FINANCIAL ACCOUNTS AND BALANCE SHEETS: ISSUES FOR THE REVISION OF SNA

BY NANCY D. RUGGLES*

Yale University

This paper is an abridged version of a report with the same title originally written for the United Nations Statistical Office, as a part of the ongoing review of the System of National Accounts. Its purpose is to identify the issues in the financial statistics area that need to be considered in the course of the review. Particular attention is paid to problems of harmonization of SNA with related standards of the International Monetary Fund. The 1968 SNA provided a place in the framework for financial accounts and balance sheets, but did not develop them in any detail. In the 19 years since the revised SNA was published, policy and analytic interest in financial questions has greatly increased, and much work has been done on conceptual development and statistical compilation of financial statistics, both within and outside of the SNA framework. It is now apparent that some of the early decisions taken when financial considerations were not the focus of attention need reconsideration, some of the makeshift solutions that have grown up over time are no longer adequate, and some issues that have not been dealt with at all need to be addressed. This paper is not intended to propose solutions, but rather to reflect questions that have been raised, and to present alternatives that have been proposed.

A. THE FINANCIAL ACCOUNTS IN THE SNA FRAMEWORK

One of the new features of the 1968 SNA[1] (hereafter referred to as the Blue Book) was the introduction of much expanded financial information. This expanded financial information is fully integrated into the accounting framework, as a further elaboration of the saving and net lending figures derived in the current accounts. The framework now provides for a complete accounting of the process by which the economy moves from its position at the beginning of the period (the opening balance sheet) to its position at the close of the period (the closing balance sheet). This paper is concerned with the capital finance account, the reconciliation account, and the balance sheet. These parts of SNA have been much less thoroughly developed than the accounts dealing with production and income flows, and a number of problems need consideration in the review of SNA.[2]

The changes in balance sheet figures from one date to the next necessarily reflect the transactions shown in the flow accounts covering that period. Reproducible tangible capital assets enter the stock of capital through gross capital forma-

*The usual disclaimer applies; the views presented are those of the author, and have been neither reviewed nor approved by UNSO. An attempt has been made to present differing views, but those of the author will be readily apparent to the reader.

[1] *A System of National Accounts*, Series F, No. 2, Rev. 3, United Nations, 1968. Specific definitions and classifications and standard accounts were later provided in *Provisional International Guidelines on the National and Sectoral Balance-Sheet and Reconciliation Accounts of the System of National Accounts*, Series M, No. 60, published by the United Nations in 1977, and in *Guidelines on Statistics of Tangible Assets*, Series M, No. 68, published in 1979.

[2] This discussion draws upon UNSO's Draft Manual on Financial Statistics (prepared with the assistance of Jacques Mayer), as well as the International Monetary Fund's *International Financial Statistics* (IFS), *Balance of Payments Manual* (BOP), and *Government Finance Statistics Manual* (GFS).

tion, and leave it through consumption of fixed capital or scrapping, as shown in the capital accumulation account. Non-reproducible tangible assets and intangibles enter the balance sheet when they are the subject of a transaction appearing in the capital accumulation account. Financial assets and liabilities are created and extinguished through actions that appear in the capital finance account.

There are, however, other factors besides those appearing in the flow accounts that lead to changes in balance sheets from one period to the next. The chief of these is revaluation: changes in market prices. In addition, other types of capital gain and loss may occur, and certain other adjustments may be required. All of these gains and losses are accounted for, in SNA, in the reconciliation account. Taken together, the transaction accounts and the reconciliation account provide a complete explanation of the change from one period to the next in the balance sheets of individual transactors, sub-sectors, sectors, and the nation as a whole.

At the time the Balance Sheet Guidelines were prepared, there was little country experience in the compilation of balance sheets upon which to base them, although there had been experimentation by researchers both in the construction of capital stock figures and in the compilation of partial balance sheets. Country experience has now broadened considerably. Among the statistically more developed countries, capital stock figures are becoming widely available. Balance sheets are still limited, but several countries have had experience in compiling them. It is therefore now possible to approach this topic with somewhat more confidence, both in the utility of the figures and in the feasibility of compiling them. It is also possible to identify certain problem areas, to which attention needs to be given.

Although some of these problem areas are limited to the financial accounts, many of them are the same ones that have already been identified in other contexts. None of the issues raised in this paper is new, and some have been debated from the early years of work on national accounts. But the changing nature of economic problems and policy concerns and the increasing focus on financial questions call into question some of the conventions that have been adopted, and suggest that some reconsideration is now warranted. As the growth of financial analyses outside the national accounting system demonstrates, if the accounting system fails to accommodate the kinds of analyses now of interest to policy makers and researchers it will simply be by-passed, and the quality of both the traditional uses of the accounts and the newer ones will suffer.

1. Consistency of the Stock and Flow Accounts

The Balance Sheet Guidelines emphasize that the coverage of the balance sheet accounts must be congruent with that of the transaction accounts. Reproducible tangible assets must have been created by gross capital formation, and stocks of financial assets and liabilities through actions appearing in the capital finance account. Non-reproducible tangible assets, in SNA, in principle enter the balance sheet only when they have been the object of a market transaction shown in the capital accumulation account, i.e. when they are bought and sold. Some questions have arisen, however, in the application of these principles.

a. *Statistical Feasibility*

There is, first, a general question of statistical feasibility. It has been suggested that it may sometimes be possible to include items in the balance sheet that cannot be compiled on a flow basis, or vice versa. Statistical feasibility varies, of course, with each country's individual circumstances. In view of the usual methods of compilation, however, it is not readily apparent why coverage of the stock and flow accounts need differ. For reproducible assets, stock figures are most often compiled by perpetual inventory methods, cumulating flows over a period of years. If flows are available, stocks can be compiled. For other assets, the reverse is generally the case: the primary data are for stocks, and flows are obtained as differences. But again, if one is available, the other can be obtained. In conceptual terms, the Guidelines position seems quite justified. Statistical difficulties are inevitable, but they should not be used as a reason for distorting the conceptual framework of the system. Nevertheless, the question needs explicit consideration.

b. *Land and Other Non-reproducible Tangible Goods*

Land, timber tracts, subsoil deposits and fisheries enter the transaction accounts of SNA when they are bought and sold or improved. While all non-reproducible tangible assets are part of the endowment of a country and yield benefits over an extended period of time, only the streams of benefits from those resources that are used in the commercial production of goods and services are generally priced in the market place and included in production. It is usually feasible to value these commercially used assets, and to include them in the balance sheets of their owners. A more debatable question arises in the case of assets of a similar type that have not been sold, but which have owners. It is, for instance, quite unrealistic to omit the value of subsoil assets from the wealth of petroleum producing countries, just because the assets belong to the government and have never been sold and are not likely to be. Similarly, some countries still have large amounts of unoccupied farm, range, and timber land. Inclusion of such assets does not contravene the principle of congruence of the flow and stock accounts. All accounting systems must begin at a fixed point in time, with an opening balance sheet which would include the value of land at that time. Improvements to it, and increases in its value through discovery of mineral resources, etc., or through price changes would then enter the accounts in the normal way.

In the absence of a sale, valuation of these assets often presents very difficult problems of both a conceptual and a statistical nature. The problems arise in some cases because long time periods are involved and contracts made in earlier periods may not reflect current conditions. This is true, for instance, of land subject to long leases, or mines whose output is subject to a long term sales agreement. In other cases, current value depends upon unknown future events—conditions of supply and demand, prices and interest rates—and there is no existing market in the asset itself to provide a guide.

The valuation of subsoil assets is particularly difficult, since large and sudden alterations frequently occur in all of the factors entering into the calculation.

Estimates of economically usable physical reserves are highly dependent upon the price of the ultimate product, and that price often swings widely. They are also dependent upon technology, which changes constantly. And finally, new discoveries may be very important. Once the physical quantity of the reserve has been determined, furthermore, valuing it involves predicting prices and rates of return at future exploitation dates and choosing appropriate rates of discount to arrive at present values.

No satisfactory solution to these problems has yet been developed. Attention needs to be devoted to developing an appropriate methodology for the next version of SNA.

c. *Household Durable Goods*

The durable goods of households such as automobiles, refrigerators, washing machines and furniture are excluded from gross fixed capital formation in SNA. This treatment is somewhat anomalous since the same items are considered to be fixed assets when they are in the possession of producers (such as the providers of rental housing) and they do yield a stream of benefits to households over a number of years. Furthermore, possession of durable goods is an important element in the level of living of households and in their patterns of consumption and financial behaviour. However, the benefits households derive from these goods are not, in the present SNA, included in the production or consumption of goods and services, so that the inclusion of such assets in household balance sheets would create serious problems of reconciliation with the transaction accounts. It is on this basis that they are now omitted from the balance sheet, but SNA recommends that a supplementary table be prepared on household holdings of consumer durable goods.

Taken by itself, this treatment of consumer durables may seem reasonable. However, household durable goods are closely related to owner-occupied housing, and as household durable goods (especially automobiles) become more important, it is increasingly difficult to justify treating the two categories as differently as SNA now does. Various suggestions for bringing their treatment into closer harmony have been made. One possibility would be to treat durable goods as housing is now treated, establishing a nominal unincorporated enterprise to own them and furnish their services. This would involve estimating the value of the services of durables, and adding this value to both production and household consumption, while deducting actual expenditures on durables. An alternative possibility would be to treat both consumer durables and owner-occupied housing as assets on the balance sheet of households, and current costs relating to their use (for example, maintenance, interest charges, and taxes) as part of household current outlays. As an adjustment in this latter approach, an estimate of both home-owners' imputed rental income and the imputed services of durables might be shown as a supplement.

2. The Structure of the Balance Sheet

To a certain extent, the structure of SNA's balance sheet was determined by earlier decisions taken with respect to other parts of the system. The 1968

SNA dealt mainly with the current transactions accounts, and it did not give much consideration to the impact of decisions taken there upon the balance sheet. The Balance Sheet Guidelines endeavoured to maintain compatibility with the current accounts as laid out in 1968, although this did not always prove to be entirely feasible.

a. *Separation of Fixed Claims and Equities*

The major division of the balance sheet in the Blue Book is between non-financial and financial entries. Non-financial entries are those whose changes appear in the capital accumulation account, and financial entries are those whose changes appear in the capital finance account. That boundary, in turn, is determined by SNA's choice of the concept of net lending as the balancing item in both accounts, and the specific definition given to it. For both of these there are alternatives, which are adopted by some countries. The alternative balancing item is gross saving; the definitional questions relate mainly to intangibles. A different treatment of these questions would lead to a differently structured balance sheet, which might be closer to conventional business and financial accounting practices.

The Balance Sheet Guidelines modify the arrangement adopted in the capital finance account of the Blue Book in one important respect, namely the separation of fixed claims from equity items. The main break, on the liability side, is no longer between liabilities and net worth, but rather between liabilities to "third parties", on the one hand, and the sum of liabilities to "second parties" (i.e. owners of the enterprise's equity) and net worth, on the other. On the asset side, capital participations are separated from other financial assets. Thus, fixed assets and liabilities are shown separately from equities on both sides of the account. The Guidelines also propose a similar restructuring of the capital finance account, to show changes in capital participations separately from changes in other financial assets and liabilities. This alteration in the structure of the balance sheet and capital finance accounts is clearly an improvement, since corporate and quasi-corporate equities are not liabilities in the usually accepted sense of that term, and this treatment brings the accounts closer to normal business practice. In most business accounts, a similar distinction is also made on the asset side of the balance sheet, separating fixed claim assets from equity securities.

b. *Financial Assets and Liabilities Other than Equities*

The basic SNA classification of fixed claims is by liquidity, which is of course closely associated with type of instrument. Within this first-level breakdown, two further distinctions are made. A separation is made between accounts payable in national currency and those payable in foreign currencies, and accounts with an original contractual maturity of one year or less are distinguished from those with longer maturities. In only one case does the classification of financial assets and liabilities provided in SNA (Table 7.2) and in the Balance Sheet Guidelines recommend any breakdown by institutional sector beyond the separation of foreign debtors and creditors: it is recommended that short term bonds and bills be subdivided according to debtor into (a) resident corporations, (b) central government, (c) state and local government, and (d) rest of the world.

Table 24 of SNA does provide for a breakdown of financial transactions by detailed subsectors of debtors and creditors. However, few countries are able to provide data at the level of detail required for this table. Yet the introduction of some institutional sector detail into the main capital finance and balance sheet accounts would be extremely useful. In particular, consideration may be given to the separation of government obligations. It is of considerable importance for financial analysis and the planning of monetary and fiscal policy for the government to know whether the public debt is held by banks and other financial institutions, public or private enterprises, or households. Secondly, a breakdown of long term loans would be desirable, in order to show debt secured by mortgages on residential and commercial property separately from other types of long term financing.

The Guidelines argue that fixed claims held as assets should, in principle, be valued in one of two ways, either (1) at nominal face value if they can be realized on demand or at short notice or if they cannot be transferred as assets from one transactor to another, or (2) at market value if they cannot be realized on demand but can be transferred. The application of this principle, tempered by considerations of practicality, results in its proposal that market values should be used to value fixed claim financial assets in the form of gold and long term bonds, and that face values be used for all others. However, this raises some problems with respect to the valuation of long term bonds as liabilities. The general SNA principle is that the same valuation should be used for a given claim whether it is viewed as an asset or as a liability, and this would require that long term bonds also be valued at market in the accounts of the issuer. The Guidelines offer a number of arguments in favour of this treatment. At the same time, it is recognized that this is not usual business practice, or indeed the practice followed in country financial statistics in many cases. Nor is it the IFS practice. The Guidelines suggest that supplementary tables showing nominal values of long term bonds should also be compiled. It may be desirable to reconsider this question for the future.

b. *Equities*

The Balance Sheet Guidelines note that valuation of the equity of both subsidiaries and quasi-corporate enterprises presents problems, and its recommendations depart from those of the Blue Book. With respect to subsidiaries, where by definition the parent company owns 50 percent or more of the corporate stock, the parent company controls the magnitude of the subsidiaries' net worth since it determines the amount of dividends they pay and thus fixes the amount of saving they retain. It may therefore be argued that the subsidiaries do not have any independent net worth and that the value of the parents' equity securities in the subsidiaries is equivalent to the total value of the subsidiaries' assets less the total value of the subsidiaries' liabilities, after taking account of any minority interests. A similar argument is made for quasi-corporate enterprises. Quasi-corporate enterprises may be considered to have no independent net worth, since the proprietors determine the amounts they withdraw from or add to the capital of the enterprises and can appropriate all of it. The value of the proprietors' net

equity in quasi-corporate enterprises would thus be equivalent to the total value of their assets less the total value of their other liabilities.

With respect to corporate equities as liabilities of the issuing firms, the Guidelines do recommend valuation at market, but point out that a good case can be made for the use of revalued paid-in value. The revalued paid-in value of all the outstanding equity securities, excluding treasury stock, of an incorporated enterprise is the sum of the actual amounts paid for sold issues of shares and the value of their issue of dividends and bonuses, revalued in terms of the current market prices of the assets of the enterprise. The use of this value for equity securities, together with market values elsewhere in the balance sheet, would result in a concept of net worth which is equivalent to the accumulated retained earnings and capital gains of the enterprise, valued in terms of current market prices of the assets. This definition of net worth is closely related to the concept of accumulated capital that is used in business accounting. It would yield figures of net worth that are indicative of the success of companies and of their dividend policies and the role of internal financing. The relationship between the revalued paid-in values and market values of the equity securities of incorporated enterprises is also of analytical interest.

IFS follows a still different practice. It considers that it is not essential that financial claims be valued identically when they are owned as assets and when they are owed as liabilities, and recommends different valuation of the same item in debtor and creditor balance sheets. The IFS procedure is to value financial assets at the present discounted value of expected future income streams, and to value financial liabilities at face value. For equity securities, "face value" appears to mean nominal paid-in value, without any revaluation, although IFS does not make this entirely clear.

Recent experience in the analysis of both private financial markets and fiscal policy strongly suggests that the accounting system should provide both valuations based on the discounted future stream of expected earnings and valuations reflecting the actual market value of assets and liabilities owned by enterprises, since the difference between the two is often a determinant of behavior. In terms of financial markets, where a firm's discounted stream of future earnings valuation is lower than the market value of its net assets, it may be the target of a takeover aimed at liquidating its assets. In fiscal policy terms, the two valuations are required to compute Q-ratios, which reflect the extent to which enterprises will spend for new capital formation or will attempt to gain new capacity by merging with existing enterprises.

c. *Intangibles*

Various questions may also be raised about the treatment of intangibles. As the controversy surrounding the treatment of financial leasing makes apparent, such intangible assets as leases share many of the characteristics of financial assets, and it might be useful to combine them with other fixed claim assets. This is not true, however, of all types of intangibles. Such intellectual property as patents and copyrights (and, increasingly, such things as computer software) are

much more akin to tangibles. They do not entail an offsetting liability, and so should enter into national wealth.

(1) Leases of Machinery and Equipment

The treatment of financial leasing is being reconsidered in the review of SNA. Leases for the rental of machinery and equipment are not now considered in SNA to be intangible assets. Rental payments for machinery and equipment are treated as payments for purchased services in the production accounts of both lessor and lessee, and the lease itself is treated like any other long term contract; it does not specifically enter into the balance sheet. In cases where the lessee controls the choice of equipment and retains the equipment after the expiration of the lease, however, it is argued that what is really going on is a financial transaction: the lessor is lending to the lessee the sum necessary to purchase the equipment. Ownership should therefore reside with the lessee, not the lessor, and the lease should be considered a long term loan. There is substantial agreement in principle with this position, but numerous problems have arisen in working out the specific provisions.

(2) Leases of Land, Buildings, etc.

The Balance Sheet Guidelines note that an argument very similar to that made with regard to financial leasing of equipment can be made with respect to leases of land and buildings, concessions to exploit mineral deposits, etc. Rather than including such leases and concessions in intangible non-financial assets, the lump-sum payment might instead be considered to be an advance of the discounted value of the stream of expected rents and royalties over the life of the lease or concession, and therefore might be shown as a financial asset of the payer and a liability of the receiver that is written off year by year over the life of the lease. This procedure would solve the problem of the disposition of expired leases and concessions that arises in the present SNA. It would also handle more neatly the problem that arises when contractual payments depart from market rentals. When this happens, the concomitant increase (or decrease) in the market value of the asset during the life of the lease accrues to the lessee, not the owner, and under the present treatment it is necessary to create a financial asset, amortized over the remaining life of the lease, to record this. If the transaction is treated as a financial one in the first place, and it is valued over its life at current market value, this separate entry is not needed.

(3) Patents, Trademarks, and Copyrights

While a similar argument could be made regarding the intellectual property represented by patents, copyrights, and trademarks, it is much less persuasive in this case. The purchaser and seller normally do regard the transaction as an actual sale, even when payments are spread out over a period of time. A study of country practices seems to suggest, however, that in the few instances where estimates of intangibles are made the payments involved are treated as royalties, not sales. The situation is akin to that of development and exploration expenditures that are embodied in tangibles, suggesting that they might be treated in

the same way, as part of gross capital formation. That, in turn, would open up the question of the treatment of research and development expenditures in general. SNA excludes such expenditures from gross capital formation (and therefore from the balance sheet) even though they are frequently capitalized on the accounts of business firms, on the ground tha they may not yield concrete benefits and are usually not embodied in tangible assets. However, outlays on improving land and developing or extending mining sites, timber tracts, etc. are considered to be capital formation, up to the point when they become productive; thereafter they are classed as intermediate consumption. The logic of this entire convention has been questioned, and it should perhaps receive further attention.

3. The Reconciliation Account Entries

The 1968 SNA envisaged a complete accounting for the change in balance sheets from one period to the next through accounts covering transactions and a revaluation account to accommodate changes in prices. However, the Balance Sheet Guidelines issued in 1977 encountered various problems with the scheme as originally formulated. Some entries were needed that could not be considered revaluations, but for which no place had been provided in the transactions accounts. In order to avoid the necessity for altering the transactions accounts as laid out in the Blue Book, the scope of the revaluation account was expanded in the Guidelines to include all of these omitted items, and its name was changed from revaluation account to reconciliation account. This was, however, not intended as a permanent solution. The Guidelines point out that the boundary between the transactions accounts and the reconciliation account needs further study, and that this is one of the reasons why they were called "provisional."

The capital accumulation account covers the birth (through gross capital formation) and death (through capital consumption) of most tangible assets. However, there are some exceptions. Gross capital formation includes the birth of certain assets for which estimation of capital consumption is not recommended, such as improvements to land, the development and extension of plantations, and the construction of certain government assets such as roads and bridges. If these assets pass out of existence, their death is not provided for in the transactions accounts. Plantations, timber tracts, etc., may increase in value through natural growth, and this is not reflected in the capital accumulation account. Losses of tangible assets through natural catastrophes or unanticipated accidental damage, or their premature retirement due to unforeseen obsolescence, do not appear in the capital accumulation account. Finally, the birth, through sale, of non-financial intangible assets is covered in the capital accumulation account, but their death is not. All of these omitted changes now appear in the reconciliation account.

The capital finance account covers the birth and death of financial assets and liabilities resulting from the foundation, liquidation, and most acquisitions and sales of enterprises. It does not, however, cover the disappearance or appearance of certain financial assets and liabilities because of expansion or contraction of the coverage of statistical units. A parent may actually acquire or divest subsidiaries, or the change may result simply from a redefinition of the statistical

unit. Reclassification of statistical units among sectors or kind of activity classes may also result in changes not covered in the capital finance accounts of individual sectors, though the account of the nation as a whole will not be affected. All these omissions, again, are presently included in the reconciliation account.

The entries that now appear in the reconciliation account may be divided into those reflecting changes in prices and those reflecting changes in quantities. These are quite different in nature, and they are discussed separately below.

a. *Revaluations Due to Price Change*

This category covers the types of change originally envisaged in the 1968 SNA. It includes both realized and unrealized capital gains and losses arising from changes in market price or replacement cost of balance sheet items (depending on the method of valuation used), or in cases where value has been estimated by capitalizing an income stream, changes in the capitalization factor or rate of discount used in making the estimates. Where assets or liabilities are denominated in foreign currencies, changes in exchange rates may also enter here. Although the entires appearing here are often difficult to estimate, they do not usually present boundary problems: they are unambiguously revaluations, and as such belong here and not in the transactions accounts.

b. *Special Drawing Rights*

Special Drawing Rights were instituted by the International Monetary Fund after the publication of the 1968 SNA. SDRs are international reserve assets created by the IMF, representing the holder's unconditional right to obtain other reserve assets, usually foreign exchange. They are held exclusively by official holders, which are normally central banks. The process through which SDRs are created (referred to by IMF as allocations of SDRs) and may be extinguished (cancellation of SDRs) resembles an unrequited transfer, in that a resident (the official holder) acquires or gives up a financial asset but does not exchange for it anything of economic value. Increases or decreases in net allocations are accounted for in the Guidelines in the reconciliation account. This treatment is largely a consequence of historical accident; as the Guidelines note, net allocations could with equal or superior logic be accounted for in the transactions accounts, along with other capital transfers.

c. *Changes in the Quantity of Non-financial Assets*

This group includes both tangible and intangible non-financial assets. Changes in these assets that are not accounted for in the transactions accounts fall into two general categories. One consists of items that were not discussed in the 1968 SNA, perhaps through oversight, but which can logically be fitted into the existing structure of the transactions accounts. The second category is of a rather different nature. It consists of capital gains or losses arising from changes in the physical quantity of tangible and non-financial intangible assets rather than from changes in their price. Where such changes result from production

activities, they are included in the capital accumulation account. But where they result from activities or events not now defined as production-related, they are omitted from the capital accumulation account and shown in the reconciliation account. This in a sense is also a form of oversight—the 1968 SNA did not contemplate the existence of such changes in physical quantities. A good argument can be made that this category should be accommodated in the capital accumulation account, so that this account will reflect the full scope of physical capital accumulation. To accomplish this, however, a new type of entry in the capital accumulation account would be needed. The individual items in question are discussed below.

(1) Unforeseen Obsolescence and Accidental Damage

Consumption of fixed capital in principle includes an allowance for obsolescence, which enters into the fixing of an asset's expected useful economic life. There is no place in the transactions accounts, however, for changes in the physical quantity of tangible assets arising from departure of actual experience from that normally expected—actual retirements of tangible assets earlier than, or later than, that postulated in the assumptions about useful life. These are not revaluations; they have nothing to do with price change. Putting them into the same account with price change will tend to obscure the analysis of inflation, whereas omitting them from the capital accumulation account will obscure analysis of changes in the capital stock. An alternative treatment would be to add an entry covering such unforeseen changes in the physical quantity of tangible assets to the capital accumulation account, so that it would account more completely for the accumulation (and decumulation) of the physical stock of tangible assets.

A further question may be raised about the concept of "normal" accidental damage. Consumption of fixed capital also includes an allowance for "normal" accidental damage to fixed capital, defined as that which can be expected to occur, for all producers grouped together, regularly every year. The concept derives from the experience of groups of producing units—industries, or the economy as a whole, and depends upon the level of aggregation to which the accounts refer. From the point of view of the individual producing unit, "normal" accidental damage would be very much smaller than its *pro rata* share of the industry or national average, being confined to such items as losses of small tools and definitely not including such major items as total destruction of a plant by fire. The latter would be considered by the individual producer to be capital losses, not normal production events. As with unforeseen obsolescence, it would be appropriate to show such capital losses in the capital accumulation account rather than as capital consumption in the production account. Furthermore, the insurance reimbursement for such losses, where they are insured, would also be considered a capital transaction, appropriately shown in the capital finance account rather than the income and outlay account. Inclusion of both accidental damage and its insurance reimbursement in the current transactions accounts reflects, in large part, the incomplete nature of the 1968 SNA; in several instances, entries were included in the current accounts so that they would not be omitted from the system, since the capital accounts were not fully worked out. The next

version of SNA may be expected to be more complete, and consideration needs to be given to the proper allocation of these entries.

(2) Uncompensated Seizure of Assets

When governments take possession of the assets of individuals or companies without compensation for reasons other than the payment of taxes, fines or similar levies, or when the compensation falls substantially short of market value, the Balance Sheet Guidelines suggest that an adjustment item be entered in the reconciliation account. The Guidelines note, however, that such seizures of assets could equally well be entered as capital transfers in the capital accumulation account, and there does not seem to be any compelling reason not to do this. They do not differ in any essential characteristic from other capital transfers, which are often accomplished through the transfer of physical assets.

(3) Natural Growth and New Finds

Although the initial outlays on acquiring livestock as fixed assets and on developing and expanding timber tracts, fisheries, and plantations, orchards and vineyards are included in gross fixed capital formation, the natural growth in these assets and their depletion through use are not covered in the transactions accounts. Similarly, expenditures on exploration for and development of subsoil assets are counted as gross capital formation, but neither the value of new finds nor depletion is covered in the transactions accounts. The Balance Sheet Guidelines therefore recommend that both of these types of change in the physical quantity of assets be included in the reconciliation account. It is apparent that interest in these questions has risen substantially since the Guidelines—and even more so the 1968 SNA—were prepared. There is a need for a treatment of these topics that is more explicit, more detailed, and above all comprehensive. It is, for instance, not appropriate to introduce an allowance for depletion of subsoil assets without an offsetting estimate of new finds. Here again, inclusion of both new finds (or natural growth, in the case of timber etc.) and depletion in the capital accumulation account would be an appropriate alternative, which would satisfy the needs of industry specialists while at the same time ensuring consideration of these questions in a proper context.

These proposed new entries in the capital accumulation account should not include revaluations of subsoil assets, timber, livestock, etc. for such reasons as a rise in the price of the product or the development of more efficient techniques of exploitation. Changes of this sort are not changes in physical quantity, but rather should be classed as price changes.

Consideration also needs to be given to the relation between the capital accumulation account and the production account. The new entries being suggested here would (like purchases of land and intangibles) enter the capital accumulation account, but not the production account. It has, alternatively, sometimes been proposed that depletion, like depreciation, should be entered on the cost side of the production account. But this adjustment is not reasonable without an offsetting adjustment for new finds, and adding new finds less depletion

to value added would significantly alter the concept of production as it is now conceived in SNA.

(4) Natural Catastrophes

Outlays on improvements of land are treated as gross fixed capital formation in SNA, but losses of land due to natural catastrophes such as earthquakes, volcanic action, or storms are not covered in the transactions accounts. The Guidelines show such losses in the reconciliation account. They are, however, quite similar to losses due to accidental damage, and should probably be treated in the same way. The argument presented above would suggest including them in the capital accumulation account. Reductions in the usefulness of land because of slower changes such as erosion, waterlogging and advance of deserts are treated in the Guidelines as a change in market value, however, as is upgrading not due to specific outlays on improvement. The boundary between what is a natural catastrophe resulting in a *quantity* change and what is simply a change in quality is, as always, difficult to draw. Furthermore the question of whether quality change should be treated as a change in quantity or in price is still an open one. The same considerations apply here as elsewhere in the accounts, but this topic is beyond the scope of this paper.

(5) Assets That are not Depreciated

SNA specifically recommends that no capital consumption allowances be computed for certain assets, even though their creation is counted as capital formation. These include expenditures on the extension and development of plantations, vineyards, and timber tracts, as well as most government construction except for buildings. The logic of this treatment is that with proper maintenance such assets have very long—effectively infinite—lives. Experience shows, however, that maintenance is seldom exactly what would be needed to maintain the asset in "new" condition. Either it falls below that standard, and the asset deteriorates, or it exceeds that standard, as needs change and upgrading to meet heavier demands is undertaken. Upgrading, in SNA, is a capital expenditure, part of net capital formation. In the absence of a formal depreciation allowance, however, it is difficult to distinguish normal maintenance from capital improvement. The case of undermaintenance also creates problems. Unlike overmaintenance (or capital improvement), there is no provision in SNA for any accounting for undermaintenance. But undermaintained assets will, by definition, fail to achieve the expected infinite life, and they will at some point be retired. The Guidelines record retirements of these assets in the reconciliation account, in order to arrive at the proper closing stock of tangible assets. But this may not be a satisfactory solution, since the assumption upon which these assets are not depreciated is seldom correct. An old road, for example, does not retain its full value undiminished until the day it is torn up to make way for a new one; it gradually loses its value as it becomes more and more obsolete and inadequate to handle the traffic flow. While it is true that the estimation of capital consumption for assets of these types is difficult, it is not more difficult than estimation of many other entries that are included, and there seems to be no valid conceptual reason for failing to depreciate (or at least amortize) these expenditures.

(6) Non-financial Intangible Assets

The creation of non-financial intangible assets such as patents, copyrights, and trademarks through purchase is recorded in the capital accumulation account, but their termination is not. The Guidelines put an entry for termination in the reconciliation account. As in the case of the tangible assets mentioned in the preceding paragraph, however, this is not fully satisfactory. It is unrealistic to assume that the value of such an intangible asset is extinguished all at once, at the expiration of the copyright, lease, etc. A more appropriate treatment would amortize the value over the life of the asset—a life that is often known with much more certainty than is true for tangible assets.

d. *Summary*

There are two types of capital gains and losses not arising from the economy's current transactions activity that it would be desirable for the accounting system to show. One class arises from changes in prices of capital items, and the other from changes in physical quantities of capital items. Those arising from price changes are true revaluations, and belong in the revaluation account. With respect to those involving quantity changes, however, there is room for a difference of opinion. In view of the increasing importance of many of these gains and losses, it can be argued that they should be brought directly into the capital accumulation and capital finance accounts as new entries. It can equally be argued that they should be left in the reconciliation account, but, because of their increasing importance, that is a satisfactory solution only if the reconciliation account and balance sheet are actually compiled.

There are also a number of 'oversight' items—matters not mentioned in the 1968 SNA—that can logically be accommodated in the transactions accounts. These include uncompensated seizures of assets, terminations of non-financial intangible assets, retirement of non-depreciated fixed assets, transfers of life insurance and pension fund reserves to the net equity of households, and certain types of reclassification and restructuring. The Guidelines put these entries in the reconciliation account in order not to require changes in the transactions accounts, but in the next revision of the transactions accounts they can more logically be accommodated there.

B. The Financial Accounts and Institutional Sectoring

The SNA institutional sectoring conventions differ somewhat both from those of IFS and those generally employed in country financial statistics. This section reviews the main differences with a view to identifying candidates for reconsideration in the next version of SNA, both in order to promote the harmonization of statistical standards and on their own merits.

The IFS sectoring of transactors closely parallels the SNA institutional sectoring, but there are a few important differences. Although in IFS, like SNA, each institutional reporting unit is usually assigned to a single sector, a few

specific exceptions to this rule are made in order to differentiate clearly between the financial system and the non-financial public sector. The IFS financial system comprises monetary authorities (rather than SNA's central bank), deposit money banks (rather than SNA's other monetary institutions), and nonmonetary financial institutions (replacing SNA's three remaining subsectors: insurance companies, pension funds, and other financial institutions). IFS further divides its non-monetary financial institutions sector into two parts; other banklike institutions and nonbank financial intermediaries.

In addition, unlike SNA, IFS does not regard social security funds as a separate part of government. Rather, social security operations are considered part of the central government or of the other levels of government at which they operate. (In this, IFS differs from the proposed revised version of the IMF's *Government Finance Statistics*, where the social security funds are separated out.)

Thus, the chief differences between the SNA sectoring and that of IFS relate to the boundary between government and the financial system and the way in which the latter is subsectored. But there are also differences, of more importance for SNA than IFS, in the treatment of the non-financial part of the economy, i.e. quasi-corporate and unincorporated enterprises, household nonmarket activities, and social security funds. Some of these differences can be reconciled through the provision of more detailed information in one system or the other, but others imply important differences in approach.

1. Financial Institutions

a. *Central Bank/ Monetary Authorities*

IFS considers that the international comparability of the data sought for purposes of monetary analysis requires that the monetary authority accounts encompass all monetary authority functions. This functional approach differs from the SNA approach, in which monetary authority functions carried out by bodies other than the central bank in most instances are attributed to the institutional sectors where those bodies are found—usually the government sector. Where governments have retained control over currency issue (either coins or bank notes), the accounts associated with this function are consolidated with the monetary authority accounts in IFS, but not in SNA. Certain functions relating to the maintenance of international reserves are also transferred in IFS, but not in SNA.

SNA recognizes that these central-bank-like functions may be performed outside of the central bank in some cases, but it adopts a different approach to displaying the relationships involved. Because it is concerned with all of the activities of the economic agents whose accounts it presents, not just one particular aspect such as their role in financial intermediation, SNA considers it important that the institutional integrity of the decision-making transactor units be maintained in the basic accounts. It does recognize, however, that the uses with which IFS is concerned are important to many analysts, and suggests that a supplementary table may be drawn up to show central-bank-like functions performed by entities other than the central bank.

b. *Other Monetary Institutions/Deposit Money Banks*

In SNA, the subsector of financial institutions called "Other monetary institutions" is defined to include all banks except the central bank that have liabilities in the form of deposits payable on demand and transferable by check or otherwise usable in making payments. IFS defines an analogous subsector called "Deposit money banks", but it is a slightly different group. While banks and similar institutions usually are the main issuers of deposit money, institutional arrangements may permit other financial transactors to incur transferable deposit liabilities that are generally recognized as means of payment. This is particularly true where governmental institutions incur such liabilities through postal giro systems. The IFS regards such financial transactions as taking place in notionally separate financial units which it consolidates with the deposit money bank accounts. Also, when the treasury or some other governmental unit accepts transferable deposits from the general public, the deposits are classified by IFS, but not SNA, in the deposit money bank account.

c. *Nonmonetary Financial Institutions*

IFS and SNA treat the remaining financial institutions, those not included in the monetary authority and deposit money banks in IFS or in the central bank and other monetary institutions in SNA, in quite different ways.

In the first place, the subsectors that are identified are different. This in itself need not cause any insurmountable problems of comparability, because it can be overcome by adding more detail to both sets of accounts. IFS identifies two subsectors, (a) other banklike institutions, and (b) nonbank financial intermediaries. SNA identifies (a) insurance companies and pension funds, and (b) other financial institutions.

Innovations in the field of finance such as credit cards and electronic transfer of funds raise fundamental questions about the measurement of an economy's means of payment, questions that have as yet been addressed by neither IFS nor SNA. Furthermore, some innovations are calling into question the very concept of "transferable" deposits. In some countries transferable deposits are a declining share of total liabilities of financial institutions, and in some demand deposits are now less important than other deposits even for the deposit money banks. This changing pattern reflects shifts in the preferences of businesses and individuals in favor of interest-earning assets that are readily exchangeable for money, and against actual money holdings, and it is what has led financial analysts to develop M2, M3 . . . , in addition to the M1 which SNA is aimed at measuring. IFS regards those nonmonetary financial institutions able to issue money-substitutes as a distinct class, which it calls "banklike institutions". This group includes savings banks, credit cooperatives, mortgage banks, government development banks (provided they do not rely exclusively on government sources of funds), and certain "offshore" units whose main dealings are with nonresidents. In SNA, however, institutions of these types are classified as "Other financial institutions", together with sales-finance, hire-purchase and other business and personal finance companies, money-lenders, securities brokers, and investment companies, funds, societies and trusts. There would be no conceptual problem,

however, in splitting out a subsector in SNA to match the IFS definition. As the proliferation of *M* measures indicates, different problems require different concepts, and this is one field where showing more detail is probably desirable.

Conversely, SNA distinguishes separately a subsector composed of insurance companies and pension funds. In IFS, these are grouped together with trust and custody accounts, real estate investment schemes, other pooled investment schemes, and compulsory savings schemes in a subsector called 'Nonbank financial intermediaries'. Again, there would be no conceptual problem in showing insurance companies and pension funds separately in IFS. A more serious incompatibility arises, however, in the ways in which the accounts of insurance companies and pension funds are handled in the two systems.

d. *Insurance companies and pension funds*

The IFS treatment of insurance companies and pension funds is in most respects the same as that of conventional business accounting. In the IFS view, the primary function of these institutions is the conversion of individual risks into the risks of the entire insured community. Households and businesses regard their transactions with insurance companies and pension funds partly as current expenditures and partly as acquisitions of financial assets, but since the value of the financial assets acquired from these intermediaries depends on future exigencies, their present worth to holders can only be established by imputation. For this reason, IFS does not attempt to measure them. The financial assets of insurance companies and pension funds are clearly definable, however, and data on their holdings of financial instruments are frequently available. Normally, these assets comprise the investments the companies hold to meet required technical reserves. The existence of such technical reserves is, in the IFS view, a necessary condition for classification of insurance companies and pension funds as financial institutions.

The SNA treatment is radically different from this. Casualty insurance is treated quite differently from life insurance and pension funds, but in both cases the entries in the financial accounts and balance sheets are closely related to, and dependent upon, the way these transactions enter the current transactions accounts.

(1) Casualty insurance

For casualty insurance companies (fire, theft, health, unemployment, etc.), gross premiums received are divided into (1) a charge for the service of insuring and (2) a payment for risk. The total payment for risk during a given period is taken to be equal to the total claims paid during that period. The charge for the service of insuring is the remainder, namely gross premiums less claims, and this is entered as a sale in the production account of the insurer and a purchase by the insured. The payment for risk enters the income and outlay accounts of both insurer and insured, and the payment of casualty insurance claims is also entered into this account, on the opposite side. Since these last two entries are by definition equal, for the economy as a whole both net casualty insurance premiums and casualty insurance claims drop out.

It follows from this treatment of casualty insurance in the current accounts that there is no place in the system for any casualty insurance technical reserves. Casualty insurance risks are spread over classes of insurance purchasers, but they are not spread over time; the claims of each accounting period are fully paid for in that accounting period. The balance sheet of a casualty insurance company compiled on this basis would contain no indication that it had any future liability to its policyholders. (One consequence of this treatment is that by the IFS definition, casualty insurance companies would not be financial institutions at all, since they would not have any technical reserves.) This conclusion is not only logically indefensible, it is also contrary to the legal requirements of most countries.

(2) Life Insurance and Pension Funds

The SNA treatment of life insurance and pension funds is more complex. In addition to payments for the service of insuring and for risk, life insurance premiums are considered to include a substantial element of saving, in the form of accumulated reserves. These reserves are treated as assets of the covered individuals, not as part of the independently held reserves of the insurance companies or pension funds. An entry entitled 'Net equity of households in life insurance and pension funds' is entered as a liability on the balance sheet of the companies or funds, and as an asset on the balance sheet of households. In contrast with the treatment of casualty insurance, life insurance and pension benefits received by individuals do not enter the current transaction accounts of the beneficiaries at all; they appear only as changes in the form of the beneficiaries' assets in the capital finance and balance sheet accounts.

This treatment is a major exception to the general SNA principle of maintaining the integrity of the accounts of institutional transactors. Households do not in fact receive these funds, and, as the IMF notes, it is not possible to make an objective valuation of their worth to the insured. Households do not control the funds, they have no access to them, and often even their claim to ultimate receipt of benefits from them is tenuous. This is particularly true of pension funds, where employees may lose their rights by changing jobs, or through other circumstances over which they have no control, and where the magnitude of the fund often reflects the profitability—or lack of it—of the sponsoring companies, rather than expected benefits. In the case of life insurance, ultimate receipt of benefits depends upon continued payment of premiums over a future interval, and policy holders often fail to maintain the insurance until they can collect on it—a factor that insurance companies rely upon in setting rates. Until the claims become due, the reserve funds are available to the companies for use as earning assets, and the earnings accrue to the companies, not the policy holders. It has therefore been proposed that what should be included in the assets of the policy holder or pension fund participant is only the present cash surrender or loan value of his accumulated rights. In the case of life insurance policies with a substantial element of saving such as endowment or annuity policies this may be a substantial fraction of the relevant reserve. But where the insurance element predominates, as in term policies, there may be no cash surrender value at all. For employer-provided pension funds, the cash surrender value is usually negligible until retirement age

is reached. The remainder of the reserves, apart from cash surrender value, would be retained as assets of the companies involved. This treatment would, apart from the question of cash surrender value, be compatible with the IFS procedure.

Such a treatment of pension fund and life insurance reserves on the balance sheets of households and financial institutions would of course require consistent treatment in their capital finance accounts. It would also have repercussions on their income and outlay accounts, where it would be necessary to alter the treatment of actual benefit receipts to show all benefits (both life insurance and pension) over and above the cash surrender values as current incomes of households at the time they are actually received.

This treatment of life insurance and pension funds would also produce aggregates that would be compatible with the recommendations of the *Guidelines on Statistics of the Distribution of Income, Consumption and Accumulation* (United Nations, Series M, No. 61, 1977). These Guidelines, like those on balance sheets, were developed substantially later than the 1968 Blue Book, and as in the case of the Balance Sheet Guidelines, it was found that difficulties arose from the uncompleted state of the Blue Book system. It was apparent that the Blue Book treatment of pensions and life insurance would produce unacceptable distribution figures, since pensioners and annuity recipients would be shown with zero income. In this case, however, unlike that of the Balance Sheet Guidelines, it was decided that the needs of distribution statistics could not be met using the Blue Book concepts, and new aggregates were developed. The resulting income distribution statistics are therefore compatible with the present aggregate SNA system in only a limited sense; the totals to which the distributions sum can be reconciled, through a series of adjustments, to the SNA aggregates, but these distribution totals appear nowhere in the overall SNA system.

The treatment of insurance and pension funds has been discussed in some detail in another paper,[3] and a repetition of that discussion is beyond the scope of this paper. The topic is, however, one that needs consideration in the next version of SNA.

2. The Social Security Subsector

The original intent of the framers of SNA in setting up a separate social security funds subsector was to accommodate cases, such as then existed in Sweden, where the administration of the social security system was quite separate from any level of government proper and clearly constituted an independent center of financial decision-making. In such cases, it was considered likely that the central government would not control the level of either contributions nor benefits, and that it would not manage the investment of the fund. As time has passed, however, country interpretation of this provision has not followed this principle. A social security funds subsector is often identified even when the social security system is an organ of central government and completely under

[3]OECD, *The Treatment of Pension and Insurance Transactions in the United Nations System of National Accounts*, report prepared by Nancy D. Ruggles and Richard Ruggles, Meeting of National Accounts Experts, May 25-27, 1983. A substantially similar paper was published in *The Review of Income and Wealth*, Series 29, No. 4 (December 1983).

its control; sometimes, such a subsector is identified even when any fund that exists is inadequate to meet required benefit payments and is regularly supplemented from the ordinary budget. The argument advanced in favor of this treatment is that social security is a large and growing part of the government's total obligations, and it is often considered by both the government and the participants in the system to be separate from other government functions. The growing interest in such concepts as "social security wealth"—or legal entitlements to future social security benefits—as well as in the potential solvency or insolvency of the fund attest to the importance of providing complete data in this area. But it does not follow from this that provision of a separate subsector is the best way of doing that.

The IMF position on this question is somewhat ambiguous, since there appears to be a difference between the stance taken in IFS that social security systems operating at the national level should be included in central government even if they are separately organized and the recommendations of the revised version of GFS that a separate social security subsector be shown. One possible solution, which may be what the revised GFS intends, would be to show the social security system as a further breakdown within the central government.

3. Quasi-Corporate and Unincorporated Enterprises

In its production accounts and its capital stock tables, SNA groups all kinds of enterprises together—government, public, private; corporate and nonincorporate; profit-making and non-profit; and large and small—dividing them up only by kind of activity (industry). IFS apparently extends this unitary enterprise sector to the financial accounts and balance sheets. In SNA's institutional sectoring, however, distinctions are made among types of enterprises. Non-profit enterprises have a sector of their own. Corporate enterprises are distinguished, and noncorporate enterprises are divided into quasi-corporate and unincorporated. All *financial* enterprises—down to and including money lenders—are classed as quasi-corporate and grouped with corporations. For *non-financial* enterprises, the basic rule is that quasi-corporate enterprises should have complete financial accounts and balance sheets, separate from those of their owners. In practice SNA recommends that only large enterprises be considered for inclusion in this class. SNA does not define what should be considered to be "large". However, the European Community, in its European System of Accounts (ESA), has adopted specific size criteria: more than 100 employees in manufacturing, more than 50 in services, and more than 20 in agriculture. Non-financial unincorporated enterprises that do not qualify as quasi-corporate are grouped with households in a combined household and unincorporated enterprise sector.

Country experience does not appear to offer very much support for the SNA position, and even less for the ESA rules. Few have identified a non-profit sector. Some countries have identified a few public non-financial quasi-corporations, but very few have made use of the concept of private non-financial quasi-corporation. As a consequence, the general practice is to leave all private unincorporated enterprises, both financial and non-financial and of whatever size, in the household sector.

This does not matter much as long as interest is confined to the production and income and outlay accounts. By definition, any production of the household sector apart from the activities of domestic servants is taking place in an unincorporated enterprise, so that in effect the production account of the household and unincorporated enterprise sector is the production account of unincorporated enterprises alone. Conversely, the income and outlay account of the combined sector is really the income and outlay account of households only, since the income and outlay account of unincorporated enterprises can only contain one pass-through entry (operating surplus) on each side. Much the same is true of the capital accumulation account; all of the entries except for net saving can only pertain to unincorporated enterprises, not to households, and given the treatment of entrepreneurial income net saving can only pertain to households, not to unincorporated enterprises.

It is only in the capital finance account and balance sheet that any mingling of the unincorporated enterprise and household accounts is conceptually possible. Even here, however, most types of assets and liabilities are clearly separable. In the first place, households, in SNA, cannot own tangible assets; such assets (including owner-occupied dwellings) must all be the property of unincorporated enterprises. Financial assets and liabilities are usually allocable by type. Only unincorporated enterprises, for example, can extend or receive trade credit; only households can have equity in life insurance and pension fund reserves or quasi-corporate enterprises. Consumer loans are made to households; loans secured by productive assets to enterprises. Few unincorporated enterprises will hold corporate equity securities. Even cash and deposits are normally held either in the name of the business or the name of the household. (Where nothing is held in the name of the business, that is in fact a true reflection of the actual situation, and it is not misleading to show it that way.)

This point of view is further reinforced when actual sources of data are considered. Data for the capital finance account and balance sheet are most often obtained primarily from the financial institutions involved, rather than from the business or householder involved. Financial institutions know whether they are dealing with businesses or individuals; they know whether loans are for consumption or production purposes, and whether bank accounts belong to businesses or individuals. What they do not know, and cannot possibly provide information on, is the size of the business: discussions with banking personnel suggest that size criteria such as those of ESA are impossible to apply.

This suggests that some alteration in the SNA recommendation would be desirable. There are several possibilities. Perhaps the most useful would be to set up a combined enterprise sector, divided by legal form of organization into corporate, non-corporate, and non-profit subsectors. Further subdivisions would also be useful: financial/non-financial and public/private, as at present, but also where possible into broad kind of activity groups: farm, mining and manufacturing, trade, and service. An alternative would be to subdivide the present household and unincorporated enterprise sector into its two component parts. (This would, however, still leave the question of what to do about quasi-corporations. Leaving them as an unused appendage of corporations has little but inertia in its favor. It would also leave the problem of non-profits, which is especially important in

terms of balance sheets. Common practice now combines non-profits with households, and this leads to the anomalous result that the only tangible assets allocated to the household sector are hospitals, schools and the like.)

4. Owner-Occupied Dwellings

SNA includes as production several types of household nonmarket activity, including subsistence farming, small manufactures, and own-account capital formation. None of these create any problems with respect to sectoring; they are all activities of unincorporated enterprises owned by the households engaging in them, and whatever is done with the unincorporated enterprises should also be done with these activities.

There is, however, one type of household non-market activity that is of a different nature, and that is the occupation of dwellings by their owners. In most developed countries, this is by far the largest of the imputed household activities. SNA treats it in a way that is different from all other consumption activities. The owner-occupier, in his capacity as owner, is considered to be renting the dwelling to himself in his capacity as occupier, and a notional unincorporated enterprise is set up to accommodate the provision of this service. The unincorporated enterprise is classified in the real estate industry. The household is considered to pay an imputed space rent to the unincorporated enterprise, which in turn owns the house, carries the mortgage, and pays the taxes and the costs of household operation. The unincorporated enterprise then returns any net profit to the household, as imputed rental income. The imputed space rent is in principle set equal to the rental of comparable properties that are rented. In practice, however, it is often the case that no comparable rented property can be found. This is especially likely to be true in rural and suburban areas. In that case, cost is substituted. The costs taken into account include operating costs, maintenance and repair, insurance service charges, property taxes, imputed depreciation, and an imputed net return.

This treatment of owner-occupied dwellings in the production and income and outlay accounts of course requires consistent treatment in the financial accounts and balance sheets. Owner-occupied dwellings are considered to be the property of unincorporated enterprises in the real estate industry, not of households. Since household durable goods are not considered in SNA to be capital assets, it follows that the household balance sheet (if non-profit institutions are excluded) can contain no tangible assets at all. This result is an anomalous one when the balance sheet of the sector as a whole is considered, and it becomes entirely unacceptible for the analysis of the distribution of wealth among households. As studies of the distribution of wealth universally show, residential housing is a major share of the total assets of all households except those at the very top and very bottom of the income or wealth distribution. Most home owners consider that what they own is a house or apartment, not net equity in a real estate enterprise. They are very conscious, furthermore, of their outstanding mortgage liability as well as their net equity. While they are often aware that home owning may be cheaper than renting, they do not consider the difference to be an imputed addition to their income, but rather a reduction in their expenditures.

A more realistic treatment would retain owner-occupied dwellings as assets of the household sector, and count the actual costs of owning and operating the house (such as mortgage interest, maintenance, and taxes) as a part of current consumer outlays. This would not preclude gathering all residential housing together in the real estate industry; household-owned dwellings could be included just as government-owned ones now are. Nor would it preclude the estimation of a net imputed return on owner-occupied dwellings if that were considered desirable; but it would make the method of imputation explicit.

C. Summary and Conclusions

The issues relating to the financial accounts that need consideration in the review of SNA arise out of the growing uses of these accounts, their sometimes ambiguous role in the SNA structure, and their relation to other international statistical systems. As was noted at the beginning of this paper, the 1968 SNA provided a place in the framework for the financial accounts and balance sheets, but did not develop them in any detail. In the 19 years since the Blue Book was published, the situation has changed significantly. In the first place, policy and analytic interest in questions of financial intermediation and its impact on the operation of the economy has greatly increased, as inflation, high interest rates, and debt management have become worldwide problems. In the second place, much work has been done, both on the conceptual development of this part of the system and on the compilation of statistics in many countries. And at the same time, financial statistics outside the SNA system, and the international standards relating to them, have grown rapidly in availability and elaboration. The need for reconciliation is increasingly recognized as of first importance. For all of these reasons, some of the early decisions taken when financial considerations were not the focus of attention need reconsideration, some of the makeshift solutions that have grown up over time are no longer adequate, and some issues that have not been dealt with at all need to be addressed.

The points that have been brought up in this paper fall into two general categories; those dealing with the definition, valuation, and arrangement into accounts of financial *transaction flows* and the stock items related to them, and those dealing with the identification and classification into sectors of the *transactors* of the system. The first group, in this paper, has been calling accounting structure, and the second, sectoring.

With respect to accounting structure, there is, first, a group of questions affecting the content of the balance sheet and capital finance account, and the arrangement, classification, and valuation of the items they contain. Most important of these, perhaps, is the separation of financial assets and liabilities into two categories, fixed assets and liabilities on the one hand, and equities and net worth on the other. Questions of content include the treatment of land and other natural resources, residential housing, and consumer durables; and of pension and life insurance reserves. Questions of classification include the disposition of intangibles and the introduction of institutional sector detail. Questions of valuation arise in connection with the reconciliation of the SNA accounts with IMF and

country practices relating to financial liabilities and equities and the treatment of insurance and pension fund reserves.

A second group of questions relates to the reconciliation account and its relation to the capital accumulation account. The most important question here is the separation of capital gains and losses arising from price changes, which properly are accommodated in the revaluation account, from those involving quantity changes, which are forms of capital accumulation or decumulation. Entries involving quantity changes that appear in the reconciliation account because no place was provided for them in the Blue Book can easily be accommodated in the capital accumulation account. Some of them, such as new finds and depletion of subsoil assets, raise important problems of valuation, however. Provision also needs to be made for some items that are now completely omitted, including a more rational treatment of depreciation, depletion, and amortization.

Finally, on accounting structure, consideration needs to be given to the impact of changes made in the financial accounts on the current flow accounts. In particular, the treatment of capital consumption, insurance, and expenditures on housing and consumer durables may need attention.

With respect to sectoring, a first group of questions relates to the reconciliation of various international standards. There are differences between SNA and the various IMF standards in the boundary drawn between government and financial institutions, and between households, financial institutions, and nonfinancial enterprises. There are also differences in the way subsectors are delineated which affect all of the major sectors of SNA. A second group of questions (which overlaps the first) arises out of changing needs and changing institutional forms, including the blurring of the concept of money, the growing importance of pension fund reserves and their domination of financial markets, and the increasing focus on households' distribution of income, saving behavior, and holdings of tangibles and financial assets and liabilities.

The SNA framework provides an admirable way to integrate financial information with data on production, income, and capital formation. Because of the sequential implementation of the various parts of the system, however, the financial accounts in SNA now have a certain jerry-built character. And because of changing institutional forms and policy problems over the course of the last 19 years, insufficient emphasis is given to problems that are now important and present-day institutional forms are not adequately portrayed. It is to be hoped that the opportunity to rationalize the financial accounts afforded by the ongoing review of SNA will not be allowed to pass by.