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14 The Importance of Gifts and Inheritances among the Affluent

Michael D. Hurd and B. Gabriela Mundaca

14.1 Introduction

Although the life-cycle hypothesis of consumption (LCH) has for many years been the standard model for theoretical and empirical analysis of consumption behavior, recently a number of studies have cast doubt on its empirical accuracy. In cross-sectional data, wealth is often found to increase with age even at advanced ages (Mirer 1979; Menchik and David 1983; Kurz 1984). These results are taken to mean that even the very elderly continue to save, which is not consistent with the LCH under uncertainty about the date of death. According to Danziger et al. (1982), "The elderly not only do not dissave to finance their consumption during retirement, they spend less on consumption goods and services (save significantly more) than the nonelderly at all levels of income. Moreover, the oldest of the elderly save the most at given levels of income" (210).

White (1978, 1984) and Darby (1979), among others, have simulated the paths of consumption and earnings of representative consumers. They find that, under plausible assumptions about the form of the utility function, the difference between the two paths, which is life-cycle savings, can account for only a fraction of the wealth held by households.

In a widely cited paper, Kotlikoff and Summers (1981) estimated, using historical data, the consumption and earnings paths of the 1974 population. From these paths, they calculated a number of estimates of life-cycle savings, which depended on various assumptions about

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interest rates and intergenerational transfers. Their best guess is that only 20 percent of the assets held by the household sector came from life-cycle saving.

These and other empirical results have generated interest in a model in which utility is derived both from consumption and from bequests; that is, consumers have a bequest motive for saving (Menchik and David 1983; and Modigliani 1986). This would explain the cross-sectional results: it seems plausible that, if the bequest motive is strong enough, even the very elderly will continue to save. It would explain the simulations and the Kotlikoff and Summers findings: if only 20 percent of the wealth held by households comes from life-cycle saving, the other 80 percent must have come from bequests.

The extent of a bequest motive has important implications for theoretical and empirical work and for economic policy. We give several examples of the latter. Increases in social security benefits will have substantially different effects on capital formation according to the strength of a bequest motive: with a strong bequest motive, the elderly will tend to save the increase; otherwise, they will consume it. The response of consumers to bond versus tax financing will depend on the bequest motive. The demand for government-sponsored indexed annuities will vary with the strength of a bequest motive.

When the date of death is uncertain, people will leave bequests under the LCH even if they have no bequest motive. To understand the strength of a bequest motive, one needs to study savings decisions in a model that allows for both uncertainty and a desire to leave bequests. One could, then, separate intended from unintended bequests. Our goal in this paper is more modest. We aim to present data that will suggest the strength of the bequest motive. The first and most important result is an estimate of fraction of assets from intergenerational transfers. Our estimate can be compared with that of Kotlikoff and Summers. The comparison is important because their result has been widely, if somewhat mistakenly, interpreted to be strong evidence against the LCH. Our method of estimation is very different from theirs. They estimated intergeneration transfers as the difference between household assets and life-cycle savings; we directly estimate the fraction of assets from gifts and bequests.[1] While a finding that a large fraction of household assets comes from bequests does not prove that people have a bequest motive, it certainly suggests that at least part of bequests are intended and that one ought to study models that emphasize intergenerational transfers. A finding that only a small fraction of assets come from intergenerational transfers would cast doubt on the Kotlikoff and Summers result; furthermore, it would be consistent with the LCH when the date of death is uncertain.

Our second result documents motives for saving as reported by individuals. While it may not be possible to develop a formal test for a

bequest motive from these kinds of data, they do suggest how individuals view their own reasons for saving. One would imagine that, if individuals have a strong bequest motive, they would report a desire to leave a bequest as a reason for saving.

Our main source of data is the 1964 survey of the economic behavior of the affluent (Barlow, Brazer, and Morgan 1966). Respondents were asked the fraction of their assets from inheritances and gifts. We also use the 1983 Survey of Consumer Finances with the high-income supplement, which, while not as detailed as the 1964 data, does have some information on intergenerational transfers.

Using the 1964 data, we estimate that 15–20 percent of household wealth came from inheritances and about 5–10 percent from gifts. Even in households with very high incomes, very few people say that a large fraction of their assets were inherited or given to them. It is not creditable that anything approaching 80 percent of the wealth held by the people in the sample could be the result of intergenerational transfers.

14.2 Results from 1964 Survey on the Economic Behavior of the Affluent

The survey was conducted in the spring of 1964 by the University of Michigan Survey Research Center (SRC). The probability of selection into the sample was roughly proportional to 1961 income. Completed interviews were eventually obtained for 957 high-income households (income over $10,000) and ninety-four low-income households. In the population, about 90 percent of households are low-income households. Sampling weights allow one to estimate population averages. Extensive questions were asked on variables such as the source of assets, attitudes toward risk, philanthrophy, extent of portfolio management, economic reactions to taxes, and work patterns. In this paper, we are most interested in the questions on size of portfolio, sources of wealth, objectives of saving, and extent of bequests.

In table 14.1, we present information about the distribution of portfolio size by income class and the population weights of each income class. Portfolios include holdings of fixed-yield assets (savings accounts, corporate bonds, preferred stock, savings bonds, government bonds, notes and bills, mortgages, and land contracts), common stocks and mutual fund shares, and interests in real estate and unincorporated businesses (including farms but excluding owner-occupied housing). The major wealth components that are missing are housing, consumer durables, claims to pension and retirement funds, and (possibly) consumer debt. Because the underlying questions from which the portfolio size was calculated gave only intervals for the various assets, the portfolio classification has overlapping intervals. Some examples will show the difficulty of finding total assets. Someone who has less than $10,000

Table 14.1 **Distribution of Portfolio Size by Income Class (percentage of income class)**

Portfolio Size (1964)	1961 Income					
	Less than $10,000	$10,000–$15,000	$15,000–$25,000	$25,000–$50,000	$50,000–$100,000	More than $100,000
Less than $1,000	28	11	3	1	1	0
	(26)	(19)	(6)	(2)	(1)	(0)
Less than $30,000	39	24	16	2	1	0
	(37)	(41)	(34)	(4)	(1)	(0)
$10,000–$300,000	29	56	53	38	14	4
	(27)	(94)	(114)	(85)	(26)	(6)
More than $100,000	4	8	25	47	52	37
	(4)	(13)	(54)	(105)	(96)	(60)
More than $500,000	0	1	3	13	33	60
	(0)	(2)	(7)	(29)	(60)	(98)
Total	100	100	100	100	100	100
	(94)	(169)	(215)	(225)	(184)	(164)
Income class weight	.903	.067	.020	.008	.002	< .0005

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.
Note: Figures in parentheses represent the number of households in each income class.

in each of the three asset categories (but has positive holdings in each category) will have less than $30,000 in total assets. Someone who has $10,000–$100,000 in one asset category but none in the others cannot be said to have less than $30,000; yet he cannot be said to have more than $30,000. That is, his assets are in the range $10,000–$100,000. Someone who has from $10,000 to $100,000 in each of the three asset categories will have from $30,000–$300,000 in total assets. Someone who has more than $100,000 in one of the assets categories and less than $100,000 in the others will have more than $100,000 in total assets. Altogether, there are forty-two possible combinations. To make a usable asset variable, the SRC calculated an indicator of total assets that takes values in the intervals shown in table 14.1.

As would be expected, the fraction of households with large asset holdings in an income class rises with income class. Among those in the highest income classes, the fraction having large wealth holdings is substantial: in the highest income class, 60 percent had more than $500,000 in assets. In the lowest income class, which represents about 90 percent of all households, 67 percent of the households had portfolios of less than $30,000. Even in the next income class, which goes up to the ninety-seventh income percentile, only about 65 percent of the income class had portfolios greater than $30,000. The table confirms in a qualitative way a highly skewed wealth distribution. However,

because there is not a good way to assign mean values to the two largest portfolio intervals, the calculation of a wealth distribution can be, at best, only approximate.

In table 14.2, we give information about the fraction of total assets received as gifts. Unlike the asset variable, this fraction apparently refers to total assets. Although gifts become increasingly important as income rises, even in the highest income class only 6 percent of the respondents said gifts accounted for more than 50 percent of their assets. The more usual situation is found in the first income class, which accounts for about 90 percent of the households: 88 percent of the households in that income class either had less than $1,000 in assets or received no gifts. We note that the fraction of missing values rises with income class: apparently, the very well to do are less willing to be interviewed. This, of course, has the potential to bias estimates of population averages. In this case, however, even if the missing values are assigned the highest fraction, the fraction of households with more than 50 percent of assets in gifts is still small. The general impression from this table is that, for almost everyone, the amount of wealth transferred through gifts is unimportant.

Table 14.3 has information about the importance of inheritances. The data are responses to the question, "Now, speaking about the inheritance, about what fraction of your total assets today does it account for?" In general, inheritances appear to be more important than gifts. For example, the unweighted fraction having 15 percent or more in inheritances was 17 percent, compared with 8 percent for gifts. Even in the lowest income class, 15 percent of households have received some inheritance. However, it is still the case that most people even in the high income classes received no inheritances. The magnitude of most inheritances apparently is not large. For example, in the highest income class, which represents less than 0.05 percent of all households, just 8 percent of households have more than 50 percent in inheritances. Even assigning all the missing values to the highest category raises the figure to just 15 percent.

Although, of course, one cannot directly aggregate gifts and inheritances from the data in tables 14.2 and 14.3, it seems inconceivable that anything approaching 50 percent of wealth could have come to households through gifts and bequests. The general impression is that the total fraction must be considerably less than 50 percent.

In tables 14.4 and 14.5, we give data on the fraction of assets from gifts and inheritances, but cross-classified by asset level. Even in the highest asset category, gifts are not an important source of wealth: only 2 percent said they had received more than 75 percent of their wealth from gifts. The frequency of missing values rises with asset level, but assigning the missing values to the highest gift category certainly does

Table 14.2 **Distribution of Fraction of Wealth Received as Gifts by Income Class (percentage of income class)**

Percentage Received as Gift	1961 Income						
	Less than $10,000	$10,000–$15,000	$15,000–$25,000	$25,000–$50,000	$50,000–$100,000	$100,000 and Above	Unweighted Total
None or no assets	88 (83)	87 (147)	81 (174)	76 (171)	77 (142)	71 (117)	79 (834)
Less than 5 percent	3 (3)	3 (5)	5 (10)	6 (13)	5 (9)	5 (9)	5 (49)
5–14 percent	4 (4)	4 (7)	5 (11)	8 (19)	5 (10)	8 (13)	6 (64)
15–49 percent	1 (1)	3 (5)	4 (9)	7 (16)	7 (12)	6 (10)	5 (53)
More than 50 percent	3 (3)	2 (3)	3 (8)	3 (6)	2 (4)	6 (10)	3 (34)
Missing	0 (0)	1 (2)	1 (3)	0 (0)	4 (7)	3 (5)	2 (17)
Total	100 (94)	100 (169)	100 (215)	100 (225)	100 (184)	100 (164)	100 (1,051)
Income class weight	.903	.067	.020	.008	.002	< .0005	

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.
Note: Figures in parentheses represent the number of households in each income class.

Table 14.3 **Distribution of Fraction of Wealth Received as Inheritance by Income Class (percentage of income class)**

Percentage Received as Inheritance	1961 Income						
	Less than $10,000	$10,000–$15,000	$15,000–$25,000	$25,000–$50,000	$50,000–$100,000	$100,000 and Above	Unweighted Total
None or no assets	85 (80)	65 (109)	56 (121)	57 (128)	48 (89)	52 (85)	58 (612)
Less than 5 percent	3 (3)	5 (9)	10 (21)	14 (31)	17 (31)	15 (24)	11 (119)
5–14 percent	4 (4)	10 (16)	13 (28)	10 (21)	11 (21)	9 (15)	10 (105)
15–49 percent	4 (4)	10 (16)	9 (19)	8 (17)	11 (21)	9 (15)	9 (92)
More than 50 percent	2 (2)	8 (14)	10 (22)	8 (18)	9 (16)	8 (13)	8 (85)
Missing	1 (1)	3 (5)	2 (4)	4 (10)	3 (6)	7 (12)	4 (38)
Total	100 (94)	100 (169)	100 (215)	100 (225)	100 (184)	100 (164)	100 (1,051)
Income class weight	.903	.067	.020	.008	.002	< .0005	

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.
Note: Figures in parentheses represent the number of households in each income class.

Table 14.4 **Distribution of Fraction of Wealth Received as Gifts by Portfolio Size (percentage of portfolio category)**

Percentage Received as Gift	Portfolio Size (1964)				
	Less than $1,000	Less than $30,000	$10,000–$300,000	More than $100,000	More than $500,000
Zero or no assets	100	86	83	77	66
	(54)	(101)	(292)	(257)	(130)
Less than 5 percent	0	6	3	5	7
	(0)	(7)	(11)	(18)	(13)
5–14 percent	0	4	6	6	9
	(0)	(5)	(22)	(19)	(18)
15–24 percent	0	1	2	3	4
	(0)	(1)	(6)	(9)	(7)
25–49 percent	0	2	2	3	5
	(0)	(2)	(7)	(11)	(10)
50–74 percent	0	1	3	3	3
	(0)	(1)	(10)	(11)	(5)
75 percent or more	0	0	0	1	2
	(0)	(0)	(1)	(2)	(4)
Missing	0	0	1	2	5
	(0)	(0)	(3)	(5)	(9)
Total	100	100	100	100	100
	(54)	(117)	(352)	(332)	(196)

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.

Note: Figures in parentheses represent the number of households in each portfolio category.

not change the general impression that gifts cannot explain a substantial fraction of assets.

Although inheritances are more important than gifts, they still do not seem to be the source of a great deal of wealth. In the highest asset class, 42 percent said they had received no inheritances; just 16 percent said inheritances accounted for more than 50 percent of assets. Again, it is difficult to see in these data that gifts and inheritances could account for even half of assets.

To estimate the fraction of assets from gifts and inheritances, we would like to take, in each income class, a weighted average of the fraction of assets in gifts, where the weights would be total assets. This would be average wealth received from gifts in the income class. Then, using the income class weights, we could calculate average gifts in the population. In a similar way, we could calculate average assets in each income class and average assets in the population. The two numbers would provide an estimate of the fraction of assets received as gifts.

Table 14.5 **Distribution of Fraction of Wealth Received as Inheritances by Portfolio Size (percentage of portfolio category)**

Percentage Received as Inheritance	Portfolio Size (1964)				
	Less than $1,000	Less than $30,000	$10,000–$300,000	More than $100,000	More than $500,000
Zero or no assets	100	76	61	54	42
	(54)	(89)	(214)	(173)	(82)
Less than 5 percent	0	9	10	15	13
	(0)	(10)	(34)	(50)	(25)
5–14 percent	0	8	11	10	13
	(0)	(9)	(39)	(32)	(25)
15–24 percent	0	2	4	5	6
	(0)	(2)	(15)	(16)	(12)
25–49 percent	0	3	4	7	3
	(0)	(3)	(15)	(23)	(6)
50–74 percent	0	1	6	4	8
	(0)	(1)	(21)	(14)	(15)
75 percent or more	0	2	1	4	8
	(0)	(2)	(4)	(13)	(15)
Missing	0	1	3	3	8
	(0)	(1)	(10)	(11)	(16)
Total	100	100	100	100	100
	(54)	(117)	(352)	(332)	(196)

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.
Note: Figures in parentheses represent the number of households in each portfolio category.

Our data, however, do not allow such a precise calculation: for the fraction in gifts, we have only a range; for the asset level, we have in some cases a range and in others an open-ended interval. Our method is to assign the midpoint of the reported gift range and a point in the reported asset interval. Assigning the midpoint of the gift interval surely overstates the average gift fraction in the interval because the distribution of gift fractions is highly skewed toward zero. The point we assign for assets is certainly arbitrary and surely misstates the assets of any individual, especially those in the open-ended asset categories. However, a large fraction of the individuals in the open-ended asset categories are in the income classes that have very small weight, so the error in the population fractions is probably small.[2]

The questions on the fractions of assets in gifts and inheritances have an ambiguity: it is not clear whether a respondent reports the value of his gifts, at the time he received them, as a fraction of his assets today or the value to which his gifts have grown as a fraction of his assets.[3] Because we do not have a convincing way to decide between them,

we present estimates based on both interpretations. For the first interpretation, we calculate, using an average Baa corporate interest rate over the postwar period, the present value of the gift from information on the reported date of the gift. In table 14.6, this is called the average present value of the gift. For the second interpretation, we take the fraction as reported in the data. In table 14.6, this is called the simple average of the gift. There is a substantial difference between the two averages, roughly a factor of two because many people reported they received the gifts before 1949. For these people, we used twenty-five years, which, at our interest rate of 4.3 percent, increases the value of the gifts by a factor of almost three. The estimates of gifts mostly increase with income class, reaching rather substantial values in the higher classes. The weighted averages show that the top 10 percent of the income distribution has about 63 percent of gifts as measured by the present value. No one in the highest income class (five observations) reported any gifts.

Estimated inheritances are reported in table 14.7. They are substantially larger than gifts. They increase sharply with income class. The difference between the present value and the simple estimates is about two. The receipt of inheritances is even more skewed than the receipt of gifts: the top 10 percent of the income distribution received about 82 percent in both present value and simple value of the total inheritances. The third income group accounts for the largest fraction of inheritances.

Table 14.6 **Gifts by Income Class**

		Average		Weighted Average	
1961 Income	Weight	Present Value	Simple	Present Value	Simple
Less than $5,000	.565	0	0	0	0
$5,000–$10,000	.338	2.32	1.33	.78	.45
$10,000–$15,000	.067	3.15	1.80	.21	.12
$15,000–$25,000	.020	25.3	13.8	.51	.28
$25,000–$50,000	.008	38.1	16.7	.31	.13
$50,000–$100,000	.002	98.6	35.0	.20	.07
$100,000–$150,000	.00027	167	61.5	.05	.02
$150,000–$500,000	.00019	234	84.3	.04	.02
$500,000–$1,000,000	.00002	265	84.4	.01	.00
More than $1,000,000	.00001	0	0	0	0
Gifts per household				2.11	1.09

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.

Note: Gifts in thousands of dollars.

Table 14.7 Inheritances by Income Class

1961 Income	Weight	Average		Weighted Average	
		Present Value	Simple	Present Value	Simple
Less than $5,000	.565	.04	.01	.02	.01
$5,000–$10,000	.338	2.77	1.56	.94	.53
$10,000–$15,000	.067	30.8	21.4	2.06	1.43
$15,000–$25,000	.020	50.5	23.5	1.01	.47
$25,000–$50,000	.008	94.4	38.8	.76	.31
$50,000–$100,000	.002	258	108	.52	.22
$100,000–$150,000	.00027	197	93.9	.05	.03
$150,000–$500,000	.00019	343	132	.07	.03
$500,000–$1,000,000	.00002	220	102	.00	.00
More than $1,000,000	.00001	51.3	16.1	.00	.00
Inheritances per household				5.43	3.03

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.

Note: Inheritances in thousands of dollars.

We estimate total assets per household to be $27,300. Thus, our estimates of the fractions of assets from gifts and inheritances is

	Present Value (%)	Simple (%)
Gifts	7.7	4.0
Inheritances	19.9	11.1
Total	27.6	15.1

It is not clear which of these numbers to compare to the 80 percent figure of Kotlikoff and Summers. Although Kotlikoff and Summers refer to their estimate as the magnitude of intergenerational transfers, it is probably closer to an estimate of the magnitude of bequests. This is because, in their method, gifts do not appear as intergenerational transfers as long as the giver is alive: if the giver is alive, his accumulation of life-cycle savings is, in principle, recorded in the data, and the gift is recorded in the assets of the household sector. Therefore, the gift is part of life-cycle savings, not part of intergenerational transfers. After the giver's death, his life-cycle accumulation is no longer recorded, and the gift is no longer explained as life-cycle savings. Were Kotlikoff and Summers able to account for this, their 80 percent figure would be even higher.

Our two estimates of bequests, while quite different from each other, are far below the 80 percent estimate of Kotlikoff and Summers. Even

our estimates of total intergenerational transfers are very much less. Although one could argue about the precise weights applied to the fractions from gifts and inheritances and, in particular, the values assigned to the open-ended asset categories, it is inconceivable that any reasonable weights could raise the transfer fraction to anything approaching 80 percent. This, of course, can be seen almost directly from the earlier tables. However, we did do some sensitivity analysis of our assignment of asset values. For example, when we assigned 15, 150, and 250 (thousands) rather than 10, 50, and 200 to asset categories 2, 3, and 4, the average asset holdings increased substantially, but the percentage of assets from gifts and inheritances decreased to 22.2 percent in the present value averages and 12.0 percent in the simple averages.

There is no particular reason to choose between the present value estimates and the simple estimates because both show that the fraction of wealth from intergenerational transfers is moderate. We tend to favor the simple estimates, for reasons to be discussed later.

In table 14.8, we show our estimates of the assets in each income class and the percentage of assets from gifts and inheritances. Average assets are $27,300, the sum of weighted assets. The upper 10 percent of the income distribution had, according to these estimates, about 40 percent of assets; the upper 1 percent had about 15 percent of assets.

Table 14.8 **Assets and Percentage of Assets from Gifts and Inheritances by Income Class**

		Assets		Percentage from Gifts and Inheritances	
1961 Income	Weight	Unweighted	Weighted	Present Value	Simple
Less than $5,000	.565	10.3	5.82	.4	.1
$5,000–$10,000	.338	31.4	10.61	16.2	9.2
$10,000–$15,000	.067	63.4	4.25	53.6	36.6
$15,000–$25,000	.020	127	2.54	59.7	29.4
$25,000–$50,000	.008	306	2.45	43.3	18.1
$50,000–$100,000	.002	601	1.20	59.3	23.8
$100,000–$150,000	.00027	787	.21	46.2	19.7
$150,000–$500,000	.00019	1,110	.21	52.0	19.5
$500,000–$1,000,000	.00002	1,094	.02	44.3	17.0
More than $1,000,000	.00001	1,314	.01	3.9	1.2
Assets per household			27.3		

Source: Authors' calculations from the 1964 survey on the economic behavior of the affluent.

Note: Assets in thousands of dollars.

The percentage of wealth in gifts and inheritances is substantial in the high income classes; accordingly, if wealth were more concentrated among the high-income groups, the average percentage would, of course, rise. Again, it is hard to see that the average percentage could approach the 80 percent of Kotlikoff and Summers.

We now present some other indicators of the importance of gifts and bequests. We take them to be supportive of the results we have already given.

In a separate question, respondents were asked if they had ever received any money or property as a gift or inheritances from parents or others. Nine percent said they had received gifts, 31 percent said inheritances, and 7 percent said both (Barlow, Brazer, and Morgan 1966, 227). These are weighted averages over the top 10 percent of the income distribution. They are quite consistent with the distributions in tables 14.2 and 14.3. They show that, even among the affluent, intergenerational transfers are by no means universal.

The respondents were asked about the source of most of their assets. In table 14.9, we give two distributions of the answers to this question. The weighted distribution is over the top 10 percent of incomes; the unweighted distribution is over the entire sample, ignoring the sampling weights. In the unweighted distribution, 6 percent say gifts or inheritances. In table 14.2, about 3 percent of the high-income group (income over $10,000) say that gifts were more than half of wealth; in table 14.3, about 9 percent say that inheritances accounted for more than half of wealth. Thus, the fraction having "most" of their assets from gifts and inheritances in table 14.9 is smaller than the fraction implied

Table 14.9 Distribution of Source of Most of Assets (percentage)

	Unweighted	Weighted
Gifts or inheritances	6	6
Savings out of income	37	49
Appreciation of assets	14	7
Gifts or inheritances and savings	3	7
Gifts or inheritances and appreciation	5	4
Savings out of income and appreciation	24	15
Gifts or inheritances, savings, and appreciation	5	3
Not reported	1	1
Assets less than $1,000	5	8

Sources: Unweighted column from the authors' calculations from the 1964 survey on the economic behavior of the affluent. Weighted column from Barlow, Brazer, and Morgan (1966, 227)—high-income households only.

by tables 14.2 and 14.3. The fraction in table 14.9 saying gifts or inheritances, or gifts or inheritances and appreciation, is about 11 percent, which is very close to the fraction implied by tables 14.2 and 14.3. This lends mild support to the view that the fractions in tables 14.2 and 14.3 include appreciation from the gift or inheritance and that, therefore, the calculations of transfers that use simple sums rather than present values are more accurate. The general impression from table 14.9 is that, over the households in the top 10 percent of the income distribution, the great majority of their assets resulted from savings out of income and appreciation.

The results already given concern the fraction of assets from gifts and inheritances. We now give some information on what individuals say their motives for saving are. In table 14.10, the column labeled "primary" gives the respondents' primary reason for saving and columns 2 and 3 the secondary and tertiary reasons. These distributions are not weighted according to the probability of sample selection, so they are dominated by the answers of very high-income families. The last column gives, over the top 10 percent of the income distribution, a weighted average of the fraction of households that mentioned one

Table 14.10 **Purposes for Saving by Ranking of Importance (percentage)**

	Primary	Secondary	Tertiary	Weighted Percentage Mentioning
Retirement	28	14	2	53
Children's education	16	7	1	31
Buy a house	1	1	0	3
Give to charitable organization	1	2	1	1
Travel	3	3	2	11
Buy stocks, business, real estate, equipment	10	2	1	10
Bequeath or provide for family in case of death	18	10	2	23
Emergencies	9	16	10	35
Pay bills	2	3	3	10
None given	3	36	76	0
Not available, other	9	5	2	13
Total	100	100	100	[a]

Sources: Authors' calculations from the 1964 survey on the economic behavior of the affluent, except col. 4, which is drawn from Barlow, Brazer, and Morgan (1966, 198)—high-income households only.

[a]Adds to more than 100 because some give more than one reason.

of the reasons. We see that retirement is given most often as a reason for saving. The interpretation of the fraction of households saving for bequests is ambiguous in the context of intergenerational transfers because at least part of the saving is to provide for the wife at the husband's death. Even so, only 23 percent of the respondents mentioned such a saving motive. Again, the general impression from this table is that saving for bequests is not an important motive.

The respondents were asked if they had given any large gifts "within the last couple of years." Over the high-income households, 8 percent had given to individuals, 7 percent to churches or charitable organizations, and 4 percent to both.[4] The types of individuals given to were children (7 percent), other (2 percent), and children and others (1 percent). The fraction giving to grandchildren rounded to 0 percent. The reasons for the gifts were taxes (4 percent), beneficiary needed (2 percent), and other (5 percent). Since the time period is not well specified, the interpretation is ambiguous. It does appear that most giving is very conventional, to children and organizations. In these data, as in other data, there is little evidence that the family provides an annuity for the elderly should they live past their life expectancy.

Our impression from these data is that, while a substantial number of people receive gifts and inheritances, the amounts received are not large even among the very well to do. Our best estimate of the fraction of household wealth due to intergenerational transfers is about 20 percent. For most families, inheritances are more important than gifts, even though over this period there were, for wealthy individuals, substantial tax advantages for inter vivos giving.

14.3 Results from the 1983 Survey of Consumer Finances

The 1983 Survey of Consumer Finances of 3,824 households was supplemented by 438 high-income households.[5] Although extensive questions were asked about income and assets, details on the sources of assets and attitudes toward saving are considerably fewer than in the 1964 data. In particular, the data cannot be used to estimate the fraction of wealth that came from intergenerational transfers. We can, however, make a rough comparison with some of our results from the 1964 data, and with the Kotlikoff and Summers results.

In table 14.11, we give the response of households to the following question: "Overall did most of your (family's) savings come from your regular income, or did it come originally from gifts and inheritances, or other sources?" Even at high income levels the great fraction of households said that most of their savings came from earnings (including pensions and social security). For example, of the households in the top 10 percent of the earnings distribution only about 6 percent

Table 14.11 **Source of Most of Savings**

Source	1982 Income							
	Missing	$0–$10,000	$10,000–$25,000	$25,000–$50,000	$50,000–$64,000	$64,000–$200,000	$200,000 or More	Total
Earnings	81	72	81	86	84	87	79	81
Gifts and inheritances	6	8	7	7	6	6	9	7
Investment income	2	1	2	2	5	2	5	2
Earnings and other	2	1	2	2	3	3	5	2
Other, missing	5	4	3	2	1	1	1	3
No savings	5	13	5	2	1	0	0	5
Total	100	100	100	100	100	100	100	100
	(647)	(762)	(1,192)	(943)	(148)	(304)	(265)	(4,261)
Income class weight	. . .	.167	.369	.355	.059	.05		1.00

Source: Authors' calculations from the 1983 Survey of Consumer Finances.

Note: Except for the last row, the entry in each column is the percent in each income class. Figures in parentheses represent number of households in each income class.

said most of their assets came from gifts and inheritances. Even if one adds in another 3 percent for "earnings and other," which includes gifts and inheritances, the fraction of the high-income households having most of their assets from intergenerational transfers is only 9 percent. The impression certainly is that saving from earnings is by far the most important way to accumulate assets.

The survey asked people their reasons for saving. The question did not ask people to choose among given categories; rather it was open-ended. The primary reasons given by the respondents are given in table 14.12 and the secondary reasons in table 14.13. Apparently the specific reason "bequests" was not given by the respondents was that it is not listed as a separate category.

Saving for emergency ("rainy days," for "security") was mentioned by the greatest fraction of households at all income levels. In the top 10 percent of the income distribution, about 40 percent mentioned retirement either as a primary reason or secondary reason. Responses that could be interpreted to mean saving for bequests might be saving "for the children," "get ahead, for the future," and, possibly, "make investments." But even the sum of these categories does not add up to a large fraction of households. For example, in the $50,000 to $200,000 income group, which is approximately the top 10 percent of the income distribution, about 12 percent mentioned "for the children" or "get ahead, for the future" as either a primary or secondary reason for saving. Adding "make investments" would include about 21 percent of families. Thus, even a very broad interpretation of the meaning of the questions finds a modest fraction of families that save for bequests.

In table 14.14 we report the percent of households that expect a large gift or inheritance. Overall, the percent is small, about 13 percent; in the top 10 percent of the income distribution the percent is larger, about 21 percent, but still far below what one would expect were gifts and inheritances an important part of the source of most households' assets.

14.4 Conclusions

In the 1964 data, even in the top 10 percent of the income distribution, very few households said more than half their assets were from gifts or inheritances: about 3 percent from gifts and 9 percent from inheritances or about 12 percent from intergenerational transfers (tables 14.2 and 14.3). Although the 1983 data are much less precise, this result was roughly confirmed: in the upper 10 percent of the income distribution, at most 9 percent of the households said most of their assets came from intergenerational transfers (table 14.11). If anything, the general impression from comparing tables 14.9 and 14.11 is that saving from earnings has become more important.

Table 14.12 Primary Reason for Saving

Reason	1982 Income							
	Missing	$0–$10,000	$10,000–$25,000	$25,000–$50,000	$50,000–$64,000	$64,000–$200,000	$200,000 or More	Total
Education	6	6	6	8	12	11	5	7
Purchase durables/house	10	11	13	13	8	7	3	11
In case of illness	9	20	11	8	6	4	3	10
Make investments	3	1	2	2	1	10	18	4
Retirement	21	7	15	19	27	25	22	17
Emergencies	28	24	33	32	34	29	30	30
To get ahead; future	6	4	6	7	3	6	8	6
For the children/family	3	4	2	2	1	1	3	2
No saving	4	7	2	2	0	2	2	3
Bills, travel, other	11	15	9	6	7	6	8	10
Total	100	100	100	100	100	100	100	100
	(647)	(762)	(1,192)	(943)	(148)	(304)	(265)	(4,261)
Income class weight	. . .	.167	.369	.355	.059	.05		1.00

Source: Authors' calculations from the 1983 Survey of Consumer Finances.

Note: Except for the last row, the entry in each column is the percent in each income class. Figures in parentheses represent the number of households in each income class.

Table 14.13 Secondary Reason for Saving

Reason	1982 Income							
	Missing	$0–$10,000	$10,000–$25,000	$25,000–$50,000	$50,000–$64,000	$64,000–$200,000	$200,000 or More	Total
Education	4	3	5	8	7	7	7	6
Purchase durables/house	8	9	10	11	6	7	3	9
In case of illness	9	14	12	10	7	5	2	10
Make investments	3	1	1	2	4	5	8	2
Retirement	9	3	6	9	14	16	11	8
Emergencies	7	6	9	10	14	10	6	8
To get ahead; future	2	2	3	2	5	3	7	3
For the children/family	3	2	2	2	3	3	9	3
No saving	3	6	4	2	1	0	1	3
Bills, travel, other	9	9	10	10	11	10	5	9
None given	43	44	39	34	28	33	41	39
Total	100	100	100	100	100	100	100	100
	(647)	(762)	(1,192)	(943)	(148)	(304)	(265)	(4,261)
Income class weight	. . .	.167	.369	.355	.059	.05		1.00

Source: Authors' calculations from the 1983 Survey of Consumer Finances.

Note: Except for the last row, the entry in each column is the percent in each income class. Figures in parentheses represent the number of households in each income class.

Table 14.14 **Expect Ever to Receive Large Inheritance**

	1982 Income							
	Missing	$0–$10,000	$10,000–$25,000	$25,000–$50,000	$50,000–$64,000	$64,000–$200,000	$200,000 or More	Total
Yes	8	7	13	18	22	21	16	13
No	87	90	85	80	76	78	83	84
Other	4	3	1	1	3	1	1	2
Total	100	100	100	100	100	100	100	100
	(647)	(762)	(1,192)	(943)	(148)	(304)	(265)	(4,261)
Income class weight	. . .	.167	.369	.355	.059	.05		1.00

Source: Authors' calculations from the 1983 Survey of Consumer Finances.

Note: Except for the last row, the entry in each column is the percent in each income class. Figures in parentheses represent the number of households in each income class.

In both surveys, the reasons for saving seem mostly to be for emergencies, for retirement, and for education. Rather than specifying consumption models in which a bequest motive is important, as called for by Kotlikoff and Summers, these data suggest that, if one wants to modify the LCH, the modification should include a precautionary motive for saving.

Notes

1. Following Kotlikoff and Summers (1981), we do not include in intergenerational transfer amounts spent on consumption and education of the children when they are young.

2. We assigned the following values for the gift and inheritance intervals that are given in tables 14.2–14.5: 0, 0.025, 0.1, 0.2, 0.375, 0.625, and 0.8. For the portfolios, which are given in tables 14.1, 14.4, and 14.5, we assigned the following values (in thousands): 0.5, 10, 50, 200, and 1,500.

3. The question about gifts was, "Speaking of the gifts, about what fraction of your total assets do they account for?" The question about inheritances was, "Now, speaking about the inheritance, about what fraction of your total assets today does it account for?"

4. These and the other percentages in this paragraph are weighted percentages over high-income households. The numbers come from Barlow, Brazer, and Morgan (1966, 233–35).

5. Information about the sample can be found in Avery et al. (1984).

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Comment Denis Kessler

Michael Hurd and Gabriela Mundaca's paper is an important contribution to the ongoing debate on the importance of bequests in wealth accumulation. For a long time, the most commonly held view was that inherited wealth represents only a small fraction of the wealth owned by households. Most of the assets held at a given time were considered to result from the past saving of the existing cohorts of consumers. The prevailing opinion was that consumers behave according to the basic life-cycle model (see Modigliani 1988). Life-cycle saving—accumulated primarily for future consumption when retired—was assumed to be the main source of wealth accumulation.

The consensus was broken by the publication of Kotlikoff and Summers (1981), which argued that the bulk of wealth accumulation is due to intergenerational transfers. On the basis of estimates from U.S. data covering the twentieth century, Kotlikoff and Summers claimed that life-cycle saving accounts for only one-fifth of existing wealth. These results—if valid—have important theoretical consequences since they cast doubt on the life-cycle hypothesis of savings behavior and lead to a new view in which intergenerational transfers play the dominant role.

Two opposing positions are now distinguishable. Both of them lead to the law of the 20/80. The traditional position is that life-cycle wealth accounts roughly for 80 percent of existing wealth, whereas the new position takes exactly the opposite stand since it considers that bequests represent 80 percent of existing wealth. The debate is crucial for all researchers involved in understanding consumer behavior and also for policymakers. It has both efficiency and equity implications (see Kessler and Masson 1988). In their interesting contribution, Hurd and Mundaca strongly defend Modigliani's position by providing evidence against Kotlikoff and Summers' position.

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There are indeed different ways to assess the quantitative importance of bequests in wealth accumulation. To date, three main paths have been explored. The first approach uses data from surveys in which households give estimates of the share of bequests in the assets they hold. The second approach uses the so-called flow-of-bequests method, where the objective is to find a relation between the annual flow of bequests and the stock of inherited wealth. The third approach employs a simulation model to derive the share of bequests indirectly as the difference between an independant estimate of total wealth and an estimate of aggregate life-cycle wealth.

Hurd and Mundaca follow the first approach in analyzing two households surveys, the well-known 1964 survey on the economic behavior of the affluent conducted by the University of Michigan Survey Research Center and the 1983 Survey of Consumer Finances with the high-income supplement. The authors reach six main conclusions from the analysis of these survey data.

1. Households were asked in the 1964 survey what fraction of total assets were received as gifts. The data show clearly that "although gifts become increasingly important as income rises, even in the highest income class only 6 percent of the respondents said gifts accounted for more than 50 percent of their assets".

2. As far as inheritances are concerned, the survey data show that inheritances appear to be more important than gifts. Although the frequency of inheritors is higher, the magnitude of most inheritances apparently is not large. In the highest income class (0.05 percent of households), the percentage of households having more than 50 percent in inheritances is just 8 percent.

3. Computations are made to estimate the fraction of total assets from gifts and inheritances. This is a rather delicate task owing to the way the data were collected. Two estimates are presented. The first one (R1) is the ratio of inheritance or gifts to estimated wealth, and the second (R2) is the ratio of the present value of inheritance or gifts to estimated wealth. The fraction of assets from gifts varies from 4.0 percent (R1) to 7.7 percent (R2), and the fraction from inheritances varies from 11.1 percent (R1) to 19.9 percent (R2). The ratio (inheritances plus gifts)/estimated wealth varies from 15.1 percent (R1) to 27.6 percent (R2). Those figures lead the authors to conclude that estimates of bequests are far below the 80 percent estimate of Kotlikoff and Summers.

4. For the top 10 percent of the income distribution, only 9 percent of respondents declared that they had received gifts, 31 percent inheritances, and 7 percent both gifts and inheritances. When asked about the source of wealth, only a minority declared gifts or inheritances.

5. Conversely, respondents declared that retirement was the primary reason for saving. Only one-fifth of them mentioned the bequest motive.

6. The results are consistent with those of the 1983 Survey of Consumer Finances. Even rich households declared that most of their savings came from earnings and not from bequests.

These findings lead Hurd and Mundaca to conclude that the life-cycle model is valid and that it is useless to specify consumption models in which a bequest motive is important. This conclusion appears a little harsh.

Hurd and Mundaca's contribution raises a lot of interesting issues and questions. Let me start with a general remark.

Despite these new findings, the debate on the importance of inheritance in wealth accumulation is still unresolved. The available evidence does not allow us to make a definitive statement on this general issue. The analysis of historical evidence, the study of age-wealth profiles, the examination of annuity markets, and the outcomes of simulation models do not lead to firm conclusions. All direct estimates coming from household surveys appear to show that households consider that bequests received represent a small fraction of their total assets. However, among all the approaches that can be followed to assess the quantitative importance of bequests, I think that direct survey estimates tend to provide the weakest evidence. The reason is that survey data suffer from important biases, in particular recall bias, underreporting, and nonresponse. In addition, there is even a specific bias in this issue. As Modigliani himself puts it, "It is not inconceivable that respondents would tend to underestimate systematically and significantly the extent to which their wealth was bestowed on them by others rather than representing the fruits of their own effort" (Modigliani 1988). We are here in the presence of a kind of moral hazard problem.

There is indeed in the data provided by Hurd and Mundaca some evidence of such a problem, which is due to the fact that people declare more easily to have given than to have received. The authors mention that "the respondents were asked if they have given any large gifts 'within the last couple of years.' Over the high-income households, 8 percent had given to individuals, 7 percent to churches or charitable organizations, and 4 percent to both". From table 14.2, we find that 78 percent of households with income higher than $10,000 have never received any gifts or hold no assets. It is hard to reconcile the fact that 12 percent of households declare to have given within the last couple of years and only 22 percent of households declare to have ever received a gift.

Hurd and Mundaca compare their household survey estimates of the fraction of intergenerational transfers in assets with estimates offered by Kotlikoff and Summers in their well-known 1981 article. In this

article, Kotlikoff and Summers, using a simulation model, concluded that the share of inherited wealth accounted for 81 percent of total assets, a figure quite different from the 20 percent of Hurd and Mundaca. But the debate has evolved since then, and the gap between the Kotlikoff and Summers estimate and the traditional Modigliani estimate has been largely explained and reduced. When considering the various estimates stemming from the household survey method, the flow-of-bequests method, and the simulation method, the gap among them lies in particular in the definition of intergenerational transfers (and especially the nature of educational expenditures), the problem of accumulated interest on past inheritances, and the treatment of durables (see Blinder 1988).

Moreover, the Kotlikoff and Summers estimate is largely the outcome of the specific shapes of the consumption and income profiles of the cohorts they examine. Both profiles are almost identical up to age forty-five, and therefore the need for life-cycle accumulation to even out consumption expenditures is eliminated over half the life span.

When comparing the results of a household survey and those of a simulation model, great care must therefore be given to all the various elements, such as differences in methods, hypotheses, cohorts effects, and definitions, that may explain the apparently very wide gap in results. In regard to the household survey approach followed by Hurd and Mundaca, five observations may be offered.

1. The authors seem to overlook age effects. Most of the people living at a certain period of time have not yet inherited. Inheritances are linked to mortality rates, and the age of receipt is likely to be about fifty. The inheritance frequency among the general population given by the authors is therefore biased. This, of course, is less true for gifts that are not linked to mortality rates. One should therefore consider only people that are no longer in a position to inherit from their parents since most bequests come from parents. Inherited wealth is a strictly increasing function of age. Life-cycle wealth first increases and then decreases with age. So, if you consider the ratio of inherited wealth to the sum of inherited wealth and life-cycle wealth, it would first decrease until retirement and then increase after retirement. Therefore, it would be very interesting to have the data computed by age groups to check if this ratio exhibits this specific pattern.

2. Hurd and Mundaca seem to have overlooked the age effects, but they have also neglected cohort effects. The relative size of inheritances and gifts in total assets depends, of course, on the growth rate of income. The higher this rate, the lower the fraction of inherited wealth. It is therefore important to take into account the possible cohort effects when assessing the fraction of inherited wealth in total assets. Cohort effects are indeed likely to be large.

3. Concerning the question of capitalization of inheritances, the authors give both the present value of inheritances and gifts and their value at time of receipt. Capital income on inheritances and gifts should be considered as part of inherited wealth. So one should consider only present values. But, in computing these present values, Hurd and Mundaca use the Baa bond index. By choosing this index, they underestimate the fraction of inherited wealth in total assets. It is likely that the rate of return (including capital gains) on inherited wealth is certainly higher than the Baa index, especially considering the higher-income groups of the population. From the 1983 Survey of Consumers Finances, we know, for instance, that high-income earners and high-wealth holders are likely to take more risks and therefore obtain higher returns than are low-income households (Avery and Elliehausen 1986). The fraction of inherited wealth is very sensitive to the rate of return assumptions (as we can see by comparing the difference between estimates based on value at time of receipt and estimates based on present value estimates). By choosing a rate of return twice the Baa index, the fraction of inherited wealth could easily approach 0.40. To make better assumptions, more information on the structure of inherited wealth is needed.

4. In assessing the importance of inherited wealth in total assets held, Hurd and Mundaca consider only the direct effects. However, indirect effects might be important. It is hard to consider that inherited wealth is entirely independent of life-cycle wealth and that those two components of wealth could be simply added, as implicitly assumed in the methods chosen. There can be multiplicative effects whereby inheritance by itself boosts the accumulation of wealth. Let me give two examples. For example, adding inherited wealth to life-cycle wealth can increase portfolio diversification. Someone receiving a gift at, say, age thirty can use it as collateral and have greater access (and cheaper) to credit and therefore accumulate more wealth then someone who has to save before going into debt. Indirect effects are likely to be large and, if taken into account (and eventually measured), would tend to increase the role of bequests in wealth accumulation.

5. Some of the data provided by Hurd and Mundaca raise other questions. For instance, when computing the wealth/income ratio of the sample from table 14.1 (using the means chosen by the authors in their n. 2 for wealth and means for income of $5,000, $12,500, $20,000, $37,500, $75,000, and $150,000), one finds a ratio of seven, which is much higher than the usual ratio of three implied by the standard life-cycle theory. Such a wealth/income ratio implies very high savings rates or significant bequests. In the same table, two households appear to have a very high wealth/income ratio (120) that is very unrealistic.

In the 1983 survey, when asked about the reasons for saving, only 5 percent of households declared that they did not save. The percentage

of zero savers appears too small, especially because these figures implicitly include dissavers since they are not specifically included elsewhere. Again, these data do not seem to support the argument of the paper that people neither receive large bequests nor leave bequests.

In conclusion, let it be clear that my questioning the approach followed and the results obtained by Hurd and Mundaca does not mean that I believe that the ratio of inherited wealth in total assets approaches 80 percent, as stated by Kotlikoff and Summers. It means that this question still deserves a lot of attention because of its policy implications. Great care should be given to the definitions of intergenerational transfers. There is an urgent need for drawing up an accounting framework able to capture all intergenerational transfers, from the old to the young (through inheritances, gifts, loans, and educational expenditures), from the young to the old (through social security, public debt, etc.), whether private or public, whether in human capital or nonhuman capital. Such an accounting framework would help us to measure the importance of intergenerational transfers and assess their efficiency and equity implications.

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