NBER WORKING PAPER SERIES

THE CONTRIBUTION OF INTERGENERATIONAL TRANSFERS TO TOTAL WEALTH: A REPLY

Laurence J. Kotlikoff

Lawrence H. Summers

Working Paper No. 1827

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
February 1986

We thank Greg Mankiw, Andrew Myers, Jim Poterba, and Andrei Shleifer for helpful comments. The research reported here is part of the NBER's research program in Taxation and projects in Taxation and Capital Formation and Aging. Any opinions expressed are those of the authors and not those of the National Bureau of Economic Research.

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ABSTRACT

This paper responds to Franco Modigliani's recent critique of our 1981 paper on the importance of intergenerational transfers for U.S. savings. Modigliani's paper is the latest salvo in a long running debate over the importance of intergenerational transfers in explaining savings behavior. While Modigliani corrects an algebraic error of minor consequences in our earlier paper, its correction does not, in our view, call into question the fundamental conclusion that life cycle considerations can account for only a small part of aggregate capital accumulation. Inevitably, it is possible to challenge aspects of any complex empirical calculation. Modigliani's attacks seem to us incorrect in most cases and generally fail to address our primary method of determining the importance of intergenerational transfers. Many considerations at least as important as those raised by Modigilani suggest that our method produces an overestimate of the importance of life cycle wealth.

Laurence J. Kotlikoff
National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138

Lawrence H. Summers
Department of Economics
Littauer Center 229
Harvard University
Cambridge, MA 02138

Franco Modigliani's (1984) review of the evidence and analysis in our 1981 paper is the latest salvo in a long running debate over the importance of intergenerational transfers in explaining savings behavior. We welcome this opportunity to address his criticisms and to place our 1981 results in perspective. While Modigliani corrects an algebraic error of minor consequences in our earlier paper, its correction does not, in our view, call into question the fundamental conclusion that life cycle considerations can account for only a small part of aggregate capital accumulation. Inevitably, it is possible to challenge aspects of any complex empirical calculation. Modigliani's attacks seem to us incorrect in most cases and generally fail to address our primary method of determining the importance of intergenerational transfers. Many considerations at least as important as those raised by Modigliani suggest that our method produces an overestimate of the importance of life cycle wealth. Modigliani is also extremely selective in his reporting of the available evidence from other studies on the importance of intergenerational transfers.

This paper is organized as follows. Section 1 evaluates the pre-existing empirical evidence on the importance of intergenerational transfers and adduces a number of considerations suggesting the plausibility of our conclusion that life cycle considerations are not paramount in explaining aggregate savings. Section 2 reviews our principal wealth accumulation method for estimating the importance of transfers and Modigliani's criticisms of this method. While Modigliani argues correctly that a modified treatment of consumer durable expenditures would increase the estimated share of life cycle wealth, our preferred adjustment is quite small. In addition, we find his attack on our definition of life cycle wealth as "non-standard" unpersuasive both historically and analytically. Indeed, we view our definition as

perfectly reasonable given the issue being addressed. Section 3 examines estimates based on transfer flows, and shows that the available evidence does not permit firm conclusions and provides no reason for doubting the conclusions based on our main approach. Section 4 concludes the paper and discusses directions for future research.

I. REVIEW OF EARLIER EVIDENCE

Modigliani's review of the available empirical evidence includes the assertion that "all other estimates (agree) on the conclusion that wealth received by inheritance and major gifts represent a modest fraction of the total and that an exogenous large reduction in the flow of bequests would not have a major effect on the privately held stock of wealth." This assertion is belied by a large number of studies appearing before and after our 1981 paper suggesting the overwhelming importance of bequest and other transfer saving in aggregate wealth accumulation. Here we review five essentially independent types of evidence suggesting the importance of intergenerational transfers. We then argue that the survey evidence cited by Modigliani does not demonstrate the unimportance of intergenerational transfers.

Historical Saving Patterns

The essential prediction of life cycle theory is that people save to prepare for their retirement when they must dissave and consume. Without periods of retirement or, at least, significantly decreased labor earnings at the end of life there can be no life cycle motive for savings. Yet substantial positive national saving rates antedate the advent of retirement as an important economic phenomenon. Darby (1979) points out that, although the ratio of expected retirement years to expected life span increased by 67

percent from 1890 to 1930, aggregate saving rates showed no increase during this period as would be predicted by the life cycle theory. Darby states "... the saving income ratio during 1890-1930 was 3 to 4 times higher than can be explained on even a generous reading of the zero-bequest model." Indeed, Feldstein's (1977) calculations based on the work of Kuznets suggest that the rate of national saving in the United States was substantially greater before World War I than it has been since then. Clearly the incentive to save for retirement was far smaller in the earlier period than it is today.[1] Another type of evidence suggesting that retirement saving may be less important than many think is that the rate of saving today is high in many less developed countries where retirement is uncommon.

Age-Wealth Profiles

Decumulation of wealth after retirement is an essential aspect of the life cycle theory. Yet simple tabulations of wealth holdings by age, Mirer (1979) or saving rates by age, Thurow (1976) and Danziger et. al. (1984), do not support the central prediction that the aged dissave. Mirer reports that wealth holding tends to increase with age. Thurow reports positive saving rates for persons in all age groups, while Danziger et.al. report that saving rates increase with age with "...the elderly spend(ing) less than the nonelderly at the same level of income and (with) the very oldest of the elderly having the lowest average propensity to consume". A number of questions can be raised about these and other analyses of age wealth profiles including possible selection biases and their failure to take account of the effects of Social Security. A careful survey of the literature on this issue by Bernheim (1986) concluded that

"While some other studies have found evidence of wealth decumulation after retirement, none have found that it occurs as rapidly as predicted by life cycle models without bequest motives."

In his own analysis Bernheim (1986) finds "...relatively little dissaving among any group of retirees", and his tests of rates of accumulation lead to "... empirical refutation of life cycle implications."

Evidence from Annuity Markets

The strict life cycle model without allowance for bequest motives makes strong predictions about the demand for annuities. Since the date of death is uncertain and since bequests provide no utility, life cycle models imply that there should be a very strong demand for annuity insurance. In fact, the demand for annuities appears to be very weak. Friedman and Warshawsky (1984) report that the loads on annuity insurance are no higher than the loads on other frequently purchased types of insurance such as automobile collision insurance or insurance against theft. Yet annuity purchases are a rarity. Friedman and Warshawsky argue that it is necessary to invoke bequest motives to explain this behavior. While Kotlikoff and Spivak (1981) advance a possible alternative explanation, namely that families will self-insure to a large extent when annuity insurance is only available on very unfavorable terms, this cannot fully account for the widespread failure to annuitize. Bernheim, Shleifer, and Summers (1985) review a number of settings where annuities are available on a fair or even subsidized basis and report that even in these cases there is little demand to purchase annuities. They conclude from this evidence that many consumers must have significant bequest motives.

Wealth and Subsequent Consumption

An accounting identity holds that the present value of a consumer's future consumption must equal the present value of the income he will receive plus his existing wealth minus any transfers that he will make. This suggests that the importance of transfers may be inferred by looking at the fraction of wealth and future labor income that is devoted to future consumption. Two studies using very different types of data have taken this approach to estimating the importance of intergenerational transfers. Darby (1979) used data on individuals' wealth holding and subsequent labor income and consumption to conclude that at most 29 percent of U.S. private net worth is devoted to future consumption. White (1978) used aggregate data on the age structure of the population, age earnings profiles and consumption along with a wide variety of parametric assumptions to conclude that the life cycle hypothesis can account for only about a quarter of aggregate savings.

Simulation Studies

Simulation analyses also call into question the pure life cycle model. Auerbach and Kotlikoff (1985) show, in a detailed life cycle simulation model, that realistic specification of U.S. demographics, preferences, and fiscal institutions implies a very much smaller wealth to income ratio than that actually observed for U.S. Their results differ from those of Tobin (1967) because of their inclusion of social security and their more realistic assumptions concerning the growth rate of consumption over the life cycle. In order to generate substantial life cycle savings Tobin found it necessary to assume that consumption grows at a much faster rate than actually observed.

Other simulation studies by Atkinson (1971) and Oulton (1976) point out the difficulty of explaining wealth inequality on the basis of the zero intergenerational transfer life cycle model. They find that the substantial inequality in wealth relative to earnings can only be explained by bequest behavior.

Modigliani's Evidence

With his Table 1 Modigliani attempts to demonstrate an overwhelming preponderance of evidence indicating that intergenerational transfers are not an important aspect of private wealth holdings. Most of his evidence takes the form of the observation, obtained in several surveys, that most people report most of their wealth coming from their own saving rather than from bequests or gifts. There are a number of problems with Modigliani's inference from this evidence. First, as he acknowledges, much of total wealth may arise from intergenerational transfers even if they are unimportant for the vast majority of people who have little wealth and whose parents have or had little wealth. Second, Modigliani's survey evidence fails in many cases to take account of intervivos gifts. Even where gifts are included it is unlikely that respondents report fully "implicit gifts" such as low interest loans, shares in the family business, or payments of tuition. Third, none of the surveys cited by Modigliani take account of the return earned by recipients on past inheritances or gifts. It is likely that the accumulated value of most transfers substantially exceeds their nominal value. Forth, the substantial underreporting of wealth has been documented in the surveys Modigliani cites. It seems plausible that unearned wealth is particularly subject to underreporting.

Modigliani also attempts in Table 1 to provide estimates of the importance of transfers based on "bequest flow" methods. These suffer from the same difficulties of measurement as his other evidence. Some additional conceptual difficulties are noted in Section III.

We turn next to a review of our method of accounting and Modigliani's criticisms of it. Before plunging into the details of the calculation, it is perhaps appropriate to reiterate that our reading of the evidence is less extreme than Modigliani suggests. Robert Solow (1982) considers much of the same evidence, and states "My tentative conviction is that (the) view (that intergenerational transfers appear to be the major element determining U.S. wealth accumulation) is essentially right. It is reinforced by general qualitative considerations."

II. DEFINING AND MEASURING LIFE CYCLE WEALTH

In his paper Modigliani focuses to a very large extent on two issues. The first is "bequest flow" estimates of the importance of intergenerational transfers to savings, and the second is the proper definition of life cycle versus transfer wealth. Modigliani devotes little space to our main contribution, the direct calculation of life cycle wealth. We devoted most of our paper to the direct calculation of life cycle wealth because, as we stressed, the "bequest flow" approach overestimates life cycle wealth due to the absence of data on a variety of transfer flows. In addition, unlike the direct calculation, the bequest flow approach requires invoking steady state and other simplifying assumptions that may not be valid. This section considers the measurement of life cycle wealth while the next section treats the bequest flow calculations.

We address first the issue of properly defining life cycle wealth and then discusses our direct estimates of life cycle wealth, including the proper adjustment for the consumption of durables stressed by Modigliani. This adjustment does not alter the basic conclusion that the pure life cycle model without intergenerational transfers cannot explain the bulk of U.S. wealth. We also point out several reasons why our calculation of life cycle wealth appears to be significantly upward biased.

Defining Life Cycle Wealth

Our definition of life cycle wealth is motivated by the following question: Are the U.S. data on labor earnings, rates of return, consumption, and wealth broadly consistent with the view that intergenerational transfers play a negligible role in U.S. wealth accumulation? Stated differently, can one reject the null hypothesis that the life cycle model without intergenerational transfers fully explains U.S. wealth? We defined life cycle wealth according to the theorectical prediction of the zero intergenerational transfer, life cycle model, namely as the sum over cohorts of the accumulated difference between past streams of labor earnings and consumption. We defined the difference between actual U.S. wealth and life cycle wealth as transfer wealth. Transfer wealth must equal the sum over cohorts of the accumulated value of past net intergenerational transfers.

While Modigliani asserts that this definition is non-standard and unconventional, it is as standard as the life cycle theory itself; indeed, it is the definition used by Ando and Modigliani (1963), and it is the definition used in the two previous extensive analyses by Tobin (1967) and Darby (1979) of the role of the pure life cycle model in U.S. wealth accumulation. While Modigliani suggests that this definition yields "nonsensical" results, his

example of the use of this definition in his Table 2 clearly illustrates its ability to distinguish between economies with and without significant intergenerational transfers.

Rather than totaling over cohorts the accumulated difference between labor earnings and consumption, Modigliani would have us total over cohorts the sum of their past saving, where saving is income less consumption. The problem with this definition is that income may include capital income earned on previously received intergenerational transfers. Hence, the sum of saving out of income can not be used to test with maximum power the null hypothesis that the zero transfer life cycle model accounts for essentially all of U.S. wealth because income may itself reflect intergenerational transfers. Nor can Modigliani's definition be implemented without extremely elaborate adjustments to remove the inflation component of the capital income earned from investing gifts and bequests. Implementing it without inflation adjustments would lead to the unacceptable implication that perfectly balanced inflation would increase the share of life cycle wealth; i.e., transfer wealth defined by Modigliani is the simple sum of past net transfer received by living generations measured in nominal terms. A final limitation of Modigliani's definition is that it does not correspond to an answer to any well posed behavioral question.

Once one finds that the data are highly inconsistent with the zero transfer, life cycle formulation, a natural behavioral question to raise is: What would be the impact on U.S. wealth of eliminating all intergenerational transfers? We raised this economic, as opposed to accounting, issue in our paper, indicating how our definition and estimate of life cycle wealth could be used to address this unrealistic, but nonetheless interesting counterfactual. The answer to this economic question is, of course,

independent of accounting convention. Our assessment, to which we still subscribe, was that totally eliminating intergenerational transfer would, in partial equilibrium, reduce U.S. wealth by at least 50 percent. This economic as opposed to accounting statement suggests a much more important role for intergenerational transfers than has generally been thought to be the case.

The Age of Adulthood

A second issue of definition discussed in our paper and raised as well by Modigliani is the proper age of adulthood. As Modigliani points out this is an arbitrary choice. At one extreme one could assume that adulthood begins at birth, in which case the accumulated difference between the labor earnings and consumption of young cohorts would be significant negative numbers, and our calculation of 1974 life cycle wealth would be substantially smaller than the figure we report; indeed, this assumption would lead to a negative value for life cycle wealth. At the opposite extreme one could assume that adulthood begins at a very late age, say age 40. In this case all the consumption and earnings of those under age 40 must be imputed to their relatives over age 40, and the value of life cycle wealth would be very much larger than we report.

In our calculation of 1974 life cycle wealth we choose age 18 as the age of adulthood. In our view this age, while appropriate for the post war generations alive in 1974, is probably too old for older cohorts alive in 1974 some of whom were born in the last century. Many of these older generations entered the labor force at younger ages than is currently typical, and they certainly had much shorter lifespans. Hence, it seems reasonable to believe that the generally perceived age of adulthood for the older cohorts in 1974 was less than age 18, and perhaps as young as 16. Indeed, until the 1950s labor force participation rates were calculated relative to the over 14

population. Had we used age 16 for older 1974 cohorts as the age of adulthood we would have reported considerably less life cycle wealth than what we did report.

Given our choice of age 18 as the age of adulthood, we ascribe all consumption expenditures and earnings of those 18 and over to those adults who are directly consuming the expenditures and supplying the labor. Hence, the consumption of a 25 year old graduate student of educational services, as well as food, clothing, etc. is counted as her consumption rather than that of her parents. In contrast, Modigliani argues that the consumption of educational services should be ascribed to the parents when the parents are financing the education. A problem with this line of reasoning is that money is fungible; i.e., there is no reason to treat differently the case of a graduate student whose tuition is directly paid by her parents and the graduate student who pays the tuition from her own check book, but receives an equivalent amount of money from her parents "for" food, "for" a car, "for" a vacation, etc. More importantly, provision of higher education and support during the period of education represents a major form of intergenerational transfers and should be treated as such. In sum, we see no reasonable way to label certain payments from parents to their adult children as "transfers" and others as "parental consumption". From the perspective of the customary view of the life cycle model it would be inappropriate to treat children as adults, but it is equally inappropriate to treat adults as children.

Consumer Durables

In our earlier paper we reported 1974 life cycle wealth of $733 billion compared with 1974 household net worth of $3,884 billion, implying that 1974 life cycle wealth is only 18.9 percent of 1974 total wealth. The life cycle

wealth figure was constructed by accumulating earnings less consumption for each male and female cohort with living members in 1974. The age and sex-specific levels of consumption and earnings used in this calculation were derived by distributing total consumption and labor earnings in each year beginning in 1900 according to cross section profiles of relative consumption and earnings by age and sex.

In forming cross section relative age-consumption profiles we simply used expenditures on durables rather than imputing rent on durables. As Modigliani points out, this treatment of durables has the effect of ascribing too much consumption in a given year to younger individuals and too little consumption to older individuals and biases our calculation towards too little life cycle wealth. In retrospect there is a very easy way to adjust for durables. This is just to exclude the stock of consumer durables from total wealth. Our previous treatment of durables involved treating durables expenditures as consumption for purposes of calculating cohort-specific values of consumption, but, unfortunately, not for purposes of calculating total wealth. Stated differently, our calculation of life cycle wealth really corresponds to life cycle accumulation of wealth excluding durables and should be compared with total wealth excluding durables. Since the stock of durables in 1974 was $530 billion, this correction lowers the total stock of wealth to be explained to $3,349. Since $773 billion is only 21.9 percent of adjusted total wealth, this adjustment raises our estimate of the life cycle wealth share only trivially, from 18.9 percent to 21.9 percent.

In contrast to this correction of 3 percentage points, the correction for the failure to impute rent on durables reported by Modigliani is 26 percent raising from 18.9 to 44.9 percent the share of life cycle wealth. Before thinking of the straightforward adjustment procedure described in the

preceding paragraph, we assisted Modigliani in using the 1972 Consumer Expenditure Survey to try to estimate both the stock of durables and the implicit rent on durables. This initial crude adjustment for durables involved using the 1972 cross sectional durables expenditure information and invoking steady state assumptions to infer past expenditures on durables by households in the 1972 survey. These estimated past purchases of durables were then depreciated to arrive at estimated 1972 stocks of durables, from which rent was then imputed. The calculation turned out to be quite sensitive to the assumed steady state growth rate. One version of the calculation corresponds to Modigliani's reported 26 percent adjustment. We place little reliance on this adjustment since, unlike any of the other calculations in our estimation of life cycle wealth, it invokes quite unrealistic steady state assumptions. These include the assumption that past expenditures on durables at each age equaled the 1972 expenditure of the corresponding age group deflated by a constant growth rate factor.

Modigliani's preferred adjustment raises the estimate of life cycle wealth from $733 billion to $1,743 billion, or 44.9 percent of total wealth. Note that while this figure is over twice as large as our much more defensible 21.9 percent adjusted estimate, life cycle wealth is still less than half of total wealth implying an important role for intergenerational transfers.

Upward Biases in our Original Calculation of Life Cycle Wealth

As we pointed out in our original paper there are several biases in our calculation suggesting that we overestimated life cycle wealth. In order to generate at least some positive value for life cycle wealth we adjusted upwards standard estimates of the labor income of the self-employed by 20 percent. Since the ratio of self employed workers to employees was

substantially larger in the prewar period than it is today, the calculated value of life cycle wealth is fairly sensitive to this assumption. Using standard estimates of the labor income of proprietors would reduce estimated life cycle wealth by about $700 billion. We also assumed in the calculation a ratio of average female earnings to average male earnings equal to .55, although the data suggest that a ratio closer to .45 is more appropriate. Using .45 as the ratio would reduce our estimate of life cycle wealth by between $100 and $150 billion. A variety of other biases also increased our estimate of life cycle wealth. These include our assumption that the profile of relative consumption by age is flat after age 75 and our assumption of zero earnings after age 75. In addition, one could argue that for many older 1974 cohorts an age of adulthood younger than 18 is appropriate. This adjustment would lower the estimate significantly. Needless to say, if we adjust for durables by simply excluding the stock of durables from total wealth and make these additional adjustments to our initial $733 billion figure, we would arrive at a negative value of life cycle wealth.

Explaining our Result

It may be useful to repeat our basic explanation for why life cycle wealth is so small in the U.S. Unlike simple class room depictions of hump saving in which the consumption profile is flat and the earnings profile rises to retirement, actual age earnings and age consumption profiles, such as those in Figures 1, and 2 which are reproduced from our paper, have essentially identical shapes and levels prior to at least age 45. Between ages 45 and 60 there is clearly some hump saving in that earnings profiles continue to rise through the early 50s and then decline slowly through age 60 while consumption profiles flatten out, and after age 60 there is clearly dissaving in the sense

that the age consumption profile exceeds the age earnings profile. However, since this pattern of hump saving and dissaving occurs quite late in the life cycle one would not expect a large accumulation of life cycle wealth in the aggregate because the life cycle wealth of the more numerous generations below age 45 is so small. The simple fact is that consumption does not rise more rapidly through life than labor income.

III. LOWER BOUND ESTIMATES OF LIFE CYCLE WEALTH BASED ON THE "BEQUEST FLOW METHOD"

The "bequest flow" method refers to using information on the current flow of intergenerational transfers and assuming the economy is in a steady state to estimate stocks of life cycle wealth. In our original paper we presented estimates for transfer wealth based on this method. Modigliani focuses extensively on this short section of our paper. We stressed that these were lower bound estimates because there are no data sources that systematically report intergenerational transfers made in the form of implicit and explicit gifts. Explicit gifts, which may be in kind as well as in cash, are clearly acknowledged as such by donors and recipients. Implicit gifts, such as making one's son an equal earning partner in a lucrative family business or providing low interest loans to children, may not be viewed as a gift by donors and recipients and would be hard to identify and quantify in a survey. Since the U.S. distribution of wealth is highly skewed implicit gifts, while perhaps small in number, could be very large in value. Hence, any flow estimates of transfer wealth, including those of Modigliani, should be viewed as potentially seriously downwards biased.

A second concern with the bequest flow method is that it requires invoking steady state assumptions that may be far from valid. It may be, for example, that the flow of intergenerational transfers in relation to the scale of the economy was much greater in the 1920s than in the 1960s and 1970s, the period for which our transfer flow data is available. Finally, even if one is willing to accept the steady state assumption, the simple formulae that we and Modigliani examine assumes that everyone dies at a given age D, that all transfers are received at a given age I, and all transfers are made at a given age, G. This is obviously unrealistic, and it is not clear exactly what choice of these three ages best approximates reality. As we indicated in the beginning of our earlier paper, the correct approximation depends critically on the steady state value of the real interest rate, r, and the steady state growth rate, n. For example, when r exceeds n, our measure of transfer wealth depends on the period of accumulation. Hence, if half of transfers are received at age 20 and half at age 60, using age 40 for I would be inappropriate, since transfers received at age 20 should receive more weight in the approximation formula because they are accumulated for a much longer period than transfers received at age 60 and because the accumulation function is a nonlinear function of age. In sum, we feel that direct calculation of life cycle wealth is decidedly preferred to using the steady state "bequest flow" method both because of the nature of available data and the approximations required in the latter approach. This view led to the emphasis in our earlier paper on the direct estimation of life cycle wealth.

Turning to our actual flow calculation, Modigliani points out an algebraic error in our formula relating the stock of transfer wealth, T, to the annual flow of intergenerational transfers, t. The correct formula, which is simply a rewrite of Modigliani's, is:

$$T = \frac{t}{(r-n)} e^{(r-n)D} [\, 1 - e^{(n-r)(G-I)} \,] e^{(n-r)I}$$

In the formula in our paper we omitted the last term $e^{(n-r)I}$.

To illustrate the implication of the formula we discussed an example in which D equals 55 (a real word age of death of 73 if the age of adulthood is 18), (G-I) equals 30, and (r-n) equals .01. Because of our algebraic error we did not assume a value for I. In his paper Modigliani uses a value of I equal to 25, which corresponds to a real world age of 43. We favor a value of I equal to 15 reflecting the fact that the appropriate approximation to I should be smaller if r exceeds n than if r equals n; i.e., since when r exceeds n, transfer wealth depends on the period of accumulation using the simple transfer-weighted age of transfer receipt in the formula would bias downward the estimated stock of transfer wealth. It appears that a similar statement is true of the choice of the age gap factor (G-I); thus, it is likely that our choice of 30 for (G-I) is too small given that we apply the formula to the case that r exceeds n.

In the illustration in our paper we used a value of 45 for the factor multiplying t in the formula for T. Taking I equal to 25 Modigliani calculates a value of 35 for this factor. With our preferred value for I of 15 the factor is 39. Since we reported a <u>lower bound</u> estimate for t of $45.4 billion our revised <u>upper bound</u> "bequest flow" estimate for the stock of life cycle wealth, using I equals 15, is $2,113 billion, which is 54 percent of 1974 household wealth. Note that if we use an age gap (G-I) factor of 45 which may be more appropriate since r exceeds n, the upper bound estimate of life cycle wealth is $1,429 billion, or only 37 percent of 1974 household net worth.

IV. IMPLICATIONS OF OUR FINDINGS FOR VIEWING THE LIFE CYCLE MODEL AND FOR FUTURE RESEARCH

The finding that intergenerational transfers are a key feature of U.S. wealth accumulation has not lessened interest in the pure life cycle model. On the contrary, a variety of researchers, including Sheshinski and Weiss (1981), Davies (1981), Eckstein, Eichenbaum, and Peled (1983), and Abel (1983), and Hubbard (1984a, 1984b) have investigated the potential for unintentional intergenerational transfers within models in which households have pure life cycle preferences, but in which annuity markets do not exist. Kotlikoff, Spivak, and Shoven (1984, 1986) also consider nonaltruistic life cycle preferences and show that significant intergenerational transfers can arise in a setting of partial annuity insurance provided by family members. Other researchers, such as Bernheim, Shleifer, and Summers (1985) view intergenerational transfers within a pure life cycle model as the implicit payment by parents to their children for material and other types of support. A third view of intergeneration transfers that contains an important role for the pure life cycle model is espoused by Kurz (1984) and others, namely that society is heterogeneous, with a large number of relatively poor households with pure life cycle preferences and a small number of relatively altruistic extended families with significant bequest motives.

Since the short and potentially long run impact of fiscal policies depends on the relative number of life cycle households in the U.S. economy, a statistic that is unknown, it remains important to understand the impact of fiscal policies within the pure life cycle model. To that end Summers (1981), Auerbach and Kotlikoff (1986), Seidman (1984), Gahvari (1985), Lawrence (1983), and many others have examined fiscal policies within pure life cycle models. These theoretical and simulation studies have been accompanied by a

large volume of empirical research testing the implications of the pure life cycle model.

In sum, research on, and interest in the life cycle model has never been greater than in the last few years. Moreover, the nature and heterogeneity of household saving behavior remains poorly understood. In our view, additional research investigating the nature of saving preferences rather than additional wealth accounting holds the key to understanding the very important role of intergenerational transfers as well as the contribution of pure life cycle saving motives to U.S. wealth accumulation.

Notes

1. More recent statistics also point to an inverse correlation between the duration of retirement and the U.S. saving rate. Kotlikoff and Smith (1983) report that since 1950 the expected duration of retirement and other nonworking periods for the average adult has almost doubled. This change coincided with a secular decline of over 40 percent in the rate of U.S. saving out of net national product (Boskin and Kotlikoff,1985).

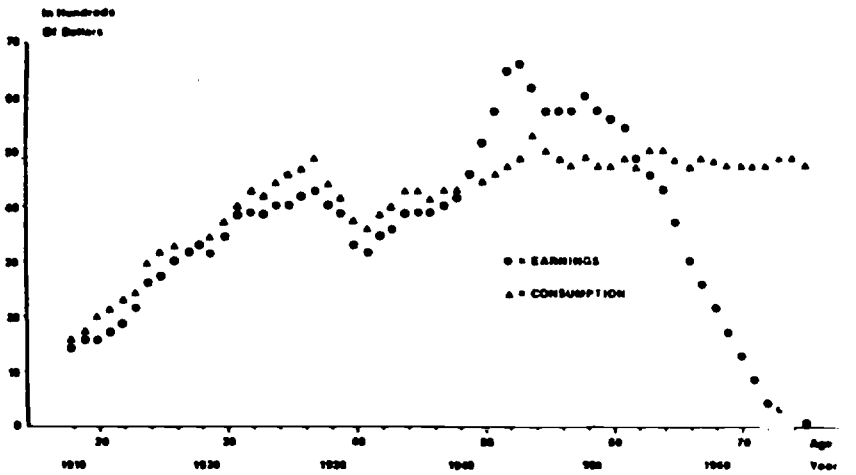

FIG. 1.—Sum of male and female longitudinal average earnings and average consumption profiles, age 18 in 1910–age 82 in 1974.

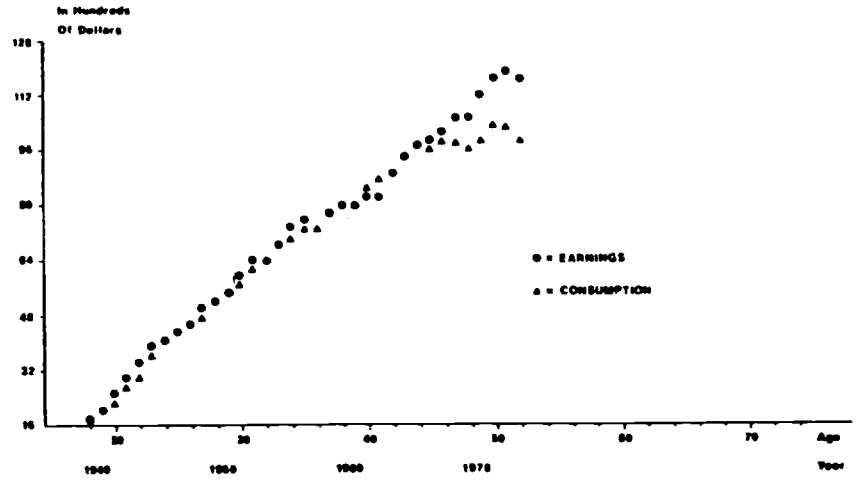

FIG. 2.—Sum of male and female longitudinal average earnings and average consumption profiles, age 18 in 1940–age 52 in 1974.

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