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Trends in the Inequality of Consumption and Expenditure among Older Adult Cohorts

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Abstract

Objectives: The purpose of this paper is to examine the trends in the inequality of consumption and expenditure among older adult cohorts and determine how their patterns change at various stages of their life-cycle.

Methods: The Consumer Expenditure (CE) survey data from 1984 to 2010 is used to trace out the patterns in the inequality of consumption and expenditure among older adult cohorts using a Gini coefficient and variance of logarithm as the measures of inequality. The effect of aging is then decomposed using age-cohort-period regression analyses.

Results: Inequality in both consumption and expenditure are shown to grow during the working lives of older adult cohorts throughout their 30s and 40s, with local peaks occurring during their 50s. These inequalities then either plateau or decline during the retirement transition in their 60s and plateau or rise once again in their 70s and beyond.

Discussion: The increases in the inequality of consumption and expenditure among older adult cohorts found during the working period are consistent with findings from the previous literature. However, the retirement and late-life period findings of this study offer much more insight into how these inequalities can persist among older adults over their life-cycle.

Keywords: aging, consumption, expenditure, inequality, life-cycle, older adults.

JEL Codes: D63, D91, I31, J14, J26.

1 Introduction

There has been much interest in the fields of economics and gerontology on this subject of inequality among individuals while they age together over the life-cycle. In fact, there was an entire volume of the Annual Review of Gerontology and Geriatrics in 2002 dedicated to these economic outcomes later in life, which brought together both economists and gerontologists to help solve these matters. Many of those articles focused on issues regarding the inequality among older adults (for an overview, see Crystal and Shea, 2002). There has also been a growing theoretical literature in both subjects which addresses the issue of comparative advantage/disadvantage as it relates to the process of aging (Deaton and Paxson, 1994; O'Rand, 1996; Dannefer, 2003; Ferraro and Shippee, 2009).

Within the early empirical work, Crystal and Shea (1990a,b) found that income inequality grows among age groups and is highest at older ages. Deaton and Paxson (1994) showed that the consumption and income inequality within a cohort of individuals grows as they age together over the life-cycle, but they only provided estimates across all ages, at age 25, and at age 55. And Crystal and Waehrer (1996) also found a steady increase in income inequality, even beyond the age of 59.

More recently, Marchand (2007) showed that wealth inequality, specifically in non-pension household savings, is shown to rise with age within a cohort until retirement, where it plateaus for a decade, and then rises at an even faster pace towards the end of the life-cycle. Heathcote, Perri, and Violante (2010) found that non-durable expenditure inequality peaks around age fifty and then levels off, but they stopped their analysis at age fifty-five. Aguiar and Hurst (2012) disentangled these

trends over the life-cycle by examining the trends among different categories of expenditure. Three categories of expenditures, all related to work expenses, generate much of the standard life-cycle effect on mean expenditures and on the inequality of expenditures.

Given the findings of the literature, the inequality of consumption and expenditure among older adults seems to be a particularly interesting topic for further investigation. That said, there is good reason why older individuals are often overlooked in the age-cohort-period framework, as the retirement transition complicates these matters. But this complication also makes this segment of the population and life course most interesting, as the earnings of most individuals goes to zero and incomes become fixed and possibly more equal than during the working life.

The goal of this study is to provide more insight into this topic, as it attempts to solidify the bridge between economics and gerontology on a particular form of aging and inequality. It provides a descriptive analysis of these trends in the inequality of consumption and expenditure among older adult cohorts using data from the 1984 to 2010 Consumer Expenditure (CE) Surveys. It uses two measures of inequality, the variance of the logarithm and the Gini coefficient, to measure the consumption and expenditure inequality among older adult cohorts. It then tracks this inequality in consumption and expenditure for different cohorts of older adults as they age together, and isolates the age effect from the cohort and year effects which is necessary to identify its pattern.

Inequality in both consumption and expenditure are shown to grow during the working life among older adult cohorts throughout the ages of the 30s and 40s, and

have a local peak during their 50s. This finding is consistent across all specifications and is in agreement with the previous literature (Deaton and Paxson, 1994; Heathcote, Perri, and Violante, 2010; Aguiar and Hurst, 2012). However, there are mixed results as to what happens to these inequalities beyond their mid-50s. There is either a plateau or a decline during the retirement transition in their 60s and a plateau or an increase once again in their 70s and beyond.

This study also has one methodological contribution. As stated by Crystal and Shea (2002), "Methodological choices turn out to make very major differences in estimates of the size and distribution of late-life economic well-being." In this paper, trends in inequality among older adults are found to vary widely whether or not an equivalence scale is used. This methodological finding is similar to the contribution of Buhmann et al. (1988), which highlighted the importance of equivalence scales in the measurement of poverty, particularly among older adults.

This paper begins with a description of the data and methodology, which is then followed by the presentation of the results divided into two subsections. The first subsection compares the trends at the mean and the cohort trends in inequality, while the second subsection isolates the aging effect. A discussion concludes the paper. The references, figures, and tables of this study are found thereafter.

2 Data and Methodology

The Consumer Expenditure (CE) Interview Surveys from 1984 to 2010 are used as the data source for this study. These data were collected from urban and rural households in all years since 1980, with the exceptions of 1982 and 1983. The analysis for this paper begins in 1984, as this is the year with the most consistently comparable data over time. Previous research using the CE Survey from 1980 had to restrict their analysis to urban households, thus making their results less generalizable.

The sample for this study includes all households that participated in all four quarterly interviews. Restricting to four-interview households allows for the creation of a yearly consumption measure. As households who remain in the sample for four quarters are more likely to be homeowners and older households, the procedures in Sabelaus (1993) and Fisher and Johnson (2006) are followed in order to re-weight the quarterly samples. The sample is also restricted to those aged 35 to 85 years old. Beginning at age thirty-five provides a good picture of the working years and the transition to retirement. The eldest age is held at eighty-five because the sample sizes become too small at older ages and because concerns about differential mortality outweigh any benefit from extending beyond this age.

In addition, all values are equivalized using the square root of the household size (Buhmann et al., 1988), with the weights adjusted to reflect person weights, and all values are adjusted to 2010 dollars using the CPI-U-RS. Using an equivalence scale becomes especially important when studying inequality while aging, as the family size changes dramatically between the ages of 35 and 85. The absence of an equivalence scale assumes that there are complete economies of scale in the household, implying

that an additional person in the household does not affect consumption. The other extreme is no economies of scale. The equivalence scale used in this study is set halfway between these two extremes and assumes that age resources for a two-person household must be 41 percent higher than the resources of a one-person household for these two households to have equivalent well-being.[1]

Deaton and Paxson (1994) used the 1980-1990 CE Interview Survey for urban households in their study. The cohort construction of cohorts in the current paper uses five-year age bands following the same method of Deaton and Paxson (1994). Not all of these eleven cohorts are observed in all years, however, as seen in Table 1. The youngest cohort was outside the sample range in 1984 and were aged 46-50 by 2010. Cohort 4 is the first cohort to appear in all years, which was aged 35-39 in 1984 and aged 61-65 in 2010. Each statistic is reported by the mid-point of the cohort age, such that the reported age is 37 when the individuals within this cohort were 35 to 39 years old, which is also consistent with Deaton and Paxson (1994).

Three different resource measures are used: consumption, expenditures, and after-tax income. Consumption is total expenditures on all goods and services, minus the purchase price of vehicles, minus the expenditures for home-ownership, plus the service flow from vehicles, plus the reported rental equivalence of home-ownership, plus the value of federal government rental assistance. As with other research on consumption, cash contributions, life insurance, and pensions are not included in the consumption measure. Expenditures provide a measure of the outlays for current consumption but will understate well-being because it misses the flow of

[1]Crystal (1986) also deals with the methodological issues of measuring inequality among older adults.

consumption from durables. Consumption becomes very important when measuring the well-being of older adults because over two-thirds of older adults that own a home do not have a mortgage (Fisher et al., 2007), meaning they have little or no expenditures on housing but significant consumption of housing.

Total consumption and expenditures are relied on in this study because these measures more closely match the theory underlying the life-cycle permanent income hypothesis (LCPIH). This model references consumption, not non-durable spending. By definition, non-durable spending such as that used in Deaton and Paxson (1994) and Heathcote, Perri, and Violante (2010) misses a large portion of consumption. The consumption measure captures the consumption flow of primary durables, the owned home, and vehicles, and uses the expenditures on smaller durables such as furniture and home electronics.

Before-tax income is imputed and then taxes are estimated using TAXSIM, following Fisher, Johnson, and Smeeding (2012).[2] Previous research restricted samples to "complete income reporters" as defined by the CE Survey. Fisher (2006) finds that incomplete income reporters have lower consumption than complete income reporters. Restricting to complete income reporters may affect conclusions about the levels and trends of the outcomes.

Two measures of inequality are used in this study: the Gini coefficient and the variance of the logarithm. The variance of the logarithm is commonly used in the inequality literature and has some desirable properties, including being sensitive to transfers at the bottom end of the distribution. However, the variance of the log has

[2]See Feenberg and Coutts (1993) for a description of TAXSIM. http://www.nber.org/taxsim/

a weakness in that it depends on the mean. For example, one distribution may have greater relative variation but have a lower variance if the mean income is smaller (Sen, 1997, p. 27). Both the equivalized and un-equivalized values for the Gini and variance are reported to highlight their sensitivity to this transformation.

3 Inequality of Consumption and Expenditure

3.1 Comparing Trends Among Older Adult Cohorts

In this section, the overall trends in the mean levels of consumption, expenditure, and income are compared over the age distribution. Then, the cohort trends in consumption and expenditure inequality are compared under several different specifications. Figure 1 traces out the life-cycle paths of mean consumption, expenditure, and after-tax income using the equivalized and un-equivalized versions of these measures. It is shown in both panels that the consumption, expenditure, and income levels all increase throughout the ages of the 30s and 40s, peak during the early to mid-50s, and decline thereafter until the end of life. Income is shown to rise and fall with age at a greater rate than consumption and expenditure. While consumption and expenditure rise with age at similar rates, expenditure declines at a faster rate than that of consumption. Expenditures fall faster because over two-thirds of older adults own their home outright (see Fisher et al., 2007), meaning that they have little or no expenditures on housing but continue to have considerable consumption. Comparing across the two panels, it would seem that the use of equivalization in these measures does not cause the patterns to differ by much, though the levels themselves are quite different.

Figure 2 displays the trends in the inequality of consumption and expenditure by cohort using the Gini coefficient as the measure of inequality. As in Figure 1, each column represents the equivalized and un-equivalized measures from left to right. Also in Figure 2, each row represents consumption and expenditure moving from top

to bottom. The cohort trends of the equivalized Gini of consumption show a pattern of rising and falling inequality at roughly the same rate, and then a further increase in inequality at the very end of the life-cycle (but not for all cohorts). Similar cohort trends are found for the equivalized Gini of expenditure, though inequality does not seem to fall as far as it did for consumption. Using the un-equivalized version of the Gini over consumption, a similar pattern exists but the growth rate of inequality is not matched by the decline, inequality does not seem to fall as far, and then the growth in inequality seems to be at a much faster rate at the end of the life-cycle. The un-equivalized Gini of expenditure also shows the rise in inequality at first, but no real decline afterward, and a similar fast increase in inequality at the eldest ages.

Figure 3 shows the same trends as Figure 2 but using the variance of the logarithm as the inequality measure. In these four panels, much of what was observed for the Gini coefficients is also prevalent using the variance. Inequality is shown to rise, fall, and then rise once again in all except the un-equivalized variance of expenditure which does not seem to fall. One rather stark contrast between Figures 2 and 3 is that the variance measure seems to exhibit much more movement and volatility in its measure than does the Gini coefficient. The particular reason as to why this may occur was briefly discussed in the previous section.

3.2 Isolating the Effects of Aging on Inequality

In order to see whether it is specifically the aging effect that is driving the previously displayed movements in inequality over the life-cycle, the effect of age must be separated from the cohort and year effects which could also drive the movements in inequality. The age effect is isolated using linear regressions of the following form:

$$Ineq(Con)_{acy} = \alpha + \beta \cdot Age_{acy} + \gamma_c + \phi_y + \varepsilon_{acy}$$

where $Ineq(Con)_{acy}$ is either the Gini or Varlog measure of either consumption or expenditure, Age_{acy} is the continuous form of the age variable making β the coefficient of interest, γ_c is a set of cohort binaries to control for independent cohort effects, and ϕ_y is a set of year binaries to control for independent year effects.[3] A form of this regression is run for all combinations of consumption and expenditure, equivalized and un-equivalized, using the Gini and the Varlog measures of inequality, with and without the sets of control binaries for cohorts and years.

Inequality in consumption and expenditure may be driven by very different mechanisms over different portions of the life-cycle, the effects of which had been shown in Figures 2 and 3. During the working period, these inequalities will be mainly driven by differences in the earnings of individuals. During the retirement period, when most individuals' earnings go to zero, wealth, home-ownership, and fixed income sources become more important. During the late-life period, differential mortality may be the main driver of the inequality in consumption and expenditure. Because

[3]The age effect can also be isolated in the form of a figure using an adaptive code from Deaton (1997).

of this, each regression is run for all ages in the sample (ages 35+), and then run separately for these three different portions of the life-cycle: the working period (ages 35 to 55), the retirement period (ages 55 to 70), and the late-life period (ages 70+). This makes for 64 displayed estimates in all, which are presented in Tables 2 and 3. While the basic regression model of this study follows Deaton and Paxson (1994) by imposing a linear effect over all ages, the separate age group coefficients target the non-linear trends displayed in Figures 2 and 3. These regression results are essentially a spline on age allowing for a different intercept and slope for each age range. This spline is expected to provide a better approximation of the effect of age on inequality.

Table 2 presents the effect of age on the inequality of consumption and expenditure using the Gini coefficient. In the first row, the equivalized and un-equivalized estimates are provided for consumption without the use of the binary sets of controls. The second row shows the estimates of age with these controls included. This is done to see how much of the movement in equality is solely due to the aging effect. Comparing the estimates with and without the controls, there are differences in terms of the magnitude of the coefficients as well as their statistical significance. For example, the estimate over all ages in the upper left panel goes from negative and statistically significant to positive and statically insignificant with the inclusion of the cohort and year controls. The aged 55 to 70 estimates in the upper and lower right panels also go from significant to insignificant with this inclusion. Only the coefficient for all ages in the lower left panel and the aged 70 and over estimate in the upper right panel go from statistically insignificant to significant with the inclusion of the binaries.

Comparing the coefficients for each age group segment (35-55, 55-70, and 70+) to the coefficient for all ages in the table, the coefficients for each age group are shown to be almost all an order of magnitude higher than the coefficient for all ages. This shows the importance of breaking up the aging effect by the various period of the life-cycle. A growth in inequality is shown as statistically significant at the one percent level for the 35-55 age group under all four specifications, and ranges from a 0.0015 to 0.0030 point increase per year of age. A decline in inequality is shown to be significant at the five percent level for the 55-70 age group under all specifications except those for the un-equivalized measures with the inclusion of the controls. These significant estimates range from a 0.0010 to 0.0023 point reduction in inequality per year of age. Most of the estimates for the 70+ age group are insignificant with the exception of the last column of results. Three of the four estimates displayed suggest an increase in inequality at the end of the life-cycle of 0.0013 to 0.0019 points, which is a smaller growth rate than in the working period. All of these point estimates are small relative to the baseline level of inequality, as shown in Figure 2. At the youngest ages, the Gini coefficient for consumption is around 0.26, suggesting that the effect of age on inequality is relatively small for consumption and expenditures.

Table 3 displays the age effects using the variance of the logarithm for both consumption and expenditure, again both with and without the full set of cohort and year binary variables. The magnitudes for these estimates are much larger for the variance measure of inequality than for the Gini measure. While the equivalized estimates for all age groups are negative, the significant un-equivalized estimates are all positive. As was shown for the Gini measure, all of the 35-55 age group coefficients

are positive and statistically significant at the one percent level. The magnitudes of these estimates range from a 0.0033 point increase to a 0.0070 point increase per year of age. All of the estimates for the 55-70 age group are negative and statistically significant, with the exception of the un-equivalized consumption estimate which was not significant. These estimates range in magnitude from a 0.0022 point decline to a 0.0056 point decline in inequality per year of age. For the 70+ age group, only the last column displays a result which is significant at the ten percent level. What is interesting to note here is that the magnitude increase per year of age during this late-life period is almost exactly the same as the magnitude of the decrease during the retirement period.

There are large differences in the patterns between the equivalized and un-equivalized results presented in Tables 2 and 3. For the equivalized results in Table 2, the magnitudes of the increase in inequality during the 35-55 age group are almost the same as the magnitude reduction for the 55-70 age group, with no significant results for the 70+ age group. However, under the un-equivalized results, the magnitude increase is much larger for the 35-55 age group than the reduction for the 55-70 age group (if they were significant at all), as well as larger than the now significant increase for the 70+ age group. These same patterns are repeated in Table 3, albeit with larger magnitude differences.

4 Discussion

This study examines the inequality of consumption and expenditure among older adult cohorts as they age together over the life-cycle using almost thirty years of data from the Consumer Expenditure (SE) Interview Surveys. Its methods differ from the existing literature in several important ways. First, this study uses total consumption and expenditure rather than only non-durable consumption and expenditure, in order to be more in-line with the life-cycle permanent income hypothesis. Second, both equivalized and un-equivalized resource measures are compared throughout the paper, with differing trends appearing between them. Lastly, separate age group coefficients are produced in order to isolate the differences in the effects of aging on inequality over different periods of the life-cycle.

Using the equivalized measures, the inequality in consumption and expenditure among older individuals are shown to rise, fall, and then stagnate as cohorts age together over the life course. What differs from the previous studies is this decrease in inequality found between the ages of 55 and 70, whereas other studies found increasing inequality past the age of 55, though most had slowed their growth and stagnate at later ages. In part, the difference between these results is the use of total consumption and expenditure rather than just non-durables. Under the use of equivalized consumption and expenditure, inequality rises and falls among cohorts of older adults at almost the same speed up between the ages of the mid-30s to mid-50s and between the mid-50s to late 60s. These results indicate that any increase in inequality between ages 35-55 is offset by a decrease in inequality between ages 55-70. This is a significant finding for the relative well-being of older adults. Consumption

inequality is not only decreasing at older ages within a cohort, it decreases by so much as to undo any within cohort inequality that occurred in the previous twenty year period. However, no significant change in inequality is found beyond the age of 70.

Without the use of equivalization, the findings of this paper are somewhat altered. Though the two sets of results both show that inequality increases up to the age of the mid-50s, the un-equivalized results do not uniformly decrease across all specifications after this age. The Gini coefficient results show little to no decrease after the age of 55, while the variance results do show a small decrease between ages 55 and 70, though it is at a much slower rate than the increase experienced during the working period. In addition, the un-equivalized results exhibit great increases in the inequality of consumption and expenditure within a cohort after the age of 70, at least while using the Gini coefficient, whereas the equalivalized results showed no significant change in this late-life period. How should these differences between the equivalized and un-equivalized findings be interpreted? Much like Buhmann et al. (1988) found that the poverty rate among older groups of individuals is very sensitive to equivalization, this study finds that the inequality among older adults is also very sensitive to equivalization. Given that, future versions of this paper will include more sensitivity testing to the specific equivalence scale used, as this scale is needed to adjust for changes in family size that naturally occur over the life-cycle.

This study is in agreement with the previous literature regarding the increasing inequality in consumption and expenditure found during the working life (Deaton and Paxson, 1994; Heathcote, Perri, and Violante, 2010; Aguiar and Hurst, 2012).

However, the retirement and late-life period findings of this study offer much more insight on how resources are spread among older adults during their life-cycle, as few have looked in detail beyond the working period at these issues of consumption or expenditure inequality. The results may mean that retirement has an overall equalizing effect on the inequality of consumption and expenditure within a cohort, though more investigation is needed to make certain that this is the case. And if there is an equalizing effect of retirement on these inequalities, the results suggest that it may unravel later in the lives of these cohorts. The results of the current study in combination with the findings from Marchand (2007) also have interesting implications for intra-generational inequality. These findings indicate that intra-generational consumption inequality decreases, or is at least non-increasing, after the age of 55. Flat or decreasing consumption inequality coupled with the flat or increasing asset inequality found in Marchand (2007) indicates that a significant portion of households are saving outside of their pensions and are not using it toward consumption in their own lifetime. The combined results may mean that savers will pass considerable inheritances to younger generations, thereby propagating wealth inequality across generations.

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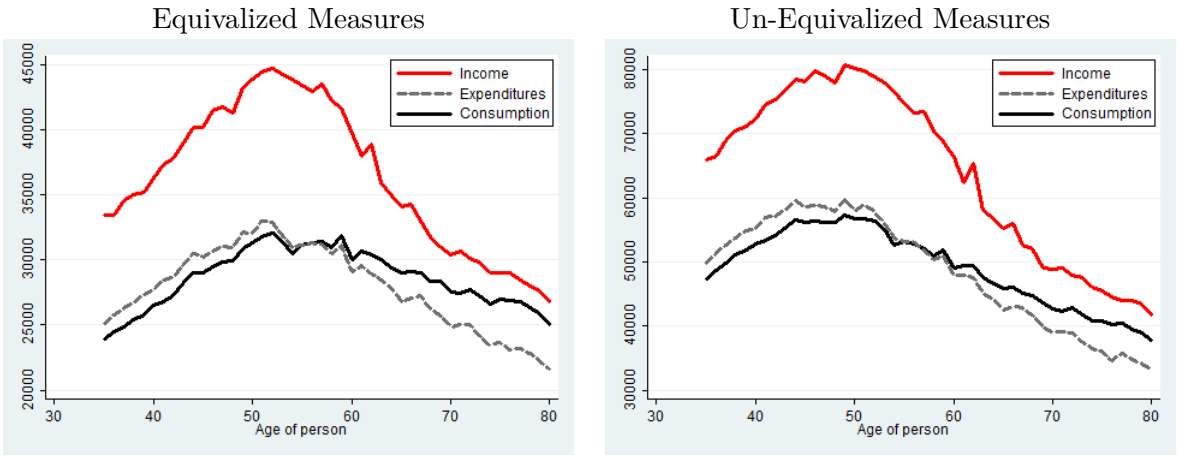
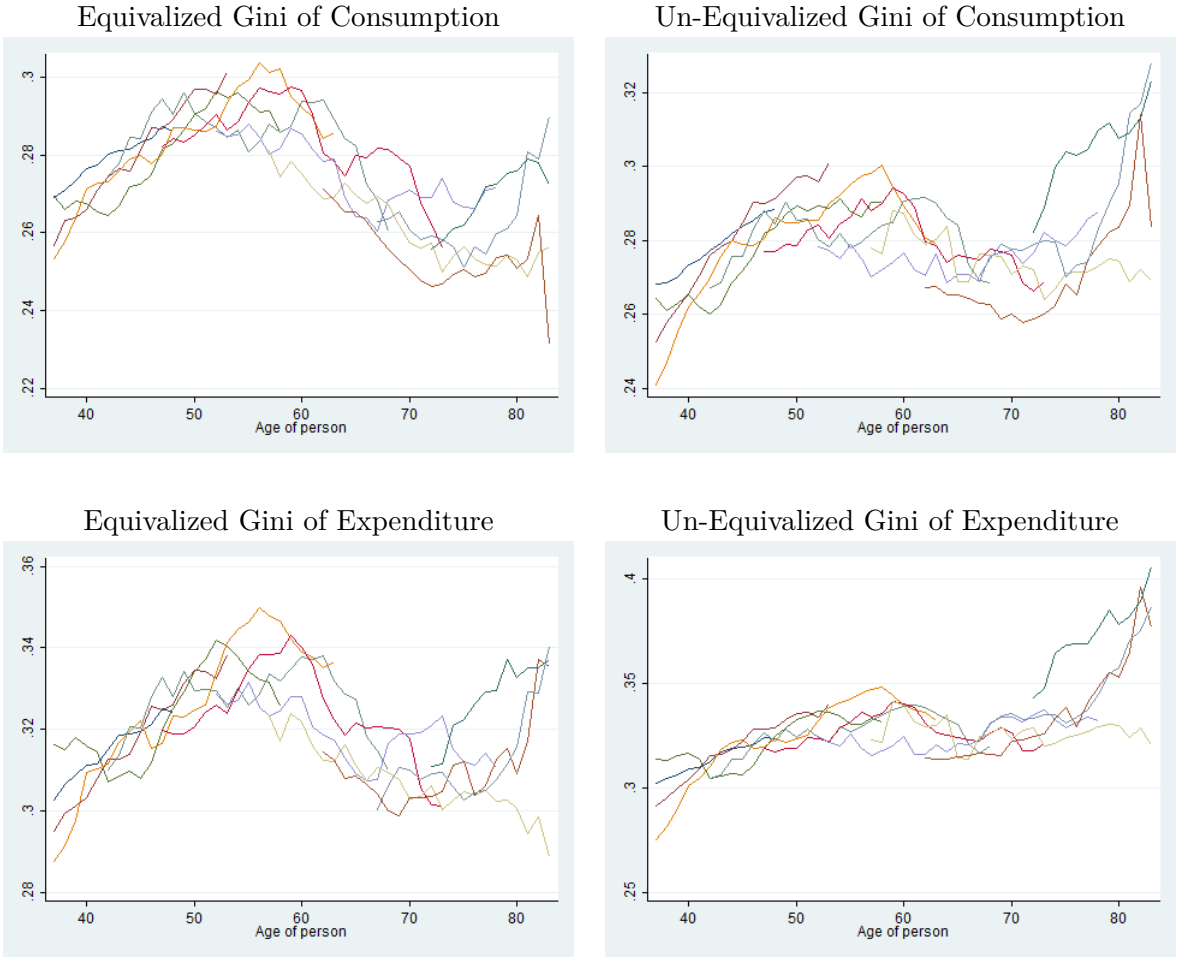
Figure 1: Trends at the Mean of Consumption, Expenditure, and Income



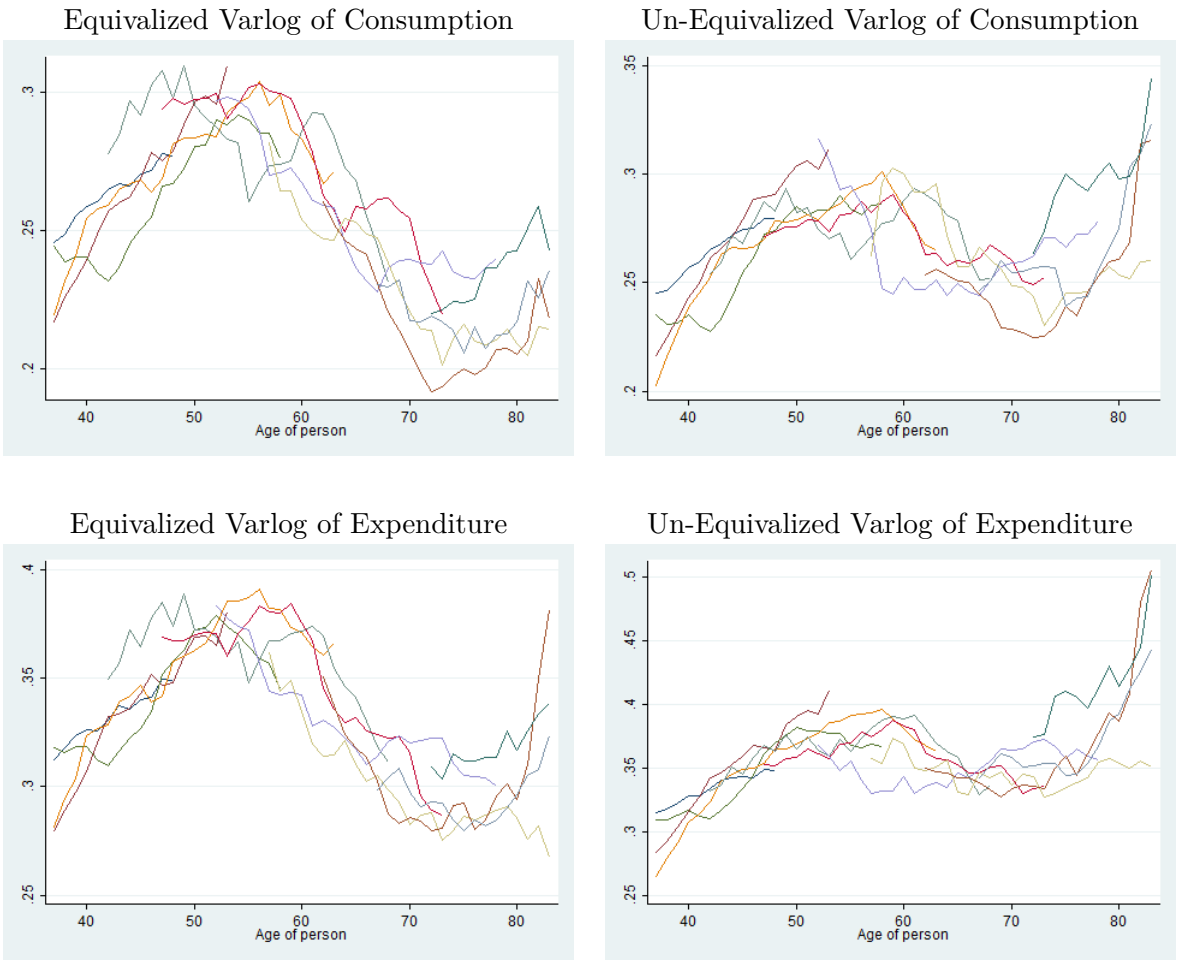
Notes: Authors' calculations of CE Survey data from 1984 to 2010.

Figure 2: Cohort Trends in the Inequality of Consumption and Expenditure Using a Gini Coefficient



Notes: Authors' calculations of CE Survey data from 1984 to 2010.

Figure 3: Cohort Trends in the Inequality of Consumption and Expenditure Using the Variance of the Logarithm



Notes: Authors' calculations of CE Survey data from 1984 to 2010.

Table 1: Age-Cohort-Year Definitions

Age Groups	1	2	. . .	4	5	. . .	10	11
1984	—	—		35-39	40-44		65-69	70-74
1985	—	—		36-40	41-45		66-70	71-75
1986	—	—		37-41	42-46		67-71	72-76
1987	—	—		38-42	43-47		68-72	73-77
1988	—	—		39-43	44-48		69-73	74-78
.....	.....	.....		.....	.....		.....	.....
2006	42-46	47-51		57-61	62-66		—	—
2007	43-47	48-52		58-62	63-67		—	—
2008	44-48	49-53		59-63	64-68		—	—
2009	45-49	50-54		60-64	65-69		—	—
2010	46-50	51-55		61-65	66-70		—	—

Notes: Authors' calculations of CE Survey data from 1984 to 2010.

Table 2: Effect of Aging on the Inequality of Consumption and Expenditure Using a Gini Coefficient

Effect	Equivalized Gini of Consumption				Un-Equivalized Gini of Consumption			
of Age	All Ages	35-55	55-70	70+	All Ages	35-55	55-70	70+
Without	-0.0005	0.0015	-0.0021	-0.0006	0.0001	0.0016	-0.0010	0.0010
Controls	(0.0000)	(0.0002)	(0.0004)	(0.0007)	(0.0000)	(0.0002)	(0.0004)	(0.0007)
	[0.000]	[0.000]	[0.000]	[0.379]	[0.234]	[0.000]	[0.012]	[0.153]
With	0.0000	0.0021	-0.0017	-0.0000	0.0008	0.0027	-0.0005	0.0013
Controls	(0.0001)	(0.0002)	(0.0005)	(0.0007)	(0.0001)	(0.0002)	(0.0004)	(0.0006)
	[0.970]	[0.000]	[0.001]	[0.976]	[0.000]	[0.000]	[0.254]	[0.046]
n	243	103	86	64	243	103	86	64

Effect	Equivalized Gini of Expenditure				Un-Equivalized Gini of Expenditure			
of Age	All Ages	35-55	55-70	70+	All Ages	35-55	55-70	70+
Without	-0.0001	0.0019	-0.0022	0.0005	0.0006	0.0022	-0.0009	0.0019
Controls	(0.0001)	(0.0002)	(0.0004)	(0.0007)	(0.0000)	(0.0003)	(0.0004)	(0.0008)
	[0.274]	[0.000]	[0.000]	[0.527]	[0.000]	[0.000]	[0.024]	[0.017]
With	0.0004	0.0023	-0.0017	0.0004	0.0012	0.0030	-0.0004	0.0015
Controls	(0.0001)	(0.0003)	(0.0004)	(0.0007)	(0.0001)	(0.0003)	(0.0004)	(0.0006)
	[0.027]	[0.000]	[0.001]	[0.592]	[0.000]	[0.000]	[0.292]	[0.019]
n	243	103	86	64	243	103	86	64

Notes: Authors' calculations of CE Survey data from 1984 to 2010. The controls are a full set of cohort and year binary variables. Standard errors are in parentheses. P-values are in brackets.

Table 3: Effect of Aging on the Inequality of Consumption and Expenditure Using the Variance of the Logarithm

Effect	Equivalized Varlog of Consumption				Un-Equivalized Varlog of Consumption			
of Age	All	35-55	55-70	70+	All	35-55	55-70	70+
Without Controls	-0.0012	0.0035	-0.0045	-0.0007	-0.0001	0.0033	-0.0028	0.0009
	(0.0001)	(0.0005)	(0.0008)	(0.0012)	(0.0001)	(0.0005)	(0.0010)	(0.0012)
	[0.000]	[0.000]	[0.000]	[0.563]	[0.564]	[0.000]	[0.007]	[0.461]
With Controls	-0.0008	0.0036	-0.0043	0.0004	0.0010	0.0049	-0.0018	0.0018
	(0.0003)	(0.0005)	(0.0009)	(0.0012)	(0.0003)	(0.0005)	(0.0010)	(0.0011)
	[0.023]	[0.000]	[0.000]	[0.736]	[0.003]	[0.000]	[0.082]	[0.100]
n	243	103	86	64	243	103	86	64

Effect	Equivalized Varlog of Expenditure				Un-Equivalized Varlog of Expenditure			
of Age	All	35-55	55-70	70+	All	35-55	55-70	70+
Without Controls	-0.0009	0.0046	-0.0056	0.0006	0.0002	0.0055	-0.0029	0.0021
	(0.0002)	(0.0005)	(0.0009)	(0.0013)	(0.0002)	(0.0006)	(0.0008)	(0.0015)
	[0.000]	[0.000]	[0.000]	[0.638]	[0.206]	[0.000]	[0.001]	[0.173]
With Controls	-0.0006	0.0045	-0.0055	0.0007	0.0015	0.0070	-0.0022	0.0020
	(0.0004)	(0.0007)	(0.0009)	(0.0012)	(0.0004)	(0.0007)	(0.0008)	(0.0012)
	[0.120]	[0.000]	[0.000]	[0.566]	[0.000]	[0.000]	[0.015]	[0.105]
n	243	103	86	64	243	103	86	64

Notes: Authors' calculations of CE Survey data from 1984 to 2010. The controls are a full set of cohort and year binary variables. Standard errors are in parentheses. P-values are in brackets.