THE TREATMENT OF PENSIONS AND INSURANCE IN NATIONAL ACCOUNTS*

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In the course of the nearly two decades since the revised SNA was developed, the role of pensions and insurance in the developed western economies has been significantly altered. The United Nations System of National Accounts (SNA) is not fully consistent in its treatment of pension and insurance transactions. This paper examines whether, in view of the changed institutional context, a modification of the SNA treatment of this complex of flows would be desirable. It investigates the impact on household income and saving of adopting a somewhat more consistent transactor/transaction approach for all pension and insurance transactions. Four main topics are covered: (1) social security, (2) private pensions, (3) life insurance, and (4) casualty insurance. Each is considered in terms of the treatment of contributions, the treatment of benefits, and the handling of reserves and the income generated by them. The same sorts of problem arise in all four cases.

INTRODUCTION

The approach of the United Nations System of National Accounts (SNA) to privately funded pensions and insurance is essentially a neo-classical one. Apart from the costs of operation, private pension contributions and life insurance premiums are considered to be a form of household saving, part of the accumulation of wealth by households that should appear as a category of assets on the household balance sheet. But publicly funded schemes—social security arrangements—are not treated in this way. Entitlements under public programs are not credited to households until such time as the benefits are actually received. In view of the increased importance of both the public and private components of social protection, a reexamination of the appropriateness of this difference in their treatment seems warranted.

A number of alternative proposals have been made for resolving the difference. On the one hand, it has been proposed that the value of social security entitlements should be included in household wealth, thus in effect treating public pensions like private ones. On the other hand, it has been argued that an increase in future pension and insurance entitlements is different in character from presently available household income, and that, in the household income and outlay account, it would be useful to show current benefit payments received instead of the accretion to future rights which may or may not be exercised. This would lead to treatment of private flows in a way more like the present treatment of public ones.

Questions have also arisen with respect to casualty insurance. Casualty insurance covers a wide variety of different kinds of risks, including sickness and

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accidents, unemployment, and property damage such as fire and theft. SNA treats all of these risks in the same way—but a way that is quite different from the treatment of the risk protected against by life insurance. Country practices, for the most part, do not follow these SNA recommendations. In recent years, it has been suggested that the different kinds of casualty insurance should not all be treated alike. They are really very different in character, and each warrants separate consideration.

Despite the differences in the various forms of pension and insurance transactions, they should not be dealt with on an *ad hoc* basis; it is important that they all be fitted consistently into the basic transactor/transaction framework of SNA. As a basic principle, SNA constructs transactor accounts for recording the transactions in which transactors are involved. Although there are sometimes definitional problems in determining the specific transactions in which transactors are involved, as a general rule the principle of "benefit" is not considered to be relevant. Thus if the government makes an expenditure on goods and services that are used to benefit households, on education for example, the expenditure remains a government outlay; it is not attributed to households even though they benefit from it. As a consequence of this focus on recording transactions, it follows of course that recorded household consumption expenditure does not measure total consumption of households. This treatment has the advantage, from an accounting point of view, that the national accountant is not called upon to make judgements about incidence: he only needs to know who pays, not who benefits or how much.

Although SNA is explicit about the treatment of transactions between government and households, it is less clear in applying the same principles to transactions between employers and households, perhaps because of a judgement that transactions between employers and third parties that were primarily for the benefit of employees were of little quantitative importance. With the increased importance of social security, pensions, insurance and health benefits, this question needs to be reexamined. In some instances, employers engage in transactions that, although of benefit to their employees, are and should be recognized as transactions between the employer and a pension fund, insurance company or health provider. In other instances, however, an employer may merely be serving as an agent for his employees, and it is the employee who should be considered to be engaged in the transaction. Thus when an employer withholds income tax from an employee's wages and pays them to the government, it is appropriate to consider that the employer is acting purely as an agent, and to include the tax as part of wages paid to employees and also as taxes paid by households to government. Although it may sometimes be difficult to distinguish cases in which employers are directly involved in transactions with pension funds, insurance companies, and health care providers from cases in which they are merely acting as agents for their employees, the distinction is analytically useful and is in accord with the broad transactor/transaction approach of SNA.

To illustrate the magnitude of the shifts in the importance of pensions and insurance that have occurred, Table 1 presents comparative data for the United States for 1965 and 1979. Over this interval the contributions for and the benefits from public and private pension and health insurance plans increased six to

TABLE 1

SOCIAL SECURITY, PENSIONS, HEALTH AND LIFE INSURANCE IN THE UNITED STATES, 1965 AND 1979

(BILLIONS OF DOLLARS)

	1965	1979	1979/1965
I. Total Contributions	*68.8*	*377.4*	*5.5*
A. Employers' Contributions	34.2	223.4	6.4
1. Social Security Contributions	12.6	82.2	6.3
a. Old age and disability	8.9	51.9	5.8
b. Health and hospital	0.0	10.5	—
c. Unemployment	3.7	15.9	4.3
2. Pension Funds and Insurance	21.6	141.2	6.5
a. Pension plans	11.2	79.2	7.1
b. Group health insurance	5.9	41.6	7.1
c. Group life insurance	1.7	6.0	3.5
d. Workmen's compensation	2.8	14.4	5.1
B. Employees' Contributions	14.0	88.8	6.3
1. Social Security Contributions	10.5	70.5	6.7
a. Old age and disability	10.5	57.3	5.5
b. Health and hospital	0.0	13.2	—
2. Pension Funds and Insurance	3.5	17.8	5.9
C. Personal Contributions	20.6	65.2	3.2
1. Life Insurance and Annuities	16.6	51.0	3.1
2. Health Insurance	4.0	14.2	3.5
II. Income Earned on Reserves	*8.2*	*36.0*	*4.4*
1. Pension Funds	4.8	26.3	5.5
2. Life Insurance and Annuities	3.4	9.7	2.6
III. Total Benefits	*64.0*	*346.7*	*5.4*
A. Government Transfers	26.6	172.8	6.4
1. Old Age and Disability Benefits	18.1	102.6	5.7
2. Health and Hospital Benefits	0.0	29.2	—
3. Unemployment Benefits	2.3	9.4	4.1
4. Workmen's Compensation	0.6	2.5	4.2
5. Other Welfare Benefits	5.6	29.1	4.8
B. Employee Benefits	27.6	149.5	5.4
1. Pension Benefits	7.6	59.8	7.9
2. Health Benefits	7.6	42.9	5.8
3. Group Life Insurance Benefits	1.6	4.9	3.1
4. Workmen's Compensation	1.5	7.9	5.3
5. Military and Veterans Benefits	7.3	24.0	3.3
6. Other Unfunded Benefits	2.0	10.0	5.0
C. Personal Benefits	9.8	24.4	2.5
1. Health Insurance Benefits	1.1	6.0	5.5
2. Life Insurance and Annuities	8.7	18.4	2.1
IV. Personal Income	*540.7*	*1951.2*	*3.6*

Sources: U.S. National Accounts, Flow of Funds, Life Insurance Fact Book.

seven fold. This rate of change was double the increase in personal income, and contrasts with purchases of life insurance and annuities which increased more slowly than personal income. Table 1 also illustrates the variety of institutional arrangements which have been developed in connection with pensions and insurance. To the extent that the government and employers have assumed responsibility for social protection, the direct connection between contributions and benefits at the level of the individual household has been lessened.

I. Social Security Arrangements

A. *The SNA Treatment*

Consideration of the SNA treatment of public social security arrangements is a useful point of departure, since this treatment is considerably simpler than that of private pension and insurance arrangements. In SNA, public social security arrangements may cover any of the risks that are covered by private pension funds and life insurance, and many of those covered by private casualty insurance. The exact content depends upon each country's institutional arrangements, but it often includes old age, disability, sickness and unemployment.

SNA distinguishes contributions for social security from taxes paid to government, but it effectively treats the contributions as if they were direct taxes on households. (The IMF Government Finance Statistics Manual goes so far as to call them taxes.) Both the employers' and the employees' shares of the contribution are included in the compensation of employees, so that they appear as an outlay on the production account of the employer and a receipt on the income and outlay account of households. Households, in turn, pay the whole contribution (both employers' and employees' shares) to the government. This is done even though, in most cases, the actual routing of the payment is from the employer to the government. Thus the treatment is the same as that of personal income taxes that are withheld from wages and salaries and paid by employers directly to the government.

Social security benefits appear as transfer payments from government to households, in the income and outlay accounts of both. Their treatment does not differ from that of social assistance grants (which are defined, effectively, as non-contributory welfare benefits). Benefits thus enter household income in the accounting period in which they are actually received; no attempt is made to show the build-up of entitlements to future benefits as an element of current household income.

B. *The Treatment of Contributions*

The identical treatment of employers' and employees' contributions for social security in SNA has the very great advantage of simplicity, and it was primarily on this ground that it was adopted. It may be questioned, however, on logical grounds.

The point at issue—which also arises in later sections of this paper—is whether certain transactions ought, logically, to be run through the household income and outlay account as transactions engaged in by households. It is of course true that when a flow is added to both household income and household outlay there is no change in household net saving. But interest in the household income and outlay account is not limited to the calculation of net saving. Total household income, its composition, and its change are often the focus of analytic and policy interest.

The difference between the employers' and the employees' social security contributions is more than semantic, and their economic impact is not necessarily the same. In the United States, for instance, unemployment insurance is included

in social insurance funds, and the employer's share therefore reflects the unemployment experience of different industries, changing differentially for different employers. If individual employers' contributions were raised to reflect increased unemployment in a given industry, the initial effect would be an increase in labor cost, and it is difficult to predict how much of this might be passed along to employees in the form of a decrease in wages. But if the employee contributions were increased, for example to provide more extended social benefits, the initial impact would be a reduction in after-tax income of households; whether (or how much) wages might rise to compensate is problematical. A preferential treatment might therefore be to treat only the employee contribution as an element of household income, since its impact on disposable income is direct whereas that of the employers' contribution is necessarily indirect.

The employers' contributions are of course still part of the employer's labor cost. With the proposed treatment, instead of being routed entirely through the household, the employers' labor cost is divided into two parts, one of which goes to households and the other directly to government. There is no theoretical reason why employers' labor cost need be identical to employees' labor income; indeed, even in the present SNA treatment the identity is not preserved in cases where indirect taxes are levied on labor employed.

C. *The Treatment of Benefits*

It has long been recognized that problems arise in drawing the line between social assistance grants, i.e. transfer payments to households, and direct government consumption expenditures. Much the same sort of problem occurs in connection with social security benefit payments.

The problem arises when the government pays for services rendered to households by third parties—in particular, by providers of health care. The payment sometimes takes the form of reimbursement of households by the government for health care expenditures the households have made, and sometimes is a direct payment by the government to the health care provider. SNA distinguishes transfer payments from consumption expenditures on the basis of the location of the decision-making power. When households are free to choose the service and its provider, the payment is considered to be a transfer payment from the government to the household. But when the government sets the terms and conditions for the supply of the service and designates the supplier, the payment is treated as a government intermediate consumption expenditure (which ultimately will pass into government final consumption through the medium of services produced by government for its own use).

Making this distinction has always caused difficulty, and recent studies of the European Community have proposed an alternative. They suggest that all third-party reimbursements should be considered government purchases, not transfer payments, and that transfer payments should be limited to cash payments to households for which no accounting is required. The EC studies further suggest that, when the government's role is purely financial and it contributes nothing to the actual production process, this expenditure should be treated as final, not intermediate, government consumption. This would introduce a new category

of direct government final consumption expenditure, not now provided for in SNA.

The same considerations apply to social security benefits. The fact that the scheme which makes a payment for health care services is a contributory one does not alter the character of the payments. A plausible argument can be made, using the same criteria as for social assistance grants, that payments destined to third parties—i.e. health service providers—should be shown as direct payments to them, and not run through the household account.

D. *The Balance Sheet*

As the combination of aging populations and world recession has led a number of social security schemes into temporary or permanent difficulties, the question has been raised as to whether the balance sheet of the social security fund should show an actuarial computation of the reserve required to meet already-incurred, or sometimes even anticipated, future obligations. This is a different question from that of whether the fund itself should be actuarially based. The method of financing social security that each country chooses for itself is a political decision. The question here is rather that of showing the possible consequences of the choices made. The proposal to show an actuarial computation of obligations incurred would parallel in many respects the treatment now recommended by SNA for unfunded private schemes.

Superficially, the proposal is attractive, but it does have some severe drawbacks. It would be a departure from the fundamental SNA principle of recording actual transactions, and would require a forecast of many elements that experience has demonstrated are very difficult to foresee. These include demographic factors—mortality, morbidity, disability, labor force participation—and such economic factors as interest rates, price movements, and unemployment rates. Because of these difficulties, it seems preferable to keep such computations outside of the accounts, although they are of course of considerable analytic interest. As current controversies demonstrate, there is little likelihood that two researchers working on such estimates would arrive at the same figures.

E. *Summary of Proposals*

The effects of the changes relating to the treatment of social security that have been proposed in this section are shown in Table 2, which gives comparative T-accounts showing the present and proposed treatments. The figures entered in the accounts are drawn from Table 1, in order to put the questions into a somewhat realistic context.

No changes appear in the production account of employers, or in that of health care providers. It is necessary to separate employers' and employees' contributions for social security, but SNA now recommends showing this separation.

In the household income and outlay account, there is considerable simplification. Employers' social security contributions disappear from both sides of the account, and so do the items "reimbursements for health care expenditures" and "final expenditures for reimbursed health care services." What

TABLE 2

COMPARISON OF PRESENT SNA AND PROPOSED TREATMENT OF SOCIAL SECURITY
(UNITED STATES, 1979, BILLIONS OF DOLLARS)

Present SNA Treatment				Proposed Treatment			
Employers' Production Account				Employers' Production Account			
Employers' social security contributions	$82.2			Employers' social security contributions	$82.2		
Employees' social security contributions	70.5			Employees' social security contributions	70.5		
Health Care Providers' Production Account				Health Care Providers' Production Account			
Costs of providing health care services	$29.2	Final expenditures on health care services	$29.2	Costs of providing health care services	$29.2	Final expenditures for health care services	$29.2
Household Income and Outlay Account				Household Income and Outlay Account			
Final expenditures for reimbursed health care services	$29.2	Employers' social security contributions	$82.2	Employees' social security contributions	$70.5	Employees' social security contributions	70.5
Employers' social security contributions	82.2	Employees' social security contributions	70.5			Social security benefit payments other than health care	114.5
Employees' social security contributions	70.5	Reimbursement for health care expenditures	29.2				
		Social security benefit payments other than health care	114.5				
Government Income and Outlay Account				Government Income and Outlay Account			
Reimbursement for health care expenditures	$29.2	Employers' social security contributions	$82.2	Final expenditures on health care services	$29.2	Employers' social security contributions	$82.2
Social security benefit payments other than health care	114.5	Employees' social security contributions	70.5	Social security benefit payments other than health care	114.5	Employees' social security contributions	70.5

remain are employees' social security contributions, as part of income and as a payment to government, and unrestricted cash social security benefit payments as a part of income.

The government's income and outlay account, finally, is also unchanged. What has changed is the routing of certain receipts and outlays. Employers' social security contributions are received directly from employers, and payments for health care services are paid directly to health care providers.

II. Pensions

A. *The SNA Treatment*

Pension plans are arrangements through which employers provide for the payment of retirement incomes to their former employees or their dependents, usually in amounts related to the level of wages and length of service of the employee. Plans established by the government for its own employees are classed in SNA as pension plans, and not as social security.[1] SNA treats pension plans in two different ways, depending upon whether or not they are funded. A plan is considered to be funded if the employer (and sometimes also the employee) makes regular contributions to a pension fund or insurance company, which in turn undertakes the responsibility for paying out pension benefits when the time comes for the employee to draw them. But it may also happen that an employer pays such benefits to his former employees and their families out of current revenues, without setting up a special fund for this purpose. Such an unfunded scheme may be voluntary, in that the employer is under no obligation to make the benefit payments, or it may be established as a part of the employment contract. A class of plans intermediate between the funded and unfunded is also found, in which the employer sets up a fund but retains full control of it himself, so that he has access to the fund's reserves and may be able to alter both the level of contributions and the level of benefits. SNA treats this last class as if it were unfunded.

Transactions relating to funded pension plans are treated in SNA as if they were discretionary household activities, similar to household purchases of other financial assets. Contributions to such funds (both employer and employee) are included as a part of the compensation of employees, and thus are included in household income. The costs of operating the funds are charged to household final consumption expenditure, and the remainder, which is equivalent to the net contribution, enters household saving. Interest earned on the fund's assets is imputed to households in their income and outlay account, and thus also enters into their saving. In the capital finance accounts of both households and pension funds, the excess of the net contribution and interest earned over pension benefits is shown as the net increase in household equity in pension fund reserves: an increase in assets for households and an increase in liabilities for pension funds. The value of this equity, which is in most cases equal to the total pension fund

[1]This differs from U.S. national accounts practice, and accounts for some of the differences between Table 1 and the published U.S. accounts. For additional detail on the adjustments required to the U.S. National Accounts see Table 8.

reserve, appears as an asset on the household balance sheet and a liability of the pension fund. The actual assets entering into its computation, of course, are shown in the pension fund balance sheet. Pension benefits, thus, are not considered to be household income in the period in which they are received; they enter the household accounts only as a component in computing the change in households' equity in pension funds—in other words, benefits are considered to represent only a change in the form of household assets.

For unfunded plans, SNA recommends that an imputed contribution should be calculated, of a magnitude that would be sufficient to support a fund from which future obligations could be met. This imputed contribution is included, along with actual contributions to funded plans, in compensation of employees and thus in household income. The imputed fund so created, however, is considered to remain under the control of the employer, not to constitute a household asset. It is therefore also necessary to show the imputed contribution as a transfer by households back to their employers, in the income and outlay accounts for both. Thus, the entire transaction leaves the net saving, and therefore the balance sheets, of both households and employers unchanged from what they would have been without the imputation. It does, however, raise the level of household income, and it transfers the amount of the imputed contribution from the employer's production account to his income and outlay account. Benefits paid out under unfunded plans, unlike those paid out by funded plans, do enter into the current income of the recipient in the accounting period in which they are received. They cannot be regarded, like funded benefits, as a change in the form of household assets since there is no household asset to be drawn down.

The purpose of this treatment of unfunded pensions is, essentially, to correct the timing of the recording of costs. The obligation to pay future benefits is incurred at the time labor is employed and should be shown as a labor cost of that period, not the later period when benefits are actually paid, and this is what the imputation of the contribution accomplishes. SNA recognizes, however, that estimation of the amount of contribution required is likely to be very difficult. For all of the reasons noted above in connection with the estimation of social security entitlements, the margin of error involved is very large. As a practical procedure, SNA suggests two methods of estimation. One is to adopt the level of contributions required by a comparable funded plan. The second is to assume contributions equal to benefits paid. Most of the countries that have made these estimates have adopted the latter method.

B. *The Treatment of Contributions*

1. Funded Plans

The same question may be raised in connection with employers' contributions to private pension plans as was raised above in connection with employers' contributions to social security. It relates to whether it is appropriate to run the employer's contributions through the household income and outlay account. The employer often provides pension benefits by means of group plans or contracts, which are not individual arrangements made for each employee. In such a case, the employer is the purchaser of the pension arrangements for the benefit of his

employees, rather than an intermediary between the individual employee and the pension fund.

To reflect this, it might be preferable to consider that the employer's contribution is paid into his own income and outlay account rather than to the household's income and outlay account. This change would mean that the employer, in his income and outlay account, was (1) making a final expenditure on pension service charges for the benefit of his employees, and (2) providing a transfer to the pension fund equal to the net pension contribution. As in the case of social security contributions, however, it is probably useful to continue to run the employee's contribution through the household income and outlay account, both as income received and as an expenditure for pension service charges and a transfer paid to the pension fund. The receipts of pension funds would thus be shown explicitly as equal to the net contributions of employers and employees plus the interest received on pension fund reserves, and their net saving would be derived as the difference between total receipts and employee benefits paid out.

This explicit treatment of pension fund operations in their income and outlay account contrasts with the present SNA treatment which shows only the net change, as an entry in the capital finance account. It would parallel the treatment of social security operations in the government income and outlay account.

It should be noted that this treatment splits the pension service charges between household final consumption expenditure and final consumption expenditure provided by the employer. This would necessitate setting up enterprise final consumption expenditure as a new category of final expenditures, directly parallel to non-profit institution and government final consumption expenditures. Although the traditional SNA accountant may consider "enterprise final consumption expenditures" an unacceptable innovation, it is logically required if employee benefits provided by employers are to be handled in a manner consistent with SNA treatment of all other benefits in kind. Indeed, the omission of enterprise final consumption expenditure is an anomaly resulting from SNA's implicit desire to identify the institutional category of "enterprises" with the functional category of "producers," which by definition can only be concerned with production activities.

2. Unfunded Plans

Two questions may be raised with respect to the SNA treatment of imputed contributions to unfunded plans. The first is the same as that raised in the preceding section about employers' contributions to funded plans. It may be questioned whether this contribution should be run through the household account in such a way that it increases household income. While it is legitimate to consider that it increases the employer's labor cost, a more appropriate treatment might show it as a payment from the employer's production account to his income and outlay account. But this is only true when it is possible to make an estimate of the contribution on some basis other than benefits paid. There does not seem to be much gained—beyond increasing employment opportunities for accountants—in entering the same figure on both sides of the income and outlay account, as contributions received and benefits paid out. It does not accomplish the intended purpose of the imputation, which is to correct the

timing, and it has no effect on enterprise net saving. A more straightforward procedure would simply treat the unfunded benefit payments as a part of current labor costs.

In this connection the results of the recent requirement of the U.S. Securities and Exchange Commission that companies provide an estimate of their unfunded obligations are interesting. The range of variation in the estimates is very wide, even when the benefits provided are similar. The same is also true of company-controlled funds, where the most influential factor appears to be the company's profitability. The plans of profitable companies are overfunded, thus sheltering some income from tax, whereas the plans of unprofitable companies are underfunded.

C. *The Treatment of Benefits*

The SNA treatment of funded pension benefit receipts by households has aroused considerable concern. Omission of current benefit receipts from household income leads to a view of the distribution of income over the life cycle that might perhaps be consistent with a theoretical world of complete financial mobility and unlimited access to credit, but it is of little relevance to either the wage earner or the pensioner, both of whom must in most cases tailor their outlays to their current receipts. The wage earner does not have access to the sum represented by the pension contribution, and he normally cannot even borrow against it. The pensioner, on the other hand, does receive the benefit payment, and can spend it. For such kinds of analysis as the study of the determinants of consumption and alterations in consumption patterns, the present treatment introduces an unacceptable distortion. This point has been recognized in the SNA income distribution guidelines, where the use of an adjusted concept of household income that includes current pension benefit receipts is recommended. Inclusion of benefits in current income would also have the effect of placing recipients of funded and unfunded benefits on the same footing—a desirable result since it is unlikely that most pensioners recognize a difference. (There may in fact not be much difference, in cases where anticipated obligations exceed assets.) It would also place the recipients of private pensions on the same footing as recipients of social security benefits. It is of course true, in all of these cases, that the future entitlement does have value to its prospective recipient. But so do many other anticipated future events (such as the continued receipt of wages) that are not reflected in the accounts.

D. *The Balance Sheet*

The proposed changes in the treatment of pension contributions and benefits would entail corresponding changes in the balance sheets of households and pension funds. Households would no longer be credited with an equity equal to the value of the pension fund reserve; rather, this equity would remain with the pension fund.

E. *Summary of Proposed Changes*

Table 3 summarizes the impact of the proposed changes in the treatment of funded pension plans, in the form of T-accounts. The employer's pension

TABLE 3

COMPARISON OF PRESENT SNA AND PROPOSED TREATMENT OF FUNDED PENSIONS
(UNITED STATES, 1979, BILLIONS OF DOLLARS)

Present SNA Treatment				Proposed Treatment			
Employers' Production Account				**Employers' Production Account**			
Employers' pension contribution	$79.2			Employers' pension contribution	$79.2		
Employees' pension contribution	17.8			Employees' pension contribution	17.8		
Employers' Income and Outlay Account				**Employers' Income and Outlay Account**			
				Employers' pension service charges	$12.2	Employers' pension contribution	$79.2
				Employers' net pension contributions	67.0		
Pension Fund Production Account				**Pension Fund Production Account**			
Administrative costs of pension funds	$15.0	Pension service charges	$15.0	Administrative costs of pension funds	$15.0	Pension service charges	$15.0
						Employers'	$12.2
						Employees'	2.8
Pension Fund Income and Outlay Account				**Pension Fund Income and Outlay Account**			
Imputed interest to households	$26.3	Interest received on pension funds	$26.3	Pension benefits paid	$59.8	Interest received on pension funds	$26.3
Net Saving	0			Pension fund saving	48.5	Employers' net pension contributions	67.0
						Employees' net pension contributions	15.0

Pension Fund Capital Finance Account				Pension Fund Capital Finance Account			
Net change in financial assets		$48.5	Net lending	$0	Net change in financial assets	$48.5	Net lending	$48.5
Net contributions	82.0		Net change in equity of households in pension funds	48.5	Net contributions	$82.0		
Interest received	26.3				Interest received	26.3		
Less: Pension benefits	59.8				Less: Pension benefits	59.8		
Household Income and Outlay Account					**Household Income and Outlay Account**			
Pension service charges		$15.0	Employers' pension contributions	$79.2	Employees' pension service charge	$2.8	Employees' pension contributions	$17.8
Household saving		108.3	Employees' pension contributions	17.8	Employees' net pension contributions	15.0	Employees' pension benefits	59.8
			Imputed interest on pension funds	26.3	Household saving	59.8		
Household Capital Finance Account					**Household Capital Finance Account**			
Net change in equity of households in pension funds		$48.5	Net lending	$108.3				
Net change in financial assets		59.8	Net contributions to pension funds	82.0				
Pension benefits	59.8		Imputed interest on pension funds	26.3				

contribution is routed to his income and outlay account, where it is split into two elements: (1) pension service charges, and (2) net pension contribution. The pension service charge is final consumption provided to employees, and is reflected as a receipt in the pension fund production account. The net pension contribution is a transfer going to the pension fund income and outlay account. The employee's pension contribution is routed to the household income and outlay account, where the same two components, the service charge and net pension fund contributions, are shown as consumption expenditures and transfers respectively. The "change in net equity of households in pension funds" item disappears from both the household and the pension fund capital finance accounts, and an equivalent amount appears instead as net saving of pension funds. Total saving remains the same; what in SNA is shown entirely as household saving is now split between households and pension funds.

Table 4 shows the impact of the proposed changes in the treatment of unfunded plans. The imputation of employers' contributions is omitted, and pension benefit payments are treated as part of labor cost rather than as a transfer, and flow directly from the employer's production account to the household income and outlay account without passing through the employer's income and outlay account.

III. Life Insurance and Annuities

A. *The SNA Treatment*

The SNA treatment of life insurance and annuities is in most respects the same as its treatment of pensions. The chief difference lies in the method of computation of the service charge, i.e., the amount recorded as the output of the insurance company. For pension funds, this is equated to the fund's actual administrative costs, and pension fund reserves are derived residually. For insurance companies, however, it is the service charge that is derived residually, as the excess of gross premiums paid ($51.0 billion) and interest received ($9.7 billion) over the sum of claims paid ($18.4 billion) and net additions to actuarial reserves ($31.3 billion). This service charge ($11 billion) may, of course differ from the administrative costs actually recorded by the insurance companies and the difference constitutes their profit or loss.

SNA does not distinguish different kinds of life insurance. Thus, ordinary life, group life, and term life are all included here. Nor is there a difference in the treatment of the different sorts of proceeds of life insurance policies. Annuities, death benefits, the maturing of endowment policies, and the withdrawal of cash surrender values all enter the accounts only through their impact on the capital finance account.

B. *The Treatment of Contributions*

Unlike pension funds, in the United States the greater part of life insurance and annuities is purchased by individuals for themselves, not by employers. Group life and industrial policies have been rising in importance relative to individual policies, but they are still a small part of the whole. Within the category

TABLE 4

COMPARISON OF PRESENT SNA AND PROPOSED TREATMENT OF UNFUNDED BENEFITS
(UNITED STATES, 1979, BILLIONS OF DOLLARS)

Present SNA Treatment				Proposed Treatment			
Employers' Production Account				**Employers' Production Account**			
Employers' unfunded benefit contributions (to households)	$34.0			Employers' unfunded benefit contributions	$34.0		
Private employees	10.0			Private employees	10.0		
Military and veterans	24.0			Military and veterans	24.0		
Employers' Income and Outlay Account				**Employers' Income and Outlay Account**			
Employees' unfunded benefit payments (to households)	$34.0	Employers' unfunded benefit contributions (from households)	$34.0				
Private employees	10.0	Private employees	10.0				
Military and veterans	24.0	Military and veterans	24.0				
Household Income and Outlay Account				**Household Income and Outlay Account**			
Employers' unfunded benefit contributions (to employers)	$34.0	Employers' unfunded benefit contributions (from employers)	$34.0			Employees' unfunded benefits	$34.0
Private employees	10.0	Private employees	10.0			Private employees	10.0
Military and veterans	24.0	Military and veterans	24.0			Military and veterans	24.0
		Employees' unfunded benefit payments (from employers)	34.0				
		Private employees	10.0				
		Military and veterans	24.0				

of insurance purchased by households, however, there has been a shift away from conventional whole life and annuity policies, and toward term policies. These, like the group and industrial policies, do not really fit the SNA concept of life insurance. They do not embody any element of household saving, but rather are simply insurance against the risk of death. In SNA terms, they are much closer to casualty than to life insurance. In the subsequent discussion, therefore, term life insurance—both that purchased by households and that purchased by employers—will be considered in the section dealing with casualty insurance. This section will treat only whole life insurance and annuities, which can in fact be considered to embody a saving component.

Whole life insurance differs from pension fund accumulations in one very important respect. Normally, such insurance policies have a cash surrender or loan value, which is often close to the total amount of premiums paid in plus the earnings thereon. This cash surrender value is in effect the savings component. In the United States, individuals often draw upon the life insurance they own to obtain funds to meet emergency needs or to provide down payments for major outlays such as automobiles and housing. Unlike pension fund reserves, therefore, it is quite appropriate to consider that households are the owners of life insurance and annuity reserves, at least up to the cash surrender value of their policies. Nevertheless, it still seems useful to show the transactions between households and insurance companies explicitly in their income and outlay accounts, rather than simply as net changes in the composition of assets and liabilities in the capital finance account. If this is done, the service charge will continue to appear, as it does in SNA, as an outlay on the household income and outlay account and a receipt on the life insurance company production account.

The net premium may then be divided into two components, one representing the increase in cash surrender value and the other the balance of the premium. The increase in cash surrender value is in SNA terminology the net increase in the equity of households in life insurance reserves, and household saving should be shown gross of this amount. The balance of the premium, after deduction of the increase in cash surrender value, should appear as an outlay on the household income and outlay account. In the income and outlay account of life insurance companies, the net premium appears as a receipt, and the increase in cash surrender value as the household's share of the excess of receipts over actual outlays. What enters the net saving of life insurance companies, therefore, is the balance of the net premium, after deduction of the increase in cash surrender value. The ultimate effect of the proposed change, thus, is to attribute a part of the net increase in the reserves of life insurance companies to their own net saving, rather than keeping all of it in the net saving of households.

It may be argued that cash surrender values are not easily obtained, or that they seriously understate the value of the life insurance owned by households. However, standard schedules exist for determining the cash surrender value of life insurance policies, and in the U.S. these are usually printed in the policy itself. Although it is true that the cash surrender value is lower than the actuarial value of the entitlement, it is precisely this facet which the proposed treatment is trying to show. The excess of the actuarial value of the reserve over cash

surrender value is not available to the policyholder, and is more appropriately treated, like the pension fund reserve, as an asset of the life insurance company rather than the policyholder.

C. *The Treatment of Benefits*

In SNA, all proceeds to households of life insurance transactions except for the interest on their equity in life insurance reserves is treated in the same way, as a change in the composition of their assets in the capital finance and balance sheet accounts. This appears to be an unwarranted oversimplification. There is a considerable difference, from the point of view of the recipient, between lump-sum transactions that really are of a capital character and the receipt of such regular income supplements as annuity benefits. Death benefits and other lump-sum payments such as cash surrender or maturing of endowment policies are properly treated in the household capital finance account in the way SNA treats them (although it would be useful to show more of the detail explicitly instead of only the net result). Annuities and other periodic payments, however, like pension benefits, should be shown in the household income and outlay account. Both lump-sum and periodic payments, under the treatment proposed here, would appear as outlays in the income and outlay account of life insurance companies.

D. *The Balance Sheet*

The changes proposed would alter some entries in the balance sheet and capital finance accounts. The net change in the equity of households in life insurance reserves would now refer only to cash surrender values of policies, in the accounts of both the companies and households. The net change in household financial assets would reflect directly only lump-sum payments like death benefits. Periodic payments like annuities would of course influence the capital finance account indirectly, through their impact upon household saving. Similarly, the impact of benefit payments upon the capital finance account of life insurance companies would be felt through its impact upon their net saving.

E. *Summary of Proposals*

Table 5 summarizes the proposed changes relating to whole life insurance. It may be noted that it was not possible, in the figures shown here, to separate whole life and term insurance purchased by households. Therefore, while group and industrial life insurance have been eliminated, the figures on net premiums and lump sum benefits are too large by the amount of term insurance purchased by households included.[2]

In the proposed treatment, the production and income and outlay accounts of the insurance providers and the income and outlay accounts of households

[2]A note about data difficulties is in order here. It has been argued that the treatment proposed here is not feasible because the data are unavailable. This argument is, however, not very convincing, since it is apparent that insurance companies must have the information to meet their operating needs. What is lacking is an effective data collection program, and that should be entirely feasible to set up.

TABLE 5

COMPARISON OF PRESENT SNA AND PROPOSED TREATMENT OF LIFE INSURANCE
(UNITED STATES, 1979, BILLIONS OF DOLLARS)

Present SNA Treatment				Proposed Treatment			
Life Insurance Production Account				**Life Insurance Production Account**			
Administrative costs and profits of insurance companies	$11.0	Insurance service charges	$11.0	Administrative costs and profits of insurance companies	$11.0	Insurance service charges	$11.0
		Premium payments	51.0			Premium payments	51.0
		Plus: Interest received	9.7			Plus: Interest received	9.7
		Less: Benefits paid	−18.4			Less: Benefits paid	−18.4
		Less: Change in actuarial reserves	−31.3			Less: Change in actuarial reserves	−31.3
Life Insurance Income and Outlay Account				**Life Insurance Income and Outlay Account**			
Imputed interest paid to households	$9.7	Interest received on insurance	$9.7	Death benefit payments	$11.8	Interest received on insurance funds	$9.7
				Annuity payments	6.6	Net premiums received	40.0
				Increase in cash surrender value	12.6		
				Net saving	18.7		
Life Insurance Capital Finance Account				**Life Insurance Capital Finance Account**			
Net change in financial assets	$31.3	Net change in household equity	$31.3			Net lending	$18.7
Net premiums received	$40.0					Increase in cash surrender value	12.6
Interest on insurance funds	9.7						
Less: Benefits paid	18.4						

Household Income and Outlay Account			
Insurance service charge	$11.0	Annuity payments received	$6.6
Net premiums paid	40.0		
Less: Increase in cash surrender value	−12.6		
Net saving	−31.8		

Household Capital Accumulation Account			
Net lending	$−20.0	Net saving	$−31.8
		Death benefits	11.8

Household Capital Finance Account			
Net change in financial assets	$2.6	Net lending	$−20.0
Death benefits received	$11.8		
Annuity benefits received	6.6		
Less: Premiums paid	51.0		
Increase in cash surrender value	12.6		

Household Income and Outlay Account			
Insurance service charge	$11.0	Imputed interest on insurance funds	$9.7
Household saving	−1.3		

Household Capital Accumulation Account			
Net lending	$−1.3	Net Saving	$−1.3

Household Capital Finance Account			
Net change in household equity in insurance	$31.3	Net lending	$−1.3
Net change in financial assets	−32.6		
Benefits received	$18.4		
Less: Premium payments	51.0		

would show explicitly the breakdown of the gross premium into three components: the service charge, the increase in cash surrender value, and the balance of the net premium. Benefit payments would be divided between periodic and lump sum, and the periodic benefits shown as household income. On the other hand, interest earned on the life insurance reserve fund but not actually paid out to households would no longer be imputed to them. Except for whatever impact it may have on cash surrender value, that interest serves to increase the net saving of life insurance companies. In the capital finance accounts, the net change in equity of households in life insurance reserves would be smaller and the net saving of life insurance companies larger, reflecting the attribution to households only of that part of life insurance reserves to which they have effective access through the cash surrender or loan value.

IV. Casualty Insurance

A. *The SNA Treatment*

All types of casualty insurance are treated in SNA in the same way. Gross casualty insurance premiums are divided into two parts, the service charge and the net premium. The service charge is considered to be the measure of the gross output of the casualty insurance provider; it appears as a receipt on its production account. If the purchaser is a producer, the service charge appears as an element of intermediate cost in its production account; if the purchaser is a household, the service charge appears as a final consumption expenditure. The net premium, which is considered to be a payment for risk, is shown in the income and outlay accounts of both insurer and insured. In both cases, it appears as a separate entry; SNA considers that it is different in kind from all other types of transaction and cannot be combined with anything else. It is not, for instance, to be included in household consumption expenditure. Payments of casualty insurance claims also appear in the income and outlay accounts of both parties, again as separate entries.

By convention, the casualty insurance service charge for each type of casualty insurance is defined as being equal to gross premiums less claims paid. As in the case of life insurance, SNA recognizes that this may be quite different from actual service charges of insurance companies, as well as quite different from their actual costs of operation. It is considered, however, that the simplification thus introduced is warranted because of the difficulty of obtaining actual data. As a consequence of this convention, net casualty insurance premiums are by definition equal, for each type of insurance and for the economy as a whole, to claims paid. Thus, the casualty insurance entries consolidate out of the gross domestic product account. They do not consolidate out of the accounts for sectors and subsectors, however, because of the way SNA allocates the net premium. It is allocated among the purchasers of each type of insurance in proportion to the *gross* premium paid, so that for an individual purchaser it would be quite unlikely to continue to equal claims.

Casualty insurance covers a wide spectrum of different kinds of risks. They may be classified, broadly, into four groups: (1) health and similar risks where

the benefit takes the form of a payment to a third party; (2) risk of loss of income; (3) risk of death; and (4) risk of property damage. Different considerations seem important for these different categories, and the discussion that follows will employ this breakdown.

B. *Health Insurance*

In some countries, insurance against the need for paying out large sums to third parties is quite important. Health insurance is a typical, and in the U.S. a fast-growing, example. Where health care services are not provided free of charge or as a part of social security by the government, private health insurance often fills the gap—either as a fringe benefit of employees or as a direct purchase by households. The problems which arise in this context have already been touched upon above.

One problem relates to health and similar kinds of insurance provided by employers to their employees as a part of their compensation. As in the case of employers' social security and pension fund contributions, it may be questioned whether the SNA approach of running the premiums paid by employers through the household income and outlay account is appropriate. If the premium payments are not routed through the household, it becomes necessary to find an alternative treatment for them. They are, of course, still a part of the employer's labor cost, and should appear as such in his production account. But instead of being routed to the household income and outlay account, it would be more appropriate to route them through the income and outlay account of the employer himself. This would mean that in the employers' income and outlay account, the employers' health insurance contributions will appear as a receipt and the employers' expenditure on health care insurance would be a form of enterprise final consumption provided as an employee benefit in the same way as it has been proposed that government health insurance expenditures should be treated as government final consumption provided for the benefit of households. In the household income and outlay account, only the premiums actually paid by the household would appear; but it would be the gross rather than the net premium that would appear as a final consumption expenditure.

The actual expenditures on health care, in turn, would under this proposal appear both as intermediate consumption of the insurance companies and receipts in the production account of health care providers. The value added—final output—of health insurance companies would be equal to their administrative costs, and the value added of health care providers would be equal to the costs involved in producing health care services.

These proposals with respect to the treatment of health insurance are summarized in Table 6.

C. *Income Replacement*

Income replacement insurance includes unemployment, disability, workmen's compensation and similar types of protection that provide for benefits in the form of periodic payments over a relatively long term, rather than a single lump-sum settlement. They are most often found as fringe benefits of

TABLE 6

COMPARISON OF PRESENT SNA AND PROPOSED TREATMENT OF HEALTH INSURANCE (UNITED STATES, 1979, BILLIONS OF DOLLARS)

Present SNA Treatment				Proposed Treatment			
Employers' Production Account				**Employers' Production Account**			
Employers' health insurance contributions	$44.2			Employers' health insurance contributions	$44.2		
Employers' Income and Outlay Account				**Employers' Income and Outlay Account**			
				Employers' expenditure on health care insurance	$44.2	Employers' health insurance contributions	$44.2
Health Insurance Production Account				**Health Insurance Production Account**			
Administrative costs of health insurance companies	$9.5	Household expenditures for health insurance service charges	$9.5	Purchases of health services Administrative costs of health insurance	$48.9 9.5	Employers' expenditures on health insurance Household expenditures on health insurance	$44.2 14.2
Health Insurance Income and Outlay Account				**Health Insurance Income and Outlay Account**			
Reimbursement for health care expenditures	$48.9	Net premiums received from households	$48.9				
Health Care Providers' Production Account				**Health Care Providers' Production Account**			
Costs and profits of providing health care services	$48.9	Health care purchases (by households)	$48.9	Costs and profits of providing health care services	$48.9	Health insurance purchases of health care services	$48.9
Household Income and Outlay Account				**Household Income and Outlay Account**			
Net premiums paid by households	$48.9	Employers' health insurance contributions	$44.2	Household expenditures for health insurance	$14.2		
Employers' contribution	$44.2	Reimbursement for health care expenditures	48.9				
Personal contributions	14.2						
Less: Health insurance service charges	−9.5						
Household expenditures for health insurance service charges	9.5						
Health care expenditures	48.9						

employment, and are paid for by the employer. The considerations noted in the previous sections about employers' contributions therefore also apply here. Running the employer's premium payment through the household income and outlay account is questionable.

There is also a second problem with this type of insurance. SNA's method of computing the service charge implies an annual balancing of premiums and claims; there is no provision for the establishment of a reserve that would allow for the spreading of risks over a longer time period (as is done with life insurance). Such an annual balancing, however, is scarcely likely in the case of unemployment insurance, where the whole objective is the spreading of the costs of unemployment evenly over the cycle instead of concentrating it in periods of recession. Unemployment insurance is the most obvious case, but even in others the assumption of annual balancing is often strained. It might, therefore, be preferable to set up explicit reserve funds for casualty as well as life insurance, and to adopt a more realistic measure of service charges.

Table 7 shows the impact of the proposed changes in the treatment of contributions, and incorporates a casualty insurance reserve. The figures shown should be regarded as illustrative only.

D. *Term Life Insurance*

In the discussion of life insurance above it was noted that term insurance does not share the characteristic established by SNA for life insurance—namely, incorporation of an element of saving—and therefore that it might more appropriately be considered in the context of casualty insurance. Term life differs from the income replacement kinds of insurance discussed in the previous section principally in that it usually provides for a single lump-sum payment rather than a continuing income. From the point of view of the recipient, this benefit is clearly a capital transaction. It is therefore appropriate to exclude it from household income and outlay, and show it only as a change in household assets on the capital finance account. In other respects, its treatment should be similar to that of the income maintenance types of insurance. In particular, (1) the employers' contribution should not be routed through household income, and (2) a method of computing the service charge that does not assume annual balancing should be adopted and an appropriate reserve set up. Table 7 also shows the impact of these proposals.

E. *Property Damage*

Property damage risks include fire, theft, and similar risks of damage to tangible property, as well as damage to intangible property such as copyright infringement. Loss of tangible assets through fire or theft is, clearly, a capital loss. SNA, however, treats both the net premium and the insurance reimbursements for such losses as transactions in the income and outlay account which for the economy as a whole are equal and offsetting. The rationale for this treatment of capital loss is that the charge for consumption of fixed capital that is included in the production account of producers includes an allowance for normally expected accidental damage to fixed capital. It is argued that, from the

TABLE 7

COMPARISON OF PRESENT SNA AND PROPOSED TREATMENT OF GROUP LIFE INSURANCE AND WORKMEN'S COMPENSATION
(UNITED STATES, 1979, BILLIONS OF DOLLARS)

Present SNA Treatment				Proposed Treatment			
Employers' Production Account				Employers' Production Account			
Employers' group life insurance contributions	$6.0			Employers' group life insurance contributions	$6.0		
Employers' workmen's compensation contributions	14.4			Employers' workmen's compensation contributions	14.4		
Employers' Income and Outlay Account				Employers' Income and Outlay Account			
				Expenditure on group life insurance services	$1.0	Employers' group life insurance contributions	$6.0
				Expenditure on workmen's compensation services	4.0	Employers' workmen's compensation contributions	14.4
				Net premiums on group life insurance	5.0		
				Net premiums on workmen's compensation insurance	10.4		
Insurance Companies' Production Account				Insurance Companies' Production Account			
Administrative costs and profits of insurance companies	$7.6	Group life insurance service charges	$1.1	Administrative costs and profits of insurance companies	$5.0	Group life insurance service charges	$1.0
		Workmen's compensation service charges	6.5			Workmen's compensation service charges	4.0

Insurance Companies' Income and Outlay Account

Benefits paid on group life insurance	$4.9	Net premiums received for group life insurance	$4.9
Benefits paid on workmen's compensation	7.9	Net premiums received for workmen's compensation	7.9

Household Income and Outlay Account

Net premiums paid for group life insurance	$4.9	Employers' group life insurance contributions	$6.0
Net premiums paid for workmen's compensation	7.9	Employers' workmen's compensation contribution	14.4
Expenditure for group life insurance services	1.1	Benefits received from group life insurance	4.9
Expenditure for workmen's compensation services	6.5	Benefits received from workmen's compensation	7.9

Household Capital Accumulation Account

Insurance Companies' Income and Outlay Account

Benefits paid on group life insurance	$4.9	Net premiums received for group life insurance	$5.0
Benefits paid on workmen's compensation	7.9	Net premiums received for workmen's compensation	10.4
Change in reserves for group life insurance and workmen's compensation	2.6		

Household Income and Outlay Account

		Benefits received from workmen's compensation	$7.9

Household Capital Accumulation Account

		Benefits received from group life insurance	$4.9

point of view of the economy as a whole, accidental damage is a regular, predictable, recurrent happening that should be shown in the current accounts, instead of being treated as a capital loss. SNA does allow, in the reconciliation account, for the treatment of accidental damage that differs from the expected amount as a capital loss (or gain, if less than expected), however. This argument is reminiscent of the use of retirement accounting in the railroad industry, where at one time the purchases of freight cars and locomotives were treated as current expenditures on the grounds that such purchases were made every year and so it was reasonable to treat them as outlays chargeable to current expenses. No self-respecting national accountant, however, would now accept such an argument for defining what should be included in gross capital formation. SNA's global view becomes less and less defensible as the accounts are disaggregated into sectors and subsectors, and it is of course completely inappropriate when considered from the point of view of the individual producer. It would, therefore, be more appropriate to treat major property damage as a capital loss, and the insurance reimbursement for it as a receipt in the capital finance account, not the income and outlay account. It would also then be appropriate to compute the capital consumption charge without an allowance for accidental damage, but to write off each year the capital losses that actually occur.

From the point of view of the purchaser of casualty insurance, furthermore, it may be questioned whether the administrative costs and profits of the insurance company constitute an appropriate measure of either final product or value added. Unlike a tax or compulsory transfer, the purchase of casualty insurance represents a voluntary expenditure for a service—namely, protection against loss—much in the same manner as an expenditure for a fire alarm system or security devices might be used to protect against the same kinds of loss. The fact that a loss does not occur does not mean that the purchaser has not received the protection he purchased. This suggests that it might be appropriate to consider the gross premium as an intermediate consumption expenditure (by producers) or final consumption expenditure (by households), and the net premium as part of the value added and operating surplus of the insurance companies from which transfers would be made to the capital finance accounts of those having casualty insurance claims.

Unfortunately information is not now readily available on casualty insurance premiums, claims and losses that can be used to analyze the differences which would result from alternative treatments.[3] Furthermore, the questions which have been raised involve additional considerations relating to the treatment of capital consumption and the measurement of production which are beyond the scope of this paper.

[3]Insurance companies, of course, do have this information, so that it would be feasible to collect it.

V. Summary of the Effects of the Proposed Alternative Treatments

A. *The SNA Household Income and Outlay Account for the U.S., 1979*

In order to analyze the cumulative effects of all of the proposed alternative treatments for different kinds of pensions and insurance on the SNA household income and outlay account, it will first be necessary to construct an SNA version of the U.S. household income and outlay account for 1979. To some extent this has been done in the 1981 UN *Yearbook of National Account Statistics*, but some further adjustments are needed to bring the account closer to SNA concepts and definitions and to make it consistent with the data shown in Table 1. The adjustments required are shown in Table 8. They are of four general types: (1) exclusion of non-profit institutions, (2) reclassification of the pension contributions and benefits relating to government employees, (3) inclusion of unfunded pension contributions and benefits, and (4) altered treatment of various categories of net casualty insurance premiums and claims.

In order to exclude non-profit institutions from the household income and outlay account, it is necessary to exclude the property income which they receive and the final consumption expenditures they make. In addition, the transfers which households make to non-profit institutions must be shown explicitly. These adjustments for non-profit institutions are based on the estimates contained in R. and N. Ruggles, "Integrated Economic Accounts for the United States, 1947–80," *Survey of Current Business*, May 1982.

SNA takes the position that pension contributions and benefits relating to government employees are of the nature of private employer plans and should be so treated. In the UN Yearbook figures, however, social security contributions and benefits include government's contribution for employee pensions and pensions paid to government employees. Table 8 shows the adjustments needed for consistency with the related information for social security contributions and benefits in Table 1.

The adjustments for unfunded employee benefits consist of two elements. First, military retirement and veterans' benefits, which in the U.S. are unfunded, must be added to government unfunded employee benefits and removed from transfer payments. This requires that they be (1) added to the compensation of government employees, (2) subtracted from social assistance grants, (3) added to unfunded employee benefits received by households, and (4) added to transfers paid by households to employers. Second, no private unfunded employee benefits are listed in the accounts presented, and an arbitrary amount of $10 billion has been introduced in order to cover such unfunded employee benefits as tuition or education grants, thrift contributions, and other miscellaneous payments by employers. This amount has been (1) added to the compensation of employees, (2) added to unfunded employee benefits received, and (3) added to transfers paid by households to employers.

Finally, with respect to casualty insurance, the data provided in the UN Yearbook does not conform to SNA concepts. In SNA, net casualty insurance claims should equal net casualty insurance premiums for each type of casualty insurance. In the case of health, group life and workmen's compensation

TABLE 8

ADJUSTMENTS TO UNITED STATES DATA FOR 1979 AS SHOWN IN UN YEARBOOK OF NATIONAL ACCOUNTS STATISTICS

HOUSEHOLD AND PRIVATE UNINCORPORATED ENTERPRISE INCOME AND OUTLAY ACCOUNT (BILLIONS OF DOLLARS)

Item	Table 1 Data	UN Data	Required Adjustment	Total
Receipts				
1. Compensation of employees		1471.6		
Plus: Unfunded employee benefits			+34.0	1505.6
2. Property and enterpreneurial income		386.3		
Minus: Property income received by non-profit institutions			−5.7	380.6
3. Current transfers received				
a. Casualty insurance claims				
Medical vendor payments		19.4		
Net health claims	48.9			
Plus: Net difference			+29.5	
Plus: Net claims, group life insurance	4.9		+4.9	
Plus: Net claims, workmen's compensation insurance	7.9		+7.9	61.7
b. Social security benefits		176.2		
Minus: Pensions of government employees			−32.5	143.7
c. Social assistance grants		53.1		
Minus: Military and veterans benefits	24.0		24.0	29.1
d. Unfunded employee benefits				
Wage accruals less disbrusements		0.2		
Unfunded employee benefits	34.0		+33.8	34.0
e. Other current transfers received		9.9		9.9
Total Current Receipts		$2116.7	+47.9	2164.6
Disbursements				
4. Final consumption expenditures		$1515.4		
Minus: Expenditures of non-profit institutions			−43.8	1471.6
5. Property income paid		43.7		
Minus: Interest paid by non-profit institutions			−1.7	42.0
6. Direct taxes, fees, fines and other payments n.e.c. to government				
a. Social security contributions		187.1		
Minus: Government contribution for employee pensions			−34.4	152.7
b. Income taxes		264.5		264.5
c. Other payments n.e.c.		10.0		10.0
7. Other transfers paid				
a. Net casualty insurance premiums		—		
Plus: Net health insurance premiums	48.9		+48.9	
Plus: Net group life insurance premiums	4.9		+4.9	
Plus: Net workmen's compensation insurance premiums	7.9		+7.9	
b. Transfers to private non-profit institutions serving households		—	+36.5	36.5
c. Transfers to the rest of the world		2.2		2.2
d. Other current transfers except imputed		—		—
e. Imputed employee welfare contributions	34.0	—	34.0	34.0
Net saving		93.8	−4.4	89.4
Total Current Disbursements and Net Saving		$2116.7	+47.9	2164.6

insurance, households are the only transactors involved in paying premiums and receiving benefits, so that for these types of insurance the net casualty insurance claims of households should be equal to net premiums paid by households. The adjustments made in Table 8 are those required to make the net casualty insurance claims and net casualty insurance premiums in the household income and outlay account consistent with the data in Table 1.

Despite the substantial number of these adjustments the net change in total current receipts is rather modest, amounting to only $47.9 billion, an increase of about 2 percent. Net saving of households declined by $4.4 billion, a decrease of 5 percent. The adjusted estimates are required, however, so that the SNA treatment of pension and insurance transactions can be compared, in the next section, to the alternative treatments that have been proposed in Tables 2 through 7.

B. *Effects of Proposals on Household Income and Outlay and GDP Expenditures*

The differences between the SNA and proposed treatments of pension and insurance transactions in the household income and outlay account are shown in Table 9. The data shown for SNA in this table are the same as the adjusted data shown in Table 8, but somewhat greater detail is provided for pension and insurance transactions. This detail corresponds to the data shown in Tables 2 through 7. For comparative purposes, the unadjusted official data as published by the Bureau of Economic Analysis (BEA) are shown in the first column.

The essential difference between SNA and the proposed alternative treatment of pension and insurance transactions that Table 9 emphasizes is that SNA attributes to the household transactions made on its behalf, whereas the alternative treatment omits from the household account transactions in which the household is not directly involved as a transactor. Thus in the compensation of employees, SNA includes the contributions that employers make on behalf of employees for social security, private pension and welfare plans, and unfunded employee welfare benefits. The proposed alternative omits all of these contributions, and records as the compensation of employees received by households only that which is directly paid to them as wages and salaries. In property income, SNA imputes to households interest received by the pension and insurance sector. The proposed treatment leaves these imputations out of the property and entrepreneurial income received by households. The adjustments to transfers received by households are somewhat more complex. On the one hand, SNA does not include in household income the funded pension benefits and annuities which households receive, whereas the proposed alternative treatment does include them. On the other hand, SNA does include in household income reimbursements of health expenditures of households by government and/or private insurance, whereas the proposed alternative treatment excludes them.

On the disbursements side of the account, the reimbursed health care expenditures are included in final consumption expenditure by SNA, but are excluded in the proposed treatment. Social security contributions in SNA include the employers' contribution, but in the proposed treatment, since employers' contributions are not included in household receipts, they are excluded from

TABLE 9

SNA, PROPOSED, AND BEA TREATMENT OF PENSION AND INSURANCE TRANSACTIONS

HOUSEHOLD AND PRIVATE UNINCORPORATED ENTERPRISE INCOME AND OUTLAY ACCOUNT (UNITED STATES, 1979, BILLIONS OF DOLLARS)

	BEA	SNA	Proposed
Receipts			
1. Compensation of employees		1505.6	—
a. Wages and Salaries	1237.6	1248.1	1248.1
b. Employers' contribution for social security	—	82.2	—
c. Employers' contribution for private pension and welfare plans	114.9	141.2	—
1. Funded pensions	50.5	79.2	—
2. Group health insurance	44.2	41.6	—
3. Group life insurance	5.8	6.0	—
4. Workmen's compensation	14.4	14.4	—
d. Unfunded contributions	—	34.0	—
1. Private employee benefits	—	10.0	—
2. Military and veteran benefits	—	24.0	—
2. Property and entrepreneurial income received	428.7	380.6	344.6
a. Imputed interest on pension reserves	26.3	26.3	—
b. Imputed interest on insurance reserves	9.7	9.7	—
c. Other property and entrepreneurial income	392.7	344.6	344.6
3. Transfers received	250.3	278.4	261.8
a. Casualty insurance claims	—	61.7	7.9
1. Health	—	48.9	—
2. Group life	—	4.9	—
3. Workmen's compensation	—	7.9	7.9
b. Social security benefits	151.4	143.7	114.5
1. Old age and disability	102.6	102.6	102.6
2. Health and hospital	29.2	29.2	—
3. Unemployment	9.8	9.4	9.4
4. Workmen's compensation	a	2.5	2.5
c. Social assistance grants	a	29.1	29.1
d. Unfunded employee benefits	a	34.0	34.0
1. Private	—	10.0	10.0
2. Military and veterans	24.0	24.0	24.0
e. Other current transfers	a	9.9	76.3
1. From rest of the world	—	1.3	1.3
2. Other	84.8	8.6	8.6
3. Funded pension benefits	—	—	59.8
4. Life insurance annuities	—	—	6.6
Less: Personal contributions to social insurance	−81.1	—	—
Total Current Receipts	1951.2	2164.6	1854.5
Disbursements			
1. Private final consumption expenditure	1507.2	1471.6	1378.4
a. Reimbursed health costs	a	72.1	—
1. Government reimbursement	a	29.2	—
2. Employers' reimbursement	a	42.9	—
b. Employer paid service charges	a	23.9	—
1. Pension service charges	a	12.2	—
2. Insurance service charges	a	8.9	—
c. Purchased insurance services and health care	a	28.0	28.0
1. Insurance service charges	a	22.0	22.0
2. Purchased health care	a	6.0	6.0
d. Other consumer expenditure	a	1350.4	1350.4
2. Interest paid	45.5	42.0	42.0
3. Social security contributions	—	152.7	70.5
a. Employers' contributions	—	82.2	—
b. Employees' contribution	—	70.5	70.5
4. Direct tax and other payments n.e.c. to government	301.0	274.5	274.5
4. Other current transfers paid	0.8	134.4	81.1
a. Net casualty insurance premiums	—	61.7	—
b. Transfers to non-profit institutions		36.5	36.5
c. Transfers to rest of the world	—	2.2	2.2
d. Imputed employee welfare contributions	—	34.0	—
1. Private unfunded contributions	—	10.0	—
2. Military and veterans	—	24.0	—
f. Life insurance and annuities paid	—	—	27.4
1. Net premiums paid	—	—	40.0
2. Less: Cash accrual value	—	—	−12.6
g. Employee net contributions to pensions and insurance	—	—	15.0
6. Net saving	96.7	89.4	8.0
Total Current Disbursements and Net Saving	1951.2	2164.6	1854.5

a entry included but not specifically shown.
— entry excluded.

household outlay. Similarly, employers' net private pension and welfare contributions are included by SNA, and excluded in the proposed alternative, from both compensation of employees and household outlays. The proposed treatment does, however, record as current transfers paid by households both the employee contributions for pensions and insurance and premiums paid by households for life insurance and annuities in excess of the increase in cash accrual value.

These differences between SNA and the proposed alternative treatment have a major impact on the measurement of net saving in the household income and outlay account. SNA net saving of households is $89.4 billion, whereas in the proposed altrenative treatment net saving is only $8.0 billion. The difference between these two figures is accounted for by the saving shifted to the pension and insurance sector.

If the SNA and the proposed alternatives are compared with the U.S. Personal Income Account published by BEA, a number of significant differences emerge, and these are also shown in Table 9. First, in compensation of employees, BEA omits employers' contributions for social security and treats military and veterans benefits as transfer payments rather than a part of employee compensation. Second, in property and entrepreneurial income, BEA not only includes the imputed interest on pensions and insurance, but it also includes as imputed interest the services provided to individuals without charge by financial institutions. Third, transfer payments include government employee retirement benefits but exclude casualty insurance claims. Finally, personal contributions to social insurance are subtracted from income received to arrive at personal income (instead of being shown as a disbursement). On the disbursement side of the account, private consumption expenditure is larger than the SNA figure since it includes both non-profit institution consumption expenditure and the services provided free of charge by financial institutions to individuals. Transfers paid by households are very much smaller in the BEA accounts, since they are restricted to transfers paid to foreigners. All of these differences between SNA and BEA have relatively little impact on saving, however; personal saving in the BEA accounts is $96.7 billion, in comparison with the SNA net saving of $89.4 billion. Both of these figures are in marked contrast to the $8.0 billion of net saving resulting from the proposed treatment of pension and insurance transactions.

The effect of the proposed treatment on expenditures for gross domestic product is shown in Table 10. GDP as measured by SNA is not altered by the proposed treatment of pension and insurance transactions. Final consumption expenditures by households are reduced by eliminating benefits which are paid for by government or enterprises, and government final consumption expenditures and enterprise final consumption expenditures are increased correspondingly.

C. *Analytic Significance of the Proposed Alternative Treatment*

Any proposal for change requires justification. For the producers of national accounts, the costs of changing concepts, classifications, and methods can be substantial. Consensus is usually difficult to achieve and is often so fragile that

TABLE 10

SNA AND PROPOSED TREATMENT OF PENSION AND INSURANCE TRANSACTIONS
EXPENDITURE ON GROSS DOMESTIC PRODUCT, U.S. 1979
(BILLIONS OF DOLLARS)

	BEA	SNA	Proposed
1. Final consumption expenditure by government	474.4	437.9	467.1
a. Reimbursement of health costs	—	—	29.2
b. Unfunded military and veterans benefits	—	24.0	24.0
c. Other final consumption expenditure by government	474.4	413.9	413.9
2. Final consumption expenditure by households	1507.2	1471.6	1378.4
a. Reimbursed health benefits	a	72.1	—
1. Government benefits	a	29.2	—
2. Employers' benefits	a	42.9	—
b. Employer paid service charges	a	21.1	—
1. Pension service charges	a	12.2	—
2. Insurance service charges	a	8.9	—
c. Insurance services and health care	a	28.0	28.0
1. Insurance service charges	a	22.0	22.0
2. Purchased health care	a	6.0	6.0
d. Other consumer expenditures	a	1350.4	1350.4
3. Final consumption expenditures by enterprises and non-profit institutions	—	43.8	107.8
a. Reimbursement of health costs	—	—	42.9
b. Employer paid service charges	—	—	21.1
1. Pension service charges	—	—	12.2
2. Insurance service charges	—	—	8.9
c. Non-profit institution final consumption	—	43.8	43.8
3. Gross capital formation	423.0	477.9	477.9
4. Exports of goods and services	215.0	215.0	215.0
5. Less: Imports of goods and services	245.1	245.1	245.1
Gross Domestic Product	2374.5	2401.2	2401.2

a entry included but not specifically shown.
— entry excluded.

many prefer not to question practices sanctioned by time. For the users of the accounts, changes interrupt the continuity of time series, and require them to become accustomed to new forms of data.

Producers of statistics often take the view that their function is to produce the data that users need and want, and that it is up to the users to specify what these data should be. That, however, is not really a practical possibility. Users, at best, can do little more than state the nature of the problems they wish to address. They do not have—and cannot be expected to have—the necessary detailed familiarity with the data, and they usually do not have the comprehensive view of the statistical system that is the national accountant's hallmark. Most of the concepts employed by both economic theoreticians and econometric modellers are expressed at a level of generality that allows for a very wide range of interpretation, and few users have either the interest or the qualifications to examine the conceptual basis or statistical content of the data they use. It is the responsibility of the producers of the data—and especially of the national

accountant—to ensure that the data measure what they purport to measure, and that what they purport to measure is relevant to the real world decisions about economic and social policy that must continually be made. Failure to accept that responsibility can have serious consequences, in terms of misunderstanding of the operation of the economic system and inappropriate policy decisions.

The objective of much economic theory is the derivation of generalizations stated in functional terms—i.e., devoid of institutional content. Thus, both macro and micro economic analysis deal with such abstractions as saving and investment, income and consumption, and wealth and the money supply, without considering the definitions of these concepts or their institutional setting: saving is considered to be the difference between income and consumption, neither of which is well-defined; households are considered to be the ultimate recipients of all income and owners of all wealth, and the final decision-makers in the economy; and financial institutions are treated as only intermediaries. Although the models devised by theorists are often complex and subtle, they generally achieve their rigor by using very simplistic concepts and assumptions that cannot easily accommodate the institutional characteristics of reality. But the tools with which the policy-maker must work always have empirical and institutional content. Household income and consumption expenditures need to be based on empirically observable transactions. A tax applies to specific taxpayers, it is a specific kind of tax, and it falls on a specific tax base. A monetary regulation applies to a specific type of financial institution, and new institutional forms may be devised purposely to avoid it.

National accounts have always reflected a somewhat uneasy compromise between these two approaches. The history of the growth and development of the accounts is the history of increasing institutional content. Sectors, industries, and types of transaction have increasingly moved toward reflecting the institutional diversity that actually exists. Thus the old SNA dealt with producers and consumers, whereas the present one deals with households and specific institutional types of enterprises. But at the same time, there are remnants of the functional approach. The urge to identify "households" with "consumers" and "savers," on the one hand, and "enterprises" with "producers" and "investors" on the other is very strong, and it is this attempt to have it both ways that accounts for many of the imputations now included in SNA. It is this attempt, also, that leads to a set of macro accounts that are not congruent with the accounts of the reporting units, the transactors, of the system.

The consequence of this lack of congruence between the macro and micro accounts is that the macro accounts cannot be used for analyzing questions which have institutional content, and which require disaggregation. Two major examples are analysis of the processes of financial intermediation and analysis of the distribution of income and household behavior. Both flow of funds data and distribution of income data are relative latecomers to the national accounts, and both reflect the movement toward increased institutional reality. The SNA guidelines on income distribution and balance sheets both recognize the need to adjust the concepts of the macro accounts.

The proposals made in this paper reflect this point of view. Their objective is to bring the macro accounts into closer conformity with the institutional world.

For the most part, the direction of change is the same as that reflected in the more recent parts of SNA, the income distribution and balance sheet guidelines. The treatment of pensions and insurance is one of the chief areas where the present SNA follows a somewhat functional approach at the expense of institutional validity. (It is not the only one, of course—the treatment of owner-occupied housing and interest are prime examples of instances where the accounting conventions obscure rather than illuminate. But that is another paper.)

The issues at stake are not trivial, and they are not just accounting technicalities. They really determine our view of how the economic system operates. Moving saving from households to pension funds and life insurance companies, for instance, may focus the attention of policy-makers on the determinants of pension fund accumulation and the market behavior of the fund managers, rather than on measures affecting true household net saving, which turns out to be of very minor quantitative significance. The U.S. household net saving rate of 4 percent shown in SNA is low, but that of less than half of 1 percent shown in the adjusted accounts is considerably smaller than the average statistical discrepancy, and rather obviously should not be used as the central variable for analyzing the determinants of the level of income and capital formation in the economy.