

PRECAUTIONARY SAVINGS AND SOCIAL SAFETY NET: AN EMPIRICAL STUDY ON RURAL HOUSEHOLDS IN SRI LANKA.

M.M.Gunatilake*

Abstract

Economic and social indicators prove that the social safety net in Sri Lanka is strong when compared with those of neighbouring South Asian countries. The economy has been able to provide a commendable social security to its people through a strong and widely covered social safety net since independence. However, some Economists argue that the social safety net may discourage precautionary motive savings of poor households. This paper attempts to make an empirical investigation on the relationship between the social safety and precautionary motive savings of poor households. The present study is based on primary data which were collected through a sample survey. The random sample of poor households comprises of two sub samples as the households that are covered by the Social Safety Net and the households that are not adequately covered by the social safety net. Hypotheses testing was the main analytical tool used to detect any possible relationship between social security and precautionary motive savings of households. The study reveals that there is no significant relationship between the social safety net and precautionary motive savings of households in rural Sri Lanka.

Key words: Social security, Precautionary Savings, Households Sri Lanka

* **M.M.Gunatilake, Department of Economics, University of Kelaniya, Sri Lanka**

1. Introduction

The main objective of a well-designed social safety net is to provide a certain degree of social security for disadvantaged or marginalized groups of people in an economic system. This objective can be achieved through the channels of cash transfer programmes, food based safety net programmes (food stamp, food subsidy, food-for-work), price subsidies, and human capital related social safety nets, micro credit and public works programmes.

Sri Lanka is a South Asian country that has been able to provide a better social security¹ for its people through a strong and widely covered social safety net since the time of achieving independence. Public sector employees or people who are in the formal or organized sector are covered by well-established government social security programmes such as pension schemes, provident funds, etc. In addition to this, people (and their families) who in the informal sector are also being covered by a social safety net which includes a range of programmes such as food stamp, samurdhi programme, etc. This is essentially unique in the region. Consequently, Sri Lanka has been able to show a good track record in social justice and fairness.

Some empirical studies (Fry, 1978; Gersovitz, 1988) have found that a positive correlation exists between the rate of savings and economic growth in an economic system. Domestic resource mobilisation is very important for a sustainable economic growth in any country. Household savings have played an important role in domestic resource mobilization in Sri Lanka for the past few decades. Meanwhile, some economists (Hubbard et al, 1995; Kimball, 1990) argue that well established social safety net and social security programmes may discourage household savings by reducing future risk and uncertainty. There is a precautionary motive to save money in an uncertain world, which means, we decide in advance to save money to meet future contingencies. Hence, the precautionary motive is one of the many factors that play a significant role in household savings behaviour in any country.

¹Social security refers to the action programs of the government intended to promote the welfare of the population through assistance measures guaranteeing access to sufficient resources of food and shelter and to promote the health and wellbeing of the population at large and potentially vulnerable segments of the society.

An empirical study using micro data is significant in order to recognize heterogeneity in motives for savings, in particular motives for savings of poor households and to examine whether there is any relationship between the economic security provided by the social safety net and the level of precautionary savings of households with virtually no wealth. Hence, this paper attempts to examine the impact of the social safety net on precautionary motive savings of poor households in the informal sector in rural Sri Lanka. The present study is based on primary data which were collected through a sample survey. The random sample comprised of two sub sample of households. Hypothesis testing was the main analytical tool used in order to detect any possible relationship between the social safety net and precautionary motive savings of households. According to economic theory individuals or households may have different motives to save a share of their present income for future use. As many economists and scholars point out (Keynes, 1936; Kimball, 1990; Hubbard et al, 1995; Browning and Lusardi, 1996, Chamon and Prasad, 2010, Poon and Hon, 2015). The precautionary motive of individuals is one of the foremost factors which persuade individuals to save. Economists such as Gersovitz (1988), Deaton (1991), Carrol et al (1992) emphasize that risk and uncertainty of future income and expenditures also stimulate individuals to save. The other main factors which encourage people to save are borrowing and liquidity constraints (Davies, 1988; Modigliani, 1988; Zeldes, 1989; Levin, 1990; Deaton, 1991; Carrol et al, 1992).

Nevertheless, the motivation for precautionary saving may be discouraged by a well-covered and strong social safety net as government benefits reduce the need for such savings. Some empirical studies (Hubbard et al, 1995; Kotlikoff, 1979, Kimball, 1990) have investigated the possible relationship between the social security provided to households by the government (through social security programmes or the social safety net) and the amount of precautionary savings held by households and found that there is an inverse relationship between social security and precautionary savings of households or in other words social security programmes discourage precautionary motive savings of households. It is evident that a number of cross-sectional studies have supported the suggestion that social security reduces precautionary motive savings of low-income households.

2. Research Method

Cross-section data gathered through a sample survey and the main sample consists of two sub samples of rural households which are covered and not covered by social security programmes. All the households included in the two samples were in one income group. The hypothesis to be tested is ‘social security programmes discourage precautionary motive savings of rural households’. In order to investigate whether there is any sort of relationship between social security and precautionary motive savings of household; first, an index was computed as Liquidity Saving Index² (LSI) which could capture the degree of liquidity of all forms of assets accumulated by households against future risk and uncertainty. Using mean values of LSI of the two household samples, performed a test was performed to reveal whether there is a significant difference between the two samples.

Liquidity saving Index (LSI)

The total value of assets (financial and physical assets) and their liquidity is captured by LSI and it is calculated as follows;

Type of Saving (Asset)	Monetary value of the Asset (Q _i)	Liquidity Rank (R _i)
Financial	Q ₁	5
Jewellery	Q ₂	4
Livestock	Q ₃	3
Consumer Durables	Q ₄	2
Capital Goods	Q ₅	1

$$LSI = \sum_1^5 Q_i \cdot R_i / 15$$

Hypotheses:

It is possible to form two hypotheses considering the mean values of LSI's of the two samples A and B

² Precautionary savings can be divided into two categories as hoarding and saving. Hoarding means keeping goods for future use. In such a background, accumulated wealth in various forms such as financial savings, consumer durables, gold jewellery, animal stocks can be considered as precautionary motive savings of rural households in Sri Lanka.

$H_0: LSI A = LSI B$; There is no difference between the mean values of the two samples.

$H_A: LSI A \neq LSI B$; There is a difference between the mean values of the two samples

Where; LSI_A = Mean (average) value of all types of precautionary savings of the sample A

LSI_B = Mean (average) value of all types of precautionary savings of the sample B

3. Results and Analysis

Socio-economic and demographic characteristics of the two samples of households do not show much difference. The main income sources of the households of both samples are related to agriculture, fisheries and temporary jobs in the informal sector and subjected to frequent fluctuations. Table 1 summarises the income sources of the two samples.

Table 1: Income Sources of the surveyed households

Income Source	Sample 1	Sample 2	Total No. of Households
Agriculture/ Jobs related to Agriculture	28	34	62
Fisheries	09	05	14
Industry	02	11	13
Temporary Jobs	45	24	69
Jobs in the private sector	07	02	09
Self-employments	06	13	19
Other	03	11	14
Total	100	100	200

As table 1 shows, households that are included in the two samples heavily rely heavily on uncertain and risky income sources such as agriculture (31%) and temporary jobs as daily wage earners (34%), which indicates that those households are subjected to frequent income losses and must have a precautionary motive to save some of their present income for future use. According to the survey data, it was possible to observe that both samples possessed financial savings but the share (percentage) of financial savings amongst the households in the other is not substantial. However, 22% of the households which are protected by the social safety net had only a little amount of financial savings while 68% of the households that are

not protected by the social safety net possessed a reasonable amount of financial savings. Nevertheless, the amount of financial savings of the households that are not properly covered by the government social safety net is slightly higher than that of households which are covered by the social safety net. Survey data reveals that only 4 households from sample 1 possessed more than Rs. 50,000 of financial savings while 20 households of the sample 2 possessed more than Rs.50,000 of financial savings. However, the value of other physical assets of the households that are included in sample 1 is higher than that of the assets of sample 2.

Table 2 shows the calculated LSI for households that are not properly covered by social security programs and table 3 displays the LSI of households that are protected through social security programs. However, there is no significant difference between the two samples in relation to the mean value of LSI (Mean values of the two samples are 22.55 and 23.34 respectively). The hypothesis $H_0: LSI A = LSI B$ is accepted with a 95% confidence level which implies that there is no difference of liquidity assets or precautionary motive savings between the surveyed samples.

Table 2: Liquidity Saving Index (Sample 1: Number of Households = 100)

HH. No	LSI	HH.No	LSI	HH.No	LSI	HH.No	LSI	HH.No.	LSI
1	14.12	2	13.33	3	8.62	4	0	5	5.75
6	21.37	7	11.31	8	0	9	4.34	10	25.93
11	12.12	12	28.57	13	6.89	14	0	15	19.14
16	9.44	17	35.14	18	15.23	19	2.71	20	3.49
21	10.7	22	11.56	23	8.7	24	5.07	25	24.69
26	23.71	27	9.2	28	2.17	29	0.9	30	9.64
31	5.44	32	17.54	33	17.2	34	5.06	35	16.77
36	33.8	37	8.89	38	31.11	39	47.09	40	18.14
41	30.4	42	0	43	21.49	44	6.84	45	44.55
46	11.86	47	19.62	48	51.93	49	20.35	50	53.37
51	8.36	52	37.59	53	13.61	54	29.57	55	11.11
56	15.38	57	20.05	58	12.32	59	0	60	7.82
61	2.82	62	25.53	63	13.54	64	40.46	65	33.14
66	11.98	67	40.56	68	24.69	69	27.52	70	24.62
71	42.09	72	23.15	73	14.34	74	24.73	75	5.05
76	15.15	77	30.52	78	37.53	79	37.04	80	29.13
81	5.25	82	0	83	5.38	84	39.38	85	20.67
86	27.78	87	24.94	88	29.81	89	22.22	90	5.19
91	26	92	21.73	93	12.27	94	3.01	95	19.86
96	0	97	13.8	98	15.87	99	14.18	100	5.67

Table 3: Liquidity Saving Index (sample 2: Number of households = 100)

HH No	LSI	HH. No	LSI						
1	13.14	2	23.87	3	29.31	4	19.01	5	50
6	24.13	7	9.11	8	0	9	19.94	10	0
11	10.36	12	10.2	13	6.26	14	21.69	15	24.03
16	27.25	17	22.91	18	24.74	19	27.61	20	17.12
21	11.7	22	35.6	23	3.29	24	15.79	25	10.48
26	27.36	27	13.37	28	18.09	29	24.68	30	28.4
31	0	32	4.49	33	20.06	34	32.82	35	0
36	15.23	37	7.96	38	30.39	39	34.15	40	23.81
41	10.44	42	0	43	36.49	44	27.6	45	18.12
46	47.01	47	11.11	48	35.67	49	14.49	50	29.49
51	7.1	52	36.26	53	29.73	54	35.07	55	24.19
56	5.17	57	12.87	58	13.99	59	20.12	60	29.19
61	8.43	62	44	63	33.33	64	29.9	65	0
66	35.67	67	4.76	68	23.88	69	14.53	70	0
71	12.68	72	9.48	73	41.67	74	0	75	28.34
76	8.88	77	7.89	78	5.69	79	18.96	80	30.86
81	8.08	82	12.29	83	22.12	84	14.91	85	6.54
86	25.36	87	17.97	88	32.45	89	4.37	90	2.94
91	7.32	92	42.92	93	22	94	15.87	95	26.35
96	4.43	97	29.41	98	0	99	0	100	6.54

4. Conclusion

Findings of the present study are not consistent with the findings of previous empirical studies which have been carried out in different parts of the developing world. The value of accumulated precautionary savings of households is independent from the social security provided by the government, which means that there is no relationship between precautionary savings of households and the benefits received through the government social safety net in the case of rural households in Sri Lanka. Hence, it is difficult to find sufficient evidence to prove the hypothesis of ‘social safety net discourage precautionary motive savings of households’ in the case of rural Sri Lanka. There are some reasons which would have influenced such a finding. First, social and economic security provided by the government to low income households through its social safety net may not be a sufficient amount to make a significant impact on precautionary savings of those households. Second, households are struggling even to meet their basic needs with their low income and they are too poor. Third, the impact of borrowing constraints on precautionary motive saving is somewhat different

from other countries. Particularly, strong family networks offset the impact of borrowing constraints.

References

- Browning, M. and A. Lusardi (1996). 'Household Saving: Micro Theories and Micro Facts', *Journal of Economic Literature*, December, 34, 1797-1855.
- Carroll, C. D., Hall, R. E., & Zeldes, S. P. (1992). The buffer-stock theory of saving: Some macroeconomic evidence. *Brookings papers on economic activity*, 1992(2), 61-156.
- Chamon, M.D. and E.S. Prasad (2010), 'Why are Saving Rates of Urban Households in China Rising?' *American Economic Journal: Macroeconomics*, 2(1), pp 93–130.
- Davies, J.B. (1981). "Uncertain Lifetime, Consumption, and Dissaving in Retirement", *Journal of Political Economy*, 89 (3), 561–577.
- Deaton, A.S. (1991). Saving and Liquidity Constraint, *Econometrica*, September, 59(5), 1221-1248.
- Deaton, A.S. & Paxson, C. (2000). Growth and Savings among individuals and households, *The Review of Economics and Statistics*, 82(2), 212-225.
- Fry, M.J. (1978). Monetary Policy and Domestic Savings in developing ESCAPE Countries, *Economic Bulletin for Asia and Pacific*, June, 29(1), 77-99.
- Gersovitz, M. (1988). Saving and Development, in Hols-Chennery and T.W. Srinivasan, hand book of Development Economics, North-Holland, Amsterdam, 381-424.
- Hubbard, R. G., Skinner, J., & Zeldes, S. P. (1995). Precautionary saving and social insurance, *Journal of Political Economy*, 103(2), 360-399.
- Kimball, M.S. (1990). Precautionary Saving in the Small and Large, *Econometrica*, January, 58(1), 53-73.
- Kotlikoff, L. J. (1979). Testing the theory of social security and life cycle accumulation. *The American Economic Review*, 69(3), 396-410.
- Paxon, C.H. (1993). Consumption and Income Seasonality in Thailand, *Journal of Political Economy*, 101(1), 39-72.
- Poon, C.C. and Hon, T.Y. (2015). 'Household savings in Hong Kong: A Statistical Analysis', *Journal of Family and Economic Issues*, 36 (3), 353-388.

- Zeldes S. P. (1989), 'Consumption and Liquidity Constraints: An Empirical Investigation', *Journal of Political Economy*, 97(2), 305–346.