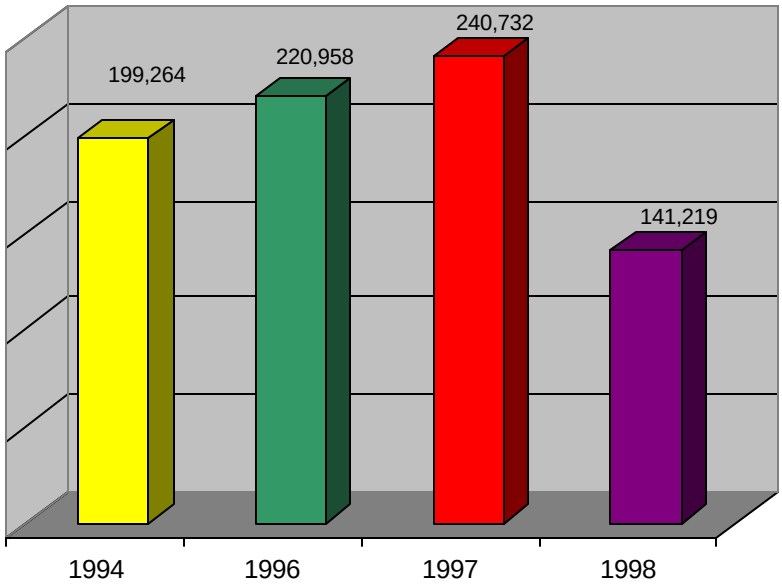
OCCASIONAL DISCUSSION PAPER SERIES
NO. 2

INDONESIA'S RECOVERY: EMPLOYMENT OPTIMISM OR STATISTICAL ILLUSION?

by

Iftikhar Ahmed and Shafiq Dhanani



Workers' Hardship
[*Monthly real wages in Rupiahs*]

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PREFACE

This is the second in a series of Occasional Discussion Papers launched by the ILO Jakarta Office in the Spring of 1999 to assist Indonesia with ideas and analysis which could contribute to its uphill task of recovery from the socially devastating financial crisis.

The paper cautions readers not to rejoice at the rather deceivingly low officially available unemployment statistics (5 million unemployed) as nearly 10 million additional unemployed workers remain totally unaccounted for in this figure.

When the missing workers are included, the true magnitude of open unemployment shoots to a staggering 15 million workers (15 per cent of 102 million work force) as compared to only 5 million workers (5.4 per cent of 93 million work force) in August of 1998 as reported in officially published statistics.

Since the workers who work as little as one hour a week are officially recorded as employed, it is little surprising that another 9 million underemployed workers (working less than 35 hours a week) in August 1998 are willing to accept extra work.

This really means that as many as 24 million workers (or one quarter of the entire adjusted labour force of 102 million) were in need of work in August of 1998.

The paper also examines the socio-economic profiles of the workers made redundant by the crisis, and reviews the labour market dynamics and changing employment structures in terms of skills, sector, gender, age, prior work experience and regional variations.

The analysis of unemployment is extended to a review of the trends in real wages of workers with jobs and living standards of households to measure the social impact of the crisis more comprehensively.

However, the paper does not furnish the employment-promotion strategy or package of policies which has been attempted elsewhere[1].

Iftikhar Ahmed
Director
October 1999 ILO Jakarta Office

[1] "Indonesia: Strategies for Employment-led Recovery and Reconstruction", ILO, Jakarta/Geneva, 1999 (forthcoming).

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DISCUSSION PAPER SERIES

INTRODUCTION: HIDING BEHIND CONCEPTS

The August 1998 National Labour Force Survey (*Sakernas*) revealed an unemployment rate of about 5.4 per cent of the labour force. A subsequent ad-hoc national socio-economic (*Susenas-type)* survey in December 1998 revealed an even lower open unemployment rate of only 4.1 per cent of the 90 million workforce of Indonesia (BPS, 1999).

There is not much to rejoice with the release of official statistics on this low unemployment record (5 million or so). The concept of labour force and employment used to arrive at these figures is so restrictive that the true magnitude of unemployment and underemployment remain totally hidden.

To uncover these undetected workers excluded from the labour force requires some cunning statistical detective work. For instance, on the one hand, current figures conveniently excludes unemployed workers (nearly 10 million of them) from the labour force statistics simply because they were not seeking work the week immediately preceding the survey. Although they were not seeking work, these 10 million unemployed workers were willing to accept work. Naturally, the exclusion of 10 million unemployed workers from the labour force statistics helps arrive at an incredibly low rate of unemployment of 5 per cent of the shrunken labour force (which is made artificially smaller in size by 10 million workers who were unemployed but were excluded from the labour force simply because they were not seeking work the week previous to the survey).

On the other hand, workers working as little as one hour a week were included in the employment statistics. It is little wonder that a massive one third of the entire employed work force (85.4 million) was reported to be working less than 35 hours a week in the official statistics of August 1997.

Furthermore, such aggregate statistics reveal little about the characteristics of the labour market, and the socio-economic profile of the jobless in particular.

It is also well known that unemployment figures completely hide other important indicators of the social impact of the financial crisis such as the extent of decline in real wages and the consequent impact on household spending. Nor is there any indication of changes in farmers' terms of trade as a result of the crisis, despite claims that rural dwellers have been relatively less adversely affected by the crisis (Poppele, et al., 1999; Sumarto, et al., 1999). Although, subsequent analyses of post-crisis empirical evidence appear to suggest that no region of Indonesia was spared by the crisis (Papanek and Handoko, 1999; Caille, et al., 1999)

In addition these aggregate employment figures provide no indication of the labour market dynamics such as structural changes in employment (cross-sectoral composition), regional variations in job losses and of labour market flexibility basically relating to shifts between the modern sector and informal sector employment.

PURPOSE OF THE PAPER

The paper begins with a comparison of the officially accepted conventional employment statistics and labour market indicators with those which include the 10 million unemployed workers currently hidden, i.e., totally excluded from the conventionally measured labour force through some innovative statistical investigative work.

The paper examines the gender dimensions of open unemployment and empirically tests the commonly-held belief that unemployment resulting from the crisis has affected urban workers more severely than those in rural areas.

Evidence is examined to verify the hypothesis that the high level of youth unemployment has been worsened by the crisis. It also examines the effect of the crisis on the displacement of workers with previous jobs and on the skills composition of the unemployed.

The paper tries to ascertain the size of the underemployed work force looking for extra work, by gender and by location. The divergence of response by the labour market to the initial and after-shocks of the crisis are noted. The impact of the crisis on the trend in the supply and demand for jobs is also examined.

The second half of the paper looks at the dynamics of employment in the context of the crisis, disaggregated by sector, gender, location, age, region, population movement and form (wage/non-wage) of employment.

Finally, the paper reviews the real worth of incomes and wages of workers with jobs, particularly any real gains made by farm workers, and its consequences on their living standards.

The paper in the concluding section summarises the major findings.

Finally it should be noted that the paper does not attempt to draw any scenario of job creation or employment generation strategy, since a comprehensive package of proposals for an employment-led recovery for Indonesia has been attempted elsewhere (ILO, 1999).

TRUE UNEMPLOYMENT MAGNITUDE: DETECTING MISSING WORKERS

In *conventional statistics*, the labour force includes (i) workers who are employed, and (ii) those who are not working and are seeking work during the week prior to the survey. Indonesia is no exception (BPS, 1999).

Since this concept excludes from the labour force unemployed workers who are not seeking work, it leads to a suppression of both the actual size of the labour force and the true magnitude of unemployment.

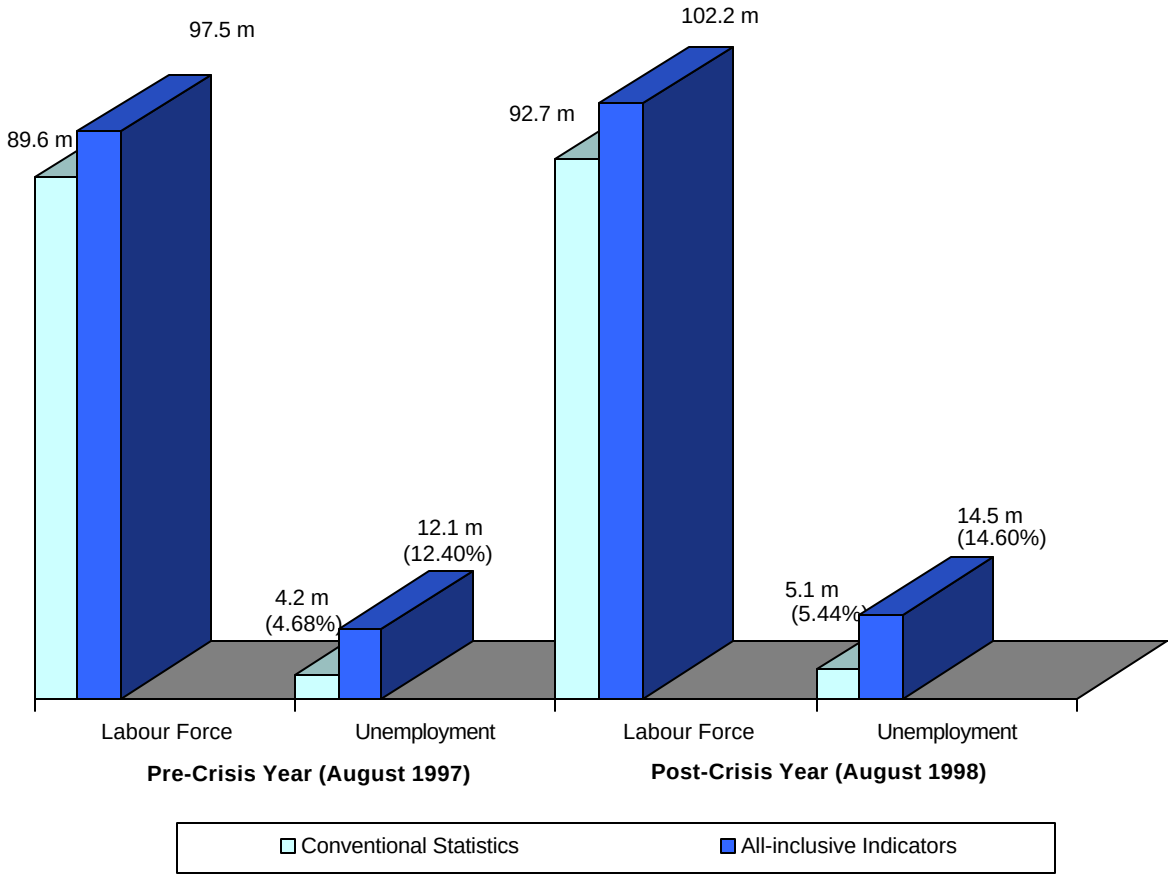
To rectify this omission, a more accurate measure of the actual size of the labour force and of the magnitude of unemployment was arrived at by including into the labour force, not only those unemployed workers actively seeking work, but also those unemployed workers who were willing to accept work at the time of the survey.
In 1997, prior to the crisis, nearly eight million workers were left out of the labour force using the conventional restrictive definition of the labour force. In 1998, following the crisis, nine and a half million workers were dropped from the labour force by applying the same restrictive definition (Chart 1).

Conventionally measured unemployment (5.1 million and 4.2 million in 1997 and 1998 respectively) turned out to be only one third of the true level of unemployment (12.1 million and 14.5 million in 1997 and 1998 respectively) both before and following the crisis. However, it is important to note that, while conventionally measured unemployment increased by less than one

million in the first year of the crisis, *corrected unemployment* figures show a rise of almost two and half million workers between 1997 and 1998.

Consequently, the *true unemployment rate* following the crisis was nearly 15 per cent of the actual work force of 102 million compared with 12 per cent (of 98 million work force) in the year before the crisis, and compared with a meagre 5.5 per cent of the recorded (but distorted) work force of about 93 million in August 1998 (Chart 1).

CHART 1:
Conventional Statistics[a] and All-inclusive Indicators[b] of Labour Force and Unemployment: Pre- and Post-Crisis Indonesia (million)[c]



[a]**Conventional statistics** on the labour force includes workers considered as (i) **employed** (*worked at least one hour* during the week prior to the survey), and (ii) **as actively seeking work** (week *prior* to the survey in 1997 and *currently* during the survey week in 1998)
[b]**All-inclusive** indicators of the labour force permits a true measurement of unemp loyment levels as it includes **workers willing to accept work** in addition to those enumerated under foot-note '*a*' above.
[C]Source: BPS, 1999, Table 2.5

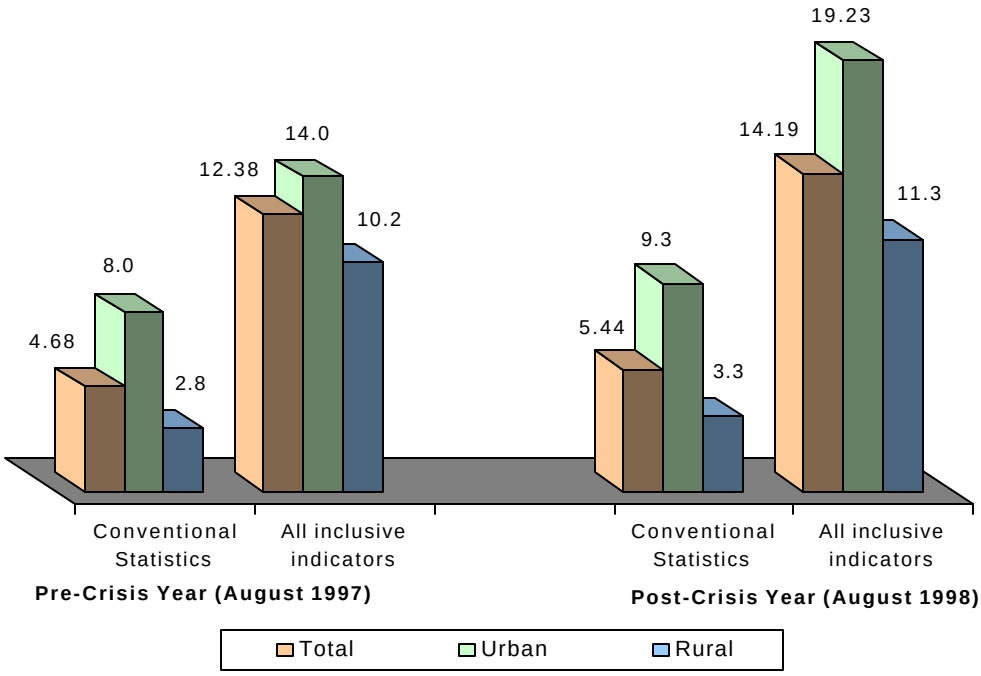
Unemployment: A nagging but a more serious urban phenomenon

Both conventional and refined indicators of unemployment clearly reveal that a relatively higher proportion of the urban employees were unemployed compared to the rural workers both prior to and following the crisis.

In 1998, the actual level of unemployment was nearly 20 per cent of the urban work force as compared to the conventionally measured figure of less than 10 per cent (Chart 2).

Urban unemployment is more serious than what is assumed, as the true rate of urban unemployment is more than double that of the rate obtained from conventionally measured statistics

CHART 2:
Conventional Statistics[a] and All-inclusive Indicators[b] of Unemployment Rate by Location: Pre- and Post-Crisis Indonesia (Percentage of the respective labour force)[c]



[a]**Conventional statistics** on the labour force includes workers considered as (i) **employed** (*worked at least one hour* during the week prior to the survey), and (ii) **as actively seeking work** (week *prior* to the survey in 1997 and *currently* during the survey week in 1998)
[b]**All-inclusive** indicators of the labour force permits a true measurement of unemployment levels as it includes **workers willing to accept work** in addition to those enumerated under foot-note '*a*' above.
[C]Source: BPS, 1999, Table 2.5, and SAKERNAS, Table 4

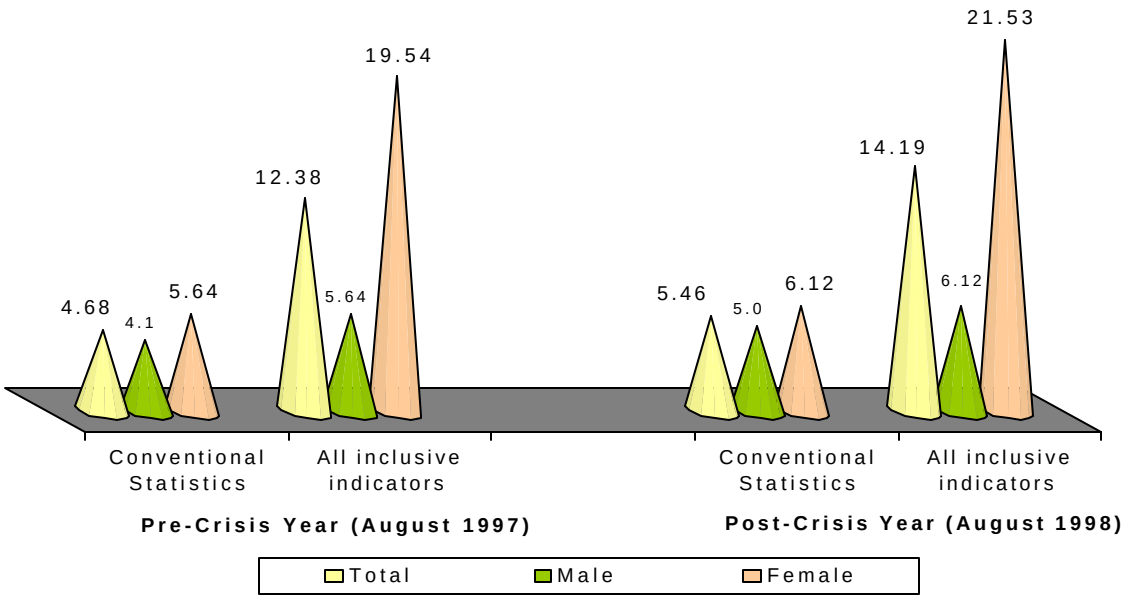
Open unemployment rates: Females triple over males

Whether one examines the conventional or refined measurements of unemployment, the unemployment rates of female workers have been consistently higher compared to that of the males both prior to and following the crisis.

However, the gender-based gaps in the true unemployment rates have been staggering during both pre- and post crisis periods.

Even prior to the crisis women's actual unemployment rate was nearly 20 per cent, or more than three times higher than the 6 per cent unemployment rate for males. Following the crisis, the female unemployment rate rose to 22 per cent while the corresponding male unemployment rate remained at 5.6 to about 6 per cent (Chart 3). Thus, the true male unemployment rate was unaltered by the crisis whereas the actual unemployment rate of females worsened.

CHART 3:
Conventional Statistics[a] and All Inclusive-indicators[b] of Unemployment Rate by Gender: Pre- and Post-Crisis Indonesia (Percentage of the respective labour force)[c]



[a]**Conventional statistics** on the labour force includes workers considered as (i) **employed** (*worked at least one hour* during the week prior to the survey), and (ii) **as actively seeking work** (week *prior* to the survey in 1997 and *currently* during the survey week in 1998)
[b]**All-inclusive** indicators of the labour force permits a true measurement of unemployment levels as it includes **workers willing to accept work** in addition to those enumerated under foot-note '*a*' above.
[C]Source: BPS, 1999, Tables 2.1 and 2.5

Volatile youth unemployment: A myth

Many scare scenarios had been constructed about the volatility caused by an explosive increase in youth unemployment as a result of the crisis.

The evidence of the trend in youth unemployment reveals the contrary. The proportion of the youth (15 to 29 years of age) among the open unemployed dropped dramatically from about 90 per cent of the unemployed prior to the crisis to about 70 per cent following the crisis (right panel of Chart 4).

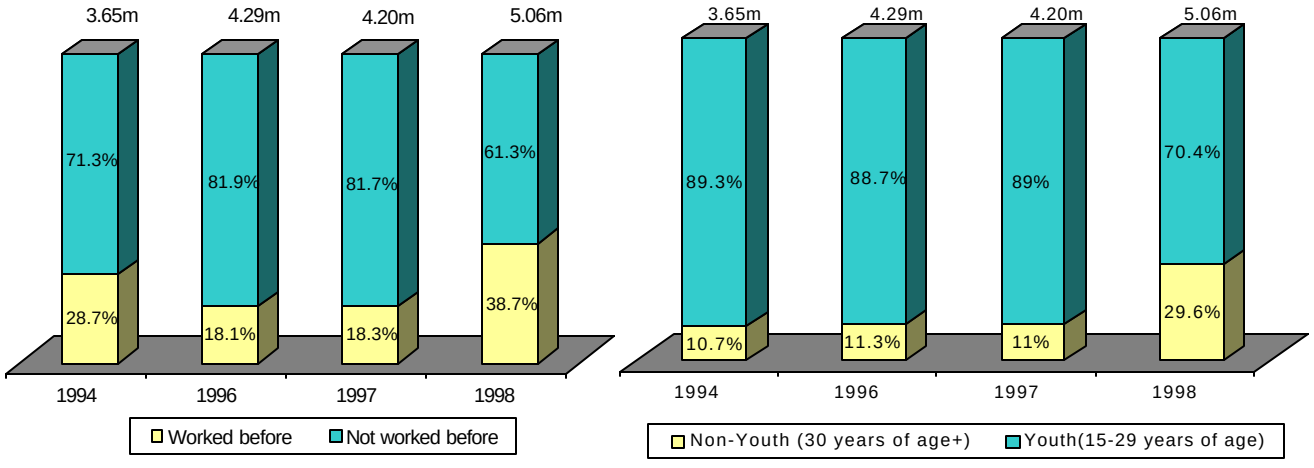
This mirrors, perhaps, the true magnitude of the social agony from the crisis. While a meagre one tenth of the employed were 30 years of age or older prior to the crisis, they accounted for nearly a third of the total unemployed following the crisis. This constitute a tripling of the adult's share of total unemployment burden as a result of the crisis (right panel of Chart 4).

Workers with previous employment experience harder hit by the crisis

Another socially devastating phenomenon noted from the labour market is that the proportion of workers with prior job experience among the total unemployed more than doubled following the crisis.

Correspondingly, the proportion of new entrants to the labour force (not worked before) among the total unemployed declined drastically from about 82 per cent of the unemployed just prior to the crisis (1996) to over 60 per cent following the crisis (left panel of Chart 4).

CHART 4:
Impact of the Indonesian Financial Crisis on Youth Unemployment and on Workers with Jobs [a]



[a]Source:*Sakernas*, Tables 2 and 4

Skills composition of the unemployed unaffected by the crisis

The crisis does not appear to have affected the skills composition of the unemployed. Half of the unemployed were always those with senior secondary level of education and a quarter of them have been consistently those with primary or lower levels of education.

TABLE 1:
Unemployment by Skills: Pre- and Post Crisis Indonesia[a]

	Pre-Crisis			Post-Crisis	Pre-Crisis			Post-Crisis
	1994	1996	1997	1998	1994	1996	1997	1998
Level of education	(Millions of workers)				(Percentages)			
Primary of Below	0.91	1.05	0.98	1.17	24.8	24.4	23.3	23.1
Junior Secondary	0.63	0.79	0.74	0.98	17.1	18.1	17.5	19.4
Senior Secondary	1.81	2.06	2.11	2.48	49.6	48.2	50.2	49.0
Diploma/Univ.	0.31	0.40	0.38	0.43	8.5	9.3	9.0	8.5
Total	3.66	4.30	4.21	5.06	100.0	100.0	100.0	100.0

[a]Source: *Sakernas*, Tables 2 and 4

Since first-time job-seekers have traditionally formed the bulk of open unemployment, this phenomenon can be considered as transitional unemployment. Less than a tenth of the unemployed were highly educated while a fifth of those with a junior secondary qualification were unemployed both prior to and after the crisis (Table 1).

EXTRA WORK-SEEKING BY THE UNDEREMPLOYED

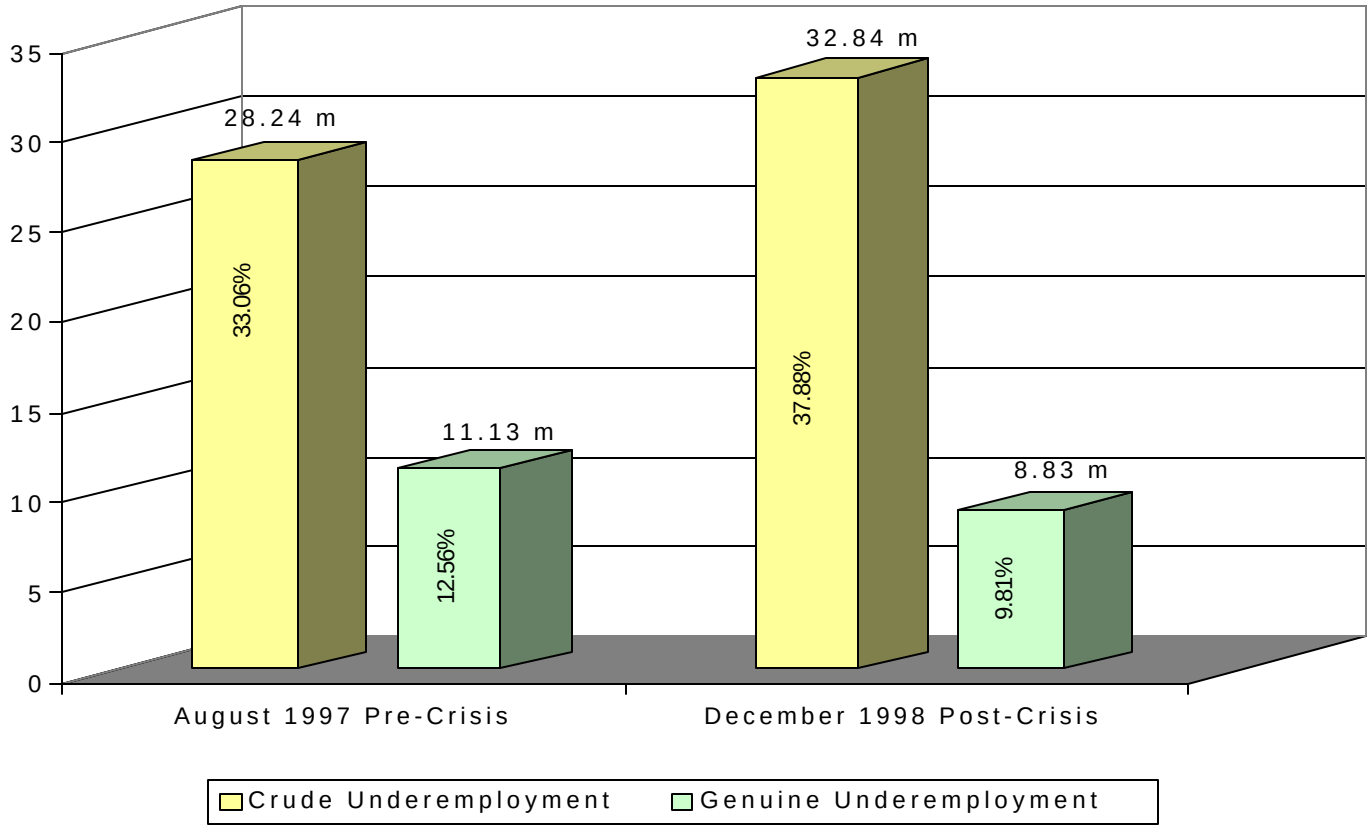
Conventional measures of underemployment shows that 34 million out of the 88 million employed workers were underemployed (working less than 35 hours a week) after the crisis (August 1998). This constitutes a big jump from a third of the employed work force (85.5 million) prior to the crisis to nearly two-fifths of the employed workers (88 million) following the crisis (Chart 5).

However, the true measure of underemployment can only be obtained if indeed the above employed workers are **either actively seeking work or are willing to accept work when they are working less than 35 hours a week** (BPS , 1999).

According to this criteria, about 10 per cent of the employed work force (88 million) are truly underemployed (Chart 5). This is an improvement over the true-level of pre-crisis underemployment when 13 per cent (over 11 million) of the pre-crisis employed work force (85.5 million) were truly underemployed. The high joblessness following the crisis may have contributed to this decline in discouraged underemployed workers seeking extra work, as is further confirmed by the labour market response to the crisis analysed subsequently. However, since the two sources of data used in Chart 5 may not be entirely comparable *(Sakernas* for August 1997 and *Susenas-type* Survey for December 1998), further investigation is required.

CHART 5:

Crude[a] and Genuine[b] Underemployment in Pre- and Post-Crisis Indonesia[c]



[a]Crude underemployment consist of those employed persons working less than 35 hours a week

[b]Genuine underemployment consists of those employed persons who worked less than 35 hours a week and are either seeking work or are willing to accept work

[c]Source: BPS, 1999, Tables 2.2, 2.7 and 2.8

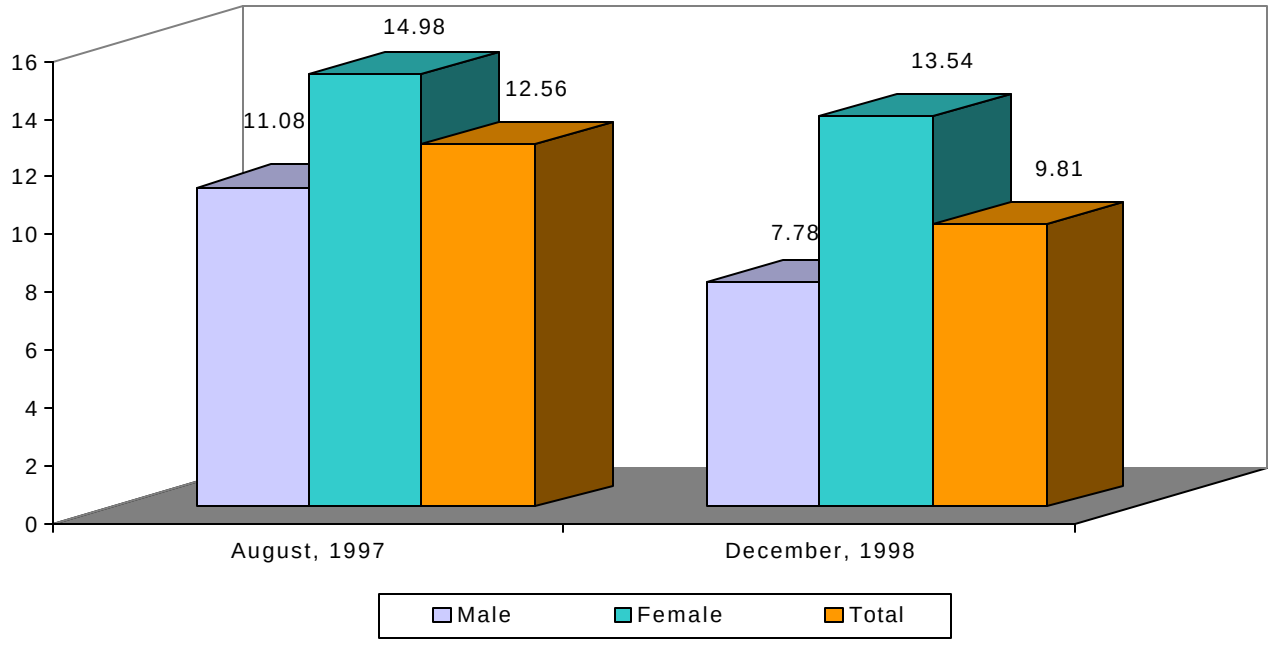
Working women's appetite for extra work

At all times, during both pre- and post-crisis periods, a higher proportion of female employed workers genuinely suffered from underemployment as compared to that of the males. The gap between the proportion of working women truly underemployed (15 per cent) and the proportion of working males truly underemployed (about 11 per cent) was smaller prior to the crisis. Following the crisis, the genuine underemployment rate among working women was nearly twice as much as that of the men (Chart 6).

Therefore, it can be concluded that the crisis has widened the gender gap among underemployed workers genuinely in need of extra work.

CHART 6:

Genuine underemployment[a] by Gender: Pre- and Post-Crisis Indonesia[b]
(% of employed persons under each category)



[a]Genuine underemployment consists of employed persons who worked less than 35 hours a week and are either seeking work or are willing to accept work

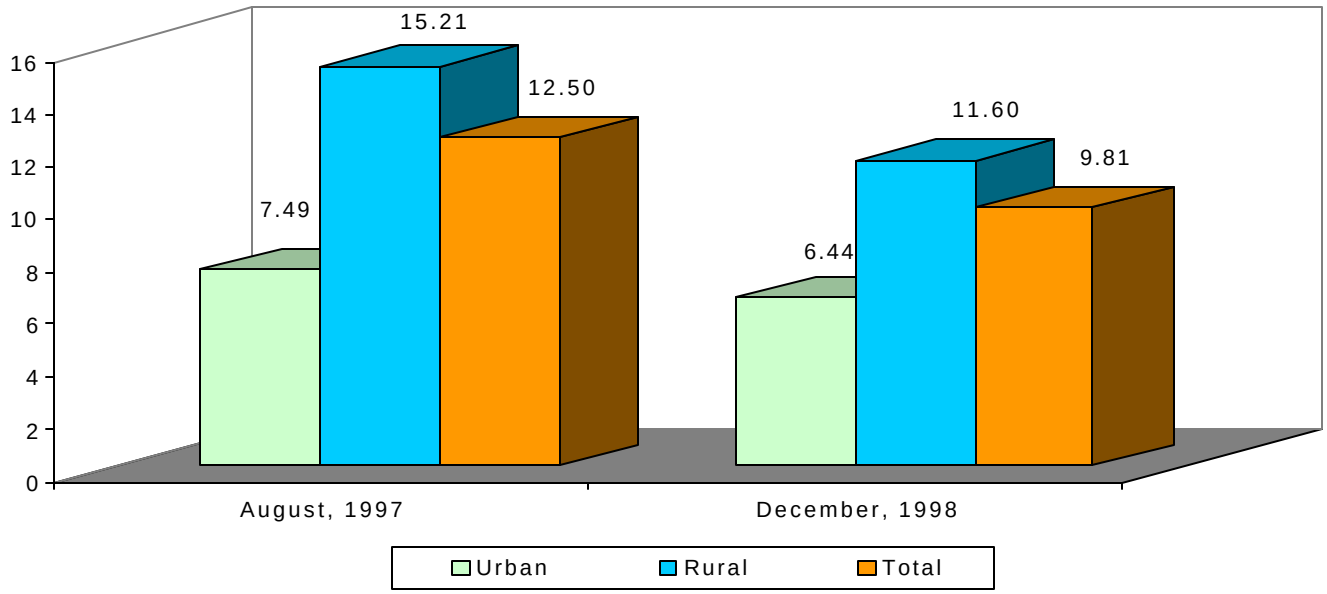
[b]Source: BPS, 1999, Table 2.8

Underemployment a truly rural phenomenon

While underemployment (working less than 35 hours a week) among agricultural workers has affected nearly 60 per cent of the employed farm workers at all times, a quarter of the non-agricultural workers were similarly underemployed in August 1998 (*Sakernas*, Table 17).

Furthemore, a larger proportion of the underemployed rural workers were actively seeking extra-work or were willing to accept extra-work during both pre- and post-crisis periods (Chart 7).

CHART 7:
Genuine Underemployment[a] by Region: Pre- and Post-Crisis Indonesia[b]
(% of employed persons under each category)



[a]Genuine underemployment consists of employed persons who worked less than 35 hours a week and are either seeking work or are willing to accept work

[b]Source: BPS, 1999, Table 2.8

The proportion nearly (12 per cent) of employed rural workers genuinely affected by underemployment is almost twice as high as that (6.5 per cent) of the urban employed workers following the crisis (Chart 7).

LABOUR MARKET DYNAMICS AND THE CRISIS

While open unemployment declined by over 2 per cent immediately prior to the crisis (1996-97), it increased dramatically by 21 per cent following the crisis (1997-98).[2]

The labour market response to the crisis consisted of two distinct phases: The initial shock (August 1997-August 1998) and the after-shock (August 1998-December 1998) periods.

The Initial Shock (*August 1997-August 1998*)

To cope with the sudden shock of loss in income and employment, workers initially responded by flooding the labour market. The labour force increased by 3.5 per cent during August 1997 to August 1998, reversing the small decline in the labour force participation rate during the pre-crisis period (1996-97).

The decline in the number of the population (considered outside the labour force) engaged in housekeeping, by 2.4 per cent during August 1997 to August 1998, is a mirror image of the corresponding surge (3.5 per cent) in the labour force (Table 2).

Women bore the brunt of this adjustment process as a large proportion of the women (2.7 per cent) had to abandon their housekeeping chores and enter the labour market in search of paid and unpaid work. The increase in labour force participation rate of women (4.8 per cent) was twice as high as that of the men (2.7 per cent). It can therefore be concluded that the increase in the number of women in the labour market was a clear effort by them to compensate for income losses suffered by their households during the initial shock of the crisis.

The After Shock (*August 1998 - December 1998*)

However, with the worsening of the labour market situation following the initial shock, the above trend in the labour market was reversed during the after-shock period (August 1998 to December 1998).

As discouraged workers left the labour market, the labour force shrank by 2.5 per cent during the period of after-shock (Table 2). This was clearly reflected in the workers exiting the labour market and joining the ranks of the non-labour force in housekeeping activities, which registered an increase of nearly 22 per cent during the after-shock period of August 1998 to December 1998 (Table 2).

Once again discouraged women workers showed greater withdrawal symptoms. The percentage rate of change (negative) in labour force for women during the after-shock was nearly ten times that of the men (Table 2).

2 Calculated from *Sakernas* Table 2 for the labour force composed of workers 15 years of age and above.

TABLE 2:
Responding to the Crisis: Labour Market Behaviour by Gender[a]

Phase	Pre-crisis	Post-crisis		Absolute change		% of Rate of Change	
Labour Market Response	August 1997[b]	Aug. 1998[b]	Dec. 1998[c]	Initial Shock (Aug.97-Aug.98)	After-Shock (Aug.98-Dec.98)	Initial Shock (Aug.97-Aug.98)	After-Shock (Aug.98-Dec.98)
Labour Force (000)	89 602.9	92 734.9	90 390.5	3 132.0	-2 344.4	3.5	-2.5
Male	55 265.3	56 761.6	56 411.3	1 496.3	-350.3	2.7	-0.6
Female	34 337.6	35 973.3	33 979.2	1 635.7	-1 994.1	4.8	-5.5
Non-labour Force (000)							
Housekeeping	25 896.0	25 266.9	30 737.4	-629.1	5 470.5	-2.4	21.7
Male	538.9	596.6	1 362.0	57.7	765.4	10.7	128.3
Female	25 357.1	24 670.3	29 375.4	-686.8	4 705.1	-2.7	19.1

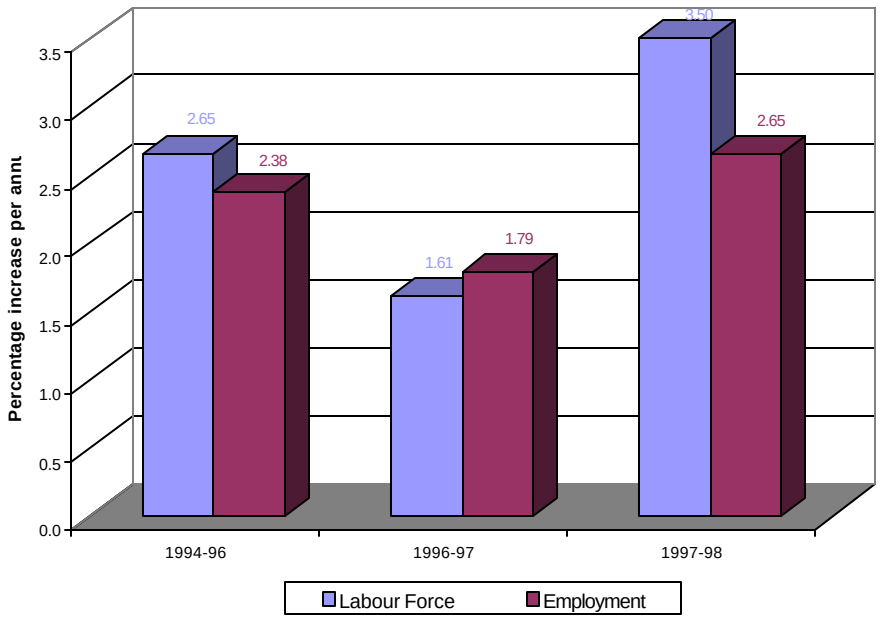
[a]Source: BPS, 1999; Table 2.1
[b] *Sakernas* Labour Force Surveys of 49,000 households (national/provincial) in August of each year
[c] Ad hoc *Susenas-type* socio-economic survey of 10,000 households at the national/provincial levels

Race between the supply and demand for jobs

The annual growth rate of employment (1.79 per cent) had actually surpassed the annual growth rate of the labour force (1.61 per cent) for the first time immediately preceding (1996-97) the crisis (Chart 8).

This achievement again was completely reversed by the crisis. The annual (1997-98) growth rate of employment (2.65 per cent) fell far short of the annual (1997-98) growth rate of the labour force (3.5 per cent) following the crisis (Chart 8).

CHART 8:
Race between Demand and Supply of Jobs
Pre- and Post-Crisis Year[a]
(Per cent per year)



[a]Source: *Sakernas*, BPS Tables 2 and 4 (Population aged 15 and above)

EMPLOYMENT BOOM IN AGRICULTURE AMIDST GLOOM EVERYWHERE

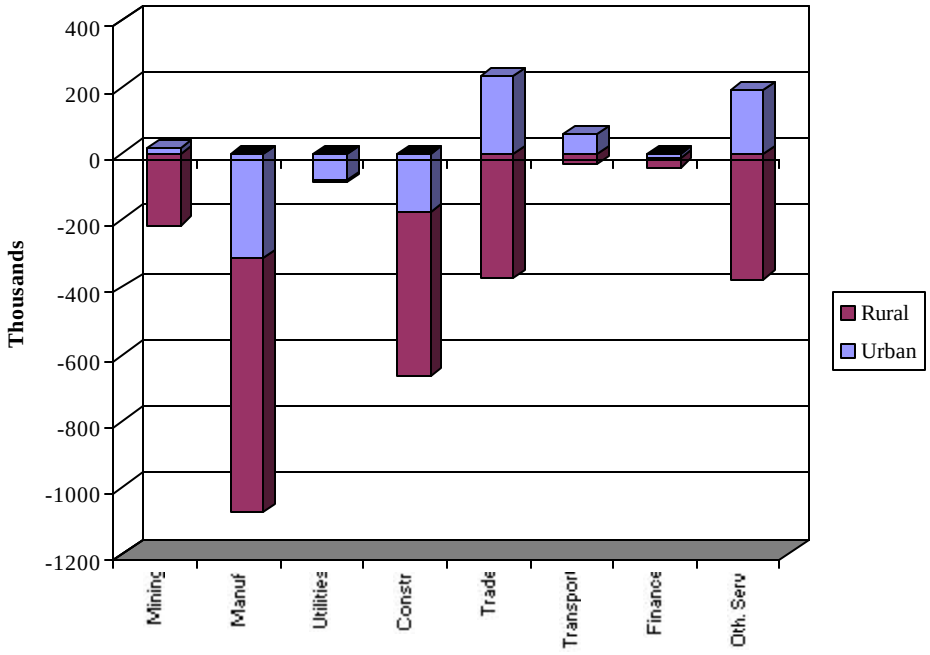
This section deals with the dynamics of employment following the crisis. Job losses are analyzed by sector, gender, regional variations and the form (wage/non-wage) of employment.

Job losses hit all sectors except agriculture. Around 2.5 million workers, or 3% of the total work force, were displaced by the crisis in the first year. Job losses affected all sectors of the economy outside agriculture and the small transport and communication sector. Most displaced workers were wage employees, and men accounted for three quarters of all job losses. The manufacturing sector was easily the largest loser, accounting for nearly half of all job losses, followed by construction, and to a smaller extent by mining, trade and services. About three quarters of job losses in these sectors were located in rural areas. In urban areas, many workers displaced from the manufacturing and construction sectors entered the trade and other services sectors. Consequently, net job losses were minimal there. In contrast, displaced workers in rural areas did not have this option of shifting to jobs in trade and services, and were mainly forced to take up agricultural employment.

Job losses in the manufacturing sector exceeded 1.0 million workers or nearly half of all job losses. Around three quarters of displacement in this sector were in rural areas (Chart 9). Around 60% of those losing their jobs were male (Chart 10). The second most adversely affected sector was construction, with job losses of nearly 0.7 million mainly male workers, or nearly a third of all job losses. As in the case of manufacturing, three quarters of these job losses occurred in rural

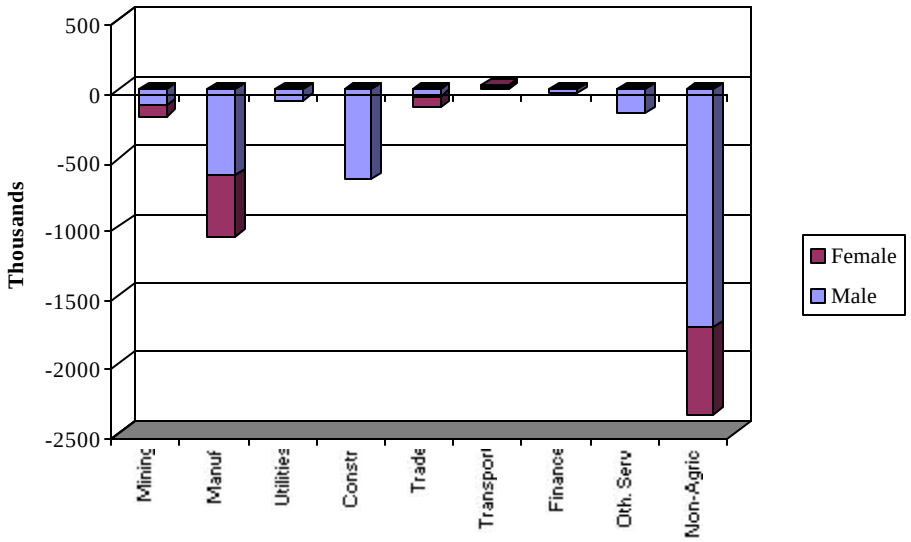
areas. The other adversely affected sectors were mining, trade and services, with nearly 0.2 million job losses each. Two thirds of job losses in trade consisted of female workers, while males accounted for virtually all job losses in the service sector. In urban areas, some displaced workers from the manufacturing and construction sectors found refuge in the informal trade and service sectors, thus increasing urban employment in these sectors by about 0.2 million (Chart 11). However, this was insufficient to compensate for the 0.4 million jobs shed by the trading activities in rural areas.

CHART 9:
Job Losses in Non-Agriculture by Urban-Rural Location, 1997-98



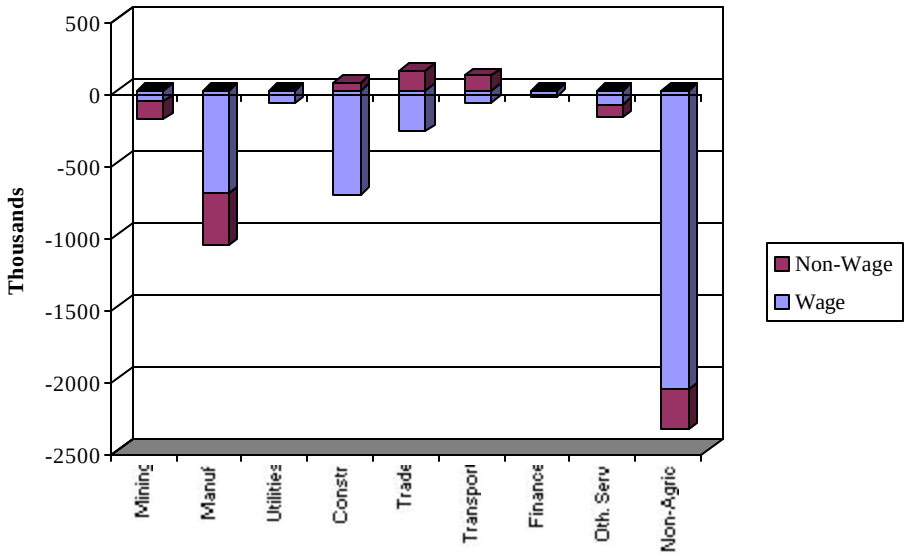
Source: *Sakernas*, Table 12

CHART 10:
Job Losses in Non-Agriculture by Gender, 1997-98



Source: Sakernas, Table 12

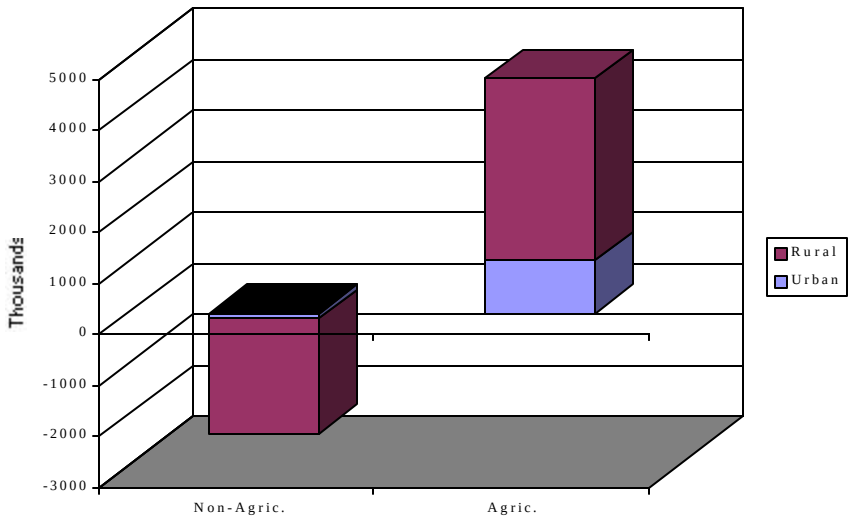
CHART 11:
Job Losses in Non-Agriculture by Formal/Informal Status, 1997-98



Source: *Sakernas*, Table 19

Agriculture's heroic role. Employment in agriculture increased by nearly 5 million, or 6% of the work force, most of it supply-driven. Workers displaced by the crisis from all other sectors of the economy accounted for nearly half of this growth, while the other half consisted of new entrants into the labour force. The latter in turn consisted of young, first time labour market entrants, and others, mainly women moved from housekeeping to work as labourers to cope with the crisis. Rural households accounted for most, nearly 80%, of the new employment in agriculture. However, urban households accounted for the remaining 20% of the new agricultural employment, presumably because they sent out some of their family members to work on the farms. Men accounted for nearly 60% of the new agricultural employment, which was predominantly non-wage employment, either as self-employed workers or unpaid family workers (Chart 12).

CHART 12:
Changes in Agricultural and Non-Agricultural Employment, 1997-98



Source: *Sakernas*, Table 12

In addition to displaced workers, new entrants into the labour force were mainly absorbed in agriculture. The working age population grew by 3.5 million persons, or 2.6%, between 1997 and 1998, a continuation of previous trends. A stable employment rate of just over 63% of the working age population (aged 15 and above) over the last few years translates itself into over 2 million additional labour market entrants every year. This consisted for a large part of teenagers turning 15 and being officially counted in the work force for the first time. Finally, nearly 0.7 million persons outside the labour force, and previously engaged in housekeeping and other activities, also joined the work force mainly in agriculture.

Regional Variations Acute. The large employment increase in agriculture was not evenly distributed across the country. The larger provinces of Java and the provinces dominated by smallholder agriculture in Southern Sumatra, South Sulawesi and Maluku expanded their work force. On the other hand, the plantation dominated provinces of Aceh, North Sumatra, Riau, West and Central Kalimantan experienced a contraction in employment. So did the more commercial and tourist centres of Jakarta, Yogyakarta, Bali NTB and North Sulawesi with little or no prospects for absorption in the agriculture.

The decline in manufacturing employment was not limited to the relatively industrialized provinces. This is because the majority of workers in this sector, 60%, are own account workers or family workers, many engaged in small-scale and household manufacturing, and relying on sales to the general population whose purchasing power has been greatly eroded due to inflation. As in the case of manufacturing, the decline in trade and service sector employment were quite general and of the same order of magnitude as for the country as a whole. The exception was a decline in employment in the trade sector of some 4.5% in North Sumatra, and an increase in service sector employment in North Sumatra and West Java.

NEW TWIST TO THE EMPLOYMENT STRUCTURE

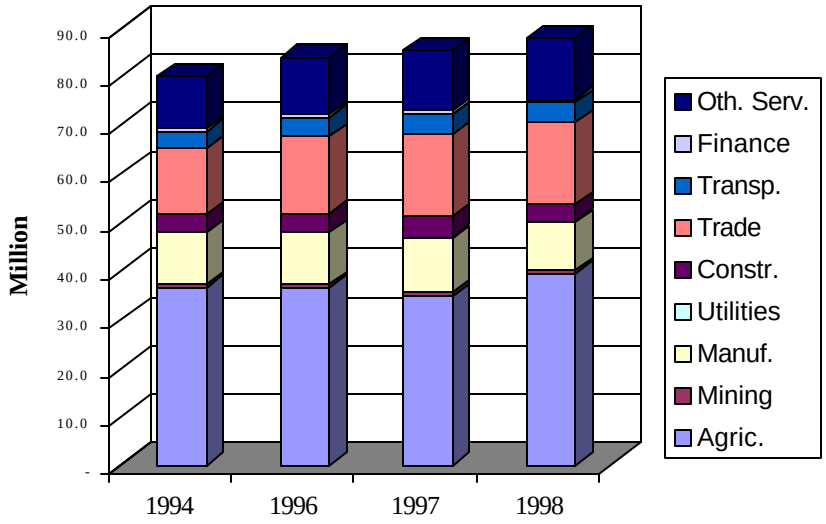
Following a review of incremental changes in employment (job losses and gain) resulting from the crisis, this section looks at changes in the overall structure of employment by sector, location, gender, formal-informal employment status, regions, overseas migration and age.

Sectoral reversals. The crisis has produced significant shifts in the employment structure of the country. The steady decline in agricultural employment from 44% to 41% of total employment between 1996 and 1997 was reversed to rise again to 45% in 1998, while the share of all non-agricultural sectors declined correspondingly. Manufacturing employment, which had reached 13% of total employment in 1997, dropped back 2% to 11%, while employment in trade and services declined by 1% each (20% to 19% in trade and 15% to 14% in services).

The overall rise in employment of nearly 2.5 million in 1997-98 was the result of two opposite movements, namely, job losses in non-agricultural sectors of nearly 2.5 million, losses which were more than compensated by employment absorption in the agricultural sector of double this magnitude at nearly 5.0 million workers (3.0 million males, 2.0 million males). As a result, the steady decline in the share of agriculture in total employment, from 44% to 41% between 1996 and 1997, was reversed to reach 45% in 1998, while the share of virtually all non-agricultural sectors declined correspondingly (Chart 13).

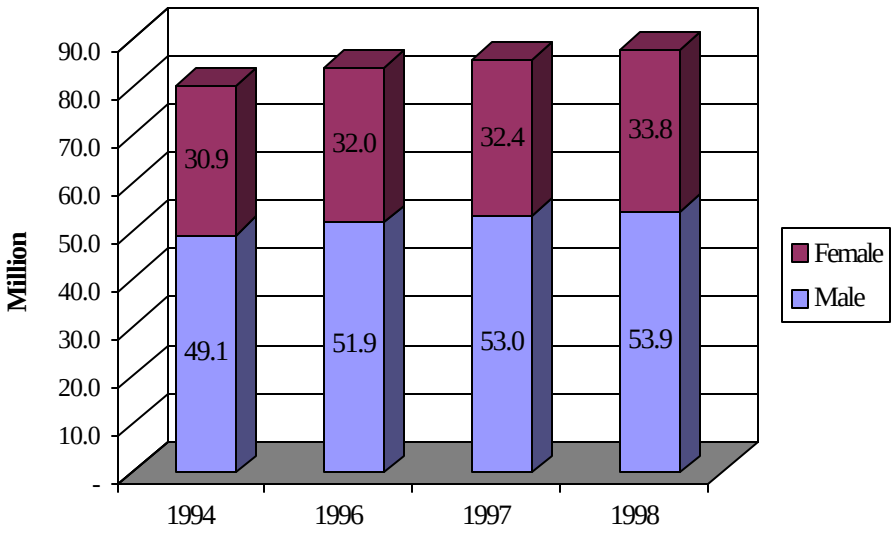
Gender and urban-rural location neutral. The gender ratio did not change however, because men accounted for nearly 60% of all additional employment in agriculture even though they accounted for most job losses in non-agricultural sectors (Chart 14). Similarly, the urban-rural shares of employment did not change, because most additional employment was located in agriculture in rural areas, compensating for most net job losses in rural areas (Chart 15).

CHART 13:
Changes in Employment by Sector, 1997-98



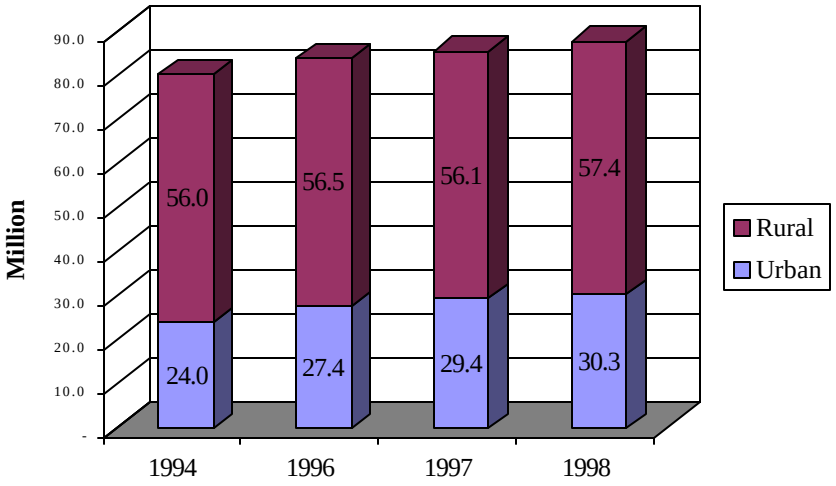
Source: *Sakernas*, Table 12

CHART 14:
Changes in Employment by Gender, 1997-98



Source: *Sakernas*, Table 12

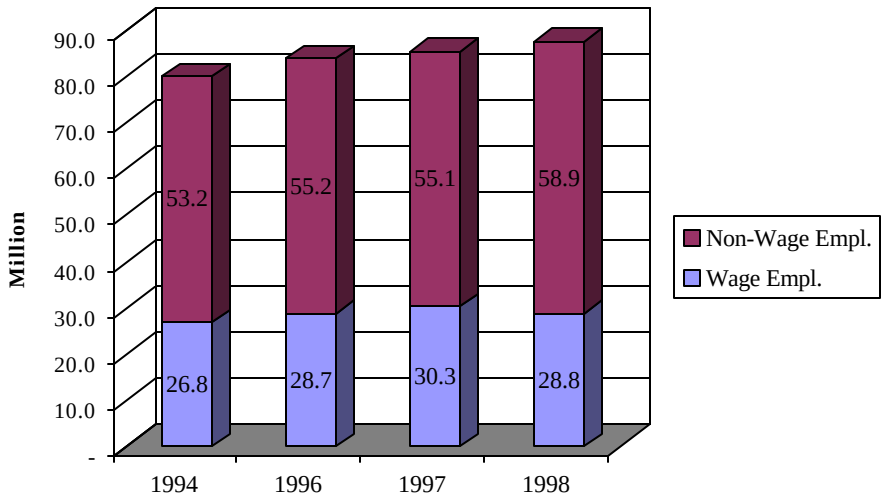
CHART 15:
Changes in Employment by Location, 1997-98



Source: *Sakernas*, Table 12

Refuge in informal sector employment. Before the crisis, wage employment rose steadily from 33% to 35% in 1994-1997, in line with the growth of manufacturing, construction and other sectors where a large share of workers are employees. In 1998, wage employment declined by nearly 1.5 million, mainly in manufacturing and construction, but also in all other sectors. In contrast, non-wage employment increased by nearly 4.0 million, mainly in agriculture but also in the urban informal sector, particularly trade and services. As a result, the overall share of wage employment fell back sharply to 33% in 1998 (Chart 16).

CHART 16:
Changes in Employment by Status, 1997-98



Source: *Sakernas*, Table 19

Both wage and non-wage employment increased in agriculture. Wage employment rose by about 0.5 million, nearly all by new urban workers probably employed as hired agricultural labourers, and benefitted equally both male and female workers. However since non-wage employment increased even faster, mostly in the self-employment category which employs occasional hired labour as well as family labour, the share of wage employment fell slightly, from 13.4% to 13.0% in this sector. Outside agriculture, wage employment fell by nearly 2.0 million. A third of these each came from manufacturing and construction, while another tenth originated in the trade sector. Nearly two thirds of losses in wage employment originated in rural areas where, in addition to the manufacturing and construction, the service sector accounted for a quarter of the losses in wage employment.

Even non-wage employment fell in sectors outside of agriculture in the first year of the crisis, by about 0.5 million. In fact non-wage employment increased significantly only in agriculture, by nearly 4.5 million. In aggregate therefore, non-wage employment, both self-employment and unpaid family work, increased by nearly 4.0 million persons, not only absorbing many of those loosing wage employment, but in addition accommodating most new entrants into the labour force. Nearly half of these additions were own-account workers assisted by hired labour or family workers, while a fifth were unassisted self-employed workers. The remaining third consisted of unpaid family workers. This last category was much more important for women, accounting for nearly 60% of all new female employment, compared with only a quarter of all new male employment.

In manufacturing, 60% of persons loosing their jobs were employees. However, the remaining 40% were self-employed and unpaid family workers. This suggests important linkages between the formal and informal sectors of the manufacturing sector in Indonesia, particularly for female workers, where non-wage employment losses reached more than half, or 54% of the total. In trade and services, as in the case of manufacturing, job losses did not just affect those in the employee category, but also self-employed workers, assisted by hired and family labour, and family workers both experienced job losses. Only self-employed persons working on their own expanded in number in these two sectors. The exception was in the service sector where additional female employment was observed in employees and not in self-employed workers on their own.

Regional variations pronounced. The provinces experiencing a significant rise in total employment are also the same provinces displaying a rising share in agricultural employment. Thus, except for Aceh, North Sumatra and West Sumatra, this share rose by about 10% compared with 4% -6% in the larger Java provinces, and 4% for the whole country. In contrast, agricultural employment did not increase or even declined in North Sumatra, Yogyakarta, East Timor, West and Central Kalimantan, and South and Southeast Sulawesi.

Wage employment declined in almost all provinces, in line with employment losses in manufacturing, construction, trade and service sectors jobs across the country. The only significant exception was North Sumatra where employed expanded a little in the manufacturing (for females only) and service sectors.

Reverse internal migration. An important strategy for the Indonesian labour force to cope with the economic crisis has been reverse internal migration and accelerated international migration. Internal circular migration from urban to rural areas has taken place mainly into the agricultural food and cash crop sector. Around 1.0 million additional urban workers took up agriculture in

rural areas while their families stayed in urban areas. Official and unofficial international migration has accelerated, particularly to Malaysia, for men, and the Middle East, for women. A significant proportion of Indonesian workers are now working overseas, well in excess of 2 million persons, and 70% of these are women.

Official migration of contract workers increased by 75% between 1998 and 1999. Undocumented overseas migration of contract workers, which is several times larger than official movements, also increased particularly for male workers (Hugo, 1999). The fear that migrant workers may return from Malaysia in large numbers did not materialize, partly because Malaysia weathered the Southeast Asian crisis much better than anticipated, and partly because redundant construction workers were easily re-absorbed in plantations and informal sector trade and service sectors.

The age factor. Though employment increased in almost all age categories, adults accounted for most additional employment. Persons aged 30 and above accounted for almost 90% of additional employment.

Child labour (aged 10-14) accounted for 1.6 million workers or less than two percent of total employment in 1997. The vast majority of them were engaged on a part-time basis as unpaid family workers in agriculture. Around 1.0 million of these children, or just under two thirds of this total, attended school. Employment of these children did not increase significantly in the first year of the crisis, nor did the number of those actively looking for work. The number of children aged 10-14 and working increased by just 80,000 or 5% in the first year of the crisis. They were mostly boys, half of them in urban areas, and the other half in rural areas. Most of the children in this age group, over 85%, continued to attend school in a full-time basis in both years, though there was a slight drop for male rural boys, while the proportion of teenagers aged 15-19 attending school even increased a little.

COLLAPSE OF REAL WAGES AND LIVING STANDARDS

Declining real earnings of employees

Nominal earnings of employees increased by less than 20% in the first year of the crisis, while consumer prices for workers rose by 100% between August 1997 and August 1998. Real earnings therefore fell by 40% in this period. Subsequent wage surveys of the modern manufacturing and hotel sectors indicate that employers may have frozen pay rises between September 1998 and December 1998, and this may have continued considering the relatively low inflation rate in early to mid-1999. Real earnings of workers may therefore still be 40% lower in mid-1999 compared with the situation before the crisis in mid-1997. Nominal wages in rural areas rose somewhat more than in urban areas, due to a more than average increase of the pay of agricultural labourers. Male and female workers were equally affected in aggregate. However, female workers obtained higher pay rises in urban areas, while obtaining lower pay rises than males in rural areas.

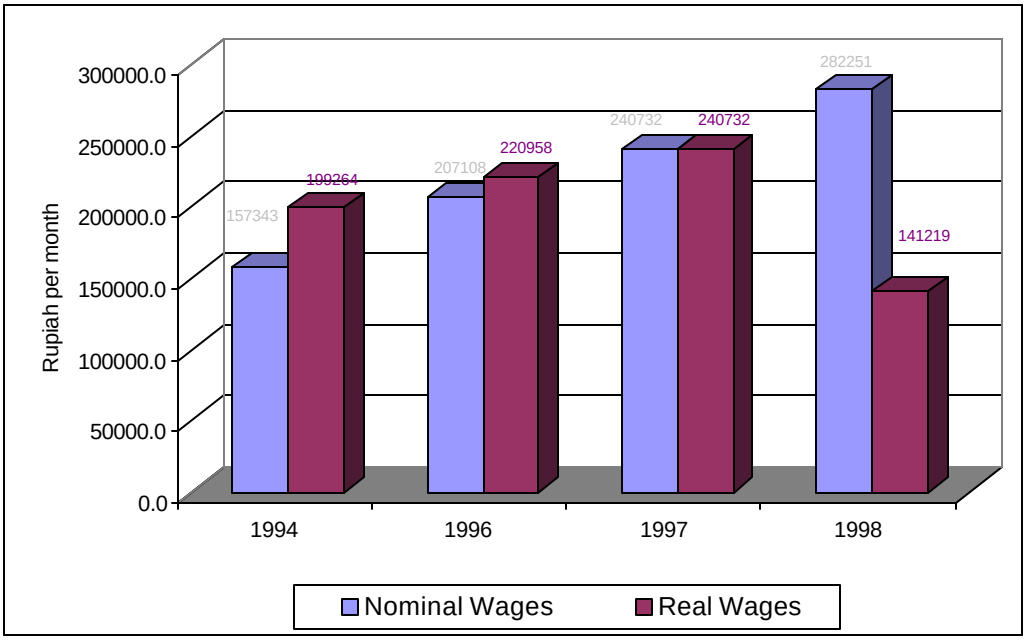
According to the national labour force survey *Sakernas*, nominal wages increased by 17% on average in the first year of the crisis, from Rp. 241,000 to Rp. 282,000 (around $35) per month between August 1997 and August 1998. Nominal earnings increased by 14% in urban areas and by 22% in rural areas. Though on average male and female earnings kept pace with each other,

they increased by 23% for males compared with just 19% for females in rural areas. The reverse happened in urban areas, where female earnings increased faster at 16% compared with 13% for males.

The statistical authorities do not publish official time series data on real wages as opposed to nominal wages. An appropriate deflator reflecting the rise in the price of goods and services consumed by workers may be used to derive such a series, unfortunately such a deflator is not available. An average urban consumer price index is available for over 44 cities, however, a corresponding index for rural areas is not available, and consequently no index combining urban and rural areas is available. Even if this were available, a consumer price index reflecting the consumer basket of workers would still need to be produced, considering the low earnings of the average Indonesian employee of around US$ 1 per day. For the present purpose, an approximate worker's consumer price index has been estimated by weighing the price indices of food and other expenditure categories of the official urban consumer price index by the proportion of expenditures that urban and rural worker households spend on these categories (see Appendix Table 1).

To sum up, the overall situation changed quite dramatically (Chart 17). Clearly both nominal and real wages were increasing hand-in-hand prior to the crisis (1994 to 1996). Following the crisis nominal wages continued to mount (by as much as 17 per cent during 1997-98) while the real wages collapsed by a huge 40 per cent.

CHART 17:
Real and Nominal Wages: Pre- and Post-Crisis Years [a]
(Rupiah per month) [b]



[a] Source: *SAKERNAS*: Labour/Employees Situation, Table 16
[b] Cost of living index used: 1994=79, 1996=94, 1997=100, 1998=200

Sectoral earnings. Nominal wage increases varied considerably by sector of economic activity. The *Sakernas* data show that agricultural earnings increased almost twice as rapidly at over 30% compared with the average rise of 17% per annum. This may in part due to the very low, survival-level earnings in this sector (US$ 0.65 per day in 1998), which was only half of the average earnings in sectors such as manufacturing and construction. Without substantial increases in their earnings in the face of rapid inflation in the price of food, the labourers would not be able to purchase enough food to survive. It is also in part due to the fact that some labourers receive their wages in kind. On the other hand, the increase in the earnings of manufacturing and construction workers was below average at just 11% and 15% respectively, while service sector earnings, for males but not for females, were slightly above average at 20% per annum.

TABLE 3:
Real Average Monthly Earnings of Employees (Rp/month)[a]

	Rupiah /Month				Index (1997 = 100)			
	1994	1996	1997	1998	1994	1996	1997	1998
Nominal Wages	157,343	207,108	240,732	282,251	65	86	100	117
Male	176,834	230,735	266,826	314,306	66	86	100	118
Female	113,497	153,737	183,042	215,528	62	84	100	118
Urban	194,337	247,657	288,498	328,003	67	86	100	114
Male	219,422	276,447	322,168	365,069	68	86	100	113
Female	142,221	186,600	219,398	255,289	65	85	100	116
Rural	120,579	162,056	186,753	227,208	65	87	100	122
Male	136,557	182,003	207,335	255,789	66	88	100	123
Female	81,585	113,638	137,127	163,211	59	83	100	119
Deflator (1997 = 100)	78.96	93.73	100.00	199.87	79	94	100	200
Urban	79.34	93.93	100.00	195.32	79	94	100	195
Rural	78.71	93.60	100.00	202.90	79	94	100	203
Real Wages	199,264	220,958	240,732	141,219	83	92	100	59
Male	223,948	246,165	266,826	157,257	84	92	100	59
Female	143,736	164,018	183,042	107,835	79	90	100	59
Urban	244,942	263,661	288,498	167,931	85	91	100	58
Male	276,559	294,312	322,168	186,908	86	91	100	58
Female	179,255	198,659	219,398	130,703	82	91	100	60
Rural	153,194	173,137	186,753	111,980	82	93	100	60
Male	173,494	194,448	207,335	126,067	84	94	100	61
Female	103,653	121,408	137,127	80,439	76	89	100	59

[a]Source:Sak*ernas laborer/employees situation in Indonesia,* August Table 16
Deflator: see appendix table A.2

Other wage surveys confirm the above changes. The farmers' terms of trade survey indicate that the nominal earnings of hired agricultural labourers rose by 33% in the first year of the crisis. They rose by another 22% in the subsequent nine-month period to March 1999. The quarterly wage survey data show that the gross nominal earnings of manufacturing, mining and hotel workers rose by respectively 22%, 54% and 40% between September 1997 and September 1998. Preliminary data for December 1998 indicate that the earnings remained stable in manufacturing and hotels in the next three months, continuing to rise in mining.

In the manufacturing sector, wage increases were modest at first, before rising after the first year of the crisis. This may be due to two factors. Many firms began by dismissing their lower paid casual and contract workers first, while keeping their better paid regular staff. At the end of the first year, and discounting the possibility of a rapid turn in their economic fortunes, they began to implement early retirement plans and other measures to reduce their regular work force. In both cases, average reported earnings increased in line with their smaller but higher paid number of employees. For this reason, the average figures collected by wage surveys may overstate the actual increase in nominal wages.

Regional differences. The labour force survey data show that nominal earnings increases were well above average in all Sulawesi provinces, Maluku and most Sumatra provinces, except Aceh and North Sumatra where they were below average. The increases were still above average in the Kalimantan provinces and in Bali and NTB, but were average in most Javanese provinces except West Java and Yogyakarta which were well below average in the one year period between August 1997 and August 1998. Those provinces doing relatively well in Sumatra, Sulawesi, Kalimantan and Maluku were charaterized by a strong base of smallholder agriculture, while the Sumatra provinces faring below average were dominated by large-scale plantations. Employees in Java, in addition, suffered substantial lay-offs in manufacturing and construction, putting downward pressure on wages in these and other sectors such as agriculture.

Tumbling living standards

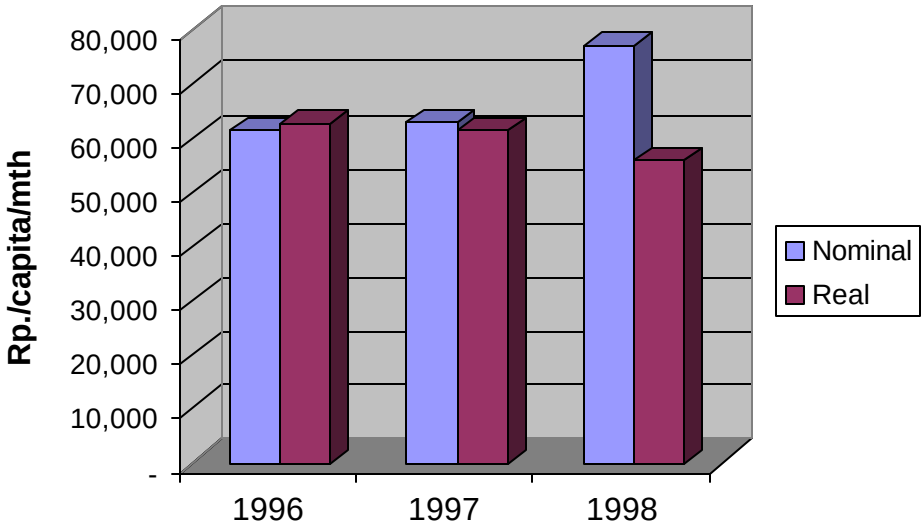
Falling household expenditures. Household expenditure levels increased by 22% in the one year period between February 1997 and February 1998, in line with the increase in nominal wages discussed above. Due to price rises for worker households of 40% in this period, which contained a low inflation sub-period of February to August 1997 and a high inflation period of August 1997 to February 1998, average household expenditures are likely to have declined by 13% in real terms (Chart 18). Taking into account the widening gap between wage increases and inflation discussed in the previous section, living standards are likely to have continued to decline in the period February 1998 to January 1999.

Information on changes in the income and living standards of the general population due to the crisis is very sketchy. Comprehensive information is only available from the national socio-economic survey *Susenas* up to February 1998, just six months into the crisis. Since the result of the next survey, fielded in February 1999, will only be available towards the end of 1999, only informed guesses are possible at this stage.

Household expenditure levels increased from Rp. 63,000 to Rp. 77,000 per capita per day (US$ 0.32), or by 22% in the one year period between February 1997 and February 1998. This is in line with the 20% increase in nominal wages discussed in the previous section. In this period, the consumer price index of the average household consuming around $1 per day can be estimated to

have increased by 40% in this period, which contained a low inflation sub-period of February to August 1997 and a high inflation period of August 1997 to February 1998. Thus, average household expenditures are likely to have declined by 13% in real terms.

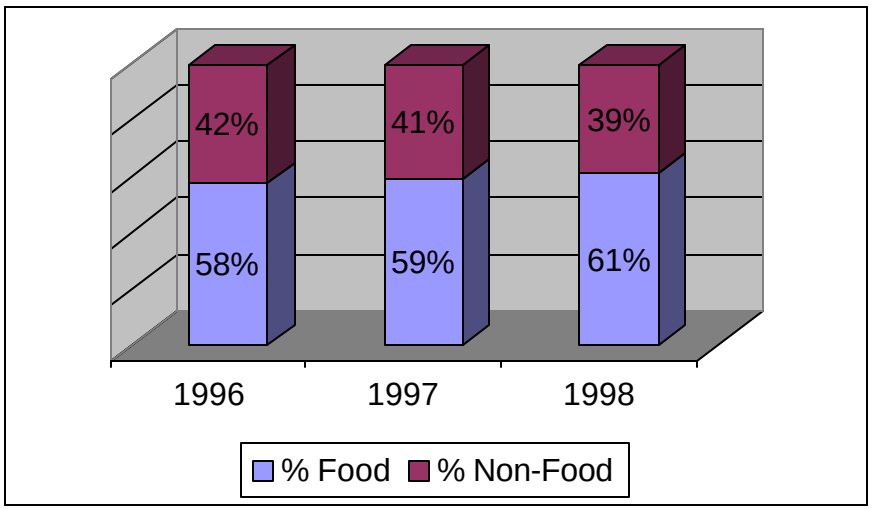
CHART 18:
Household Expenditures
(Rp./capita/month)



Source: *Susenas* Annual National Socio-Economic Survey, CBS, February (core questionnaire)
Deflator: see appendix table A.2

Squeeze on non-food consumption. Households spent a larger share of their expenditure, 2% more, on food indicating a drop in living standards and increased hardship even in the first six months of the crisis (Chart 19). In nominal terms, household expenditures on food increased at a higher rate of 27%, due to the rapid rise of food commodities relative to non-food commodities. However, even this was insufficient to maintain food expenditures which declined by 16% in real terms.

CHART 19:
Trends in Food and Non-Food Budget Shares (%)



Source: *Susenas* Annual National Socio-Economic Survey, CBS, February (core questionnaire)
Deflator: see appendix table A.2

Farmers' terms of trade: Stagnation. The expectation that farmers will reap windfall profits from the higher price of rice and other agricultural commodities was not borne out, with the exception of a small number of provinces in Sumatra and the outer islands producing household-based cash crops and sea products for export.

The terms of trade of farmers in Java and Sumatra were at about the same level in early 1999 compared to the period just before the crisis. The higher prices of marketable surplus was offset by the higher prices of agricultural inputs such as fertilizer, credit and labour, and the higher prices of food and other basic commodities consumed by farmers. Farmers in a small number of provinces in Sumatra and in the outer islands, such as Bali, South Sulawesi and NTB, however fared somewhat better. Their terms of trade improved by about 10%, but only in provinces where small holders dominate the production of cash crops. Where large plantations prevail, such as in North Sumatra, the farmers' terms of trade were stagnant.

MAJOR CONCLUSIONS

This final section summarizes the major findings of this paper.

(a) ***Ten million missing workers.*** Due to conceptual weaknesses in conventional labour statistics, between 8 million to 10 million unemployed Indonesian workers have gone missing from the official statistics of unemployment both before and followng the crisis (Chart 1)

(b) ***Statistical detective work.*** If the statistical methodology could capture into the existing measurement indicators of unemployment these 10 million undetected jobless workers, open unemployment figures in Indonesia would stand at 14.5 million workers instead of a meagre 5 million recorded by the conventional statistical tools of measurement (Chart 1)

(c) ***The volatility of urban unemployment.*** Open unemployment has always been an urban phenomen. However, with nearly one out of every five urban workers out of a job, either actively looking for work or willing to accept work if available, unemployment could be a major challenge to policy makers due to the greater voice and higher visibility of job-seekers in urban areas. Furthermore, the actual urban unemployment rate is double that of the conventionally measured urban unemployment rate.

(d) ***The gender gap.*** The gap in open umployment between men and women has been consistently wide (Chart 3). The actual open unemployment rate of women (nearly 22 percent) is well over three and a half times that of the men (about 6 percent)

(e) ***The myth of youth unemployment.*** The threat of social unrest arising from an explosive growth in youth unemployment has been highly exaggerated. On the contrary, the available emperical evidence reveals the precarious position of adult workers (30 years of age and above). While the youth (15 to 29 years of age) unemployment rate dropped sharply, the adult workers' share of total unemployment rate tripled during the crisis (Chart 4, right panel)

(f) ***Experienced workers, the losers.*** The proportion of workers with prior work experience among the total unemployed labour force more than doubled over the crisis period while the proportion of new entrants among the unemployed workers declined drastically from nearly 82 percent of the total unemployed to about 60 percent (Chart 4)

(g) ***Skills composition of the unemployed unaffected by the crisis.*** The crisis appears to have left the skills composition of the unemployed workers unaltered (Table 1)

(h) ***Twenty-four million work seekers.*** The demand for work remains high. In addition to the 15 million openly unemployed workers actively seeking work or who are willing to accept work, there are another 9 million underemployed (working less than 35 hours a week) who are willing to accept work (Charts 1 and 5). This means a total of 24 million workers (a quarter of the entire post-crisis labour force of 102 million workers) are seeking or are willing to accept full-time or extra work (if underemployed) throughout Indonesia.

(i) ***Working women seeking extra work.*** The gender gap with respect to underemployed workers in need of extra work has widened. The percentage of underemployed women in

need of extra work is double that for men following the crisis (Chart 6). This is one of the major coping mechanisms from loss of household incomes on account of the crisis.

(j) ***Underemployment a rural phenomenon.*** The proportion of underemployed rural workers in need of extra work was consistently double that of the corresponding urban workers both prior to and after the crisis (Chart 7)

(k) ***Labour market dynamics in response to economic shocks.*** The labour market response to the crisis differed between the first year and later. During the initial phase (August 1997 - August 1998) of the shock, the workers, particularly women, flooded the labour market to cope with the loss of income resulting from the crisis (Table 2). However, when the employment situation worsened as a result of the continuing crisis, the discouraged workers, particularly women, withdrew from the labour market during the subsequent phase of the after-shock (August 1998 - December 1998)

(l) ***Race between the demands and supply of jobs.*** In the year before the crisis (1996-1997), the annual growth rate of employment overtook, for the first time, the annual growth rate of the labour force. The crisis reversed this trend, with the annual growth rate of employment again trailing behind that of the labour force (Chart 8)

(m) ***Job losses hit all sectors except agriculture.*** Around 2.5 million workers, or 3% of the total work force, were displaced by the crisis in the first year. Job losses struck all sectors of the economy outside agriculture and the small transport and communication sector. The manufacturing sector was easily the largest loser, accounting for nearly half of all job losses, followed by construction, and to a smaller extent by mining, trade and services. Most displaced workers were wage employees (Charts 9 and 10)

(n) ***Men and rural areas, the losers.*** Men accounted for three quarters of all job losses. Also, about three quarters of job losses in these sectors were located in rural areas. In urban areas, many workers displaced from the manufacturing and construction sectors entered the trade and other services sectors. Consequently, net job losses were minimal there. In contrast, displaced workers in rural areas did not have this option and were mainly forced to take up agricultural employment. Rural workers thus formed the bulk of all displaced workers outside of agriculture (Charts 9 and 10)

(o) ***Agriculture' heroic role.*** Nearly 5 million workers were absorbed in agriculture. Half of this number came from all other sectors shedding jobs, while the remaining half consisted of new entrants into the labour force. This included many women who abandoned their housekeeping activities to earn or help earn an income (Chart 12)

(p) ***Regional variations acute.*** The large increase in agricultural employment took place in Java and in the provinces dominated by smallholder agriculture. On the other hand, the plantation-dominated provinces experienced a contraction in employment, and so did the more commercial and tourist centres of the country.

(q) ***New twist to the employment structure.*** The crisis has reversed virtually all previous trends in the employment structure. The share of agriculture in total employment has once again increased, while the shares of most non-agricultural sectors have declined correspondingly. Industrialization of the workforce has been halted, and the shares of trade and services in

total employment have declined. The steady rise in wage employment before the crisis has also been reversed, with a corresponding rise in informal sector employment. Urban-rural migration has turned into a movement of the labour force back to rural areas, while international migration has accentuated.

(r) ***Gender and urban-rural job loss ratios***. Since men accounted for both major job losses in non-agricultural sectors and job gains in agriculture, the gender ratio has not changed. In addition, since rural areas accounted for most job losses and also job gains in agriculture, the urban-rural shares of employment have not changed.

(s) ***Strong labour market flexibility.*** Considering the magnitude of the crisis, from 7%-8% growth in GDP before 1997 to minus 15% in 1998, Indonesia has coped remarkably well with the magnitude of job losses. Open unemployment increased by less than one percent while overall employment actually increased, though at the expense of a sharp decline in real earnings. The agricultural sector, particularly the smallholder food and cash crops sub-sectors, absorbed a large portion of workers displaced by the crisis. This sector also accommodated an additional 2.5 million new workers from outside the labour force, compelled to earn a living to cope with the lack of employment opportunities elsewhere and spiralling inflation of food and other basic commodities. Others migrated abroad in increasingly larger numbers. Child labour did not increase significantly. And women have expanded their economic role to cope with the crisis.

(t) ***Factors contributing to labour market flexibility.*** One major reason for the observed labour market flexibility is that most displaced workers are too poor and do not have sufficient savings to remain out of work for any length of time. Other important factors include the existing structure of employment where self-employment and unpaid family employment are the more usual forms of employment, a commercial agriculture dominated by small family holdings in both food and cash crops, a high mobility of the work force ready to move back to the countryside and venture abroad in increasing numbers. Strong family ties are thought to have played a crucial role, encouraging regular remittances to rural areas from distant family members working in cities in earlier times, and now ready to accommodate them temporarily in times of large-scale urban job displacement.

(u) ***Declining real wages***. Nominal earnings of employees increased by less than 20% in the first year of the crisis. Since consumer prices for workers rose by 100% in this period, real earnings declined by 40% between August 1997 and August 1998 (Chart 17 and Table 3).

(v) ***Falling living standards***. In line with the increase in nominal earnings above, household expenditures also increased by about 20% between February 1997 and February 1998. Due to steep inflation however, household expenditures declined in real terms (Chart 18).Taking into account the widening gap between wage rises and inflation in the remaining months of 1998, living standards are likely to have deteriorated further until the end of 1998.

(w) ***Squeeze on non-food consumption***. Households, on average, spent a larger share of their total expenditure on food, further indicating a drop in living standards (Chart 19)

(x) ***Farmers' terms of trade: Stagnation.*** The higher prices of marketable surplus was eroded by the higher prices of agricultural inputs such as fertilizer, credit and labour, and the higher prices of food and other basic commodities consumed by farm producers. Their terms of

trade, particularly in Java, remained unchanged before and after the onset of the crisis, except in a few smaller provinces dominated by cash crop agriculture.

(y) ***Supply-driven employment.*** Much of the new employment created has taken the form of supply-driven low productivity employment in agriculture and the informal sector, at the cost of rapidly declining real wages and increased over-crowding in rural areas, particularly in Java.

What next ?

The creation of soft self-employment opportunities in low productivity agriculture and the informal sector should therefore be regarded as a temporary, though important safety valve. Besides short-term labour-intensive and poverty alleviation programmes, a twin medium and long term employment strategy should be followed soon to promote demand-driven employment opportunities in hard, wage employment jobs in the modern sector, while raising productivity in more traditional forms of employment.

An attempt has already been made to develop the strategies for an employment-led recovery and reconstruction of the Indonesian economy (ILO, 1999).

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Appendix Table A.1

Comparison of Consumption Profiles in Selected Cities and in Susenas Survey, 1996

	Large Cities				Small Towns				Susenas			
	Jakt	Sbya	Mdn	Avg	Tegal	Kupg	Kend	Avg	Urb Avg	Urb Wkr 1/	Rur Avg	Rur Wkr 2/
All Food	34.7	37.1	45.0	39.0	44.3	43.5	42.7	43.5	48.0	58.0	63.1	67.5
Food Commodities	18.5	21.4	29.0	23.0	24.0	32.7	26.7	27.8	35.3	42.9	49.8	53.5
Prepared Food	16.2	15.7	16.0	16.0	20.3	10.8	16.0	15.7	12.7	15.1	13.3	14.0
Non Food	65.3	62.9	55.0	61.0	55.7	56.5	57.3	56.5	52.0	42.0	36.9	32.5
Housing	31.6	25.1	20.4	25.7	21.8	27.3	25.3	24.8	24.1	19.7	14.2	14.1
Clothing/Footwear	6.7	7.0	9.0	7.6	8.8	6.0	9.4	8.1	5.0	5.4	5.7	5.9
Health	4.3	5.2	4.5	4.7	5.5	4.0	3.8	4.4				
Education/leisure	9.2	10.4	7.3	8.9	7.6	6.5	8.4	7.5				
Transport/Comm.	13.4	15.2	13.8	14.1	12.0	12.7	10.4	11.7				
Goods & services									14.4	11.6	8.0	7.0
Durable goods									4.7	2.4	5.9	3.1
Tax and insurance									1.9	1.5	1.0	0.7
Parties/ceremonies									1.9	1.3	2.1	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100	100	100	100

Source: *Diagram Timbang Index Harga Kosumen*, Cost of Living Survey 1996, CBS
National socio-economic survey *Susenas* 1996, CBS

Note:
1/ Rp. 60,000-80,000 category. Urban household spent Rp. 248,000 per month or Rp. 62,000 per capita/mth
2/ Rp. 40,000-50,000 category. Rural household spent Rp. 162,000 per month or Rp. 40,000 per capita/mth

Appendix Table A.2

Estimation of Consumer Price Index for Urban and Rural Workers

		CBS Urban Consumer Price Index, 44 Cities (1996=100)										Worker Index (1996=100)			Worker Index (Aug97=100)		
		Food P.	Food	Housing	Clothing	Other	Health	Educ.	Transp.	General	97=100	Urban	Rural	Urb+Rur	Urban	Rural	Urb+Rur
1994	Mar	78,83	71,20	84,62	88,21	84,57	84,57	84,57	84,57	81,60	78,18	80,29	79,81	80,00	76,86	76,25	76,50
	Jun	79,07	71,42	86,02	88,70	85,19	85,19	85,19	85,19	82,32	78,88	80,85	80,29	80,52	77,41	76,71	76,99
	Aug	81,48	73,59	87,76	89,09	86,95	86,95	86,95	86,95	84,19	80,67	82,88	82,38	82,58	79,34	78,71	78,96
	Sep	81,67	73,77	88,88	89,44	86,99	86,99	86,99	86,99	84,64	81,10	83,26	82,71	82,93	79,70	79,03	79,30
	Dec	83,03	75,00	91,54	90,65	87,78	87,78	87,78	87,78	86,23	82,62	84,79	84,19	84,43	81,18	80,44	80,74
1995	Mar	88,49	79,93	92,67	93,22	88,75	88,75	88,75	88,75	88,87	85,15	88,41	88,22	88,30	84,64	84,29	84,43
	Jun	90,41	81,66	94,91	94,20	91,27	91,27	91,27	91,27	90,97	87,16	90,40	90,19	90,28	86,55	86,17	86,32
	Aug	91,45	82,61	95,52	94,92	92,56	92,56	92,56	92,56	91,90	88,06	91,35	91,16	91,24	87,46	87,10	87,24
	Sep	91,88	82,99	95,96	95,46	92,79	92,79	92,79	92,79	92,25	88,39	91,75	91,57	91,64	87,84	87,49	87,63
	Dec	94,76	85,59	96,85	96,73	94,10	94,10	94,10	94,10	93,97	90,04	93,84	93,83	93,84	89,84	89,65	89,73
1996	Feb	102,99	93,03	98,11	99,53	95,23	95,23	95,23	95,23	97,64	93,55	99,09	99,75	99,49	94,86	95,31	95,13
	Mar	100,71	90,97	98,50	99,57	95,25	95,25	95,25	95,25	97,05	92,99	97,89	98,31	98,14	93,71	93,93	93,84
	Jun	97,70	88,25	99,70	100,71	100,56	100,56	100,56	100,56	97,79	93,70	97,29	97,17	97,22	93,14	92,84	92,96
	Aug	98,38	88,87	100,39	101,38	102,29	102,29	102,29	102,29	98,73	94,60	98,11	97,96	98,02	93,93	93,60	93,73
	Sep	97,64	88,19	100,91	101,69	102,41	102,41	102,41	102,41	98,69	94,56	97,84	97,58	97,69	93,67	93,24	93,41
	Dec	100,50	90,78	101,50	102,47	103,54	103,54	103,54	103,54	100,20	96,01	99,79	99,74	99,76	95,54	95,30	95,39
1997	Feb	104,90	94,76	101,75	104,30	104,99	104,99	104,99	104,99	102,31	98,03	102,65	102,95	102,83	98,27	98,36	98,33
	Mar	104,54	94,43	101,98	104,47	104,56	104,56	104,56	104,56	102,18	97,90	102,44	102,71	102,60	98,07	98,13	98,11
	Jun	104,10	94,03	103,46	104,65	105,75	105,75	105,75	105,75	102,77	98,47	102,70	102,80	102,76	98,32	98,22	98,26
	Aug	106,35	96,06	104,24	105,38	107,63	107,63	107,63	107,63	104,37	100,00	104,46	104,66	104,58	100,00	100,00	100,00
	Sep	108,38	97,90	105,09	106,01	109,02	109,02	109,02	109,02	105,71	101,29	106,03	106,34	106,21	101,51	101,60	101,56
	Dec	120,54	108,88	107,84	110,58	112,23	117,27	114,18	105,24	111,83	107,15	114,19	115,44	114,94	109,32	110,30	109,91
1998	Feb	157,79	132,74	123,28	145,14	132,91	148,98	131,87	117,87	135,03	129,38	141,89	145,33	143,96	135,84	138,86	137,65
	Mar	166,71	142,23	128,61	161,39	136,79	155,88	134,74	119,74	142,15	136,20	149,72	153,55	152,02	143,34	146,71	145,36
	Jun	196,39	167,92	139,17	195,29	154,40	171,97	140,84	150,38	163,89	157,03	172,95	178,43	176,23	165,57	170,47	168,51
	Aug	240,31	200,02	153,51	225,73	172,67	197,99	160,18	159,83	189,13	181,21	204,02	212,36	209,03	195,32	202,90	199,87
	Sep	261,00	205,95	155,92	225,22	176,61	204,49	162,17	163,18	196,23	188,02	214,82	225,10	220,99	205,66	215,07	211,31
	Dec	263,22	211,58	159,03	219,71	179,36	212,54	161,84	163,70	198,64	190,33	217,31	227,66	223,52	208,04	217,52	213,73
1999	Mar	281,65	216,34	162,92	234,71	182,34	215,80	162,05	169,16	206,75	198,10	228,01	239,90	235,14	218,28	229,21	224,84
	May	271,38	215,20	164,91	231,18	183,42	217,60	162,59	170,06	204,76	196,19	223,82	234,52	230,24	214,27	224,07	220,15

Source: *Monthly Bulletin of Statistics*, Central Bureau of Statistics

Note:

Weights Used (See Appendix Table 1):

Urban Workers	43%	15%	22%	5%	4%	6%	5%	100%
Rural Workers	54%	14%	16%	5%	4%	3%	4%	100%

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