The household survey and monetary policy in Indonesia

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1. Introduction

1.1 Background

The household sector plays an important role in the domestic economy. Its interaction with the production function, through factors such as labour and land, creates income in terms of salaries/wages and other surplus from different income sources. Part of this income that is not consumed is saved, which is a prominent source of financing investment.

Household saving is therefore a key determinant of investment, which gives rise to two key concepts in economic analysis: the positive saving rate (the surplus sector) and the negative one (the deficit sector). Financial institutions, such as banks and non-banks receive funds from the surplus sector and utilize these funds to lend to the deficit sector. The choice of allocating funds can be done in different ways, such as lending to the business sector, purchasing financial assets and marketable securities, or building fixed assets.

The household sector is one of the main surplus sectors in the economy, therefore its role as a supplier of funds is important for financial policymakers. Conducting household surveys is an important method to obtain data on household finances, and to determine how much of the income is not consumed, how to manage the household saving rate and how much of the past saving accumulation can be used for investment.

While households are one of the main economic agents in providing funds for investment, the government has an important role to stimulate household activities in investment.

1.2 The linkages between the household sector and monetary policy

The household balance sheet may serve as the transmission channel of monetary policy of the household sector through the interest rate channel as follows:

1. Household debt/income ratio

   The central bank, by raising or lowering interest rates, can affect household financial behaviour. Declining interest rates will boost households' preference for holding debt, resulting in an increase of debt and causing the household debt/income ratio to increase. Higher household debt levels indicate that households have the capacity to consume more goods and services. This will, in turn, generate demand for the production sector to augment their capacity to produce goods and services. To do so, they will need more investment.

2. Household saving

   An upward trend in interest rates in the economy increases households' incentive to hold financial assets (eg debt securities), hence creating a flow of funds from the household sector to the financial sector. This will in turn increase the sources of investment in the financial market.

1.3 The need for a household survey

In order to formulate economic policy, the government needs to have accurate data and information on the current household activities in the economy. One approach to collect this information is through a direct survey. In Indonesia the saving and investment household survey is conducted to determine behaviour of households in consuming goods and services and saving their income. Through this survey the available data about individual saving can be obtained in detail, such as the saving rate (the flows) from many sources of income in economic and non-economic activities and how much of its accumulated value of past saving (the stock) is used in investment.

In Indonesia, the saving and investment household survey (the survey) is mainly aimed at constructing the household account as a key component of the system of national accounts in Indonesia, as households have the most significant role in Indonesian economy (70% of GDP is due to household consumption). Moreover, the household accounts can help to reconstruct other accounts that reflect or relate to household behaviour, such as the household component of GDP, the flow of funds, the social accounting matrix, and other socio-economics analysis.

The purpose of the survey is as follows:

1.   To identify the household behaviour in consuming goods and services and saving their income.

2.   To construct the household balance sheet in addition to other balance sheets (monetary authority, banks, government and enterprises).

2. Methodology

2.1 Data coverage

The 2006 survey will be conducted in ten different provinces and spread over both urban and rural areas. The sample size for this survey is approximately 5,000 households which are selected by stratified random sampling. The sample was spread out over 10 provinces - Riau, South Sumatra, West Java, DKI Jakarta, Central Java, DIY, Bali, West Borneo, North Celebes, and Central Celebes.

The data used in this paper were obtained from the 2003-2004 survey, since data from the 2006 survey were not available yet. The 2004 survey, the sample is about 3,760 households higher than one in 2003 (3210 households) spread over eleven different provinces - Jambi, Lampung, Jakarta, West Java, Central Java, Yogyakarta, East Java, East Nusa Tenggara, South Borneo, East Borneo, South Celebes. The 2003 survey covered eight provinces- West Sumatera, West Java, Central Java, South Celebes, Southeast Celebes, West Borneo, North Borneo, and East Nusa Tenggara.

2.2 Data sampling

The Sample of 2006 survey is a selected census block in Economic and Social National Survey (SUSENAS) 2005, which differs between rural and urban areas and in regions of the selected areas.

2.3 Sample diagram

The diagram of the 2006 survey consists of two steps:

- In the sample frame, we choose a census block by systematic random sampling. The sample of the 2006 survey is a sub-sample from a census sample block in SUSENAS 2005.

- From the selected census block, a sample of 15 households will be taken systematically from different levels of income that have been listed in SUSENAS 2005.

2.4   Data collection method

Data and information will be collected through the direct interview method. However, additional general information can be obtained from other individual respondents within the same family/household.

2.5   Questionnaire draft

Saving is defined as revenue subtracted by expenditure. In this respect, the source of income and expenses will be explored through this survey. Furthermore, the savings rate can be identified as direct investment since part of this income can be invested in assets such as production factors and construction and financial investment in the form of savings accounts or marketable securities.

Households comprise different types of individuals with different income and consumption levels. Consumption behaviour can differ widely between households or can be very similar. Likewise, household incomes can be earned in many different ways, from salaries/wages or as surplus from ownership of factors of production. Therefore, taking into consideration these differences, several constraints need to be applied in order to measure the exact rate of income and expenditure; for instance, besides aggregate household expenditure, the individual expenditures should be recorded separately. Similarly the aggregate household income as well as individual incomes should be separately recorded. In order to do so, the questionnaire, has provided for three kinds of blocks:

- Income block: Captures all the sources of income for each individual in one household

- Expenditure block: Captures the different types of expenditure separately: consumption expenditures and property payments.

- Investment block: The accumulation of past savings can be invested in the form of housing, land and other marketable financial assets, such as securities and stocks.

## 2.6   The usage of household survey

The household survey is aimed at obtaining the structure of income and expenditure of households. This structure will be embedded both in the flow of funds account and social accounting matrices, especially to fill the household transactions. Currently, the Central Bank of Indonesia and Statistics Indonesia are cooperating in an effort to develop Financial Social Accounting Matrices (FSAM). The matrices are basically developed by combining flow of funds and social accounting matrices. Based on the availability of data, including the household survey, the FSAM is developed as a 77 X 77 matrix.

3.   Survey results

3.1   Households

There are four types of households classified on the basis of income source of the household: households with the highest share of income from salaries/wages, households with labour deriving their highest share of income from their own business, households without labour deriving their highest share of income from their own business, and households with income from other sources.

Figure 1
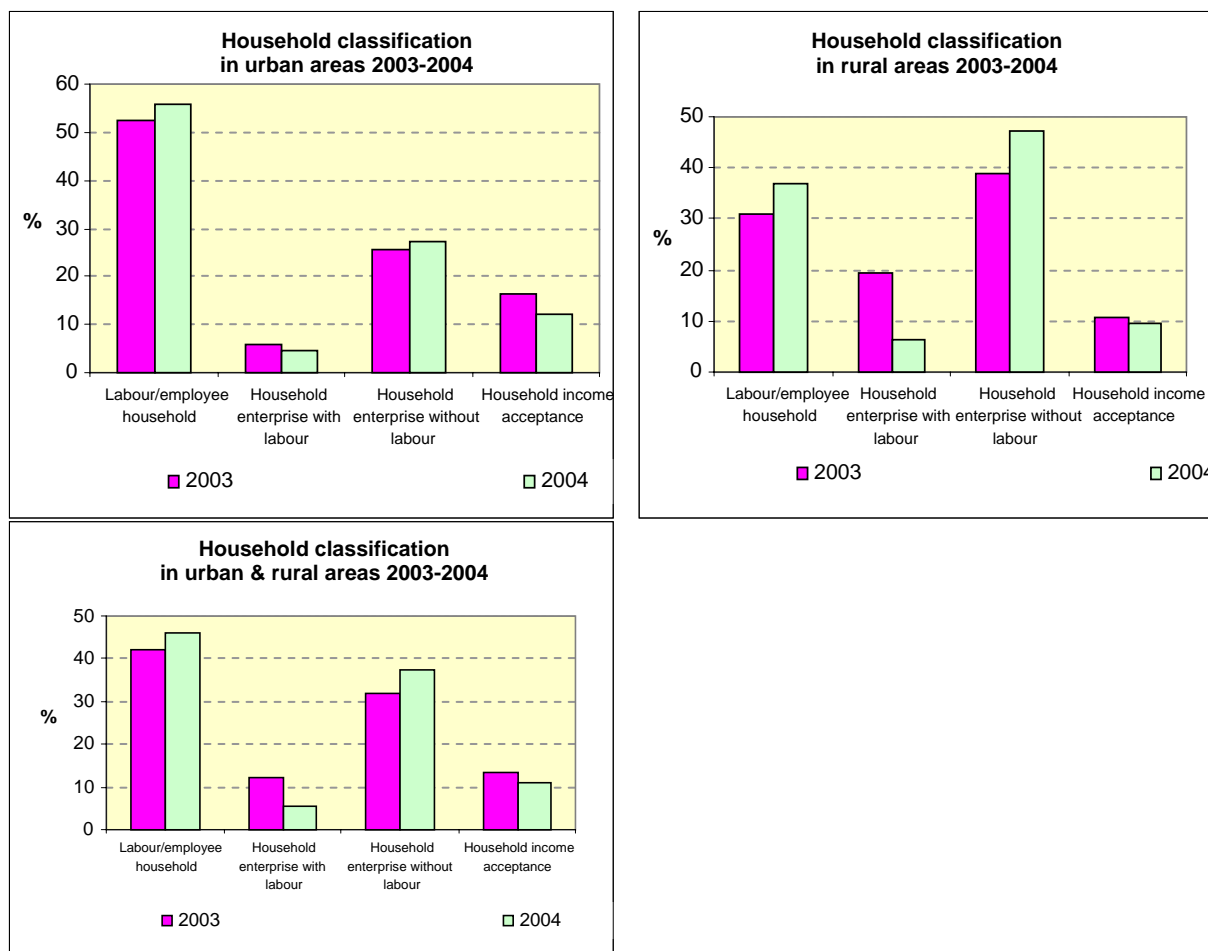
Source: Central Bureau of Statistics (BPS), Indonesia.

The 2003 and 2004 surveys indicate that there is an increase in labour and employee households both in rural and urban areas. On the other hand, there is a decrease in types of household income acceptance both in rural and urban areas.

3.2   Household income

The increase in accumulation of past saving (simply called wealth) of individuals within a household will increase the aggregate income of the household itself. Income which is obtained from each individual will be computed to obtain the total income of the household.
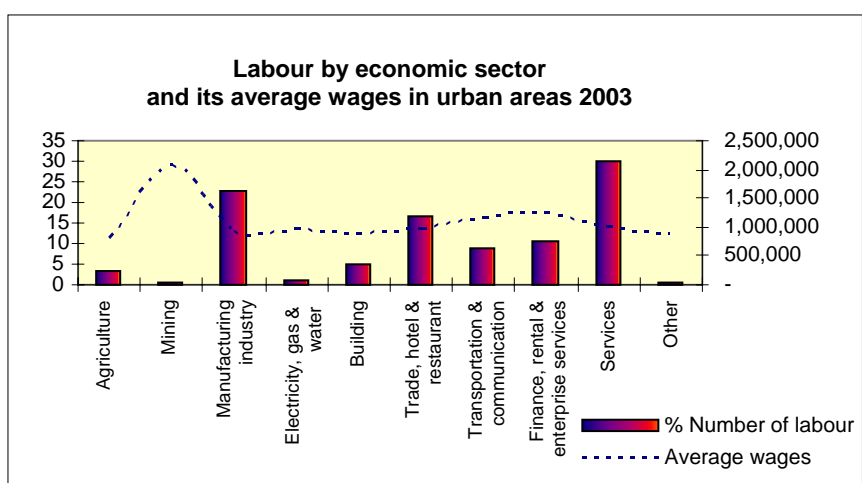
Figure 2
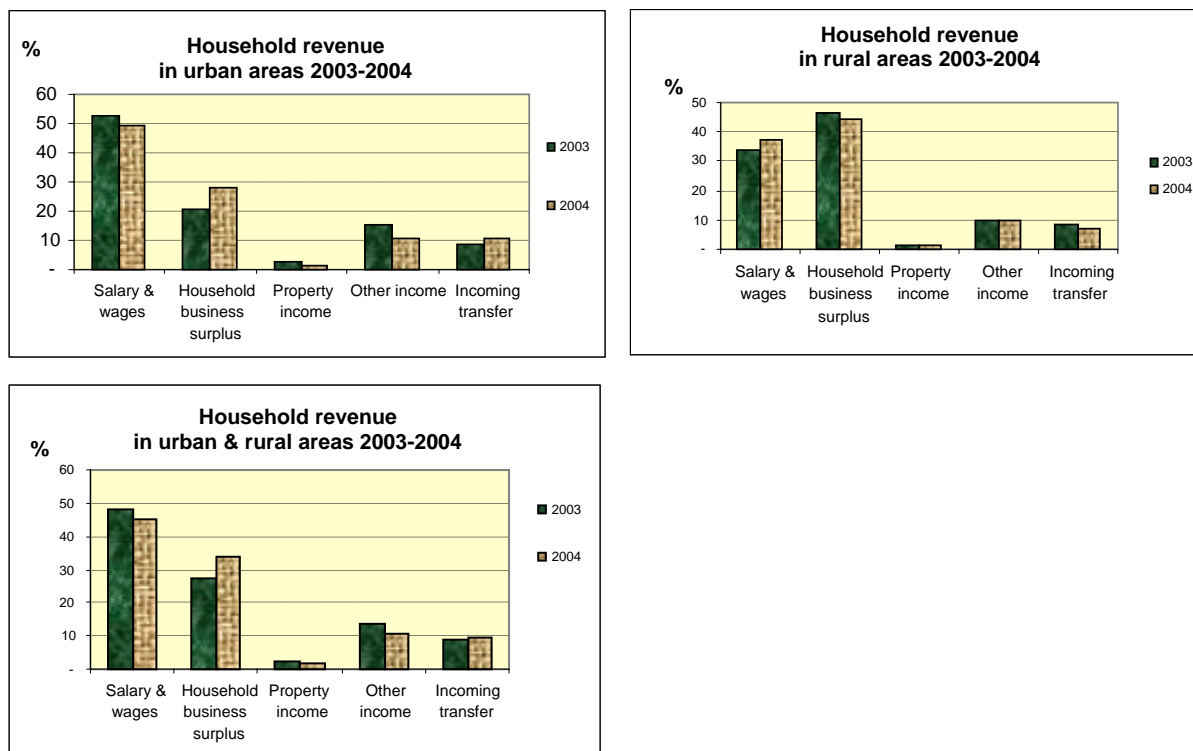
Source: Central Bureau of Statistics (BPS), Indonesia.

In urban areas, the highest household income source is salaries/wages, in comparison to rural areas, where the highest household income source is the surplus from own private business. However, this composition changed slightly between 2003 and 2004. For instance, the percentage share of salaries/wages in urban areas fell from 52.9% in 2003 to 49.3% in 2004. Similarly, in rural areas, the percentage share of surplus from private business decreased from 46.6% in 2003 to 44. 2% in 2004.
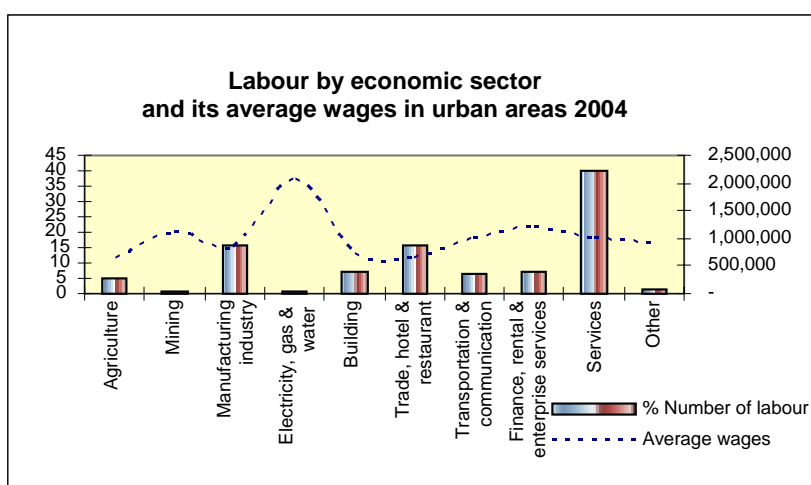
In 2004, based on economic sectors, employment in urban areas was concentrated in services (40.2%), trade, hotel and restaurant (15.8%), and manufacturing (15.65%).

Figure 3

**Labour by economic sector
and its average wages in urban areas 2003**

Source: Central Bureau of Statistics (BPS), Indonesia.

Figure 4

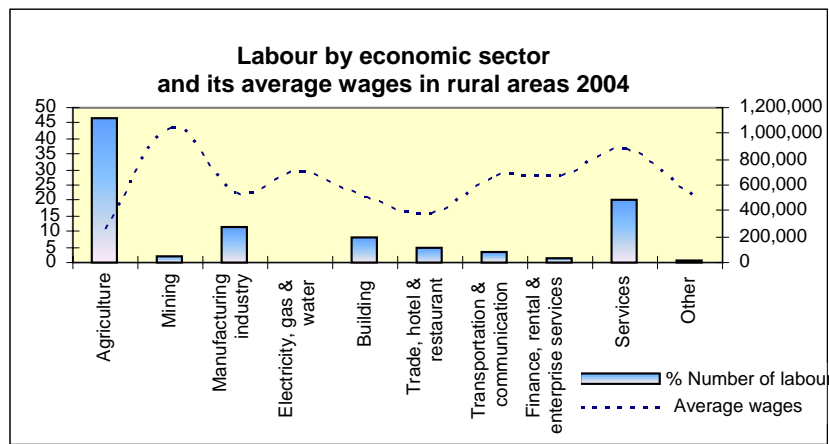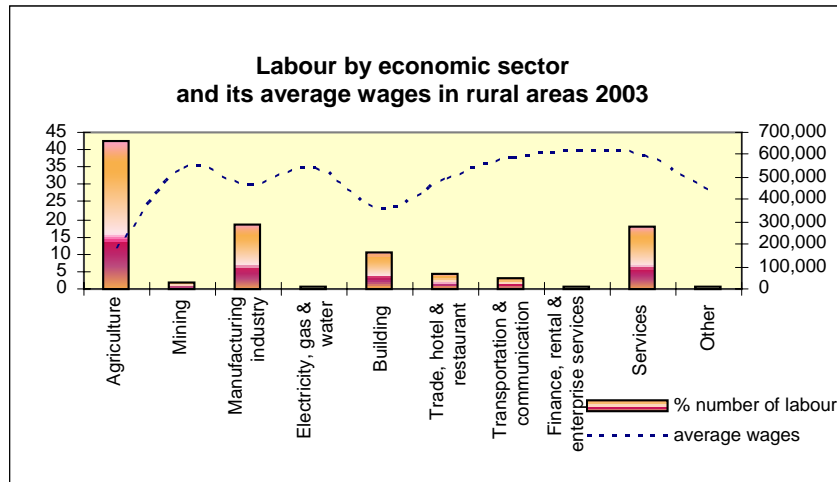**Labour by economic sector
and its average wages in urban areas 2004**

Source: Central Bureau of Statistics (BPS), Indonesia.

Meanwhile, in 2004 employment in rural areas was concentrated in agriculture (46.7%), which was higher than in 2003 (42.25%).

Figure 5

**Labour by economic sector
and its average wages in rural areas 2003**

**Labour by economic sector
and its average wages in rural areas 2004**

Source: Central Bureau of Statistics (BPS), Indonesia.

3.3   Household expenditure

Household expenditure comprises of consumption and transfers, with the rest of household income going into saving.

Table 1

Household expenditure 2003-2004		
Urban	**2003**	**2004**
Consumption	**72.76**	**72.74**
Durable goods	4.03	4.93
Property income	0.10	0.46
Outgoing transfers	4.55	5.34
Saving	18.56	16.53
Rural		
Consumption	**73.28**	**72.30**
Durable goods	4.83	7.61
Property income	0.67	0.49
Outgoing transfers	5.22	4.26
Saving	16.00	15.34
Rural & urban		
Consumption	**72.89**	**72.58**
Durable goods	4.23	5.89
Property income	0.24	0.47
Outgoing transfers	4.72	4.95
Saving	17.91	16.10

Source: Central Bureau of Statistics (BPS), Indonesia.

Similar to the previous year, consumption expenditure in 2004 accounts for 72.58% of total household expenditure; this is the largest share of household expenditure, for both urban and rural areas. The next largest share of household revenue is allocated to saving.

Figure 6
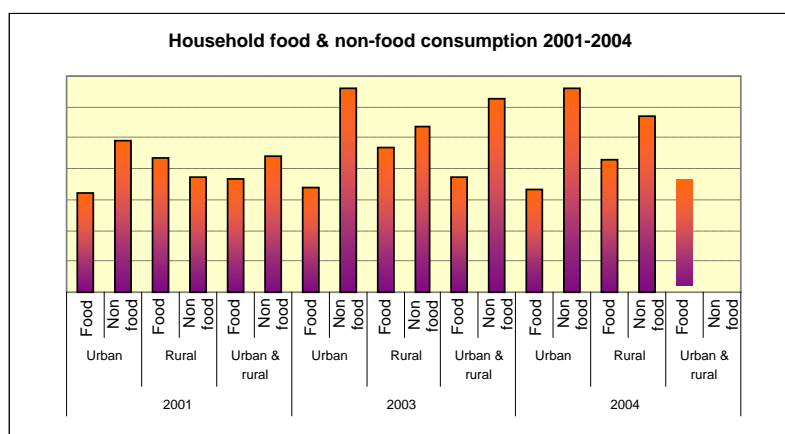
Source: Central Bureau of Statistics (BPS), Indonesia.

In 2004, expenditure on non-food consumption in urban areas accounted for 66.23% of household expenditure, while in rural areas it accounted for 57.02%. As a part of non-food expenditure, housing and transportation accounted for 25% and 8.46% of the household income respectively.

3.4 Household saving and investment

The sources of funds for households' investment include saving, transfer, and depreciation.

Table 2

Source of household investment	2003	2004
Urban		
Capital depreciation	4.29	7.29
Net capital transfers	3.78	6.61
Saving	91.93	86.10
Rural		
Capital depreciation	14.6	6.4
Net capital transfers	2.4	0.5
Saving	82.9	93.0
Urban & rural		
Capital depreciation	6.84	7.01
Net capital transfers	3.44	4.63
Saving	89.71	88.36

Source: Central Bureau of Statistics (BPS), Indonesia.

Overall, saving is the largest source of funds for households' investment, which accounted for 88% of the investment in 2004. Households' investment include both fixed and financial investment.

Figure 7
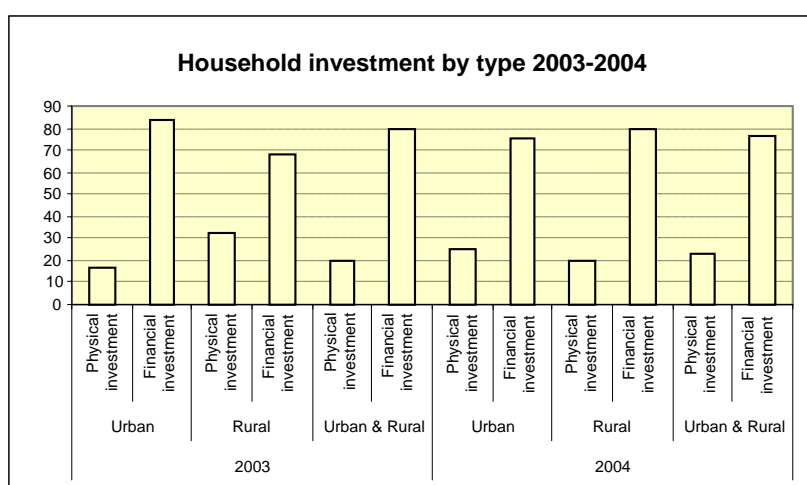
Source: Central Bureau of Statistics (BPS), Indonesia.

By type of investment, the largest is financial investment, which accounted for 76.63% in urban and rural areas in 2004. Households' fixed investment in 2004 was 23.37%, which is higher than that in 2003 (20.23%).

The households' physical investment is largely in the form of fixed capital formation, which accounted for 16.87% in 2004. In urban areas 10.5% of fixed capital formation was in housing, while in rural areas 7.93% of fixed capital formation was in production equipment. The changes in stock and procurement of production equipment only took place in the households that owned business enterprises. Changes in households' stock include changes in inventories. Since not all households own business enterprises, overall changes in stock account for only 6.5% of total investment in rural and urban areas.

Table 3

Investment by type	2003	2004
Urban		
Physical investment	**16.50**	**24.99**
Stock changes	5.51	6.38
Gross fixed capital formation	10.98	18.62
* Production equipment	2.07	3.36
* Building	6.77	10.50
* Building & residential facilities	0.27	1.44
* Land	1.88	3.28
* Gold	-	0.04
Financial investment	**83.50**	**75.01**
Subtotal		
Rural		
Physical investment	**32.32**	**20.09**
Stock changes	11.87	6.76
Gross fixed capital formation	20.45	13.33
* Production equipment	8.86	7.93
* Building	8.66	4.73
* Building & residential facilities	0.43	0.62
* Land	2.63	0.04
* Gold	(0.13)	0.01
Financial investment	**67.68**	**79.91**
Subtotal		
Urban & rural		
Physical investment	**20.23**	**23.37**
Stock changes	7.01	6.50
Gross fixed capital formation	13.21	16.87
* Production equipment	0.04	0.05
* Building	7.21	8.59
* Building & residential facilities	0.30	1.17
* Land	2.06	2.21
* Gold	(0.03)	0.03
Financial investment	**79.77**	**76.63**
Subtotal		

Source: Central Bureau of Statistics (BPS), Indonesia.

4.   Problem identification

Although, ideally, the survey respondents should include all types of households including domestic households as well as households that reside abroad, the current saving and investment household survey only covers domestic respondents. The sample size is only 5,000, which is very small relative to total households in Indonesia of 55 million. This could result in large sampling errors. Moreover, the sample respondents, which are mostly lower middle class households, make the sample less representative of the population.

In general, households do not keep records of their financial transactions. This may result in incomplete information on transactions. Some households are reluctant to give information on their financial investment which can be attributed to the fear of tax examination. Some of indebted households are also reluctant to give information on their financial transactions to avoid the embarrassment of being seen as indebted. Furthermore, not all households in the sample can be contacted due to the lack of funding and time, thereby not capturing all financial transactions. Moreover, questionnaires have some questions that could be interpreted in different ways leading to a possibility of inaccurate information.

5.   Conclusion

1.   The household survey is very important to effectively provide information for monetary policy decisions by assessing the situation of household saving and the household debt channel.

2.   Statistical coordination between the Central Bureau of Statistics (BPS) and Bank Indonesia is increasingly required in enlarging the sample size, enhancing the timeliness and the coverage of the survey.

3.   In Indonesia, a household survey is essential to construct the household balance sheet and to support the joint construction of the Financial Social Accounting Matrix (by Bank Indonesia and the BPS).