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Pattern of consumption budget allocation by the poor families

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A R T I C L E I N F O

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A B S T R A C T

Various allegations towards the poverty problems are due to the issue of cultural, consumption behavior, social dynamics, and policy support. This study deals with the pattern of communities spending behavior through modeling the allocation of household expenditure using secondary data published by Indonesian Central Bureau of Statistic (BPS) and offers models of household expenditure allocation appropriate and proportional. Allocation model of household expenditure is expected to be one step in formulating policies related to alleviate poverty. Time series analysis was used through modeling, econometric modeling and exposure effects going from the various patterns portrayed in the 2000-2008 period. By using National Economic Survey data (SUSENAS) period 2000-2008, the study found that the differences in geological structure affect their livelihoods and consumption patterns, such as mountains, valleys, beaches, flood plains, lakes, and so on. The allocation of income of poor households tends to appear dominant in some categories of consumption related to housing and household facilities, various goods and services, clothes, and rice. However, other consumption categories tend not to be a priority for the consumption of poor households. Almost all categories of movement patterns of consumption have almost the same, still increasing from 2000 - 2006, except in 2005 which increased exceeding anomaly in 2006.

A B S T R A K

Berbagai dugaan masalah kemiskinan adalah akibat masalah budaya, perilaku konsumsi, dinamika sosial, dan dukungan kebijakan, menjadi topik setiap hari di media publik. Studi ini berkaitan dengan pola perilaku konsumsi masyarakat melalui pemodelan alokasi pengeluaran rumah tangga menggunakan data sekunder dari Badan Pusat Statistik Indonesia (BPS) dan menawarkan model alokasi pengeluaran rumah tangga yang tepat dan proporsional. Model alokasi pengeluaran rumah tangga diharapkan menjadi salah satu langkah dalam merumuskan kebijakan yang berkaitan dengan pengentasan kemiskinan. Pendekatan yang digunakan adalah analisis time series melalui pemodelan, pemodelan ekonometrik dan efek paparan yang muncul dari berbagai pola pada periode 2000-2008. Dengan menggunakan data Survei Ekonomi Nasional (SUSENAS) periode 2000-2008, studi ini menemukan bahwa perbedaan dalam struktur geologi mempengaruhi kehidupan mereka dan pola konsumsi, seperti gunung, lembah, pantai, dataran banjir, danau, dan sebagainya. Alokasi pendapatan rumah tangga miskin cenderung tampil dominan dalam beberapa kategori konsumsi yang berhubungan dengan perumahan dan fasilitas rumah tangga, berbagai barang dan jasa, pakaian, dan beras. Namun, kategori konsumsi lainnya cenderung tidak menjadi prioritas untuk konsumsi rumah tangga miskin. Hampir semua kategori pergerakan pola konsumsi hampir sama, yang terus meningkat dari 2000 - 2006, kecuali pada 2005 mengalami peningkatan melebihi anomali pada 2006.

1. INTRODUCTION

The literatures in marketing management show that majority of public demand model still focuses on the people patterns of behavior in purchasing decisions. For example, a study which deals with the brand, the number of product purchases. Other studies are related to a single product category. In further developments, several models have been built and made to look at people's behavior in the product consumption in various categories such as a study done by Seetharaman et al. (2005). Another example is a study conducted by Russell and Ka-

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makura (1997), Ainslie and Rossi (1998), Iyengar, Ansari, and Gupta (2003), all analyze the public selection decisions on a variety of product categories (multi-category).

However, a study in marketing management focuses on the modeling of consumer behavior in the allocation of net income in order to meet their consumption needs which are still very rare. People have varying net income and some are also of limited ones. Therefore, the tradeoff between the consumption of products and other products cannot be avoided. How about people's behavior patterns are and the revenue allocation from one product category to another one categories are not yet often done by the subsequent researchers.

Several studies related to consumer behavior in society have been mostly done by academics in the field of economics. For example, Deaton (1992), Gourinchas and Parker (2002) conducted a study related to the trade-offs that occur when consumers make decisions for current consumption to future consumption. There are also several studies in the field of economics that focus on budget allocation of consumption in some types of goods and services. However, the focus of the study covers only a small part of a wide range of product categories such as food, clothing, and housing (Deaton and Muellbauer 1980).

The above examples are still related to the allocation of consumption in some very specific product categories such as urban transportation (Kockelman 2001), the consumption of food at home (Kao, Lee, and Pitt 2001), and energy (Bousquet, Chakir, and Ladoux 2004). Some of them can be useful for manufacturing companies or retail companies because they can be used as an input in formulating a strategy to influence the public into buying products issued by the company.

However, expenditure made by the community should be strongly related to limit their consumption (budget constraint) and viewed from the perspective of a more systematic. Studies that focus on the efforts to understand consumer habits (community) in their consumption budget allocated to meet a variety of needs and how the results of their consumption expenditure is influenced by factors such as income levels, inflation, and therefore, the level of family life (family life stages) should continue to be made.

Changes in consumption patterns will pose some questions. For example, which industries are most affected by changes in the pattern of consumption of poor families? Whether and how the response is different for each group of the poor families (based on demographic characteristics)? The same question can be directed to the government as public policy makers. The government needs to see the costs to be incurred in the production of various categories of products for public consumption, such as energy (e.g., gasoline, LPG, electricity, and water), generic drugs, groceries, and other, which are generally used by poor families.

Besides the above, the behavior (response) on changes in prices of various products over the public should also be considered. Due to changes in the price of the above, it can lead to having an impact on changes in budget allocation consumption of the poor families. If both of such conditions are well understood, the government can make appropriate economic policies, both in terms of demand and supply. Subsidies from the supply side can also make the price be cheaper in the market. Yet, the demand-side subsidies will increase the budget limit consumption of the poor families. This study focuses only on the demand side, especially on the behavior of the poor households' consumption budget allocation. It is very important that poor families can maximize their consumption budget allocation to the budget constraint (budget constraint). Such issues are so important that they need to be studied and explored in depth, especially in Indonesia, where the number of the poor is still relatively high. This figure is equal to 16.58% of the total population of Indonesia (BPS, data for March 2007).

First of all, this study describes and analyzes in a more systematic and comprehensive review of the behavior of poor families in making budget allocation of consumption. Secondly, it assesses and sees the interaction between the demands on the category of products consumed by poor families. It is associated with the interaction between product categories, both complementary (complementary) or substitution (interchangeable). Finally, this study looks at the variation of consumption preferences of the various categories of products in each group of poor families based on demographic characteristics, such as ethnicity and education level.

2. THEORETICAL FRAMEWORK

The development of research using a model "as-if" is deemed to be able to explain the behavior of poor families in allocating the budget consumption on a group of expenditure categories (set of expenditures) with revenue constraints. Since each of these poor ancestry can only consume a portion of all expenditure groups (or subgroups of the group category), it is necessary to apply the concept of sensor research on observational data. Therefore, it

requires the existence of a system of demand that can accommodate different categories of consumption. From this a solution can be obtained for a general model for society (Wales and Woodland 1983).

Using the above criterion, the various models of existing demand systems such as the Almost Ideal Demand System or AIDS (Deaton and Muellbauer 1980; Dreze, Nisol, and Vilcaasim 2004; Barnett and Seck 2006), the model Rotterdam (Barten 1964; Theil 1965; Clements and Selvanathan 1988; Vilcassim 1989), and the model of translog (Christensen, Jorgenson, and Lau 1975; Srinivasan and Winer 1994) all are as follows: (1) it would be impractical to capture the interdependence among the various categories of consumption due to large number of factors and covariance or interaction effects between categories (cross-category) to be estimated and (2) Such models above require consumption (non-zero) in all categories.

To accommodate the presence of many categories of consumption, the model developed by Kao, Lee, and Pitt (2001) - hereinafter referred to KLP models - can be adopted as an option. However, in this study, the researcher creates modifications on the budget allocation model simultaneously which captures KLP poor families for consumption decision on which category (Whether to spend) and how much consumption (how much to spend).

In that condition, the KLP model is only applied when the study only focuses on a small number of categories of consumption (e.g. 1 to 7 types of consumption), counting only part of the household budget, less able to capture the dynamics of domestic preference in allocating the budget. Since in this model the researchers tried to capture the three things that cannot be captured by the KLP models, the researchers will use a model of the KLP development by developed by Du and Kamakura (2008).

The need for a comprehensive analysis of budget allocation of poor families, who generally high dimension, the researchers try to capture all spectrum allocation of optimum consumption by the poor families. It also concerns the actual possibility that poor families will have different preferences on each category of expenditure and differences in preferences between their ancestries. In that, it can cause a pattern in the correlation matrix preferences among categories of expenditure, and it encourages researchers to include a dynamic factor structure into parameter covariance matrix over the feeling that covers the poor family priority for consumption.

Based on the model of Du and Kamakura (2008), the researchers assume that poor families *h* will seek to maximize and continuously in the form of quasi-satisfaction function concave (quasi-concave utility direct function) $G(x_h)$ on a group J of non-negative quantity, $x_h = (x_{1h}, x_{2h}, ..., x_{Jh})$ with a budget constraint $p'x_h \le m_h$, where $p = (p_1, p_2, ..., p_J)' > 0$ p_i, is the price of goods i and m_h is the ratio of the total budget of poor families on income . In reference to Wales and Woodland (1983) and the model of KLP (2001), the researcher also uses the Stone-Geary satisfaction function as follows:

$$G(x_h) = \sum_{i=1}^{j} \alpha_{ih} \ln(x_{ih} - \beta_i) \cdot \quad (1)$$

Where $\alpha_{ih} > 0$, $(x_{ih} - \beta_i) > 0$, and J are the number of categories of consumption available to poor families. The symbol h on α_{ih} show, that the satisfaction function is specific to certain poor families. Due to the above optimization models inequality constraints, the researcher uses Khun-Tucker approach to solve it. Kuhn-Tucker conditions for optimization problems of poor family budget allocation model above is as follows:

$$\frac{\partial G(x_h)}{\partial x_{ih}} - \xi p_i \le 0 \text{ for } x_{ih} = 0 \text{ and} \quad (2)$$

$$\frac{\partial G(x_h)}{\partial x_{ih}} - \xi p_i = 0 \text{ for } x_{ih} = 0 \quad (3)$$

in order to that $p'x_h - m_h \le 0 \le \xi$,

Where ξ argues that multiplier (factor) Lagrange or additional satisfaction (marginal utility) is per every 1 Rupiah consumption.

Budget allocation problem of poor families above illustrates that poor families will gradually add the allocation of income to consumption categories that will generate additional satisfaction largest per every RP 1 consumed,

$$\frac{\partial G(x_h)}{\partial x_{ih}} \frac{1}{p_i} = \frac{\alpha_{ih}}{(p_i x_{ih} - p_i \beta_i)}, \quad (4)$$

with current consumption levels x_h , up to the budget limit is reached, $\sum_{i=1}^{J} p_i x_{ih} = m_h$. The solution of the above optimization problem leads to the expense system, which is linear with respect to income and price (hereinafter referred to as the model this model LES) as follows:

$$p_i x_{ih} = p_i \beta_i + \theta_{ih}^{*} \left(m_h - \sum_{j=1}^{J^*} p_j \beta_j \right) \text{ for } i = 1, 2, ..., J^*. \quad (5)$$

Where $\theta_{ih}^{*} = \dfrac{\alpha_{ih}}{\sum_{j=1}^{J^*} \alpha_{jh}}$ and $J*$ is a set of products that are consumed, i.e. with positive expenditures.

Table 1
The Data Availability of the Poor Family Income per Province

Interval of Poor family Income	Sample Number
Blank Data (missing data)	87,969
Rp.1,00 - Rp.100.000,00	10,386
Rp.100.001,00 - Rp.1.000.000,00	15,005
Rp.1.000.001,00 - Rp.10.000.000,00	2,024
Rp.10.000.001,00 - Rp.100.000.000,00	17
Total of sample data	115,401

Table 1
The Description for Research Sample Distribution

Sample Distribution	2000	2001	2002	2003	2004	2005	2006	2007
Province	24	29	30	30	30	30	31	31
Regency/Middle city	277	323	309	339	377	421	423	439
Country (Kecamatan)	2,825	3,071	3,004	3,204	4,274	4,507	4,631	4,936
Village (Kelurahan)	5,767	8,173	8,258	7,403	10,525	12,826	11,685	12,709
Respondent profile for Poor Family:								
Towns	2,879	4,366	5,211	3,773	8,389	19,806	9,005	7,684
Villages	12,844	23,590	22,590	18,529	42,607	99,237	50,156	44,552
Total of respondents	15,723	27,956	27,801	22,302	50,996	119,043	59,161	52,236
Total of available data	189,339	218,568	212,646	222,791	252,913	268,847	277,202	285,186

Demand system as in equation 2 above is defined only for a set of consumption regime J^*. This implies that if the pattern of expenditure (non-zero expenditure) changes, both the intercept and the slope of the demand system will also change. In other words, the above model implies that there will be a regime of optimal consumption for every poor family in any combination of budget and price. It is in a certain consumption regime that applies a linear function of the budget expenditure category and price, where all the regimes of consumption, the system demand is in linear.

Specifically in this study, the researcher uses a sensor mechanism with Khun-Tucker approach, where Khun-Tucker conditions allow consumption to zero as the solution (corner solution) to the satisfaction of constrained optimization problems. Khun-Tucker approach, in this case, also ensures that expenditure will always be non-negative predictions and the number is the same as the budget. It is different if the researcher uses sensors approach arbitration mechanism, such as Tobit regression models (Amemiya 1974), where the three conditions above is not necessarily achievable.

3. RESEARCH METHOD

The approach used is the cross-sectional analysis with econometric models. The data are those of household expenditures on various categories of household consumption within a certain time. With such data from the SUSENAS, demographic characteristics and household income are based on commodity groups, with estimation models using simultaneous approach and simulation models. The range of the data collected, published 2002-2008 Central Bureau of Statistics (BPS) and SUSENAS.

In this study, the researcher uses all the available data of poor families in the database by BPS (Central Bureau of Statistics) during the period 2000-2006. The researcher also uses the criteria for poor families as based on the approach of the UMP (provincial minimum wage), which is said to be poor if the expenditure is under the UMP. This approach is actually a proxy on per capita income approach. However, some data in the data base of family income during the period 2000-2007 BPS were missing (blank), of about 76.23% of the total data. Yet, the rest tend to not show the actual income data. Family income data availability is defined as the sum total of income of husband and wife in which the statistical description can be shown in Table 1.

The approach for the income of poor families criterion also implies that the total deposits (saving) by the family is zero or close to zero. It is due to the definition that the family income can be formulated as follows (Mankiw 2004):

$$\begin{aligned} Y_h &= C_h + S_h \\ C_h &= C_{0h} + bY_d \\ Y_d &= Y_h\left(1-t_h\right) \end{aligned} \tag{6}$$

Table 3
Distribution in Provinces with Sample Based on Territories in Indonesia

Year	Territorial Distribution in Indonesia		
	West Ind. Time	**Central Ind. Time**	**East Ind. Time**
2000	Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, D K I Jakarta, Jawa Barat, Jawa Tengah, D I Yogyakarta, Jawa Timur, Kalimantan Barat, Kalimantan Tengah	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara	Maluku Utara
2001	Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, D K I Jakarta, Jawa Barat, Jawa Tengah, D I Yogyakarta, Jawa Timur, Banten, Kalimantan Barat, Kalimantan Tengah	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo	Maluku, Maluku Utara, Papua
2002	Nanggroe Aceh Darussalam, Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, D K I Jakarta, Jawa Barat, Jawa Tengah, D I Yogyakarta, Jawa Timur, Kalimantan Barat, Kalimantan Tengah	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo	Maluku, Maluku Utara, Papua
2003	Banten, Nanggroe Aceh Darussalam, Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, D K I Jakarta, Jawa Barat, Jawa Tengah, D I Yogyakarta, Jawa Timur, Banten, Kalimantan Barat, Kalimantan Tengah	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo	Maluku, Maluku Utara, Papua,
2004	Nanggroe Aceh Darussalam, Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, D K I Jakarta, Jawa Barat, Jawa Tengah, D I Yogyakarta, Jawa Timur, Banten, Kalimantan Barat, Kalimantan Tengah	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo	Maluku, Maluku Utara, Papua
2005	Nanggroe Aceh Darussalam, Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, D K I Jakarta, Jawa Barat, Jawa Tengah, D I Yogyakarta, Jawa Timur, Banten, Kalimantan Barat, Kalimantan Tengah	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo	Maluku, Maluku Utara, Papua
2006	Nanggroe Aceh Darussalam, Sumatera Utara, Sumatera Barat, Riau, Jambi, Sumatera Selatan, Bengkulu, Lampung, Kep. Bangka Belitung, D K I Jakarta, Jawa Barat, Jawa Tengah, D I Yogyakarta, Jawa Timur, Banten, Kalimantan Barat, Kalimantan Tengah	Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, Kalimantan Selatan, Kalimantan Timur, Sulawesi Utara, Sulawesi Tengah, Sulawesi Selatan, Sulawesi Tenggara, Gorontalo, Sulawesi Barat	Maluku, Maluku Utara, Papua

Where Y_h is total family income h, C_h is the total expenditure (consumption) family h, C_{oh} is autonomous consumption, b is the marginal propensity to consume, S_h is a total family savings h, and Y_d is the amount of disposable income net of income taxes (t_h).

Based on the above definition, the criteria of poor families should be a comparison between the level of the UMP and the total expenditure (C_h) added by the total deposits of the family (S_h). Unfortunately, the data stored in the database is not available in BPS as obtained during the period 2000-2007. Therefore, there various limitations as described previously. This study uses the criteria for the poor families as a family that has a total expenditure of less than UMP. The data availability and coverage of the spread of the sample area is the result of a survey conducted by BPS. All can be shown in Table 2.

The fact is that there are 14 criteria presented by BPS to define poor families but they are very difficult to apply with some reason. First, it is not clear if all of these criteria must be met for poor families, whether they are just enough to meet several criteria alone. BPS also did not show any criteria that make a family fairly be regarded as a poor family. Secondly, if all criteria must be met, the data are not available in the database associated

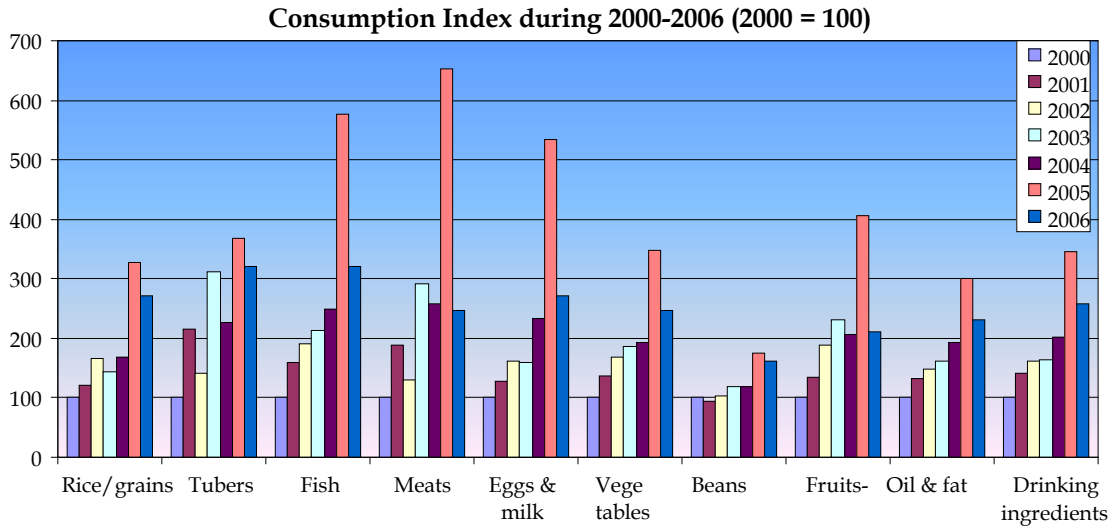

Figure 1
Categories and Distribution of Poor Families and Their Consumptions

BPS family consumption. Regardless of whether all these criteria are free from ambiguity of interpretation, both of the above indicate that the 14 criteria presented by BPS are difficult to apply.

Table 3, for example, shows that the samples taken during the survey period 2000-2007 spread almost all provinces in Indonesia. Each province is represented equally by almost all districts. Similarly, in each district is also represented by almost all the districts and villages or urban villages. To confirm such data, it can be seen in Table 3, that the sample covers almost the entire territory of Indonesia, Indonesia's western region (GMT), Indonesia Region Central section (PM), and Eastern Indonesia Region (CDT). The sample distribution is by geographic area so that it can capture differences in the geographical characteristics of the sample. This can obviously represent the characteristics of poor households in Indonesia in general.

Geological structure differences can affect the main jobs and consumption patterns of the population, such as mountain ranges, valleys, beaches, riverbanks, lakes, and so on. The differences in the number, quality and ease of access to public facilities also affect the level of income, lifestyle and consumption patterns of the population, such as highways, shopping centers, hospitals, educational facilities, entertainment centers, and so on. Based on this logic, the sample is expected to represent the rural and urban poor families. As shown in Table 2, the average proportion of poor families' samples is 40% urban and 60% rural. This data distribution is ideal to explain the characteristics in both categories (urban and rural).

4. DATA ANALYSIS AND DISCUSSION

Consumption expenditure data were taken from the BPS in Rupiah. By definition, consumption is obtained by multiplying the unit price by the quantity consumed. It uses the categorization of consumption expenditure as done by the BPS. All are represented in the movement of poor households' consumption using the consumption index. Such categories can be seen in Figure 1.

It is interesting to analyze the data as in Figure 1. Almost all categories of consumption have similar movement patterns, which continued to rise from year 2000-2006, except in 2005, it exceeded that in 20006. This anomalous increase in the consumption category is a category (iii) fish, (v) the eggs and milk, (vi) vegetables, (ix) oils and fats, (x) the material of drinks, (xi) spices, (xii) other consumption, and (xiv) tobacco and betel. Category (vx) housing and household facilities consistently continued to rise, even since 2005 has increased higher than in previous years. While the category of consumption of staple foods, such as (i) grains and (ii) potatoes, tend to fluctuate. When it should be a staple food needs to follow the rate of population growth. It is interesting to study more deeply the determining factor, whether there is substitution to processed food (bread, canned goods and the like) or related to the demographic composition of the population by age.

Figure 2 shows that is the cause of the high rise in 2005 in almost all categories except consumption categories (vii) nuts, (xi) spices, (xv) housing and household facilities, (xvii) clothing, footwear and headgear, and (xx) for a party, ceremonies and receptions. The sharp rise is then corrected in 2006,

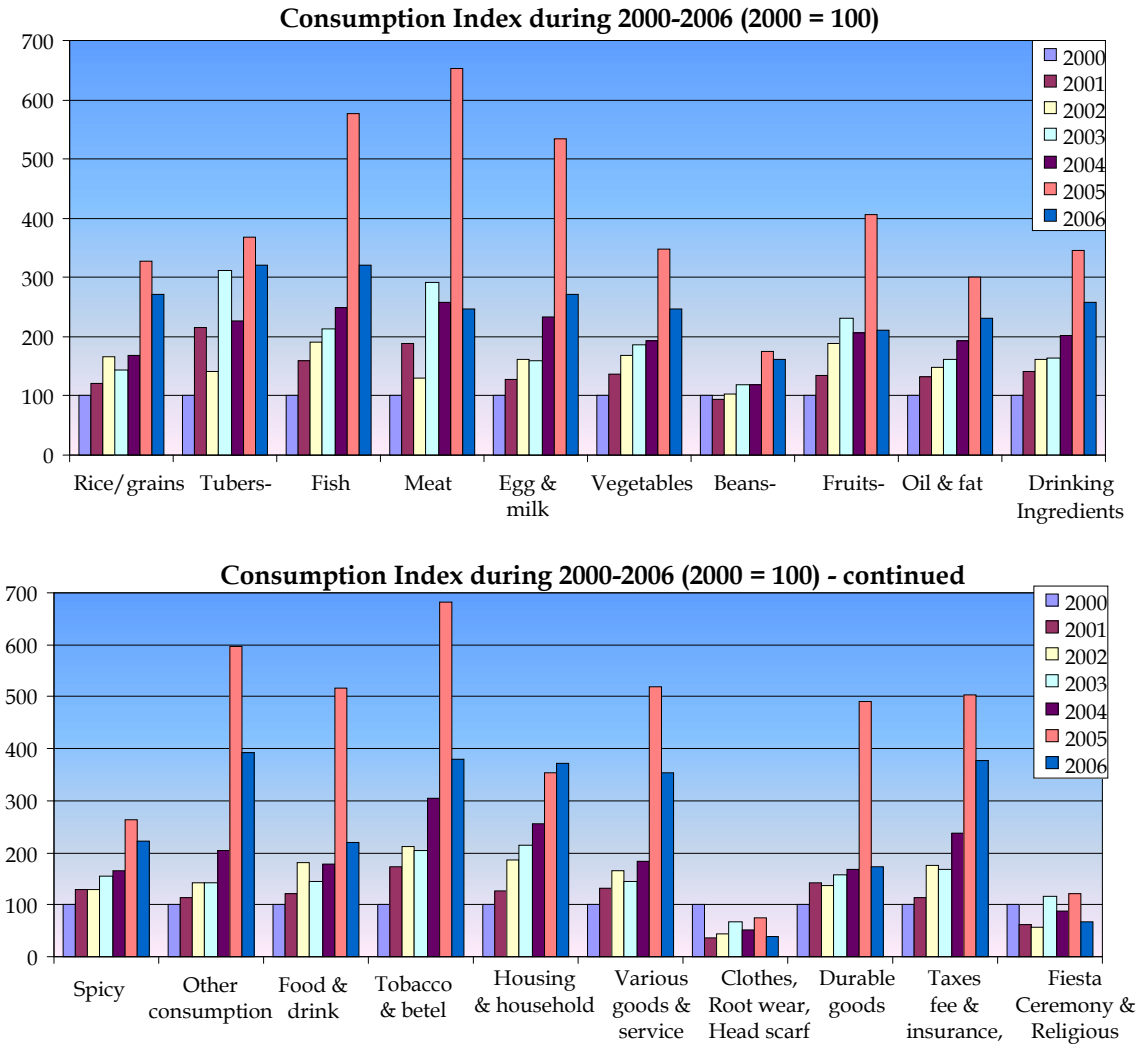

Figure 2
Poor Family Movement Index of Consumption in 2000-2006

where it appears that consumption in all of these categories back to the level of consumption in 2004 or slightly higher. There are several explanations related to these findings. First, the turmoil in the common factors affects all sectors of industry. The volatility in economic conditions as the common factors will drive the industry/company to raise prices (cost-push inflation). So the rises in prices of products stimulate poor families to reduce the quantity of consumption. This explanation is supported by the fact that there is an increase in world oil prices sharply in 2005-2006. The pattern of rising world oil prices can be seen in Figure 2.

The increase in world oil prices during the period 2005-2006 also implicated the situation in Indonesia's economy. One indicator is the rate of inflation. As presented in Figure 4, it can be seen that the highest inflation rise began in mid-2005 until the end of 2006. As described previously, that the consumption index used in Figure 4 is the definition of an index of multiplying the unit price and quantity units consumed. Based on this definition, the drastic rise in almost all categories of consumption during 2005-2006 can be due to an increase in its price per unit. However, the problem is that (a) the increase in the price per unit is going to cause a decrease in the quantity, but still provide a greater contribution to the increase in total consumption per category, or (b) despite the increase in the price per unit, but the quantity of product consumed is fixed. To obtain solid conclusions and also proves an early indication of poor households' consumption behavior is necessary to further verification.

There is another explanation about it. The decline in the level of income or purchasing power (purchasing power) of poor families is due to the volatility of common factors. Thus, even though the price of the product on the market tends to be the same, it can cause a decrease in revenue budget limit consumption of poor families decreased. With

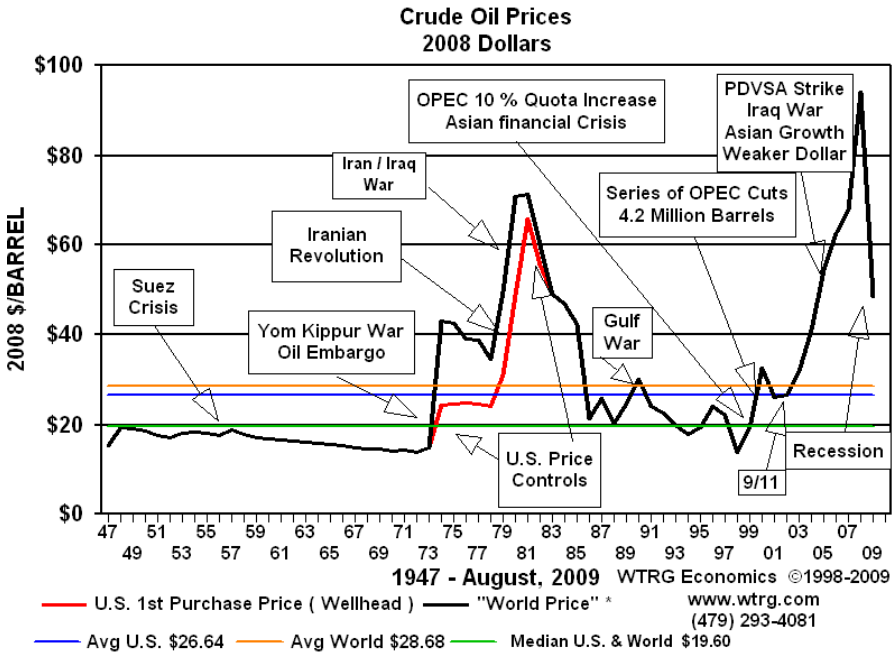

Figure 3
World Oil Movement in 1947-2009

Source: James L Williams, Oil Price and Analysis, WTRG Economics (accessed from www.wrtg.com on Tuesday 17 November 2009)

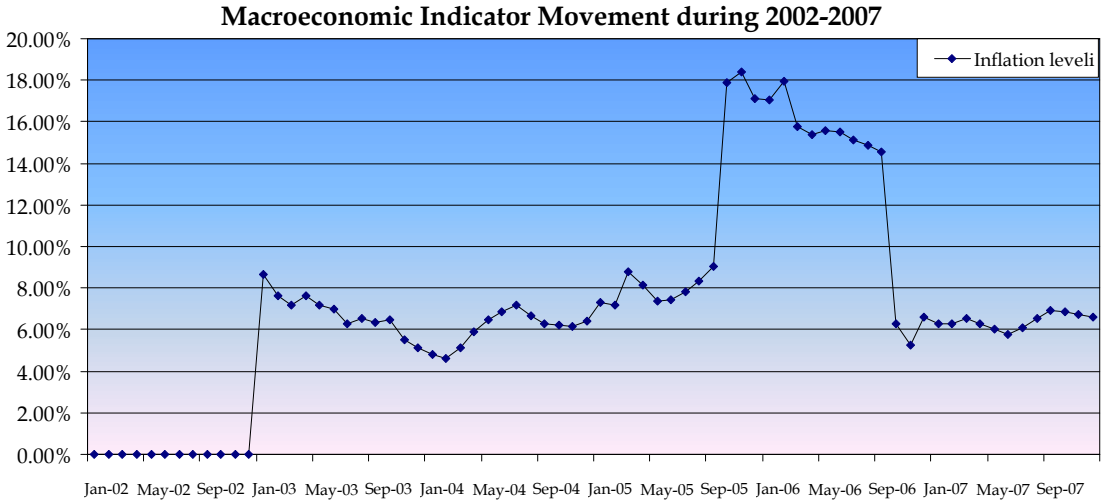

Figure 4
Inflation Level Movement during 2002-2007

Source: Bank Indonesia.

the level of fixed income (budget constraint), poor families are forced to re-allocate the budget for a product category to other categories based on their fiscal priorities. In the full information of the average consumption of poor households in each category of consumption can be seen in Appendix 2.

Again, in reference to the previous discussion, Figure 2 cannot explain in detail about the determinants of the increase or decrease in consumption during the period 2000-2006. For example, whether the increase/decrease is due to such as (i) increase in the price of the unit without the increase in the amount of consumption, or (ii) the relative price fixed but increased consumption, or (iii) both increased or decreased at different rates.

Based on such phenomenon, further exploration on the above findings should use the pattern of price movements per each category of consumption. This can be solved using pattern as in Figure 5. It shows that nearly all categories of consumer

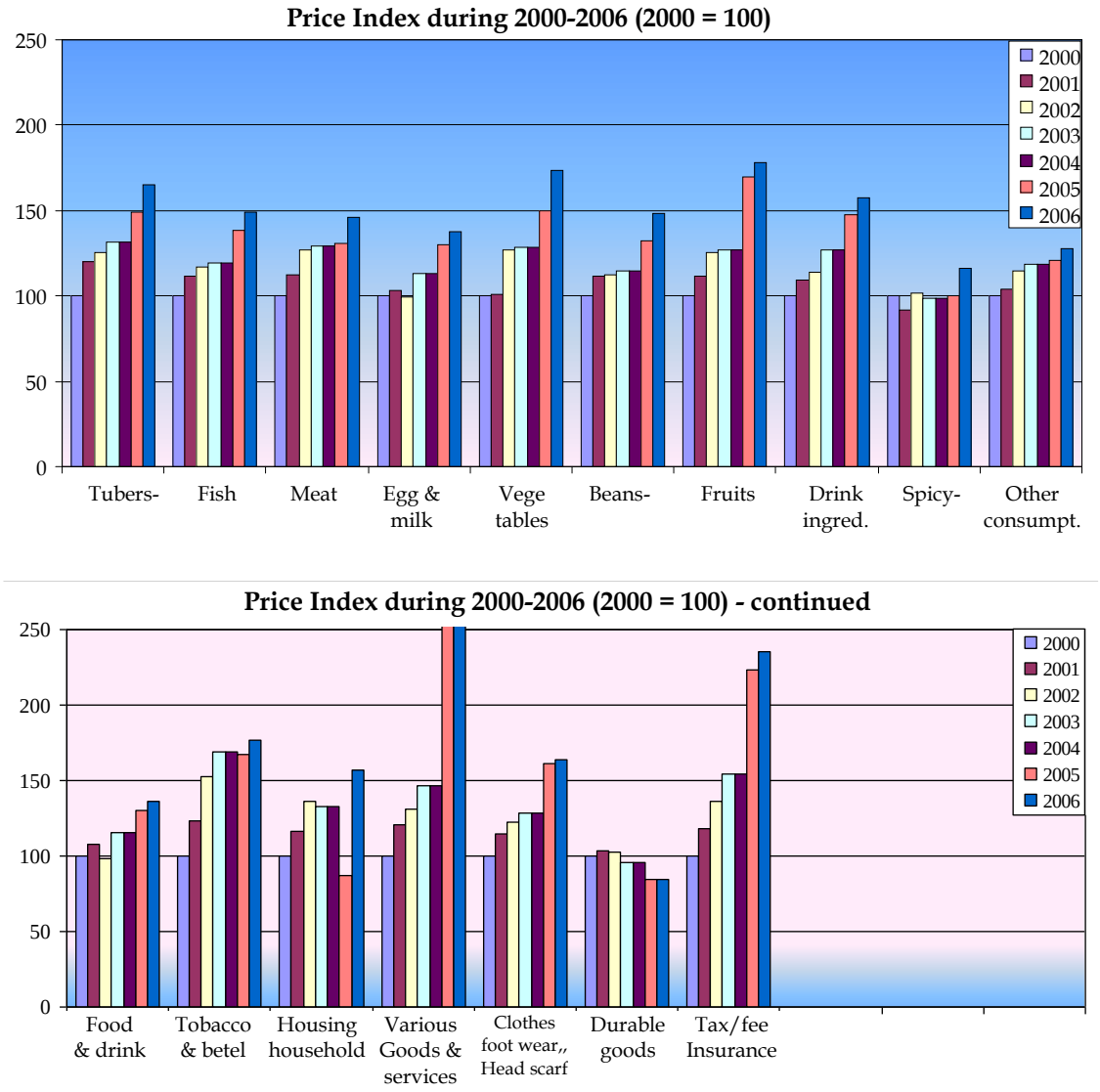

Figure 5
Price Index Movement during 2000-2006

price increases during the period 2000-2006, and especially in 2005-2006, except for some categories of consumption of the category (xv) housing and household facilities and (xviii) durable goods. This finding confirms previous preliminary findings that the increase in consumption in the various categories of consumption is due to the increase in the price per unit of the product.

Further analysis of the pattern of consumption of poor families need to be done over the positive (non-zero share). This should explain further how to allocate budgets of poor families in the category of consumption. Figure 6 shows the average, consumption in the category (xv) housing and household facilities, (xvi) miscellaneous goods and services, (i) grains and (xvii) clothing, footwear, and headgear is categories- consumption categories with the largest share of expenditure. This is consistent with the characteristics of poor families, where most of the portion of its budget is allocated to the primary needs of components, namely food, clothing (clothing), and the board (residence). Figure 5 can also confirm that the staple food of poor families in Indonesia is grain. However, the category (ii) cassavas types (tubers) are relatively in small portion of their spending despite a staple food, especially for the East Indonesian Region (WIT). There are at least two explanations for this. First, the number of people who consume the cassava types is relatively less than the food grains. Both that cassava types which are the staple food locally obtained from the market (buy-sell mechanism) which has implications for the budget allocation. Instead, tubers have been planted by themselves.

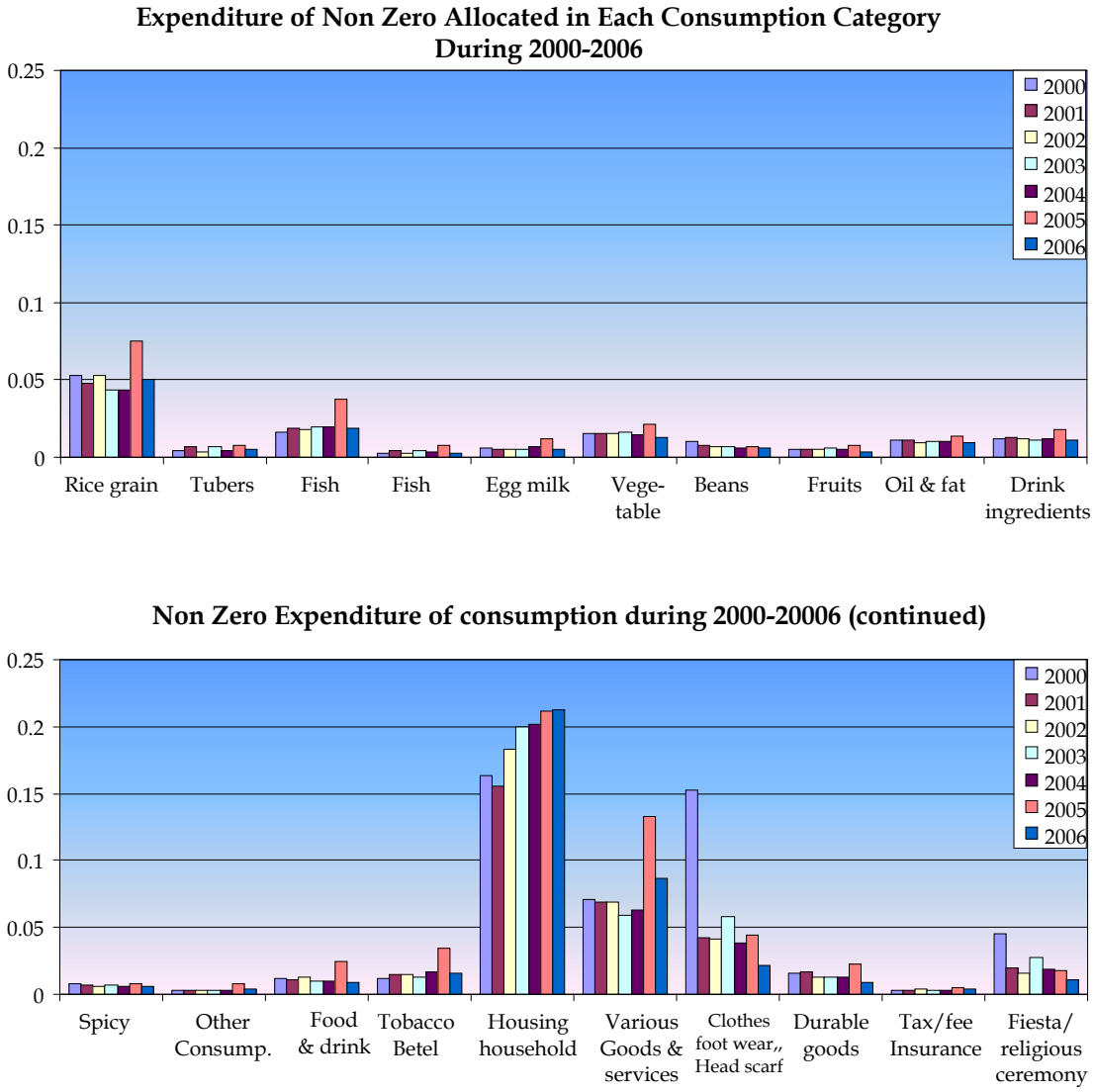

Figure 6
Expense of Non-Zero Allocated by Poor Families for Each Consumption Category during 2000-2006

Other food categories, in addition to grains, only received a small portion of the budget allocation for poor families. These findings provide input of information for the Ministry of Health that the average poor families eat nutritious foods in small amounts, which are also relative to the staple food. Therefore, the nutrition feeding programs should be carried out continuously by keeping the nutritional intake of present and future generations. Even Figure 5 also shows that the majority of its budget is used to buy a house (the context is a home purchase or lease installments), then the rest is used to meet basic needs in order to survive. These findings also can also provide for the government, especially the Ministry of Resettlement of Disadvantaged Regions (PDT) that the mechanism of transfer of home ownership to poor families should be paid attention. This pertains to the total budget of the poor family owned. Due to the expense that is obligatory (obligatory), it would be necessarily to take a portion of the family budget in the absence of choice. So that would eventually defeat the other categories of consumption portion. Of unilateral policy of a government institution (in this case the Ministry and the Institute), they should not be contra productive in achieving the goals and making policies in other departments.

Unlike other consumption categories, category (xv) housing and household facilities are likely to continue to rise in the share of expenditure. As explained earlier, the most likely reason is the increase in the price per unit. This is also confirmed by the continuous increase of inflation rate during 2004-2006. Nominal interest rate is defined as

(Freixas and Rochet 1997) as the following:

$$i_{nom} = INF_{nom} + i_{riil} . \quad (7)$$

Where i_{nom} is the nominal interest rate, inflation rate of INF_{nom} is nominal, and i_{riil} is the real interest rate.

From the above definition, if there is an increase in the nominal inflation rate, it will cause an increase in the nominal interest rate. Market interest rates will encourage borrowing rate (in the context of mortgage loans) that will increase and eventually raise the amount of installment amount to be paid in that period. It is unless the home mortgage purchase transactions use a flat rate (fixed installments).

The pattern of consumption is quite interesting especially when it deals with the consumption category (xiv) tobacco and betel, as a proxy on cigarette consumption. Although there are fluctuations in consumption in various categories, especially grains, tobacco and betel nut consumption tends to be stable. This indicates that the effects of addiction (addiction) consume tobacco or betel because this category will continue to be consumed despite budget reductions. It could even sacrifice staple food consumption only to eliminate the effects of this addiction.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATION

It can be concluded that, in general, poor families have unique patterns in the consumption activities when they limit their income. They are likely to allocate income to consume some categories of consumption related to housing and household facilities, miscellaneous goods and services, clothing, and rice. However, other consumption categories tend not to be a priority for the poor families for their main consumption.

Their expenditure should be also on the housing consumption categories and household facilities, miscellaneous goods and services, clothing, and rice to poor families in Indonesia. Due to their limited income, they should prioritize the consumption categories merely on the primary needs (food, clothing, shelter).

Almost all categories of consumption experienced have a similar movement patterns, which have continued to rise from the year 2000 -2006, except in 2005, it experienced anomalies exceeding the rise in 2006. In 2005, there was an increase of consumption expenditure in almost every category larger than in years previously. This is due to the fluctuation of the common factors that affect all sectors of industry. The volatility in economic conditions as the common factors will drive the industries or companies to raise prices (cost-push inflation).

The fact is that the rise in prices of products stimulates poor families to reduce the quantity of consumption. This evidence is supported by the fact that there is an increase in world oil prices sharply in 2005-2006. Another explanation is the decline in the level of income or purchasing power of poor families due to the volatility of common factors. Therefore, even though the price of the product on the market tends to be the same, they cause a decrease in revenue budget limit consumption of poor families decreased too. With the fixed level of income (budget constraint), poor families are forced to re-allocate the budget for a product category to other ones based on their priority scale. The pattern of consumption is quite interesting that is in the category of housing and household facilities. Most of the budget of poor families are spent for buying a house (the context is a home purchase or lease installments), then the rest is for meeting basic needs in order to survive (survive).

Suggestion can be addressed to the government as based on the formation above, especially for the Ministry of Resettlement of Disadvantaged Regions (PDT), they should pay more attention to the mechanism of transfer of home ownership the total budget of the poor family owned. They also should know that such expense for the poor family is obligatory. By doing so, they can necessarily take a portion of the family budget in the absence of choice. In this condition, it can eventually choose the other categories of consumption portion.

The government institution should not be contra productive with the goals and policies for other departments. In addition, this increase is also due to the increase in price or unit in the category of housing consumption and household facilities. This conclusion is confirmed by the continued rise in the nominal rate of inflation during 2004 - 2006. If there is an increase in the nominal inflation rate, it will cause an increase in the nominal interest rate. Market interest rates will encourage borrowing rate (in the context of mortgage loans) will increase and eventually raise the amount of installment amount to be paid in that period. Unless the home mortgage purchase transactions using a flat rate (fixed installments).

Again, consumption shows that tobacco and betel are the proxy on cigarette consumption. Although there are fluctuations in consumption in various categories, especially grains, tobacco and betel nut consumption tends to be stable. This indicates that the effects of addiction (addiction) con-

sume tobacco or betel because this category will continue to be consumed despite budget reductions. It could even sacrifice staple food consumption only to eliminate the effects of this addiction.

Some limitations can be asserted here. First, the allocation pattern of consumption of poor Indonesian families in this study is only able to explain variation among poor families across geographic regions and various socio-demographic control variables. This is due to the data used that is the cross section data, so that the effect of the life cycle of the family (the family's life cycle stage) and increased prosperity of the family cannot be explained by optimal because it requires the presence of longitudinal data (see Du and Kamakura 2006 and 2008). However, the use of data and models of cross section can also be justified if the timing of data collection is most likely done at the time of the survey is an annual one. Yet, to capture the variation patterns of behavior between the time the family and budget allocation takes a shorter observation period i.e. monthly or weekly. Second, the criteria which are owned by the BPS in determining the edge of poverty to determine whether are very difficult to implement. This research has covered all parts of Indonesia, both Indonesia's western region (WIB), Indonesia Region Central section (WITA), and the eastern part of Indonesia (WIT).

The distribution of the sample by geographic area is done to capture differences in the geographical characteristics of the sample in order to represent the characteristics of poor households in Indonesia in general. Geological structure differences will affect the livelihood and population consumption patterns, such as mountain ranges, valleys, beaches, riverbanks, lakes, and so on. The difference in the number, quality and ease of access to public facilities also affects the level of income, lifestyle and consumption patterns of the population, such as highways, shopping centers, hospitals, educational facilities, entertainment centers, and so on. Based on this logic, it is necessary for further studies to define the poor family by using more applicable criteria so as to overcome the existing problems.

REFERENCES

Ainslie, Andrew and Peter E Rossi, 1998, 'Similarities in Choice Behavior Across Product Categories,' *Marketing Science*, 17 (2), 91–106.

Amemiya, Takeshi, 1974, 'Multivariate Regression and Simultaneous Equation Models When the Dependent Variables Are Truncated Normal,' *Econometrica*, 42 (6), 999–1012.

Barnett, William A and Ousmane Seck, 2006) 'Rotterdam vs. Almost Ideal Models: Will the Best Demand Specification Please Stand Up?', *Working paper*, Department of Economics, University of Kansas.

Barten, AP 1964, 'Consumer Demand Functions Under Conditions of Almost Additive Preferences,' *Econometrica*, 32 (1–2), 1–38.

Bousquet, Alain, Raja Chakir, and Norbert Ladoux, 2004, 'Modeling Corner Solutions with Panel Data: Applications to the Industrial Energy Demand in France,' *Empirical Economics*, 29 (1), 193–209.

Christensen, Laurits R, Dale W Jorgenson and Lawrence J Lau, 1975, 'Transcendental Logarithmic Utility Functions,' *American Economic Review*, 65 (3), 367–83.

Clements, Kenneth W and Antony Selvanathan, 1988, 'The Rotterdam Demand Model and Its Applications in Marketing,' *Marketing Science*, 7 (1), 60–75.

Deaton, Angus, 1992, *Understanding Consumption*. Oxford: Oxford University Press.

Deaton, Angus and John Muellbauer, 1980, 'An Almost Ideal Demand System,' *American Economic Review*, 70 (3), 312–26.

Dreze, Xavier, Patricia Nisol and Naufel J Vilcassim, 2004, 'Do Promotions Increase Store Expenditures? A Descriptive Study of Household Shopping Behavior,' *Quantitative Marketing and Economics*, 2 (1), 59–92.

Du, Rex and Wagner A Kamakura, 2006, 'Household Life Cycles and Lifestyles in the United States,' *Journal of Marketing Research*, 43 (February), 121–32.

Du, Rex and Wagner Kamakura, 2008, 'Where Did All That Money Go? Understanding How Consumers Allocate Their Consumption Budget,' *Journal of Marketing*, 72 (6), 109-131.

Gourinchas, PO and JA Parker, 2002, 'Consumption over the Life Cycle', *Econometrica*, 70, 47-91

Iyengar, Raghuram, Asim Ansari and Sunil Gupta, 2003, 'Leveraging Information Across Categories,' *Quantitative Marketing and Economics*, 1 (4), 425–65.

Kao, Chihwa, Lung-Fei Lee and Mark M Pitt, 2001, 'Simulated Maximum Likelihood Estimation of the Linear Expenditure System with Binding Non-Negativity Constraints,' *Annals of Economics and Finance*, 2 (1), 203–223.

Kockelman, Kara M 2001, 'A Model for Time and Budget-Constrained Activity Demand Analysis,' *Transportation Research*, 35B (3), 255–69.

Russell, Gary J and Wagner A Kamakura, 1997,

'Modeling Multiple Category Brand Preference with Household Basket Data,' *Journal of Retailing*, 73 (Winter), 439–61.

Russell, Gary J and Ann Petersen, 2000, 'Analysis of Cross Category Dependence in Market Basket Selection,' *Journal of Retailing*, 76 (3), 367–92.

Seetharaman, PB, S Chib, A Ainslie, P Boatwright, T Chan, S Gupta, N Mehta, V Rao and A Strijnew, 2005, 'Models of Multi-Category Choice Behavior,' *Marketing Letters*, 16 (3–4), 239–54.

Song, Inseong and Pradeep K Chintagunta, 2006, 'Measuring Cross-Category Price Effects with Aggregate Store Data,' *Management Science*, 52 (10), 1594–1609.

Song, Inseong and Pradeep K Chintagunta, 2007, 'A Discrete Continuous Model for Multicategory Purchase Behavior of Households,' *Journal of Marketing Research*, 44 (November), 595–612.

Srinivasan, TC and Russell S Winer, 1994, 'Using Neoclassical Consumer-Choice Theory to Produce a Market Map from Purchase Data,' *Journal of Business & Economic Statistics*, 12 (1), 1–9.

Stone, Richard, 1954, 'Linear Expenditure Systems and Demand Analysis: An Application to the Pattern of British Demand,' *Economic Journal*, 64 (September), 511–27.

Theil, H 1965, 'The Information Approach to Demand Analysis,' *Econometrica*, 33 (1), 67–87.

Vilcassim, Naufel J 1989, 'Extending the Rotterdam Model to Test Hierarchical Market Structures,' *Marketing Science*, 8 (2), 181–90.

Wales, TJ and AD Woodland, 1983, 'Estimation of Consumer Demand Systems with Binding Non Negativity Constraints,' *Journal of Econometrics*, 21 (3), 263–85.

Wilkes, Robert E 1995, 'Household Life-Cycle Stages, Transitions, and Product Expenditures,' *Journal of Consumer Research*, 22 (1), 27–42.

APPENDIX 1
Availability of Observation Data in Each Category of Consumption for Poor families during 2000-2007

No	Consumption Categories	2000			2001			2002			2003		
		Missing Data	Non Missing Data	Total	Missing Data	Non Missing Data	Total	Missing Data	Non Missing Data	Total	Missing Data	Non Missing Data	Total
1	Rice/ Grains	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
2	Tubers/ Cassavas	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
3	Fish	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
4	Meat	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
5	Egg and Milk	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
6	Vegetables	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
7	Beans	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
8	Fruits	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
9	Oil and Meat	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
10	Drinking Ingredients	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
11	Spicy	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
12	Other consumption	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
13	Finished Food and Drinking	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
14	Tobacco and betel	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
15	Housing and Households facilities	0	189,339	189,339	0	218,568	218,568	0	212,646	212,646	0	222,791	222,791
16	Various Goods and Services	0	189,339	189,339	0	218,568	218,568	3	212,643	212,646	0	222,791	222,791
17	Clothes, Foot wears, and Head scarf	0	189,339	189,339	0	218,568	218,568	3	212,643	212,646	0	222,791	222,791
18	Durable Goods	0	189,339	189,339	0	218,568	218,568	4	212,642	212,646	0	222,791	222,791
19	Taxes, Fees, and insurance	0	189,339	189,339	0	218,568	218,568	4	212,642	212,646	0	222,791	222,791
20	Fiesta, ceremonies, and religious meetings	0	189,339	189,339	0	218,568	218,568	4	212,642	212,646	0	222,791	222,791

Sources: Processed data by researcher team.

APPENDIX 2
Data observation availability of each category of the poor family house hold consumption during 2000-2007

No	Consumption Categories	2000			2001			2002			2003		
		Zero Data	Available data	Total	Zero data	Available data	Total	Zero data	Available data	Total	Zero data	Available data	Total
1	Rice/ Grains	581	15,142	15,723	1431	26,549	27,980	564	27,233	27,797	756	21,546	22,302
2	Tubers/ Cassavas	8830	6,893	15,723	14430	13,550	27,980	14477	13,320	27,797	11057	11,245	22,302
3	Fish	3525	12,198	15,723	5671	22,309	27,980	4591	23,206	27,797	4024	18,278	22,302
4	Meat	13621	2,102	15,723	23624	4,356	27,980	24690	3,107	27,797	18253	4,049	22,302
5	Egg and Milk	8717	7,006	15,723	14753	13,227	27,980	13239	14,558	27,797	11142	11,160	22,302
6	Vegetables	707	15,016	15,723	1171	26,809	27,980	1074	26,723	27,797	648	21,654	22,302
7	Beans	4332	11,391	15,723	10843	17,137	27,980	10085	17,712	27,797	7706	14,596	22,302
8	Fruits	8087	7,636	15,723	13542	14,438	27,980	11680	16,117	27,797	8007	14,295	22,302
9	Oil and Meat	974	14,749	15,723	1530	26,450	27,980	1303	26,494	27,797	1109	21,193	22,302
10	Drinking Ingredients	1810	13,913	15,723	3342	24,638	27,980	2290	25,507	27,797	2471	19,831	22,302
11	Spicy	703	15,020	15,723	1126	26,854	27,980	1087	26,710	27,797	348	21,954	22,302
12	Other consumption	9782	5,941	15,723	18239	9,741	27,980	17340	10,457	27,797	14091	8,211	22,302
13	Finished Food and Drinking	8007	7,716	15,723	13847	14,133	27,980	10976	16,821	27,797	10771	11,531	22,302
14	Tobacco and betel	8212	7,511	15,723	13077	14,903	27,980	13078	14,719	27,797	11902	10,400	22,302
15	Housing and Households facilities	0	15,723	15,723	0	27,980	27,980	3	27,794	27,797	0	22,302	22,302
16	Various Goods and Services	295	15,428	15,723	532	27,448	27,980	339	27,457	27,796	442	21,860	22,302
17	Clothes, Foot wears, and Head scarf	1544	14,179	15,723	2919	25,061	27,980	2868	24,929	27,797	3,157	19,145	22,302
18	Durable Goods	13229	2,494	15,723	23312	4,668	27,980	23383	4,414	27,797	19,151	3,151	22,302
19	Taxes, Fees, and insurance	11176	4,547	15,723	15491	12,489	27,980	12277	15,520	27,797	11,378	10,924	22,302
20	Fiesta, ceremonies, and religious meetings	9761	5,962	15,723	22414	5,566	27,980	22565	5,232	27,797	16,872	5,430	22,302

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APPENDIX 2
Data observation availability of each category of the poor family house hold consumption during 2000-2007 (continued)

No	Consumption Categories	2004			2005			2006		
		Zero Data	Available data	Total	Zero data	Available data	Total	Zero data	Available data	Total
1	Rice/ Grains	855	50,141	50,996	2126	105,976	108,102	1353	57,808	59,161
2	Tubers/ Cassavas	26826	24,170	50,996	58052	50,050	108,102	33107	26,054	59,161
3	Fish	6498	44,498	50,996	9156	98,946	108,102	7958	51,203	59,161
4	Meat	42331	8,665	50,996	93293	14,809	108,102	50872	8,289	59,161
5	Egg and Milk	20245	30,751	50,996	38925	69,177	108,102	24784	34,377	59,161
6	Vegetables	1604	49,392	50,996	4012	104,090	108,102	2174	56,987	59,161
7	Beans	17675	33,321	50,996	43310	64,792	108,102	20796	38,365	59,161
8	Fruits	22207	28,789	50,996	44546	63,556	108,102	30767	28,394	59,161
9	Oil and Meat	1876	49,120	50,996	4162	103,940	108,102	2700	56,461	59,161
10	Drinking Ingredients	4035	46,961	50,996	9016	99,086	108,102	6142	53,019	59,161
11	Spicy	506	50,490	50,996	5725	102,377	108,102	2008	57,153	59,161
12	Other consumption	28138	22,858	50,996	44910	63,192	108,102	25521	33,640	59,161
13	Finished Food and Drinking	21309	29,687	50,996	35408	72,694	108,102	26120	33,041	59,161
14	Tobacco and betel	20622	30,374	50,996	37488	70,614	108,102	22464	36,697	59,161
15	Housing and Households facilities	0	50,996	50,996	2	108,100	108,102	0	59,161	59,161
16	Various Goods and Services	611	50,385	50,996	540	107,562	108,102	238	58,923	59,161
17	Clothes, Foot wears, and Head scarf	7360	43,636	50,996	73000	35,102	108,102	44014	15,147	59,161
18	Durable Goods	43734	7,262	50,996	93498	14,604	108,102	51634	7,527	59,161
19	Taxes, Fees, and insurance	22947	28,049	50,996	60930	47,172	108,102	26289	32,872	59,161
20	Fiesta, ceremonies, and religious meetings	40464	10,532	50,996	97198	10,904	108,102	51222	7,939	59,161

Source: Processed data by researcher team.

APPENDIX 3
The average of household expenses per category of consumption during 2000-2007

No	Household Categories of Consumption	Monthly Consumption on Average						
		2000	2001	2002	2003	2004	2005	2006
1	Rice/ Grains	8,541.55	10,321.73	14,172.12	12,213.36	14,429.63	27,982.43	8,541.55
2	Tubers/ Cassavas	714.87	1,540.05	1,008.85	2,224.34	1,615.84	2,630.16	714.87
3	Fish	2,714.25	4,306.98	5,195.48	5,808.86	6,760.06	15,640.54	2,714.25
4	Meat	488.58	922.71	634.11	1,420.96	1,261.92	3,185.23	488.58
5	Egg and Milk	957.66	1,216.39	1,551.37	1,535.61	2,234.02	5,115.16	957.66
6	Vegetables	2,391.17	3,245.71	4,013.10	4,477.06	4,591.56	8,341.31	2,391.17
7	Beans	1,549.79	1,461.48	1,585.60	1,829.59	1,834.13	2,713.25	1,549.79
8	Fruits	787.51	1,061.00	1,479.02	1,818.34	1,617.32	3,195.69	787.51
9	Oil and Meat	1,760.75	2,321.60	2,587.88	2,848.14	3,406.31	5,284.75	1,760.75
10	Drinking Ingredients	1,931.65	2,735.36	3,138.19	3,162.66	3,890.71	6,694.11	1,931.65
11	Spicy	1,193.80	1,526.42	1,551.73	1,836.68	1,967.93	3,146.35	1,193.80
12	Other consumption	502.24	566.64	712.42	718.54	1,028.44	2,996.07	502.24
13	Finished Food and Drinking	1,857.15	2,263.77	3,339.20	2,701.59	3,317.82	9,585.43	1,857.15
14	Tobacco and betel	2,018.05	3,516.33	4,267.59	4,111.31	6,132.45	13,755.79	2,018.05
15	Total Food	27,409.03	37,004.72	45,226.02	46,707.04	54,088.15	63,988.34	27,409.03
16	Housing and Households facilities	25,861.96	32,920.81	48,334.57	55,777.32	66,316.39	91,334.87	25,861.96
17	Various Goods and Services	11,512.69	15,154.30	19,115.37	16,738.50	21,167.33	59,771.78	11,512.69
18	Clothes, Foot wears, and Head scarf	25,875.06	9,449.97	11,639.42	17,402.18	13,189.18	19,571.97	25,875.06
19	Durable Goods	2,632.65	3,766.41	3,578.91	4,125.51	4,422.76	12,913.40	2,632.65
20	Taxes, Fees, and insurance	461.52	519.33	807.60	777.00	1,092.76	2,324.37	461.52
21	Fiesta, ceremonies, and religious meetings	7,308.43	4,540.00	4,245.02	8,465.19	6,498.81	8,896.24	7,308.43
22	Total Non Food	73,652.31	66,350.82	87,692.84	103,285.70	112,687.24	185,418.88	73,652.31

Source: Processed data by researcher team.

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APPENDIX 4
Average of Price on Each category of Consumption during 2000-2007

No	Household Consumption Category	Monthly Consumption on Average						
		2000	2001	2002	2003	2004	2005	2006
1	Tubers/ Cassavas	1,954.27	2,348.12	2,451.80	2,565.51	2,565.51	2,920.49	3,224.74
2	Fish	11136.76	12,438.60	13,018.94	13,275.48	13,275.48	15,414.19	16635.917
3	Meat	16,603.58	18,684.47	21,062.59	21,425.05	21,425.05	21,690.37	24,299.03
4	Egg and Milk	6802.9512	7027.8556	6783.1889	7,710.56	7,710.56	8,860.70	9380.1926
5	Vegetables	2060.0346	2,081.45	2,613.38	2,647.48	2,647.48	3,084.09	3576.2119
6	Beans	5,719.59	6,384.97	6,433.23	6,559.21	6,559.21	7,565.11	8,466.06
7	Fruits	5,173.68	5,792.65	6,487.50	6,546.35	6,546.35	8,798.19	9,221.64
8	Drinking ingredients	3211.8256	3,510.98	3,658.99	4,065.10	4,065.10	4,731.94	5052.5111
9	spicy	4,820.87	4,438.14	4,906.85	4,744.26	4,744.26	4,838.68	5,608.07
10	Other consumption	14,785.27	15,423.12	16,925.68	17,478.66	17,478.66	17,829.94	18,875.62
11	Finished Food and Drinking	5,649.43	6,100.74	5,565.66	6,524.17	6,524.17	7,340.68	7,678.41
12	Tobacco and betel	3516.0111	4325.9556	5359.4444	5937.7333	5,937.73	5,875.89	6204.1889
13	Housing and Households facilities	6,035.78	7,015.79	8,219.33	8,031.97	8,031.97	5,245.54	9,477.27
14	Various Goods and Services	7,175.31	8,682.06	9,419.12	10,543.80	10,543.80	115,180.79	128,700.00
15	Clothes, Foot wears, and Head scarf	49,468.43	56,822.46	60,369.68	63,730.29	63,730.29	79,696.23	81,181.08
16	Durable Goods	743,162.17	770,380.94	761,956.11	711,783.84	711,783.84	627,599.96	629,343.81
17	Taxes, Fees, and insurance	42,257.65	49,835.97	57,565.46	65,066.92	65,066.92	94,350.55	99,320.31

Source: Processed data by researcher team.