5. Governmental Activity and Finances

The Individual Income Tax

Occasional Paper 51, *Interest as a Source of Personal Income and Tax Revenue*, has been published. It presents one section of the study of the individual income tax on which I have been engaged for some time. I am now devoting my attention to the relations between personal and taxable income and, more immediately, to the personal exemptions and credits for dependents.

Between 1925 and 1935, the total number of persons who paid income taxes, and their dependents, ranged only between 3 million and 5 million a year, and accounted for only between 2.5 per cent and slightly more than 4 per cent of the country's population. By 1952, they exceeded 100 million and accounted for not far from two-thirds of our total population. This great change was the joint product of statutory reductions in the personal exemptions and the substantial growth and wider diffusion of personal incomes.

In line with other evidences of the rise and wider diffusion of personal incomes in very recent years is that provided by the changed distribution among the different income groups of the dollar amounts of personal exemptions and credits for dependents reported on taxable aggregate returns. Between 1948 (when the law first permitted income splitting between husbands and wives filing joint returns) and 1952, the aggregate amount of these allowances going to taxpayers with adjusted gross income under $3,000 fell by $3.8 billion or 22 per cent; the amount going to those with adjusted gross incomes between $3,000 and $5,000 rose by $4 billion or 18 per cent; and the amount going to taxpayers with adjusted gross incomes between $5,000 and $10,000 rose by $11.8 billion or 137 per cent.

The proportion of the total dollar amount of personal exemptions accounted for by those with gross incomes of less than $3,000 fell from 34 to 21 per cent between 1948 and 1952, and the proportion of the total accounted for by taxable returns with gross incomes of $3,000 to $5,000 rose by $4 billion or 18 per cent; and the proportion of the total accounted for by those with gross incomes of $5,000 to $10,000 rose by $10,000 or 137 per cent.

The proportion of the total dollar amount of personal exemptions accounted for by those with gross incomes of less than $3,000 fell from 34 to 21 per cent between 1948 and 1952, and the proportion of the total accounted for by taxable returns with gross incomes of $3,000 to $5,000 fell from 44 to 41 per cent. The proportion of the total accounted for by those with gross incomes of $5,000 to $10,000 rose from 17 per cent in 1948 to 32 per cent in 1952. This income group accounted for 90 per cent of the entire increase in aggregate personal exemptions in this period. The foregoing figures are all exclusive of exemptions for old age and blindness and exemptions on returns reporting self-employment tax only.

Another phase of the study of the indi-
individual income tax is reported below by C. Harry Kahn.

LAWRENCE H. SELTZER

Personal Expense Deductions

During the greater part of the past year I have been working on the completion of a study of the personal expense deductions allowed under the individual income tax, a part of which appeared in preliminary form in Federal Tax Policy for Economic Growth and Stability. Unlike business expense deductions, these deductions from the tax base are (with some exceptions) associated with the disposition, rather than with the creation, of an individual’s income. Unlike the personal exemptions, they apply to a few specific types of expenses rather than being a generalized and neutral per capita allowance. This study thus deals with one aspect of the derivation of the tax base.

Table 9 shows our estimates of the effects of personal deductions and exemptions on the tax base over the period 1918-1952. We start with total adjusted gross income, which is the estimated country-wide total of personal income adjusted to correspond to the currently used tax return concept of income. Personal exemptions have declined over the years in relative importance, and personal deductions have risen somewhat. As recently as 1952, their estimated combined amount has exceeded that of the tax base in every year, but in 1918 the exemptions took up twelve times as much income as the deductions while in 1952 they were only three times as large. These figures reveal two important features in the development of the modern income tax:

1. The amount of income eliminated from the tax base, by statute, within the aggregate that is conceptually designated as the tax base (as opposed to income that lies conceptually outside the tax base by not being part of adjusted gross income) is still very large. While

Table 9

<table>
<thead>
<tr>
<th>Year</th>
<th>1918</th>
<th>1926</th>
<th>1933</th>
<th>1946</th>
<th>1951</th>
<th>1952</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(millions of dollars)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Total adjusted gross income a</td>
<td>49,999</td>
<td>68,676</td>
<td>35,524</td>
<td>155,550</td>
<td>228,547</td>
<td>240,645</td>
</tr>
<tr>
<td>2. less estimated:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Leakage b</td>
<td>2,662</td>
<td>3,785</td>
<td>1,834</td>
<td>19,047</td>
<td>23,219</td>
<td>22,146</td>
</tr>
<tr>
<td>b. Deductions c</td>
<td>3,093</td>
<td>7,459</td>
<td>3,868</td>
<td>14,761</td>
<td>24,484</td>
<td>26,782</td>
</tr>
<tr>
<td>c. Exemptions e</td>
<td>36,123</td>
<td>46,287</td>
<td>25,950</td>
<td>55,920</td>
<td>80,737</td>
<td>83,671</td>
</tr>
<tr>
<td>3. equals: Tax base d</td>
<td>8,121</td>
<td>11,145</td>
<td>3,872</td>
<td>65,822</td>
<td>100,107</td>
<td>108,046</td>
</tr>
<tr>
<td></td>
<td>(%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Amount removed from tax base by:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Deductions (line 2b ÷ line 1)</td>
<td>6.2</td>
<td>10.7</td>
<td>10.9</td>
<td>9.5</td>
<td>10.7</td>
<td>11.1</td>
</tr>
<tr>
<td>b. Exemptions (line 2c ÷ line 1)</td>
<td>72.2</td>
<td>67.4</td>
<td>73.0</td>
<td>36.0</td>
<td>35.3</td>
<td>34.8</td>
</tr>
</tbody>
</table>

a Commerce Department’s personal income figures adjusted for differences in concept by Joseph A. Pechman, and incorporating changes made by Lawrence H. Seltzer, for years later than 1929. Years prior to 1929: Kuznets’ income payments estimates adjusted by Seltzer for differences in concept.

b “Leakage” refers to underreporting and statistical errors in estimating. For 1946, 1951 and 1952 our estimates are based on the income reported on all tax returns plus an estimate of the income received by those whose adjusted gross income was less than that stipulated as a filing requirement. For the earlier years no data for this purpose are available to us, and we therefore extrapolated the 1945-1946 relation between leakage and income reported on all returns back to the interwar period.

c These figures are in part based on the amounts actually claimed on taxable returns, and in part on ratios revealed on nontaxable returns.

d This is the taxable net income as estimated from taxable return data in Statistics of Income.
it declined sharply from over 80 per cent in pre-World War II years to about 46 per cent of total adjusted gross income in 1952 after some leakage due to underreporting, we are still left with only 44 per cent of the 1952 total in the actual tax base.

2. The amount of income thus removed from the tax base is less than formerly related to population and family size, and more to certain types of personal expenses and size of income (as the result of the optional standard deductions).

Table 10 repeats the steps taken in Table 9, except that this time we start out with income reported on taxable returns. The tax base figure in line 3 is, of course, the same in both tables. The table shows the remarkable stability over time of the ratio of the tax base to the income of taxpayers. This is largely due to the equally stable ratio of exemptions to taxpayers’ income. The latter has varied between 0.32 and 0.38 in the majority of the years between 1918 and 1952.

This finding is somewhat surprising in view of the substantial changes in both the level of incomes and exemptions over this period. However, whenever exemptions are lowered, or national income rises, or both, the exemption-income ratio of the old taxpayers tends to fall, but the new taxpayers who are just entering the taxable group have, on the average, a high exemption-income ratio. Our figures indicate that the entrance of new taxpayers, with high exemption-income ratios, was at most times just sufficient to offset the falling ratios of the old taxpayers. Not that this had to happen, a priori, or that it will necessarily continue to happen. Nevertheless, this observation provides us with a fairly good clue to the income elasticity of the tax, an important element of its built-in flexibility.

We have also attempted to give a quantitative historical account of each of the major deductible items, such as the philanthropic contributions, non-business interest payments, state and local personal taxes, and medical expenses. In 1952, these itemized deductions accounted for slightly more than one-half of the total deductions on taxable returns, the rest being taken in the form of the optional standard deduction. The latter was introduced as a tax simplification measure in 1944. In that year, 63 per cent of the total was taken in the standard form, but since then this figure has declined steadily to its present level of just below 50 per cent.

The reason for this appears twofold:

1. There has been a perceptible upward trend in the major deductions in recent years. In the case of the interest, taxes, and medical

<table>
<thead>
<tr>
<th>Table 10</th>
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<tbody>
<tr>
<td>DEDUCTIONS AND EXEMPTIONS ON TAXABLE RETURNS, SELECTED YEARS, 1918-1952</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>1. Adjusted gross income</td>
</tr>
<tr>
<td>2. less:</td>
</tr>
<tr>
<td>a. Deductions</td>
</tr>
<tr>
<td>b. Exemptions</td>
</tr>
<tr>
<td>3. equals: tax base</td>
</tr>
<tr>
<td>4. Adjusted gross income</td>
</tr>
<tr>
<td>5. less:</td>
</tr>
<tr>
<td>a. Deductions</td>
</tr>
<tr>
<td>b. Exemptions</td>
</tr>
<tr>
<td>6. equals: tax base</td>
</tr>
</tbody>
</table>

Note: The adjusted gross income concept was not introduced until 1944. The figures for prior years are our own estimates based on Statistics of Income data.
expense deductions, this growth has also been observed in the underlying expenditure aggregates. For philanthropic contributions, no reliable aggregate series is as yet available.

2. There have been continued, though small, liberalizations in the legal definition of what constitutes allowable personal expense.

It should be noted that the rise in incomes appears to have had little, or no, direct bearing on this development since we find that within the taxable return category, the income subject to the 10 per cent standard deduction has not changed appreciably in relative amount since 1948. Indeed, since 1944, it has risen because of the extension of the upper limit on the standard deduction from $500 to $1,000 in 1948.

C. HARRY KAHN

THE TAX TREATMENT OF STOCKHOLDERS

"The Differential Tax Burden on Stockholders" has been approved by the directors, and is being prepared for publication. The contents of the study are indicated by the chapter titles:

Chapter

1 Introduction
2 The Results for 1950
3 A Summary of Our Findings, 1940-1950
4 Alternative Measures of the Differentials against Net Corporate Earnings and Stockholders
5 The Taxation of Corporate Earnings and Progressivity
6 Some Revenue Aspects of the Differential Taxation of Stockholders
7 The Relief Provisions of the Internal Revenue Code of 1954
8 Summary and Conclusions

DANIEL M. HOLLAND

CITY EXPENDITURES IN THE UNITED STATES

In our study of the factors influencing variations among 462 cities in per capita expenditures on various services, it turned out to be important to take account of differences in the degree to which certain functional responsibilities are divided between the city and other governmental authorities. Accordingly, separate multiple regression analyses were carried out for the cities of California, Massachusetts, and Ohio, and for the forty largest cities whose expenditures for 1953 could be combined with those of their overlying local governments.

The results in each of the four cases reveal a far closer association between the various categories of expenditure studied and population size and density, family income, state aid, and the ratio of employment in manufacturing, trade, and services to population than did the analysis for all 462 cities taken together. While the latter, for example, produced coefficients of multiple determination no higher than .24, only five of thirty-three of the corresponding coefficients for the four subgroups are as low as, or lower than, this value, and others range upwards to .70, after correction for the reduction in the number of degrees of freedom. Similar increases appeared in the regression and elasticity coefficients.

For the forty large-city areas we could not only combine expenditures of the cities and their overlying units of local government, but also test the hypothesis that the lower the ratio of the central city's population to that of its metropolitan area, the higher its per capita expenditures on major functions. A decline in the population ratio implies an increase in the proportion of persons for whom public services must be provided by the city but who are not a part of the city's own population. Our results give strong support to the hypothesis.

Examination of the data for all cities suggested that there is a substantial degree of association between the per capita amounts spent by cities and the nature of the city. Accordingly, the 462 cities were classified into seven groups: core cities of major (population 250,000 and over) and minor (population under 250,000) metropolitan areas, high and low income residential suburbs, industrial suburbs, cities not part of a "standard" metropolitan area, and major resort cities. Differences in expenditures among groups of cities classi-
fled in this fashion were statistically significant.

The results of our analysis, therefore, suggest strongly that a substantial part of the variance in expenditures "unexplained" by the independent variables in the study of the 462 cities may be due to differences in (1) the distribution of functional responsibilities among local governments from state to state, (2) the ratio of city to metropolitan area populations, and (3) the nature of the city with respect to its classification according to the criteria indicated above.

Harvey E. Brazer

Other Studies

The varied activities of government are reflected in the three reports published during 1955 and the two in press:

* The Ownership of Tax-Exempt Securities, 1913-1953, Occasional Paper 47, by George E. Lent
* Minimum Price Fixing in the Bituminous Coal Industry, by Waldo E. Fisher and Charles M. James


"Federal Programs of Lending, Loan Insurance, and Loan Guarantees," by R. J. Saulnier, Neil H. Jacoby, and Harold G. Halcrow will shortly be ready for review by the Board.

John Firestone's manuscript on the cyclical behavior of federal revenues and expenditures since 1879 is being revised.

The statistical work on the monograph on the growth of British governmental expenditures, 1890-1950, by Alan T. Peacock of the London School of Economics, is largely completed. Several chapters are in draft form.

Morris Copeland's report on his study of governmental financial capital requirements is in Section 2, and Roland J. Robinson's report on his study of the markets for government securities is in Section 4. Two new studies are reported briefly in Part Two. One is a broad exploration of the needs for research on the economic effects of public and private pension programs; the other is concerned with the analysis of newly available data on state and local government expenditures.

6. International Economic Relations and Foreign Economies

Economic Growth of the Soviet Union

The object of this study, begun in 1954 under a grant from the Rockefeller Foundation, is to set forth and analyze the evidence bearing on the question: How rapidly has the Soviet economy been growing in the past thirty years? The study was undertaken in full recognition of the inherent difficulty of arriving at an answer to this question and of the special difficulties attaching to the securing of reliable information.

In addition to the work reported on separately, studies are also being made of Soviet housing construction, labor force and population, and standard of living. Work in these areas is being done by Leo Grebler, Carolyn Shilling, Harold Wool, and Nancy Baster.

Industrial Production

The task of assembling annual figures on output and adjusting them to take account of the absorption of "small-scale" industry has been essentially completed, and some preliminary analysis has been started.

A cross-sectional view of the output series is given in Table 11. The count of series should not be taken too literally since there is some overlapping. In addition, a large number of subsidiary series covering relatively short periods, or containing pronounced gaps, are not included in the table. The best coverage is for 1928 through 1937 and for industrial materials. Here again a word of caution is called for, however, since almost all series contain minor gaps in the periods covered.