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INCOMES UNDER LOW AND HIGH TAX RATE SYSTEMS: 1929 vs. 1973

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I. INTRODUCTION

A major argument for basic personal income tax reform is that a broad base with low rates would be more preferable in terms of efficiency and equity than the present narrow base with high rates. Some contend that the substitution of low rates for high rates would, by itself, broaden the tax base over time. Taxpayers would voluntarily give up tax shelters and tax concessions because their advantages under the present high-rate system would be lost under a low-rate system.

Little empirical evidence is available on the effect of low rates on the size and distribution of the income tax base as compared to high rates. This paper provides some empirical insights. It presents comparative data on incomes in 1929, a year when a low tax-rate system was in effect, and 1973, a year when high tax rates and many tax preferences of current law were in effect. The data are derived from tax returns for those years.

II. FEATURES OF 1929 DATA

Tabulated data from individual income tax returns for 1929 (filed in 1930) are available in the Internal Revenue Bureau's report, Statistics of Income, for 1929 (SOI). The SOI data were obtained from all returns with "net income" (defined below) of $5,000 or more; estimates were made from a sample of returns with "net income" of under $5,000.

A return had to be filed for 1929 if "gross income" of the filer amounted to $5,000, or if "net income" amounted to $1,500 if the filer was single, or a married person living separately, or if "net income" amounted to $3,500 if the filer was married. Income of dependents was included.

"Gross income" included all income subject to tax. The term "net income" was used in more than one sense. For purposes of determining the obligation to file a return, "net income" was defined to be the excess of gross income over nonbusiness deductions.

Individuals were subject to a normal tax and a surtax. The normal tax was applied to a "net income" base which was the excess of gross income over the sum of nonbusiness deductions, personal exemptions, dependents' credits, dividends, interest and capital gains on assets held more than two years.

The surtax was applied to a "net income" base which was the excess of gross income over the sum of nonbusiness deductions and capital gains on assets held more than two years. The surtax rate schedule was designed so that net income less than $10,000 was exempt from the surtax.

Capital gains on assets held more than two years were taxed separately at the lower of a flat 12.5 percent rate or the normal tax and surtax if applied to capital gains. Therefore, both the normal tax and surtax definitions of net income excluded capital gains which were taxed at the 12.5 percent rate.[1/]

Personal exemptions were $1,500 for a single person or a married person living separately, and $3,500 for a married couple. An additional exemption of $400 was granted for each dependent.

The definition of "net income" used for the tables in the 1929 SOI represented a further variant, presumably for simple statistical presentation. The 1929 SOI defined "net income" to be total income less nonbusiness deductions, a definition which amounted to the surtax base plus long-term capital gains.

The tax rates applicable to the normal tax base in 1929 were as follows:[2/]

Tax and Rate		Base
1/2%	applicable to	$ 0 to $4,000
$60 plus 2%	applicable to	4,000 to 8,000
180 plus 4%	applicable to	8,000 or more

The tax rates applicable to the surtax base in 1929 were as follows:

Tax and Rate		Base
0%	applicable to	$ 0 to $10,000
1	applicable to	$10,000 to 14,000
$40 plus 2	applicable to	14,000 to 16,000
80 plus 3	applicable to	16,000 to 18,000
140 plus 4	applicable to	18,000 to 20,000
220 plus 5	applicable to	20,000 to 22,000
320 plus 6	applicable to	22,000 to 24,000
440 plus 7	applicable to	24,000 to 28,000
720 plus 8	applicable to	28,000 to 32,000
1040 plus 9	applicable to	32,000 to 36,000
1400 plus 10	applicable to	36,000 to 40,000
1800 plus 11	applicable to	40,000 to 44,000
2240 plus 12	applicable to	44,000 to 48,000
2720 plus 13	applicable to	48,000 to 52,000
3240 plus 14	applicable to	52,000 to 56,000
3800 plus 15	applicable to	56,000 to 60,000
4400 plus 16	applicable to	60,000 to 64,000
5040 plus 17	applicable to	64,000 to 70,000
6060 plus 18	applicable to	70,000 to 80,000
7860 plus 19	applicable to	80,000 to 100,000
11660 plus 20	applicable to	100,000 and over

The combination of normal tax and surtax rates produced a maximum marginal rate of 24 percent.

Table 1 presents the 1929 data on number of returns, total income and net income by net income classes for all returns filed and for taxable returns. The 1929 SOI reported four million returns filed for 1929 with total income of $29.9 billion and net income of $24.8 billion. However, only about 2.5 million returns were taxable and these reported total income of $24.3 billion and net income of $20.5 billion.

Table 1

Number of Returns, Total Income, Net Income, Taxable Income, All Returns and Taxable Returns, 1929 Levels

Net Income Class (000)	Number of Returns (000)	Total Income ($billion)	Net Income ($billion)	Estimated Taxable Income ($billion)
		All Returns		
Under 1	126.2	$ 0.1 est.	$ 0.1	$ *
1 - 2	903.1	1.8 est.	1.5	0.1
2 - 3	810.3	2.4 est.	2.0	0.4
3 - 5	1172.7	5.7 est.	4.6	0.7
5 - 10	658.0	5.2	4.5	3.5
10 - 25	271.5	4.8	4.0	3.1
25 - 50	63.7	2.6	2.2	2.0
50 - 100	24.1	2.0	1.6	1.6
100 - 150	0.4	0.9	0.8	0.8
150 - 300	5.3	1.3	1.1	1.1
300 - 500	1.6	0.7	0.6	0.6
500 -1000	1.0	0.8	0.7	0.7
1000 and over	0.5	1.4	1.2	1.2
Total	4044.3	$29.9	$24.8	$14.2
		Taxable Returns		
Under 1	8.5	$ * est.	*	*
1 - 2	479.1	1.0 est.	0.8	0.1
2 - 3	439.8	1.2 est.	1.0	0.4
3 - 5	549.9	2.9 est.	2.3	0.7
5 - 10	606.6	4.7 est.	4.1	3.5
10 - 25	271.5	4.8	4.0	3.1
25 - 50	63.7	2.6	2.2	2.0
50 - 100	24.1	2.0	1.6	1.6
100 - 150	6.4	0.9	0.8	0.8
150 - 300	5.3	1.3	1.1	1.1
300 - 500	1.6	0.7	0.6	0.6
500 -1000	1.0	0.8	0.7	0.7
1000 and over	0.5	0.4	1.2	1.2
Total	2458.0	$24.3	$20.5	$14.2

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III. ADJUSTING 1929 DATA FOR COMPARABILITY WITH 1973

To make the 1929 data comparable to the 1973 tax base, an estimate of the 1929 "taxable income" was calculated by subtracting personal exemptions from 1929 net income. The taxable income for 1929 was estimated to be $14.2 billion (see Table 1).

The most recent data available for comparability were for tax year 1973 in the Treasury Tax Model, which is a sample drawn from the 1973 SOI designed to represent the entire tax filing population. To answer questions about how the relative income distribution in 1929 compared with that in 1973, either the number of returns and levels of income in 1973 had to be reduced to 1929 levels, or the 1929 data had to be "blown up" to 1973 levels. The latter approach was chosen.

To adjust for the change in the number of potential tax returns between 1929 and 1973, the number of returns in each category was multiplied by 1.7, the ratio of the U.S. population in 1973 to that in 1929. A further adjustment was needed to make income figures comparable between these years. The number of taxpayers in a given bracket would naturally be expected to change between the two subject years because of the general increase in the level of income in both nominal and real terms. To account for this

general growth in income, per-return income items from the 1929 data were blown up by a factor of 7.2, the ratio of per capita money income in 1973 to that in 1929. Thus, the 1929 income items -- total income, net income, and taxable income -- were projected to 1973 by applying an overall "blow-up factor" of 12.4 to reflect both population growth and income growth.

The idea underlying these projections is that, if the 1973 distribution of economic activity, wealth, and so forth represented a simple magnification of the 1929 picture, the projected 1929 numbers would represent the number of returns in 1973. Of course, many changes took place in the interval, including changes in demographic structure and in the income characteristics of the population.

Table 2 indicates that if 1929 incomes are projected to 1973, the 1929 tax system (expressed in terms of 1973 income levels) would produce 6.9 million filers, 4.2 million of whom would be taxable. Total income reported on taxable returns would be $301.2 billion and taxable income would be $194.7 billion.

Table 2

Number of Returns, Total Income, Net Income, Taxable Income, All Returns and Taxable Returns, 1973 Levels Projected from 1929 Data

Net Income Class (000)	Number of Returns (000)	Total Income ($billion)	Net Income ($billion)	Estimated Taxable Income ($billion)
		All Returns		
Under 7.2	214.5	$ 1.3 est.	$ 1.2	*
7.2 - 14.4	1535.3	22.8 est.	18.6	1.2
14.4 - 21.6	1377.5	30.4 est.	24.8	5.0
21.6 - 35.9	1993.6	70.8 est.	57.0	8.7
35.9 - 71.9	1118.6	64.5	55.8	43.4
71.9 - 179.7	461.6	59.5	49.6	38.4
179.7 - 359.5	108.3	32.2	27.3	24.8
359.5 - 718.9	41.0	24.8	19.8	19.8
718.9 -1100.	10.9	11.2	9.9	9.9
1100. -2200.	9.0	16.1	13.6	13.6
2200. -3600.	2.7	8.7	7.4	7.4
3600. -7200.	1.7	9.9	8.7	8.7
7200. and over	0.9	17.4	14.9	14.9
Total	6875.3	$370.0	$307.5	$194.7
		Taxable Returns		
Under 7.2	14.5	*	*	*
7.2 - 14.4	814.5	$ 12.1 est.	9.9	1.2
14.4 - 21.6	747.7	15.2 est.	12.4	5.0
21.6 - 35.9	934.8	35.4 est.	28.5	8.7
35.9 - 71.9	1031.2	58.7 est.	50.8	43.4
71.9 - 179.7	461.6	59.5	50.8	38.4
179.7 - 359.5	108.3	32.2	27.3	24.8
359.5 - 718.9	41.0	24.8	19.8	19.8
718.9 -1100.	10.9	11.2	9.9	9.9
1100. -2200.	9.0	16.1	13.6	13.6
2200. -3600.	2.7	8.7	7.4	7.4
3600. -7200.	1.7	9.9	8.7	8.7
7200. and over	0.9	17.4	14.9	14.9
Total	4178.6	$301.2	$254.0	$194.7

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IV. ADJUSTING 1973 DATA FOR COMPARABILITY WITH ADJUSTED 1929 DATA

The 1973 tax return data in the Treasury Tax Model required adjustment in order to make income comparisons meaningful. The 1973 filing requirements and personal exemptions differed substantially from those of 1929. As a result, many million more lower and middle income persons were on the 1973 tax rolls than would have been the case if the 1973 equivalents of 1929 filing requirements and personal exemptions were in effect. These equivalents are shown in column (2) below.

	1929 law (1929 levels) (1)	1929 law (1973 levels) (2)	1973 law (1973 levels) (3)
Filing Requirement:			
Single person	$1,500	$10,800	$2,050
Married couple	$3,500	$25,200	$2,800
Exemptions:			
Single person	$1,500	$10,800	$ 750
Married couple	$3,500	$25,200	$1,500
Dependent-each	$ 400	$ 2,880	$ 750

The equivalents were substituted in the Treasury Tax Model for the 1973 levels shown in column (3). This substitution removed, to a large extent, the disparities between the projected 1929 and the actual 1973 data which were attributable to differences in filing requirements and personal exemptions. Table 3 thus presents the 1973 data adjusted for filing requirements and personal exemptions.

Table 3
Number of Returns, Total Income, Net Income and Taxable Income, 1973 Levels Adjusted for 1973 Equivalent of 1929 Filing Requirements and Personal Exemptions

Net Income Class (000)	Number of Returns (000)	Total Income ($billion)	Net Income 1929 Concept ($billions)	Taxable Income ($billions)
		All Returns		
Under 7.2	0	$ 0	0	0
7.2 - 14.4	15.7	0.4	$ 0.2	*
14.4 - 21.6	1460.4	32.7	29.2	13.3
21.6 - 35.9	1487.6	42.6	38.1	19.5
35.9 - 71.9	3406.7	203.1	183.4	84.7
71.9 - 179.7	669.1	70.5	62.8	42.5
179.7 - 359.5	33.1	9.0	7.8	6.8
359.5 - 718.9	7.2	3.9	3.4	3.2
718.9 - 1100.	1.2	1.3	1.1	1.0
1100. - 2200.	0.8	1.5	1.3	1.3
2200. - 3600.	0.2	0.6	0.6	0.5
3600. - 7200.	0.1	0.5	0.5	0.5
7200. and over	*	0.5	0.4	0.4
Total	7082.1	$366.6	$328.7	$173.9
		Taxable Returns		
Under 7.2	0	0	0	0
7.2 - 14.4	10.0	$ 0.2	$ 0.1	*
14.4 - 21.6	1454.0	32.5	29.1	13.3
21.6 - 35.9	1479.0	42.0	37.9	19.5
35.9 - 71.9	3398.3	202.5	183.0	84.7
71.9 - 179.7	667.8	70.4	62.7	42.5
179.7 - 359.5	33.1	9.0	7.8	6.8
359.5 - 718.9	7.2	3.9	3.4	3.2
718.9 - 1100.	1.2	1.3	1.1	1.0
1100. - 2200.	0.9	1.5	1.3	1.3
2200. - 3600.	0.2	0.6	0.6	0.5
3600. - 7200.	0.1	0.5	0.5	0.5
7200. and over	*	0.5	0.4	0.4
Total	7051.8	$364.9	$327.8	$173.9

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V. COMPARISON OF INCOME DISTRIBUTIONS IN 1929 AND 1973

Table 4 provides a comparison of some broad characteristics of the net income distributions in 1929 and 1973, the 1973 levels projected from 1929 (referred to as "1929") and the adjusted actual 1973 levels (referred to as "1973"). The comparisons are based on Tables 2 and 3. There was a substantial difference in the aggregate number of taxable returns: 4.2 million in "1929" and 7.1 million in "1973", resulting in a difference of 2.9 million returns. This sizable difference was largely accounted for by taxable returns with less than $71,900 of net income (the 1973 equivalent of $10,000 of net income in 1929).

This difference in number of returns occurred in spite of the change in marital status of the population between 1929 and 1973. Census data indicate that a significantly higher proportion of the population was married in 1973 than in 1929. Whereas 75 percent of the male population and 68 percent of the female population were married in 1973, only 58 percent of the males and 60 percent of the females were married in 1930.

The large difference between the number of taxable returns with net incomes under $71,900 in "1929" and "1973" may explain most of the differences in taxable income and in total income in that same group. Taxable incomes and

Table 4

Number of Returns, Total Income and Taxable Income in "1929"
(Using 1973 Equivalent of 1929 Filing Requirements
and Personal Exemptions)
and in "1973"

Item	Net Income Distribution		
	Total	Under $71,900	Over $71,900
Number of taxable returns (thousands):			
"1929" (1973 projected from 1929)	4178.6 (100)	3574.7 (85)	636.1 (15)
"1973" (1973 adjusted data)	7051.8 (100)	6341.3 (90)	710.5 (10)
Total income on taxable returns ($billions):			
"1929" (1973 projected from 1929)	$ 301.2 (100)	$ 121.4 (40)	$ 179.8 (60)
"1973" (1973 adjusted data)	$ 364.9 (100)	$ 277.2 (76)	$ 87.7 (24)
Average total income per taxable return ($):			
"1929" (1973 projected from 1929)	$72,082	$33,961	$282,660
"1973" (1973 adjusted data)	$51,745	$43,713	$123,434
Taxable income ($billion):			
"1929" (1973 projected from 1929)	$ 194.7 (100)	$ 57.2 (29)	$ 137.5 (71)
"1973" (1973 adjusted data)	$ 173.5 (100)	$ 117.3 (68)	$ 56.2 (32)
Average taxable income per taxable return ($):			
"1929" (1973 projected from 1929)	$46,595	$16,001	$216,161
"1973" (1973 adjusted data)	$24,604	$18,498	$79,099

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Note: Figures in parentheses are percentages of the total.

total incomes on returns with net incomes under $71,900 were more than twice as great in 1973 as in the 1929 projection.

The number of returns filed by taxpayers with net income of $71,900 or more was reasonably close in "1929" and "1973". Differences in taxable income and total income for these returns in the two years arose principally from the average income per tax return. Table 4 shows that taxable income and total income for that group were each more than twice as great in "1929" than in "1973".

Table 5 shows the percentage distribution among net income classes of wages and salaries, dividends, and capital gains. The distribution of wages and salaries in "1929" and in "1973" were reasonably close. However, the distribution of dividends and capital gains differed markedly. A substantially larger proportion of dividends and capital gains were distributed among higher income individuals in "1929" than in "1973".

More insight into the importance of dividends and capital gains can be obtained from Table 6 which shows the relative importance of selected sources of income within the net income brackets of the high income individuals. The data shows that the combination of dividends and capital gains represented important sources of income for high income individuals.

Table 5

Percentage Distribution of Wages and Salaries, Dividends, and Capital Gains in "1929" and "1973" by Net Income Classes, 1973 Levels

Net Income Class (000)	Total	Wages and Salaries	Dividends	Capital Gains
	"1929" (1973 Projected from 1929)			
Under 71.9	52	75	22	-
71.9-179.7	16	14	19	-
179.7-359.5	9	5	15	1
359.5-718.9	7	3	13	11
718.9-1100	3	1	6	10
1100-2200	4	1	7	18
2200-3600	2	*	4	13
3600-7200	3	*	4	15
7200 and over	5	*	7	32
Total	100	100	100	100
	"1973" (1973 Adjusted Data)			
Under 71.9	70	82	49	23
71.9-179.7	23	16	33	35
179.7-359.5	4	1	10	15
359.5-718.9	2	*	5	11
718.9-1100	1	*	2	4
1100-2200	1	*	2	5
2200-3600	*	*	*	3
3600-7200	*	*	*	2
7200 and over	*	*	*	2
Total	100	100	100	100

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Table 6

Relative Importance in Total Income of Selected Sources of Income on Returns of Net Income of $71,900 or More in "1929" and "1973"

Net Income Class (000)	Total Income	Wages and Salaries	Dividends	Capital Gains	Other
		"1929" (1973 Projected from 1929)			
71.9-179.7	100	33	19	-	48
179.7-359.5	100	23	28	1	48
359.5-718.9	100	15	33	13	39
718.9-1100	100	11	33	24	32
1100-2200	100	8	30	33	29
2200-3600	100	6	28	41	25
3600-7200	100	4	28	46	22
7200 and over	100	2	24	55	19
Total (All taxable returns)	100	37	16	8	39
		"1973" (1973 Adjusted Data)			
71.9-179.7	100	41	9	14	36
179.7-359.5	100	22	16	37	25
359.5-718.9	100	13	17	59	11
718.9-1100	100	9	18	64	9
1100-2200	100	7	14	73	6
2200-3600	100	4	9	79	4
3600-7200	100	1	9	84	6
7200 and over	100	*	2	79	19
Total (All taxable returns)	100	61	6	9	24

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The exemption of dividend income under the 1929 normal tax (which reduced the effective overall tax rate on dividends from 20 percent to 16 percent for taxpayers in high-income brackets) may explain in part the importance of dividends relative to other sources of income in that year. In the same way, the 1929 preferential treatment of capital gains (which reduced the overall tax rate on gains for high-income taxpayers from 24 percent to 12.5 percent) may also explain the relative importance of capital gains. These 1929 "tax preferences", as well as low tax rates, may have contributed to the relative importance of dividends and capital gains in the total income of high-income individuals in 1929.

Capital gains alone represented an important source of income for the wealthy in 1973 (see Table 6). A possible explanation may be that the combination of 1973 high rates and preferential treatment discouraged dividend distributions, and instead encouraged taking the yield from investment in the form of capital gains.

FOOTNOTES

1/ If all of the $2.3 billion of capital gains reported in 1929 were subject to the 12.5 percent rate, the capital gains tax would have generated $293 million. The 1929 SOI in fact reported $285 million.

2/ The normal tax rates were modified by a joint resolution of Congress approved by the President at the close of the tax year (December 16, 1929), but too late to change the rates printed in the 1929 tax returns. The normal tax rates were changed from 1-1/2, 3, and 5 percent to 1/2, 2, and 4 percent. There is no explanation in the 1929 SOI on how the new rates were administered.