
Cash Transfers For The Most Vulnerable and Poor Elderly People in Vietnam: An *Ex-Ante* Impact Evaluation

Giang Thanh Long

National Economics University, Vietnam

Email: longgt@neu.edu.vn

Hoang Chinh Thon

National Economics University, Vietnam

Abstract

This paper applies micro-simulation techniques with a household survey, i.e., Vietnam Household Living Standards Survey (VHLSS) in 2010, to examine how a cash transfer program would have been able to help reduce poverty of the elderly. The results show that any cash transfer programs could have reduced poverty for older people. The paper also shows that cash transfer would help reduce expenditure inequality as the Gini coefficients for the whole population as well as for older people at different age thresholds would reduce when cash transfer was introduced. With a special focus on expansion of the current cash transfer program to older Vietnamese people, the paper provides scenario-based micro-simulation results for costs and poverty rate reduction for different programs covering groups of older people at different ages, and the results show that the total cost would be in line with that in many other developing countries.

Keywords: Aging, cash transfer, micro-simulation, poverty, Vietnam.

1. Introduction

Across the globe, there is growing alarm over the well-being of old people living in rural and mountainous areas. Poverty, lack of basic health and social services and migration of young people to cities in search of jobs are endemic in rural areas, affecting millions of senior citizens in Vietnam. In comparison with more advanced countries in the region, old-age persons living in rural and mountainous areas are the majority in Vietnam. About 70 per cent of the total old-age population are rural and mountainous residents.

Old people in rural and mountainous Vietnam are at high risk of marginalization. Migration patterns of working-age people have greatly weakened the once strong family ties in rural areas. In particular, in the central regions, less than one-third of old-age persons have an offspring living nearby. This geographic separation between the generations has reduced opportunities for old-age people to live with their children in what traditionally has been viewed as a stable home environment. Three to four-generation households are becoming history in the rural and mountainous areas of Vietnam. Old-age people are increasingly living alone, with their spouses, or with their grandchildren, which in turn presents a great challenge to the longstanding pattern of Family as the main source of support for old people in rural and mountainous areas.

At the same time, the current social security system covers only one-fifth of the old-age population, of which most are not poor and vulnerable to poverty. According to the draft of the Social Protection Strategy 2011-2020 of Vietnam (MoLISA, 2010), currently less than

5 per cent of old-age citizens living in rural areas receive pensions; less than 20 per cent of them are receiving social allowances, and few are in long-term care programs. In some provinces, old people are living in extreme poverty conditions, and for them, even a small contribution from either their children or a social fund can increase monetary security and emotional satisfaction. Under the strong impacts of urbanization and migration, old people in rural and mountainous Vietnam have little option but to rely on family support at a time when family support cannot be taken for granted.

Women are less likely to have financial resources and are especially vulnerable if they do not get support from their children. Instead of receiving support from their families, some old people in rural areas are called upon to use their meagre resources to support their children or grandchildren.

What can be done to prevent old-age people from being poor? Throughout the world, rural and mountainous area dwelling old-age persons are vulnerable without family support and resources that allow them to live with dignity. As such, this problem can be addressed by, in addition to encouraging family responsibility, designing a comprehensive social security system. Such a system, presented in the form of income security and access to health services, will be a powerful tool to support old-age persons in rural areas and reduce the strain on families. Pensions and social allowances availability will surely help old-age people to emerge out of poverty, giving them the means to provide for their basic necessities. In addition, a high rate of accessibility to healthcare

in rural communities and to long-term care services will also be instrumental in reducing vulnerability resulting from chronic illnesses associated with old age.

Under such a research demand, this paper will focus on the following research questions:

(i) How poor and how vulnerable to poverty are the elderly in Vietnam, especially rural and ethnic minority persons?

(ii) How can cash transfers help to reduce their poverty incidence?

(iii) What should be the modality of social security for the elderly in Vietnam in the coming decades?

The research will focus on the poor, rural, and ethnic minority elderly in Vietnam. It will explore the poverty incidence of these elderly groups in 2010.

2. Data and methodology

2.1. Data

The main aims of this research are to quantify the potential impacts on old-age poverty and the fiscal costs of expanding the cash transfer program to the rural and ethnic minority elderly in Vietnam. To pursue these research objectives, we will use the most recent Vietnam Household Living Standard Survey from 2010 (namely, VHLSS 2010). This was one of the seven household surveys in Vietnam conducted by the General Statistics Office (GSO) since 1992 under the World Bank's Living Standard Measurement Surveys (LSMS).

The survey is conducted at a household level, but includes a number of individual characteristics such as age, gender, relationship to the household head, marital status,

work status, and educational attainment. Such data let us identify an elderly person (aged 60 and over) and an elderly household (which includes at least one elderly person). The VHLSS 2010 surveyed 9,402 households with about 3,626 elderly. They are representative at the national level, as well as for urban and rural areas.

At the household level, the survey provides information on the sources of income, household expenditure, ownership of consumer durables, business and agricultural activities, poverty incidence, participation in poverty alleviation programs, social insurance, wealth, and housing conditions.

Nevertheless, the data have some critical limitations. Most of the income sources are only identified at the household level, so it is not clear which member is the source of household income. Similarly, expenditure is identified at a household level and there are no equivalence scales for different household members, so we do not know who is spending, and can only identify expenditure per capita within the household. Wealth data are also available only at the household level, so it is difficult to analyze intra-household transfers.

2.2. Methodology

In this research, we will apply static micro-simulation techniques with the aforementioned data. There are three steps in our analysis.

First, we will set up a number of cash transfer programs using different age thresholds and specific characteristics of the elderly, and then estimate their potential impacts on elderly poverty reduction and respective fiscal costs.

Second, in addition to impacts on poverty incidence, we will also estimate the impacts of these proposed programs on expenditure redistribution via the Gini coefficient.

Lastly, we will estimate the long-term fiscal costs of universal cash transfer programs, in which only age thresholds are considered for different simulations.

(i) Poverty measures

In this research, poverty incidence is measured by poverty rate and poverty gap. The poverty rate represents the percentage of the population whose expenditure is below the official poverty line. In 2010, the official poverty line was measured by per capita expenditure per year and was VND 7,836,000 (or VND 653,000 per person per month).

The poverty gap indicates how much money is needed to close the gap between per capita expenditure and the official poverty line for each member of the population (it is zero for the non-poor). We must be clear that we define this as an absolute measure of income, so that Vietnam's poverty gap would be defined as the total amount of money required to bring the expenditure of all poor people up to the poverty line.

(ii) Targeting groups

We will consider following three targeted groups:

- (1) Only poor elderly (namely, **POOR**);
- (2) Only ethnic minority elderly (namely, **ETH**);
- (3) Only the elderly living in areas classified as rural (namely, **RUR**);

In addition, to calculate relevant indicators

for a universal cash transfer program for all elderly at different age thresholds, we will also have a universal program, namely **ALL**.

(iii) Measurements of potential impacts

First, given conditions and targeting strategies as well as data structure of 2010, we will calculate how the poverty rate of the elderly would have been changed (in percentage terms) if different choices for the current cash transfer program had been implemented in Vietnam. In general, the higher the percentage change, the more effective the scheme would be.

In this study, we measure poverty by three Foster-Greer-Thorbecke poverty indexes, which can all be calculated using the following formula (Foster, Greer and Thorbecke, 1984):

$$P_{\alpha} = \frac{1}{n} \sum_{i=1}^q \left[\frac{z - Y_i}{z} \right]^{\alpha} \quad (1)$$

where Y_i is a welfare indicator for person i (consumption or income); z is the expenditure poverty line; n is the number of people in the sample population; q is the number of poor people, and α can be interpreted as a measure of inequality aversion. When $\alpha = 0$, we have the headcount index H , which measures the proportion of people below the poverty line. When $\alpha = 1$ and $\alpha = 2$, we obtain the poverty gap PG , which measures the depth of poverty, and the squared poverty gap PD which measures the severity of poverty, respectively.

The poverty reduction effects with the introduction of cash transfers (CT) are computed as follows:

$$\Delta P_{\alpha} = 100 \frac{P_{\alpha}^{pre-CT} - P_{\alpha}^{post-CT}}{P_{\alpha}^{pre-CT}} \quad (2)$$

where P_{α}^{pre-CT} and $P_{\alpha}^{post-CT}$ are the poverty indexes before and after the introduction of cash transfers, respectively.

Second, we will also provide information on the distribution of the elderly population with different poverty ratios, which are measured by the ratios between their per capita expenditure and the poverty line. The results will show the percentage of the elderly who would move out of different poverty thresholds.

Lastly, we will calculate the Gini coefficients, so as to see how the proposed cash transfer programs would help to reduce inequality in terms of per-capita expenditure. The Gini index can be calculated from the individual expenditure in the population:

$$G = \frac{n+1}{n-1} - \frac{2}{n(n-1)\bar{Y}} \sum_{i=1}^n \rho_i Y_i \quad (3)$$

where \bar{Y} is the average per capita expenditure; ρ_i is the rank of person i in the Y -distribution, counting from the richest so that the richest has the rank of 1. The value of the Gini coefficient varies from 0 when everyone has the same income to 1 when one person has everything. The closer a Gini coefficient is to one, the more unequal is the income distribution.

Similar to equation (2), the forecasted effect of the introduction of cash transfers on equality is measured by:

$$\Delta G = 100 \frac{G^{pre-CT} - G^{post-CT}}{G^{post-CT}} \quad (4)$$

where G^{pre-CT} and $G^{post-CT}$ are the Gini indexes before and after the introduction of cash transfers, respectively.

(iv) Simulating fiscal costs of a universal cash transfer program for the elderly

To estimate fiscal costs of a universal cash transfer program for the elderly in Vietnam, we will use age as a key variable, meaning that we will set different minimum eligible ages for the cash transfer program regardless of the specific characteristics of elderly recipients. We will use the method discussed in Willmore (2007), which includes only costs for paying benefits, and excludes administrative costs.

In detail, suppose that the number of eligible elderly people accounts for e percent of the total population, and the benefit provided to each person is equal to b percent of GDP per capita. The total fiscal costs excluding administrative costs - as a percent of GDP - will be:

$$t = e * b \quad (5)$$

This calculation implies that the benefit is not linked to the official poverty line, which grows with inflation rather than GDP. Also, an increased number of eligible elderly recipients or higher benefit levels means higher fiscal costs. We will use the population projections by GSO (2011) for the estimated elderly population.

(v) Main assumptions

We use the VHLSS 2010 data to simulate a counterfactual situation in which the current cash transfer program for the elderly in Vietnam would be expanded to various elderly groups as indicated above. There are three main assumptions for such simulation exercises.

First, for the baseline case, we assume that the benefit level is equal to 50 percent of the official poverty line.

Second, we assume that the benefits will be added to the household's total expenditure, and then divided equally among each member of the elderly household. This is a necessary assumption, because we are unable to account for differentiated individual expenditure within the household due to data limitation as discussed above. Under this assumption, the simulated cash transfer programs would reduce poverty for various groups, including the elderly poor, the elderly non-poor, the non-elderly poor, and the non-poor non-elderly. In other words, the leakage rate would be expected to be high in some cases.

Third, we assume that only benefit levels and age thresholds would be changed to match given fiscal costs, while other factors will remain the same. For instance, provided with benefits, the elderly and their family members will not change behavior – such as the supply of labor and consumption styles. Also, there will be no macroeconomic feedback due to the expansion of the cash transfer program, because the government needs to increase

social expenditure for the program.

Obviously, these aforementioned assumptions are strong, and thus there would be potential biases in estimation. As such, policy implications need to be thoroughly considered.

3. Cash transfer program and old-age poverty: an overview

3.1. Cash transfer program in Vietnam

On 13 April 2007 the Government of Vietnam issued Decree No. 67/2001/NĐ-CP on support to social assistance beneficiaries, in which poor and living-alone elderly, poor elderly couples without any supporting relatives, and those aged 85 and over without retirement and other social allowance benefits would receive a minimum amount of VND 120,000 per month, free health insurance, and VND 2 million for funeral costs when they die.

On 27 February 2010, the Government issued Decree No.13/2010/NĐ-CP, which revised some regulations in the earlier Decree 67/2007/NĐ-CP. The most important revisions were that the minimum amount was VND

Table 1: Who are the beneficiaries of the social pension scheme in Vietnam?

Category	Beneficiaries	Multiplier	Benefit level (VND 1,000)
1	Older people living in poor households, AND: 1/ living alone; or 2/ living with an ill older spouse and who do not have any children, grandchildren or relatives to support		
	– 60-79	1	180
	– 60-79 and are severely disabled;	1.5	270
	– 80+	1.5	270
	– 80+ and are severely disabled;	2	360
2	80 years old and over who do not have retirement or other social allowance benefits	1	180

Source: Own compilation from Decree No.13/2010/NĐ-CP

Table 2: Number of older people receiving monthly benefits, 2007-2011

Year	2007	2008	2009	2010	2011
Number of beneficiaries (1,000 persons)	591.6	667.0	850.0	948.0	1071.3
Minimum benefit level (VND 1,000)	120	120	120	180	180

Source: *ILSSA, GIZ and EvaPlan (2012)*

180,000 and funeral costs increased to VND 3 million.

Table 1 summarizes regulations in Decree No.13/2010/NĐ-CP.

Table 2 presents the number of beneficiaries of the cash transfer program in the period 2007-2011. By 2011, about 13 percent of the elderly population received benefits from the program.

Given some progress and impacts of the cash transfer program for older people (see, for instance, Giang and Pfau, 2009a,b; Dam et al., 2010; Giang and Wesumperuma, 2012), there are some issues that need to be considered so as to improve the performance and impact of the cash transfer program.

Identifying beneficiaries

In Vietnam's social protection system, MoLISA takes care of policy design and implementation, while the Ministry of Finance (MOF) takes care of allocating finance. These two institutions are organized vertically, from central to communal levels. MoLISA staff members at the communal level are responsible for identifying beneficiaries of different social programs, including the social pension scheme. After the list is finalized, it will be submitted to the upper levels of administration, i.e., district, provincial, then central. Proposals of financial costs for social pensions

submitted to MOF's affiliations go through a similar approval process.

Identifying beneficiaries under Category 1 is problematic, especially in terms of ascertaining poverty and evaluating health status. As mentioned earlier, the poor are identified based on the poverty line defined by MoLISA, in which the level of benefits are determined. However, a study by the World Bank (2010) shows that the poverty threshold was generally based on central and local budget availability, rather than on satisfying demand. As a result, MoLISA's poverty threshold has always been much lower than the World Bank's standard of \$1.25 per person per day. Rural and urban poverty lines are also different, and due to budget constraints, poverty lines have remained unadjusted in some provinces.

Beneficiaries of the social pension scheme under Category 2 are recognized based on their personal identification (ID) card or household registration. Older people who remain uncovered under this category often cannot provide the required certified documents for whatever reason.

In addition, the list of poor households is updated annually based on households' income sources and other characteristics (such as housing conditions). A household's per capita income is then estimated and used to catego-

size near-poor, poor, and extremely poor households. However, estimating household incomes from different sources is subjective and dependent on the evaluation of local staff. Comparability across households and provinces is thus difficult. Before finalizing the list of the poor, each locality's representative citizens meet to examine the proposed list. This has, however, proven ineffective in objectively identifying the poor, since familiarity and established relations with each other have made evaluations extremely discretionary (Evans et al., 2012).

Benefit delivery

The delivery mechanism for any social transfer program in Vietnam, including the social pension, has followed the 'push method' (Schüring et al., 2009), with cash is directly delivered to beneficiaries through the following ways:

- Method 1: Communal financial staff directly pay beneficiaries after eligibility validation (usually through signatures or fingerprints). Documents are copied and sent to the District People's Committee for final certification and approval of the list. Everything is implemented at the Communal People's Committee office.

- Method 2: In case beneficiaries are unable to go to the Communal People's Committee office where benefit money is handed over to recipients, a staff member or relative will receive the cash on behalf of the beneficiary, who then certifies receipt of the benefit.

- Method 3: In case the Communal People's Committee is unable to make payments to beneficiaries due to geographic difficulties, the

District People's Committee will undertake the task. Beneficiaries' certifications of receipt are also required.

An important factor contributing to good benefit delivery at the commune level is strict and frequent supervision of the communal older people's association, which is an affiliate of the Vietnam Association of the Elderly (VAE). The local VAE works closely with local authorities to generate the list of eligible older beneficiaries, helps older people complete the documents required by the District Bureau of Labour, Invalids, and Social Affairs, and ensures that older people receive benefits in a timely manner. Timing of benefit delivery is the most concerning issue since beneficiaries sometimes do not receive cash on the same day of every month due to delays in cash transfers between the local and central governments (Giang and Wesumperuma, 2012).

Administrative capacity for outreach, implementation, and monitoring

While the coverage of Vietnam's social pension scheme has expanded, the staff handling its administration remains limited and inappropriately distributed across areas and regions. A number of critical issues have been identified in the existing studies (see, for instance, ILSSA-UNFPA, 2007; World Bank, 2008; and Giang et al., 2011) as follows:

- First, relative to the number of beneficiaries and poor households, the number of MoLISA staff at different administrative levels handling social transfer programs is small. A report by Giang et al. (2011) shows that in some districts, one staff member supervises and updates information for 600 poor households living in mountainous and remote areas.

Differences in geography, traditions, and living conditions also pose additional challenges for staff. They are generally overburdened and unable to update and supervise the programs well.

- Second, staff usually do not have professional training in social policy and practice, going by just self-study and experience. Program management is thus suboptimal. Giang et al. (2011) find numerous documents related to social allowance programs that have not been upgraded to reflect current regulations.

- Third, demands from local staff are high, but compensation is inadequate and adjusted infrequently because: salaries are based on the minimum wage, which is just about 40 per cent of per capita GDP; and staff generally have low qualifications, pegging their salary at a low scale. In addition, compensation tends to

be equalized irrespective of working conditions.

- Fourth, program design and implementation are decided by various central and local government institutions (such as the Provincial Department of Labour, Invalids, and Social Affairs and Department of Finance) at various stages, and inevitably, the demarcation of responsibilities are blurred, delaying policy implementation.

3.2. Old-age poverty in Vietnam

Poverty incidence and vulnerability of the elderly are critical for some groups. Table 3 shows the variation of the official poverty line, which is measured by real per capita expenditure: 50 per cent of the official poverty line shows extreme poverty, from which it is very difficult to escape; 125 per cent of the official poverty line shows near-poor status, in which people are not poor, but vulnerable to poverty;

Table 3: Vulnerability to poverty of the Vietnamese elderly, 2010

Elderly group	50% poverty line	Official (100%) poverty line	125% poverty line	200% poverty line
<i>All elderly</i>	2.08	18.14	30.26	61.28
<i>By age</i>				
60 – 69	1.78	15.85	26.90	55.89
70 – 79	2.32	19.52	32.17	65.47
80+	2.40	21.66	35.60	67.74
<i>By gender</i>				
Male	1.77	16.98	28.54	58.66
Female	2.29	18.95	31.44	63.09
<i>Ethnicity</i>				
Kinh (Vietnamese)	1.03	13.71	25.49	58.27
Ethnic minorities	10.02	51.94	66.51	84.16
<i>Residential areas</i>				
Urban	0.74	6.00	11.81	35.06
Rural	2.70	23.75	38.77	78.38

Source: Own estimates, using VHLSS 2010

and 200 per cent of the official poverty line shows non-poor status, in which people may never fall into poverty.

For any poverty line, four trends are clear: (i) the poverty rate increases as people get older; (ii) older females are always poorer than their male counterparts; (iii) old ethnic minorities are always much poorer than their Kinh counterparts; and (iv) older people in rural areas are also much poorer than their urban counterparts. The poorer older people, i.e., of more advanced age, female, ethnic minority and rural, are more vulnerable to poverty than are their counterparts because their poverty rates vary more substantially than do the poverty rates of their counterparts

4. Findings and policy discussion

4.1. Potential impacts of cash transfer programs on old-age poverty

We now consider the potential impacts and fiscal costs of different cash transfer programs on old-age poverty in Vietnam, given two important baselines: (i) age will be considered at four thresholds, i.e. 60 and over (or all elderly persons); 65 and over; 70 and over; and 75 and over; and (ii) four categorical elderly groups, i.e., **ALL**, **RUR**, **ETH** and **POOR**.

Table 4 presents our estimates. It is crucial to note that these estimates are not comparable because each program focuses on a specific elderly group at a certain age threshold. In general, given the same benefit level provided to all specific groups of the elderly, the fiscal cost would be higher for the cash transfer program covering more of the elderly. In the same category, however, the results clearly show that higher fiscal costs would bring greater

impacts on poverty reduction.

Table 5 provides the simulation results for (i) Gini coefficients, which are measured by per capita expenditure, and (ii) poverty ratios, which are calculated according to the ratio between per capita expenditure and the official poverty line.

In general, the results indicate that, though the impact magnitudes would be different, all proposed cash transfer programs would be able to reduce expenditure inequality for the elderly population in particular and the Vietnamese population in general. For instance, a universal program (covering all older people) would reduce the Gini coefficient for older people from 0.406 to 0.372; and for the whole Vietnamese population from 0.393 to 0.386.

Notable findings on the poverty ratios for the elderly are also presented in Table 5. Though the potentials of the proposed cash transfer programs would obviously be different, the results show that all the programs under consideration would be able to lift a proportion of the elderly population out of poverty. For instance, about 12.11 percent of older people were living in the near-poor range (100% to 125% of the official poverty line), but this number would be reduced to 9.18 percent if a universal cash transfer program (covering all the older population) had been introduced in 2010. At the same time, the percentage of the elderly living under the official poverty line would have been reduced substantially from 18.15 percent (=2.08 + 16.07) to 10.17 percent (=0.41 + 9.76); and the percentage of the elderly living above 200% of the official poverty line would have increased

Table 4: Impacts on the recipients' poverty rate and fiscal costs

Age	Category	ALL (All elderly)	RUR (Only rural elderly)	ETH (Only ethnic minority elderly)	POOR (Only poor elderly)
60 and over					
	Benefit as % of GDP per capita (a)	17.2	17.2	17.2	17.2
	Beneficiaries as % of total population (b)	10.2	6.94	1.18	1.84
	Fiscal costs as % of GDP 2010 (c=a*b)	1.75	1.19	0.20	0.32
	Fiscal costs (VND billion)	34,665	23,572	3,961	6,338
	Program impact:				
	- Pre-program poverty rate (%)	18.14	23.75	51.94	100
	- Post-program poverty rate (%)	10.17	11.31	38.31	56.05
	- Change (poverty reduction) (%)	-43.9	-52.4	-26.2	-43.95
65 and over					
	Benefit as % of GDP per capita (a)	17.2	17.2	17.2	17.2
	Beneficiaries as % of total population (b)	7.17	4.96	0.83	1.40
	Fiscal costs as % of GDP 2010 (c=a*b)	1.23	0.85	0.14	0.24
	Fiscal costs (VND billion)	24,365	16,897	2,773	4,754
	Program impact:				
	- Pre-program poverty rate (%)	19.48	25.66	52.53	100
	- Post-program poverty rate (%)	10.39	14.42	38.93	54.69
	- Change (poverty reduction) (%)	-46.7	-43.8	-25.9	-45.31
70 and over					
	Benefit as % of GDP per capita (a)	17.2	17.2	17.2	17.2
	Beneficiaries as % of total population (b)	5.28	3.68	0.60	1.07
	Fiscal costs as % of GDP 2010 (c=a*b)	0.91	0.63	0.10	0.18
	Fiscal costs (VND billion)	17,986	12,479	1,980	3,565
	Program impact:				
	- Pre-program poverty rate (%)	20.26	26.25	49.22	100
	- Post-program poverty rate (%)	11.07	14.89	39.08	54.65
	- Change (poverty reduction) (%)	-45.4	-43.3	-20.6	-45.35
75 and over					
	Benefit as % of GDP per capita (a)	17.2	17.2	17.2	17.2
	Beneficiaries as % of total population (b)	3.30	2.32	0.34	0.71
	Fiscal costs as % of GDP 2010 (c=a*b)	0.57	0.40	0.06	0.12
	Fiscal costs (VND billion)	11,291	7,923	1,188	2,377
	Program impact:				
	- Pre-program poverty rate (%)	21.53	28.19	49.82	100
	- Post-program poverty rate (%)	11.87	15.74	40.43	55.13
	- Change (poverty reduction) (%)	-44.9	-44.2	-18.8	-44.87

Note: GDP in 2010 was VND 1,980,914 billion. GDP per capita in 2010 was VND 22,788,000. With an assumption that cash transfer amount is 50% of the official poverty line, benefit as % of GDP per capita was 17.2%. The minus sign (-) shows a decrease.

Source: Own estimates, using VHLSS 2010 and GSO (2012).

Table 5: Potential impacts on expenditure equality and poverty distribution

Indicators	Pre-program	Post-program			
		60+	65+	70+	75+
<i>Group</i>	<i>Gini coefficient</i>				
Total population	0.393	0.386	0.387	0.389	0.390
Elderly	0.406	0.372	0.379	0.386	0.393
<i>Poverty ratios</i>	<i>Percentage of the elderly population</i>				
0% - 50%	2.08	0.41	0.52	0.48	0.54
50% - 100%	16.07	9.76	9.87	10.59	11.33
100% - 125%	12.11	9.18	9.72	10.47	10.53
125% - 200%	31.02	32.55	20.11	36.25	38.37
> 200%	38.72	48.10	54.80	42.20	39.23
<i>Total</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>

Source: Own estimates, using VHLSS 2010

from 38.72 percent to 48.10 percent.

4.2. The long-term fiscal costs of universal cash transfer programs

As indicated in a number of studies on cash transfer programs, such as UN-DESA (2007),

the crucial issue for any developing country is whether the fiscal costs would be affordable in the long-term. This question is important in the case of Vietnam as well. To address this, given the aforementioned calculation method adopt-

Table 6: Fiscal costs for universal cash transfer programs, 2009-2049

Year	2009	2019	2029	2039	2049
<i>Providing benefits to all elderly (aged 60 and over)</i>					
Eligible Population (as % of total population)	8.7	11.4	16.7	21.4	26.1
Benefit (as % GDP per capita)	17.2	17.2	17.2	17.2	17.2
Fiscal Cost (as % of GDP)	1.49	1.96	2.87	3.68	4.48
<i>Providing benefits to all elderly aged 65 and over</i>					
Eligible Population (as % of total population)	6.4	7.1	11.4	15.6	19.1
Benefit (% GDP per capita)	17.2	17.2	17.2	17.2	17.2
Fiscal Cost (as % of GDP)	1.10	1.22	1.96	2.68	3.28
<i>Providing benefits to all elderly aged 70 and over</i>					
Eligible Population (as % of total population)	4.6	4.3	6.8	10.4	12.9
Benefit (% GDP per capita)	17.2	17.2	17.2	17.2	17.2
Fiscal Cost (as % of GDP)	0.79	0.74	1.17	1.78	2.22
<i>Providing benefits to all elderly aged 75 and over</i>					
Eligible Population (as % of total population)	3.0	2.6	3.5	6.1	8.0
Benefit (% GDP per capita)	17.2	17.2	17.2	17.2	17.2
Fiscal Cost (as % of GDP)	0.52	0.47	0.60	1.04	1.37

Notes: fiscal costs are for benefit payments only, and exclude administrative and other related costs.

Source: Own calculations, using data from GSO (2011).

ed from Willmore (2007), we will use the population projection results from GSO (2011). The period for our fiscal cost simulation is 2009-2049. Using four age thresholds, the simulation results for four universal cash transfer programs are provided in Table 6.

Suppose that we will provide the same benefit as in 2010 (i.e., 50 percent of the official poverty line), which was about 17.2 percent of GDP per capita, to all elderly people in four cash transfer programs according to four age thresholds. As the Vietnamese population ages, more elderly people would be beneficiaries of the cash transfer program, and therefore the fiscal costs would be higher. Table 6 shows, however, that the highest fiscal costs for a universal cash transfer program covering all elderly people would be as high as 2.43 percent of GDP in 2049. Such a finding is in line with the simulation results for many other developing countries in UN-DESA (2007).

5. Concluding remarks

Using VHLSS 2010 with micro-simulation techniques, this paper generally found that a cash transfer program would be able to significantly reduce old-age poverty in Vietnam, both in terms of the poverty rate and the poverty gap. Our simulation results also argue that it would be financially affordable for Vietnam to expand the current cash transfer program to wider groups of the elderly, which in turn would help to reduce poverty and vulnerability of the elderly.

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From the experiences of Vietnam, there are some lessons for other developing Asian countries in considering social pensions for older people.

First, a universal social pension can work in low-income countries, as it has the potential to reduce poverty for a large number of older people at an affordable cost. This can be proved by the cost projections by the United Nations (2007) for a number of countries in the world.

Second, in countries where the incidence of poverty among older people is a significant issue, a universal social pension scheme providing low benefits to a large number of beneficiaries would be more beneficial in terms of poverty reduction than a universal social pension scheme providing high benefits to a small number of beneficiaries. In particular, providing benefits to older rural people would be most beneficial in terms of poverty reduction and equality improvement.

Third, aging and older people should not be ignored in any development strategies. Cash transfers are not the sole solution for fighting poverty among older people, and should be considered merely as an instrument to help reduce poverty. It is necessary to prepare well for an aging population from now by promoting education and health for the youth, which in turn will guarantee older, healthier, and wealthier nations.

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