

Working Paper
in Economics and
Development Studies



Department of Economics
Padjadjaran University

No. 200303

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July, 2003

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POVERTY DYNAMICS IN INDONESIA: PANEL DATA EVIDENCE

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The advances in poverty research has embraced the dynamic perspective in assessing living conditions of households and individuals over time. The distinction of poverty condition between chronic and transient is not only important from the point of view of poverty measurement accuracy, but for policy implication purposes as well. Chronic versus transient poverty would call for different policy alleviation strategies. In a country or region where the poverty problem is characterized by the chronically poor, then the appropriate strategy for example would be to redistribute assets, providing basic physical and human capital infrastructure (Hulme and Shepherd, 2003). Likewise if the predominant poverty problems relate to transient poverty, the strategy would be geared towards providing safety nets and coping mechanism to reduce their vulnerability and help them return to a non-poor situation.

Evidence on the extent and nature of poverty, distinguishing between chronic and transient with reference to low-income countries has been well documented (Baulch and Hoddinott, 2000, and McKay and Lawson, 2003). The distinction between chronic and transient poverty has typically been based on longitudinal data because such data offer observations of living conditions of the same individuals or households over several points in time. When longitudinal data is nonexistent, it may be possible to assess chronic and transient poverty using cross-sectional data. As has been well documented by McKay and Lawson (2003), each approach has its own advantages and limitations. Much of the analysis has focused on the monetary measures of poverty, although recent advances have combined the monetary approach with subjective assessment, or with non-monetary indicators, for example: Kediri and McKay, 2003 and Baulch and Masset, 2003. The latter is an approach to widen the dimensionality of poverty measures.

Previous studies for Indonesia on chronic and transient poverty has been done by Smeru Research Institute (Suryahadi and Sumarto, 2001; and Widyanti *et al.*, 2001). The studies for Indonesia as done by Smeru does not utilize panel, but SUSENAS cross-sectional household level data. This article attempts to fill in the void by utilizing a rich household panel data set, the 1993 and 1997 IFLS and therefore adds to the existing literature on poverty dynamics for developing countries. For Indonesia in particular, this type of study is important, because of its wide policy implication for appropriate poverty reduction strategies.

THE APPROACH, EMPIRICAL MODEL AND DATA USED IN MEASURING CHRONIC AND TRANSIENT POVERTY¹

Monetary Dimensions of Chronic and Transient Poverty

The existing studies that made distinction between chronic and transient poverty have

largely based on panel data, that has enabled observations on living conditions of the same individuals and households are made over several points in time. The focus has been on monetary measures of poverty such as income or consumption, because the reliance on their measurement at only one point in time clearly does not capture the nature of poverty dynamics. The existence of panel survey data for developing countries, although is still a scarcity, has become much more widespread in terms of countries covered. The addition to the list of countries with household panel data availabilities include Indonesia.²

There are two main approaches in measuring chronic and transient poverty using panel data, which in practice relies on household income or consumption. The approaches are the “spells” and “components” approach, in which case this paper utilizes the former approach. Using the spells approach, the chronic poor are those who experience spells of poverty in each periods in which they are observed.³ Alternatively, those people whose income or consumption do not fall below the poverty line in one of the period observed would not be categorized as chronic poor. The latter are categorized as transient poor.

The idea in distinguishing chronic versus transient poverty is in the duration in which the households’ income or consumption fell below the poverty line. Definition of chronic poverty requires an extended duration, although the exact length of time that must be elapse is still considered to be arbitrary (Hulme and Shepherd, 2003). Other alternative of spells approach is to identify the poor for certain consecutive periods, although this approach has its own drawback in that the information is available for the year when the survey is undertaken. This approach, therefore, could not give conclusion on whether the particular person or household is also poor in the years between.

The conceptualization of poverty requires decision on deprivation dimensions to be adopted. The majority of chronic poverty studies have focused on using income or consumption. The reasons are more practical since analysis of poverty dynamics in developing countries have been based on panel data that generally conceptualize poverty as physical or material deprivation (Hulme and Shepherd, 2003). There is general agreement, however, that multidimensional poverty measurement is important which can be complemented through qualitative survey.

EMPIRICAL MODEL OF FACTORS DETERMINING POVERTY

To analyze the factors determining poverty status of households, the multinomial logit model is used. The summary statistics of the variables used in the model are available in the appendix. The dependent variable in this model takes the values of 0, 1, or 2 depending a household was respectively never poor, poor in one of the two periods, poor in both periods. If a household is poor in one period of the two then the household is considered to be transient poor, whereas if it is poor in both periods it will be categorized as chronic poor.

The explanatory variables include variables that represent household head characteristics (age, gender, education), household demographics, assets holding and location. The values of these variables are for the initial year, 1993. In principle, the explanatory variables should represent the structural characteristics of the household

head and the households, and variables that represent households ability in absorbing “shocks” that affect their welfare.

THE 1993 AND 1997 INDONESIAN FAMILY LIFE SURVEY DATA

The data being used in this study is the Indonesian Family Life Survey which is a multi-purpose household survey conducted in 1993 (IFLS 1) and 1997 (IFLS 2) by Rand Corporation and Lembaga Demografi, Universitas Indonesia.⁴ Surveys in both years covered the same households so as to obtain panel data. The IFLS was designed to study fertility behavior, infant and child health outcomes, education, migration, employment patterns, health and socio-economic status of the older population. Its 1993 sample consists of 7,730 households drawn from 13 provinces in Indonesia covering around 83 percent of the country’s population.⁵

The 1997 survey was fielded in the months of August, 1997 to February, 1998 at the start of the economic crisis in Indonesia. The 1997 survey tracked the same households as in IFLS 1993, and the total number of the initial households revisited has been reduced to 6,742 due to sample attrition. The completion rate for the 1997 IFLS was 93% of its target, a rate considered to be high for similar type of developing countries’ longitudinal data (Thomas, et. al., 2000). The survey also followed an additional 892 split-off household in IFLS2. For analyzing poverty dynamics in this paper, we use observation that is available in both waves (1993 and 1997) of the survey i.e. the 6,742 households level observation.⁶

The survey contains extensive information on household characteristics, health, education and it also contains information on economic activities of the households such as food and non-food expenditures, household production activities as well as asset holdings. Selected household members were asked about their current and retrospective wages and employment patterns, marriage history, migration, health conditions and usage of health facilities, and transfer activities toward and from families, friend and organization. A community facility survey of availability and quality of infrastructure, health and school facilities used by household respondents is conducted in parallel with household survey and can thus be directly linked to the household questionnaire.

The household survey sample was stratified on provinces and randomly selected within provinces. The sample frame used was based on the 1993 SUSENAS, a nationally representative socio-economic survey of 60,000 households conducted by the Indonesian Central Bureau of Statistics. Three sections of the questionnaire collected information at the household level, and the remaining three at the individual level from adult respondents, ever married women and, by proxy, young children.

POVERTY MEASUREMENT AND TRANSITION BETWEEN 1993 AND 1997

Measures of poverty is based on comparing household consumption per capita with the poverty line as devised by the Central Board of Statistics.⁷ The poverty line used is based on BPS poverty line at the province level for urban and rural. Table 1 shows the

monthly household consumption expenditure per capita for urban and rural area based on the 1993 and 1997 IFLS. If a household's consumption expenditure per capita lies below the respective poverty line for both 1993 and 1997, then the household is considered as chronic poor. Likewise, if household consumption per capita never lies below the poverty line in either year, then the household is considered as never poor. But, if it lies below the poverty line only in one period, then the household is categorized as transient poor.

We use book I (household economy) of the IFLS dataset and aggregate the following components of expenditure: food and non-food expenditure, education expenditure, as well as housing expenditure. We also include food that is own-produced by the household, and transfer of food from outside of the household. As only negligible number of household rent a house, we use imputed rent estimated by the owner of the house.⁸ We then change the expenditure into monthly expenditure and divide it by the household size (number of household member) to come to the monthly household expenditure per capita that would be used for determining poverty status of each household.

We use provincial and urban-rural specific official poverty line published by Indonesian Central Body of Statistics (BPS) -- which was based on food energy intake - - and compared this to the monthly expenditure per capita calculated from IFLS dataset to determine the poverty status of each household. As BPS only estimate the poverty line in 1993 and 1996, we have to make adjustment from poverty line in 1996 into 1997 at the time of the IFLS was fielded. BPS poverty line in 1996 was based on SUSENAS data fielded in February 1996 (BPS, 1996), we then use the increase in national consumption price index (CPI) from February 1996 to August 1997 (the start of field work of IFLS2) to adjust the poverty line 1996 into poverty line 1997 and compare this with monthly household expenditure per capita calculated from IFLS2.

Results of poverty measurement in terms of overall incidence, transition into and out of poverty for the year 1993 to 1997 is described in Figure 12.1. Between those years observed, the number of poor had increased from 15.2% to 19.4%.⁹ As the poverty rate had been on a declining trend in previous years, this picture clearly showed the initial impact of the economic crisis which started in August 1997 on poverty incidence.

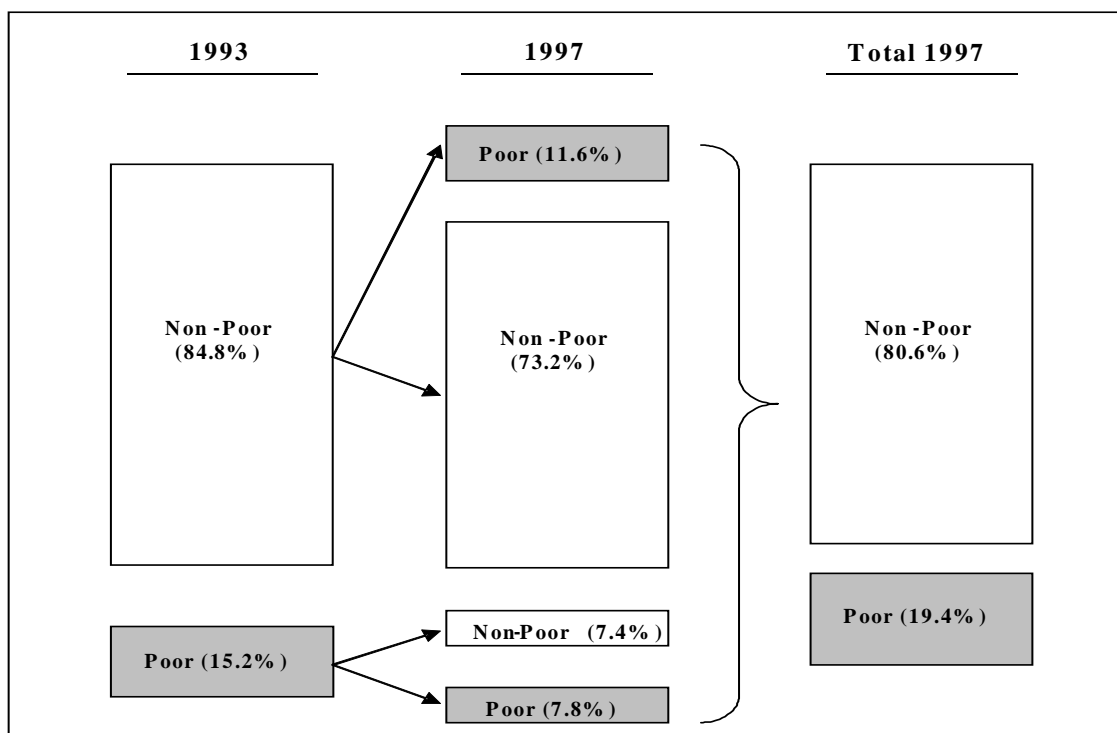
While the overall poverty incidence increased between 1993 and 1997, there was also movement into and out of poverty. Of the 84.8% points non-poor in 1993, 11.6% points had fall into poverty in 1997. Likewise of the 15.2% points poor in 1993, 7.8% points remained poor whereas the other 7.4% percentage points had escaped poverty. The transition poverty profile has shown that the hard core poverty (chronic) had decreased, while the majority of poverty were transient in nature (Figure 12.1).

Table 12.1 Consumption per capita (Rp/month/person)

	1993			1997		
	Urban	Rural	Total	Urban	Rural	Total
All	95,433	47,153	69,359	184,437	87,812	132,193
North Sumatera	75,943	47,916	62,841	121,966	105,463	114,251
West Sumatera	93,956	63,624	73,988	139,211	96,587	111,151
South Sumatera	111,879	37,486	66,391	176,501	87,908	122,330
Lampung	57,137	36,290	40,058	160,183	63,366	80,867
Jakarta	142,563	-	142,563	251,582	-	251,582
West Java	110,110	56,045	80,714	261,041	109,034	178,393
Central Java	82,101	42,746	58,035	164,442	82,104	114,092
Jogjakarta	83,481	53,542	71,778	158,092	185,668	168,872
East Java	63,641	37,790	47,716	107,647	60,836	78,811
Bali	89,337	65,284	73,676	161,538	86,200	112,486
West Nusa Tenggara	61,246	41,533	46,575	112,279	68,085	79,388
South Kalimantan	75,762	51,429	59,983	131,536	94,561	107,559
South Sulawesi	57,510	44,468	49,685	207,908	62,529	120,680

Source: IFLS93 and IFLS97 (author's calculation)

Figure 1. Flow Into and Out of Poverty from 1993 to 1997



EVIDENCE OF FACTORS AFFECTING CHRONIC AND TRANSIENT POVERTY

Poverty incidence profiles for 1993 and 1997 by province, urban and rural areas of Indonesia is presented in Table 12.2, with disaggregation between the chronic and transient poor. In general, the incidence of chronic poverty is higher in rural areas than urban, the same with transient poverty. This finding is consistent with study by Smeru as well as from other developing countries as location plays a major part in the opportunities available to households (McKay and Lawson, 2003). The incidence of chronic poverty is much lower than that of transient poverty, for both urban and rural sample and again a finding consistent with similar studies for other developing countries. How factors affecting chronic and transient poverty differ across urban and rural samples is analyzed further by using the Multinomial Logit model.

Table 12.2 Number and Percentage of the Poor by Category Across Provinces

	Never poor			1 period poor (transient)			2 period poor (chronic)			Total		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
All	2,374	2,526	4,900	486	777	1,263	211	312	523	3,071	3,615	6,686
%	77.3	69.9	73.3	15.8	21.5	18.9	6.9	8.6	7.8	100.0	100.0	100.0
North Sumatera	208	143	351	42	67	109	12	20	129	262	230	492
%	79.4	62.2	71.3	16.0	29.1	22.2	4.6	8.7	26.2	100.0	100.0	119.7
West Sumatera	92	166	258	13	32	45	4	12	16	109	210	319
%	84.4	79.0	80.9	11.9	15.2	14.1	3.7	5.7	5.0	100.0	100.0	100.0
South Sumatera	10	91	101	12	59	71	4	42	46	26	192	218
%	38.5	47.4	46.3	46.2	30.7	32.6	15.4	21.9	21.1	100.0	100.0	100.0
Lampung	42	155	197	4	44	48	1	14	15	47	213	260
%	89.4	72.8	75.8	8.5	20.7	18.5	2.1	6.6	5.8	100.0	100.0	100.0
Jakarta	553	-	553	52	-	52	16	-	16	621	-	621
%	89.0	-	89.0	8.4	-	8.4	2.6	-	2.6	100.0	-	100.0
West Java	375	446	821	65	91	156	35	29	64	475	566	1,041
%	78.9	78.8	78.9	13.7	16.1	15.0	7.4	5.1	6.1	100.0	100.0	100.0
Central Java	240	397	637	64	93	157	27	31	58	331	521	852
%	72.5	76.2	74.8	19.3	17.9	18.4	8.2	6.0	6.8	100.0	100.0	100.0
Jogjakarta	20	133	153	47	25	72	16	14	30	83	172	255
%	24.1	77.3	60.0	56.6	14.5	28.2	19.3	8.1	11.8	100.0	100.0	100.0
East Java	238	372	610	93	162	255	48	74	122	379	608	987
%	62.8	61.2	61.8	24.5	26.6	25.8	12.7	12.2	12.4	100.0	100.0	100.0
Bali	85	173	258	17	27	44	10	9	19	112	209	321
%	75.9	82.8	80.4	15.2	12.9	13.7	8.9	4.3	5.9	100.0	100.0	100.0
West Nusa Tenggara	74	193	267	18	69	87	8	29	37	100	291	391
%	74.0	66.3	68.3	18.0	23.7	22.3	8.0	10.0	9.5	100.0	100.0	100.0
South Kalimantan	79	137	216	16	40	56	8	13	21	103	190	293
%	76.7	72.1	73.7	15.5	21.1	19.1	7.8	6.8	7.2	100.0	100.0	100.0
South Sulawesi	77	120	197	43	68	111	22	25	47	142	213	355
%	54.2	56.3	55.5	30.3	31.9	31.3	15.5	11.7	13.2	100.0	100.0	100.0

Estimation results of the Poverty Status Multinomial Logit model and its ability to predict the correct poverty status is presented in the following tables 3, 4 and 5. Table 3 summarizes the ability of the model to predict which poverty status the household is expected to be based on the model for urban and rural households respectively. The table shows the predicted versus the actual poverty status for each poverty category. The prediction results are “good”, with 78% of households are predicted into the correct poverty status category for the urban sample and the corresponding number for the rural sample is 71%. The predictions are much better for the never poor and the transient poor compared with the chronic poor. These results are comparatively better than similar studies for other developing countries such as done by Keidir and McKay (2003).

Table 12.3 Predicted Poverty Status Classification Based on the Multinomial Logit Model

Actual Poverty Categories	Predicted Poverty Categories - Urban Samples			
	Never poor	One period poor	Two period poor	Total
Never poor	2,242	36	13	2,291
One period poor	396	48	16	460
Two period poor	133	41	19	193
Total	2,771	125	48	2,944

Notes: Correct prediction for urban sample: 78.43 percent

Actual Poverty Categories	Predicted Poverty Categories - Rural Samples			
	Never poor	One period poor	Two period poor	Total
Never poor	2,402	74	17	2,493
One period poor	648	95	23	766
Two period poor	216	58	30	304
Total	3,266	227	70	3,563

Notes: Correct prediction for rural sample: 70.92 percent

The model attempts to explain the factors that affect chronic and transient poverty as it relates to one of the following factors: human capital of the household head, household demographic characteristics, value of physical assets, and location. The estimation is done separately for urban and rural sample to highlight how the explanatory variables affect household poverty status differently between the two

samples.

For the urban households, education level of the household head is one of the strongest determining factor that affect both transient and chronic poverty. Other studies generally supports the assertion that increased years of education decrease the probability of being chronic and transient poor.¹⁰ Secondary and higher education of the head matters more in reducing household's probability of being poor. Education of the head not only enables the household to move out of chronic poverty, but would cause the households to better able to weather transitory shocks.

On the demographic variables, increased number of household members is positively associated with the transient and chronic poverty, with the effect is stronger on transient poverty. Additionally, the presence of young children (less than 6 years old), and older adults (more than 55 years old) increases the probability of a household's being chronic poor. This finding is line with that found for China.¹¹

Lack of asset holdings is found to be one of the primary determinant of chronic poverty, and transient poverty as it relates to the ability of households to weather "economic shocks". The findings from urban sample MNL model supports this widely held assertion. The result also shows that the effect is stronger for the chronic poor case. In this case, the asset holdings variable has not been disaggregated further into asset categories, whether produced assets such as land, livestock, other asset such as house, etc. Although the quality of assets hold is considered to be as important, the data in this study preclude such more detail analysis.

In terms of location, as the omitted category is Jakarta, it appears that being in other location contributed to a household's higher probability of being poor. The exception if for those residing in Sumatera.

All of the above results more or less broadly similar for the rural sample with several notable exception. Dependency burden of the households seems to play a stronger effect on the probability of a rural household's fall into either transient or chronic poor. This observation is supported by the negative effect household size plays on both type of poverty, and is especially relevant for households with large number of young children. There is one caveat, however, in interpreting this observation for the rural agriculture households. Larger households maybe beneficial for this type of households especially in times of labor shortages such as in harvesting periods (McKay and Lawson, 2003).

Table 12.4 Estimation Results of the Multinomial Logit Model for the Urban Sample

Urban Sample	Transient poor			Chronic poor		
	coef.	s.e.	m.e.	coef.	s.e.	m.e.
Household head characteristic						
Age	0.008	0.006	0.001	0.008	0.009	0.000
Sex (1=male, 0=female)	0.393	0.275	0.036	0.871	0.445 *	0.015
Marital Status (1=married, 0=unmarried)	-0.567	0.267 **	-0.065	-0.955	0.423 **	-0.027
Education level						
Elementary school	-0.640	0.174 ***	-0.064	-0.822	0.241 ***	-0.016
Junior Secondary School	-1.114	0.222 ***	-0.088	-1.762	0.356 ***	-0.024
Senior Secondary School or higher	-2.241	0.243 ***	-0.174	-3.504	0.485 ***	-0.054
Demographic characteristics						
Household size	0.210	0.036 ***	0.022	0.265	0.053 ***	0.005
Number of children less than 6 years old	0.036	0.090	0.003	0.259	0.128 **	0.006
Number of children between 6 and 15 years old	-0.055	0.063	-0.006	0.053	0.091	0.001
Number of grandchildren	-0.015	0.079	-0.002	-0.007	0.103	0.000
Number of adult more than 55 years old	0.154	0.100	0.015	0.344	0.143 **	0.007
Log of asset per capita	-0.221	0.030 ***	-0.022	-0.354	0.044 ***	-0.007
Location						
North Sumatera	0.705	0.241 ***	0.088	0.783	0.487	0.020
West Sumatera	0.197	0.363	0.022	0.257	0.710	0.006
South Sumatera	0.197	0.360	0.021	0.439	0.699	0.011
Lampung	-0.340	0.571	-0.031	-0.531	1.102	-0.009
West Java	0.655	0.218 ***	0.070	1.690	0.390 ***	0.065
Central Java	0.912	0.225 ***	0.110	1.680	0.407 ***	0.065
Jogjakarta	1.172	0.240 ***	0.154	1.806	0.451 ***	0.071
East Java	1.567	0.211 ***	0.196	2.771	0.383 ***	0.148
Bali	0.730	0.327 **	0.079	1.823	0.498 ***	0.087
West Nusa Tenggara	0.663	0.327 **	0.075	1.500	0.520 ***	0.062
South Kalimantan	0.740	0.340 **	0.083	1.756	0.532 ***	0.081
South Sulawesi	1.794	0.264 ***	0.243	2.858	0.434 ***	0.168
Constant	0.224	0.520		-0.306	0.794	
Number of observation	2944					
Pseudo R2	0.190					

Note:

Never poor is the comparison group

Coef = coefficient of the multinomial logit model

s.e. = standard error

m.e. = marginal effect

***) Significant at 1%; **) Significant at 5%; *) Significant at 10%

Table 12.5 Estimation Results of the Multinomial Logit Model for the Rural Sample

Rural Sample	Transient poor			Chronic poor		
	coef.	s.e.	m.e.	coef.	s.e.	m.e.
Household head characteristic						
Age	0.005	0.005	0.001	0.015	0.007 **	0.001
Sex (1=male, 0=female)	0.138	0.211	0.020	0.185	0.331	0.007
Marital Status (1=married, 0=unmarried)	-0.425	0.213 **	-0.069	-0.423	0.336	-0.017
Education level						
Elementary school	-0.331	0.110 ***	-0.050	-0.422	0.159 ***	-0.017
Junior Secondary School	-0.682	0.196 ***	-0.085	-1.966	0.450 ***	-0.049
Senior Secondary School or higher	-1.640	0.249 ***	-0.169	-2.263	0.490 ***	-0.053
Demographic characteristics						
Household size	0.203	0.038 ***	0.030	0.294	0.055 ***	0.012
Number of children less than 6 years old	0.136	0.071 *	0.018	0.377	0.099 ***	0.017
Number of children between 6 and 15 years old	-0.099	0.058 *	-0.016	-0.047	0.083	-0.001
Number of grandchildren	0.106	0.074	0.017	-0.014	0.097	-0.002
Number of adult more than 55 years old	0.184	0.084 **	0.027	0.265	0.123 **	0.011
Log of asset per capita	-0.263	0.030 ***	-0.038	-0.461	0.043 ***	-0.020
Location						
North Sumatera	0.961	0.204 ***	0.172	0.905	0.343 ***	0.039
West Sumatera	0.085	0.244	0.009	0.366	0.405	0.020
South Sumatera	1.236	0.216 ***	0.172	2.137	0.300 ***	0.171
Lampung	0.432	0.215 **	0.069	0.567	0.366	0.027
Central Java	0.211	0.172	0.030	0.404	0.294	0.020
Jogjakarta	0.178	0.260	0.011	1.086	0.380 ***	0.079
East Java	0.904	0.158 ***	0.132	1.605	0.256 ***	0.102
Bali	0.156	0.249	0.018	0.580	0.419	0.033
West Nusa Tenggara	0.572	0.194 ***	0.087	0.945	0.301 ***	0.053
South Kalimantan	0.574	0.228 **	0.090	0.862	0.374 **	0.047
South Sulawesi	1.030	0.203 ***	0.172	1.345	0.322 ***	0.076
Constant	1.116	0.459 **		1.166	0.666 *	
Number of observation	3563					
Pseudo R2	0.132					

Note:

Never poor is the comparison group

Coef = coefficient of the multinomial logit model

s.e. = standard error

m.e. = marginal effect

***) Significant at 1%; **) Significant at 5%; *) Significant at 10%

CONCLUDING REMARKS

Results as presented in this paper is still in its very preliminary stage. Further refinement is needed in terms of variable disaggregation especially as it relates to variables that represent assets holdings. Type of occupation of the household head and other household members is also of relevance as it can explain the ability of households

to move out of poverty or weather any temporary shocks. While many of the factors that affect transient and chronic poverty are the same, several are certainly different. Further analysis is needed to disentangle how each factor relates to the poverty transition as some households have made it out of the poverty condition, while some have not succeeded and some other even have moved into the poverty situation.

A more ideal approach, which is clearly beyond the scope of this paper, is to combine the quantitative poverty dynamics study with subjective information to obtain more insights into households' poverty transition. Clear policy implication will emerge from results of such refined analysis as policies to alleviate the chronic poor will substantially be different than for those who are marginally poor.

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APPENDIX*Table A.1 Summary Statistics*

	Urban Sample		Rural Sample	
	Mean	Std. Dev.	Mean	Std. Dev.
Household head characteristic				
Age	45.091	13.564	46.083	14.248
Sex (1=male, 0=female)	0.853	0.355	0.850	0.357
Marital Status (1=married, 0=unmarried)	0.839	0.367	0.853	0.354
Education level				
Elementary school	0.436	0.496	0.567	0.495
Junior Secondary School	0.163	0.370	0.080	0.271
Senior Secondary School or higher	0.294	0.456	0.092	0.289
Demographic characteristics				
Household size	4.889	2.244	4.515	2.015
Number of children less than 6 years old	0.552	0.743	0.639	0.803
Number of children between 6 and 15 years old	1.028	1.132	1.041	1.102
Number of grandchildren	0.236	0.752	0.235	0.676
Number of adult more than 55 years old	0.422	0.676	0.466	0.703
log of asset per capita	13.853	2.030	13.455	1.635
Location				
North Sumatera	0.084	0.278	0.064	0.245
West Sumatera	0.036	0.186	0.056	0.231
South Sumatera	0.041	0.198	0.053	0.225
Lampung	0.015	0.120	0.060	0.237
Jakarta	0.202	0.402	-	-
West Java	0.156	0.363	0.156	0.363
Central Java	0.104	0.305	0.144	0.351
Jogjakarta	0.088	0.283	0.048	0.214
East Java	0.124	0.330	0.168	0.374
Bali	0.038	0.191	0.058	0.234
West Nusa Tenggara	0.033	0.178	0.081	0.272
South Kalimantan	0.034	0.181	0.052	0.222
South Sulawesi	0.046	0.209	0.060	0.237
Number of observation	2,944		3,563	

NOTES

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1. Based on McKay and Lawson, 2003.
 2. With the availability of the Indonesian Family Life Survey (IFLS), which at the present time is available to the public for two waves, the 1993 and 1997. For further description of the IFLS data , see the next sub-section of this paper.
 3. In the components approach, if the permanent component of a household's living standard is below the poverty line, then it is considered to be poor. The issue lies in the method by which the permanent and transitory component of income or consumption is identified. The existing literature suggests a method of using the predictions of a regression model taking into account household characteristics.
 4. Rand and Pusat Penelitian Kependudukan dan Kebijakan, Gajah Mada University carried out the third IFLS in 2000 in which they reinterviewed the same households so as to obtain panel data. The year 2000 data sets are supposed to be release to the public soon. For a complete description of the IFLS dataset, see www.rand.org
 5. The provinces covered in this survey are: North Sumatera, West Sumatera, Lampung, South Sumatera, DKI Jakarta, West Java, Central Java, D.I. Yogyakarta, East Java, Bali, West Nusa Tenggara, South Kalimantan and South Sulawesi.
 6. The 1997 data may already capture the initial impact of the economic crisis. A smaller scale special IFLS survey to fielded in late 1998 to assess the impact of the crisis of households' socioeconomic conditions. The third wave IFLS was fielded in 2000, and is still in progress of its completion for public release.
 7. Household consumption expenditures comprise of all consumption expenses including consumption of own produced and housing expenditures.
 8. Some household could not report their imputed rent, and this make us have to estimate them by using the average proportion of housing expenditure over total household expenditure.
 9. The figure for 1993 is slightly higher compared with the one published by BPS. This maybe due to differences in data coverage between IFLS and SUSENAS in which case IFLS samples only covered 13 provinces. Other potential source of discrepancy may be due to the imputation of housing expenditures for households in the IFLS that had missing values. We imputed the housing expenditures by computing housing expenditures as percentage of total household expenditures and then use the figure to multiply it with total household expenditures to arrive at the imputed housing expenditures.
 10. For example: in Pakistan (Adam and Jane, 1995), and in Peru (Campa & Webb, 1999) as cited in McKay and Lawson, 2003.
 11. Jalan and Ravallion (1999 and 2000) as cited in McKay and Lawson, 2003.