

**Short-term
Poverty Dynamics:
Evidence from
Rural Indonsia**

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A paper from the SMERU Research Institute, with support from AusAID and the Ford Foundation.

September 2001

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SHORT-TERM POVERTY DYNAMICS: EVIDENCE FROM RURAL INDONESIA

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Abstract

During the economic crisis, the headcount poverty rate in Indonesia changed relatively quickly in short periods of time, implying that there were a large number of households which moved in and out of poverty relatively frequently and experienced relatively short periods of poverty. This study finds that changes that took place at the household level were greater than what were indicated by the aggregate figures. During a certain period, the proportion of households which fell into poverty is negatively correlated with the proportion of households which moved out of poverty. However, the total number of households which experienced a change in their poverty status have always been found to be substantial and much greater than the change in poverty rate. Hence, looking only at the changes in the total poverty rate could give a misleading impression on the actual poverty dynamics of households.

* We thank Statistics Indonesia (BPS) and UNICEF for providing access to the data. We are grateful to Kristen Stokes who has edited the manuscript.

I. INTRODUCTION

During the economic crisis in Indonesia which started in mid 1997, the headcount rate on poverty changed relatively quickly over short periods of time. Poverty increased quickly when the crisis worsened and, likewise, decreased rapidly when the economy stabilized.¹ This implies that there were a large number of households moving in and out of poverty relatively frequently. This also implies that there were a significant number of households which experienced relatively short periods of poverty, i.e. just a fraction of a year.

Generally, the movement of households in and out of poverty are assessed on a yearly basis (e.g. Bane and Ellwood, 1983; Baulch and Hoddinott, 2000; Jalan and Ravallion, 1999 and 2000). These studies utilize panel data of households with a year as the basic time unit. According to this data, a household deemed not poor in two consecutive surveys will be considered as having never been poor during the whole period between the two surveys. In reality, however, the household could have experienced a period of poverty but it so happened that this period of poverty did not coincide with the time of the surveys. Such a situation could occur, for example, if each year the survey was conducted coinciding with the harvest season, a period when rural households are generally better off.

To understand the short-term dynamics of poverty, it is necessary to have panel data which relies upon a time unit which is less than a year. Muller (1997), for example, uses quarterly panel data in a year period between 1982 and 1983 to estimate transient seasonal and chronic poverty of peasants in rural Rwanda. He finds that the worst poverty occurs after the dry season at the end of the year. Generally, severe poverty is a result of a seasonal transient component of annual poverty, where the seasonal component of the incidence of poverty is much smaller. Hence, he concludes that the actual differences in the severity of poverty, either between developing and developed countries or between rural and urban areas in developing countries, may be much worse than is shown by the usual chronic annual poverty measures or by measures of the seasonal incidence of poverty.

Similarly, Dercon and Krishnan (2000) use a panel data set of households in rural Ethiopia which were visited three times over an 18 month period. Their results show that, although on average year-to-year poverty is quite stable, there is high variability between consumption and poverty when measured during the seasons and year-by-year. They have also found that consumption is affected by idiosyncratic and common shocks, including rainfall and household-specific crop failure. In addition, households respond to seasonal incentives related to changing labor demand and prices. They conclude that a greater number of households are vulnerable to shocks than proposed

¹ Suryahadi *et al.* (2000) track down the evolution of poverty rates in Indonesia during the economic crisis from February 1996 to August 1999.

by standard poverty statistics. Some of the non-poor included in these statistics are otherwise poor households temporarily boosting their rates of consumption as an optimal response to changing seasonal incentives.

A similar data set from Indonesia is used in the present study. A panel of 10,640 households were interviewed four times during a 14 month period from August 1998 to October 1999. The details of the data are discussed in section two. This section also illustrates how the poverty lines used in this study were estimated. Section three discusses the poverty dynamics of the sample. Finally, section four provides conclusion.

II. DATA AND CONSTRUCTION OF THE POVERTY LINE

2.1 Data

The data used in this study is derived from the '100 Village Survey'. This survey was sponsored by UNICEF and carried out by Statistics Indonesia (BPS). It collected data from 12,000 households in each round. As suggested by its name, the survey covered 100 villages, all of which are located in 10 districts spread across 8 provinces throughout the country. Each village was divided into three enumeration areas. Forty households were chosen randomly from each enumeration area as a sample, so that the total sample number in each village is 120 households.

The '100 Village Survey' was originally meant to identify village level variables which were closely correlated with characteristics of the poor, so that it could be used as a tool to test whether the much larger National Socio-Economic Survey (Susenas) was appropriate as a basis for calculating the poverty rate in Indonesia. The survey was first implemented in May 1994 and then repeated in May 1997.

The economic crisis struck Indonesia in mid 1997. During the first year of the crisis there was a lack of data on the social impact of the crisis. In order to overcome this, four rounds of the '100 Village Survey' were implemented in a course of 14 months, respectively in August 1998, December 1999, May 1999, and October 1999.² It was intended that the sample households would remain the same for all four rounds of the survey, however some replacements were made due to various reasons which were unavoidable. In the end, there were 10,640 households visited in all the four rounds of the survey and a complete panel data set was made.

While the '100 Village Survey' sample was relatively large, it was not designed as a statistically representation of the country overall. The survey areas were chosen before the crisis in 1994, based on a sampling approach which intended to include a range of villages that were 'representative' of various parts of the rural economy. Since the areas were chosen before the crisis, there is no reason to suspect that these samples were influenced by the crisis. Furthermore, the intention of this survey was to focus on rural and relatively poor areas, therefore it is not representative of all social strata within the country. Therefore, the conclusions from this study can only be applied to this sample.

2.2. Construction of the Poverty Line

To get a consistent picture of household welfare during the four rounds that the survey was conducted, it was necessary to estimate poverty lines which would be comparable across regions as well as throughout time. These poverty lines, however, cannot be

² A study on the social impact of the crisis in Indonesia was done by Skoufias *et al.* (2000) based on the results of the May 1997 and August 1998 rounds.

directly estimated from the '100 Village Survey' data because it only contains information on the values of household consumption, and not the quantities and prices of the household consumption items.³ Hence, the poverty line estimates have to be obtained based on information from other sources.

This poverty line estimation procedure is illustrated in Table A1 in the Appendix. The second column of the table shows the provincial poverty rates in February 1999, which were obtained from Pradhan *et al.* (2000). These poverty rates were calculated based on a single national food poverty basket and, hence, represent welfare levels comparable across regions. The poverty lines used by Pradhan *et al.* (2000), however, cannot be applied directly in this study because they were calculated using the Susenas Consumption Module data, while the 100 Village Survey questionnaire is based on the Susenas Core questionnaire.⁴ Hence, in the third column, the provincial poverty lines which correspond to the poverty rates in the second column have been estimated using the February 1999 Susenas Core data.

Using deflators based on the re-weighted provincial consumer price index (CPI), the fourth to seventh columns in Table A1 calculate the provincial poverty lines for each period during the four rounds of the survey. The proportion of food in the CPI basket is only 40 percent. This is much lower than the actual consumption and certainly understates the importance of food for the poor. Hence, in the deflators used in this study, the food share of consumption is adjusted to reflect the food share of the poverty line, which is 80 percent.⁵

³ In Indonesia, poverty line is constructed based on food consumption which produces 2,100 calories per capita per day plus non-food consumption which is deemed essential. This requires information on quantities consumed. The price information, meanwhile, is required to put values to the poverty basket calculated.

⁴ Susenas is the 'National Socio-Economic Survey', a nationally representative household survey, covering all areas of the country. A part of Susenas is conducted every year, collecting information on the characteristics of over 200,000 households and over 800,000 individuals, including information on aggregated values of household consumption. This part of Susenas is known as the Susenas Core. Another part of Susenas is conducted every three years, specifically collecting information on very detailed quantities and values of consumption from around 65,000 households. This is the Susenas Consumption Module.

⁵ For more detailed discussion on this, see Suryahadi *et al.* (2000).

III. INCOME, CONSUMPTION, AND POVERTY DYNAMICS

3.1. Macroeconomic Background

This sub-section provides a brief general picture of the developments that took place in the Indonesian economy during the survey period from August 1998 to October 1999. Figure A1 in the Appendix illustrates the trends in the nominal exchange rate (defined as the price of the US dollar to the rupiah), consumer price index (CPI), real gross domestic product (GDP), real manufacturing wage, and poverty rate during the period. The values of all these indicators in August 1998 are normalized to a 100 point scale.

The macroeconomic indicators give some signs of stabilization during the period, particularly if contrasted with the very significant economic deterioration that occurred between mid 1997 to mid 1998. The exchange rate still showed relatively large fluctuations, but there was a clear tendency for the rupiah to appreciate during this period. This should be contrasted to the large depreciation in the value of the rupiah in the previous period, where the value of the rupiah dropped sharply from around Rp2,500 per US dollar in June 1997 to around Rp15,000 per US dollar in June 1998. The value of rupiah in August 1998 was around Rp11,000 per US dollar. Similarly, domestic prices stabilized as indicated by the relatively flat Consumer Price Index (CPI) graphics. In contrast, inflation was approximately 78 percent between August 1997 and August 1998.

This stabilization, however, has yet to result in the return of economic growth. The graphics of real Gross Domestic Product (GDP) during the third quarter of 1998 right through until the third quarter of 1999 remain very flat, reflecting near zero economic growth. These results, however, are much improved compared to the more than 13 percent economic contraction in the previous one year period. Similarly, real wages have yet to recover from a one third drop between August 1997 and August 1998.⁶ Nevertheless, the national poverty rate started to decline again in the first half of 1999. The pre-crisis poverty rate more than doubled during the crisis.⁷

3.2. Changes in Income, Consumption, and Poverty

In line with the macroeconomic stabilization during the period, there was also indications to suggest that the economic conditions of the households in the sample had improved. However, there were also apparent fluctuations in welfare indicators during the period. Table 1 shows the changes in real per capita income, real per capita consumption, and the headcount poverty rate of the sample in the four rounds that the survey was conducted.

⁶ See Feridhanustyan (1999) and Manning (2000).

⁷ See Suryahadi *et al.* (2000).

Table 1. Income, Consumption, and Poverty

| | Aug '98 | Dec '98 | May '99 | Oct '99 |
|----------------------------------------------------|---------|---------|---------|---------|
| Real per capita income: | | | | |
| - Mean (Rp/month) | 100,457 | 118,846 | 117,581 | 127,421 |
| - Change over the previous period (%) | — | 18.3 | -1.1 | 8.4 |
| Real per capita consumption: | | | | |
| - Mean (Rp/month) | 85,003 | 88,074 | 89,463 | 93,082 |
| - Change over the previous period (%) | — | 3.6 | 1.2 | 4.0 |
| Poverty: | | | | |
| - Headcount index (%) | 43.0 | 36.2 | 36.5 | 31.0 |
| - Percentage point change over the previous period | — | -6.8 | 0.3 | -5.5 |

Table 1 shows that there was a clear pattern, suggesting that most of the improvements took place during the period between August and December 1998, where real per capita income increased by 18.3 percent, real per capita consumption grew by 3.6 percent, and headcount index of poverty fell by 6.8 percentage points. On the other hand, between December 1998 and May 1999, there was a stagnation in the economic conditions of the sample. None of the three indicators changed significantly during this period. However, there were some signs that the economic conditions of the sample has improved again during the period between May and October 1999. During this period, real per capita income grew by 8.4 percent, real per capita consumption increased by 4.0 percent, and the headcount index on poverty fell by 5.5 percentage points.

The changes that occurred at the household level turned out to be greater than what is indicated by the aggregate figures. Table 2 shows the transition matrices of the position of households in the quintiles of real per capita income and real per capita consumption between two consecutive periods in the survey.⁸ In the matrices, the cells in the diagonal positions are shaded. These diagonal cells represent the percentage of the sample in each quintile during the initial period which did not experience a change in their respective quintile position in the successive period.

⁸ The quintiles are calculated at the district level.

**Table 2. Income and Consumption Quintile Transition Matrices
(row percentages)**

| Per Capita Real Consumption | | | | | | | Per Capita Real Income | | | | | | |
|------------------------------------|---|---------------|-------|-------|-------|-------|-------------------------------|---|---------------|-------|-------|-------|-------|
| | | December 1998 | | | | | | | December 1998 | | | | |
| | | 1 | 2 | 3 | 4 | 5 | | | 1 | 2 | 3 | 4 | 5 |
| August 1998 | 1 | 49.67 | 26.53 | 14.34 | 6.80 | 2.67 | August 1998 | 1 | 43.63 | 27.94 | 15.17 | 8.13 | 5.12 |
| | 2 | 28.97 | 30.45 | 23.11 | 12.37 | 5.10 | | 2 | 27.80 | 28.56 | 22.09 | 15.20 | 6.34 |
| | 3 | 14.04 | 23.86 | 28.14 | 23.84 | 10.12 | | 3 | 17.01 | 23.36 | 28.20 | 21.02 | 10.41 |
| | 4 | 6.59 | 14.51 | 23.27 | 32.36 | 23.27 | | 4 | 7.07 | 14.52 | 22.59 | 31.59 | 24.24 |
| | 5 | 2.16 | 5.53 | 11.24 | 23.90 | 57.16 | | 5 | 5.45 | 6.43 | 12.15 | 23.46 | 52.51 |
| May 1999 | | | | | | | May 1999 | | | | | | |
| | | May 1999 | | | | | | | May 1999 | | | | |
| | | 1 | 2 | 3 | 4 | 5 | | | 1 | 2 | 3 | 4 | 5 |
| December 1998 | 1 | 53.18 | 27.29 | 12.62 | 5.45 | 1.46 | December 1998 | 1 | 49.23 | 27.32 | 12.96 | 7.05 | 3.45 |
| | 2 | 25.69 | 32.34 | 23.39 | 14.27 | 4.31 | | 2 | 27.30 | 31.90 | 22.65 | 12.74 | 5.40 |
| | 3 | 13.79 | 24.77 | 30.96 | 23.11 | 7.38 | | 3 | 13.59 | 22.19 | 30.26 | 24.49 | 9.47 |
| | 4 | 6.10 | 11.58 | 23.86 | 34.16 | 24.30 | | 4 | 7.83 | 13.36 | 22.61 | 33.03 | 23.17 |
| | 5 | 2.47 | 4.94 | 9.42 | 22.40 | 60.78 | | 5 | 3.04 | 6.01 | 11.64 | 22.08 | 57.23 |
| October 1999 | | | | | | | October 1999 | | | | | | |
| | | October 1999 | | | | | | | October 1999 | | | | |
| | | 1 | 2 | 3 | 4 | 5 | | | 1 | 2 | 3 | 4 | 5 |
| May 1999 | 1 | 57.84 | 23.97 | 9.73 | 6.16 | 2.31 | May 1999 | 1 | 53.87 | 25.62 | 12.08 | 6.29 | 2.14 |
| | 2 | 24.28 | 35.08 | 24.46 | 12.30 | 3.88 | | 2 | 25.84 | 32.95 | 24.84 | 12.08 | 4.29 |
| | 3 | 11.74 | 24.14 | 32.92 | 22.76 | 8.45 | | 3 | 12.54 | 23.78 | 31.10 | 23.39 | 9.19 |
| | 4 | 5.20 | 12.56 | 23.58 | 35.14 | 23.51 | | 4 | 5.97 | 12.29 | 23.14 | 35.99 | 22.61 |
| | 5 | 2.28 | 5.05 | 9.80 | 22.97 | 59.90 | | 5 | 2.79 | 6.21 | 9.00 | 21.82 | 60.18 |

As expected, all the transition matrices indicate that a large majority of households income and consumption quintile positions did change across survey rounds in the second, third and fourth quintiles. On the other hand, the majority of households in both the poorest and the richest quintiles in general did not experience a change in their quintile positions. This implies that most of the fluctuations in the relative position of the households in regard to both income and consumption distributions took place amongst households in the middle position of the distributions.

3.3. The Pattern of Changes in Poverty Status

The changes in households' real income and consumption were reflected in the changes in their poverty status. Table 3 shows the pattern of changes in household poverty status across survey rounds. The table indicates that the largest single group of individuals in the sample is those who were never poor during the whole 14 months period, i.e. 42 percent. On the other hand, those who were always poor throughout the whole period make up only 18 percent of the total sample. The remaining 40 percent the sample experienced a mix of times when they were not poor and other times when they were poor. Throughout the four periods that they were interviewed, 16 percent of them were found to be poor once, 12 percent were poor twice, and 12 percent were poor three times.

Of the 16 percent sample who experienced poverty once, around half of them were poor during the first period and then non-poor afterward. In fact, approximately 85 percent of this sample group were categorized as non-poor in the last period. Of the 12 percent sample who were poor twice, around two thirds were categorized as non-poor in the last period. Meanwhile, among those who were poor three times, approximately one third of them had been poor throughout the first three periods but were found to be non-poor in the last period. Around 4 percent of the sample experienced continuing changes in status between poor and non-poor during the whole period. It is this bracket of the population whose welfare is the most volatile.

The following Table 4 provides a summary of the changes in the poverty status of households in the sample. This table calculates the proportion of households which experienced a change in their poverty status when compared to their status in a previous period - that is they either fell into poverty or moved out of poverty. The table indicates that there was a negative correlation between the two opposing poverty movements. As can be seen from the table, when the proportion of households which fell into poverty increased throughout a period then the proportion of households which moved out of poverty in the same period decreased and vice versa.

Table 3. The Patterns of Changes in Household Poverty Status

| Pattern | Poverty Status | | | | Frequency (%) |
|--------------------------|----------------|----------|----------|----------|---------------|
| | Aug '98 | Dec '98 | May '99 | Oct '99 | |
| Always poor | Poor | Poor | Poor | Poor | 17.5 |
| Three times poor (12.0%) | Poor | Poor | Poor | Non-poor | 4.6 |
| | Poor | Poor | Non-poor | Poor | 2.0 |
| | Poor | Non-poor | Poor | Poor | 2.9 |
| | Non-poor | Poor | Poor | Poor | 2.5 |
| Twice poor (12.4%) | Poor | Poor | Non-poor | Non-poor | 3.7 |
| | Poor | Non-poor | Poor | Non-poor | 3.0 |
| | Poor | Non-poor | Non-poor | Poor | 1.4 |
| | Non-poor | Poor | Poor | Non-poor | 1.7 |
| | Non-poor | Poor | Non-poor | Poor | 1.0 |
| | Non-poor | Non-poor | Poor | Poor | 1.6 |
| Once poor (15.9%) | Poor | Non-poor | Non-poor | Non-poor | 7.9 |
| | Non-poor | Poor | Non-poor | Non-poor | 3.2 |
| | Non-poor | Non-poor | Poor | Non-poor | 2.7 |
| | Non-poor | Non-poor | Non-poor | Poor | 2.1 |
| Never poor | Non-poor | Non-poor | Non-poor | Non-poor | 42.2 |

Table 4. Poverty Movements (%)

| Period | Fall into poverty | Move out of poverty | Total change in status | Net change in poverty | Poverty rate |
|---------------|-------------------|---------------------|------------------------|-----------------------|--------------|
| August 1998 | - | - | - | - | 43.0 |
| December 1998 | 9.0 | 14.3 | 23.3 | -6.8 | 36.2 |
| May 1999 | 10.7 | 9.5 | 20.2 | 0.3 | 36.5 |
| October 1999 | 6.7 | 11.6 | 18.3 | -5.5 | 31.0 |

Table 4 also shows that the total number of households which experienced a change in poverty status was always substantial. Throughout each period, between 18 and 23 percent of households either fell from their status as non-poor to poor, or escaped their status as poor to be classified as non-poor. The total proportion of households which

experienced a change in their poverty status is much larger than what is implied by the changes in the poverty rate. The change in poverty rate constitutes the difference between the proportion of households which fall into poverty and those which move out of poverty. For example, between December 1998 and May 1999 the poverty rate only changed very slightly from 36.2 to 36.5 percent, implying a relatively stable poverty rate. When in fact 20 percent of households either fell into poverty or moved out of poverty during this period. Hence, looking at the changes in total poverty rates alone could result in a misleading impression of the actual household poverty dynamics.

The above Table 3 indicates that 18 percent of individuals in the sample were always poor during the whole period, 42 percent were never poor, while the remaining 40 percent experienced some changes in their poverty status. Jalan and Ravallion (2000) classify those who were always poor as the 'persistently poor', while those who were sometimes poor are classified into two categories. First, the 'chronically poor', i.e. those who were sometimes poor, and whose mean real per capita consumption over the whole period was below the poverty line. Second, the 'transiently poor', i.e. those who were sometimes poor but their mean real per capita consumption over time was higher than the poverty line. Using these concepts, Table 5 shows the distribution of the household sample across poverty categories. The table also indicates the mean and standard deviation of the ratio of their mean real per capita consumption against the poverty line.

Table 5. Poverty Categories

| Poverty Category | Incidence (%) | Ratio of Mean Real Per Capita Consumption to Poverty Line | |
|-------------------|---------------|-----------------------------------------------------------|-----------|
| | | Mean | Std. Dev. |
| Persistently poor | 17.5 | 0.7 | 0.1 |
| Chronically poor | 15.5 | 0.9 | 0.1 |
| Transiently poor | 24.8 | 1.2 | 0.2 |
| Never poor | 42.2 | 1.9 | 0.7 |

Table 5 shows that in addition to the 18 percent persistently poor and the 42 percent never poor, the sample had 16 percent chronically poor and 25 percent transiently poor. This means that the total proportion of the sample who have mean real per capita consumption below the poverty line is around 34 percent. The table also shows that, on average, the persistently poor have mean real per capita consumption rates over the time period of approximately 30 percent below the poverty line, while for the chronically poor it is around 10 percent below the poverty line, for the transiently poor it is around 20 percent above the poverty line, and for the never poor it is around 90 percent above the poverty line.

IV. CONCLUSIONS

During the economic crisis, the headcount poverty rate in Indonesia changed relatively quickly in short periods of time, increasing rapidly when the crisis worsened and decreasing fast when the economy stabilized. This implies that there were a large number of households which moved in and out of poverty relatively frequently and, hence, there were a large number of households which experienced relatively short periods of poverty.

This study utilizes a panel data set of 10,640 households which were visited four times in a 14 month period from August 1998 to October 1999. During this period of study, the Indonesian macroeconomic indicators had stabilized after a period when they worsened during the peak of the crisis. In line with the macroeconomic stabilization during the period, there was also indications to suggest that the economic conditions of the households in the sample had improved.

However, this study finds that changes that took place at the household level were actually greater than what were indicated by the aggregate figures. The changes in households' real incomes and consumption have been translated into the changes in their poverty status. Around 40 percent of the sample experienced a combination of being non-poor and poor during the period of study. In the four rounds of the survey, 16 percent of the sample were found to be poor once, 12 percent were poor twice, and 12 percent were poor three times. Meanwhile, 42 percent of the sample were never poor and 18 percent were always poor during the whole 14 month period.

During a certain period, the proportion of households which fell into poverty is negatively correlated with the proportion of households which moved out of poverty. The total number of households which experienced a change in their poverty status, however, have always been found to be substantial. In each period of the survey, between 18 and 23 percent of households either fell from being non-poor to poor or moved from being poor to non-poor. These figures are much larger than the implied changes in the poverty rate. This poverty rate is described as the difference between the two poverty movements. Hence, looking at the changes in the total poverty rate could give a misleading impression on the actual poverty dynamics of households.

In poverty categories, those who were found to be always poor were known as the 'persistently poor'. Meanwhile, those who were found to be only sometimes poor are divided into two categories. The first category is the 'chronically poor', i.e. those who were sometimes poor and had a mean real per capita consumption rate below the poverty line throughout the period. The second category is called the 'transiently poor', i.e. those who were sometimes poor but had a mean real per capita consumption rate above the poverty line throughout the same period. Within the sample studied, 18 percent of households were persistently poor, 16 percent were chronically poor, and 25 percent were transiently poor. This means that the total proportion of the sample who had mean real per capita consumption rates below the poverty line was around 34 percent.

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APPENDIX

Table A1. The Poverty Lines

| Province | February '99 | | Poverty Line for the Sample (Rp./month) ^c | | | |
|--------------------|-------------------------------|---------------------------|---------------------------------------------------------|---------|---------|---------|
| | Poverty Rate (%) ^A | Poverty Line ^B | Aug '98 | Dec '98 | May '99 | Oct '99 |
| Riau | 9.21 | 73,515 | 64,741 | 68,977 | 72,002 | 68,372 |
| Lampung | 36.80 | 74,425 | 63,018 | 66,155 | 71,003 | 63,874 |
| West Java | 26.60 | 82,025 | 73,924 | 78,312 | 78,987 | 73,586 |
| Central Java | 32.78 | 72,508 | 62,517 | 67,655 | 69,083 | 62,517 |
| Bali | 13.62 | 86,357 | 72,686 | 79,688 | 84,690 | 74,687 |
| East Nusa Tenggara | 61.18 | 73,402 | 56,386 | 68,064 | 75,738 | 73,736 |
| East Kalimantan | 21.67 | 85,717 | 76,273 | 79,905 | 81,358 | 76,273 |
| Southeast Sulawesi | 36.61 | 71,218 | 59,212 | 67,944 | 72,310 | 66,580 |

Notes:

A is from Pradhan *et al.* (2000).

B is estimated using Core SUSENAS based on A.

C is deflated from B using re-weighted CPI.

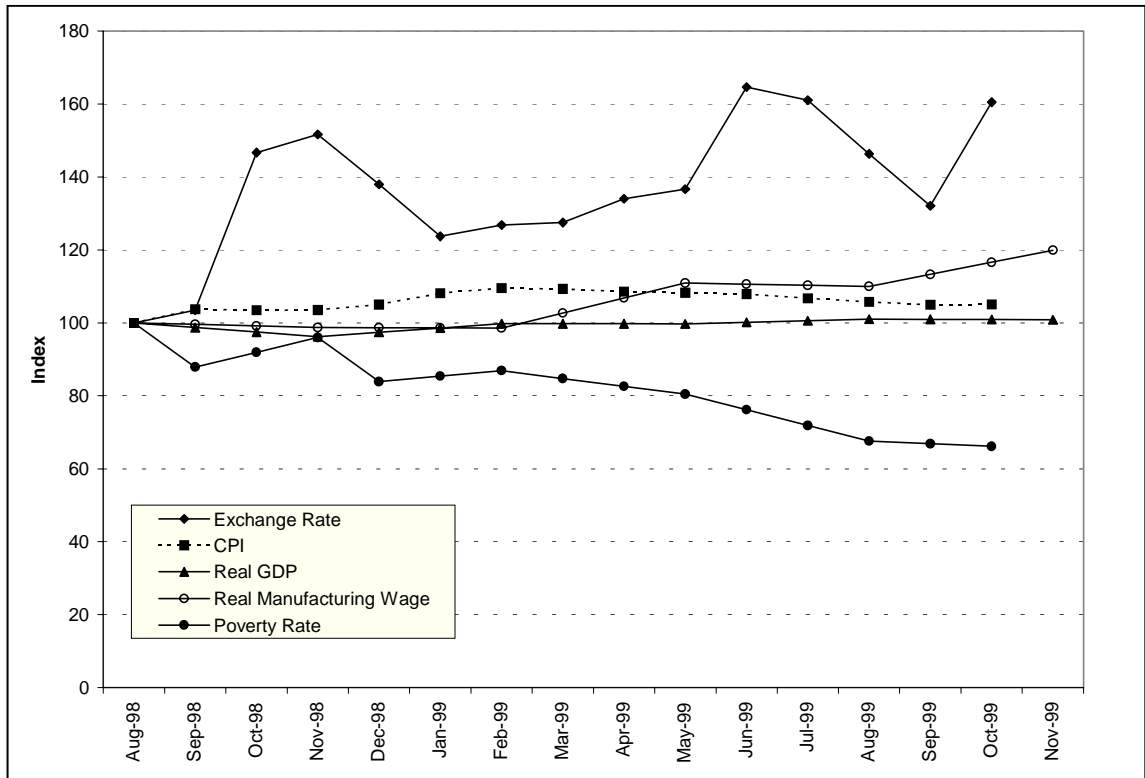


Figure A1. Selected Macroeconomic Indicators, August 1998 – November 1999