INTERNATIONAL COMPARISONS OF WEALTH INEQUALITY

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This study presents reasonably comparable estimates of the size distribution of household or personal wealth for eight OECD countries—Australia, Canada, France, Germany, Japan, Sweden, the United Kingdom, and the United States. In the mid-1980s, the U.S. ranked as the most unequal and Japan the least, while the other six countries had roughly comparable levels of wealth inequality. Moreover, while wealth inequality rose sharply in the U.S. during the 1980s, it increased modestly in Sweden and showed little change or a slight decline in Canada, France, and the U.K. A comparison of time trends for the U.K. and the U.S. suggests that the relatively high wealth inequality in the U.S. in the 1980s represents a marked turnaround from the 1950s, when the U.S. was considerably more equal in terms of wealth ownership than the U.K. Comparative results for the two countries hold for both conventional (marketable) wealth and for augmented wealth, which includes a valuation of public and private pension wealth.

1. INTRODUCTION

There is now a well-established literature on international comparisons of the size distribution of family income. Most of the more recent studies are based on the Luxembourg Income Study (LIS). This project has collected household microdatabases from a number of countries, particularly those in the OECD, and has standardized the income concept, sampling frame, and unit of analysis in order to produce comparable estimates of the size distribution of income (see, for example, Buhmann, Rainwater, Schmaus, and Smeeding, 1988; O'Higgins, Schmaus, and Stephenson, 1989; and Atkinson, Rainwater, and Smeeding, 1995).

In this paper, I present international comparisons of the size distribution of personal wealth. It should be noted at the outset that there is no comparable project to the LIS for household wealth and I have not attempted to replicate its work. However, I have tried to match estimates from different countries on the basis of similar data sources. It should be stressed that estimates of personal wealth inequality are very sensitive to the choice of data source, definition of wealth, accounting conventions, unit of analysis, and the sampling frame, particularly the degree of stratification on high income families or persons (see Wolff, 1991, for a discussion of some of the methodological difficulties encountered when comparing wealth data from different sources). As a result, the international comparisons of household wealth inequality presented here must be treated with some caution.

Four conclusions emerge from this study. First, wealth inequality in the U.S. rose sharply between the late 1970s and the late 1980s, though it declined somewhat during the early 1990s. Though income inequality also rose during the 1980s in the U.S., its rise has not been nearly as steep (see, for example, U.S. Bureau of the Census, 1993). Second, the rise in wealth inequality during the 1980s is not general among industrialized countries (at least among those for which the requisite data are available). For some countries, wealth inequality remained stable over this period or in one case, even fell. Similar findings have been reported for income inequality (see, for example, Atkinson, Rainwater, and Smeeding, 1995).

Third, the evidence we do have indicates that in the 1980s the U.S. ranked as the most unequal country in terms of wealth inequality in comparison with other OECD countries with comparable data. This finding again holds for income inequality (again see Atkinson, Rainwater, and Smeeding, 1995). Fourth, the relatively high wealth inequality in the U.S. today appears to be a marked turnaround from the early part of the postwar period (the 1950s), when the U.S. appeared more equal in terms of wealth ownership than the U.K. It also contrasts with the early 1970s when wealth inequality in the U.S. was comparable with levels in other industrialized countries.

The remainder of the paper is divided into four parts. The first (Part 2) introduces the two concepts of personal wealth used in this study. Part 3 considers long-term time trends in the concentration of household wealth for three countries—Sweden, the U.K., and the U.S. Part 4 investigates more recent trends for Canada and France, in addition to Sweden, the U.K., and the U.S. Part 4 presents some direct comparisons of wealth inequality among these five countries, as well as Australia, Germany, and Japan. Concluding remarks are made in the last part.

2. DEFINITION OF WEALTH

I use two concepts of wealth in this study. I define marketable wealth (or net worth), as the current value of all marketable assets less the current value of debts. Total assets include: (1) the gross value of owner-occupied housing; (2) other real estate; (3) consumer durables; (4) cash and demand deposits; (5) time and savings deposits, certificates of deposit, and money market accounts; (6) government bonds, corporate bonds, foreign bonds, and other financial securities; (7) the cash surrender value of life insurance plans; (8) the cash surrender value of defined contribution pension plans, including IRAs, Keogh plans, and 401(k) plans in the case of the U.S.; (9) corporate stock, including mutual funds; (10) equity in unincorporated businesses; and (11) equity in trust funds. Total liabilities are the sum of: (1) mortgage debt, (2) consumer debt, and (3) other debt.

The second concept used here is augmented wealth, defined as the sum of marketable wealth, pension wealth, and social security wealth.[1] Pension wealth is defined as the present value of discounted future pension benefits. Social security wealth is defined in similar fashion (see Wolff, 1992, for discussion of some of the methodological issues involved in the measurement of retirement wealth). One

[1]Technically, pension cash surrender value is then subtracted from this total, since it is already included in the calculation of marketable wealth.

of the major developments in the postwar period among industrialized countries has been the enormous growth in both public and private pension systems. Even though such pension funds are not in the direct control of individuals or families, they are a source of future income to families and thus may be perceived as a form of family wealth. The U.K. Board of Inland Revenue produces an official series of personal wealth concentration which includes a valuation of both public and private pension rights.

3. LONG-TERM TIME TRENDS IN HOUSEHOLD WEALTH INEQUALITY

A. Trends in the United States

A consistent series of estate tax data on individual wealth holdings are available for the U.S. for selected years between 1922 and 1981. Household survey data are also available for seven years: 1962 from the Survey of Financial Characteristics of Consumers (SFCC); 1969 from the MESP database: 1979 from the Income Survey and Development Program (ISDP); 1983, 1986, 1989, and 1992 from the Survey of Consumer Finances (SCF). In Table 1 I join the estimates from the various sources into a single series for the U.S. covering the period from 1922 to 1992.

Lampman (1962) constructed the first series on the share of wealth owned by the richest wealth holders, which covered the period 1922–53. Smith (1984, 1987) provided another series for the period from 1953 to 1976. The two series, unfortunately, used somewhat different accounting conventions. For example, in Smith's series, pensions are valued at their cash surrender value and trusts at their actuarial value, while Lampman used a wealth measure that included the full value of both pensions and trusts. Another difference is that Lampman's concentration figures are based on estimates of aggregate household wealth prepared by Goldsmith (1962), while Smith's series is based on aggregate data from Ruggles and Ruggles (1982).

Wolff and Marley (1989) constructed new estimates for the 1922–81 period on the basis of the Lampman and Smith series. The Wolff–Marley study used consistent aggregate household balance sheet totals for the whole time period. It also standardized the treatment of pensions and trusts, as well as life insurance valuation. An additional data point was added to the series for 1981, on the basis of estate tax data compiled by Schwartz (1983).

The first column of Table 1 shows the resulting Wolff–Marley series for the share of total assets held by the top one percent of asset owners and the second column for the share of net worth owned by the top one percent of wealthholders. The wealth concept used here is marketable wealth. Concentration figures are slightly higher based on net worth than total assets, since the relative indebtedness (the debt-equity ratio) is higher for poorer individuals than richer ones (see, for example, Wolff, 1994).

Column 3 of Table 1 shows the estimates of the share of total assets owned by the top one percent of households. Estate files record wealth for the individual (decedent) while the more interesting unit for welfare analysis is the household. Moreover, the increased tendency to divide wealth equally between household

TABLE 1

PERCENTAGE SHARE OF TOTAL HOUSEHOLD WEALTH HELD BY THE RICHEST ONE PERCENT OF WEALTHHOLDERS IN THE U.S., 1922–89

	Marketable Household Wealth					New Series Households	
	Wolff–Marley Series[a]			Other Sources[b]			
	Individuals		Households	Households			
Year	Total Assets	Net Worth	Total Assets	Total Assets	Net Worth	Marketable Wealth	Augmented Wealth[c]
1922	34.0		25.5			36.7	34.3
1929	37.2		30.7			44.2	41.1
1933	31.3					33.3	28.7
1939	38.1		25.3			36.4	30.2
1945	28.9		20.7			29.8	22.0
1949	25.7		18.8			27.1	20.7
1953	28.1	28.4	21.7			31.2	23.1
1958	27.0	27.7	20.0			28.8	20.4
1962	30.1	31.1	22.1	29.9	31.8	31.8	21.9
1965	31.9	33.6	23.9			34.4	23.3
1969	29.0	30.2	21.6		30.8	31.1	20.9
1972	28.6	29.8	20.2			29.1	19.0
1976	18.9	19.1	12.7			19.9	13.3
1979					20.5	20.5	12.9
1981	23.6					24.8	15.5
1983					30.9	30.9	19.0
1986					31.9	31.9	19.3
1989					35.7	35.7	21.2
1992					34.0	34.0	19.8

[a]Wolff and Marley (1989), Tables 5, 6, 7, and 8. The results are based on the W2 series. Figures on the share of assets owned by the top one percent of households (column 3) are lower bound estimates.

[b]1962 from the Survey of Financial Characteristics of Consumers (SFCC); 1979 from Radner and Vaughan (1987), based on the Income Survey and Development Program (ISDP), where the share of wealth of the top one percent of households is estimated using a Pareto distribution; and 1983, 1986, 1989, and 1992 from the Survey of Consumer Finances (SCF).

[c]Wolff and Marley (1989), Table 6. The results are based on the W4 series, where W4 is defined as W2 plus the total value of pension reserves less the cash surrender value of pensions (which is included in W2) plus the expected present value of future social security benefits.

members will reduce the individual estate concentration estimates without changing household wealth concentration. In order to change the estate data to a household base, certain assumptions are required about the division of wealth within households. The series shown in Column 3 of Table 1 is based upon the set of assumptions which yielded the smallest concentration estimates (see Wolff and Marley, 1989, for details). A comparison of Columns 1 and 3 indicates that concentration figures are considerably lower on the basis of the household unit than the individual unit. This is to be expected since a married couple typically mixes a relatively high wealth spouse with a relatively less wealthy one.

Estimates from household survey data are shown in the next two columns. Four sources—the 1962 SFCC, the 1983 SCF, the 1989 SCF, and the 1992 SCF—were conducted under the auspices of the Federal Reserve Board, and each sample includes a high-income supplement. Imputations were performed for missing values, and I have aligned each sample to the national balance sheet totals for

that year to ensure greater consistency (see Wolff, 1987a, Wolff, 1994, and Wolff, 1996, for details).

The 1969 figure is derived from the MESP file, a synthetic database which is also fully aligned to the national balance sheet totals of that year (see Wolff, 1980 and 1983 for details). The 1979 figure is based on the Radner and Vaughan (1987) calculations from the 1979 ISDP, which I have then benchmarked to my 1969 figure on the basis of a Pareto interpolation. Estimates are also available from the 1986 SCF, which re-surveyed the families included in the 1983 SCF sample. Though there was a substantial "drop-out rate" among the survey respondents, Avery and Kennickell (1993) does provide some comparative estimates of wealth concentration in the two years. The seven figures shown in Column 5 of Table 1 are all relatively consistent.

To combine Column 5 with the Wolff–Marley series, an overlapping year is necessary. Fortunately, two such "Rosetta stones" are provided, for 1962 and 1969. A comparison of Columns 3 and 4 for 1962 reveals that the share of total assets owned by the top one percent of *households* is estimated to be considerably higher on the basis of the SFCC (29.9 percent) than the estate tax series (22.1 percent). One possible reason for this difference is the conservative assumption used in converting the estate data to a household base. If it was, instead, assumed that all married men in the estate sample of top wealthholders had married women with comparable wealth, the concentration estimates would have been higher, but not enough to account for the difference (see Wolff and Marley, 1989, Appendix II for details). Another likely reason for the discrepancy between the estate and survey estimates is that there may be serious underreporting problems in the estate data.[2]

Column 6 of Table 1 shows the new series for the share of net worth owned by the top one percent of households from 1922 to 1992. Figures for years 1962, 1969, 1979, 1983, 1986, 1989, and 1992 are based on the survey data sources. Other years, with the exception of 1933 and 1981, are calculated as the product of Column 3 multiplied by the ratio of the 1962 SFCC figure for the share of household net worth in Column 5 (31.8 percent) and the estate tax figure for the share of household assets in Column 3 (22.1 percent)—a ratio of 1.44. A similar procedure applied to the 1969 data yields almost the same ratio (1.43), which provides some confidence in this benchmarking procedure. Figures for 1933 and 1981 are interpolated on the basis of Column 1.

The estimates of the "New Series" in Column 6 show a substantial increase in the share of total household wealth owned by the top percentile between 1922 and 1929, from 37 to 44 percent (also see Figure 1). There was a sizable drop in inequality during the early part of the Great Depression, with the share of the richest one percent falling to 33 percent in 1933, but by 1939 wealth concentration was at almost exactly the same level as in 1922. However, between 1939 and 1949 wealth inequality declined again, and the share of the top percentile fell to 27 percent.

[2]Perhaps, somewhat coincidentally, the share of total assets and net worth owned by the top one percent of *households* in 1962 computed on the basis of the SFCC lines up almost exactly with the share of total assets and net worth, respectively, owned by the top one percent of *individuals* on the basis of the estate tax data. The same relation holds for 1969.

This was followed by a gradual upward trend in concentration, reaching a peak of 34 percent in 1965 and then a pronounced fall in wealth inequality lasting until 1976. Between 1965 and 1972, the share of the top percentile fell from 34 to 29 percent and between 1972 and 1976 it declined even more dramatically, to 20 percent.[3] The main reason for the fall off in concentration over the later four years is apparently the sharp drop in the value of corporate stock held by the top wealthholders. The total value of corporate stock owned by the richest one percent fell from $491 billion in 1972 to $297 billion in 1976 (see Smith, 1987). Moreover, this decline appears to be attributable to the steep decline in share prices, rather than a divestiture of stock holdings.

Wealth inequality appears to have bottomed out some time during the late 1970s. A substantial increase in wealth concentration occurred between 1979 and 1989, with the share of the top one percent rising from 21 to 36 percent.[4] However, in the early 1990s there was a slight remission in wealth inequality, with the share of the top percentile falling to 34 percent in 1992.

Retirement Wealth. The last column of Table 1 shows the "New Series" for the share of total augmented household wealth owned by the top one percent of wealthholders (as ranked by augmented wealth). A similar procedure is used to develop this series as for marketable wealth. The original source is the Wolff–Marley W4 series, where W4 is defined to include full pension reserves which are reported in the aggregate data sources, as well as imputations for social security wealth (see Wolff and Marley, 1989, for details). One major difficulty in constructing this series is that there is very little information available about the percentage of total pensions owned by the top wealthholders. In the Wolff–Marley paper, alternative assumptions were made about this share, ranging from a maximum of 15 percent to a minimum of 3 percent for the top one percent of wealthholders. The different assumptions had little effect on total wealth concentration. In the estimates reported for W4, it was assumed that the share of total pension wealth held by the top percentile of wealthholders declined over the twentieth century, because of the increase of pension coverage over the period.

Direct imputations of pension and social security wealth were performed for the 1962 SFCC, the 1969 MESP, the 1983 SCF, the 1989 SCF, and the 1992 SF microdata files (see Wolff, 1987b, Wolff and Marley, 1989, and Wolff, 1993, for details). These estimates were used for the New Series for augmented wealth shown in Column 7.[5] Figures for W4 from 1922 through 1976 were then benchmarked against the 1962 estimate derived from the SFCC. Other years were filled in by interpolation.

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[3]According to the original figures of Smith (1987), the share of net worth owned by the top one percent of wealthholders fell from 27.7 percent in 1972 to 19.2 percent in 1976. Schwartz (1984–85) reported a slightly higher share of net worth owned by the top percentile in 1976, 20.8 percent, and I use his figure rather than Smith's for the "New Series" in Column 6.

[4]This trend is confirmed in more recent estate tax figures. According to Schwartz (1984–85), the share of total personal wealth held by the *top 2.8 percent* of the nation's adult population was 28 percent in 1982, and, according to Schwartz and Johnson (1990), the share held by the *top 1.6 percent* of the adult population was 28.5 percent in 1986.

[5]The estimates shown here are based on the assumption that average social security benefits grow by two percent per year in real terms over time.

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The addition of pension and social security wealth has a significant effect on measured wealth inequality. Since pension and social security wealth, particularly the latter, is distributed more equally than marketable wealth, the addition of retirement wealth to marketable wealth causes measured wealth concentration to decline. In 1992, for example, while the top one percent of households, as ranked by marketable wealth, owned 34 percent of total marketable wealth, the top one percent, ranked by augmented wealth, held only 20 percent of total augmented wealth.

Both pension and social security wealth, particularly the latter, has grown over time in relation to marketable wealth. As a result, the gap in the share of the top 1 percent between the marketable wealth and the augmented wealth series widened over time, from two percentage points in 1922 to 14 percentage points in 1992. However, the time paths of the two series are very similar. Both show a substantial increase between 1922 and 1929; a large decline from 1929 to 1933 followed by an increase between 1933 and 1939; a sharp fall between 1939 and 1949; a gradual climb from 1949 to 1965; another sharp decline from 1965 to 1976; and a substantial rise between 1979 and 1989, followed by a modest decline from 1989 to 1992. The increase in the share of the top percentile between 1979 and 1992 is more muted on the basis of augmented wealth, 7 percentage points, in comparison to 13 percentage points for marketable wealth.

B. Trends in the U.K. and Sweden

There are two other countries besides the U.S. for which long-term time-series are available on household wealth inequality: the U.K. and Sweden. The most comprehensive data exist for the U.K. The data are based on estate duty (tax) returns and are available on an almost continuous basis from 1923 to 1991. Estimates are for the adult population (that is, individuals, not households).

The Swedish data are available on a rather intermittent basis from 1920 through 1992. The data are based on actual wealth tax returns. Tax return data are subject to error, like other sources of wealth data. The principal problem with tax return information is underreporting due to tax evasion and legal tax exemptions. However, some assets, such as housing and stock shares, are extremely well covered, because of legal registration requirements in Sweden. Also, the deductibility of interest payments from taxable income makes it likely that the debt information is very reliable. On the other hand, bank accounts and bonds are not subject to similar tax controls, and it is likely that their amounts are under-reported.

Figure 1 shows comparative trends among the three countries.[6] For the U.K., there was a dramatic decline in the degree of individual wealth inequality from 1923 to 1974 but little change thereafter. Based on a conventional definition of wealth

[6] The U.S. series, derived from Table 1, is based on marketable wealth for the household unit. Sources for the U.K. are: 1923–81—Atkinson, Gordon, and Harrison (1989), Table 1; 1982–91— *Inland Revenue Statistics, 1993*, Series C, Table 13.5. Results are based on marketable wealth for adult individuals. The 1982–91 Inland Revenue series is benchmarked to the 1923–81 data. Sources for Sweden are: 1920–75—Spant (1987), Tables 3.7, 3.8, and 3.11; 1975–92—Statistics Sweden (1994), Table 42. The unit is the household, and wealth is valued at market prices. The 1920–75 data are benchmarked to the Statistics Sweden series.
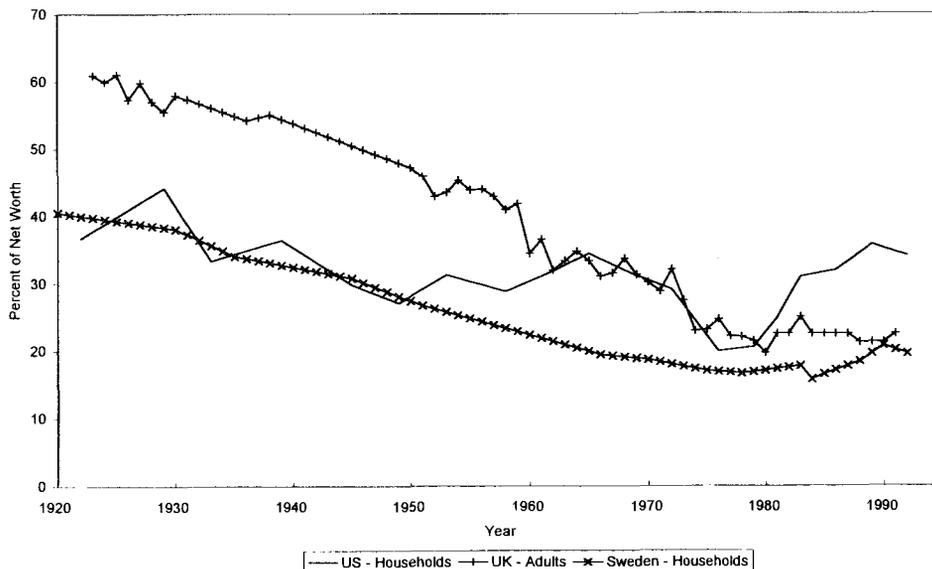
Figure 1. Share of Marketable Net Worth Held by Top One Percent of Wealthholders, 1920–92

(marketable wealth), the share of the top one percent of wealthholders fell from 61 percent in 1923 to 23 percent in 1974. However, between 1974 and 1991, there was very little net change in the concentration of personal wealth, and in 1991 the share of the top percentile was also 23 percent.

In Sweden, as in the U.K., there was a dramatic reduction in wealth inequality between 1920 and the mid-1970s. Based on the years for which data are available, the decline appears to be a continuous process between 1920 and 1975. Over this period, the share of the top percentile declined from 40 to 17 percent of total household wealth. Between 1975 and 1985, there was virtually no change in the concentration of wealth, with the share of the top percentile at 17 percent in these two years. However, between 1985 and 1992, there was a relatively pronounced increase in wealth inequality, with the share of the top percentile increasing to 20 percent, a level similar to that of the mid-1960s.

Comparisons among the three countries are rather striking. In all three countries, there was a fairly sizable reduction in wealth concentration between the early 1920s and the late 1970s, though the pattern was much more cyclical in the U.S. than in the other two countries. However, during the 1980s, the U.S. showed an extremely sharp jump in wealth inequality, whereas the trend was relatively stable in the U.K. In Sweden, wealth inequality remained relatively constant between the late 1970s and mid-1980s and then increased in the late 1980s.

4. RECENT TRENDS IN WEALTH INEQUALITY

More recent trends in household wealth inequality are highlighted in Table 2. In addition to Sweden, the U.K., and the U.S., limited time-series data are also available for Canada and France. Again, it should be stressed that the data sources

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TABLE 2

SHARE OF MARKETABLE NET WORTH HELD BY TOP PERCENTILES OF WEALTHHOLDERS
AND GINI COEFFICIENTS FOR THE SIZE DISTRIBUTION OF HOUSEHOLD WEALTH, 1970–92
(Index, Initial Year of Series = 100)

Year	Share of Top 1 Percent			Share of Top 10 percent	Gini Coefficient		
	U.S.[a]	U.K.[b]	Sweden[c]	Canada[d]	U.K.[d]	Canada[a]	France[f]
1970		100	100	100		100	
1972	100	106					
1975		77	91				100
1976	68	82			100		
1977		73		95	100	96	
1978		73	89		97		
1979	71	71			98		
1980		65			98		99
1981	85	75			98		
1983	106	83	95		98		
1984		75	84	96	97	96	
1985		75	89		989		
1986	110	75			100		100
1988		71	99				
1989	123	71					
1990		71	111				
1991		75					
1992	117		105				

[a]Table 1, New Series for Households, Marketable Wealth.

[b]1970–81: Atkinson, Gordon, and Harrison (1989), Table 1; 1982–91—*Inland Revenue Statistics, 1993*, Series C, Table 13.5. Results are for adult individuals and are derived from estate duty data. The 1982–91 Inland Revenue series is benchmarked to the 1970–81 data.

[c]1970–75: Spant (1987), Tables 3.7, 3.8, and 3.11. 1975–92: Statistics Sweden (1994), Table 42. Results are for households, with wealth valued at market prices, and are derived from wealth tax data. 1970–75 data are benchmarked to the Statistics Sweden series.

[d]Good (1990), p. 145. Results are for adult individuals and are derived from estate duty data (Series C).

[e]Davies (1993), p. 162. Results are for households, are unadjusted, and are derived from the Canadian Survey of Consumer Finances.

[f]1975 and 1980: Kessler and Masson (1987), Table 7.6. Results are for households and are derived from the 1975 and 1980 CREP (Centre de Recherche sur L'Epargne) surveys. 1986: Kessler and Wolff (1991). Results are for households and are derived from the 1986 Enquete sur les Actifs Financiers conducted by the Institut National de la Statistique et des Études Économiques (INSEE). 1992: Lollivier and Verger (1995), p. 1. Results are for households and are derived from the 1992 Enquete sur les Actifs Financiers conducted by INSEE.

differ among the countries. To emphasize this point, I have presented the time-series as an index, with the initial year of each series set to 100.

The results rather dramatically point out the difference between the U.S. experience and that of the other countries. As noted above, in the U.S. there was a very substantial increase in wealth inequality dating from the late 1970s. The degree of wealth inequality appears to have almost doubled between 1976 and 1989 and was 17 percent higher in 1992 than in 1972. In the U.K., wealth concentration showed a sizable decline between 1970 and 1975 but after this point fluctuated without a noticeable upward or downward trend. The share of the top percentile in 1991 was slightly lower than in 1975. In the case of Sweden, there was a downward trend from 1970 to 1984, which was followed by a relatively

sharp increase until 1990. In 1992, the level of wealth concentration was 5 percent greater than in 1970.

The Canadian data are derived from the (Canadian) Survey of Consumer Finances, administered by Statistics Canada. Sample sizes for the three years shown in Table 2, 1970, 1977, and 1984, are in the range of 12,000 to 14,000 households. There was no special high-income supplement added to the sampling frame, except for the 1977 survey, when an additional 184 special high income respondent families were included.

The survey results indicate that wealth inequality in Canada declined modestly between 1970 and 1977 and then remained virtually unchanged between 1977 and 1984. Thus there is no evidence of rising wealth inequality in Canada between the 1970s and mid-1980s. Moreover, even the decline between 1970 and 1977 may be due to variability in reporting error. In a comparison of total household balance sheets derived from the SCF with those from the official National Balance Sheets, Davies found that ratio of total net worth between the two sources was 59 percent in 1970, 77 percent in 1977, and 75 percent in 1984. Insofar as estimates of wealth inequality may change as national balance sheet coverage rates rise (the direction of change depends on the degree of underreporting by asset type), the measured decline in wealth inequality between 1970 and 1977 may be due to better reporting of assets in the later year.

The last column of Table 2 shows results for France for 1975, 1980, 1986, and 1992. The 1975 and 1980 figures are derived from two household surveys conducted by the CREP (Centre de Recherche sur L'Epargne); the 1986 and 1992 figures are derived from household surveys conducted by the Institut National de la Statistique et des Études Économiques (INSEE). Though the sample sizes and sample design differ between the 1975 and 1980 CREP surveys and the 1986 and 1992 INSEE surveys, it is still revealing that the results of the four surveys show virtually no difference in wealth inequality in the first three years, but a noticeable decline between 1986 and 1992.

5. DIRECT COMPARISONS OF HOUSEHOLD WEALTH INEQUALITY

As noted in the Introduction, one must be cautious in comparing household wealth data drawn from different data sources because of the sensitivity of wealth concentration estimates to definitions of household wealth, sampling frames, and units of analysis. However, it is possible to make some bilateral comparisons when attention is paid to creating conformable accounting and sampling frameworks.

A. Estate Tax Data Comparisons

I begin with comparisons derived from estate tax data in the U.S. and corresponding estate duty data for the U.K. and for France (Table 3). Concentration figures are for adult individuals and are based on the estate tax multiplier technique. It should be noted that the assets (and liabilities) subject to estate taxation differ somewhat among the three countries, as do the valuation conventions. Despite this, the results are suggestive.

The concentration of marketable wealth was much higher in the U.K. than in the U.S. during the 1950s. In 1953, for example, the top percentile owned 44

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TABLE 3

SHARE OF TOTAL HOUSEHOLD NET WORTH HELD BY RICHEST ONE PERCENT
OF INDIVIDUAL WEALTHHOLDERS DERIVED FROM ESTATE TAX (DUTY) DATA,
1953–81

	Marketable Wealth			Augmented Wealth		
Year	U.S.[a]	U.K.[b]	France[c]	U.S.[d]	U.K.[a] Series D	U.K.[e] Series E
1953	28.4	43.5				
1958	27.7	40.9				
1962	31.1	31.9				
1965	33.6	33.3				
1969	30.2	31.3				
1972	29.8	32.0		20.5	18	16
1976	19.1	24.6		13.8	18	13
1977		22.1	19.1			
1981	24.2	22.5		14.9	14	11

[a]Table 1, New Series for Households, Marketable Wealth.
[b]Atkinson, Gordon, and Harrison (1989), Table 1. Results are for adult individuals.
[c]Fouquet and Strauss-Kahn (1981).
[d]Wolff and Marley (1989), Table 6, W4. Augmented wealth includes pension reserve
wealth and social security wealth.
[e]Board of Inland Revenue (1980, 1982), Series D and E. Results are for adult
individuals. Series D includes a valuation for occupational pensions. Series E includes
a valuation for both occupational and state pensions.

percent of total wealth in Britain, compared to 28 percent in the U.S. During the
1960s, the degree of wealth inequality was comparable in the two countries, while
in both 1972 and 1976, inequality was somewhat lower in the U.S. than in the
U.K. However, in 1981 wealth concentration in the U.S. became slightly higher—
a 24.2 percent share versus a 22.5 percent share for the top percentile.

One data point is also available for France, based on estate tax data for 1977.
In 1977 wealth concentration in France was lower than in the U.K.—a 19 percent
share compared to a 22 percent share—but identical to the U.S. level in 1976.

Results are also shown for augmented wealth. Two series are shown for the
U.K. The first includes only occupational pension wealth (Series D) and the
second includes both occupational and state pension wealth (Series E). The U.S.
data are based on the Wolff–Marley W4 series, which includes a valuation based
on the expected present value of future social security benefits plus a valuation
based on pension reserves (though not the expected present value of future pension
benefits). If a W4 series was derived from the U.K. data, the estimated share of
the top one percent of wealthholders would likely lie between the shares estimated
from Series D and Series E.

The share of augmented wealth owned by the top percentile in the U.S. in
1972 was greater than the comparable shares derived from both Series D or Series
E for the U.K. In 1976, in contrast, the share of the top one percent in the U.S.
was slightly greater than Series E but considerably less than Series D for the U.K.
However, in 1981, the top percentile share in the U.S. was again greater than that
derived from both Series D or Series E.

Additional data points for augmented wealth are shown in Figure 2. In this
case, I am using the household unit for the U.S. series and adults for the U.K.
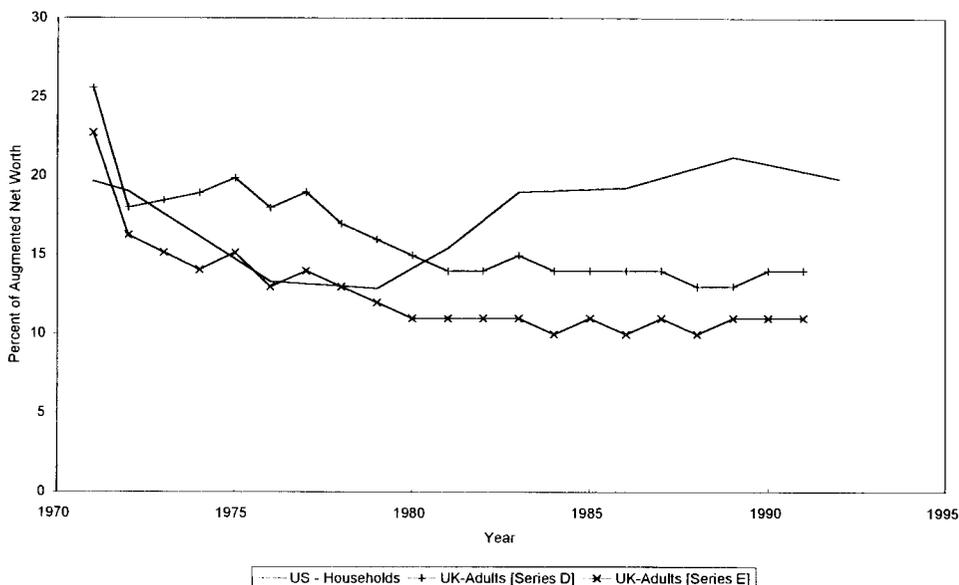
Figure 2. Share of Augmented Net Worth Held by Top One Percent of Wealthholders, 1971–92

series. Moreover, the U.S. series is based on household survey data and the U.K. series on estate duty data.[7] As noted above, in Section 3, there is a remarkably close correspondence between the share of total wealth owned by the top one percent of individuals derived from estate tax data and the share of the top one percent of households derived from survey data, at least in the case of the U.S. If this relation holds for the U.K., then the three series shown in Figure 2 may be on reasonably comparable grounds.

Figure 2 shows that the concentration of augmented wealth was considerably greater in Britain (from both Series D and Series E) than the U.S. in 1971. However, the comparative degree of inequality quickly changed in 1972, and between 1973 and 1979 the share of the top percentile in the U.S. was very close to that derived from the U.K.'s Series E and considerably below the estimated share from Series D. A second cross-over point occurred in 1981, and from 1981 through 1991 the inequality of augmented wealth in the U.S. was clearly greater than that derived from both Series D and Series E for Britain. In fact, after 1981, the share of augmented wealth held by the top percentile remained relatively constant in Britain, while it increased sharply in the U.S.

B. Comparisons Based on Household Wealth Surveys

Estimates of the size distribution of household wealth in the mid-1980s, derived from household surveys in seven OECD countries, are shown in Table

[7]The U.S. series, derived from Table 1, is based on augmented wealth for the household unit. The sources for the U.K. are: Inland Revenue Statistics, 1993, Series D, Table 13.6, and Series E, Table 13.7. Results are for adult individuals.

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4. The first panel shows comparative figures for France and the U.S., which are based on a special study to create compatible databases between the two countries. The original data in the U.S., the 1983 Survey of Consumer Finances, in particular, were modified to match the asset coverage of the French 1986 INSEE survey (see Kessler and Wolff, 1991, for details). Results are shown for gross assets (the French survey did not include any information on household debt).

The Gini coefficient for gross assets in France in 1986 was 0.71, compared to 0.77 in the U.S. in 1983. The shares of the top 1, 5, and 20 percent are also considerably higher in the U.S. than France, whereas the share of the second quintile is substantially higher in France. The shares of the bottom three quintiles are quite similar in the two countries.

The results suggest a higher degree of wealth inequality in the U.S. than in France. These findings are consistent with others of ours which indicate that French households have a substantially higher proportion of their wealth in the form of owner-occupied housing, which is more equally distributed among the population than most other assets (particularly, bonds and corporate stock).

However, another possible explanation for the finding that the U.S. is more unequal than France is that the sampling frame differs between the two surveys. In particular, as noted above, the 1983 SCF contains a special high-income supplement—families that were selected on the basis of their income from a special sample created by the Internal Revenue Service from income tax returns. The French survey has a rather complex survey design, which is stratified by various socio-demographic characteristics. However, there is no special stratification by income. Greater coverage of high income households will generally yield a higher measure of wealth inequality.

Panel II shows comparative statistics on the size distribution of wealth drawn from the German Socio-Economic Panel (GSOEP) and the U.S. Panel Survey of Income Dynamics (PSID)-GSOEP Equivalent Data File for 1988. Burkhauser, Frick, and Schwarze (forthcoming) have attempted to make the wealth concept used in the two databases consistent by including the same set of assets and liabilities. Also, the sampling frames are relatively similar, since they are both panel datasets based on representative samples. The results show that the U.S. is the more unequal of the two countries, with a Gini coefficient of 0.76 for the U.S. and 0.69 for Germany.

Panel B of Table 4 shows wealth statistics derived from Statistics Canada 1984 Survey of Consumer Finances. Though the sample size for the Canadian SCF is about four times as large as that for the U.S. 1983 SCF, there is no special high-income supplement added to the Canadian SCF as there is for the U.S. data. As a result, as Davies (1993) points out, there is reason to believe that estimates of the concentration of household wealth may be understated in Canada relative to the U.S.

On the basis of the original survey data in the two samples (as well as the U.S. data aligned to national balance sheet totals for the household sector), wealth inequality in the U.S. is clearly greater than in Canada. The share of the top percentile is 17 percent in Canada and 35 (or 33) percent in the U.S. and the Gini coefficient is 0.69 for the Canadian data and 0.78 (0.79) for the U.S. survey.

TABLE 4

The Size Distribution of Household Wealth in Selected Countries in the Mid-1980S, Based on Household Survey Data

		Percent of Total Wealth Held by:						
	Gini Coeff.	Top 1%	Top 5%	Top 20%	2nd 20%	3rd 20%	4th 20%	Bottom 20%
I. *Conformable Databases, Gross Assets*[a]								
1. France, 1986 INSEE Survey	0.71	26	43	69	19	9	2	1
2. U.S., 1983 SCF	0.77	33	54	78	14	7	2	0
II. *Conformable Databases, Net Worth*[b]								
1. Germany, 1988 GSOEP	0.694							
2. U.S., 1988 PSID	0.761							
III. *Net Worth, Various Sources*								
A. *United States, 1983 SCF*[c]								
1. Original Survey Data	0.79	35	56	80	13	6	2	0
2. Survey Data Aligned to National Balance Sheet Totals	0.78	33	55	80	13	6	2	0
B. *Canada, 1984 SCF*[d]								
1. Original Survey Data	0.69	17	38	69	20	9	2	0
2. Davies Estimates		22–27	41–46					
C. *Japan*[e]								
1. 1981 FSS and SSBM	0.58							
2. 1984 NFIE	0.52		25					
D. *Sweden, 1985/1986*[f]								
1. HUS (vehicles only)		16	31	60				
2. HUS (all durables included)		11	24	48				
3. Statistics Sweden (vehicles only)		16.5	37	75				
E. *Australia, 1986 IDS*[g]		19.7	41.0	72.0	20.8	7.1	0	0

Addendum: Shares of Household Net Worth Derived from Wealth Tax Data
1. France[h]: Top 0.45% in 1981: 9.9%
2. Sweden[i]: Top 0.50% in 1978: 11.4%
        Top 0.50% in 1983: 13.0%

[a]Kessler and Wolff (1991), Table 3. The 1983 SCF was modified to conform with the French accounting conventions used in the 1986 INSEE survey. See the text for details.

[b]Burkhauser, Frick, and Schwarze (forthcoming). The estimates are derived from the German Socio-Economic Panel (GSOEP) and the U.S. Panel Survey of Income Dynamics (PSID)-GSOEP Equivalent Data File. The wealth figures exclude consumer durables.

[c]Wolff and Marley (1989), Table 15. The figures include the value of vehicles, but exclude other consumer durables.

[d]Davies (1993), p. 162. The figures include the value of vehicles, but exclude other consumer durables.

[e]Bauer and Mason (1992), pp. 416–17. The 1981 figure is originally from Tachibanaki (1990) and is derived from the 1981 Family Saving Survey (FSS) and the 1981 Survey on Saving Behavior and Motivation (SSBM). The 1984 figures are originally from Takayama (1994) and are based on the 1984 National Survey of Family Income and Expenditure (NFIE). The value of major consumer durables are included in these estimates.

[f]Bager-Sjogren and Klevmarken (1993), pp. 208–10. The HUS figures are based on the survey, "Household Market and Non-market Activities" (HUS). The Statistics Sweden figures are originally from Jansson and Johansson (1988) and are based on a household survey conducted by Statistics Sweden.

[g]Dilnot (1990), Table 3. The figures are based on the 1986 Income Distribution Survey (IDS), which includes respondents' valuation of housing and mortgage debt. Financial assets and equities are estimated using the income capitalization technique. No estimates of consumer durables are included in household wealth.

[h]Direction de la Prévision (1983). This is a minimum estimate based upon declared asset and liability values.

[i]Statistics Sweden (1992), Table 49.

Davies adjusted the Canadian data on the basis of various outside sources for the upper tail of the distribution. Though Canadian wealth concentration is greater as a result of these adjustments, it is still lower than in the U.S.

Estimates for Japan are also shown for 1981, based on the 1981 Family Saving Survey (FSS) and the 1981 Survey on Saving Behavior and Motivation (SSBM), and for 1984, derived from the 1984 National Survey of Family Income and Expenditure (NFIE). Neither sample appears to contain any special high-income supplement but both include major consumer durables. The results suggest that wealth inequality is considerably lower in Japan than in the U.S. or Canada and, perhaps, Sweden as well. Bauer and Mason (1992) suggest that the low wealth concentration in Japan may be due to the extremely large weight owner-occupied housing has in the Japanese household portfolio (total real estimate comprised 85 percent of household net worth in 1984).

Three sets of estimates are shown for Sweden in 1985/1986. The first two are derived from the survey, "Household Market and Non-market Activities" (HUS) for that year, and the third from a household survey conducted by Statistics Sweden at the same time. The asset and liability coverage appears to be similar to that of the American and Canadian Surveys of Consumer Finances (see Table 1 of Bager-Sjogren and Klevmarken, 1993). However, there does not appear to be any stratification of either sample by income or wealth level.

The figures for the U.S. and Canadian SCF include vehicles but exclude other consumer durables, so that the appropriate comparison is with lines 1 and 3 of the Swedish data. The concentration of wealth appears to be greater in the U.S. than in Sweden, which is consistent with the estate tax data comparisons. The original 1984 Canadian SCF data indicate about the same level of wealth concentration in Canada as in Sweden, though Davies' adjusted estimates show a somewhat higher concentration in Canada.

Panel E shows estimates for Australia based on the 1986 Income Distribution Survey (IDS). This is basically an income survey though it contains information on the value of owner-occupied housing and mortage debt. Financial assets and equities are estimated using the income capitalization technique, based on reported interest, dividend, and rental income. No estimates of consumer durables are included in household wealth. The inequality of household wealth in Australia appears to be of the same order of magnitude as Canada but substantially less than in the U.S.

One final source of similar data is from wealth tax returns in France and Sweden. Though it is hard to say much about the accuracy, asset coverage, and overall comparability of the two data sources, the comparison (Addenum to Table 4) does suggest that in the early 1980s wealth concentration may have been slightly higher in Sweden than in France.

6. COMPARISONS OF WEALTH INEQUALITY WITH INCOME INEQUALITY

Results compiled by Atkinson, Rainwater,and Smeeding (1995) on the basis of LIS data for family income are shown for six countries in Table 5. The authors first compute the ratio of the income of the tenth percentile to the median income of that country (P10) and then the ratio of the income of the ninetieth percentile

TABLE 5

THE RATIO OF THE NINETIETH TO THE TENTH PERCENTILE OF
INCOME BASED ON THE LUXEMBOURG INCOME STUDY (LIS)
DATA, 1979–87

Country	Year	Ratio of Percentile to Median Income (%)		Ratio of P90 to P10
		P10	P90	
Australia	1981	46.0	186.3	4.05
	1985	46.5	186.5	4.01
Canada	1981	44.9	182.7	4.07
	1987	45.8	184.2	4.02
France	1979	53.6	186.5	3.48
	1984	55.4	192.8	3.48
Sweden	1981	61.5	150.9	2.45
	1987	55.6	151.5	2.72
U.K.	1979	50.9	179.7	3.53
	1986	51.1	194.1	3.79
U.S.	1979	38.1	187.6	4.93
	1986	34.7	206.1	5.94

Source: Atkinson, Rainwater, and Smeeding (1995). P10 shows the ratio of the income of the tenth percentile to the median income of that country, and P90 shows the ratio of the income of the ninetieth percentile to the median income of that country.

to the median income (P90). A small value for P10 indicates that the poor in the country have a relatively low level of income in comparison to the average family in that country. Conversely, a high value for P90 indicates that the rich in the country are particularly relatively well off in comparison to the average family. A summary measure of overall inequality is the ratio of P90 to P10.

In the late 1980s, the U.S. had by far the highest degree of inequality among the six countries— a ratio of 5.94. This is consistent with its relative ranking in terms of wealth inequality. In terms of income inequality, the U.S. was followed by Canada with a ratio of 4.02 and Australia at 4.01. France and the U.K. were similar, at 3.48 and 3.79, respectively. The lowest inequality was recorded in Sweden at 2.72. In contrast, all five countries were quite similar in terms of wealth inequality.

It is also interesting to compare changes in the ratio over time within countries. Here, too, the U.S. had by far the largest increase of inequality, from a ratio of 4.9 in 1979 to 5.9 in 1986. This also accords with the sharp increase of wealth inequality in this country during the 1980s. Changes were much smaller for other countries. Moreover, of the five countries in the sample, Australia, Canada, and France showed virtually no change in income inequality, while Sweden and the U.K. had a slight increase. In terms of wealth inequality, Canada, France, and the U.K. were relatively stable while Sweden showed a modest increase in the late-1980s.

7. CONCLUDING REMARKS

The results of the paper strongly suggest that by the mid-1980s, wealth inequality in the U.S. was considerably higher than in other industrialized countries

for which comparable wealth data exist. This finding is in accord with previous studies that have found that by the mid- to late-1980s, income inequality was greater in the U.S. than in other industrialized economies. Of the other countries, Australia, Canada, France, Germany, Sweden, and Great Britain all seem to be roughly comparable in terms of their level of personal wealth inequality in the 1980s, while Japan seems distinctly lower than this group.

A comparison of time trends for the U.K. and the U.S. suggests that the very high relative level of wealth inequality in the U.S. in the 1980s represents a turnaround from the early part of this century, and even from the 1950s, when the inequality in personal wealth was much larger in the U.K. than in the U.S. Two crossover points are evident in the two series—the 1960s and the early 1980s. During the 1960s and 1970s, personal wealth inequality was roughly comparable in the U.K. and the U.S. This was true for both marketable wealth and augmented wealth. In the early and mid-1970s the degree of wealth inequality in the U.S. also appeared comparable to that of Canada, France, and Sweden. However, by the early 1980s, U.S. wealth inequality began to exceed that of Canada, France, Sweden, and the U.K., and this pattern held into the early 1990s.

Another striking difference is the substantial increase in wealth inequality recorded in the U.S. between the mid-1970s and the late-1980s. This finding is not too surprising in light of the sharp increase in income inequality found for the U.S. over the same period. However, what is surprising is that a similar rise in wealth inequality does not appear to have occurred in Canada, France, and the U.K. Wealth inequality did rise in Sweden, but the increase dates from the mid-1980s and the rise was not nearly as pronounced as in the U.S.

Both the high level of U.S. wealth inequality relative to other advanced countries and its steep ascent during the 1980s is also reflected in the data on income inequality. However, the correspondence between wealth and income inequality is far from perfect. Whereas Australia, Canada, France, Sweden, and the U.K. were roughly comparable in terms of wealth inequality in the mid-1980s, Canada and Australia were distinctly higher and Sweden distinctly lower than France and Britain in terms of income inequality. Moreover, while Canada and France showed relatively little change in terms of both wealth and income inequality during the 1980s, and Sweden showed a modest rise in both, the U.K. experienced an increase in income inequality but almost no change in wealth inequality.

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