sectors was temporary. As the exchange rate had been stable and the windfall profit from agricultural exports diminished, the agricultural sector became less attractive in 1999. Meanwhile, other than construction, employment in all modern sectors that experienced negative growth in 1998, regained their

<sup>5</sup>For details, see Feridhanusetyawan and Gaduh (2000).

positive growth rates in 1999. This initial surge of employment into the manufacturing sector in 1999 lowered labor productivity temporarily.

### The Gender Dimension of Adjustment

Women also had a share in cushioning the social impacts of the initial stage of the crisis in the same way as the absorption capacity of the agricultural sector had prevented massive unemployment increases in 1998. Qualitative surveys, such as done by SMERU (1999), suggested that increased unemployment had often encouraged, if not forced, women to participate in the labor force in order to help their families cope with the crisis. Increased participation of women might have contributed to the measured decline of poor household incomes during

the worst period of the crisis. The data, shown in Table 7 below, support such a notion.

Table 7 shows that the growth in the size of the male labor force was generally stable before and during the crisis. However, the growth in the size of the female labor force —i.e., women who were looking for a job—experienced a surge early in the crisis in 1998. We can also see a similar surge in the growth of the number employed of 4.2% for female workers, compared to 1.7% for male workers. Yet, this growth trend did not last for long in 1999, as the growth in the size of the female labor force and female employment fell to rates lower than the pre-crisis annual growth. This suggested that the initial surge of female labor participation was motivated by concerns over lowered quality of life due

Table 7

#### INDONESIAN LABOR FORCE, 1990-1999

	Number (million)			Percent			Growth (%)			
	1997	1998	1999	1997	1998	1999	90-96	97-98	98-99	97-99
<b>General</b>										
<b>Working age population</b>	135.07	138.56	141.09	100.0	100.0	100.0	2.5	2.6	1.8	4.5
<b>Labor Force</b>										
Total	89.60	92.74	94.84	100.0	100.0	100.0	2.6	3.5	2.3	5.8
Male	55.27	56.76	58.43	61.7	61.2	61.6	2.7	2.7	2.9	5.7
Female	34.34	35.97	36.41	38.3	38.8	38.4	2.5	4.8	1.2	6.0
<b>Population employed</b>										
Total	85.41	87.67	88.81	100.0	100.0	100.0	2.2	2.7	1.3	4.0
Male	53.01	53.90	54.90	62.1	61.5	61.8	2.4	1.7	1.9	3.6
Female	32.40	33.77	33.91	37.9	38.5	38.2	2.0	4.2	0.4	4.7
<b>People looking for jobs</b>	4.20	5.06	6.03	4.7	5.5	6.4	13.4	20.6	19.1	43.6
<b>Not in the Labor Force</b>	45.47	45.82	46.24	33.7	33.1	32.8	2.2	0.8	0.9	1.7

Source: CBS, Sakernas Data, various years

Table 8

**REAL WAGE GROWTH BY GENDER,  
1990-1999**

	1997-98	1998-99	1999-00	1997-00
Male	-32.8	6.1	12.9	-19.5
Female	-32.8	8.6	9.0	-20.5

Source: Calculated from *Sakernas* Data

to the crisis — and not because of more employment opportunities for women during the crisis; and as signs of recovery shows, many women readjusted their behaviors, resulting in the falling number of female labor participation in 1999.

A concern in discussions on the gender dimension of labor market adjustment is whether adjustment widened the income gap between male and female labor. Table 8 above suggests that this did not happen. Real wages dropped as sharply for both male and female labors, but the initial rebound was stronger for female workers. The recovery of real wages took a bit longer for male workers, but overall the fall in real wages was more or less similar for male and female workers.

### POVERTY IMPACT OF THE CRISIS

The household-level adjustment of the crisis took the form of changing patterns of household income expenditure. The sharp reduction in real income discussed above forced people to either work for a relatively less income, consume their savings or sell

their assets to cope with increasing expenditure. The increase in prices was three or four times larger than the increase in nominal wages, such that the purchasing power of the family could decline by around a half. On the expenditure side, the doubling of prices, especially those of food, forced people to reduce and substitute their spending on secondary and tertiary needs for basic needs. For low-income families, whose expenditure consisted mainly of food consumption, the sharp increase in food prices significantly reduced their purchasing power, lowered their food consumption, and even led to starvation in some cases.

The limited capacity of the government in providing an adequate safety net mechanism worsened the social impact of the crisis. The government's budgetary constraints —mainly resulting from exchange rate depreciation— led to smaller public spending for education, health and other services, as well as a reduced ability of the government to maintain subsidies for fuel, electricity or basic food. All these imply increased poverty.

In describing poverty trends, we can differentiate the timeline between the period up to the peak of the crisis (1998), and the aftermath of it (post-1998). The first period is characterized by a high jump of the poverty rates. The latter period shows a declining trend of poverty, although poverty rates are still above the pre-crisis condition. Table 9 presents the results of the of-



ficial<sup>6</sup> headcount poverty calculation.<sup>7</sup> It shows that the crisis has increased the number of households below the poverty line from 34.5 million (17.7% of total population) in 1996 to 49.5 million (or 24.2%) in 1998.<sup>8</sup> However, some argued that the CBS calculation was an overestimate, and did not reflect the real situation. Among other methodological issues, the studies based their calculation on the changes in *income*, rather than *expenditure*, due to the crisis. Nominal household income was assumed to be unchanged by ILO/UNDP, and slightly falling according to BPS. This might not be the case if the estimations had been carried out using expenditure data. As Booth (1999b: 3) argues:

“...Certainly it was not immediately obvious why a reduction in GDP of around 13 percent in 1998 would lead to such

a huge increase in the proportion of the population under the poverty line ... The severe GDP contraction will have a much adverse effect, at least in the short run, on the investment component ... than on the consumption expenditure. In the short run at least, poverty estimates are driven by changes in real consumption expenditures rather than changes in real GDP.”

Empirical evidence supports this argument. As discussed in the labor section earlier, nominal wage increased by around 16-17%, and according to Feridhanusetyawan (1999) the household nominal expenditure increased by around 30%. Several studies have come up with lower numbers of the 1998 poverty rate than the BPS calculation, i.e., World Bank (1999), Frankenberg et.al. (1999) and Poppele et.al. (1999). Nevertheless, while these studies came up with different numbers of poverty as the result of the crisis, they unanimously suggested worsening poverty following the crisis.

The decline in food prices since the second quarter of 1999 contributed significantly to the decline in poverty incidence, as the poverty line went down by 2% and 6% in urban and rural areas respectively (CBS 2002: 583). As a result, poverty rates started to decline after reaching its peak in 1998. In 1999, CBS published two official poverty figures. The first is based on the regular full SUSENAS conducted in February. A slight progress in the economy, especially with a lower inflation and the return to a positive GDP growth, had reduced the number

<sup>6</sup>The official headcount poverty figure is the one published by the Central Board of Statistics (CBS). The poverty rate is calculated based on the *National Socio-Economic Survey* (SUSENAS). SUSENAS is conducted every three years, covering about 65,000 households across Indonesia. The database consists of the core data and several module data, including consumption module. We use 1996 as the pre-crisis benchmark because it was the last of the CBS's pre-crisis socio-economic survey.

<sup>7</sup>Headcount poverty rate is the percentage of poor households in total population.

<sup>8</sup>In the 1998 survey CBS changed its methodology on calculating poverty by revising the non-food bundle. For example, the expenditure for schooling was revised to take accounts the nine-year compulsory schooling, previously only six years. Then it revised the 1996 figure, adjusting to the 1998 methodology. In the table we present both calculation of the 1996 figure.

of poor households to 48.4 million (23.5%). The second, based on another Mini-SUSENAS in August, shows a more significant decline in poverty to 37.5 million (18.2%).

Poverty figures in the subsequent years are estimated based on the core database of full SUSENAS. Excluding the two troubled provinces of Aceh and Maluku, poverty rate and incidence show a declining trend since February 1999. It is not possible to make a direct comparison with the August 1999 figures since the one was technically based on a different survey. The success of price stabilization, especially on food commodities, is reflected in the declining poverty lines

from February 1999 to 2000. Poverty incidence continued to decline, albeit slightly, in 2001. As the economy continued to recover, the average real income of the poor was rising. Hence, although poverty line increased, average nominal income had mounted more than the increase in the poverty line.

## DISAGGREGATED POVERTY FIGURES

### Regional Analysis

The official poverty statistics in Table 9 shows poverty incidence and headcount poverty rate that are always higher in the rural than in urban areas. But if we consider the relative change of poverty before and

Table 9

### OFFICIAL POVERTY LINE, POVERTY RATE AND POOR POPULATION, 1996-2001

Year	Poverty Line (Rp)		Headcount Poverty Rate (%)			Poor Population (million)		
	Urban	Rural	Urban	Rural	Total	Urban	Rural	Total
1996 <sup>a</sup>	38,246	27,413	9.7	12.3	11.3	7.2	15.3	22.5
1996 <sup>b</sup>	42,032	31,366	13.6	19.9	17.7	9.6	24.9	34.5
1998 <sup>c</sup>	96,959	72,780	21.9	25.7	24.2	17.6	31.9	49.5
1999 <sup>d</sup>	92,409	74,272	19.5	26.1	23.5	15.7	32.7	48.4
			(19.4)	(26.0)	(23.4)	(15.6)	(32.3)	(48.0)
1999 <sup>e</sup>	89,845	69,420	15.1	20.2	18.2	12.4	25.1	37.5
			(15.0)	(20.0)	(18.0)	(12.3)	(24.8)	(37.1)
2000 <sup>f</sup>	91,632	73,648	14.6	22.1	18.9	12.1	25.2	37.3
2001 <sup>g</sup>	100,011	80,832	9.8	24.9	18.4	8.5	28.6	37.1

Source: CBS, *Statistics Indonesia* (2000, 2001)

#### Notes:

<sup>a</sup> Based on the 1996 SUSENAS database and standard

<sup>b</sup> Based on the 1996 SUSENAS database, applying new (1998) standard

<sup>c</sup> Based on the December 1998 1998 Mini-SUSENAS

<sup>d</sup> Based on the February 1999 SUSENAS

<sup>e</sup> Based on the August 1999 Mini-SUSENAS

<sup>f</sup> Estimated result on the 2000 SUSENAS Core data, excluding Maluku and Aceh

<sup>g</sup> Estimated result on the 2001 SUSENAS Core data, excluding Maluku and Aceh

The number in parentheses are figures without East Timor

Table 10

**HEADCOUNT POVERTY RATE AND POOR POPULATION  
BY GROUP OF ISLANDS, 1996-1999**

Group of Islands	Headcount poverty rate (%)			Number of poor households (million)		
	1996 <sup>1</sup>	1999	%_96-99	1996 <sup>1</sup>	1999	%_96-99
Sumatera	15.46	19.81	28.14	6.3	8.6	36.51
Jawa & Bali	16.32	23.34	43.01	19.3	28.9	49.74
Kalimantan	15.01	19.87	32.28	1.6	2.2	37.50
Sulawesi	19.19	21.10	9.95	2.6	3.1	19.23
Other islands	38.54	43.51 (43.57)	12.90	4.7	5.6 (5.2)	19.15
Western Indonesia	16.10	22.42	39.25	25.6	37.5	46.48
Eastern Indonesia	24.42	28.21 (27.87)	15.52	8.9	10.89 (10.5)	22.36
<b>Indonesia</b>	<b>17.65</b>	<b>23.51</b> <b>(48.0)</b>	<b>33.20</b>	<b>34.5</b>	<b>48.4</b> <b>(23.43)</b>	<b>40.29</b>

Source: CBS, *Statistics Indonesia* (2000, 2001)

Notes:

<sup>1</sup> Based on the 1996 SUSENAS database, applying new (1998) standard

<sup>2</sup> The number in parentheses are figures without East Timor

after the crisis, it appears that urban poverty rises faster than rural poverty. Comparing the data from two full-SUSENAS in February 1996<sup>9</sup> and 1999, population of poor household in the urban rises by 60%, twice as much as that in the rural areas. This revealed the nature of the crisis that tends to be more urban, which is consistent with the findings on the sectoral poverty analysis. The sectoral analysis, presented in the next section, shows that the relative change of poverty is higher in the modern sectors, which are mostly located in the urban areas. It is also parallel with the aforementioned "three-d's adjustment" hypothesis.

<sup>9</sup>Using the adjusted to 1998 standard calculation.

In geographical terms, Table 10 illustrates that the highest rise in poverty during the crisis took place in Java and Bali areas. Also, while the western part of Indonesia has smaller poverty incidence compared with the eastern part, poverty increase is higher in the western part. This is because the crisis has severely hit the modern sectors in those western regions where most of them were located. On the other hand, in some parts of Indonesia, nominal incomes have even increased quite rapidly after the crisis, especially in regions where a substantial part of the population is involved in cash crop production (see Booth 1999a). It was reported that the Rupiah depreciation has resulted in higher exports of coconut and cocoa from the North Sula-

Table 11

## SECTORAL HEADCOUNT POVERTY AND CONTRIBUTION TO TOTAL POOR

Sectors	Feb '96		Feb '99		Headcount poverty %_96-99
	Sectoral headcount poverty	Share of sectoral poverty	Sectoral headcount poverty	Share of sectoral poverty	
Agriculture	26.29	68.54	39.69	58.38	50.97
Other	13.29	0.10	32.00	0.27	140.78
Mining and quarrying	15.34	1.01	29.81	1.00	94.33
Construction	14.04	5.42	28.97	5.52	106.34
Transport & Communication	8.85	3.32	24.02	5.58	171.41
Manufacturing industry	10.69	5.71	22.92	7.71	114.41
Trade, hotel, restaurant	7.96	8.10	17.63	11.13	121.48
Electricity, gas, water	6.10	0.16	14.18	0.17	132.46
Civil, social, private services	5.73	5.72	13.13	7.36	129.14
Finance, insurance, leasing	1.24	0.06	5.23	0.23	321.77
Receiving transfera	6.58	1.86	15.57	2.65	136.63
<b>Total</b>	<b>9.75</b>	<b>100.0</b>	<b>16.27</b>	<b>100.0</b>	<b>66.87</b>

Source: Pradhan et.al. (2000)

Note: <sup>a</sup> Household that earn incomes from transfer

wesi province, giving a significant extra earnings for the farmers. However, these figures only illustrate relative comparisons. We should be aware that in *absolute* terms, poverty incidence before and after the crisis is still worse in the rural areas, in the outer Java-Bali islands and the eastern part of Indonesia.

### Sectoral Analysis

The sectoral analysis of poverty incidence is illustrated in Table 11. The table presents the headcount poverty figures disaggregated by sectoral source of household income between February 1996 and 1999, calculated by Pradhan

et.al. (2000).<sup>10</sup> During the crisis, all sectors have indicated increases in the poverty incidence. In absolute terms, the agricultural sector had the highest poverty incidence before and after the crisis. It also has consistently the highest share of poor households in total population. Pradhan et.al. (2000:20) argued that this finding implies two things. First, people in agriculture sector have always been the poorest relative to those in other sectors. The

<sup>10</sup>Note that although we used the SUSENAS database, we applied a different technique so the result of poverty rate for all sectors is different to the official figures. But here we are more concerned on the relative change between 1996-1999 in each sector.

poverty incidence in that sector is still high after the crisis, even though it was hit as hard as the modern sectors. Second, agriculture sector is also the largest in terms of employment. Therefore, although the crisis seemed to hit the modern sectors more, the absolute poverty in agriculture sector remained to be the highest.

However, after the crisis, the poor share of agriculture sector declined. The declining trend of the poor share of total population also happened in the mining and quarrying sector. On the other hand, the share of poverty in the relatively modern sectors, especially manufacturing industry, trade, hotel and restaurant and financial services increased.

## BEYOND THE HEADCOUNT POVERTY

### Poverty Depth and Severity

To complete the analysis of poverty impact of the crisis, this part will discuss the measurement of the poverty gap and severity of poverty indices. Poverty gap index is the measurement on the average gap or 'distance' between incomes of the poor and the poverty line. It illustrates how much money in terms of a lump-sum subsidy is needed to make the poor population escape poverty that is to receive an income greater than the poverty line. The higher the index, the further the gap is. Poverty severity index includes the measurement of the distribution

of income among the poor. Likewise, higher severity index reflects a worse situation of the income distribution of the poor.<sup>11</sup>

As shown in Table 12 and Table 13, there had been a growing trend of poverty gap and severity indices following the crisis. Between 1996 and 1997 —before the crisis struck— urban areas appeared to be better off than rural areas in terms of their poverty gap, and were more or less of a similar condition with the rural areas in terms of their severity index. This suggests that economic growth, which still took place just before the crisis, tended to favor urban households more.

The SMERU calculation in Table 12 shows that before the crisis, poverty gap declined in urban areas but worsened in the rural areas. During the crisis, all indices in both areas show a big jump between 1997-1998, with an increase in the urban areas faster than in the rural areas. Interestingly, between 1998-1999, the rural poverty gap and severity declined, while they remained relatively unchanged in the urban areas. These findings supported an earlier premise that the economic crisis is an urban phenomenon. However, in absolute terms, the poverty gap (and its relative change) in rural areas remained much greater.

---

<sup>11</sup>For the readers' convenience, the discussion on the calculation of the index is excluded. For detailed analysis of the index, see Foster et al. (1984), CBS (1998), Perdana (2000).

Table 12

**POVERTY GAP AND SEVERITY INDICES,  
SMERU CALCULATION, 1996-1999**

Year	Poverty Gap Index			Severity Index		
	Urban	Rural	Total	Urban	Rural	Total
1996	0.5	2.1	1.6	0.1	0.5	0.4
1997	0.3	2.7	2.3	0.1	0.8	0.6
1998	1.4	7.0	6.0	0.4	2.7	2.3
1999	1.5	3.6	2.8	0.4	1.0	0.8

Source: Suharyadi et.al. (2000)

Table 13

**POVERTY GAP AND SEVERITY  
INDICES, CBS CALCULATION,  
1996-1998**

Year	Poverty Gap Index		Severity Index	
	Urban	Rural	Urban	Rural
1996	1.6	1.8	0.4	0.4
1998	4.8	5.0	1.3	1.5

Source: CBS (1998)

The CBS data is only available for 1996 and 1998 (Table 13). Compared to the SMERU calculation, CBS appeared to have overestimated the urban indices by large margins, and underestimated the rural indices with relatively moderate margins. However, in general their findings were consistent with our previous discussion that the crisis had worsened the welfare of the poor, with those in the urban areas suffering worse shocks than those in the rural areas.

### The Vulnerability to Poverty

Traditional approaches view poverty merely as a static concept and a con-

dition of welfare at a certain point in time. In reality, poverty is also a dynamic concept. Households frequently move in and out of poverty overtime. This raises an issue of "vulnerability" to poverty.

Vulnerability to poverty can be defined as the risk or probability that a household will become poor in the near future. There is always a chance that a "currently non-poor" may end up being poor in the near future. Non-poor households may fall into poverty due to events, such as natural shocks, disasters, economic shock and crisis, security problems and many others. Vulnerability measures the resilience against such bad events — the probability that those events will result in a decline in well-being.

Conversely, a currently poor person also has a chance to escape from poverty. Economic upturn may bring more job opportunities, which will provide income. As a result, economic improvement enable the poor to get rid of poverty. However, this situation does not necessarily apply to those who suffer from chronic poverty. Peo-

ple in the chronic poor category face not only income deprivation, but also deprivation of their capability. They lack access to economic resources and human capital. Consequently they are more exposed to economic downturn and very unlikely to benefit from economic upturn.

According to a 2000 World Bank report, a household or individual becomes more vulnerable to poverty due to several reasons. *First*, the falling value of the physical assets—those that can be sold to compensate for temporary loss of income—owned by a household. Among households who have adequate physical assets, those who have income diversification are less vulnerable. But income diversification does not always provide more income if the sources of income have risks that are related to each other. *Second*, more limited human capital, especially education. People with low level of education are in general unable to manage risk and are subject to economic fluctuations. *Third*, the lack of a social insurance system. A social insurance system may be either a formal one or provided by the government. The informal safety net system, which is usually provided by family or local community, has played a significant role as social insurance in many societies, including Indonesia.

Suryahadi and Sumarto (2001) reveal that the economic crisis has not only increased the poverty incidence, but has also significantly increased the

number of Indonesian households with a high vulnerability to poverty. The number of households that are statistically not poor but face a relatively high probability of falling below the poverty line has increased from 13 million to 38 million. This illustrates that the crisis has put households at the risk of falling into poverty three times as much as before the crisis. This increase in vulnerability took place, as the poor could not afford to save enough money. When the amount of savings is smaller, these people became more exposed to any future economic shocks. Adjustment to their expenditure can also increase poor households' vulnerability if they have to sacrifice human capital investments, such as education and health expenditures, to compensate for the basic needs. This decline in the level of human capital makes it harder for them to manage risk.

## CONCLUDING REMARKS

This article discusses the social implications of the economic crisis with focus on the labor market adjustments and the impact on poverty. The immediate impact of the crisis was massive layoffs in the modern sector, which raised concerns over increasing unemployment. However, due to the flexibility of the labor market, the predicted unemployment boom did not materialize. Instead, the adjustment took place more in the form of a real wage decline.

The labor market adjustment can be characterized by the "three-D's": deindustrialization, deformatization and deurbanization, especially at the peak of the crisis during 1997-1998. Deindustrialization has been illustrated in the increasing employment in agriculture, while employment in the modern sectors such as manufacturing, construction and financial services declined substantially. Deformatization was shown by growing employment in the informal sector, which offset the decline of formal employment. Since formal and modern sectors were mostly located in the urban areas, the labor market impact of the crisis had been largely an urban phenomenon. Workers, who needed to find substitute employment, were forced to move to informal and traditional sectors, which were mostly located in the rural areas. However, the deurbanization only lasted for a while until the modern sector started to recover. The crisis has also been characterized by the feminization of the labor force, as there was a growing number of female workers in the labor force — those who were either already employed or still looking for a job.

The number of households living below the poverty line had increased after the crisis. This was attributed particularly to lower real income and lack of government's ability in providing a social safety net. Lower real wages were caused more by a rapid increase of prices, rather than by the

decline in nominal values, since in many cases nominal wages were increasing during the crisis. Higher prices also mean lower purchasing power. Therefore, it was more expensive to maintain the same minimum standard of living after the crisis, and more people were unable to maintain such standard.

Poverty in both urban and rural areas had increased significantly. In absolute terms, poverty level in the rural areas before and after the crisis was higher than in the urban areas. The absolute change in rural poverty was also higher in the rural areas. But in relative terms, the crisis had induced a faster growth of urban poverty. The regional analysis of poverty had shown that headcount poverty had increased in all regions; however, the increase was faster in the Western part of Indonesia than in the Eastern part. On the sectoral poverty, the agriculture sector constantly had the largest number of poverty incidence before and after the crisis. But the increase in poverty was higher in the modern sectors, such as financial, leasing and insurance, and transports and communication. These findings suggest that the crisis is more of an urban and modern sector phenomenon.

Besides in the number of poor households, the crisis has also caused an increase in the depth and severity of poverty, vulnerability to poverty and chronic poverty. The impact of the crisis on poverty was even wor-



sened by the failure of the Social Safety Net program. This underlines the need for a comprehensive design of poverty alleviation strategies in the future, which should include some clear objectives and targets. More importantly, it is necessary to improve the quality of the implementation in order for the program to be successful.

## REFERENCES

- Booth, Anne. 1999a. 'The Impact of the Crisis on Poverty and Equity.' In H.W. Arndt and Hal Hill. 1999. *Southeast Asia's Economic Crisis: Origins, Lessons, and the Way Forward*. Singapore: ISEAS.
- \_\_\_\_\_. 1999b. 'The Social Impact of the Asian Crisis: What Do We Know Two Years On?', mimeo.
- \_\_\_\_\_. 1993. 'Counting the Poor in Indonesia', *Bulletin of Indonesian Economic Studies*, v.29/1.
- Cameron, Lisa. 1999. 'Survey of Recent Development.' *Bulletin of Indonesian Economic Studies*, v.35/1.
- Central Board of Statistics. 2000. *Pengembangan Metode Penghitungan Pengangguran: Pengangguran Terbuka Dan Setengah Pengangguran di Indonesia 1997-1999* [Development of Methods of Estimation of Unemployment: Open Unemployment].
- Dhanani, Shafiq and Iyanatul Islam (2000). *Poverty, Inequality and Social Protection: Lessons from the Indonesian Crisis*, Jakarta: UNSFIR.
- Fane, Goerge. 2000. "Survey of Recent Development." *Bulletin of Indonesian Economic Studies*, v.36/1.
- Feridhanusetyawan, Tubagus. 2000a. "Globalization, Poverty and Equity in Indonesia." country background paper for the OECD conference on Poverty and Income Inequality in Developing Countries, Paris, November-December 2000.
- \_\_\_\_\_. 2000b. "The Social Impact of the Indonesian Economic Crisis" in *Social Impacts of the Asian Economic Crisis*, a publication of Thailand Development Research Institute, Bangkok, December 2000.
- Feridhanusetyawan, Tubagus and Arya Gaduh. 2000. "Indonesia's Labor Market During The Crisis: Empirical Evidence from the Sakernas, 1997-1999". *The Indonesian Quarterly* 28(3): 295-315
- Feridhanusetyawan, Tubagus, Yose Rizal Damuri and Ari A. Perdana. 2003. "The Impact of Fiscal Policies on Poverty and Income Distribution: a Computable General Equilibrium Approach for Indonesia", final report of an individual research project submitted to The East Asian Development Network. Jakarta: CSIS (01/03).
- Fields, Gary S. 1993. "Poverty and Income Distribution: Data for Measuring Poverty and Inequality Changes in the Developing Countries'." *Journal of Development Economics*, v.44.
- Foster, James, R. Greer and Erick Thorbecke. 1984. "A Class of Decomposable Poverty Measures." *Econometrica* 52, no. 3.
- Frankenberg, E., D. Thomas and K. Beegle. 1999. "The Real Costs of Indonesia's Economic Crisis: Preliminary Findings from the Indonesia Family Life Surveys." mimeo.
- Ikhsan, Mohammad. 2001. "Lima Pilar Penanganan Kemiskinan." *Tempo*, End-Year Special Edition (12/01).
- Indonesia: Central Board of Statistics (1998). *Crisis, Poverty and Human Development in Indonesia 1998*, Jakarta: CBS.
- \_\_\_\_\_. Various years. *Statistik Indonesia*.
- Manning, Chris. 2000. "Labor Market Adjustment to Indonesia's Economic Crisis: Context, Trends and Implications." *Bulletin of Indonesian Economic Studies* 36(1): 105-36.
- Perdana, Ari A. 2002. "Transient Poor, Chronic Poor, and the Vulnerability to Poverty." *The Indonesian Quarterly* XXX, no.1.
- \_\_\_\_\_. 2000. "On the Measurement of Indonesian Poverty after the Crisis", un-

- published Research Essay, Master of Economics of Development Program, NCDS-APSEM, The Australian National University, Canberra.
- Poppelle, J., et.al. 1999. "Social Impacts of the Indonesian Crisis: New Data and Policy Implications." *SMERU Report*, 2/99.
- Pradhan, Menno, et.al. 2000. "Measurements of Poverty in Indonesia: 1996, 1999, and Beyond." *SMERU Working Paper*, 6/00.
- Sen, Amartya. 1999. *Development as Freedom*. New York: Anchor Books.
- \_\_\_\_\_. 1976. "Poverty: An Ordinal Approach to Measurement." *Econometrica* 44, no. 2.
- Skoufias, Emmanuel, et.al. 1999. "The Indonesian Crisis and Its Impact on Household Welfare, Poverty Transitions", *SMERU Working Paper*, 12/99.
- SMERU. 1999. "The Labor Force Dimension of the Economic Crisis. Case Studies of Four Industries." *SMERU Indonesia*, no. 7, August.
- Sumarto, Sudarno and Asep Suryahadi. 2001. "Principles and Approaches to Targeting: With Reference to the Indonesian Social Safety Net Program." *SMERU Working Paper*, 6/01.
- Suharyadi, Asep, Sudarno Sumarto, Yusuf Suharso and Lant Pritchett. 2000. "The Evolution of Poverty During the Crisis in Indonesia, 1996 to 1999 (Using Full SUSENAS Sample)." *SMERU Working Paper*, 3/00.
- Suharyadi, Asep, et.al. 1999a. "Update on the Impact of the Indonesian Crisis on Consumption Expenditures and Poverty Incidence: Results from the December 1998 Round of 100 Villages Survey." *SMERU Working Paper*, 8/99.
- \_\_\_\_\_. 1999b. "Poverty Measurement in Indonesia: Comparisons Over Time (1996 to 1999) and Across Regions." Paper presented at the "International Conference on Methodologies of Poverty Calculation in Indonesia", Jakarta.
- Suryahadi, Asep and Sudarno Sumarto. 2001. "The Chronic Poor, The Transient Poor, and the Vulnerable in Indonesia Before and After the Crisis." *SMERU Working Paper* 5/01.
- Sutanto, Agus. 1999a. "The December 1998 Poverty Estimate: Methodological Issues." Paper presented at the Workshop on Poverty Number Computational Method, Jakarta.
- \_\_\_\_\_. 1999b. "The December 1998 Poverty in Indonesia: Some Findings and Interpretation." Paper presented at the Round Table discussion on Number of Indonesia Poor People (Method and Forecasting), Jakarta.
- Sutanto, Agus, et.al. 1999. "Poverty Measurement: Problems and Development." Paper presented at the International Conference on Methodologies of Poverty Calculation in Indonesia, Jakarta.
- The World Bank. 2000. "Attacking Poverty." *World Development* 2000/01. Washington, D.C.
- \_\_\_\_\_. 1998. *Indonesia in Crisis: A Macroeconomic Update*. Washington, D.C.
- UNSFIR. 1999. *The Social Implications of the Indonesian Economic Crisis: Perception and Policy*, Jakarta.

# The Indonesian Quarterly

VOL. XXXI NO. 2  
SECOND QUARTER,  
2003

## CONTENTS

<b>ABSTRACTS</b>	101
<b>CURRENT EVENTS</b>	
□ Regional Perspective on Asia Pacific Security: A South East Asian View <i>Jusuf Wanandi</i>	104
□ RI's Foreign Policy Outlook After the 2004 Election <i>Bantarto Bandoro</i>	110
<b>REVIEW OF POLITICAL DEVELOPMENT</b>	
□ Politics Heating Up Approaching the 2004 Election <i>Staff, Department of Politics and Social Change, CSIS</i>	113
<b>REVIEW OF ECONOMIC DEVELOPMENT</b>	
□ Unstable Recovery Continued <i>Staff, Department of Economics, CSIS</i>	124