The debate about overhauling the federal tax system is, at the most fundamental level, a debate about the proper tax base — in effect, the proper economic definition of income. The statutory history of the income tax has generally relied on a definition of income imputed to the “common man,” a definition which the Supreme Court effectively ratified in the 1921 Eisner v. Macomber case. However, as the survey results reported in Figure 1 indicate, the popular definition of income — when compared with scientifically consistent definitions of income — is replete with internal inconsistencies. Indeed, for purposes of taxation, only one scientifically consistent definition of income exists — that definition which underpins current federal pension laws, also known as “yield income.”

Survey Design and Results

The Tax Foundation collected 104 completed copies of the survey shown as Figure 1. Most of the survey questions were taken from a similar survey published in a 1942 book by Irving and Herbert W. Fisher, titled Constructive Income Taxation: A Proposal for Reform. The survey was replicated, in part, to assess the continuity of the “common man’s” definition of income over time. The results of the two surveys were virtually identical.

The aggregate results of the Tax Foundation survey (as a percent of the answers received) were placed next to each available response of Figure 1. The sample of results was also truncated to include only the responses of those people likely to be more familiar with the details of tax law: accountants, financiers, and lawyers. In this truncated sample, the most popular responses remained the same, but the shares of such responses increased.

Putting the Survey Responses in Context

Only two definitions of income have logical consistency — “accretion income” and “yield income.” Yield income constitutes a definitional subset of accretion income. With the exception of questions 10 and 11, the survey was designed to limit answers to either the yield or accretion definition of income, with an “undecided” response allowed for each question. Questions 10 and 11 allowed for a response based upon the make-shift realization criterion of income. [An extended discussion about the intellectual lineage of accretion and yield income may be found in the Tax Foundation Background Paper No. 17 (March 1997), titled “The Concept of Income Revisited: An Investigation into the Double Taxation of Saving.”]

Accretion income also goes by the name of Haig-Simons income, in tribute to the writings of economists Robert M. Haig and Henry C. Simons. Over a designated accounting period, accretion income equates to:

Money earned but not saved + Net capital accumulation (whether through new saving or changes in the market value of existing savings).

The term “accretion” evolved out of Haig’s reference to the accretion of value in a person’s wealth (capital accumulation) over an accounting period. The philosophical essence of the Haig-Simons standard involves the acquisition of economic power, the power to command goods and services produced in the economy, regardless of whether or not such power is actually exercised. In the tax laws to date, because of its link to accounting practice, the concept of accretion income has pre-
Figure 1
Tax Foundation Survey: "What is Income?"

For Questions 2 through 9 and Questions 12 through 16, responses to "A" equate to a definition of "yield income," while responses to "B" equate to a definition of "accretion income." For Questions 10 and 11, a response to "A" equates to a definition of "yield income," a response to "B" equates to a definition of "realization income," and a response to "C" equates to a definition of "accretion income."

1. Please mark the answer that best describes your career experience:
   A. Accounting (34.6%)
   B. Finance (3.8%)
   C. Lawyer (13.5%)
   D. Legislative/Policymaker (0%)
   E. Student (13.5%)
   F. Other (39.6%)

2. Suppose a certain stock earns $3 a share during a certain year, but the company pays out in dividends $2 per share, the other $1 being undivided profits on the books of the company. You own 1,000 shares, so that you receive in that year $2,000 in dividends. What would you ordinarily consider your income from that stock?
   A. $2,000 (89.4%)
   B. $3,000 (9.6%)
   C. $0 (0%)
   D. Undecided (1%)

3. Suppose your wages to be $40,000, and, out of this, you save $10,000 (by depositing it in a savings bank, buying a bond, putting it into your business, or otherwise). Would you think of your total income as
   A. $30,000 (3.8%)
   B. $40,000 (96.2%)
   C. Undecided (0%)

4. Suppose you have stock worth $100,000 on the market January 1, 1996. On December 31, 1996 (12 months later), this stock has increased in value to $107,000. No dividends are paid by the company for that year, and you neither buy nor sell any of the stock during 1995. Do you regard this $7,000 increase in stock value as income?
   A. No (87.5%)
   B. Yes (11.5%)
   C. Undecided (1%)

5. Suppose you have $1,000 in a savings bank. The bank allows 5% interest on this and so increases your account by $50 during a period of one year. Would you consider this $50 as part of your income?
   A. No (11.5%)
   B. Yes (87.5%)
   C. Undecided (1%)

6. You have $1,500 in a savings bank. The bank allows you 5% interest and so increases your account by $75 during a period of one year. On December 31 you withdraw $60 of this accrued interest to pay bills. What would be your income from this savings account?
   A. $60 (7.7%)
   B. $75 (92.3%)
   C. Undecided (0%)

7. On January 1, 1995, you have a savings account of $500. The bank paid 5% interest. On December 31, 1995, 12 months later, your accrued interest amounted to $25, and you withdrew it. Later, during the same day, you changed your mind and deposited the same $25 in the same account. What was your income from that account for the year?
   A. $0.00 (6.7%)
   B. $25.00 (93.3%)
   C. Undecided (0%)

8. For many years your income has been $50,000 a year. Last year in your spare time you diligently worked a small mining claim, which suddenly brought you an additional $500,000. Of this $500,000, you spent $50,000 on a new boat and invested $450,000 in bonds. What was your income for that year?
   A. $100,000 (3.8%)
   B. $550,000 (92.3%)
   C. Undecided (3.8%)

9. Suppose your investments were worth $100,000. This year you received and spent $5,000 from these investments, but your investments shrank in value to $99,000. Which of the following items would be your "income" for this year?
   A. $5,000 (69.2%)
   B. $4,000 (24%)
   C. Undecided (6.7%)

10. On January 1, 1995, you own 2,000 shares of stock worth $20,000. On December 31, 1995, these shares are worth $30,000 and you sell 1,000 shares, reinvesting the $15,000 proceeds in other shares. You earn $50,000 in salary over the year, all of which is spent on living expenses. What is your income for the year?
    A. $50,000 (21.2%)
    B. $55,000 (51%)
    C. $60,000 (17.3%)
    D. Undecided (10.6%)

11. In the example above (Question No. 10), suppose you reinvested $10,000 from the proceeds of the sale of stock, using the other $5,000 to buy a computer. What is your income for the year?
    A. $50,000 (5.8%)
    B. $55,000 (67.3%)
    C. $60,000 (15.4%)
    D. Undecided (11.5%)

12. You own shares of stock that pay a dividend of $5,000 over the course of the year. Upon receipt of the dividend you reinvest it in shares of another company. Your salary for the year is $50,000, all of which is used for living expenses. What is your income for the year?
    A. $50,000 (12.5%)
    B. $55,000 (87.5%)
    C. Undecided (0%)
    D. Undecided (0%)

13. You own a strip mall worth $800,000. From January 1, 1995, to December 31, 1995, this mall paid you $40,000, which you used for living expenses. During this period of 12 months the mall was damaged by fire to the extent of $200,000. Which of the following figures represents your income for that period of time?
    A. $40,000 (52.9%)
    B. $160,000 (36.5%)
    C. Undecided (10.6%)

14. You have purchased from an insurance company a $6,000 a year life annuity, and on the basis of your age it costs you $50,000. The policy ran out only one year later, without you having to pay $49,000. During the year you spent the whole $6,000 to pay bills. Your annuity meanwhile decreased in value (as was stated) by $1,000. What do you consider your income for that year?
    A. $6,000 (55.8%)
    B. $5,000 (25%)
    C. Undecided (19.2%)

15. Several years ago you purchased an orange grove. The trees were very young and had not yet reached their period of peak production; lack of sufficient water had also prevented the trees from attaining their best growth and productivity. But during the 12-month period of time, January 1, 1995, to December 31, 1995, there was more than sufficient rainfall, and your trees reached a high level of productivity.

16. You own a vacant lot which is tax free. On January 1, 1996, the lot was evaluated by a real estate expert at $20,000. On December 31, 1996, 12 months later, the same real estate expert informed you that your lot was now worth $30,000. He also stated that the reason for the $10,000 increase in value was due to the fact that a big corporation was going to build a large factory in the vicinity. During this 12-month period your income from all other sources amounted to $50,000, all of which you used for living expenses. Which of the following figures represented your income for the 12-month period?
    A. $50,000 (89.4%)
    B. $90,000 (9.6%)
    C. Undecided (1%)
vailed over its competing economic concept of yield income.

Yield income represented economists’ common interpretation of the term “income” before the income tax became a staple feature of American political economy. (Indeed, Haig held this interpretation on intellectual grounds, but rejected it on practical grounds for the sake of the income tax.) An economist named Irving Fisher fully articulated the yield income concept in his enduring economic classic titled The Nature of Capital and Income (1908). Over a designated accounting period, yield income equates to:

Money earned but not saved + Dis-saving from existing savings.

In common terminology, the term “yield” generally (though not technically) refers to the money people use for consumption. The philosophical essence of the yield income standard involves the personal gratification embodied in the actual use of goods or services produced in the economy, the value — or “income” — of which use is measurable by the amount of money expended. In the body of current tax law, the concept of yield income applies only to money earmarked for retirement in the form of pensions, 401(k) plans, individual retirement accounts, and the like.

The Pattern of Survey Responses: Cash is Key

The competing concepts of yield and accretion income split on whether or not capital accumulation belongs in a proper economic definition of income. Therefore, the responses in each question of Figure 1 split according to the exclusion and inclusion of capital accumulation.

However, the survey results show that the popular understanding of income generally does not split along the lines of capital accumulation. Rather, the common man thinks of the term “income” more literally as the actual or virtual amount of net new cashflow under his stewardship. This idea corresponds with the notion of “gross yield” (as opposed to net yield or “yield”) — that is, total money inflow without regard for outgo (money saved or money reinvested).

The pattern of responses on questions 2 through 5 immediately reveals the inconsistent nature of popular conceptions of income. Questions 2 and 4 are mirror images of questions 3 and 5. The key difference among them focuses on the perception of cash inflow. In questions 2 and 4, a corporate entity, as caretaker of the stockholder’s money, saves for the individual, so the common man does not consider the saving to count as income. In questions 3 and 5 the individual, as caretaker of his own money, saves for himself, so the common man does count the saving as income.

This idea of gross yield remains consistent throughout the remaining questions 6 through 15. The “yield” response is chosen when it most closely matches the idea of gross yield. The “accretion” response is chosen when it most closely matches the idea of gross yield.

The responses to questions 10 and 11 underscore this pattern. Response B of question 10 allows for a response based upon the accountants criterion of “realization.” This criterion is virtually synonymous with the idea of gross yield. Indeed, one respondent felt compelled to comment that questions 10 and 11 were “the same question.” But they are not the same. In question 10, response A equals yield income, because all proceeds of the stock sale — including the capital gain portion — were reinvested. In question 11, response A equals nothing of significance; response B equals both the yield and the realization concepts of income, because $5,000 of the proceeds from the stock sale, which also happens to be the capital gain portion of the sale, were not reinvested.

Few respondents were completely self-consistent with regard to their responses. No one answered all questions consistent with the definition of yield income. Two people had between one and three inconsistent responses with regard to the definition of yield income. Only four respondents answered all questions consistent with the definition of accretion income. Five people had between one and three inconsistent responses with regard to the definition of accretion income. However, sixteen respondents answered all questions consistent with the definition of gross yield. Sixty-one people had between one and three inconsistent responses with regard to the definition of gross yield.

Figure 2 further dissects the popular concept of gross yield by comparing it to the accretion responses, ranked in descending order of popularity. Notice that the accretion responses are lumped into three discernable groups. The top-five responses (all of which received at least 87.5 percent of the responses) have one thing in common: All of the questions involve an accumulation of capital that, either actually or virtually, results from the acquisition of cash — and thus correspond to the gross yield concept. In the bottom-two groups (with the exception of the two stock-sale questions, which also correspond to gross
Figure 2
Accretion Response Sorted by Frequency

<table>
<thead>
<tr>
<th>Question #</th>
<th>Description</th>
<th>Accretion Responses</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Savings made out of gross yield</td>
<td>100</td>
<td>96.2%</td>
</tr>
<tr>
<td>7</td>
<td>Accrued interest withdrawn but reinvested</td>
<td>97</td>
<td>93.3%</td>
</tr>
<tr>
<td>6</td>
<td>Part of accrued interest withdrawn</td>
<td>96</td>
<td>92.3%</td>
</tr>
<tr>
<td>8</td>
<td>Sudden profit partly spent, partly reinvested</td>
<td>96</td>
<td>92.3%</td>
</tr>
<tr>
<td>12</td>
<td>Dividends paid out but reinvested</td>
<td>91</td>
<td>87.5%</td>
</tr>
<tr>
<td>5</td>
<td>Interest accrued but not paid out</td>
<td>91</td>
<td>87.5%</td>
</tr>
<tr>
<td>13</td>
<td>Property reduced in value by fire</td>
<td>38</td>
<td>36.5%</td>
</tr>
<tr>
<td>14</td>
<td>Depreciation in value of life annuity</td>
<td>26</td>
<td>25.0%</td>
</tr>
<tr>
<td>9</td>
<td>Depreciation of investment</td>
<td>25</td>
<td>24.0%</td>
</tr>
<tr>
<td>10</td>
<td>Capital gain on stock sale reinvested</td>
<td>18</td>
<td>17.3%</td>
</tr>
<tr>
<td>11</td>
<td>Capital gain on stock sale not reinvested</td>
<td>16</td>
<td>15.4%</td>
</tr>
<tr>
<td>4</td>
<td>Appreciation of investment</td>
<td>12</td>
<td>11.5%</td>
</tr>
<tr>
<td>15</td>
<td>Appreciation of property</td>
<td>10</td>
<td>9.6%</td>
</tr>
<tr>
<td>2</td>
<td>Whether yield or earnings of stock is income</td>
<td>10</td>
<td>9.6%</td>
</tr>
<tr>
<td>16</td>
<td>Appreciation of property</td>
<td>9</td>
<td>8.7%</td>
</tr>
</tbody>
</table>

Source: Tax Foundation.

yield) the increase or decrease in capital accu-
mulation results from appraisals, not the acqui-
sition of cash. Even with appraisals, however,
a distinction seems to exist. For some reason,
by a factor of more than two to one, people
favoring the accretion concept regard depre-
ciation in capital value as "negative" income
but do not regard appreciation in capital value
as positive income.

The perceptual difference between the
depreciation and appreciation of capital value
suggests the interdependent evolution of the
popular conception of income with the prac-
tices of age-old mercantile accounting prac-
tices. These "generally accepted accounting
practices" became an official benchmark for
U.S. income tax compliance with the enact-
ment of the Revenue Act of 1918.

Why the Definition of Income
Matters

The key difference between accretion and
yield for purposes of tax policy has to do with
the double taxation of money used for saving.
The use of accretion income results in double
taxation; the use of yield income does not.
The double taxation inherent in the use of ac-
cretion income is a manifestation of the differ-
ence between the unique goals of accounting
practice and economic reality.

Bookkeeping Versus Economics

The concept of accretion income is rooted
in the practice of mercantile bookkeeping.
The convention that evolved under such book-
keeping holds fixed over an accounting period
the item called "capital." This convention, by
holding fixed the beginning-of-year capital
stock of an enterprise, necessitates treating
capital accumulation as "income" and a de-
crease in capital value (dis-saving or deprecia-
tion) as negative "income." Yet conventional
practice has tended to account for appreciation
and depreciation differently. Appreciation is
not typically booked each accounting period.
Instead, it is booked only when the apprecia-
tion is "realized" through the liquidation of an
asset. Depreciation, on the other hand, is typi-
cally estimated and booked each accounting
period.

This centuries-old bookkeeping convention
helps explain why the accretion income con-
cept, as practiced by the accountant, is so en-
trenched in the minds of many as the proper
definition of income. However, from the viewpoint of economics, this convention fails to measure actual income properly. Instead, it creates an ideal standard that bookkeepers set up for reference — it treats all capital as fixed and all “income” as a perpetual annuity. In reality, however, both capital and income are variable.

From the viewpoint of a business enterprise, the accounting practice that spawned the notion of accretion income has two important benefits. First, it enables businesses to compare their various operations to a fixed standard. Second, it shows, at a glance, what the history of an enterprise has been with regard to capital accumulation — and, therefore, its prospects for generating future actual income.

From the viewpoint of economics, however, accretion income (and, by extension, the realization criterion) has two major drawbacks. First, it fails to distinguish between capital and income, two economic concepts which are reciprocally related but mutually exclusive categories. Second, counting capital accumulation as income results in the double counting of actual economic income — and, therefore, double taxation. (Ironically, one can employ double-entry bookkeeping — the bulwark of accounting theory and practice — to demonstrate these economic shortcomings of accretion income.)

The Important Differences Between Capital and Income

Capital accumulation, under a rigorous scientific definition, cannot belong to the category called income. The value of capital is determined by the present (or discounted) value of expected future income. Income, therefore, is that which people capitalize. The practice of counting capital accumulation (saving) as income, therefore, ultimately results in double counting. It counts as current that which by definition is future — and counts it as current again when the future arrives.

Key differences exist between capital and income. Each difference relates to the all-important fact that additions to capital have no independent existence apart from the value of the flow of expected future income. The value of capital will vary based upon (1) the time period in which each item of expected income accrues, (2) the variation in the size of each item of expected income in the flow, and (3) the rate of interest used to discount the flow. Two other points are crucial. First, items of actual income can be varied at will, each independently of the others. However, additions to capital cannot be known until the flow-pattern of all of the actual income is known. Second, the flow of expected income does not vary with respect to the interest rate. However, to a significant degree, the value of additions to capital does depend on the interest rate.

As a general principle, then, the value of capital at the beginning of any accounting period is composed of the sum of two parts. The first part is the discounted value of the income accruing during that period. The second part is the discounted value of the capital at the end of that period. But, it is vital to understand that this end-period capital value is equal to the discounted value of all subsequent income. Additions to capital are capitalized income, not income itself.

An examination of Figure 3 helps illustrate this robust principle. Figure 3 shows an annuity which has an expected income of $1,000 for the first 14 years and $2,000 in perpetuity thereafter. Assuming an interest (or discount) rate of five percent, the price (or initial capital value) of this annuity is equal to $30,101. As Figure 3 shows, the annuity will have a capital accumulation phase over the first 14 years, at which point the capital value will grow to $40,000 — the capital value of a perpetual annuity that pays $2,000 in actual income per year with a five percent rate of interest.

One can demonstrate that the $9,899 of capital accumulation (or the annual additions that sum to $9,899) does not play the same role in the capitalization process as the actual payments of expected income designated by the annuity. That is, income and additions to capital represent fundamentally different things — so they cannot both belong to the category called income.

A straightforward demonstration of this fact comes from recalculating the price (initial capital value) of this annuity assuming that the additions to capital are income. Making such an assumption means that the numbers in the columns labeled “Additions to Capital” and “Income” are summed together and that the resulting time series (flow) is discounted at a five-percent rate of interest. The resulting present value becomes $36,836 instead of the correct valuation of $30,101.

The initial capital value increases by $6,734 when saving counts as income because double counting takes place. Items — additions to capital — that represent the discounted value of future income are being counted as items of current income. Moreover, this double counting takes place on a
compounded basis.

Another demonstration may provide more intuition. Suppose that the annuitant sold his annuity at the end of the first year for $30,606 and the initial $30,101 is reinvested. This situation would indeed increase the annuitant's first year income by $505. But this increased income comes at the expense of future income, because the annuitant has now sacrificed one year's worth of capital accumulation. Reinvesting the $30,101 will now only purchase a flow of income equal to $983.50 for 13 years and $1,967 in perpetuity thereafter. The annuitant must reinvest the full $30,606 in order to preserve the original $1,000 and $2,000 income streams. However, reinvesting the full amount precludes the annuitant from counting the $505 as current income. It follows, therefore, that an increase in current income comes at the expense of capital accumulation — the capitalization of future income. Capital and income are mutually exclusive categories.

Implications of the Popular Definition of Income for Tax Policy

With the exception of questions 10 through 12, all of the survey questions were taken from a similar survey published in Irving and Herbert Fisher’s 1942 book Constructive Income Taxation: A Proposal for Reform. When the Fisher brothers conducted their survey, they received 100 survey responses with aggregate results virtually identical to the results of this survey. Along with adding confidence to the representative nature of the sample size, the results attest to the force of the Fisher brothers' conclusion reached by the Fishers (p. 119):

To found our whole system of income taxation, as legislated and as judicially interpreted, on the common man's notions, so hybrid, self-inconsistent, confused, uncertain, and vague is preposterous — just as preposterous as for physicists to found their theory of thermodynamics on what the common man thinks is "heat."

The popular definition of income, like the accrual income standard, is inherently biased against saving. Because it fails to distinguish between capital and income, it double counts actual income and, therefore, double taxes capital accumulation. The important point about the survey results is not that the "common man" has a technically confused definition of income. The point is that the institutionalization of his definition has resulted in destructive fiscal policy.

Physicists have ignored the "common man's" technically inadequate definition of "heat" and both the science of thermodynamics and the common man have benefited. People throughout the country warm their homes in the winter by using heat pumps that extract heat from the cold outside air.

On the other hand, economists (along with legislators and judges) have embraced the "common man's" technically inadequate definition of income and both the science of economics and the common man have suffered. The current body of tax law double taxes thrift and mitigates tax-law complexity by recognizing that the tax laws which relate to money earmarked for retirement embody not the special treatment of "income" but the economically correct definition of income for tax policy.