Ageing & Society **38**, 2018, 37–55. © Cambridge University Press 2016
doi:10.1017/S0144686X16000817

Poverty in old age: evidence from Hong Kong

LIH-SHING CHAN* and KEE-LEE CHOU*

ABSTRACT
The Hong Kong population will age rapidly over the next three decades and the entailing problem of old-age poverty will put the Hong Kong government to test. While the government has been using a solely income-based measurement, the main purpose of this study is to assess poverty rates among Hong Kong's older population in terms of both income and consumption-based measurements by using both relative and absolute concepts of poverty. It also examines the association of socio-economic and household characteristics with elder poverty rates. A two-stage stratified sample design was adopted. A total of 4,306 older adults were personally interviewed in their homes, yielding a response rate of 66.2 per cent. This study contributes to the larger study on poverty in Hong Kong by revealing how income and consumption poverty rates may differ among older adults. Older adults who were both income and consumption poor were more likely to be female, widowed, living alone and to have received less than an elementary school-level education. They possessed very few assets and were most likely financially dependent on family support and welfare payments. To understand fully the economic wellbeing of older adults in Hong Kong, this study proposes that joint distribution of income and consumption poverty can better identify and explain the demographic characteristics of the poor older adults. Implications of the study are discussed based on the neo-liberalist approach that the Hong Kong government has taken in welfare provisions.

KEY WORDS – poverty, income, consumption, wealth, Hong Kong.

Introduction

As a world-class affluent city where its success and prosperity are to be emulated in Asia, Hong Kong has been a strong advocate in free market economy and neo-liberalism. The neo-liberal characters of Hong Kong governance can be observed in its government's non-interventionist role, conservative fiscal policies that restrict public spending and the lack of welfare

* Department of Asian and Policy Studies, The Hong Kong Institute of Education, Hong Kong.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

protection (Lee and Haque 2006). With the hard work and contributions of the Hong Kong people in the past decades, Hong Kong has attained a relatively high standard of economic development among Asian states. Nonetheless, the welfare option available to the Hong Kong people is limited once they have retired from the workforce. The entailing threat of poverty in old age has challenged the neo-liberal approach of the Hong Kong government. Hence, it is significant to study the case of Hong Kong, as the exemplary neo-liberalist governance in Asia, on its government strategy and policies' adequacy in coping with the ageing population and their welfare provisions. Evidence from Hong Kong may have general implications for other Asian developing countries that are pursuing the path of neo-liberalisation.

Hong Kong's population will age rapidly over the next three decades, with older persons already forming a disproportionately large share of its poor. In 2012, 13.9 per cent of the Hong Kong population was aged 65 and older, a figure which is predicted to reach about 30.3 per cent by 2041 (Census and Statistics Department 2012). The increasing proportion of older adults in Hong Kong calls attention to the issue of poverty in old age. From 2001 to 2011, the number of Hong Kong people living in poverty and the number of households in poverty increased from 1.19 to 1.26 million and from 0.42 to 0.47 million, respectively, based on a poverty line of half the median income (Hong Kong Council of Social Services 2012). Compared with the poverty rates of children and the general population (24.2 and 19.6%, respectively), that of adults aged 65 and above was higher at 33.3 per cent (Commission on Poverty 2012). Like their counterparts in other countries (Mujahid, Pannirsalvem and Doge 2008), older adults in Hong Kong face a higher risk of poverty compared to those in other age groups. Impoverished older adults are less likely to escape the poverty trap than their younger counterparts. Poverty among older adults is associated with poorer health and higher functional impairment, higher rates of institutionalisation and spending a higher proportion of income on out-of-pocket health-care services (Hurd 1990).

To tackle the challenges of financial security of the ageing population, Hong Kong has adopted the multi-pillar approach to old-age financial protection recommended by the World Bank (Holzmann, Palacios and Zviniene 2004). The first pillar, funded by general revenues, serves as a social safety net for meeting the basic requirements. In Hong Kong, the first pillar is supported by three programmes financed by tax revenues (Chou, Chow and Chi 2004), *i.e.* the Old Age Category of the Comprehensive Social Security Assistance (Old Age CSSA) scheme, the Old Age Living Allowance (OALA) scheme and the Higher Old Age Allowance (HOAA) scheme. Both the Old Age CSSA and OALA are non-contributory and means-tested, with the eligibility of the OALA scheme being open to individuals aged over 65 and

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

has looser asset and income limits than Old Age CSSA. Lastly, the HOAA scheme is universal and requires no means testing, and is available to all adults who reach the age of 70.

The second pillar refers to mandatory and privately managed retirement schemes where individuals' contributions (usually made as a percentage of earned income) are saved and invested to generate income in retirement. The Mandatory Provident Fund (MPF) system is a privately managed compulsory savings scheme that was launched by the Hong Kong Special Administrative Region (HKSAR) government in 1998. It is compulsory for both employment-based and self-employed persons in Hong Kong aged 18–65 years to be covered by one of the registered MPF schemes. Benefits are paid as a lump sum when individuals reach 65, as a form of retirement protection.

The third pillar refers to voluntary savings made by individuals and support from their families, which is intended to supplement the first two pillars. In the case of Hong Kong, both family support, which mainly derived from adult children (Chou 2010; Chou, Chow and Chi 2004), and private savings contributed to a substantial proportion (58.4 per cent) of the current cohort of older adults. Nonetheless, the third pillar may not be substantially sustained in the coming three decades due to declining fertility rate that reduces the number of adult children, and also to the weakening of intergenerational familial obligations (Chou 2010; Logan and Bian 2002; Zimmer and Kwong 2003).

In short, retirement protection in Hong Kong is still underdeveloped (Chou, Chow and Chi 2004; Chou, Wong and Chow 2011). The challenge of reforming the retirement income protection system in Hong Kong lies within the dilemma faced by the HKSAR government. Wong pointed out that a neo-liberal state like Hong Kong 'can provide state welfare beyond the minimum, if a given social policy enhances economic growth' (2008: 326). However, means-tested social services for the poor are not associated with economic development, especially for older adults who have retired from the workforce. Such is the dilemma faced by the HKSAR government which, on one hand, needs to balance the fiscal management of social policies, while on the other, has to fulfil demands from the general public that do not show much empathy to the poor and the vulnerable.

Income and consumption-based measures of poverty

Due to the impact of the Asian financial crisis, the HKSAR government eventually acknowledged poverty as a social problem in 2000, and yet the first Commission on Poverty was only inaugurated five years later. On 28 September 2013, the Committee on Poverty announced and defined the

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

first official poverty line in Hong Kong, setting it at half of the median of the household income. Based on the concept of relative poverty, this poverty line was selected because household income is more accessible, more readily understood and more internationally comparable than other types of data. It also provides a reasonable guide to the material resources available to household members. However, using household income as the measurement of poverty is particularly problematic for the aged population because they may be 'asset rich but cash poor'. To overcome this problem, the poverty line for older persons can be measured in terms of consumption by setting the poverty threshold to half the median of household *expenditure*. Studies show that some older persons are considered poor if income is used as the standard but may not be considered poor if consumption is used, and *vice versa* (Charles *et al.* 2006; Hurd and Rohwedder 2006; Meyer and Sullivan 2003). Therefore, to compare the two measurements, the first objective of this study is to identify the poor older adults by applying both income and consumption measurements, based on the concept of relative poverty.

Absolute measures of poverty

Unlike the relative poverty line, which varies with changes in income distribution, the absolute poverty line remains fixed over time and only needs to be adjusted for inflation. An absolute poverty line is essential if one wants to determine the effect of anti-poverty measures. The threshold could be linked to income from means-tested cash welfare benefits, like the CSSA in Hong Kong, or by applying the poverty standard that the United States of America (USA) developed, based on a food budget using purchasing power parities (Björklund and Jäntti 1997; Bradshaw *et al.* 2000). Another way to establish an absolute poverty line is based on budget standards. These standards are not arbitrary because they are designed to derive a basket of goods that will reflect a minimum acceptable standard of living (Ravallion 1998). The choice of goods and their prices relies on the judgement of experts or the consensual method based on the views of the general public (Bradshaw *et al.* 2008). Therefore, the second objective of the study is to identify the poor older adults using an absolute measure of poverty based on both the household income and consumption.

Socio-economic and household characteristics and poverty in old age

There are several vulnerable groups of older persons who are at higher risk of poverty. In the USA, poverty rates are the highest for those aged 85 or older, and rates for older women are nearly double those of men (Banerjee

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

2012; Purcell 2009). In 2009, older persons with less education had higher poverty rates, while rates among married couples (4.1%) were much lower than for single older women (20.9%) or men (15.6%) (Banerjee 2012; Purcell 2009). By examining the characteristics of older persons who may be included or excluded depending on the measure of poverty used, we can assess which measure does a better job of capturing disadvantages. Households headed by a single older adult, especially if that person is a woman, are at higher risk of poverty than those headed by an older couple (Casey and Yamada 2002); older persons who live alone also have higher poverty rates than those who live with others besides a spouse (Dodge 1995; Waehrer and Crystal 1995). Using data obtained from the Luxembourg Income Study, Tai and Treas (2009) find that living with more children, fewer older adults and more wage earners reduces the risk of elders being in poverty, as does having a married and better-educated head of household. As such, the third objective of this study is to examine the association of socio-economic and household characteristics with the risk of old-age poverty in Hong Kong, as defined by various different poverty measures.

Method

Respondents

A sampling frame was randomly drawn by the Department of Census and Statistics of the HKSAR government from the General Household Survey local census database (N = 7,000). This sampling frame was chosen because it is the most up-to-date, complete and authoritative source available in Hong Kong. A two-stage stratified sample design was adopted, with records in the frame of quarters first stratified by geographical area and type of quarter. In the first stage, a random sample of quarters was selected. In the second, one household member aged 60 and older in each household was invited to be interviewed using the last birthday method. Individuals aged 60 and above who were living in communities were eligible for inclusion in this study. The age of 60 was used to define Hong Kong older adults as it is the eligible age to receive Old Age CSSA. Of this sampling frame, 6,500 older persons were invited to take part in 2012, of whom 2,194 either refused to participate or could not be contacted after three home visits. Consequently, 4,306 older adults were personally interviewed in their homes, yielding a response rate of 66.2 per cent.

Dependent variables

We used two resource measures, namely household income before tax and household expenditure (reflecting the current standard of living in each

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

household). The respondents were asked whether they had received income in the past month from a number of sources, including wages, family members or friends, government assistance (CSSA, OAA or other), pension, rental income, investment income and other income. Similarly, monthly expenditure was assessed by asking the respondents how much they had spent on the following items in the past month: rent, utilities, food and transportation, educational payments for children, hiring domestic helpers, transfers to other family members living elsewhere, health care and life insurance, tax and other expenditure. For those who owned the home they were living in, rental equivalence was used to capture its consumption value of the home (Fisher *et al.* 2009).

The amount of all income and expenditure items was measured using a 23-option item based on the US dollar (US $1 = HK $7.8).[1] The actual amount of income and expenditure was estimated by imputation of the median of the range of all categories except the last (more than US $12,819), which we imputed by the lower bound. We acknowledge that this imputation procedure would have introduced errors into our measurements, but if we had asked for the exact amount of income and expenditure, the non-response rate for these sensitive items would have been high and would introduce non-systematic errors into our data-set. Therefore, we believe that using a range as the response format struck a balance between the accuracy of the answers and achieving an acceptable item response rate.

We used household income and expenditure to assess the poverty status of older persons, assuming that resources were shared equally among all individuals within a household. However, we also needed to account for differences in the household size due to the potential economies of scale for households consisting of more than two persons. Therefore, we adjusted the household income and expenditure by an equivalence scale by dividing household income or expenditure by the square root of household size (Fisher *et al.* 2009; Garfinkel, Rainwater and Smeeding 2006). The thresholds of income and expenditure were US $499 and 481, respectively, for singleton households.

The poverty status of a household was determined by two methods. Firstly, we adopted the relative measure of poverty appropriated by the HKSAR government in 2013 (Commission on Poverty 2013), in which half of the median income is adjusted by household size from the full population. We also defined a group of the 'near poor', which refers to those at 150 per cent of the threshold; namely half the median household income or expenditure. We refer to this here as the official poverty threshold, but our income poverty rate will differ from the official poverty rate because it has been modified using a different equivalence scale. Secondly, we used an

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

absolute measure of poverty, namely the median of the CSSA benefit level for households of different sizes. This was chosen because it was the poverty line proposed by the Commission on Poverty in 2004. The thresholds for households of one, two, three, four, five and six or more persons were US $454, 758, 1,025, 1,217, 1,443 and 1,803, respectively.

Independent variable

The demographic control variables included: age; gender; marital status (currently married, widowed, divorced/separated or never married); education level (below elementary, elementary school, high school and college); housing status (owning one's house or not); and the amount of assets held. We created one dummy variable for gender (0 = male, 1 = female), while three dummy variables were created to represent marital status by contrasting widowed, divorced/separated and single with married respondents. We also coded three dichotomous variables for education by contrasting college education with having no formal education, elementary school and high school. Lastly, we assessed the living arrangements by asking the respondents whether or not they were living with their children.

We also asked the respondents to report their possession of four categories of assets, namely (a) cash and savings; (b) stocks, bonds and funds; (c) property they occupied; and (d) property they did not occupy. We then created four dummy variables to indicate whether or not the respondents owned these types of assets. The amount of all these types of assets was measured using a 24-option item based on the US dollar (US $1 = HK $7.8).[2] Similar imputations (using the median of the range) of income and consumption were performed on these asset values.

Analysis

We firstly examined the income and consumption distribution of older adults and the changes in income and expenditure for different age groups. Following the work of Fisher *et al.* (2009), the median was calculated as the mean over the individuals in the ranges between the 45th and 55th percentiles. This provides a better approximation for income and consumption in the middle of the distribution and is less likely to be affected by extreme values, especially for income. Then, we examined the joint distribution of income and consumption relative to the official poverty threshold and the absolute thresholds for three groups: poor, near poor and non-poor. Finally, we looked at the demographic and socio-economic characteristics of the income and consumption poor using both thresholds.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

TABLE 1. *Income and consumption by age*

	Ages			Average annual percentage change over age group		
	60–69	70–79	80+	60–69 to 70–79	60–69 to 80+	70–79 to 80+
Median (US$):						
Income	729	637	697	−1.33*	−0.29*	0.90*
Consumption	783	666	672	−1.61*	−1.02*	0.09
10th percentile (US$):						
Income	232	232	233	−0.02	0.02	0.05
Consumption	295	259	266	−1.31*	−0.67*	0.31
N	1,996	1,621	689			

Notes: Median income and consumption are calculated as the mean over the 45th and 55th percentiles. The 10th percentile for income and consumption are calculated as the mean over the 5th and 15th percentiles.
Significance level: * change is significantly different from zero at the 5 per cent level.

Results

Association of age with income and expenditure

Table 1 shows the income and expenditure at the median and 10th percentiles in three age groups: 60–69, 70–79 and 80+. For those at the median, consumption exceeded income for the younger age groups, namely 60–69 and 70–79, while income was greater than expenditure among those aged 80+. For those whose incomes were at the 10th percentile, consumption consistently surpassed income for all three age groups. Table 1 shows that both the median income and consumption fell by 1.33 and 1.61 per cent per year between the ages of 60–69 and 70–79, but median income increased by 0.9 per cent annually between 70–79 and 80+. On the other hand, at the 10th percentile, consumption decreased by 1.31 per cent between the age groups 60–69 and 70–79, but still exceeded income in three age groups. At the 10th percentile, income remained stable between age groups.

Poverty status based on income and consumption

Table 2 presents the proportion of older adults living in poverty using half the median and the CSSA threshold for both income and consumption flows. The poverty rates are measured by before-tax income, consumption and the combination of both. For the official definition of poverty as half the median household income, the poverty rate was 36.4 per cent; using half of the median household consumption, this was reduced to 31.1 per cent. The proportion of those who were poor in terms of both income

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

TABLE 2. *Poverty rates using income and consumption measures among adults aged 60 and older*

	60–69	70–79	80+	60+
		Percentages		
Below using half of median:				
Income	34.1	38.9	37.2	36.4
Consumption	26.0	34.7	37.6	31.1
Consumption and income	21.6	27.9	30.0	25.3
Below using CSSA threshold:				
Income	40.1	42.3	40.3	41.0
Consumption	33.8	41.1	43.1	38.0
Consumption and income	28.7	32.6	33.7	31.0
N	1,996	1,621	689	4,306

Notes: N = 4,306. CSSA: Comprehensive Social Security Assistance.

and consumption dropped to 25.3 per cent. For the fixed poverty threshold defined as the level of CSSA benefits, the rate of income poverty was 41.0 per cent, and for consumption poverty was slightly lower at 38.0 per cent. A lower percentage (31.0 per cent) was found for those who were both income and consumption poor. In short, the poverty rates of older adults based on the absolute threshold were higher than those obtained using the relative threshold. Moreover, for both relative and absolute measures, income-based poverty rates fluctuated slightly across the age groups whereas the percentage of consumption poor and both income and consumption poor increased steadily with age.

Joint distribution of the income and consumption poor

Table 3 compares the distribution between income and consumption for these poverty rates using three categories: poor (below the threshold), near poor (between 100 and 150% of the threshold) and those not in poverty (above 150% of the threshold) for adults in the age groups 60–69, 70–79 and 80+. The sum of the percentages of each 3×3 matrix in each age group is 100 per cent. Specifically, 25.3 per cent of older adults aged 60 and older were both income and consumption poor using the official poverty thresholds while 38.9 per cent were not poor in terms of either income or consumption. Both the relative and absolute measures of the poverty threshold showed a similar pattern in terms of comparing the 'income poor but consumption non-poor' with the 'consumption poor but income non-poor'. The percentage of older adults in the former category reduced with age, whereas the percentage of those in the latter increased.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

TABLE 3. *Joint distribution of income and consumption relative to a poverty threshold among adults aged 60 and older*

	Consumption flows relative to half the median			Consumption flows relative to CSSA thresholds		
	<100%	100–150%	>150%	<100%	100–150%	>150%
	Income relative to half the median			*Income relative to CSSA threshold*		
60+:						
<100%	25.3	5.0	6.1	31.0	4.9	5.1
100–150%	3.9	9.2	5.6	4.6	9.9	3.8
>150%	2.0	4.0	38.9	2.5	5.0	33.3
60–69:						
<100%	21.6	5.9	6.6	28.7	5.8	5.6
100–150%	3.2	9.4	6.0	3.6	10.5	3.6
>150%	1.2	4.2	42.0	1.5	4.7	36.0
70–79:						
<100%	27.9*	4.9	6.2	32.6*	4.6	5.1
100–150%	4.5	9.7	5.4	5.3*	9.6	3.8
>150%	2.3*	3.9	35.2*	3.1*	5.3*	30.5*
80+:						
<100%	30.0*	2.9*	4.2*	33.7*	2.9*	3.8
100–150%	4.2	7.5	5.1	5.7*	8.9	4.1
>150%	3.3*	4.1	38.6	3.8*	5.5	31.8*

Significance level: * statistically significantly different from the same cell at ages 60–69 years at the 5 per cent level.

Using official relative poverty thresholds, the percentage of older adults with income below the threshold but consumption above 150 per cent decreased from 6.6 per cent at ages 60–69 to 4.2 per cent at ages 80+, while the proportion of those whose consumption was below the threshold but with income above 150 per cent increased from 1.2 per cent at ages 60–69 to 3.3 per cent at ages 80+. These findings are similar to those of Fisher *et al.* (2009) in their study of older Americans. They identified a smaller percentage of individuals who were income poor but had consumption above 150 per cent, from 7.6 per cent at ages 55–64 down to 5.9 per cent at ages 75+. Similarly, a greater percentage of individuals were consumption poor but had income above 150 per cent of the threshold, from 0.8 per cent at ages 55–64 up to 1.1 per cent at ages 75+. A similar pattern was also found using the absolute threshold, but this is not consistent with the US absolute poverty measurement (Fisher *et al.* 2009). A possible explanation for this is that the data used by Fisher and colleagues covers a period of 20 years from 1983 to 2003 and, therefore, the distribution of consumption and income would have changed over time.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

Demographic characteristics of the income and consumption poor

Table 4 shows the demographic characteristics of those who were income poor, consumption poor, both income and consumption poor, and both income and consumption non-poor, for the three age groups. In age groups 60–69 and 80+, women were more likely to be income and consumption poor than men, but men were more likely to be income poor than women among those aged 70–79. More interestingly, the vulnerability of older women was greater in terms of consumption than income poverty across all age groups. Among groups of different marital status, the widowed were most likely to be income and consumption poor among those aged 80 and above. Not surprisingly, even for the two younger age groups, the widowed were disproportionately likely to be income and consumption poor.

The effect of education on poverty status decreased with age. For instance, for the age group 60–69, the proportion of those without an elementary school education in the income, consumption, and both income and consumption poor categories was greater than those who were non-poor, but the differences narrowed in the other two groups (70–79 and 80+). In terms of living arrangements, the older adults who were both income and consumption poor were more likely to live alone across all age categories. Specifically, about 17 per cent of those who were income poor were singletons but this rose to almost 20 per cent of those who were both income and consumption poor.

Income, consumption and assets

Lastly, we examined why some older adults were poor by using income or consumption, but not both, as the measure of resources. The results for source of income presented in Table 5 help to explain the reason why some were poor in terms of consumption but not income. To illustrate, among those aged 60–69, household income from wages was about 20 per cent for those who were consumption poor but income non-poor, but only about 10 per cent for those who were income poor but consumption non-poor. In other words, the former group had tried to set aside more savings when they or other household members were still working. It is worth noting that their median consumption was still greater than that of those who were both income and consumption poor.

Discussion

In the study on China's older adults (Pak *et al.* 2012), poverty rates based on consumption expenditures were lower than the income poverty. It was

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

TABLE 4. *Income and consumption poverty status defined by official threshold among adults aged 60 and older by demographic characteristics*

	Ages 60–69				Ages 70–79				Ages 80+			
	I poor	C poor	I and C poor	I and C non-poor	I poor	C poor	I and C poor	I and C non-poor	I poor	C poor	I and C poor	I and C non-poor
	Percentages											
Sex:												
Female	51.7	52.2	54.3	48.1	46.9	49.4	49.8	47.8	51.1	53.3	52.2	61.4
Marital status:												
Married	71.8	71.9	69.1	84.7	59.3	56.8	51.1	69.6	41.0	42.5	38.2	42.5
Widowed	18.4	18.9	21.6	11.0	29.6	32.1	35.8	28.7	50.0	48.6	51.2	55.6
Divorced/ separated	5.7	4.4	4.9	2.6	3.2	3.4	4.0	0.5	2.0	1.9	2.4	0.5
Never married	4.1	4.8	4.4	1.7	7.9	7.6	9.1	1.3	7.0	6.9	8.2	1.3
Education:												
Below elementary	22.2	24.3	24.6	16.6	47.2	51.3	43.4	44.5	63.3	69.9	66.7	64.6
Elementary school	48.0	48.2	49.2	40.9	38.5	37.5	40.4	35.7	27.7	23.6	25.6	25.2
High school	25.8	24.9	23.2	33.3	12.4	10.0	14.4	16.5	8.2	5.8	6.8	8.1
College	4.0	2.7	3.0	9.1	1.9	1.2	1.8	3.3	0.8	0.8	1.0	2.1
Housing status:												
Home-owner	26.3	9.2	9.5*	44.5	25.5	8.2	9.3*	44.4	24.2	10.4	11.1*	44.9
Living arrangement:												
Living alone	16.6	17.9	19.5	4.5	25.8	27.9	30.8	6.9	39.5	37.8	42.0	8.1

Notes: N = 4,306. I: income. C: consumption.

Significance level: * statistically significant for the corresponding demographic characteristic by the three poor groups at the 5 per cent level.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

TABLE 5. *Income and consumption poverty status defined by official threshold among adults aged 60 and older by income, consumption and assets*

	Ages 60–69				Ages 70–79				Ages 80+			
	I poor but not C poor	C poor but not I poor	I and C poor	I and C non-poor	I poor but not C poor	C poor but not I poor	I and C poor	I and C non-poor	I poor but not C poor	C poor but not I poor	I and C poor	I and C non-poor
	Percentages											
Income (US$)	321	641	321	1,089	363	641	321	1,073	317	716	321	1,147
Consumption (US$)	729	408	321	1,077	755	408	321	1,024	800	385	321	1,102
Income source:												
Work	9.5	19.9	6.0	41.9	2.7	5.8	1.1	36.6	3.8	9.2	3.0	45.4
Welfare	14.3	26.5	30.2	6.1	37.6	28.4	49.5	13.5	49.3	34.2	53.5	12.5
Family	47.1	50.0	49.4	42.7	44.4	60.1	38.4	42.4	37.6	47.9	34.3	35.9
Retirement schemes/others	8.2	3.7	5.1	8.3	6.9	3.9	3.0	6.3	3.1	8.6	3.4	5.8
Housing status:												
Home-owner	55.2	8.0	9.5	44.5	66.5	3.6	9.3	44.4	79.6	7.7	11.1	44.9
Individual assets (US$):												
<3,846	48.8	72.7	71.9	47.3	58.1	79.3	82.1	60.3	59.2	73.1	88.4	65.9
3,846–12,820	20.8	13.6	19.0	22.7	13.4	11.7	10.4	19.2	16.3	15.4	8.2	15.5
12,821–32,051	8.8	6.8	5.8	8.7	6.7	4.5	4.0	6.7	6.1	3.8	1.9	6.3
>32,051	21.6	6.8	3.2	21.3	21.8	4.5	3.5	13.8	18.4	7.7	1.4	12.3
N	250	88	431	1,227	179	111	452	879	49	52	207	381

Notes: N = 4,306. I: income. C: consumption.

mainly due to the high savings rates in China, which is most likely triggered by the inadequacy of social protection in the light of rapid commercialisation and urbanisation (Chamon and Prasad 2010). Similarly, in pursuing the objectives of this study, we compared the differences in two measures of poverty. As much as the HKSAR government is concerned with the growing population of poor older adults, the report of the Commission on Poverty (2013: 11) admitted to limitations in the relative poverty measurement. As illustrated in this study, measuring income alone does not accurately capture the poverty situation of older adults, given that the poorest 10th percentile shown in Table 1 had maintained a nearly unchanged income from the age of 60. Measuring consumption solely on the basis of expenditure is also problematic, insofar as the data could exceed actual consumption due to the volatility of a short-term survey (Johnson 2004). Hence, it is the combination of both income and consumption measures which produces a more accurate measurement of the poorest older adults.

In addition, our findings suggest that poverty increases with age if a consumption measurement alone is used, and also if it is combined with an income measurement. As expected, there is no linear relationship between income poverty and age. This makes sense because most older people are retirees who no longer hold down a regular job. Interestingly enough, the study on older Americans shows that poverty reduces with age whether the resources measure is based on income or consumption (Fisher *et al.* 2009; Hurd and Rohwedder 2006). Also, the poverty rates for Hong Kong elders reported here are substantially higher than for older Americans (Fisher *et al.* 2009). This remains the case whether a relative or absolute poverty threshold is used. Poverty rates ranged from 3.6 to 7.8 per cent in the USA but from 21.6 to 33.7 per cent in Hong Kong. We believe the differences are likely to arise from the retirement income protection systems of Hong Kong and the USA. Fisher *et al.* state that 'the economic preparations of older Americans, combined with public programmes, have almost eliminated poverty if defined jointly by income and consumption' (2009: 765). The enactment of the Social Security system in the USA since 1935 has a great impact on the retirement arrangements of American older adults. Engelhardt and Gruber (2004) found that Social Security benefits managed to drive the decline of poverty of American older adults aged 65 and above, establishing the role of Social Security as a contributor to old-age poverty decline.

However, in the case of Hong Kong, the neo-liberal nature of the government has prompted the state to act against redistributive social programmes. Since the colonial period, the former government exercised residual welfare, where a safety net was to provide minimal support for

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

the vulnerable ones (Lee *et al.* 2013: 69). In the 1996 Policy Address, the Hong Kong colonial government stated, 'Quite deliberately, our welfare system does not exist to iron out inequalities. It does not exist to redistribute income' (Hong Kong Government 1996: para. 78). Thus, it is no surprise that the HKSAR government, which inherited the paradigm of public administration from the former colonial government, still practises 'positive non-interventionism', in addressing its social policies (HKSAR 2011). Apart from the first-pillar old-age protection, the decision to implement the MPF rather than to introduce a universal state pension is further evidence of a dominant neo-liberal preference, since the MPF can yield a return by developing the financial industry in Hong Kong.

We also found that women in two age groups (60–69 and 80+) were more likely than men to be income poor, consumption poor and both. These findings are partially consistent with studies conducted in the USA (Fisher *et al.* 2009; Johnson, Smeeding and Torrey 2005). As coined by Pearce (1978), feminisation of poverty depicts the disadvantages and deprivation that women encountered in the income and welfare system, causing them to be more prone to the risk of poverty. In the United Kingdom (UK), Price (2006) revealed that the disadvantaged position of British females in the structure of the UK pension system exposed them to higher risk of poverty. The gendered phenomenon of poverty was also found in Hong Kong since Hong Kong women were 'more likely to experience poor wages, lower job security, fewer employment opportunities, a weaker earning history, and consequently, lower levels of accumulated economic resources' (Lee 2003: 47). Our finding shows that feminisation of poverty remains a pertinent issue in Hong Kong.

Moreover, across all age groups, the widowed made up a greater portion of those who were both income and consumption poor than those who were either. Again, these findings match the work done with older Americans (Dodge 1995; Fisher *et al.* 2009). Also, older adults who lived alone were more likely to be income poor, consumption poor or both, especially those in the oldest age categories of 70–79 and 80+. In the age group 60–69, about 20 per cent of those who were both income and consumption poor were singletons and for those aged 80+, this figure rose to 42 per cent. These findings coincide with the study on China's urban households (Saunders and Sun 2006), where the Chinese older adults aged 60 and above who live alone, especially female, are prone to poverty.

Finally, we have examined the differences between the four groups of respondents in terms of income, consumption, income sources, housing status and assets. Our findings indicate that among those who were income poor but not consumption poor, median consumption was more than twice their income at the median across all age groups. These

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

individuals are well prepared for negative income or expenses shocks because they are able to draw on their savings. Our results show that almost 20 per cent of people in this position had assets worth more than US $32,051. In contrast, the older adults who were both income and consumption poor were particularly vulnerable because both their income and consumption were close to or even lower than that of the other three age groups. Most were likely to be dependent on family support and welfare payments to make ends meet and held a very low amount of assets.

As pointed out by Jefferson (2012), there are practical limitations to consumer-based measurements of poverty. The sample size of our study would be considered relatively small in terms of calculating consumer expenditure, compared to the official income-based data-set. Due to the possibility of fluctuations in the amount of income and expenditure, our research design can be improved by having measurements at several time-points, which would produce more reliable and consistent data. Also because of a lack of agreement among researchers, methods of including health-care spending in a poverty measurement may lead to different results (Hurd and Rohwedder 2006). Another limitation is that we equated expenditure with consumption, although the two can be disentangled by including another variable, namely the cost of time (Aguiar and Hurst 2005).

Conclusion

Through the analysis presented here, we have succeeded in identifying the poor older adults by using two different measures of poverty: relative and absolute. Evidence from Hong Kong suggests that income alone may not be a good indicator of poverty status for older adults because a portion of the income poor are actually not poor at all if their assets are taken into account. Our findings suggest that about 30 per cent of the income poor belong to this group, who can be described as income but not consumption poor. This underlines the urgent need for Hong Kong policy makers to identify the poorest among the older population more accurately. To understand fully the economic wellbeing of older adults in Hong Kong, we propose combining both income and consumption measures when analysing poverty rates. The joint distribution of income and consumption poverty can better identify and explain the demographic characteristics of the poor older adults. Although it is unlikely that the Hong Kong government would change its neo-liberal approach to welfare provisions, the high poverty rates among older adults and the increase in consumption poverty with age are alarming signs of the inadequacy of welfare protection.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

Acknowledgements

This study was supported by a research grant from the Council for Strategic Public Policy Research (HKIEd 7001-SPPR-11) and the Humanities and Social Sciences Prestigious Fellowship Scheme (38600214).

NOTES

1 1 = none; 2 = less than 64; 3 = 64–127; 4 = 128–255; 5 = 256–383; 6 = 384–512; 7 = 513–640; 8 = 641–768; 9 = 769–896; 10 = 897–1,025; 11 = 1,026–1,153; 12 = 1,154–1,281; 13 = 1,282–1,602; 14 = 1,603–1,922; 15 = 1,923–2,563; 16 = 2,564–3,204; 17 = 3,205–3,845; 18 = 3,846–5,127; 19 = 5,128–6,409; 20 = 6,410–7,691; 21 = 7,692–10,255; 22 = 10,256–12,819; 23 = more than 12,819.

2 1 = less than 1,282; 2 = 1,282–3,845; 3 = 3,846–6,409; 4 = 6,410–12,820; 5 = 12,821–19,230; 6 = 19,231–32,050; 7 = 32,051–64,102; 8 = 64,103–96,153; 9 = 96,154–128,204; 10 = 128,205–160,255; 11 = 160,256–192,307; 12 = 192,308–256,409; 13 = 256,410–320,512; 14 = 320,513–384,614; 15 = 384,615–448,717; 16 = 448,718–512,820; 17 = 512,821–576,922; 18 = 576,923–641,025; 19 = 641,026–769,230; 20 = 769,231–897,435; 21 = 897,436–1,025,640; 22 = 1,025,641–1,153,845; 23 = 1,153,846–1,282,050; 24 = more than 1,282,051.

Reference

Aguiar, M. and Hurst, E. 2005. Consumption vs expenditure. *Journal of Political Economy*, **113**, 5, 919–48.

Banerjee, S. 2012. *Time Trends in Poverty for Older Americans Between 2001–2009*. EBRI Notes 33:4, Employee Benefit Research Institute. Available online at http://ssrn.com/abstract=2046720 [Accessed 10 May 2015].

Björklund, A. and Jäntti, M. 1997. Intergenerational income mobility in Sweden compared to the United States. *The American Economic Review*, **87**, 5, 1009–18.

Bradshaw, J., Middleton, S., Davis, A., Oldfield, N., Smith, N., Cusworth, L. and Williams, J. 2008. *A Minimum Income Standard for Britain: What People Think*. Joseph Rowntree Foundation, York, UK.

Bradshaw, J., Nolan, B., Maitre, B. and Finch, N. 2000. *The Measurement of Absolute Poverty*. Social Policy Research Unit, University of York, York, UK.

Casey, B. and Yamada, A. 2002. *Getting Older, Getting Poorer? A Study of the Earnings, Pensions, Assets, and Living Arrangements of Older Adults in Nine Countries*. Organisation for Economic Co-operation and Development, Paris, France.

Census and Statistics Department 2012. *Hong Kong Population Projections: 2012–2014*. HKSAR Government, Hong Kong.

Chamon, M. and Prasad, E. 2010. Why are saving rates of urban households in China rising? *American Economic Journal: Macroeconomics*, **2**, 1, 93–130.

Charles, K. K., Danziger, S., Pounder, L. and Schoeni, R. 2006. Consumption, income, and well-being among the mature population. NPC Working Paper, National Poverty Center, University of Michigan, Ann Arbor, Michigan.

Chou, K. L. 2010. Number of children and upstream intergenerational financial transfers: evidence from Hong Kong. *Journals of Gerontology: Social Sciences*, **65B**, 2, 227–35.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

Chou, K. L., Chow, N. W. S. and Chi, I. 2004. Preventing economic hardship among Hong Kong Chinese elderly. *Journal of Aging and Social Policy*, **16**, 4, 79–97.
Chou, K. L., Wong, K. F. and Chow, N. W. S. 2011. Interaction between pre- and post-migration factors on depressive symptoms in new migrants to Hong Kong from Mainland China. *Community Mental Health Journal*, **47**, 5, 560–7.
Commission on Poverty 2012. *Poverty Situation Report*. HKSAR Government, Hong Kong.
Commission on Poverty 2013. *Poverty Situation Report*. HKSAR Government, Hong Kong.
Dodge, H. H. 1995. Movements out of poverty among elderly widows. *Journals of Gerontology: Social Sciences*, **50**, 4, 240–9.
Engelhardt, G. and Gruber, J. 2004. Social security and the evolution of elderly poverty. NBER Working Paper, National Bureau of Economic Research, Cambridge, Massachusetts.
Fisher, J. D., Johnson, D. S., Marchand, J. T., Smeeding, T. M. and Torrey, B. B. 2009. Identifying the poorest older Americans. *Journals of Gerontology: Social Sciences*, **64B**, 6, 758–66.
Garfinkel, I., Rainwater, L. and Smeeding, T. M. 2006. A re-examination of welfare states and inequality in rich nations: how in-kind transfers and indirect taxes change the story. *Journal of Policy Analysis and Management*, **25**, 4, 897–919.
HKSAR 2011. *Policy Address 2011–12*. Available online at http://www.policyaddress.gov.hk/11-12/eng/p190.html [Accessed 10 May 2015].
Holzmann, R., Palacios, R. and Zviniene, A. 2004. *Implicit Pension Debt: Issues, Measurement and Scope in International Perspective*. Social Protection Unit, World Bank, Washington DC.
Hong Kong Council of Social Service 2012. *Summary of Statistics on Poverty 2011 and Proposal on Low-income Supplement*. HKSAR Government, Hong Kong.
Hong Kong Government 1996. *Policy Address 1996*. HKSAR Government, Hong Kong.
Hurd, M. D. 1990. Research on the elderly: economic status, retirement, and consumption and saving. *Journal of Economic Literature*, **28**, 2, 565–637.
Hurd, M. D. and Rohwedder, S. 2006. Economic well-being at older ages: income- and consumption-based poverty measures in the HRS. NBER Working Paper 12680, National Bureau of Economic Research, Cambridge, Massachusetts.
Jefferson, P. 2012. *The Oxford Handbook of the Economics of Poverty*. Oxford University Press, New York.
Johnson, D. S. 2004. *Measuring Consumption and Consumption Poverty: Possibilities and Issues*. US Bureau of Labor Statistics, Washington DC.
Johnson, D. S., Smeeding, T. M. and Torrey, B. B. 2005. Economic inequality through the prisms of income and consumption. *Monthly Labor Review*, **128**, 4, 11–24.
Lee, E. W. Y., Chan, E. Y. M., Chan, J. C. W., Cheung, P. T. Y., Lam, W. F. and Lam, W. M. 2013. *Public Policymaking in Hong Kong: Civic Engagement and State–Society Relations in a Semi-democracy*. Routledge, New York.
Lee, F. W. Y. and Haque, S. M. 2006. The new public management reform and governance in Asian NICs: a comparison of Hong Kong and Singapore. *Governance: An International Journal of Policy, Administration, and Institutions*, **19**, 4, 605–26.
Lee, W. 2003. Women and retirement planning: towards the 'feminization of poverty' in an aging Hong Kong. *Journal of Women & Aging*, **15**, 1, 31–53.
Logan, J. R. and Bian, F. 2002. Parents' needs, family structure and regular intergenerational financial exchange in Chinese cities. *Sociological Forum*, **18**, 1, 85–101.

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press

Meyer, B. D. and Sullivan, J. X. 2003. Measuring the well-being of the poor using income and consumption. *Journal of Human Resources*, **38**, supplement, 1180–220.
Mujahid, G., Pannirsalvem, J. and Doge, B. 2008. *The Impact of Social Pensions: Perceptions of Asian Older Persons*. United Nations Population Fund, Bangkok, Thailand.
Pak, A., Shen, Y., Strauss, J. and Zhao, Y. 2012. Relying on whom? Poverty and consumption financing of China's elderly. In Smith, J. P. and Majmundar, M. (eds), *Aging in Asia: Findings from New and Emerging Data Initiatives*. National Academies Press, Washington DC, 148–72.
Pearce, D. 1978. The feminization of poverty: women, work, and welfare. *Urban and Social Change Review*, **11**, 1/2, 28–36.
Price, D. 2006. The poverty of older people in the UK. *Journal of Social Work Practice*, **20**, 3, 251–66.
Purcell, P. 2009. Income and poverty among older Americans in 2008. Congressional Research Service report prepared for the US Congress. Congressional Research Service, Washington DC.
Ravallion, M. 1998. Poverty lines in theory and practice. LSMS Working Paper 133, World Bank, Washington DC.
Saunders, P. and Sun, L. 2006. Poverty and hardship among the aged in urban China. *Social Policy and Administration*, **42**, 2, 138–57.
Tai, T. and Treas, J. 2009. Does household composition explain welfare regime poverty risks for older adults and other household members? *Journals of Gerontology: Social Sciences*, **64B**, 6, 777–87.
Waehrer, K. and Crystal, S. 1995. The impact of coresidence on economic well-being of elderly widows. *Journals of Gerontology: Social Sciences*, **50**, 4, 250–8.
Wong, C. K. 2008. Squaring the welfare circle in Hong Kong: lessons for governance in social policy. *Asian Survey*, **48**, 2, 323–42.
Zimmer, Z. and Kwong, J. 2003. Family size and support of older adults in urban and rural China: current effects and future implications. *Demography*, **40**, 1, 23–44.

Accepted 23 June 2016; first published online 30 August 2016

Address for correspondence:
Kee Lee Chou,
Department of Asian and Policy Studies,
The Hong Kong Institute of Education, 10 Lo Ping Road,
Tai Po, N.T. Hong Kong

E-mail: klchou@ied.edu.hk

https://doi.org/10.1017/S0144686X16000817 Published online by Cambridge University Press