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Saving, Intergenerational Transfers, and the Distribution of Wealth

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June 7-9, 2000

**Saving, Intergenerational Transfers,
and the Distribution of Wealth**

A LEVY INSTITUTE CONFERENCE

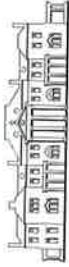
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THE JEROME LEVY ECONOMICS INSTITUTE
Blithewood

Annandale-on-Hudson, New York



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Economics Institute
of Bard College

LEVY INSTITUTE

Conference Proceedings

SAVING, INTERGENERATIONAL
TRANSFERS, AND THE
DISTRIBUTION OF WEALTH

June 7-9, 2000 Annandale-on-Hudson, New York



C o n t e n t s

<i>Foreword</i>	1
<i>Program</i>	2
<i>Speaker</i>	
James K. Galbraith	6
<i>Sessions</i>	
1. Wealth Trends in the United States in the 1990s	11
2. Wealth Extremes in the United States	15
3. Intergenerational Transfers in the United States	20
4. Trends in Home Ownership	23
5. Wealth Inequality in Europe and Japan: Part I	31
6. Wealth Inequality in Europe and Japan: Part II	34
7. Racial Divisions	40
8. Wealth Taxation	43
9. Sources, Inter Vivos Transfers, and Psychological Aspects of Wealth Accumulation	48
<i>Participants</i>	54

*The proceedings consist of edited transcripts of the speaker's remarks and
synopses of session participants' presentations.*



Top, left to right: Edward N. Wolff, James Poterba
Bottom: Anthony Shorrocks

Foreword

Those who are familiar with the Levy Economics Institute know that we are keenly interested in issues related to the distribution of income and wealth and, more generally, inequality and poverty. This interest began with the inception of the Institute in 1986, when the topic of our first conference was the work of Nicholas Kaldor, which has ties to all of these subjects.

This conference marks the third such gathering held during the past two years on topics related to the distribution of income and wealth. In 1999, a conference organized by Senior Scholar James K. Galbraith discussed national and international comparisons of income distribution. Last year, Senior Scholar Edward N. Wolff brought together a number of experts to discuss how the distribution of skills affects the distribution of income. This conference, also organized by Wolff, explores matters related to saving, intergenerational transfers, and the distribution of wealth.

The topics of this conference are very timely. Since the U.S. economy is generally growing and has low rates of unemployment and inflation and a booming stock market, it would appear that distributional concerns should not be cause for worry; after all, we have been taught that low unemployment and reduced inequality go hand in hand. Our observations to date tell us otherwise; actual trends during the 1990s have not been very good in terms of distribution and the inequalities of income and wealth have not been halted.

This conference brought together a score of distinguished individuals who presented many valuable insights and ideas related to these issues. I hope you enjoy reading their comments.

Dimitri B. Papadimitriou

President

Program

WEDNESDAY, JUNE 7

- 8:30–9:15 A.M. CONTINENTAL BREAKFAST
- 9:15–11:00 A.M. INTRODUCTORY REMARKS
Dimitri B. Papadimitriou, *President, Levy Institute*
- SESSION 1. WEALTH TRENDS IN THE UNITED STATES IN THE 1990s
MODERATOR: Dimitri B. Papadimitriou, *Levy Institute*
Arthur B. Kennickell, *Board of Governors of the Federal Reserve System*
“An Examination of Changes in the Distribution of Wealth from 1989 to 1998: Evidence from the Survey of Consumer Finances”
Barry Johnson, *Internal Revenue Service*
“Trends in Personal Wealth, 1986–1995”
DISCUSSANT: John C. Weicher, *Hudson Institute*
- 11:00–11:30 A.M. BREAK
- 11:30 A.M. – 1:00 P.M. SESSION 2. WEALTH EXTREMES IN THE UNITED STATES
MODERATOR: Robert Ashford, *Syracuse University College of Law*
William Shay, *Harvard University*, and Leonard Broom, *Australian National University and University of California, Santa Barbara*
“Discontinuities in the Distribution of Great Wealth: Sectoral Forces Old and New”
Conchita D’Ambrosio, *Università Bocconi*, and Edward N. Wolff, *Levy Institute and New York University*
“Is Wealth Becoming More Polarized in the United States?”
DISCUSSANT: Michael J. Handel, *Levy Institute*
- 1:00–2:30 P.M. LUNCH
SPEAKER: James K. Galbraith, *Levy Institute and University of Texas, Austin*
“Inequalities of Pay, Income, and Wealth: What Are the Connections?”

2:30–4:00 P.M.

- SESSION 3. INTERGENERATIONAL TRANSFERS IN THE UNITED STATES
MODERATOR: Daphne Greenwood, *University of Colorado, Colorado Springs*
Frank P. Stafford, *University of Michigan*, and Ngina Chiteji, *Skidmore College and University of Michigan*
“Asset Ownership across Generations”
Paul G. Schervish, *Boston College*
“Simulation Analysis of Intergenerational Transfers: Problems and Prospects”
DISCUSSANT: André Masson, *DELTA–CNRS*

4:00–4:30 P.M.

BREAK

4:30–6:00 P.M.

- SESSION 4. TRENDS IN HOME OWNERSHIP
MODERATOR: Seymour Spilerman, *Columbia University*
Dalton Conley, *New York University*
“Home Ownership, Social Insurance, and Rightist Response”
Erik Hurst, *University of Chicago*
(Coauthor: Kerwin Kofi Charles, *University of Michigan*)
“The Transition to Home Ownership and the Black-White Wealth Gap”
DISCUSSANT: Annamaria Lusardi, *University of Chicago*

6:00–9:00 P.M.

RECEPTION AND DINNER

THURSDAY, JUNE 8

8:30–9:00 A.M.

CONTINENTAL BREAKFAST

9:00–10:30 A.M.

- SESSION 5. WEALTH INEQUALITY IN EUROPE AND JAPAN: PART I
MODERATOR: Roland Spänt, *Embassy of Sweden*
Mariacristina Rossi, *University of Essex and University of Rome*, and Anthony Shorrocks, *University of Essex*
“Wealth Holdings in Britain: Reconciling Evidence from Household Surveys and Individual Estate Records”
Axel Börsch-Supan, *University of Mannheim*
“Household Savings in Germany”
DISCUSSANT: James B. Davies, *University of Western Ontario*

10:30–11:00 A.M. BREAK

11:00 A.M. – 12:30 P.M. SESSION 6. WEALTH INEQUALITY IN EUROPE AND JAPAN: PART II
 MODERATOR: Thomas Michl, *Colgate University*
 Luc Arrondel, *DELTA–CNRS*
 “Risk Management, Liquidity Constraints, and Wealth Accumulation Behavior in France”
 Charles Yuji Horioka, *Osaka University*
 (Coauthors: Takatsugu Kouno and Shiho Iwamoto, *Ministry of Posts and Telecommunications*)
 “Bequest Motives and Their Impact on the Economic Behavior of Parents and Children in Japan”
 DISCUSSANT: Lars Osberg, *Dalhousie University*

12:30–2:00 P.M. LUNCH

2:00–3:30 P.M. SESSION 7. RACIAL DIVISIONS
 MODERATOR: Bernard Wasow, *The Century Foundation*
 Maury Gittleman, *Bureau of Labor Statistics*, and Edward N. Wolff, *Levy Institute and New York University*
 “Racial Wealth Disparities: Is the Gap Closing?”
 Lisa A. Keister, *The Ohio State University*
 “Family Structure, Race, and Wealth Ownership: A Longitudinal Exploration of Wealth Accumulation Processes”
 DISCUSSANT: Richard T. Curtin, *Institute for Social Research*

3:30–4:00 P.M. BREAK

4:00–5:30 P.M. SESSION 8. WEALTH TAXATION
 MODERATOR: Frances M. Spring, *Levy Institute*
 John P. Laitner, *University of Michigan*
 “Simulating the Effects on Inequality and Wealth Accumulation of Eliminating the Federal Gift and Estate Tax”
 Pierre Pestieau, *University of Liège*
 (Coauthors: H. Cremer, J.-Ch. Rochet)
 “Capital Income Taxation in an Overlapping Generations Model”
 DISCUSSANT: James Poterba, *Massachusetts Institute of Technology*

5:30–8:30 P.M. RECEPTION AND DINNER

FRIDAY, JUNE 9

8:30–9:30 A.M. CONTINENTAL BREAKFAST

9:30 A.M. – 12:30 P.M. SESSION 9. SOURCES, INTER VIVOS TRANSFERS, AND PSYCHOLOGICAL ASPECTS OF WEALTH ACCUMULATION
 MODERATOR: Dimitri B. Papadimitriou, *Levy Institute*
 F. Thomas Juster and Joseph P. Lupton, *Institute for Social Research*
 (Coauthors: James P. Smith and Frank P. Stafford, *University of Michigan*)
 “Introduction to Saving and Wealth: Then and Now”
 DISCUSSANT: Richard V. Burkhauser, *Cornell University*
 Stefan Hochguertel, *European University Institute and Uppsala University*, and Henry Ohlsson, *Göteborg University*
 “Inter Vivos Gifts: Compensatory or Equal Sharing?”
 Jay L. Zagorsky, *The Ohio State University*
 “Do Husbands and Wives Have Similar Views of the Family’s Wealth and Income?”
 DISCUSSANT: John Schmitt, *Economic Policy Institute*

12:30–1:30 P.M. LUNCH AND ADJOURNMENT

Speaker

JAMES K. GALBRAITH

Senior Scholar, Levy Institute; Professor,
Lyndon B. Johnson School of Public Affairs,
University of Texas, Austin

Inequalities of Pay, Income, and Wealth: What Are the Connections?

Because it is the function of a luncheon speaker to divert and entertain, not to instruct any more than absolutely necessary, I will move beyond my declared title on the linkages between income, pay, and wealth, and take up a somewhat broader and perhaps more philosophical theme, namely, why should we care? I will speak a bit more about pay and income than of wealth, because I know more about pay and income, and because I care more about pay and income. But why?

Joan Robinson described the attitude of John Maynard Keynes on these general issues in the following terms: He hated poverty because it was ugly, and he hated unemployment because it was stupid. It is a perfectly sound aesthetic and philosophical standpoint, with the added advantage that it does not require you to be a nice person. You don't have to have empathy or need to be an altruist or saint. Lord Keynes could hold this viewpoint and still be a card-carrying member of the upper class.

The economics profession has taken a somewhat different view, namely that, in general, these sentiments come at a price; there is a tradeoff. Arthur Okun, 30 or more years ago, called it "the great tradeoff between efficiency and equity." According to this standard view, the United States and Europe are today at opposite ends of the tradeoff—the United States having chosen inequality and efficiency and Europe having chosen equity and unemployment—with neither continent able to gain

in one dimension without making sacrifices in the other. This is a very compact intellectual position. It has virtues of simplicity, of symmetry, and of conformity with a world order built up like Legos from blocks labeled "supply" and "demand." Although I think these virtues are genuine, they do not include any serious correspondence with the facts.

The United States and Europe: Equity versus Efficiency?

Let me provide you with a few pieces of evidence based largely on work that I have done since the publication of *Created Unequal* in conjunction with a multinational team of talented students at the LBJ School at the University of Texas, under the auspices of the University of Texas Inequality Project.

If the standard view were applied to the history of the United States, it would predict that falling unemployment would be accompanied by increasing inequality in the pay structure. The notion of the theory is that a technological shock hit the system, thereby requiring more to be paid to people with high skills and less to people with low skills; only in this way would the labor market be made to clear. In fact, the exact reverse has been the case. Leaving aside the larger issues of income and wealth, dispersions of wages have declined for the past five years; in fact, they have risen and declined consistently with the unemployment rate in the United States (on month-to-month and year-to-year bases) all the way back to 1920, which is as far back as can be measured on a consistent basis.

The standard view would predict that within European countries, dispersion measures of inequality should be inversely related to unemployment measures; that is, countries with more inequality should have less unemployment, and countries with

more equality should have more unemployment. However, the reverse is systematically the case. Scandinavian countries have the lowest measures of dispersion, Germany the next lowest, then France and Spain, with Italy at the high end. Generally speaking, countries with higher internal inequality had higher unemployment in every year we measured (1970 through 1992).

Looking at per capita GDP across European countries shows that, with only a few exceptions, since the middle or late 1970s, the poorer countries of Europe have systematically had higher unemployment rates. This relationship emerges strongly in the data, and is very consistent. That the relationship exists at all says that it may no longer be appropriate to do what has been the standard practice in the literature for decades, namely comparing the United States pair-by-pair with individual European countries—that Europe itself has become, as indeed its leaders have deliberately been making it, a unified continental economy to the point that there are no formal internal barriers and a single currency exists for most of the countries.

If Europe is unified, the appropriate measure of inequality is not the within-country measure, but rather one that takes account of the large differences in average incomes across European countries. If the additively decomposable methods of the Theil index are used, pay inequalities can be added up within and across countries. We have done that and find that the inequality measure for Europe is higher than the measure for the United States. Moreover, because inequality in Europe in the 1980s rose as unemployment increased, the same relationship between pay inequality and unemployment that was true for the United States also applied to Europe. The laws of economics are the same on both inertial continents, but they do not state a tradeoff; rather, they state the correspondence between equality and employment. The difference, therefore, is that the United States, relatively speaking, is succeeding, and Europe, for the moment, plainly is not.

Parenthetically, I would like to add that this success clearly leads to an increase in the inequality of measured wealth in the United States, particularly where there is, as there has been recently, a strong concentration of revaluation of capital assets in a particular sector. In such a case, the leading figures in that sector become incredibly rich when measured in terms of their capital wealth. But perhaps this is, indeed, the price of being in a capitalist system. At a conference here last October, I suggested that if I had to choose between improving inequality in the pay structure alongside a stock market boom and enormously increasing inequality in the pay structure alongside a stock market slump à la 1929–1933, I wouldn't have any difficulty choosing the boom and its associated revaluation of capital assets.

The Advanced Credit Economy and the Public Sector

The more interesting question to me is "Why?" How has the U.S. achieved the present prosperity? It clearly has not done so by cutting wages; in fact, the minimum wage has been increased, and wages at the bottom of the pay structure have been rising relatively rapidly without corresponding increases in employment costs. Flexibility in the sense that the Europeans are constantly harping about has nothing to do with it. But neither has prosperity been caused by the traditional Keynesian method of pump priming originating in the federal sector: there is no government deficit and there has been no growth to speak of in the federal government's purchases of goods and services during this expansion.

We therefore have a bit of an enigma. We have, in a sense, a new Keynesian mechanism of an advanced credit economy. What it involves is the massive privatization of the capacity to accumulate debt and to hold wealth, mainly by the household sector. That is, we have succeeded in taking the

burden of running deficits off of the public sector and put it on the household sector.

The role of the public sector is not, however, to be discounted for creating the conditions for this new structure. That role is not the provision of employment, and it is only to some degree the provision of public physical capital. The main role has been to provide the infrastructure that makes possible the creditworthiness and debt accumulation of the private household sector.

The first and central element of this infrastructure is higher education. Twenty-six percent of the U.S. adult population has a college degree. Economists are accustomed to treating the social function of college in very 19th-century terms: that the acquisition of skills is to be applied to the production process, which is where the idea about skill bias and technological change originates. But is that really what is being done? Many of us are college professors; do we seriously entertain the conceit that we impart enormous skills to our students? That they did not have these skills already? The alternative conception was expressed once by a colleague who said that we take Grade A beef and stamp it Grade A. What we do to a large extent is engage in the certification of highly suitable people as to their suitability to join the financially sophisticated middle class, to get a steady job; we prescreen them for that. They therefore qualify for a mortgage, credit cards, and all other appurtenances of membership in the American middle class. A college degree, to a substantial, albeit not perfect extent, takes away any previous invidious distinctions of race, gender, and national origin. By comparison, the figures for higher-income European countries are much lower. Of the total adult Dutch population, 23 percent have a college education, and no other European country comes close. A normal figure would be 15 percent; the figure for a country like Portugal is 6 percent.

Another element of the infrastructure is care for the elderly, namely, Social Security wealth. This is an element of wealth that has not been counted

despite the fact that it seems enormously important to the wealth position of American households. To this must be added Medicare wealth—the value of not having to pay your own health bills when you become elderly—and to some extent Medicaid wealth—the value of having long-term care paid for by the state when all other assets are exhausted or have been passed conveniently out of reach of the accountants at the end of life.

These forms of wealth benefit not just the elderly, but everybody on whom the elderly would otherwise have to depend, which makes them important parts of the wealth structure of American society. They also are substantial—just add up what would have to be paid to receive healthcare on the scale that the elderly consume it, plus the living standard that Social Security provides (on which, as the *President's Economic Report* pointed out a year ago, 60 percent of the elderly population of the United States relies for almost all of their income).

Compare healthcare in Europe to that in the United States. The typical European country has a comprehensive healthcare system that consumes 6–7 percent of GDP, while in the United States the public sector alone spends 6.3 percent of GDP on healthcare; employers and private insurance cover another 7 percent. Therefore, the total provision of healthcare in the United States is twice that in European countries as a portion of a GDP that is itself 30 percent higher in the U.S.

The third element in the public infrastructure is providing direct support for access to credit. This has been done for 60 years, and been done very successfully. It began with the innovation of the 30-year mortgage, the creation of a whole network of savings and loan institutions, guarantee and subsidy programs for first-time homebuyers, the Community Reinvestment Act, the secondary markets that provide liquidity and stability, and so on. These are vast networks of publicly provided, publicly originated infrastructure behind private access to credit markets. I would add to this the fact that

we also have a vast and deep network of state and local governmental structures, all of which issue bonds, something also substantially not present in Europe. It was the decline and collapse of state and local capital spending here in New York and in California in the 1970s that brought on the crisis in employment in that period.

These are some of the elements of the public infrastructure. There also is an enabling condition (since the whole business of credit is subject to national policy), namely, a generally permissive attitude on the part of the Federal Reserve. Up to this year, Alan Greenspan's legacy was that he had the good sense, under enormous pressure, to keep his powder dry. There is at least one institutional reason why the Federal Reserve took that view, which I think is the structure of accountability under which the Fed lives. Unlike the European central bank, the Federal Reserve is not constitutionally independent, but a statutory agency, created by the United States Congress under the Federal Reserve Act and, as a creature of Congress, accountable to the Congress. Unlike the European central bank, the operating mandate of the Federal Reserve Board is not price stability, but full employment, balanced growth, and reasonable price stability as specified in the Humphrey-Hawkins Full Employment and Balanced Growth Act of 1978, a much-disregarded piece of legislation, but one of which I am personally immensely proud because I helped to draft it. I was responsible for that tiny, almost completely unnoticed section that specifies that the Chairman of the Federal Reserve appear before the Banking Committees of the House and Senate every six months and report on their plans and objectives for meeting the goal of the act. Greenspan, of course, is the guy who has shown that I was not a complete idiot, because—albeit 18 years later than we thought—he proved that full employment, balanced growth, and reasonable price stability were, in fact, reconcilable and achievable economic objectives.

The European Problem and Proposals for Prosperity

The European problem now lies before us. The Europeans have created for themselves a political union achieved for political purposes, namely to eliminate the possibility of what could be called another European civil war. The economic principles on which the European Union institutions were constructed are a least common denominator of conventional upright and respectable economic thought. The Maastricht criteria on budget deficits, no more than 3 percent of GDP, were picked entirely out of the air and for no good reason. The European central bank's commitment to price stability is, so to speak, *über alles*.

On the other hand, all European governments other than the Spanish—currently in the hands of what might be loosely called the center-left—have determined and promised their electorates to reduce unemployment. Sooner or later, they either have to deliver on that promise or give up the torch to the conservative governments who did not reduce unemployment either. They are getting a little help from what might be called the Euro-effect on the low-income regions. That is, their economies are helped when they move from a soft currency to a hard currency as people stop worrying about depreciation, and capital does not leave quite so quickly. But I cannot imagine that the Euro-effect by itself will bring Europe as a whole to full employment. The institutions, therefore, sooner or later have to be changed. I would start with the charter and the framework of accountability of the European central bank.

Beyond this, if Europe does not want to be forced to rely on those old-fashioned, direct, public mechanisms, the equivalent of the WPA and the PWA and perhaps the Autobahn and constructions of two generations ago, then it must begin to lay infrastructure comparable to that built in this country since the Morrill Act of 1862 and the New Deal. I have a short list of five modest proposals that I

delivered to advisors of the Portuguese Presidency in Lisbon last week.

The first is a European pension union. It is manifestly unjust that a Portuguese in the suburbs of Lisbon retires on the average productivity of the economy of Portugal and a German couple coming from Germany to enjoy their golden years in the sunshine, retires on the average productivity of the German economy, while both live side-by-side in a completely integrated continental Europe. I would not bring the German standard down, but I would bring the Portuguese standard up directly through the European Union. Is there precedent for this? Of course! In 1935, the Social Security System was enacted and a continental standard created. In the 1970s, that standard was increased, thereby raising elderly people in low-income regions out of poverty. It was an immensely successful policy. Although some people receive windfall gains, there are no labor market implications because recipients are not in the labor market. The policy does bring the unemployed of the low-income regions into the labor market as they become employed to provide care for the elderly.

Another policy that could be used on a European scale as a topping-up scheme is one modeled on the Earned Income Tax Credit. This is a continental scheme that is expanding at an enormous rate in the United States, having no bad effects on employment and very good effects on labor force participation.

If you like direct investments, there is the business of those hospitals being built all over the United States. Hospitals, medical centers, and research centers could be placed in the low-income regions of Europe.

But more than hospitals and medical centers, there is another peculiarly American institution that we have been building on since its inception in 1862, namely, the university. The two wealthiest universities on the other side of the Atlantic—Oxford and Cambridge, the billion-and-a-half pound sterling

endowments—are only questionably in Europe. The three that I am associated with—Harvard, Yale, and the University of Texas—are in the four-and-a-half billion pound range. It is not a bad idea to start European universities with the ambition of bringing them up to the American scale.

I could go into the mechanisms for credit market enhancement, but the parallels are too obvious and clear to really merit taking your time with. It seems that these kinds of policies are the infrastructure of a modern Keynesian social democracy.

Conclusion

Although I started with Keynes, I want to close with a thought from a different European perspective. In 1865, the International Workingmen's Association addressed a letter to an American, Abraham Lincoln. It was a letter of congratulations on his second inauguration. The corresponding secretary of the IWA for Germany, Karl Marx, drafted the letter. It read, in part:

From the commencement of the titanic American strife, the workingmen of Europe felt instinctively that the Star Spangled Banner carried the destiny of their class.

On Lincoln's behalf, the American legation chief in London, Charles Francis Adams, replied:

The Government of the United States is conscious that its policy neither is, nor can be reactionary, and that it strives to do equal and exact justice to all men.

We all know that this is not, never was, and never will be a precise statement of the reality. But it seems to me that it is and remains a highly compelling statement of the ideal.

Sessions

SESSION 1

Wealth Trends in the United States in the 1990s

MODERATOR: DIMITRI B. PAPADIMITRIOU
President, Levy Institute

ARTHUR B. KENNICKELL
Senior Economist and Project Director, Survey of Consumer Finances, Board of Governors of the Federal Reserve System

BARRY JOHNSON
Economist, Statistics of Income Division, Internal Revenue Service, U.S. Department of the Treasury

DISCUSSANT: JOHN C. WEICHER
Senior Fellow and Director, Urban Policy Studies, Hudson Institute

ARTHUR B. KENNICKELL

An Examination of Changes in the Distribution of Wealth from 1989 to 1998: Evidence from the Survey of Consumer Finances

The financial well-being of a family depends on both its income and its wealth, but in contrast to income, there is no simple set of summary measures of net worth that can be reported easily by respondents. In many cases, wealth measurement requires aggregating many categories of assets and liabilities, each of which may raise difficulties.

In the face of both conceptual and measurement difficulties, two comparisons were made of several different indicators of wealth, the first using data for the very wealthy taken from the *Forbes* 400 (*Forbes* magazine's survey of the 400 wealthiest people in the United States) for the years 1989 through 1999, and the second using data from the Survey of Consumer Finances (SCF), a triennial survey conducted by the Board of Governors of the Federal Reserve System in cooperation with the Statistics of Income Division of the Internal Revenue Service for the years 1989, 1992, 1995, and 1998. SCF data explicitly exclude the *Forbes* 400.

Most measures of the net worth of the wealthiest people (according to the *Forbes* data) grew modestly from 1989 to 1995. The minimum wealth level in the *Forbes* 400 group increased by 3 percent, the group's total wealth by 10 percent, the number of billionaires by 14 percent, and the average wealth of the top 10 by 79 percent. However, the data suggest that

since 1995, there has been a distinct jump in the level of wealth among the wealthiest families. The total net worth accounted for by the *Forbes* 400 rose in real terms from about \$379 billion to about \$740 billion (a 95 percent increase); the number of billionaires increased during that period from 97 to 191 (or by 97 percent). Although one might suspect that similar changes occurred at the same time all across the broader upper end of the wealth distribution, the data indicate that the largest gains were at the very top, and tapered off at lower levels. In particular, while the maximum level of wealth and the average of the top 10 members of the list increased 270 percent, the minimum level of wealth needed to qualify for the *Forbes* list rose by a somewhat more moderate 39 percent. From 1998 to 1999, growth in the total wealth of the *Forbes* group (a 36 percent increase) and the number of billionaires (a 40 percent increase) accelerated, and although the cutoff for membership continued to grow less rapidly than those measures (22 percent), its growth also accelerated.

Several measures of the distribution of wealth using the SCF data showed that the portion of families with a net worth of \$500,000 in 1998 did not differ by a statistically significant amount from that in 1989. Both the mean and the median of net worth declined between 1989 and 1992, but rose significantly between 1992 and 1998. Between 1995 and 1998, median net worth rose in real terms by 18 percent, a bit less than half of the contemporaneous increase in the cutoff for the *Forbes* 400 list (39 percent). Mean net worth rose by 26 percent. The larger increase in the mean than in the median might be taken to suggest that the concentration of wealth among groups in the top half of the wealth distribution increased. However, a closer look at other measures of the wealth distribution reveals a more complex pattern.

Point estimates of the Gini coefficient fell from 1989 to 1992, then rose above the 1989 level by 1998, but these changes are not statistically signifi-

cant. Estimates based on the SCF indicate that the share of wealth held by the wealthiest 0.5 percent was about 23 percent in 1989 and 1992, 27 percent in 1995, and 26 percent in 1998. The stability of the point estimates over this nine-year period is striking: despite large shifts in the assets and liabilities of the wealthiest U.S. families, the SCF data show remarkably little change in the concentration of wealth. This is surprising given the strong rise in the net worth of the wealthiest families shown in *Forbes* data from the same period. One might be tempted to argue that the SCF sample data are deficient in their design, but attempts to adjust them have led to ambiguous results.

The sensitivity of survey wealth estimates to a variety of adjustments was examined in order to “align” the aggregate value of assets and liabilities with the values of approximately equivalent concepts in the flow of funds data. Although some adjustments have the effect of decreasing the estimated share of wealth held by the bottom 90 percent of the population, an equally plausible one raises that share substantially. In the absence of particularly strong information to use in choosing between possible adjustments, a strong note of caution is advised before making conclusions about changes in the distribution of wealth.

BARRY JOHNSON

Trends in Personal Wealth, 1986–1995

The wealthiest group of individuals in the United States was studied over the period 1986 to 1995 using data from the Statistics of Income (SOI) Division of the Internal Revenue Service; preliminary estimates for 1998 were also reported. The SOI data are derived from federal estate tax returns, specifically Form 706, which includes a complete accounting of all of a decedent’s assets and debts

and a demographic profile. The form must be filed for any decedent whose assets at the time of death are above the legal threshold (\$600,000 for most of the period in question). These estimates are compiled on an individual basis, as opposed to a household basis, as are the Survey of Consumer Finances (SCF) data.

Estimates of the wealth of the living population were produced from estate tax data under the assumption that those who die in a given year represent a sample of the living population. Using national mortality rates by age from the National Center for Health Services—after adjustment for the fact that the wealthy live longer than the general population—the data for the deceased were converted into estimates for the living population. In order to glean complete coverage, “top wealth holders” were defined as those with total assets of at least \$750,000 in constant 1989 dollars. There were 1.7 million people with assets higher than this in 1985. The number grew between 1986 and 1989, fell during the recession years until 1992, and rose to 2.2 million by 1995.

Males accounted for two-thirds of top wealth holders, even though they make up only 49 percent of the population as a whole. However, the share of women in this group grew during the period under study despite the fact that the number of females in the general population declined by 0.2 percent. Over 70 percent of male top wealth holders were married during the period under study, compared to 65 percent of the population as a whole. The percentage of widowers was 6 percent, compared to 3 percent for the population as a whole. The proportion of married females was significantly lower than for the population as a whole, and the proportion who were widowed was significantly higher. The proportion of women who are widowed or married has since declined, suggesting that an increasing number of wealthy females are entrepreneurs and business executives.

Male top wealth holders hold the largest share of their portfolios in stocks, especially closely held stock in their own companies. Females also have the largest share of their assets in stocks, but are more likely to invest in publicly traded companies. Both males and females increased the percentage of stocks in their portfolios, reflecting the increase in stock values during the period.

Preliminary estimates showed approximately 5.7 million individuals with gross assets of \$625,000 or more in constant dollars in 1998. Only about 40 percent of this group were female, but this figure was a three-percentage-point increase from 1995. The total net worth of top wealth holders was more than \$9 trillion dollars in 1998, an increase of more than 50 percent since 1995. This figure represents more than 31 percent of total U.S. net worth as estimated by the 1998 Survey of Consumer Finances. However, the top 1 percent owned about 22 percent of total U.S. personal wealth, nearly the same as in 1995. The share held by the top 0.5 percent of the population also held steady at 17 percent. In fact, these figures seem to have been fairly consistent since 1985.

Comparison of the SOI to the SCF data shows that because the former are used for tax purposes, the SOI is likely to be a more conservative estimate of wealth. It is difficult to make any further comparison of the two because SOI is collected for individuals and SCF for households. Attempts to derive household data from the SOI’s individual data produced no estimates for families with combined incomes above the \$625,000 threshold whose combined wealth exceeded this amount. This is likely to be important only for those fairly close to the threshold; in fact, the two estimates converge for households with total assets of more than \$900,000. Point estimates derived from the two datasets are not statistically different, meaning that both the household estimates produced by the SCF and the individual estimates produced by the SOI seem to be useful tools for studying changes in the distribution of wealth.

JOHN C. WEICHER
DISCUSSANT

A comparison of the top 1 percent of wealth holders in the two data sources used by the two studies yields a \$2 to \$3 trillion difference in the concentration of wealth. This implies that a large amount of wealth is managing to avoid the estate tax. The pattern of changes in the concentration of wealth in both studies appears strongly cyclical over the one business cycle during the periods covered. Wealth held by the top group peaks and troughs with the business cycle. In other words, an increase in wealth concentration occurs during expansions, with an offsetting decrease occurring during contractions. Although the trend appears to swing wildly, the rather large standard errors of these kinds of surveys mean that the changes are barely on the margin of statistical significance.

The studies by Kennickell and Johnson throw doubt on Edward N. Wolff's claim of a rising degree of wealth inequality in the United States between 1983 and 1998. Given the divergent patterns, the sensitivity of the results to the weights, the problems of statistical significance, and the adjustment issues discussed by Kennickell, no one really knows what has happened in recent years, and even less can be said about what happened before that.

Two significant problems with studying the distribution of wealth are the lack of a large theoretical basis for it and a paucity of available data. Work in this area needs to be conducted on a consistent basis going back as far as possible. Data are especially needed from at least 1983 to shed light on the controversial changes in the distributions of income and wealth in the 1980s. Kennickell points out that the lack of available data makes it difficult to make comparisons between 1980 and later surveys. Johnson does not discuss the wealth distribution in 1983, asserting that there are a great many difficulties with amending the earlier data in order to make them consistent with later data. However,

these two scholars are particularly well qualified to make the attempt.

The demographic makeup of the top wealth holders shows a strong relationship between wealth and age. The median age for the richest 1 percent is 55 years according to SOI and 59 years according to SCF. The SCF also shows the bottom 20 percent having a median age of 35 years. According to both data sources, most of the rich are married couples and most are entrepreneurs (in the sense that they hold their assets in businesses that they have been personally involved in managing, such as closely-held corporations, family businesses, family farms, or real estate other than their principal residence). The SOI reports that the importance of these factors declines with age, a finding that does not show up in the SCF data. This suggests that the estate tax is missing its targets. Instead of breaking up the fortunes of the Rockefellers and the du Ponts, which it has not succeeded in doing, it falls on small businesses and family farms.

SESSION 2

Wealth Extremes in the United States

MODERATOR: ROBERT ASHFORD
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DISCUSSANT: MICHAEL J. HANDEL
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WILLIAM SHAY AND LEONARD BROOM

Discontinuities in the Distribution of Great Wealth: Sectoral Forces Old and New

There is much interest in those who make up the *Forbes* 400 list of wealthiest individuals—who they are, how they make their wealth, what they mean for overall wealth distribution. This list makes it possible to identify the locations within the economy where great wealth has been concentrated. Using the *Forbes* 400 information from 1982 to 1999, this research project produced an aggregate file of 1,115 wealthy individuals and families.

In the study of discontinuities in the distribution of wealth, less attention is paid to demographic groups than to economic sectors. Although at the data compilation stage, the individual or family is taken as the unit of analysis, the focus is most on the way in which economic sectors are the sources as well as the stores of wealth as represented by the very rich.

In 1907, an American economist named G. P. Watkins published *The Growth of Large Fortunes*, a work that studied great wealth at the turn of the 20th century. His central notion was that wealth's location within the economy, not entrepreneurial effort or the attributes of the individual or family, needed to be examined to understand the genesis of great wealth. Watkins used a variety of sources on millionaires and sorted them into different sector categories. He found that manufacturing and real estate, not agriculture, were high on the list of business activities of millionaires at that time. Watkins reasoned that agriculture had not yet capitalized on large-scale production or economies of scale. His most revealing idea was the notion of abstract property, by which he meant paper assets, such as stocks, bonds, and deeds.

His analysis centered on how these kinds of assets had been developed by government as ways of financing public works and other projects. He found that these assets had quickly found their way into the commercial arena with the development of the corporation as an institutional form.

Turning to the actual sector typology, it took several years and several iterations to understand the sources of differentiation evident among the *Forbes* cases, and how they could be meaningfully reaggregated into sector categories that allow isolation of the properties of economic enterprise that account for great wealth generation. Classical approaches pioneered by Fisher, Clark, and others work to isolate business activity as the primary source of sector differentiation. This familiar notion of primary, secondary, and tertiary production is illustrated in the research typology by the way in which goods producers are distinguished from service providers and so on.

In terms of analysis, attention is also paid to the nature of asset attributes. What about the capital employed in the production process, or the objects produced, or the services provided, helps to distinguish these fortunes? The analysis characterizes such assets as tangible versus intangible, physical versus abstract, durable versus nondurable, renewable versus nonrenewable, and consumable upon purchase versus intended for long-term use.

Looking at the distribution of wealth by sector, we see that although there are a number of cases in the resources and property sector, on average there is less wealth in that sector than in electronic technology, which has only 8 to 9 percent of cases but 19 percent of the overall wealth. Looking inside these sectors, a number of other factors can be seen at work. There are meaningful distinctions within these broad sector categories, and some fairly severe wealth differentials.

The next step is to disentangle the data by controlling for inheritance, family, and kinship ties. The results hold up fairly well in terms of matching the descriptive statistics. Capital goods, resource extrac-

tion, and property holdings—primarily oil and real estate—have lower than average wealth when other sectors and social ties are controlled for. Indeed, electronic technology is strongly supported as a source, but it is eclipsed by the parameter coefficient for diversified retail. This is the case because diversified retail includes online retailers such as Amazon.com or the Home Shopping Network; that is the functional nature of their activity, even though they rely on electronic technology. This sort of classification reinforces the primary importance of electronic technology.

What is evident in the publications, whether the *Forbes* 400 or the international lists of billionaires, is that in the early to mid 1980s oil and real estate dominated. They still do in terms of case counts, but not in terms of wealth shares. From the mid 1980s through the early 1990s, the financial sector dominated.

This study includes a variety of methodological implications. One is that less inference and more evidence is needed. Wealth at the top of the distribution must be measurable so that its place in the overall distribution can be determined. The research also addresses modes of economic production and how the organization of economic activity has changed in the last few decades, particularly around the business enterprise of high technology software and other providers. These “virtual integration” observations deal with the fact that software, as both a means and an object of exchange, could be distributed in unique ways, but only with the advent of the Internet. Going from mail order retail to Internet distribution of electronic goods and services has had profound impacts throughout the economy, affecting the volume, velocity, and vulnerability of capital. Financial and other systems are now exposed to the threat of virus attacks. Thus, electronic technology’s chief asset, its ability to be instantaneously exchanged through the Internet, is also its chief liability.

The findings point to competitors of electronic technology as sources of preeminent great wealth and highlight the emerging sectors that may eventually do battle for a place on the *Forbes* 400 list. Biotechnology

is a serious competitor, and one that obviously capitalizes on electronic technology. On the downside, this sector has a number of venture capitalists and entrepreneurs. Still, it appears to be electronic technology’s most salient future competitor.

CONCHITA D’AMBROSIO

Is Wealth Becoming More Polarized in the United States?

Several studies have documented the sharp rise in the inequality of wealth and income in the United States during the 1980s and 1990s. Another aspect of the distribution of wealth, “polarization,” differs fundamentally from that of inequality. It refers to the formation of clusters (a sizeable number of individuals or households) around certain levels of wealth. For example, suppose that the distribution of household wealth in a country is uniform between \$0 and \$1,000. If something were to cause the wealth of all households in the range \$0–\$500 to be equal to \$250 and the wealth of all households in the range \$501–\$1,000 to be equal to \$750, the usual measures of inequality would indicate that the distribution of wealth had become more equal. However, the index of polarization would indicate that the distribution had become more polarized. Different methods can be used to gauge the extent of polarization between groups of households classified according to different household characteristics, track changes in the extent of polarization over time, and assess the effects of polarization on the overall pattern of distribution of wealth.

The main data sources used were the 1983, 1989, 1992, 1995, and 1998 Surveys of Consumer Finances conducted by the Federal Reserve Board, supplemented by data drawn from the Statistics of Income and the Flow of Funds. Marketable wealth (or net worth), defined as the current value of all marketable

assets less the current value of all liabilities, was used as the measure of wealth. Estimates show that the distribution of wealth became more polarized over the period examined, especially in the 1980s. Households were partitioned into groups on the basis of home ownership, race, age, family type, income, education, and stock ownership, and wealth distributions for groups corresponding to each such categorization were estimated. (For example, for the category of home ownership, wealth distributions were estimated separately for homeowners and renters.) The estimates indicate that wealth distributions differ markedly between groups in any given year and that changes in the distribution over time differ across groups.

Household wealth by homeowner status, race, educational status, and stock ownership was distributed very differently between the groups for all the years under consideration. Renters, nonwhites (blacks and Hispanics), family heads with less than a college degree, and households not owning stocks were concentrated at low levels of wealth compared to homeowners, whites, family heads with a college degree, and households with stock ownership. The gaps between homeowners and renters, between college graduates and nongraduates, and between stock owners and nonowners widened throughout the period under study as wealth tended to concentrate with homeowners, college graduates, and stock owners.

The gaps between groups in other categories displayed different patterns of evolution and, in some cases, were sensitive to the index of polarization employed. Gaps between racial groups increased between 1983 and 1989 and then decreased somewhat between 1989 and 1998 according to one index, while another indicates growing racial polarization throughout the period. Differences in wealth ownership by age showed a declining tendency between 1983 and 1989 as the gaps between middle-aged and elderly family heads narrowed and a rising tendency between 1989 and 1998 as the gaps between elderly and young family heads widened. In the case of

family type, the extent of polarization was found to be sensitive to the index used: one index showed households headed by married couples becoming increasingly wealthier compared to households headed by single females and single males, while the other showed no definite trend. Finally, wealth distribution by income classes showed a close correspondence between income levels and wealth; however, the extent of polarization of wealth by income classes declined during the period under study.

This research also examined whether the changes in the overall distribution of wealth over the period under consideration were due mainly to changes in household characteristics or to changes in the distribution of wealth within households with the same characteristic (for example, a college education). Most of the variation in the overall distribution of wealth was found to be attributable to striking shifts in within-group wealth schedules.

MICHAEL J. HANDEL DISCUSSANT

William Shay and Leonard Broom take an interesting and useful approach in their research. Rather than focusing on the role of inheritance in passing along fortunes, they focus on economic sectors and the role of economic activity in the generation of fortunes. They ask how people accumulate these vast stores of wealth to begin with. There is much interest in lists like the *Forbes* 400, and great value in taking a more serious and sustained analytic look at them. Also interesting were the distinctions they made between rentiers and financiers and wealth generated through productive activity as opposed to speculative wealth.

The sectoral typology used in the research seems problematic because it not clear what theory guided it. It would be one thing if it were presented simply as a collapsed version—collapsed because the sample size is small—of traditional census

typologies, but that does not seem to be the case. Since the authors state that it took a long time to develop the typology, this indicates that it was not simply taken from existing classification schemes. Yet, it is hard to understand the theory behind it.

For example, why were renewable resources distinguished from nonrenewable resources and specialized from diversified retail? Why would different kinds of wealth dynamics result from these sectoral distinctions? It was not clear in the paper. The regression results corresponded, at least in certain respects, with theory and with some of the descriptive results—the role of computer software in particular. However, a different and perhaps more parsimonious way of thinking could be proposed about how sectoral location determines opportunities for the accumulation of great fortunes.

There seems to be a distinction here between fortunes that were generated as a result of either speculative booms or certain kinds of explicit shortages, the first being, for instance, the stock market, the real estate market, or the oil markets in the early 1980s. These markets offered opportunities for great wealth accumulation for reasons that were very specific in time: there was simply a lot of money flooding into them. The oil price rise and the real estate shortage could be termed speculative booms.

There is nothing intrinsic in the fact that oil is a nonrenewable resource, except, perhaps, in some kind of long-term sense, but this is not borne out in the data in terms of how wealth is generated. In other words, nothing in the nonrenewable nature of oil generated the accumulation of oil-based fortunes in the early 1980s. Today oil is a bust, as the data show. It seems that what should really be talked about are these kinds of speculative runups when certain markets become hot. If somehow a position in them is established, quite a windfall can be reaped. Thus, there is a distinction between windfall and nonwindfall sectors, which may not be the same over time.

The other sort of wealth that this research seems to identify is the potential for what economists

term rents, or quasi-rents, where there is some kind of monopolistic position. Obviously, not all monopolies generate huge wealth, but perhaps monopolies in their early phase do. This research seems to be going somewhere with its distinction between electronic and nonelectronic technologies and what the new economy means. It seems that the great accumulations of wealth in hardware and software, particularly in the dotcom business, are due in part to its speculative element. Of course, there is also partly an element of rents. If one makes a great fortune on an operating system, at this point it is not a commodity. It is something that has managed to elude a certain kind of product life cycle dynamic, so it is not really a mature industry. Electronics does not drive the accumulation of large fortunes: it has to do with markets and their maturity, and who has position.

This is a more parsimonious way of thinking about how great wealth is generated. On the one hand, there are speculative booms, on the other, there are forms of rents. There are also family dynamics, which were not really a focus of this research but were control variables in the analysis, things like kinship and inheritance and marriage. An additional distinction the researchers bring in is abstract versus tangible property. It seems that what should be addressed is a distinction between those people who make their money directly through finance and financial instruments and those who make their money in productive activity and then merely hold that wealth in the form of stock.

D'Ambrosio and Wolff focused on their substantive conclusions. A general increase in inequality of wealth is observed—a very rapid one between 1983 and 1989, then a slower increase from 1989 to the most recent year. The empirical as opposed to the methodological focus of this paper is to try to understand whether it is a result of changes in group composition or increasing inequality within groups. The groups are defined by race, age, family type, income class, and so forth.

The patterns are variable, as shown in the paper's graphs. It is hard to summarize in a single sentence what is going on, but the general conclusion is that the compositional factors did not play a great role in the growing inequality of wealth. It was mainly inequality growth within these groups, although they varied somewhat in how much inequality grew. For example, there was a great increase in inequality within the high-income group, but not within the low-income group. So although most of the increase in inequality was within-group, this trend is not uniform within all groups. What may be needed in a subsequent iteration of the paper is some explanation for the trends, because the focus is mainly descriptive.

For example, some of the trends are nonmonotonic. Some of the variables display a constant growth of wealth inequality within groups, but in others, inequality goes up and down. Why did trends vary like that? There was also some great inequality growth among nonhomeowners and nonwhites with the distribution becoming spread out. This is interesting because one would think that these would be low-wealth groups. Thus, how is inequality increasing? Surely most nonhomeowners are not accumulating assets and are remaining nonhomeowners, so the right tail should not be increasing greatly. However, it did increase, and the increase seemed to be symmetric. If more people were going into debt, the left tail should increase greatly. It would be curious to know why indebtedness would grow. A final issue raised earlier is that much depends on the reliability of the 1983 data.

A great deal of the movement in the growth of wealth inequality was not by race, age, or family type, nor by education, which plays a large role in the literature on labor markets, but by earnings inequality. What seemed to be the variable was income class. This is worth further exploration. The research did not include stock ownership as a variable, which also seems an obvious candidate for inclusion.

Intergenerational Transfers in the United States

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FRANK P. STAFFORD AND NGINA CHITEJI

Asset Ownership across Generations

Most available evidence indicates a pronounced disparity between African American and white households in asset ownership rates. A considerable amount of research has been conducted on the effects of intergenerational transfers, such as bequests of assets, in shaping differences in ownership rates. Comparatively much less research has been done on the intergenerational transmission of financial knowledge from parents to their children. Yet, parents can affect their children's wealth outcomes by imparting critical information about asset ownership to the next generation.

An overlapping generations model in which each individual lives for two periods, childhood and adulthood, was used to investigate the issues theoretically. The male and female children are both assigned, for each type of asset, to one of two groups: those who had exposure to that asset as a child and those who had no exposure. In adulthood, males and females form marriages which can be of four types, depending on whether both or one spouse did or did not have exposure to a particular asset. Taking the probabilities of each type of marriage resulting in asset ownership as exogenously given and assuming a common fertility rate for all four types of marriages, a recursive relation was derived for the fraction of families owning assets in a given time period. This relation links ownership rates of families to the characteristics of the adults forming them, that is, to their exposure or lack of exposure during childhood, and ultimately to family asset ownership rates in the previous period. The

recursive relation yields a unique equilibrium value for the fraction of families owning each type of asset; however, that value differs depending on the assumed probabilities of each type of marriage resulting in asset ownership.

The process of accumulating knowledge of assets is determined by parental inputs into that learning and inputs from external sources, such as financial institutions and the news media. In turn, the decision to own a particular asset can be considered as a function of such knowledge and a host of other factors, such as income, returns, and risk. Data from the 1994 wave of the Panel Study on Income Dynamics (PSID), a nationally representative, longitudinal survey, were employed to assess the empirical validity of the postulated theoretical relationships. A sample of parents and their adult children was created from households whose head was in the age group 25–53 in 1994 and whose parents' asset holdings data (taken from the 1984 PSID) could be matched. Ownership rates of two types of assets, bank accounts and stocks, were examined. The relationship between the probability of a household's owning an asset and its economic and demographic characteristics was studied using regression analysis.

Results confirmed that for bank account ownership, the standard result that income, education, age, race, marital status, and the number of children in the household each affect the probability of asset ownership, with all coefficient signs in the expected direction. The results also indicated that having parents who owned a bank account affects a child's likelihood of owning a bank account. However, the inclusion of parental ownership as an explanatory variable resulted only in a slight decline in the importance of race. Similar results held for stock ownership: families with higher income, more education, a spouse, and fewer children were more likely to own stocks. The regressions also indicated that families whose parents own stock are more likely to be stock owners themselves, even when the influences of other economic and demographic variables were taken

into account. The results suggest that increased education and enhancing publicly available information about assets can improve ownership rates.

PAUL G. SCHERVISH

Simulation Analysis of Intergenerational Transfers: Problems and Prospects

In recent years, some have argued that lower-income groups contribute a greater percentage of their income to charity than do high-income groups. However, such arguments are often derived from faulty empirical analysis. A systematic analysis of the 1995 Survey of Consumer Finances showed that the richest (in terms of income) 5 percent of all households contributed 50 percent of all charitable dollars. Furthermore, a complete analysis needs to take wealth into account, in addition to income, given the direct correlation—both cross-sectionally and over time—between the level of wealth and the amount of charitable giving.

A wealth transfer microsimulation model was developed to generate estimates of the amount that may be transferred from “final estates”—estates for which there is no surviving spouse—in the form of charitable giving over the first half of the 20th century. The estimates were based on assumptions regarding saving rates, rates of wealth accumulation, growth rates of national income, mortality rates, and a few other pertinent variables. In contrast to the \$10 trillion estimated by previous research, the current estimates ranged from \$41 trillion to \$136 trillion, depending on the assumptions.

However, there are a number of unresolved issues regarding the procedures used in the microsimulation model, among them the appropriateness of the Survey of Consumer Finances as a source of microdata, the possibility of using mortality rates differentiated by income groups, and

the use of saving rates differentiated by age and wealth. The sensitivity of the above estimates to their resolution might be a productive area of future research. It should also be noted that changes in the policy regime, such as the repeal of the estate tax, would have a significant impact on the future trend of charitable giving.

ANDRÉ MASSON
DISCUSSANT

The idea underpinning the Stafford-Chiteji model was that intergenerational transmission of knowledge about asset ownership can be treated as similar to the transmission of biological or psychological traits. However, the probabilities of each type of marriage resulting in asset ownership is, contrary to the model's assumption, unlikely to be exogenous in the real world. Yet another problem is that the model did not distinguish between the transmission of preferences and information. Therefore, the positive correlation found between parents' and children's asset ownership rates may reflect transmission of preferences rather than information.

The main lesson of Schervish's presentation is that charity is a luxury good for the very rich. However, the analysis may be improved if a model of behavior of "final estates" is developed, taking into account its tradeoffs and constraints. The study's estimates of wealth transfer may be biased because they do not incorporate information regarding trends in the concentration of wealth.



ANDRÉ MASSON

SESSION 4

Trends in Home Ownership

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DALTON CONLEY

*Home Ownership, Social Insurance, and
Rightist Response*

The goal of this research is to bring wealth literature into discussions of the comparative welfare state, which has been dominated, at least in sociology, by a view of the welfare state as either a dependent or an independent variable. As a dependent variable, the aim has been to explain over time and cross-nationally variations in structures or financial commitments on the part of the state to social insurance, health insurance, and other schemes. As an independent variable, research has focused on income distributions, labor market outcomes, economic growth, or some other macroeconomic indicator. Not much work has been done on the effect of welfare states on wealth distributions or wealth itself. This is partly because of a paucity of data comparable across nations and partly other obstacles to comparing wealth at the household level.

This is an important gap in the literature on the welfare state because wealth is a private form of social insurance. In the absence of old-age insurance, families may put aside funds and other assets that they can consume on retirement or in the case of a financial crisis. Thus, before we make conclusions about the effectiveness of different welfare states, we must consider wealth.

This research looks at home ownership rates. The study examines cross-national variation of home ownership rates, and then, using fixed effects models, looks at within-country variation, using data from the Luxembourg Income Study (LIS), with some appended variables from the comparative

welfare states database, also available through the LIS. The research asks about the relationship between income inequality and rates of home ownership at the country level. There are two counter-hypotheses. One is that lower income inequality leads to greater rates of home ownership because income is more fairly distributed, and thus more people have the resources with which to become homeowners. However, the other states that higher inequality is a reflection of a weaker welfare state and that saving in the form of home ownership is an alternative form of social insurance. In the latter model, one expects that the countries with strong welfare spending and low inequality would have lower home ownership rates. A second question of the research is how home ownership rates affect political behavior in terms of support for left- or right-wing parties.

Finally, the research asks how, if home ownership is figured into the definition of poverty as an economic resource, it changes the cross-national variation and poverty rates for the population as a whole, the elderly, and female-headed households. A new definition of poverty is proposed for the developed world: family income below 25 percent of the median (the LIS standard) and the additional criterion of not owning a home. This definition has its problems, but the view is that the income of an elderly lady who owns her home and has no housing expenses is worth more. We do not know how much equity she has or what her monthly costs are in the home, but home ownership is still a measure, as housing costs are generally one of the highest in family budgets.

The research does not resolve the causal origins of poverty, but it indicates the cycle of weaker social insurance that leads to a response of home ownership on the part of the population. In addition, when people have stakes in private property, they tend to become more right-wing politically, and to support programs and parties that are less friendly to social insurance and redistributive schemes.

In the LIS countries, Sweden is at the bottom of the basic distribution of home ownership and Hungary is at the top. Under the transition from communism, Hungary basically gave away homes; everyone who was living in state housing became a homeowner. Australia is near the top of the list and the United States, United Kingdom, and Canada are in the middle. The top home-owning countries in the world are Israel, Taiwan, and Hungary, three drastically different nations with different histories. Considering this versus the Gini coefficient, a better picture emerges and one sees that higher inequality as measured by the Gini coefficient is associated with a higher percentage of home ownership. It does seem that as social spending increases, home ownership rates decrease.

There is an indication that higher home ownership leads to a higher proportion of the vote going to right-wing parties. The Gini coefficient has a positive effect on home ownership rates across countries. When done with fixed effects, the relationship still holds. When the base model is run with just the Gini, again, for the smallest sample, the effect is significantly stronger. However, when controlled for social insurances as a proportion of gross domestic product (and this has been done as per capita measures as well) the point estimate for the Gini goes down. When the other control variables are applied individually, they do not explain the variance, and they do not change the effects of the main variables.

Reexamining the LIS poverty statistics with the idea that home owning is a form of social insurance and may be buffering many effects of low income among certain subpopulations provides different country rankings for the overall population. The country with the lowest ranking for the time period under study is Belgium, with a poverty rate of 5.3 percent; the United States is the highest at 23 percent. Adding in the criterion that a family is counted as poor only if it does not own a home, the rankings change dramatically. Due to Hungary's widespread

diversification of home ownership, it becomes the leader; the United States is still the laggard at 9.8 percent, but the variance is much less. Interestingly, when this model is applied, Sweden goes from relatively low poverty rates to high ones.

Turning to the elderly population, whose home mortgages are more likely to be paid off, the story is even more dramatic. The Netherlands has the lowest elderly population, 4.2 percent of all citizens, and Taiwan has the highest, 29 percent. But because Taiwanese elderly tend to own their own homes, it drops to a 4.9 percent poverty rate. Spain also sees a reverse, going from a 14.8 percent poverty rate to 3.6 percent. Canada now possesses the highest poverty level.

Among female-headed households, a particularly vulnerable population, it was found that home ownership does not make as great a difference. This can be troubling. The correlation is .853. In Spain, where home ownership rates among female-headed households are high, poverty figures with the application of the new model improve from a poverty rate of 16 percent to 5.1 percent.

This is only a crude attempt to incorporate ownership into a conception of poverty, but it is meant to be a starting point and to be provocative. It seems obvious that the welfare state is more than just income support, particularly from a sociological viewpoint. Welfare state researchers should be considering and perhaps collecting data on variables other than income- or labor market-based measures. For example, the Thatcher privatization of public housing in Britain was a major welfare state event, as was the transition in Hungary and, arguably, the U.S. policy of mortgage interest deduction.

Differential poverty may not be so differential. We should start considering in a more formal way the difference that wealth makes in international comparisons of poverty rates. A more troubling indication is that there may be tradeoffs between policy goals. Almost every country has the policy goal of increasing home ownership, which is gener-

ally agreed to be a good thing. Yet, implementing it may come at the expense of other progressive agendas, such as expanded income security and other left-wing ideals.

Finally, universal home ownership has implications for the classic political philosophical tension between democracy and property rights. In a democratic situation, the property rights of the few are liable to be abrogated by the will of the many who appropriate the property through the political process. Of course, this has not yet happened; it may be that home ownership is a way for governments to legitimize democracy.

ERIK HURST

The Transition to Home Ownership and the Black-White Wealth Gap

This research focuses on those near the bottom of the wealth distribution, examining both the role that the family plays in propagating wealth across generations and black-white wealth gaps, and asking what explains the gap between black and white households over both the total distribution and the lower part of the wealth distribution. Regardless of what is controlled for, large racial effects are still noticeable in wealth holdings across black and white households. In order to contrast the wealth of these two cohorts it is interesting to look at the major asset that they both hold: their homes.

Housing equity makes up about 30 percent of the wealth distribution for the full research sample. Eliminating the top 1 percent of the wealth distribution, it rises to about a third of net worth. If the top 10 percent is eliminated, the figure stabilizes at about 40 percent of net worth. Thus, a large part of the sample's assets are in home equity.

The goals of this research are to analyze the transition of a sample of households into the home

ownership state and to look at the differences in transition across races. This is done by looking at the antecedent components to home ownership: the homeowner's decisions to get a house and to apply for financing, and the lender's decision to grant him or her access to credit. This study examines each of these three components to look for racial dimensions. It asks how much of the home ownership gap comes from differences in application rates and how much from differences in rejection rates. It asks where these differences in home ownership, or in rates between the races, come from. It considers how much is explained by standard demographics—maybe credit history, maybe liquidity constraints—and shows that the role of one's own and one's parents' wealth may be important in the decision to apply for a mortgage and whether that mortgage is granted.

The research results show that over 95 percent of the raw racial differences in transitions into home ownership are due to differences in application rates. The remaining percentage is due to differences in rejection rates. Demographics, income, and family structure explain approximately 60 percent of the difference in application rates across races. Households' own wealth is statistically significant in the application decision, because a down payment may be necessary to get a mortgage. Parental wealth absorbs the remainder of this racial gap. Looking at rental markets, there is little difference in rents paid across races. Even after controlling for demographics, income, and credit history proxies, there are large racial effects in the rejection equation. However, the differences in rejections seem to have very little effect on the differences in home ownership rates across the races.

Controlling for standard independent factors (permanent income, age, age squared, education, family structure, and demographics), the unconditional difference in home ownership rates is about 30 percent between black and white households, with the mean rate being about two-thirds among white households. The remaining black house-

holds—about 44 percent on average—own a house. This gap could be reduced to a statistically significant 13.2 percent difference, but it is still large. It should be noted that these figures are based on raw data from a cross-section of the population, not a transition or panel or looking at the same households over time.

Regarding the value of the house, the unconditional difference is about \$55,000, with the average amount of white home equity about \$120,000. Median white home equity is about \$94,000, with a \$42,000 unconditional difference between black and white households. Controlling for the usual factors brings the conditional down to a statistically significant \$20,000 in home equity at the mean, and about \$14,000 at the median.

In the cross-section, there are differences between the races in home ownership rates and in value of home conditional on owning. The unconditional wealth difference is an interesting point. Many studies have evidenced a large difference in both mean and median unconditional wealth between the races—about \$200,000, and almost \$70,000 at the median, controlling for income, education, age, age squared, and family demographics. These figures come from cross-sectional data in the 1994 Panel Study of Income Dynamics (PSID); they are given here in 1996 dollars.

For experimental purposes, a dummy indicating those who owned a home was put into the regression. (This in no way implies causality, that is, that home ownership eliminates the gap.) With the dummy, the conditional wealth difference drops from \$24,000 to \$14,000, and at the median drops from \$8,000 to essentially zero. Thus, controlling for home ownership does not show, at the median, any significant difference between the races. Home ownership does seem to reduce the black and white wealth gap at the median. Why at the median and not at the mean? The upper tail of the distribution, the top 10 percent, the top 5 percent, the top 1 percent, could be skewed for different reasons. The focus here is not on

the upper tail, but on the median, where one seems to find zero difference.

The PSID provides ideal data for an analysis of the home ownership transition. It reports home ownership and demographics in income for every year. It has some information on wealth, which is important for 1989 and 1994. Its two supplements in 1996 are beneficial: one asked renters if they had considered buying a home at any time during the previous five years and whether they applied for a mortgage. If the answer was yes, the supplement then asked more questions, including whether the mortgage application was accepted or rejected. Using the PSID, it is possible to track the housing status of renters from 1991 to 1996 to see who became homeowners and who wanted to, but did not.

This research first examined a cross-section of renters to learn whether they had applied for financing on a house and, if so, whether they had been accepted or rejected. Major racial differences were evident. Fourteen percent of the black households and 30 percent of whites applied for a mortgage during this time period. The rejection rates were 19 percent for black households and 8 percent for white households.

A regression study revealed that more than 95 percent of the difference—decomposing that transition into its two parts, the decision by the renter to apply, and the decision by the lender to accept or reject the application—was due to differences in applications. Dummies were also applied for educational attainment, family status, income, care taken of the rental property, home neighborhood, and other factors. (No information was provided about the area where people wanted to move, only where they started.) Including these, the racial coefficient fell to 0.6 percent. These results do not seem totally out of line, but there is still a large, statistically significant racial gap in the applied decision even after the standard demographics were included.

There may be reasons why some people want to become homeowners and others do not. For one, it

is costly to alter one's housing situation. A renter can easily move. People with more frequent alterations in their demand for housing may be more likely to rent than to own homes. A measure of income variability is included in the regressions to test its predictive power. Another factor is that most first-time homebuyers borrow funds for the down payment. This was the case with almost all the people in the sample; those who did not were dropped and the results remained the same.

The role of parental wealth in generating down payments was also explored. Respondents were asked where their down payments came from: 54 percent of white households and almost 90 percent of black households reported it as personal saving. In white households, 15 percent received the money directly from their families, as opposed to 6 percent of black households. Seventeen percent of white households reported "other," which could include wedding gifts and the like. Large differences were evident even after parental wealth was factored in. Whites received much of their down payments from their families. The addition of parental wealth did seem to explain some of the residual after personal wealth, income variability, standard demographics, own income, and family instability were accounted for. Adding in parental wealth has large predictive powers.

Discrimination exists between blacks and whites in the area of home mortgage lending. However, one of the points of research into home ownership and the accrual of wealth over time is that it is not really the rejection stage of the loan process that is important, but the application stage. Factoring the feedback effect of this into the first stage of the regression would be helpful, but an instrument that would affect a lender's decision to reject an application could not be found that would not also directly enter into a renter's decision to apply. Also, no differences were found between black and white households in terms of interest rates paid, controlling for type of loan, and other factors.

In conclusion, the large racial gap in housing is due primarily to differences in application rates. Much of it can be explained by age, education, family structure, and demographics; other factors include transitions in marital status and number of children. People who prefer the freedom to change housing may feel better off as renters. Differences in owned wealth and parental wealth explain much of the remainder of the application gap. Differences in treatment by lending markets seem still to persist; that is, there seems to be discrimination in lending.

One potentially important fact is that historical wealth differences may be more persistent than are historical income differences. If parental wealth is necessary to generate more wealth, and if, for whatever reason, home ownership does give a person some sort of wealth premium because of its commitment device, then differences in home ownership wealth may persist longer than differences in income.

ANNAMARIA LUSARDI DISCUSSANT

There is much correlation between the two papers presented in this session. It is important to first state some facts, one being that, particularly in the United States, housing equity represents the most important asset in many household portfolios. The population that is close to retirement basically holds its wealth in housing equity. That equity also has contributed to the increase in wealth, particularly in the 1970s and 1980s, when home values increased. Another fact is that home ownership grew significantly over time, although this masks some differences across demographic groups. In fact, home ownership has increased among whites, but decreased among blacks. The racial differences are not large, but have been persistent over time.

Housing is difficult to properly model; theoretical models are either very complex or very simplis-

tic. One reason it is hard to model is that housing has consumption and investment purposes, and when uncertainty and transaction costs are introduced it becomes even more difficult. We have been given the sense that the more people who own a home, the better, but this may not be true. It may be that some people are overinvested in housing. This lack of wealth diversification could be a problem, as such people are greatly affected by the behavior of the housing market.

Just because housing's rate of appreciation could be lower does not mean that it is always a good investment. Appreciation can differ across assets. There are also high transaction costs. It is not necessarily the case that having a population that is heavily invested in housing is good. Under a strict version of the life-cycle model, households should downsize wealth after retirement. Thus, the fact that housing is low, or that many people do not have a home after retirement, could actually be consistent with the prediction of such models. This could make it difficult to use home ownership when measuring poverty among the elderly.

The big question the presenters attempt to address here is, "What causes differences in home ownership?" The first paper looks at this across countries and the second across races. Some possible answers are indicated in these papers, but others are worth adding. One is that people have different lifetime resources. For example, those with a variable income might be less inclined to commit to home ownership. There are differences in needs, as Hurst pointed out in his examination of such variables as family size, number of children, and marital status. Tax incentives, which vary by country, also matter; some countries have used them to motivate home ownership. The point is that there are many variables, so a great deal of information is needed to address properly the issue of home ownership. Fortunately, today we have access to data sets that can better address the issues of home ownership and discrimination in

home ownership in particular. When economists gather, they tend to talk about their models. However, more discussion should focus on the data—its strengths, its weaknesses, or simply the question of what necessary information is missing.

An issue worth discussing with regard to home ownership is imperfection in the financial market. This is important for understanding home equity. Many studies have shown the importance of borrowing constraints, particularly those on down payments, from different angles. Borrowing constraints seem to explain fluctuations in housing over the business cycle. In his work, Hurst presents a new and important suggestion, which is that African Americans do not even apply for mortgages. Why? He suggests a discouragement effect; the knowledge that African Americans seem to be rejected more often than whites may deter them from applying. It may be also that African Americans do not get as much financial help from their families.

These are important explanations, but there are many possible reasons why people do not apply. One may be that they doubt their ability to pay a mortgage. It is hard to account for this variable, but perhaps it is in the background, perhaps it is an unobservable, perhaps it is a bias in the result. There is also the possibility of what is termed financial literacy. A greater proportion of African Americans than whites may not have basic assets, such as checking and saving accounts, which makes it difficult to borrow. African Americans are also less likely to hold sophisticated assets such as bonds, stocks, and trusts, which require some financial knowledge.

Research in the area of home ownership and social insurance does indicate that people invest their wealth in housing once they have a precautionary saving motive. This may explain why housing can do so much for the elderly, and many of the facts about consumption before and after retirement. In the United States, since the 1987 tax reform, housing equity has become more liquid,

which means that now it can act more as a buffer against shock. Thus, the issue of home ownership as social insurance is a good point, but it is hard to know the causality. It is difficult to interpret the correlation between home ownership and welfare spending, because the latter is probably dominated by social security. What is really being examined is how much people spend on the elderly, and then home ownership among the whole population, and it is not obvious what this really captures.

There is a long list of reasons why countries differ. Interest rates can be different. Tax policy can be different. As the author noted, fixed effects are tricky to interpret, but if not many are put in, it is not obvious whether they are capturing some unobservables. The other questions are, how do we interpret fixed effects, and in which ways are countries different—are they different because there are different financial markets?

The point about home ownership and poverty is a good one. Economists certainly need to improve upon this measure. Looking at income is not going to do much because of the asset component. There are some problems, however, about including housing. The first is that a good measure of lifetime resources must first be developed. A potential solution is to look at consumption rather than income, because consumption should reflect people's lifetime resources and assets.

It can also be misleading to look at housing when considering poverty among the elderly. According to our theoretical model, the elderly should accumulate wealth, so they probably should not have houses. In addition, health problems or reductions in family size may limit their use of housing, which could make this a crude indicator. Moreover, people often express a desire to leave their home to other generations. Thus, a problem is that housing equity is not really used for consumption at retirement. It is probably true that we need broader measures of resources, but home ownership as a measure may have its own problems.

As a general point, there are three overall assets responsible for building wealth in the United States: housing equity, business equity, and stock. Hurst's paper showed that parental wealth can be quite important in affecting home ownership. Many studies find that in addition, parental wealth can explain business equity. Another paper presented here showed that parents' stock ownership also affects children's stock ownership. Thus, it seems that parental wealth and parental behavior are assets that are important for building wealth. The problem is, what does it mean? We probably do not have an answer to this question. Parents may relax financial constraints, or provide learning, habits, and norms. This is a promising area of research and emphasizes the importance of looking at intergenerational transfers.



Annamaria Lusardi

SESSION 5

Wealth Inequality in Europe and Japan: Part I

MODERATOR: Roland Spånt
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MARIACRISTINA ROSSI
AND **ANTHONY SHORROCKS**

*Wealth Holdings in Britain: Reconciling
Evidence from Household Surveys and Individual
Estate Records*

Great Britain has wealth distribution statistics dating back to the 19th century, but these are based on estate tax returns. Data based on household surveys have emerged only in the last few years. The most comprehensive of these surveys is the British Household Panel Study (BHPS); however, some adjustments need to be made to this data to improve its accuracy and make it a reliable foundation for empirical analyses. A detailed comparison was made of the BHPS data with the Inland Revenue (IR) estate records for 1995, covering average holdings of each type of asset and debt, as well as the pattern of holdings across individuals. The accuracy of both sources of data was assessed by comparing them to the average asset and debt values with estimates obtained from the U.K. Personal Sector Balance Sheet (PSBS), similar to U.S. flow of funds data.

Both the BHPS and the IR data showed roughly the same figure for total tangible wealth per person. This figure was also consistent with the corresponding PSBS estimate. However, the BHPS estimate of financial wealth is considerably below the estimates from the IR data and PSBS. Part of the discrepancy was due to the fact that the BHPS did not collect any information on insurance and pension funds. However, even for the items on which the BHPS did collect information (bank deposits, bonds, and

equities), its values are roughly half the values in the IR and the PSBS data.

The strategy followed in reconciling the two sources was to first analyze reported housing values (the average value of a person's home), because it has been found that responses to questions about homes are generally accurate. The analysis showed that the IR data underrepresent persons at the lower end of the wealth distribution, while the BHPS data understate the average value of homes owned by those at the top of the wealth distribution. After reconciling these biases, the next step was to examine, conditional on housing values, the incidence rates (the proportion of those who own an asset or have a liability) and average valuations for remaining assets and liabilities. The results obtained were used to reconcile the two sources of data and derive adjusted figures that could be used to characterize the distribution of household wealth.

Econometric analysis was done to shed light on how the probability of owning an asset or having a liability, and the average value of assets and liabilities, change when a person from the BHPS is added to the IR data. The estimates were obtained after controlling for the effects of several relevant variables, such as age, sex, marital status, and total wealth, as well as for the interaction effects between these variables. The results show that adding persons from the BHPS had the effect of lowering the average valuations for all assets other than homes; the positive effect on the average value of housing might reflect the unrealistically optimistic valuations of homeowners. They also indicate that the incidence rates for bank deposits and investments are affected by the inclusion of an additional person from the BHPS, while the ownership rates for homes remained unchanged.

AXEL BÖRSCH-SUPAN

Household Savings in Germany

In spite of the theoretical and empirical work devoted to it, household saving behavior is still one of the least understood areas of economics. Advancing knowledge in this area is vital because private saving as a private insurance interacts with public insurance policies implemented by the government. The central policy issue is why the German saving rate is so high, in spite of its having one of the most generous public pension and health insurance systems in the world.

The source of data on saving behavior was derived from four waves of the Income and Expenditure Survey conducted by the German census during the period 1978–1993. Households in these cross-sections cannot be matched and therefore the panel constructed is a synthetic one formed by aggregating the cross-sectional data into age categories and identifying adjacent age groups across waves. Estimates were generated, by age cohort, of financial, real, and total saving; financial, real, and total wealth; total gross income and total disposable income; and saving rates. The main finding was that the saving rate–age profile showed only a mild hump-shape. Saving rates were roughly 12 percent for all young and middle-aged groups until around age 45–49. They decreased gradually and stabilized around age 65–69 at about 4 percent and remained positive for the older cohorts.

The observed pattern ran counter to the popular life-cycle theory of saving, which claims that people save when they are young and dissave when they are old. The observed pattern was also perplexing because Germany has a very generous public pension and health care system. A possible explanation for this puzzle is as follows. First, the growth of personal income since the Second World War and up to the 1980s was so large and unprecedented that today's elderly just could not have anticipated it.

Second, the elderly did not spend savings amassed during this period because of habit persistence: they did not dramatically change their consumption norms formed 50 years ago. Furthermore, health conditions also prevented them from spending as much as would be needed to make their saving rates negative.

Due to the generous public pension system, the younger cohorts' motives for saving were precautionary, purchase of homes and consumer durables, and *inter vivos* transfers. However, the slowdown in economic growth since the 1980s and the deteriorating dependency ratio is likely to make the public pension system less generous in the future; this may revive the retirement motive for saving. It is also likely that, in the event of a transition from the current pay-as-you-go pension system to a partially privatized one, the portfolio composition of household wealth may change in favor of equities.

JAMES B. DAVIES

DISCUSSANT

Rossi and Shorrocks are to be complimented for their painstaking and novel effort in creating a source of data that reconciles the disparities between the existing ones for the United Kingdom. An evaluation of using the relationship between the average value of housing and the average values of other assets in the IR data to adjust the BHPS estimates showed that such a procedure might not generate any significant bias. However, the econometric estimates could be improved by distinguishing more carefully between misreported assets and differential response rates and treating them differently in the estimation strategy.

Börsch-Supan's explanation for why the observed saving behavior in Germany runs counter to the expectations of the life cycle theory was persuasive. However, there may be other reasons why saving rates among older cohorts were found to be

positive. The reunification of Germany may have created an expectation that tax burdens are likely to increase in the future, prompting people to save more. Another contributing factor might be a desire to meet the relatively large down payments required for home purchases.

*Wealth Inequality in Europe and Japan: Part II***MODERATOR: THOMAS MICHL**

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LUC ARRONDEL*Risk Management, Liquidity Constraints, and
Wealth Accumulation Behavior in France*

The research presented here addresses the effects of endogenous risk on wealth behavior in France. Two aspects of this behavior are considered, one dealing with total wealth accumulations and the other with portfolio choice through risky asset demand. The first one, the precautionary saving model, leads to new factors to explain wealth accumulation, including the variance of future income and the degree of absolute prudence. The second part of the theory concerns portfolio choice.

In a static portfolio choice model, an increase in income risk makes a household less willing to bear a rate of return risk. In other words, risks are substituted. The empirical prediction is that when households face income risks, they reduce their demand for risky assets, even when the two risks are independent. They also tend to buy more insurance against risks. Income risk affects the relation between borrowing constraints and portfolio choice. Thus, a consumer who is subject to income risks, and who anticipates to be constrained in the future, will hold less risky assets. In other words, borrowing constraints reinforce precautionary motives.

Two comments on the theoretical part of the presentation: one, the temperate consumer facing an additional risk has different instruments to moderate his total exposure to risk. He can increase his total saving, decrease his risky asset demand, and buy more insurance. Second, in the precautionary saving model risk is assumed to be exogenous. The main prediction of this model is

that risks are complements rather than substitutes. The consumer with a more risky job by choice will have also more risky investments.

The empirical analysis in this research is based on a 1997 French survey that had a specific questionnaire on attitude toward risk. Individuals were asked about their willingness to gamble on lifetime income. Three contracts were proposed to the households. Contract A presented a choice between keeping lifetime income R or accepting contract A, under which they could double their incomes with a probability of 50 percent, or see income decrease by one-third with the same probability.

For those who accepted contract A, contract B was then proposed. It had the same caveat: to keep income R or accept contract B. In that contract, income could be doubled or reduced by one-half. Those households who refused contract A were proposed contract C, under which there was the probability of one-half that income would double or be decreased by one-fifth.

From this was developed a measure of risk aversion. If a household refused contract A and refused contract C, then their constant relative risk aversion is more than 3.76. If they refused contract A but accepted contract C, then the relative risk aversion is between 2 and 3.76. If they accepted contract A but rejected B, their risk aversion is between 1 and 2. Those who accepted contract A and then contract B have a constant relative risk aversion below 1. Most French individuals—about 85 percent—have high risk aversions because they refused contract A. Three percent of households in France refused contract C and 47 percent accepted it. However, in the United States, only 15 percent accepted contract C.

One can also consider the extent to which major risk aversions predict risky behavior. This can be measured by assessing a person's propensity to take risks in financial decisions and his or her participation in games of chance, such as horse races, the national lottery, slot machines, and casino games. Both of these risky behaviors are influenced

by the risk aversion measure, and these effects are observed even after countering for individual characteristics. In other words, people who are less risk-averse take risks in portfolio choice and participate more often in games of chance.

A number of other issues were addressed in the research, such as liquidity constraints, precautionary wealth, and job riskiness with regard to portfolio choice. A few conclusions based on the research are that borrowing constraints induce people to be more temperate in their portfolios and that households confronted with more risk income hold a greater proportion of their wealth in risky assets. In addition, less risk-averse households have riskier jobs and more risky assets in their portfolios.

CHARLES YUJI HORIOKA*Bequest Motives and Their Impact
on the Economic Behavior of Parents
and Children in Japan*

The objective of this research is to use microdata from a Japanese household survey to analyze the strength and nature of bequest motives in Japan, the impact of bequest motives on the dissaving behavior of the aged, and the impact of bequest motives on the behavior of children, in particular whether they live with, provide care for, and/or financially support their parents. The purpose of this study is to discover which model of household behavior applies in the real world, knowing that this has important policy implications. For example, it sheds light on the questions of whether tax cuts are effective in stimulating the economy and whether wealth disparities are passed on from generation to generation.

Three main models of household behavior are considered—the life-cycle model, the altruism model, and the dynasty model. Each of these has different implications for bequest motives and

attitudes toward bequest division. Therefore, by looking at data on bequest motives and bequest division, it is possible to get an idea of which model of household behavior best applies in the real world. The life-cycle model assumes that people are selfish, that they will leave no bequests, even accidental, unintended, or selfish ones. This model also implies that people will leave everything to the child who takes care of them or provides financial support. The altruism model assumes that people harbor intergenerational altruism toward their children, and therefore they will leave bequests to them even without any quid pro quo. In terms of bequest division, this model implies that bequests will be compensatory; in other words, more will be left to those children with less earning capacity or greater consumption needs. The dynasty model assumes that people care about perpetuation. Thus, they will leave bequests only if their children agree to carry on the family line or the family business, with everything left to the child who does so.

The data for this research came from two surveys, a comparative survey on saving in Japan and the United States, which was conducted in 1996, and a survey on the financial asset choice of households, which has been conducted every two years since 1988. The data used in this research are from 1996 and 1998. Both of these surveys were conducted by the Institute for Post and Telecommunications Policy of the Japanese Ministry for Posts and Telecommunications, and both collected the standard data on income, saving, and wealth, as well as some very interesting data relating to bequests, amounts received, amounts people plan to leave, motives, attitudes toward bequest division, and so on.

Both surveys ask people about their bequest motives. They are asked to pick one of six choices: "plan to leave a bequest no matter what" (which is consistent with the altruism model); "plan to leave a bequest only if our children take care of us" (life-cycle model); "plan to leave a bequest only if our children carry on the family business" (dynasty model);

"plan to leave whatever happens to be left over" (unintended bequests, which are consistent with the life-cycle model); and "do not plan to leave a bequest" (life-cycle model).

Research has indicated that 46 percent of Americans plan to leave intended bequests. By comparison, in Japan the percentage is about 25. Conversely, whereas 54 percent of Americans plan to leave no bequests, or only accidental bequests, that proportion is 70 to 75 percent in Japan. So the bequest motive is not very strong in either country, and it is especially weak in Japan. The life-cycle model is the dominant model of household behavior in both countries, judging by bequest motives, but it is nearly twice as prevalent in Japan as in the United States. Conversely, the altruism model is more than twice as prevalent in the United States as it is in Japan. The dynasty model is not very prevalent in either country.

Turning to the results on attitudes toward bequest division, the surveys also present six choices: "divide equally" (which is not consistent with any model unless one assumes that children have roughly equal earnings capacities or consumption needs, in which case it can be regarded as consistent with the altruism model); "give more to the child who has less income" (which is consistent with the altruism model); "give more to the child who takes care of us" (life-cycle model); "give more to the child who carries on the family business" (dynasty model); or "give more to the eldest child, even if he or she does not take care of us" (which is also consistent with the dynasty model since in Japan it is generally the eldest son who carries on the family line).

The results of this survey show that in Japan, equal division is the dominant attitude. This is also the case in the United States where a full 96 percent of Americans favor equal division. Leaving more to the child who takes care of the parents is also fairly important in Japan, with about 30 percent of people having that attitude. However, this is of no importance in the United States. In terms of which model

of household behavior is applicable, if one categorizes "divide equally" as being consistent with the altruism model, then this model is about twice as prevalent in the United States as it is in Japan. Conversely, the life-cycle model is far more prevalent in Japan than in the United States. The dynasty model is not very prevalent in either country, but is of some importance in Japan.

The Japanese survey also asks how the parents of the respondents had divided or planned to divide their bequests. These data are more reliable, because they are about actual behavior rather than attitudes. The data are for 1998 and show that equal division is the dominant way of dividing bequests, with leaving more to the child who takes care of the parents coming in a close second. One difference with the earlier results is that division schemes consistent with the dynasty model are somewhat more important in the case of parents, but this is not of dominant importance.

Turning to the saving behavior of the aged in Japan, the data used are from the 1996 survey and pertain to people 60 years and older. A substantial proportion of the aged dissave in Japan. For example, for retired households for whom one would expect this tendency to be most prevalent, about 36 percent dissave financial assets. Looking at the broadest measure, 74 percent of them are dissaving their net worth. The percentage of people dissaving is higher for retired households than for working households. In terms of amounts, on average the change in financial assets is negative, the change in most components is negative, and the change in its broadest measure—net worth—is also negative, not only for retired households, but for working households. As might be expected, the absolute amounts are larger for retired households.

Next, the research estimated a dissaving function of the aged. To briefly describe the estimation model, the life-cycle model would predict—assuming there is no life span uncertainty—that people will dissave their wealth so that it is exhausted by the time of their

death. Therefore, one would expect the rate of decumulation to be over their life expectancy.

The analysis suggests that people dissave their financial assets, but not their real assets. This is consistent with what is observed in Japan, where the aged dissave all assets other than real assets and planned bequests have the expected impact on their rate of decumulation. The aged in Japan do not appear to dissave real assets, presumably because of their desire to continue living in their own houses, and the tax advantages of leaving bequests in the form of land. Land is grossly undervalued for both property tax and estate tax purposes.

A final issue examined here is the impact of bequest motives and attitudes toward bequest division on the behavior of children. This research examines three aspects of children's behavior: coresidence; whether they provide nursing care; and whether they provide financial support. The results are not always very clear cut. However, the detailed results show that the children of those with a bequest motive—especially those for whom leaving a bequest is conditional on receiving care from their children and those who plan to leave more or everything to the child who takes care of them—are more likely to live with their parents, or to provide nursing care and/or financial support. This suggests that children in Japan are selfishly motivated, that is, they will not take care of their parents unless there is something in it for them.

The conclusion of this research is that the selfish, life-cycle model is highly applicable in Japan, both absolutely and relative to the United States. The policy implications are that (a) tax cuts are an effective way to stimulate the Japanese economy and (b) the danger of wealth disparities being passed on from generation to generation appears to be less serious in Japan. The reason for this is that since people do not leave bequests, or leave primarily selfish bequests that are a quid pro quo for care during old age, the net amount of bequests—a net of the offsetting transfers from children to the parents—is not necessarily very large.

LARS OSBERG
DISCUSSANT

The paper on Japan and the issue of bequest motives was based on surveys of individuals. The questions regarding bequests provide good information, but are still rather limited. None of them allows for mixed motivations, unwillingness to confront possible negative visions of the future, or alternative hypotheses. People are asked a specific set of questions and are forced into the position of giving an explicit answer about their vision of the future. Thus, what people say they will do and what they actually do later could vary.

The idea of habit persistence must also be considered. Why is it that my parents have money, and my dad really likes new cars, but he will not buy a Mercedes? The answer may be that he has never spent that much money on a car and cannot imagine doing so. Thus, he proceeds in the same way he always has; he formed a set of consumption norms back in the 1930s, and still operates according to those norms.

The bequest issue addressed in the paper almost implies that equalizing among one's children is a simple idea. However, the issue may be more complex. Is one talking about equalizing realized monetary income when people are 45-year-old adults, or expected future income, as at the age of 21? Are parents equalizing utility from total consumption, given that some of their children decided to become university professors and some to become plastic surgeons? These professions have very different money income streams, but who has the higher utility in the end? What exactly is it that parents are equalizing? The concept of compensatory bequests among children is very difficult to operationalize in practice.

Aside from this attitude toward bequests, the paper on Japan also addresses saving behavior and coresidence. The saving behavior is a very simple model where one has a certain lifetime. That is, one

seems to know at what age he or she will die. With regard to the analysis, it did not seem clear whether the focus was on real assets and/or financial assets. In the case of the United States, many people do not have much in the way of financial assets, other than transaction balances.

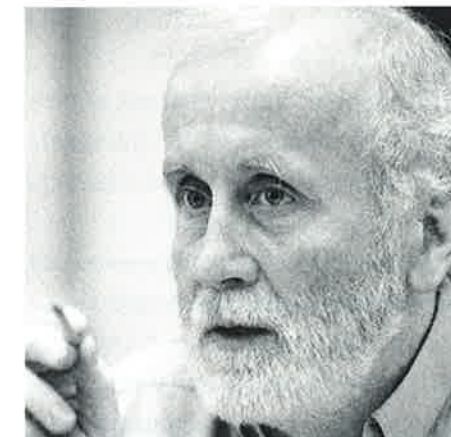
To understand these complex behaviors, questions must be asked in a very subtle way. In particular, care must be taken about differences in wording in a cross-cultural context, especially when comparing the United States and Japan. What is needed is a different strategy, which is actually a common denominator with the paper on risk assessment in France. The risk aversion question is really a theorist's question. To answer it, the respondent would need to at least have an acquaintance with algebra and the representation of a real variable by some sort of abstract concept. The international adult literacy survey, performed in a number of countries, has found that quite high fractions of the population have difficulty with basic math questions, so a significant number of people will not be able to answer that question. It is quite rational for people to worry about a draw from a random distribution that puts their subsequent income below the minimum survival amount. In fact, one sees much of this in the sharecropping literature; in all countries, people will put enormous weight in avoiding the probability of demise, and that is quite rational. However, it is not like a constant relative risk aversion utility function, which ends up at the intercept at zero income.

A subsistence amount is needed in order to drive these other types of behavior, but without any concrete reference for the R , one does not know whether people are worried about the possibility of less-than-subsistence income, or what they are using as the implicit reference for the number. In that sense, it is important to mention the issue of insecurity about extreme outcomes in measuring risk aversion. This is one reason why the welfare state and insurance against risks exist. This is not, however, captured by this sort of question.

Complex events in general are not decoded all that well. The real world is complex and full of contingent and correlated risks. There is much experimental evidence on how people process information about probability events in the future. There is much evidence that people are insensitive to sample sizes, that they have misconceptions about probability processes, and that their estimates of probabilities are anchored in initial priors. Illustrative examples have a disproportionate influence. Small-probability events cause people to rescale their probability estimates of the future. There is much experimental and theoretical evidence that actual behavior with respect to risk is a dodgy area and compound risks are not well understood.

Essentially, there may be problems with tying the whole model tightly to a particular set of hypotheses about people's behavior to risk in practice. When it is talked about in a functional form, which ends up arguing that attitudes to risk are complements rather than substitutes, one has to wonder about the functional form as well. Here we are looking at risky assets, at equity assets, yet it is not clear how the tax considerations under homeownership versus equities feed into the model. The estimation does not appear to take into account whether people had pension plan assets that guaranteed them security through another route, or whether they were homeowners.

Other cross-checks are needed. For example, the question about the resources needed to finance future expenditure should be paired with others about whether people have such things as credit cards, bank deposits, or financial assets of any sort. Also, does the question about expected income variation really reflect people's unwillingness to contemplate unpleasant futures? It is not clear that people's anxieties about the future are being measured. The bottom line is the desire to distinguish between risk and insecurity.



Lars Osberg

SESSION 7

Racial Divisions

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LISA A. KEISTER
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DISCUSSANT: RICHARD T. CURTIN
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**MAURY GITTLEMAN
AND EDWARD N. WOLFF**

Racial Wealth Disparities: Is the Gap Closing?

A popular method of examining racial differences in wealth is a decomposition technique that seeks to determine the wealth of an average African American who had the same characteristics, such as education and income, as an average white. This approach is liable to produce different results, depending on whether the African American or white wealth function is used, because the coefficients associated with variables such as education and income differ markedly across races. More importantly, the approach is unable to shed light on the factors behind, for example, why an additional year of education should result in greater wealth for whites as compared to African Americans.

An alternative approach is to use a simple accounting framework to quantify the proximate sources of the difference in wealth. The starting point is the accounting identity that states that the wealth at the end of a year is the sum total of the wealth at the beginning of the year and the saving, capital appreciation, and transfers that took place during the year. The main objective is to determine how the different components contribute to wealth accumulation over time and how they vary between races. The source of data is the Panel Study of Income Dynamics and its supplements on family wealth for the years 1984, 1989, and 1994.

The data show staggering gaps in wealth levels between African Americans and whites in 1994: the mean wealth of African American households in 1998 dollars is only 18 percent of that of white

households; median wealth is even lower, at 2 percent. The disparities remain huge even if people with similar levels of education, income, or marital status are compared. Furthermore, the disparities show no trend over the period 1984–1994. The data also show that ownership rates for whites are much higher than for African Americans for all types of assets. More than half of the wealth held by African Americans is concentrated in homes.

On the basis of certain assumptions, the wealth accounting identity was employed to explore racial patterns of wealth accumulation. The main findings were as follows. First, inheritances played almost no role in the gains of African Americans over the period, whereas for whites they constituted as much as 10 percent of the increase in wealth. Second, there is no evidence that capital gains play a more important relative role for whites than for African Americans over the period examined. Third, the contribution of savings to wealth accumulation is similar for both groups.

An assessment was also made as to whether the racial wealth gap would still be significant if African Americans inherited similar amounts and had comparable levels of family income, similar portfolio composition, and similar saving rates between 1984 and 1994. It was found that such changes would have reduced disparity significantly: the wealth of an average African American household would have been 36 percent that of an average white household in 1994. However, large disparity would still remain as a result of the difference in the initial wealth levels of the two groups.

LISA A. KEISTER

Family Structure, Race, and Wealth Ownership: A Longitudinal Exploration of Wealth Accumulation Processes

Recent research on the distribution of wealth in the United States has clearly shown pronounced racial disparities between whites and nonwhites. While analysts have explored the effects that income, portfolio behavior, inheritance differences, and other demographic factors exert on racial differences in wealth accumulation, the effects of family structure are much less studied. The theoretical core of the argument is that increasing family size and family disruptions dilute the material and nonmaterial resources available to the family and thus negatively affect its potential for wealth accumulation. Material resources include saving for college and income to provide a safe and pleasant living environment. Examples of nonmaterial resources include parental attention and teaching. Both types of resources are likely to be diluted as family size increases.

In examining the effects of family structure on wealth, a distinction was made between the structures of family of origin and of family in adulthood. The number of siblings and family disruptions were used to characterize the structure of family of origin. The structure of family in adulthood was characterized by marital status, family size, fertility, and transitions to fertility and marriage. These structural characteristics were postulated to affect three aspects of an individual's wealth: the overall level of wealth, rate of wealth accumulation, and composition of wealth.

Data on the 1979 cohort from the National Longitudinal Survey of Youth were used to explore these ideas empirically. The data from the 1979 survey were used to obtain information on respondents' families of origin and the surveys from 1985 through 1996, when the respondents were between the ages of 31 and 38, were used for information on family of adulthood. Separate regressions were run

by race to assess the impact of several variables characterizing family structure on the overall level of wealth, rates of wealth accumulation, and composition of wealth.

The results indicate a strong negative relationship between the number of siblings in family of origin and the net worth of family in adulthood for all races, although the coefficients differed significantly across races. The negative effect was pronounced for whites because, on average, whites have more material resources to be diluted by a growing number of siblings. The effect of the number of siblings on upward mobility on the wealth ladder also differed across races: it was negative for whites, insignificant for blacks, and positive for Hispanics. Family disruptions during childhood were found to negatively affect wealth outcomes, although the effect is greater on upward mobility than on level of wealth. Hispanics seem to be particularly susceptible to this effect, probably as a result of the greater role played by large, extended families in that community.

Family structure in adulthood was also found to be strongly tied to wealth ownership, especially upward mobility. Marital status, particularly being married, is positively related to the level of wealth, although it bears a negative relationship to upward mobility. This is not surprising, because the sample is a group of young adults making the transition to wealth ownership. For this group, mobility increased with family size (and recent changes in this number) but it was lower for those who already had children at the beginning of the period and those who had children at the beginning of the period and had still more children.

Three different trajectories of wealth accumulation were examined, ranging from the one along which no wealth is acquired, to one in which different forms of wealth (e.g., equity or home) are acquired. Estimation results showed that blacks and Hispanics are more likely than whites to be on a trajectory of no wealth accumulation.

RICHARD T. CURTIN
DISCUSSANT

The work presented by Gittleman and Wolff was characterized as a useful extension of existing research on racial disparities in wealth. However, there might be some measurement problems in the data used to indicate the disparities in average levels of wealth. The results of the decomposition analysis might be sensitive to measurement problems that affect African American and other households by substantially different magnitudes.

Keister's argument that the attributes in the early stages of the life-cycle can have significant influence on the position that one attains in the distribution of wealth in later life was quite cogent and persuasive. However, the empirical analysis could be improved. A closer analysis of the regression results shows some results that might be considered counterintuitive. For example, a change in marital status was associated with a decline in wealth for African Americans, and an increase in wealth for whites.

SESSION 8

Wealth Taxation

MODERATOR: FRANCES M. SPRING
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PIERRE PESTIEAU
Professor of Public Economy, University of Liège

DISCUSSANT: JAMES POTERBA
Mitsui Professor of Economics, Massachusetts
Institute of Technology

JOHN P. LAITNER

*Simulating the Effects on Inequality
and Wealth Accumulation of Eliminating
the Federal Gift and Estate Tax*

Policymakers have recently debated whether to reduce or eliminate the federal unified gift and estate tax. The possible long-run consequences of such a change on national wealth accumulation and the degree of inequality in the cross-sectional distribution of household net worth are examined using an intertemporal general equilibrium model with parameters characterizing household preferences and aspects of production technology that are invariant with respect to tax changes. This model can be used to estimate the consequences of changes in gift and estate taxes for the aggregate capital stock in a context in which other taxes adjust to preserve the government's budget constraint and in which a new equilibrium is reached by movements in the interest rate. The model, after trend corrections, determines a stationary equilibrium distribution of wealth, and so can also be used to estimate the effect on wealth inequality.

The model is of families assuming life-cycle saving patterns, including factors such as saving for children, retirement, income taxes, and social security taxes and benefits. Labor supply is assumed to be inelastic. Annuity life insurance markets exist and function. There is an exogenous distribution of family earning abilities, with each household learning its lifetime earning ability early in adulthood; earning abilities are heritable to a degree within family lines. A fraction of families are "dynastic" or "altruistic," that is, under the right circumstances they would like to leave bequests. Dynastic parents

with high earnings or large inheritances are likely candidates to make positive transfers, especially if their children have lower earning abilities than they. Private intergenerational transfers, along with life-cycle saving and the overall distribution of earnings, determine wealth holdings.

Data from the 1995 *Economic Report of the President*, the U.S. Department of Commerce (1997), and the U.S. Social Security Administration (1998) are applied to the model, which has four key parameters. The first (estimated from survey data on consumption expenditures) determines the slope of life-cycle consumption paths with respect to age. The second (calibrated so that numerical solutions replicate the empirical aggregate stock of wealth) determines the weight altruistic parents assign to their descendants' well-being relative to their own. The third (calibrated to match the empirical degree of wealth inequality and federal gift and estate tax revenues) determines risk aversion and willingness to substitute between consumption at different ages. The fourth (calibrated to match the same empirical data as the third) is the fraction of households that are dynastic. The calibration exercise suggests two possible interpretations for the fraction of dynastic families: either all families are dynastic or only a small fraction are and the remainder are not.

Under one interpretation, the best simulations are the ones in which all families have the same preferences (all are dynastic). If so, the average 1995 bequest is slightly over \$100,000, which seems to be at the upper edge of plausibility. Likewise, the fraction of each cohort receiving a bequest and the ratio of lifetime transfers to bequests seem in rough agreement with survey evidence. The drawbacks of this interpretation are that private intergenerational transfers contribute surprisingly little to overall wealth inequality, and the simulated degree of inequality falls far short of empirically observed levels.

Under the second interpretation, between 5 and 10 percent of households are altruistic. This

interpretation matches the actual distribution of wealth more closely and yields the best fit with empirical evidence, but the incidence of inheritance is smaller than surveys show. However, survey data may register the effects of accidental bequests that are not modeled in this analysis. Another problem with this interpretation is that when the fraction of altruistic parents is 10 percent, the average simulated bequest for altruistic families is unrealistically large (about \$1.5 million).

After the model was calibrated, simulations were run of the steady-state wealth distribution in the absence of the federal gift and estate tax. Under the first interpretation, changes in the steady-state capital intensity are small and wealth inequality increases only slightly. Under the second, eliminating the tax causes the equilibrium capital-to-output ratio to rise by 2 to 6 percent, and wealth inequality to rise much more substantially, especially in the upper tail of the distribution. The share of wealth held by the top 1 percent of families rises 20 to 45 percent. In view of the possibly tremendous effects on inequality, if the motive for reducing estate taxes is to increase national wealth accumulation, other options may be preferable, such as lowering the national debt or reforming the social security system, which may achieve the objective without causing such a large increase in inequality.

PIERRE PESTIEAU

Capital Income Taxation in an Overlapping Generations Model

The inheritance tax, especially in Europe, collects very little revenue because it can be easily avoided. Citizens are so good at hiding bequests from the authorities that some have called the inheritance tax a "voluntary tax" or a "tax on sudden death." Capital taxation is a farce in Europe, because withholding

tax applies only to residents, making every European country a tax haven for every other European country. Some economists argue against a capital tax, saying that redistribution can be accomplished with income taxes only and there is no need to supplement it, but this conjecture applies only under certain conditions.

An overlapping generations model with five stylized facts addresses the theoretical cases for and against the capital tax. First, bequests are not sufficiently observable to be taxed. Second, capital income can be taxed, but only on an anonymous basis through withholding. Third, bequests are made for altruistic reasons; parents want to leave something behind for their children. Fourth, there is a gap between the amount parents set aside for their children and the amount their children actually inherit. Fifth, there is a correlation between inheritance and earning ability.

Two unobservable characteristics are used to distinguish between individuals: ability (people are either skilled or unskilled) and inherited wealth (each individual starts with a given inherited endowment). Individuals work for a chosen amount of time at a given level of productivity. Individuals' effective labor supply is the product of their work time and their productivity. Each individual decides how much to consume and to save. Saving is devoted either to consumption at a later date or to bequests, that is, to "bequest technology." Parents are unsure what the value of the funds they set aside will actually amount to when their children receive it because of stochastic uncertainty. Therefore, parents attempt to leave enough bequest technology for their heirs to receive a high endowment.

Citizens' utility is a function of consumption now, consumption later, the bequest, and labor supply. Production plus the endowment is divided between investment, consumption, and saving, with saving devoted to the public debt and the stock of capital. The objective of public debt is to achieve the right amount of investment.

The government is motivated by the desire to increase wealth and to equalize consumption. If all ability and inherited endowments were perfectly observable, the government would tax both at 100 percent and achieve complete equality. Therefore, any results (other than complete equality) in this model stem from unobservable information. The instruments available to the government are taxes on labor and capital, which is constrained by the resource limitations (its budget constraint) and the self-selection constraint, according to which high-productivity workers mimic low-productivity workers to avoid paying taxes. The government observes gross earnings, but not how much people work or their productivity. A given income level, then, may be associated with few hours worked and high productivity or many hours worked and low productivity.

Government also does not observe saving. The government can tax saving, but only anonymously, and cannot tax bequests because they are unobservable. However, it can tax capital income through withholding as an indirect way of taxing the initial endowment a person receives from inheritance, because people with larger unobservable inheritances save more than do other people and will therefore receive more capital income. However, the government also has a motivation for subsidizing capital income. Bequest technology, because it is invested, creates wealth. That is, it has a positive externality and should be encouraged. Thus, the government has two divergent motivations to tax or subsidize bequest technology.

The optimal tax on capital may be either positive or negative depending on what information is available to the government. If initial inherited endowments were observable, it would tax endowments at a rate of 100 percent and not need to tax capital income. In fact, government would be motivated to subsidize capital income because of the positive externality effects stemming from wealth creation. This model makes a case for capital

subsidization, but only under the extreme assumption that inheritance is observable. If, however, there is a high correlation between the inherited endowment and productivity and inheritance is unobservable, the optimal tax on capital is large and positive.

JAMES POTERBA
DISCUSSANT

The two papers presented in this session are directed at very pragmatic questions about estate taxes and include important insights that would prove valuable to members of Congress debating this issue. Laitner's paper tried to quantify the tradeoff between the increase in the capital stock and the increase in inequality that might follow from a reduction in the estate tax. Pestieau takes the view of a social planner trying to achieve an equal distribution of consumption and shows that if bequests are not fully observable, the planner may use some other tax as a second best way of trying to get the bequest even if some other distortions are associated with that tax.

Recent conceptual work on the estate tax has produced different models that give different predictions. The solution is to boil them down to calibrated examples and see how they work, which is what Laitner does. The calibration exercise tries to match both the wealth distribution and the motivation for intergenerational transfers within the U.S. economy. Because two things are matched, it is not surprising that multiple parameter combinations work. Unfortunately, different combinations imply different things about the effects of changes in tax laws. This result is a call for future research to pin this down, and Laitner's method provides a road map of how to go forward.

Laitner finds that if there are a small fraction of altruists, the wealth distribution can be matched well, but the bequest pattern is unrealistic (too few

people leaving extremely large bequests). The alternative—with everyone altruistic—results in a match of the bequest pattern (about 35 percent of the population leaving bequests), but the distribution of wealth is unrealistically equal. There is no way for the model to match both parameters simultaneously. Adding to the model nonaltruistic motivations for leaving bequests—such as unexpected bequests or the joy of giving—might solve the calibration problem. Accidental bequests may turn out to have a significant effect on the wealth distribution and on the consequence of changes in the estate tax.

The estate tax may affect not only saving behavior and wealth accumulation, but labor supply; this effect could easily be incorporated into Laitner's model. Moreover, substituting an income tax that raises the same amount of revenue in order to examine a revenue-neutral change in government policy creates the possibility that some of the model's results follow not from the change in the estate tax but from the change in the income tax, an effect that creates distortions. A nondistortionary lump-sum tax might instead be used to isolate the effects of a change in the estate tax. The model is already of a steady state that tells where the economy is going in 50 or 100 years; Laitner might also investigate the transition path, a factor that will be more useful to policymakers interested in the short- and medium-term effects of changing the estate tax.

Pestieau's paper torpedoes the results of those who make the case that the income tax alone is optimal and enough for redistribution. Much of optimal tax literature relies on assumptions about what the government can and cannot observe; in this paper the government observes labor income, but not the wage rate. If it did know the wage rate, it could make those with a higher wage—rather than those with a higher income—pay more. Government also does not observe bequests or an individual's capital income. It does, however, observe the amount of capital income paid out by banks; it can therefore tax all capital income at a flat rate.

The paper also assumes that government can use its debt policy to affect the level of capital investment. If this is indeed possible, a host of reasons for estate and capital tax policy disappear. The government can undo any effect on the size of the capital stock caused by its capital tax policy. Laitner's paper focuses closely on the tradeoff between the level of capital stock and the degree of inequality, because he does not allow the government to use its debt policy to counteract the capital stock effects of its tax policies. Seemingly small differences in assumptions between the two papers make for very large differences in results.

There are two important questions to focus on when evaluating a paper on an optimal tax. First, has the analytic work been done correctly? In this case it has. Second, are the assumptions about what the government does and does not know plausible? It might be reasonable to reevaluate the assumption that the government can observe capital income at an aggregate but not an individual level, which is realistic in some countries but not in others. If the government could observe individual capital income, they could tax it at a progressive rate. How would this affect the outcome of the model? Furthermore, is it reasonable to assume that bequests are not observable? Large financial transfers certainly are observable, but other methods of transferring wealth are not. If the government taxed the observable transfers, this would certainly encourage people to shift their wealth into unobservable forms; therefore, it is reasonable to say that bequests are not sufficiently observable to be easily taxed.

There is growing recognition that this area of economic theory delivers ambiguous results, not just about some of the details, but basic issues such as why people leave transfers and how people will respond to changes in estate tax laws. These two papers represent a substantial advance in the economic analysis of those questions.

Sources, Inter Vivos Transfers, and Psychological Aspects of Wealth Accumulation

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F. THOMAS JUSTER AND JOSEPH P. LUPTON

*Introduction to Saving and Wealth:
Then and Now*

During the 1960s and the 1990s income growth was strong, but the growth of household wealth was stronger, and, therefore, relatively higher than income. By contrast, during the 1970s and 1980s income stagnated, resulting in wealth's being relatively lower than income. In the 1960s private saving rates were high, which, in part, provided resources for investment and growth; starting in the mid 1980s and continuing to the present day, however, private saving declined sharply. Why is the economy doing so well despite the fall in saving? The explanation lies in large swings in wealth accumulation through capital gains and losses. The magnitude of recent price fluctuations in some key household assets raises important questions about the interrelationship of capital appreciation and desired household saving.

According to trends in the structure of household saving and wealth, equity markets in the United States experienced dramatic fluctuation from the 1960s to the mid 1990s. During the economic doldrums of the 1970s and early 1980s, corporate equity fell to only 8 percent of household net worth from a high of 25 percent in the 1960s. Balance sheet data show that by the late 1990s, corporate equity again approached or exceeded 25 percent of net worth.

Aggregate measures of saving rates and ratios of wealth to disposable household income (with saving rates based on National Income and Product Accounts-defined personal saving rates and mean

household wealth derived from the Federal Reserve flow of funds accounts) and microeconomic household data (from the Panel Study of Income Dynamics, Consumer Debt Panel, and Survey of Financial Characteristics of Consumers) can be used to provide a description of the basic structure of wealth across households and the manner in which that structure has changed over the last four decades. Estimates of multivariate microeconomic models of household saving can highlight the impact of capital gains on active saving.

Capital gains, especially in corporate equity, have helped to preserve wealth levels in recent years in spite of the collapse of household saving rates. In fact, the rapidly declining rates of household saving since 1983 appear to be in large part a consequence of the high levels of capital gains posted in corporate equity markets. However, wealth increases derived from capital gains have been far from uniform, with two significant structural changes having taken place in the ratio of wealth to income. The already steep age-to-wealth gradient has become much more precipitous as the result of falling wealth levels among the young and rising levels among the more mature. Similarly, wealth-to-income ratios declined among the less educated, but rose among those with more schooling. Although rising rates of capital gains can offer an explanation for the latter finding, this factor has little to say about the former.

Although changing age and family formation distributions of the American population acted to significantly reduce aggregate household wealth while rising education levels increased it, the puzzle of increasing household wealth in the face of historically low saving rates seems best solved by noting the tremendous rise in capital gains during the past two decades. These large increases in stock equities as a share of household wealth imply that household wealth has become more volatile and may have implications for business cycle behavior: future swings in the stock market may have a larger impact on consumer behavior than they have in the past.

RICHARD V. BURKHAUSER

DISCUSSANT

Juster and Lupton's paper focuses on the saving rate, an important policy indicator (i.e., a practical measure of an important policy concept). Researchers should be wary of policy indicators, even on critical issues, as neither their definitions nor the concepts behind them are always clear. A practical measure of an important concept is often difficult to define and sensitive to assumptions. Rates of poverty and inflation, for example, are important policy indicators, but their definitions are quite controversial.

There are many reasons to focus on the saving rate, including its effects on aggregate wealth, the adequacy of an individual's wealth to meet emergencies, or growth in capital stock. It is not clear which of these concepts are critical to this paper; the authors seem to be most concerned about saving having been a good predictor of changes in aggregate wealth and the wealth-to-income ratio in the past, but not lately. Saving has fallen substantially since 1984, but at the same time wealth has risen. Juster and Lupton attempt to explain why.

One explanation may be composition effects, and so the authors examine changes in the age structure, education, initial wealth, and household size. Wealth, a measure of household well-being, is measured in the United States without taking into account family size as do other measures of household well-being, such as income. The real value of wealth to individuals and households is therefore greatly overstated. After accounting for these changes, the authors conclude that they do not suffice as an explanation for why the saving rate is now inversely related to wealth.

Another potential explanation is that the portion of wealth now being held in pensions and stocks has increased dramatically since the 1980s. This matters, because saving is often measured using cross-sectional data as a residual of income flows minus expenditures. If realized or unrealized

returns to capital gains from stocks and pensions are not included in the income flows, the statistics do not count it as income, and therefore the residual they call saving is too small. Juster and Lupton use data from the Panel Study of Income Dynamics (PSID) to examine whether changes in capital gains have in fact affected what they call "active saving," saving not out of capital gains. The PSID captures financial and housing wealth but not social security and pensions, substantial portions of wealth for some income groups. The authors find that there have been major increases in wealth minus pensions by age cohorts and a large percentage change in wealth due to "passive saving," their term for capital gains, especially for older and higher-income groups.

Using a fixed effects model controlling for age, marital status, net transfers, inheritance, and capital gains in both stocks and housing, the authors find that for every dollar increase in stocks an individual reduces active saving by 17 cents, and that this explains virtually all of the decline in the saving rate. But they also believe that 17 cents is too high to be realistic. There was a substantial increase in the stock market in the 1960s, but no similar pattern in active saving, something not easily explained if capital gains are the causal factor. Part of the explanation could be that capital gains taxes were much lower in the 1990s than they were in the 1960s. Although the magnitude of the effect is unrealistically large, this paper will force researchers to think about what they are trying to measure with the saving rate.

STEFAN HOCHGUERTEL
AND HENRY OHLSSON

Inter Vivos Gifts: Compensatory or Equal Sharing?

There are many reasons within economics for studying the motives for transfers such as gifts and bequests. In the field of macroeconomics, the question arises as to whether recording equivalents is a good description of reality. Within the distribution of wealth and income, it comes up in discussions about equality of opportunity. Transfer motives are also important to discussions of saving behavior; in public economics, they can be important to figuring out and designing an optimal tax system.

The literature proposes differing theories about transfer motives—the altruistic model, the egoistic model, and the exchange model—which share the prediction that if parents' resources increase, more money will be transferred. If a child becomes wealthy, the altruistic model predicts a resulting reduction in subsequent parental transfers, the egoistic model that a child's resources have no effect on parental transfers, and the exchange model that the effect is ambiguous. If parental demand for services by the child is very elastic (that is, if the child's resources increase, he or she will charge a higher price for services to parents), the data can be examined to estimate the effects of the child's own resources on gifts and thereby which competing model provides the best description.

Most data focus on parental transfers. Child-level data, however, yield more data points and allow use of different panel data methods. Using panel data with dimensions defined as family and children (rather than households over time) allows the use of methods that are easily applicable to the kinds of effects in question. Controlling for fixed family effects, comparisons can be made between children from the same family (to see how their exogenous variables differ) and between gifts.

Data for this study were drawn from the Health and Retirement Study of U.S. parents born between 1931 and 1941, which includes 7,000 families and 25,000 children (the 1992 and 1994 waves). The results for each wave are similar: 37 percent of parents in the 1992 wave gave children gifts, with 5 percent bestowing the same amount to all children and 95 percent making unequal gifts. At a family level, the amounts given decrease as the number of children rises. Among the families in which parents gave equal amounts, the total (family-level) gift was higher than the total among other families. Parents who gave gifts were wealthier than those who did not give gifts. Parents who gave the same amount to each child were wealthier than those who gave unequal shares.

A family-level probit estimate using 6,000 families to find whether gifts are given showed most parameter estimates to be insignificant. Coefficients were significant when child-level rather than parent-level data were used. A child's earnings and time worked were both negatively related to the level of gifts received, while wealth of the parent was positively related to the probability of making a transfer to a child. Natural children were more likely to receive gifts than were adopted children.

A fixed effect ordinary least squares model estimated for 2,000 families in which parents made transfers to more than 6,000 children indicated the same types of results. So did a random effects model. Because gifts during any one year might be a bad measure of those made over a longer period, the two weights were then added together. The qualitative results remained the same.

In conclusion, the empirical results suggest that gifts are compensatory, which is consistent with the predictions of the altruist model.

JAY L. ZAGORSKY

Do Husbands and Wives Have Similar Views of the Family's Wealth and Income?

The topic of husbands' and wives' views of the family's income and wealth is not one with an extensive supporting literature, primarily because of a lack of data. It is possible, however, to compare spouses using the National Longitudinal Survey (NLS), which includes responses by both husbands and wives, who are interviewed independently. This allows individuals' responses to be relinked as married couples, and their survey answers compared.

This research is important for several reasons. Among young baby boomer women, finances rank first or second among reasons for disagreement with spouses or partners; this research could be used to try to understand the reasons for divorce or marital separation. Although husbands' and wives' values of assets may be reasonable, they often are distinct; the research could be used to understand why the sexes have different risk tolerances and investing patterns. Many researchers use the March Current Population Survey to calculate U.S. income, although almost two-thirds of the responses are provided by women. If women report different values than men, national income estimates made from data in the March CPS will be biased.

Five different NLS surveys were used in this study. The mature men and mature women surveys were begun in the mid 1960s, with the mature men survey capped in the 1990s. The NLSY surveys a group who were teenagers in the mid 1960s, with the young men survey capped in the early 1980s and the young women continuing today; the NLSY 1979 was also used in order to include a group who were teenagers at the very end of the 1970s. Overall, this study used data from five cohorts—33,000 individuals recorded in 82 separate surveys over 40 years—to examine the actions of approximately 1,000 couples (2,000 individuals). Income and wealth

variables were created and compared over time in order to make intrafamily comparisons.

Although the NLS is a nationally representative survey, when particular couples from a particular cohort were pulled for examination, the resulting sample was not necessarily representative of the nation as a whole. Among this group, whites were slightly overrepresented, wives had slightly more education, men were eight years older than women, and couples were married longer than the average (and therefore could be expected to have a good idea of their spouses' personalities and asset holdings). If this group produces poor comparative estimates about their spouses, the estimates of couples who have been together a shorter time or who have lower levels of income and wealth cannot be expected to be much better.

Total incomes for husbands and wives were calculated by adding forms of income contained in the NLS, while net wealth was measured as the sum of all assets less debt. (All figures were adjusted to 1998 dollars.) Values were included only for those couples who both participated in the survey during any given year, and who remained married. (In the case of divorce, responses were excluded for the post-divorce years.)

Among "middle class" couples, that is, those having an annual income of about \$40,000 per year (in 1998 dollars), half included at least one partner who responded with family income values more than \$5,000 different from those stated by the spouse. Half of all couples also responded with family income values that differed by at least 10 percent (of actual family income) from those of the spouse, and a quarter differed by 25 percent. Even more disparate were views of levels of family wealth. Half of all couples responded with net wealth values that were more than \$10,000 above or below the figure given by their spouses. Half of these gave net wealth values that differed by 25 percent from their spouses' estimates, and a third gave responses that differed by 50 percent.

In about 37 percent of households, husbands' responses about income were higher—on average, between \$1,000 and \$2,000 (roughly 5 percent). Net wealth estimates were equally high, although mean differences were much larger (roughly 10 percent higher). About 44 percent of wives provided a higher net wealth figure than did their husbands, averaging about \$2,000 more. Among those households in which the husband's response was higher, the figure averaged about \$6,500 more than the response given by his wife.

Regression results show that for the NLSY 1979 (young baby boomer) cohort, husbands' responses about income averaged around 22 percent above those of their wives; among young men and women (teenagers in the 1960s), husbands' responses were about 25 percent higher; among the mature cohort, husbands responded with income levels about 8 percent higher than their wives'. The results of the regressions on wealth data show that among the NLSY 1979 cohort, husbands' responses exceeded those of their wives by 54 percent and among the young men and women, by 35 percent; among the mature cohort, husbands' responses exceeded those of their wives by 32 percent.

Why do the responses of men and women differ? Results from the NLSY 1979 indicate that spouses tend to underreport the income of their partners and overestimate their own. Responses about wealth indicate that husbands have higher estimates for the value of family assets, while wives have higher estimates for the value of family debt.

Questions remaining to be explored include whether these differences will have any effect on the real economy, and whether differences are driven by family factors, such as education levels or amount of time married.

JOHN SCHMITT DISCUSSANT

The Hochguertel and Ohlsson paper uses a new (with respect to this topic) and rich data set from the HRS to confirm the finding that inter vivos gifts tend to be compensatory. Of particular interest is that the HRS allows children to be the unit of observation. The paper provides a good description of the different motives for providing inter vivos gifts, establishing that parental resources in all of the models discussed are associated with higher gifts to children. The key point is that the altruistic model predicts that a child's resources should be negatively associated with gifts received, and positively associated with gifts to the siblings, whereas the egoistic model makes no prediction. These theories are convincingly quantified.

This data set could, however, be used to push their findings a bit further. For example, it could shed light on the difference between inter vivos gifts and bequests. One reason they are different may be the time that they are made; parents may feel that while they are alive, they can manage their children's lives through gift-giving, but the best solution at death is to divide their estate equally. Another interesting facet of the HRS data set is that it provides some information about peoples' health status, which may determine the extent to which they are more likely to provide equal than compensatory gifts. Another possibility is an institutional explanation for the difference between compensatory inter vivos gifts and bequests: coming into contact with the legal system, which this process entails, could lead people to divide their estates more equally because it is easier in a legal sense. The data set also has information on whether the person leaving a bequest has made a will. Such information could be used to explore whether this makes a person more likely to give equal gifts in inter vivos transfers.

One troubling aspect of the results, acknowledged in the paper, is the absence from the estimates of schooling, a variable likely to be important to inter

vivos gifts for the vast majority of people. A second issue involves basic specifications, such as whether the child is a male or female. It would be interesting to confirm that children are treated independently of their gender. (Admittedly, this might have been included in the original regressions and later dropped, but other insignificant variables are included, which makes it appear that the gender variable was not.) The differences between the version of the paper that uses just the 1992 data and the version that uses data from both 1992 and 1994 are somewhat worrying. The income variables emphasized are exactly the same, but the effects of other variables that normally are thought to be associated with a child's abilities to gain financial resources switch from one version of the paper to the next.

Zagorsky's regression results decompose the differences between husbands and wives, but only in an accounting sense, and there is no discussion about why these differences exist or what might be associated with them. It would be interesting to look at regressions that try to explain the differences in a more mechanical, and less an accounting manner. Do people's ages matter? Does the difference between spouses' ages? Does education, or the differences in a couple's education? This information might be used to develop specific guidelines for adjusting data reported by spouses, a great potential service. Even knowing some multipliers that might be used in these contexts would be helpful.

The paper begins with a discussion of the potential importance of male-female differences in many fields (not only those in economics). It would be interesting to use this paper and the panel component to try to predict how many people who have disagreements over monetary issues actually end up divorcing in later years. Another question is whether differences narrow or widen over time: do couples learn, or as their financial situation gets more complicated, do the differences actually increase? This might be estimated as a panel, but could also be done via a cross-section by looking at some of these characteristics.

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Top, left to right: Lisa A. Keister, Ngina Chiteji
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