Interest Income and Deductions on Individual Income Tax Returns, 1968-1984

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Interest rates figure prominently in the general public's consciousness of the economy. Interest rates and their variation are of particular concern to home builders and buyers on the one hand, and investors on the other; in other words, interest as a cost and interest as an income source. Interest plays both of these roles on the individual income tax return.

While average interest income per return and average interest deductions appeared to increase steadily throughout the 1968-84 period, their rates of increase were subject to significant year-to-year fluctuations. In the case of average interest income, the primary source of annual variation was the fluctuation in rates of interest paid on debt instruments. In the case of the average interest deduction, the primary cause of variation was the number of returns claiming the interest deduction (ID returns claiming the increasing more when the number of ID returns fell, and vice versa. Large year-to-year declines in the number of ID returns with declines in the number of returns with itemized deductions; these, in turn, reflected such changes in the tax law as the increased amounts allowed under the standard deduction and its successor, the zero bracket amount.

Before 1979, taxpayers with smaller-than-average interest deductions appear to have dominated the occasional itemizer group, which generally did not include mortgage-paying homeowners. During most of the post-1979 period, the decline in the housing market, in part brought on by high interest rates, reduced the relative frequency of returns claiming the home mortgage interest (HMI) deduction and, therefore, the relative frequency of ID returns among all returns with itemized deductions.

This article traces the reporting of interest on tax returns during the 17-year period, 1968-84, both as interest income and as interest payments claimed as itemized deductions [1]. The analysis also explores some of the factors affecting the frequency of reporting and the amounts reported.

INTEREST AS INCOME

Turning to interest income first, one finds that the interest proportion of adjusted gross income (AGI) more than doubled during the generally inflationary years between 1968 and 1984, from 3 percent to over 8 percent; see the bottom part of Figure A [2]. Figure A also shows that this growth, in turn, reflected the relative frequency of interest reporting and the average amount reported. This is also shown in Table 1.

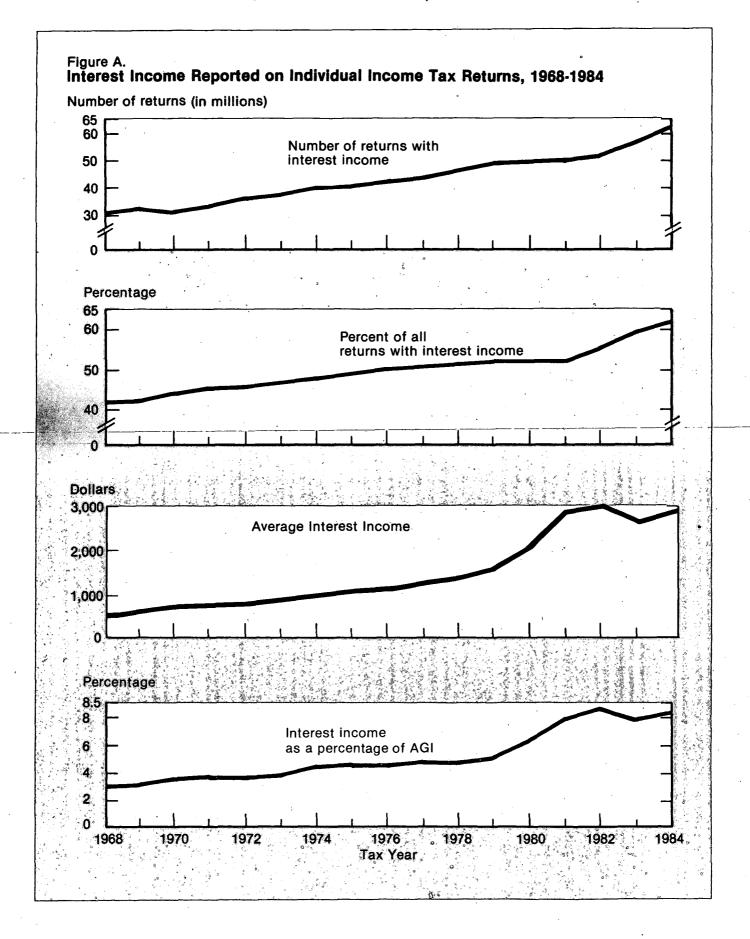
While the total number of returns filed increased during the period, from about 74 million to nearly 100 million, the number with interest income grew even faster, from 42 percent of all returns for 1968 to 62 percent for 1984. Similarly, average interest income per return grew at more than double the rate of increase in average AGI.

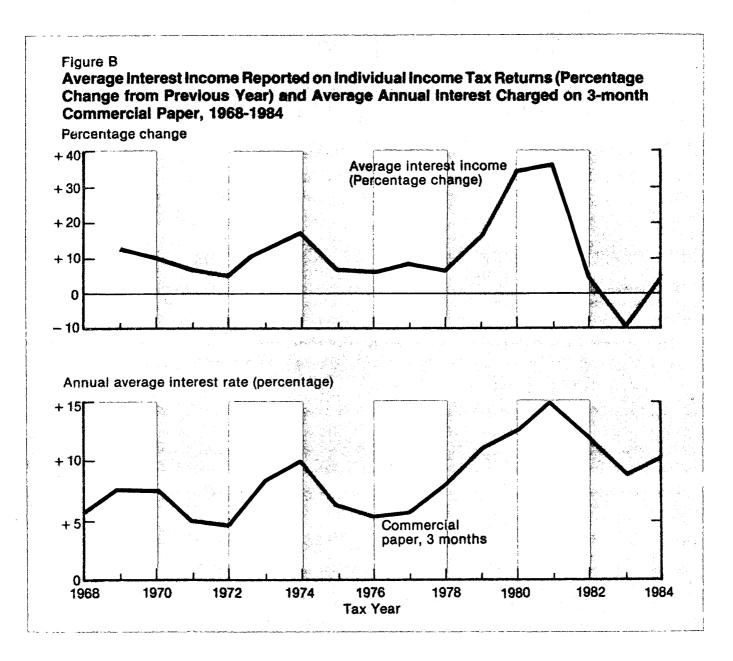
As shown in Figure A, during most of the study period the trend for average interest income--as for the other trends mentioned--appeared to to be upward and gradual until after 1978 (discussed later on). However, there were noticeable exceptions to the trend which are clearly evidenced in Figure B by the percentage differences from the previous year.

Figure B shows that percentage increases in average interest income moved through six periods:

- 1969 to 1972--declining percentage increases;
- 1972 to 1974--increasing increases;
- 1974 to 1976--declining increases;
- 1976 to 1981--increasing increases;
- 1981 to 1983--declining increases, (leading to the <u>decrease</u> in average interest income evidenced in Figure A), followed by

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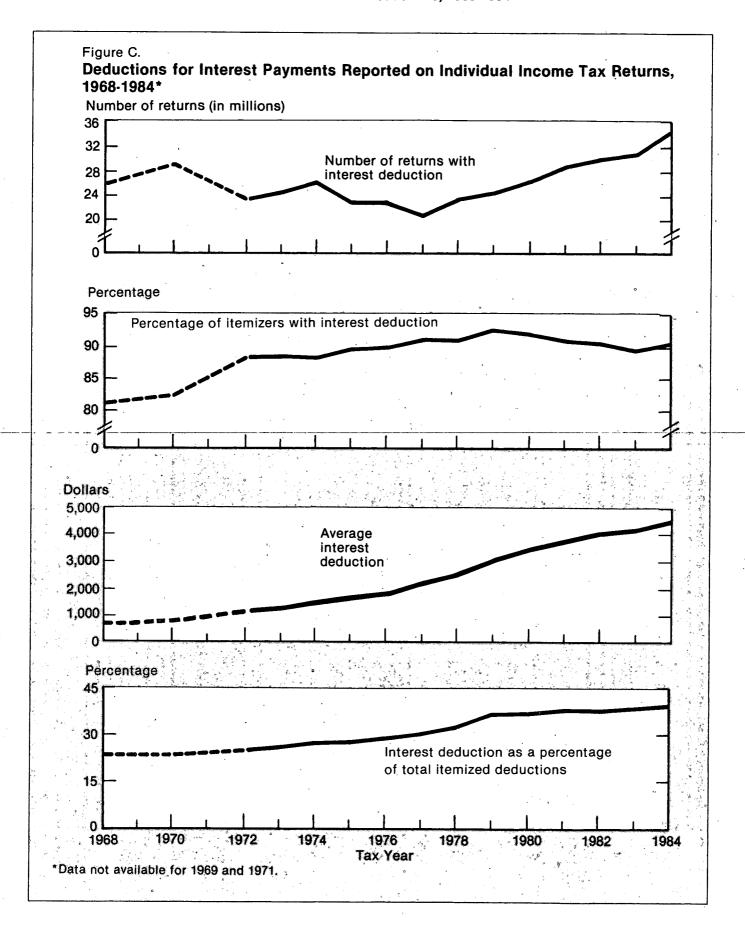


• 1983 to 1984--an increase once again.

The lower part of Figure B strongly suggests the origin of these changes—the financial world of interest rates. Average annual interest rates on 3-month commercial paper (or any other interest rate on investments based on other indexes) rose and fell in the same periodic pattern as the year-to-year percentage changes in average interest income. The unparalleled interest rate levels of 1980-81 were reflected in the highest relative increases in interest income during the entire 17-year period.

DEDUCTIONS FOR INTEREST PAYMENTS

Figure C shows that the aggregate amount of interest deductions, as a percentage of all itemized deductions, increased every year; also see Table 2. The increase over the 17-year period--from about 27 percent of all itemized deductions to 44 percent--far outstripped the increases in the other four major deduction categories (medical, taxes, contributions, and miscellaneous). For 1968, the deduction for interest was 76 percent of the deduction for taxes. By 1979, interest was in first place



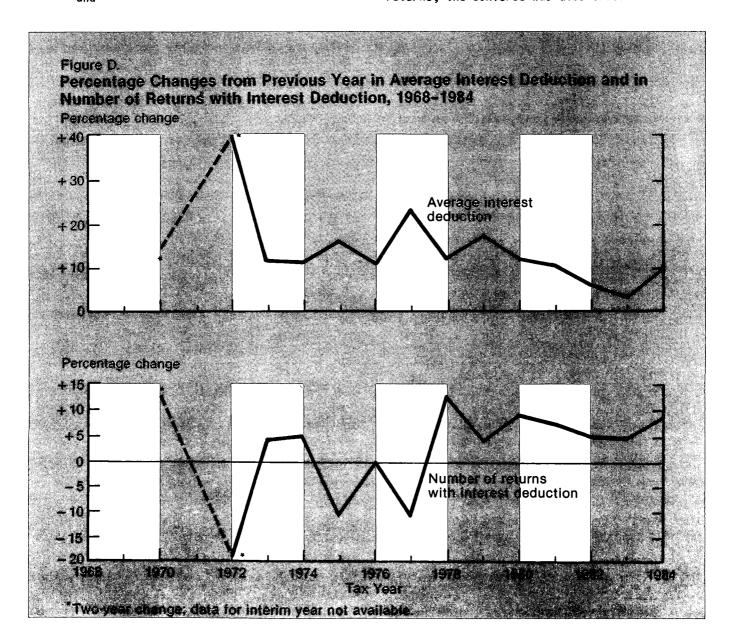
and, by 1983, the interest/taxes ratio had been reversed.

The principal elements associated with this phenomenon are shown in Figure C where the following features should be noted:

- sharp declines in the number of ID returns for certain years during the first part of the period (discussed in more detail later);
- an already high proportion (over 80 percent) of itemized deduction returns claiming the interest deduction that rose to nearly 93 percent for 1979, the proportion then declining slightly for the next 5 years as gradually as it had increased during the previous 5 years; and

 an average interest deduction that increased each year during the period (see the percentage changes in the upper half of Figure D), from about \$700 for 1968 to almost \$4,600 for 1984.

However, the trend of the average interest deduction was an uneven one. This is clearly shown by the year-to-year percentage increases in the upper half of Figure D. The lower half shows the corresponding changes in the number of ID returns. Turning Figure D 90 degrees helps point up the striking fact that, through 1980, the two lines look very much like slightly distorted mirror images of each other. When there was an increasing increase in the average interest deduction, there was a decrease, or a decreasing increase, in the number of ID returns; the converse was also true.



The reasonable inference to be drawn--and the one that is consistent with expectations--is as follows: year-to-year gains and losses in the number of ID returns were dominated by a preponderance of small deducters. Their contribution to an average deduction--an average is a ratio, after all--is greater in the denominator (number of returns) than in the numerator (the deduction amount). When a disproportionate number of small deducters stopped claiming the interest deduction as, for example, for 1972 compared with 1970, the resulting average increased markedly--by 40 percent [3]. The 1972-73 data suggest the occurrence of the reverse process.

TAX LAW CHANGES

Tax Years 1972, 1975, and 1977 showed decreases of 10 to 20 percent in the number of ID returns and 1979 showed a substantial drop from the previous year in the relative increase; see the bottom half of Figure D. Why the dips in these 4 years? A review of changes in the tax law provisions over the study period indicates that these were years when, among other tax law changes, the personal exemption and the standard deduction were increased (both in the percentage allowed and in the maximum amount). One objective of these law changes was to encourage the use of the standard deduction and the tax look-up tables, as against itemizing deductions and, clearly, the interest deduction statistics show the effects of the changes.

THE HOME MORTGAGE INTEREST DEDUCTION

The deduction for interest payments on home mortgages (the HMI deduction) has been the most important single component of the interest deduction. At 53 percent for 1968, aggregate HMI deductions reached almost 66 percent of aggregate interest deductions for 1983 and 1984 (columns 4 and 7 of Table 2). During the study period, the average HMI deduction moved nearly in step with the average interest deduction (see the top half of Figure E), and changes in the number of HMI returns resembled those in the number of ID returns (the bottom half of Figure E). It is therefore logical to ask whether the tax law changes affected the number of ID returns primarily through their impact on the number of HMI returns.

On the whole, as Figure F shows, the answer would appear to be "No." In general, for years when the number of ID returns showed a drop from the previous year, HMI returns contributed only a small proportion to the drop--or actually increased. (An exception occurred only for 1977 when HMI returns accounted for 62 percent of the drop in ID returns.) For years when the number of ID returns increased, HMI returns usually accounted for 70 percent or more of the increase [4]. In other words, HMI returns

were sluggish on the downside and, with few exceptions, moved vigorously on the upside. It therefore appears that the declines (or reduced increases) in the number of ID returns for 1972, 1975, 1977, and 1979 mainly reflected declines in the number of returns with deductions for other than home mortgage payments, such as for the amounts paid on bank loans and installment or credit-card purchases. Consistent with expectations, one finds that it was taxpayers in this mixed grouping, rather than HMI deducters, on whom the tax law changes had the most perceptible effect.

This analysis is supported by the evidence charted in Figure G. In it the trend in the number of HMI returns as a percentage of all ID returns can be clearly seen in the top half. The trend rises to a 1977-79 "plateau" around 85 percent and declines thereafter to 78 percent. The bottom half of Figure G shows the variations around the trend. For 1972, 1975, 1977, and 1979--exactly the years in question--HMI returns tended to gain in relative importance, not lose.

INTEREST DEDUCTIONS FOR 1979-1984

The 1979-84 period is of special interest, not only because it is the most recent part of the total period studied, but also because of the rather unusual trend developments during those years. Among these trends, as observed in the tax return statistics, are the following:

- the relative increase in the number of ID returns tended to level out, at least until 1984, when it increased sharply (see Figure D, bottom half);
- ID returns as a percentage of itemized deduction returns <u>fell</u>, until the slight reversal for 1984 (see Figure C, second panel):
- the average interest deduction had a very slackened rate of increase until 1984, when there was a major increase (see Figure C, third panel);
- aggregate interest deduction dollars as a percentage of all itemized deductions, as a consequence, also had a very slackened rate of increase until 1984 (see Figure C, bottom panel);
- the year-to-year change in the average interest deduction for all of these years, including 1984, <u>paralleled</u> the percentage change in the <u>number</u> of ID returns (in- stead of moving oppositely, as in prior years; see Figure D);
- in general, the average HMI deduction had a very <u>slackened</u> rate of increase,

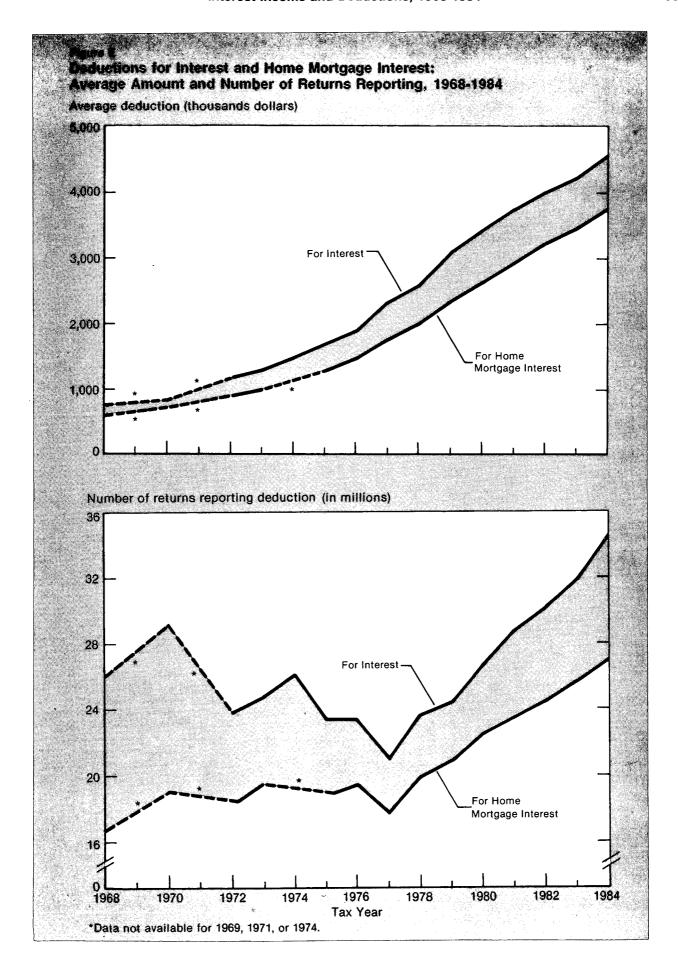


Figure F.--Changes From Previous Year in Number of Returns With Interest Deduction and Returns With Home Mortgage Interest Deduction, 1972-1984

Tax Year	Change in numb previo (thousand	Column 2 as a percentage		
	With interest deduction	With home mortgage interest deduction	of Column 1	
Years with fewer returns with interest deduction	(1)	(2)	(3)	
than previous year:	,			
1972 ¹	-5,417 -1,410 -18 -2,477	-507 -414 269 -1,546	9% 29 (²) 62	
Years with more returns with interest deduction than previous year:	_ ,		<u> </u>	
1970 ¹	3,191 1,007 2,654 968	2,431 889 2,117 1,027	76 88 80 106	
1980	2,165 2,087 1,480 1,439 2,831	1,685 967 1,033 1,020 1,406	78 46 70 71 50	

and 1984 was no exception in this regard (see Figure E, top half); and

HMI returns represented a <u>declining</u> proportion of ID returns (instead of an increasing one (see Figure G, top half).

In the absence of the kind and frequency of tax law changes reflected in the previous years' data, the origin and common force behind these developments appear to be the drastic cutbacks in the home building and home financing industries. Partly brought on by the deepening recession that saw unemployment top 10.6 million (the annual average) in both 1982 and 1983, these industries were severely afflicted by high mortgage interest rates paralleling the elevation of interest rates during 1980-82 previously noted (see Figure B) [5]. What was balm of Gilead to many investors was as the boils of Job to home builders, sellers, and would-be purchasers. Figure H presents four indicators showing that this sector of the economy experienced about a 50-percent reduction in activity between between 1978-79 and 1982. Even the innocuous-looking data in column 4 tell a striking story. Between 1974 and 1978 the number of owneroccupied mortgaged dwelling units increased by 2.6 million; between 1979 and 1983, the increase was only 1.4 million, down 46 percent or 1,200,000.

With the fall-off in the number of new mortgagors came the decline in the HMI proportion of ID returns and the slackened rate of increase in the average deduction (that otherwise would have reflected the higher mortgage payments of perhaps 1,200,000-or-more purchasers). These developments, in turn, influenced the number and relative importance of ID returns and the rate of increase in the average interest deduction.

A sharp turnaround in housing activity took place in 1983 and, allowing for the time lag before it can be fully reflected on individual income tax returns, is already evidenced in the 1984 interest deduction statistics. As a result, the trends that had emerged for 1979-83 may be at an end. Statistics for 1985 will begin to tell whether 1984 becomes the base year for new trends.

DATA SOURCES AND LIMITATIONS

The historical data based on tax returns presented in this article are based on samples. Therefore, they are subject to sampling error. For information about the samples and

²Not computed.

Figure G. Returns with Home Mortgage Interest as a Percentage of All Returns with Interest Deduction, and Year-to-Year Change in the Percentage, 1968-1984 Percentage +85+80+75+70+65Percent change in percentage +20+15+10+5 0 1968 1970 1974 1976 1978 1980 1984 1972 1982 Tax Year *Two-year change; data for interim year not available.

the magnitude of the sampling error, see Statistics of Income--Individual Income Tax Returns for the years 1968-84.

NOTES AND REFERENCES

- [1] Data on interest income and deductions were obtained from Statistics of Income-Individual Income Tax Returns, Internal Revenue Service, U.S. Department of the Treasury, for each year, 1968-1984.
- [2] Not all interest receipts are included in this analysis. Examples are tax-exempt amounts of up to \$1,000 (\$2,000 on a joint return) received on so-called All-Savers

Certificates, issued after September 30, 1981 and before January 1, 1983; tax-exempt interest on state and local Government obligations; and tax-deferred interest on Individual Retirement Arrangements (IRA's) authorized beginning with Tax Year 1975.

Gradual growth in <u>payments</u> to IRA's during 1975-81 was succeeded by an explosion in 1982 when payments increased to six times the 1981 level. (In 1982, IRA contributions were approved for employees already covered by employer retirement plans.) Nevertheless, for that same year, interest income as a percentage of AGI, instead of

Figure H.--Housing Industry Construction and Financial Indications, 1974-1984

Calendar Year	Starts of new	Aggregate va	Number of nonfarm	
	privately-owned to the state of	New construction put in place, residential l-unit structures (billion dollars)	New mortgages for 1-4-unit family homes ¹ (billion dollars)	owner-occupied dwelling units with mortgage (millions)
	(1)	(2)	(3)	(4)
1974	888	\$26.3	\$ 67.5	23.0
1975	892	27.4	77.9	23.4
1976	1,162	40.0	112.8	24.1
1977	1,451	55.3	162.0	24.9
1978	1,433	62.4	185.0	25.6
1979	1,194	60.8	186.6	26.4
1980	852	45.7	133.7	27.1
1981	705	44.4	98.3	27.9
1982	663	41.5	97.0	n.a.
1983	1,068	72.2	201.9	27.8
1984	1,084	85.1	202.2	n.a.

n.a. - Not available.

Sources: Bureau of the Census, <u>Construction Reports</u>, Series C-20; and C-30; <u>1980 Census of Housing</u>; and <u>Current Housing Reports</u>, Series H-150; and <u>Department of Housing and Urban Development</u>, <u>Survey of Mortgage Lending Activity</u>, <u>1975-79</u> and <u>monthly</u> and <u>quarterly press releases</u>, <u>1980-84</u>.

declining, reached its peak. These data are of interest in view of the analysis of "asset-shifting" (see Galper, Harvey and Steuerle, Eugene, "Tax Incentives for Saving," SOI Bulletin, Spring 1984, Vol. 3 No. 4, p. 5).

- [3] Detailed statistics on itemized deductions are not available for 1971. The rate of increase for 1972 is therefore based on 1970 data in this instance. (Statistics on itemized deductions for 1969 are also not available.)
- [4] As the 1976 and 1979 data (in Figure F) show, the year-to-year change in the

number of HMI returns is not actually a subset of the change in the total number of ID returns since, for example, a tax-payer no longer reporting an HMI deduction might still have an ID deduction for other kinds of interest expenses. This limitation, however, does not invalidate the argument as to the effect HMI returns could have contributed to changes in the number of ID returns.

[5] Data on unemployment were obtained from U.S. Bureau of Labor Statistics, Employment and Earnings, December 1985.

¹Includes new and pre-existing units.

Table 1.-- Adjusted Gross Income and Total and Average Interest Income Based on Individual Income Tax Returns; and Average Interest Charged on 3-Month Commercial Paper, 1968-1984

						
Tax Year		Adjusted	Returns w	ith interest	Annual average interest charged	
	All gross in- come less deficit (billion dollars)		Number of returns (thousands)	Total interest income (billion dollars)	Average interest income (dollars)	on 3-month commercial paper (percent)
	(1)	(2)	(3)	(4)	(5)	(6)
1968. 1969. 1970. 1971. 1972. 1973. 1974. 1975. 1976. 1977. 1978. 1979.	73,729 75,834 74,280 74,576 77,573 80,693 83,340 82,229 84,670 86,635 89,772 92,694 93,902	554.4 603.5 631.7 673.6 746.0 827.1 905.5 947.8 1,053.9 1,158.5 1,302.4 1,465.4	31,061 32,127 32,630 34,114 35,697 37,920 39,954 40,378 42,569 44,006 46,107 47,885 49,020	16.8 19.6 22.0 24.7 27.4 32.2 39.5 43.4 48.6 54.6 61.2 73.9 102.0	540 611 675 725 768 848 990 1,076 1,141 1,241 1,328 1,543 2,081	5.90 7.83 7.72 5.11 4.69 8.20 10.01 6.25 5.24 5.55 7.94 10.97 12.66
1981	95,396 95,337 96,321 99,439	1,772.6 1,852.1 1,942.6 2,139.9	49,657 52,842 57,138 62,060	140.6 157.0 152.9 176.4	2,831 2,972 2,676 2,841	15.32 11.89 8.88 10.10

Source: Commercial paper, placed directly, averages of daily offering rates quoted by finance companies; as published in Salomon Brothers, Inc., New York, N.Y., <u>An Analytical Record of Yields and Yield Spreads</u>. Tax return data from <u>Statistics of Income--Individual Income Tax Returns</u> for appropriate years.

Table 2.--Returns With Itemized Deductions: Total Itemized Deductions and Total Interest and Home Mortgage Interest Deductions, 1968-1984

	All retu itemized	rns with deductions	Returns with interest deduction					
Tax Year	Number Total Nu		Number	Total		Home mortgage interest deduction		
	of returns (thousands)	itemized deductions (billion dollars)	of returns (thousands)	interest deduction (billion dollars)	deduction (billion	Average interest deduction (dollars)	Number of returns (thousands)	Total home mortgage interest deduction (billion dollars)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1968	32,030	69.2	26,014	18.5	713	16,588	9.8	592
1969	34,915	80.2	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1970	35,430	88.2	29,205	23.9	819	19,019	13.3	700
1971	30,686	91.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1972	26,980	96.7	23,788	27.3	1,150	18,512	16.4	887
1973	28,047	107.0	24,795	31.9	1,288	19,401	19.2	987
1974	29,564	119.4	26,108	37.4	1,431	n.a.	n.a.	n.a.
1975	26,074	122.3	23,385	38.9	1,663	18,987	24.2	1,273
1976	25,951	133.9	23,367	43.4	1,858	19,256	27.8	1,445
1977	22,897	138.5	20,890	47.8	2,289	17,710	31.0	1,748
1978	25,756	164.4	23,544	60.7	2,577	19,827	39.3	1,981
1979	26,484	184.1	24,512	74.4	3,036	20,854	48.5	2,326
1980	28,950	218.0	26,677	91.2	3,418	22,539	59.3	2,632
1981	31,571	256.4	28,764	108.7	3,780	23,506	68.6	2,917
1982	33,433	284.5	30,244	121.9	4,029	24,539	79.3	3,233
1983	_ <u>3</u> 5,230	309.6	31,684	134.7	4,251	25,559	88.8	3,475
1984	38,203	358.9	34,514	158.2	4,583	26,965	102.1	3,787

n.a. - Not available.