

REINVESTED EARNINGS IN THE NATIONAL ACCOUNTS

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The paper raises three questions. Firstly, is it warranted that a significant part of primary (property) income is not shown in the national accounts as being distributed to the owners of the assets to which it accrues but ends up as capital gains in the revaluation account? Secondly, why has the SNA chosen not to record reinvested earnings of corporations as flows of property income with the exception of foreign direct investment, and thirdly why the asymmetrical recording of stock investments constituting more than 10 percent of equity capital depending on whether domestic or foreign transactions are concerned? Reinvested earnings on domestic equity investment above 10 percent of a corporation are not recorded as property income in the system.

The paper looks at these three questions from the perspective of the analytical uses of national accounts. The consequences for the analysis of income distribution both between nations and within nations are examined.

1. INTRODUCTION

This paper raises three questions. Firstly, is it warranted that a significant part of primary (property) income is not shown in the national accounts as being distributed to the owners of the assets to which it accrues but ends up as capital gains in the revaluation account alongside all other sorts of revaluations? Secondly, why has the SNA chosen not to record reinvested earnings of corporations as flows of property income with the exception of foreign direct investment, and thirdly why the asymmetrical recording of stock investments constituting more than 10 percent of equity capital depending on whether domestic or foreign transactions are concerned? Reinvested earnings on domestic equity investment above 10 percent of a corporation are not recorded as property income in the system.

The paper looks at these three questions from the perspective of the analytical uses of national accounts. The consequences for the analysis of income distribution both between nations and within nations are examined.

2. REINVESTED EARNINGS AND THE DISTRIBUTION OF INCOME

2.1. *Corporate Dividend Policy*

Corporations in general do not pay out all of their earnings in a given period as dividends. That part of net profits which is not distributed as dividends is reinvested in the company as equity capital and constitutes one of the sources of finance for corporate net fixed capital formation and net lending. The decision as to how large a share of net profits to distribute as dividends and which fraction

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to reinvest in the company as retained earnings is taken by shareholders collectively, with the influence of each shareholder on the decision proportional to the votes associated with the shares he owns or otherwise controls. In practice, corporate dividend policy will mostly be determined by the board of a company and thus reflect the preferences of shareholders that are large or influential enough to have a seat on the board. Small individual investors may in effect only have a take-it-or-leave-it option. If they do not like the dividend policy of a certain company, they may choose to sell their shares.

Why do companies not distribute all their net profits to shareholders and finance their need for additional equity capital by new share issues? That would leave the individual shareholder completely free in his portfolio allocation. He would thus only reinvest part or all of the earnings accruing to him from company A in that same company after a deliberate decision. One reason for semi-automatic reinvestment of part of corporate earnings is ease of functioning as well as cost-saving, provided the dividend policy coincides with the wishes of a (large) majority of shareholders, plus the fact that an investor who does not want to reinvest his share of retained earnings in the same company can choose to sell part of his shares and thus liquidate the retained earnings. In general, when a company retains earnings that could alternatively have been distributed to shareholders, the share price will be higher than it would have been had the earnings been distributed.

One may turn the above question around and ask why companies pay dividends at all in the face of a tax system that typically favours capital gains over distributed earnings (Feldstein and Green, 1983). The answer lies presumably in uncertainty surrounding future profits plus the very different tax systems and tax rates faced by different investors as well as their different time horizons (Fama and French, 1999).

From an economic theory point of view reinvested earnings are more or less as good to an investor as any other earnings provided they are invested with an expected return equal to the market return for a similar risk investment. Under the simplifying assumptions behind the Modigliani–Miller theorem (Modigliani and Miller, 1958; Shapiro, 1990), dividends and retained earnings are perfect substitutes. In the real world of uncertainty, transaction costs, imperfect capital markets and non-neutral tax systems they are no longer perfect substitutes but nevertheless very close substitutes from the point of view of investors. Consequently, there is no theoretical reason not to show both dividends and retained earnings as accruing to shareholders in the period where they are earned.

However, the international guidelines for compiling national accounts—the 1952 OEEC manual, the 1953 SNA, the 1968 SNA and the 1993 SNA (SNA93)—have chosen in general not to show reinvested corporate earnings as flows of property income in the system of accounts. The one exception is reinvested earnings on direct foreign investment which in the SNA93 is recorded as flows of property income to and from the Rest of the World. The 4th and 5th IMF Balance of Payments Manuals both record reinvested earnings on direct foreign investment as property income in balance of payments statistics. The new treatment in SNA93 has thus eliminated a major inconsistency between the balance of payments and the Rest of the World account in the national accounts. Direct

foreign investment is defined as investment in equity of a foreign corporation or quasi-corporation where the investor owns 10 percent or more of the ordinary shares or voting power. International investments in equity below the 10 percent threshold are classified as portfolio investment. Reinvested earnings on international portfolio investment are recorded as property income neither in the national accounts nor in balance of payments statistics.

2.2. *Reinvested Corporate Earnings in SNA93*

Why has SNA93 chosen not to record reinvested earnings of corporations as flows of property income with the exception of direct foreign investment, and why the asymmetrical recording of stock investments constituting more than 10 percent of equity capital depending on whether domestic or foreign transactions are concerned? Reinvested earnings on domestic equity investment above 10 percent of a corporation are not recorded as property income in the system.

In giving the rationale for the treatment of reinvested earnings on direct foreign investment in paragraph 7.121 SNA93 actually bases the argument more on situations involving 100 percent control than the 10 percent threshold in the definition of direct foreign investment:

“The rationale behind this treatment is that, since a direct foreign investment enterprise is, by definition, subject to control, or influence, by a foreign direct investor or investors, the decision to retain some of its earnings within the enterprise must represent a conscious deliberate investment decision on the part of the foreign direct investor(s). In practice, the great majority of direct investment enterprises are subsidiaries of foreign corporations or the unincorporated branches of foreign enterprises, i.e. quasi-corporations, that are completely controlled by their parent corporations or owners.”

It is apparent from this quotation that SNA93 stresses control, i.e. that the investor controls or exerts heavy influence on dividend policy, rather than the economic reasoning that retained earnings are just as good as dividends from the point of view of the investor. By implication, it is clear that SNA93 does not consider retained earnings to have accrued to investors, unless the individual investor could alternatively have chosen to receive the earnings as dividends. For domestic investors, however, even 100 percent ownership does not make retained earnings accrue to the investing institutional unit, hence the inconsistency in the recording of domestic and international transactions.

SNA93 does not give an explanation for this apparent inconsistency. It may be that the desire to do away with the former inconsistency vis-à-vis the balance of payments manual has prevailed over the wish for internal consistency of the principles for recording transactions in the system.

One may argue that the viewpoint in SNA93 is formalistic as opposed to economic theoretic. It definitely contrasts with the way the economic reality is perceived by financial markets where one of the variables monitored by stock market analysts is the (expected) price-earnings ratio rather than the price-dividends ratio.

Since SNA93 does not say whether its choice not to consider reinvested earnings as property income is based on conceptual grounds or practical considerations, it must be assumed to be a choice based on principle rather than practical problems.

2.3. *Accrual Accounting in SNA93*

One of the major conceptual changes from SNA68 to SNA93 is the changeover to what is called “accrual accounting” for recording distributive transactions, cf. paragraphs 3.92–96.

However, “accrual accounting” as defined in SNA93 has not led to any change regarding property income from shares and other equity except for the change in the treatment of reinvested earnings on direct foreign investment mentioned above. Both in SNA68 and SNA93 property income accruing to investors in equity is limited to the dividends paid out by corporations and the equivalent flow “withdrawals from the income of quasi-corporations.” Dividends are recorded as of the moment they are declared payable. SNA93 paragraph 3.99 states that the level of dividends is not unambiguously attributable to a particular earning period, hence this convention. Likewise withdrawals from the income of quasi-corporations are recorded when they are effected.

Reinvested earnings (with the exception mentioned) may well show up in the system of accounts in the revaluation account as real holding gains i.e. holding gains over and above the general rate of inflation. These holding gains are very different from most other real holding gains in that they have a causal connection with income retention. The very important capital accumulation that takes place through retained earnings in corporations is thus not shown as saving in the use of disposable income account of the owners of corporations but rather as savings in the corporate sector itself.

2.4. *Income from Production vs. Windfall Gains*

The fact that part of the income resulting from the productive process does not ever get distributed to the institutional units that have ownership rights to this income in the distribution of income accounts of the system (more specifically in the allocation of primary income account) is a problematic feature of the system. The counterpart to this income which disappears from the distribution process of the system as it were is a reconciliation item in the revaluation account which is not of a windfall nature. This too is problematic. It is obvious that the income concept of SNA93 is narrower than the Hicksian concept from economic theory. This is in general justified, as there is a fundamental difference between income resulting from the production process of a given period on the one hand and windfall capital gains on the other.

Most of the real capital (or “holding” to use the term of SNA93) gains that show up in the revaluation account are of a windfall nature. The prices (adjusted for the general rate of inflation) of both fixed and financial assets change all the time because the expectations of economic agents regarding the future change.

To take the example of stocks, unforeseen improved productivity and growth prospects will normally entail an increase in stock prices. This unexpected gain is

a windfall profit accruing to shareholders because the net present value of the expected future stream of earnings is now all of a sudden higher than previously. On the other hand retained earnings will usually also give rise to an increase in share prices, but the important point here is that this is not a windfall gain since the earnings retained have been expected by shareholders and already been discounted in the price of the shares. To show this as a capital gain on a par with unexpected revaluations of assets does not seem to be desirable from an analytical point of view. Yet this is the consequence of the way retained earnings of corporations are treated in the system.

2.5. Analogies

In one important instance ESA95, the European version of SNA93, extends the full accrual principle when it comes to retained earnings. In the case of property income accumulated by mutual funds SNA93 does not say explicitly whether this income should be recorded as accruing to the shareholders of the mutual fund or be recorded as net saving of the financial institutions involved. In ESA95 it has been decided that property income capitalized by mutual funds should be recorded as accruing to shareholders in the period it is earned, cf. ESA95 paragraphs 4.49b) and 4.54b). The rationale was that one could otherwise get a very misleading picture of the distribution of income between nations (and hence GNI).

The mutual funds example is in many ways analogous to retained earnings of corporations. Contrary to the case of direct foreign investment with 100 percent control, the individual investor in a mutual fund could not alternatively have decided to get his share of earnings paid out as dividends, but must accept the collective decision of all investors. If SNA93 is not interpreted in the way stipulated by ESA95, property income capitalized in mutual funds will not be shown as being distributed but will end up as capital gains in the revaluation account. Another analogy is the treatment in the system of property income retained by insurance companies and pension funds.

3. CONSEQUENCES FOR THE ANALYSIS OF INCOME DISTRIBUTION BETWEEN NATIONS

The choice in SNA93 (and the 5th Balance of Payments Manual) only to record flows of property income to and from the Rest of the World in respect of reinvested earnings on direct foreign investment and not when it comes to portfolio investment means that part of the earnings on foreign equities owned by residents and vice versa will not feature as property income in the Rest of the World Account. As a result it will not feature in GNI either. If the distribution of international portfolio investment in equities is very skew, or average returns on equity differ much between countries, the outcome may be a somewhat misleading picture of the current account of the balance of payments and of GNI.

The numerical example in Table 1 illustrates the consequences of the rules of recording reinvested earnings on direct foreign investment and portfolio investment as far as transactions with the Rest of the World are concerned. Two investors I1 and I2 in country B both own the same amount of shares in corporations

TABLE 1
INCOME DISTRIBUTION BETWEEN NATIONS, NUMERICAL EXAMPLE

Two investors (I1 and I2) in country B have invested in two corporations (C1 and C2) in country A

SNA code	Activity in Country A	C1	C2	Total			
2.I.2	Allocation of primary income account						
B.2g	Operating surplus	1,000	1,000	2,000			
D.4	Property income, net	-100	-100	-200			
D.42	of which distributed income of corp., uses	100	100	200			
B.4g	Entrepreneurial income	1,000	1,000	2,000			
B.5g	Balance of primary incomes	900	900	1800			
2.2	Secondary distribution of income account						
D.5	Current taxes on income, wealth, etc.	20	20	40			
K.1	Consumption of fixed capital	30	30	60			
B.6n	Disposable income, net (= saving, net B.8n)	850	850	1,700			
		0.1 ⇒ Direct investment					
		0.05 ⇒ Portfolio investment					
SNA code	Activity in Country B	C1	I1 C2	Total	C1	I2 C2	Total
	Share of equity	0.1	0	0.1	0.05	0.05	0.1
2.I.2	Allocation of primary income account						
D.42	Distributed income of corporations, resources	10	0	10	5	5	10
D.43	Reinv. earnings on direct foreign investment	85	0	85	0	0	0
B.5*g	Contribution to GNI	95	0	95	5	5	10
2.4.1	Use of disposable income account						
B.8	Contribution to saving, gross	95	0	95	5	5	10
3.1	Capital account						
B.9	Contribution to net lending/net borrowing	95	0	95	5	5	10
3.2	Financial account						
F.5	Shares and other equity	85	0	85	0	0	0
F.X	Other financial transactions	10	0	10	5	5	10
B.9	Contribution to net lending/net borrowing	95	0	95	5	5	10
3.3.2	Revaluation account						
F.5	Shares and other equity	0	0	0	42.5	42.5	85
4.1	Opening balance sheet						
B.90	Net worth			2,000			2,000
4.2	Changes in balance sheet						
B.10	Contribution to changes in net worth	95	0	95	47.5	47.5	95
4.3	Closing balance sheet						
B.90	Net worth			2,095			2,095

C1 and C2 in country A. However, whereas I1's investment is concentrated in company C1, so that its ownership share is large enough for the investment to be classified as a direct foreign investment, I2's investment is split evenly between C1 and C2, the share in each being so low as to constitute portfolio investment. Corporations C1 and C2 are identical in all other respects than the ownership of their shares and it is assumed that investor rationality leads to the two corporations having the same market value. The example demonstrates that the same

earnings on foreign equity investment result in very different impacts on the balance of property income from the RoW as well as on GNI.

4. CONSEQUENCES FOR THE ANALYSIS OF INCOME DISTRIBUTION WITHIN NATIONS

In the institutional sector accounts for the domestic sectors retained earnings of corporations and quasi-corporations are never shown as distributed to domestic shareholders, not even in the case of a corporation or quasi-corporation controlled by a single shareholder. Retained earnings of corporations are shown as net saving of the corporate sector and their value to and effect on shareholders only appear in the balance sheets and in the revaluation account through (real) holding gains on shares and other equity (AF.5).

The consequences of the treatment that retained earnings of corporations do not get distributed to shareholders in the national accounts are primarily apparent in the accounts for the total economy, the Rest of the World account and in the sector accounts for corporations and households. As shown in the previous section, the balance of property income from the RoW and GNI as measured in the national accounts are different from the corresponding flows as frequently understood by economists and financial markets. Likewise, disposable income and saving in the household sector are smaller in the national accounts than income and saving as defined in economic theory and increasingly also as these concepts are perceived by financial markets.

What are the pros and cons of not showing retained corporate earnings as accruing to shareholders in general and to households in particular. First, it may be argued that since these earnings have not been distributed, they are not really part of disposable income from the point of view of households. In regard to consumption analysis some might argue that the propensity to consume out of income actually received and out of retained earnings are so different that they should not be shown together. That argument, which definitely has some merit, has not, however, been accepted as decisive in the SNA93 revision process. Exactly the same argument could be (and occasionally has been) put forward against the famous “rerouting” of property income attributed to insurance policy holders by which the property income earned on insurance and pension fund reserves, which is reinvested by those financial institutions, is being shown as having been distributed to households and as forming part of household disposable income and saving.¹ In modern market economies with highly developed private funded pension schemes the increases in insurance technical reserves of life insurance companies and pension funds constitute a substantial proportion of household saving.

¹That part of property income attributed to insurance policy holders which corresponds to insurance other than social insurance features both in household disposable income and (apart from the service charges) saving. By contrast, that part which derives from social insurance schemes features only in household saving but not in disposable income. In the secondary distribution of income account the same amount, minus the service charges, is subtracted as part of social contributions and thus does not form part of household disposable income. In the use of income account a corresponding item which is part of the “adjustment for the change in the net equity of households in pension funds reserves (D.8)” is entered in order to show property income attributed to (social) insurance policy holders as part of household saving.

Since a very important part of equities is held by life insurance companies and pension funds on behalf of households, showing retained earnings as accruing to shareholders in the period they are earned would imply a substantial increase in the item “property income attributed to insurance policy holders” in the accounts. First, there would be a big increase in the flow of property income from the non-financial corporate sector and from the Rest of the World to the life insurance and pension funds sector. Second, a corresponding increase would occur in the rerouted flow “property income attributed to insurance policy holders” except for the adjustment for insurance companies’ own funds.

Moreover, the same argument about which part of income is actually made available in a given period could equally be advanced against the accrual accounting of interest on bonds issued below par and index-linked bonds. Here also the argument has not been considered as decisive in the SNA revision process.

As a second reason not to make any rerouting of retained corporate earnings it may be argued that introducing yet another rerouting further complicates the micro-macro linkage. This is obviously true. On the other hand it should be observed that in the SNA revision process the analytical usefulness and economic meaningfulness of the macroeconomic aggregates has generally prevailed over the micro-macro linkage consideration.

Thirdly, there is the question of data availability. Rerouting retained earnings to shareholders obviously requires detailed knowledge of holdings of the stock of individual companies which may be difficult to obtain in practice. On the other hand exactly the same practical problem is already encountered in applying the full accrual principle of the SNA93 with respect to bonds issued below par and index-linked bonds.

The logic underlying the insurance and pension fund property income rerouting applies just as well to retained earnings of corporations. If one were to show retained earnings as accruing to shareholders it could be done in the same way as for the insurance property income. Like the insurance rerouting it could be separately identified in the accounts thus allowing users to take it off disposable income again if they so desire. No information would be lost. In particular, model builders would have the information necessary to model different propensities to consume out of income actually paid out to households on the one hand and of retained earnings on life insurance and pension fund reserves plus shareholdings on the other.

The pros and cons listed above all relate to the sector accounts without any further breakdown i.e. at the most aggregate macro level.

In fact, the strongest argument in favour of showing retained earnings on stocks as accruing to shareholders may be the increased analytical usefulness of the SNA framework when that framework is used for analysing sub-sectors of the household sector in general and income distribution plus savings behaviour of households in different income brackets in particular. The breakdown by income bracket or socio-economic group is intended to be a supplementary breakdown for analytical purposes much like the supplementary breakdown of the corporations sector into national private, public and foreign controlled, cf. SNA93 4.152 and 4.157.

Given that direct and indirect stockholdings of households are very asymmetrically distributed, economic analysis of the distribution of income that does

not capture the retained earnings on shares is bound to give a picture which is of questionable relevance. With the rapid growth of mutual funds failure to apply at least the ESA95 solution to capitalizing mutual funds will further exacerbate the discrepancy between income as perceived by economic agents and income as shown in the national accounts.

The importance of direct and indirect stock holdings for different groups of American households is shown in Section 7.3 based on Federal Reserve data.

5. NUMERICAL ILLUSTRATION—INCOME DISTRIBUTION WITHIN NATIONS

In order to demonstrate quite explicitly how the alternative presentation of retained corporate earnings proposed in this paper works throughout the system of accounts, it is most illustrative to work out the consequences in terms of the numerical example used in SNA93 to give an overview of the integrated economic accounts. The table in question is Table 2.8 of SNA93. The figures in Table 2.8 cannot be taken as indicative of the quantitative importance of the various transactions and balancing items in practice. In many economies the importance of corporate net saving relative to household net saving is more often the reverse.

In order not to overburden the following presentation we shall ignore reinvested earnings on foreign equity investment. The way the alternative treatment of retained earnings works in relation to the Rest of the World has already been demonstrated in Table 1. The following presentation supplements Table 1 by showing how the alternative way of recording would work for the domestic sectors. Together Tables 1, 2 and 3 give the complete picture.

In order to illustrate how the alternative treatment of reinvested earnings would work in the accounts we have to supplement the numerical example of SNA93 with a distribution of retained earnings by ownership sector.

Assume for the sake of simplicity that there are no cross-stockholdings between financial and non-financial corporations apart from life insurance companies and pension funds' holdings of shares of non-financial corporations as part of their technical reserves. The retained earnings of financial corporations (the net saving of 12 shown in Table 2.8 of SNA93) are split according to share ownership between the ownership sectors as follows:

S.125	Insurance corporations and pension funds	4
S.13	General government	1
S.14	Households	7
Total		12

Likewise, we assume that the retained earnings of non-financial corporations (the net saving of 49 shown in Table 2.8 of SNA93) are split according to share ownership between the ownership sectors as follows:

S.125	Insurance corporations and pension funds	10
S.13	General government	5
S.14	Households	34
Total		49

Also assume for the sake of simplicity that all the life insurance and pension funds assets are held by pension funds operating under a social insurance scheme. This simplification is in no way essential but avoids overburdening the example by the adjustments for the return on insurance companies' own funds and the special treatment of individual life insurance in SNA93.

The total retained earnings in the economy are thus distributed among the sectors owning the shares involved as follows:

S.125	Insurance corporations and pension funds	14
S.13	General government	6
S.14	Households	41
Total		61

Households have the rights of ownership to retained earnings of 55, i.e. 41 on their direct shareholdings and 14 on their indirect shareholdings in pension funds. Similarly, general government has ownership rights to retained earnings of 6. When reinvested earnings are rerouted to the sectors having ownership rights to these earnings, the receiving sectors will be shown as investing these funds in Shares and other equity and Insurance technical reserves, providing an equal financial flow back to the distributing sectors.

Tables 2 and 3 show all the changes to the numerical example in Table 2.8 of SNA93 resulting from full accrual accounting of retained corporate earnings. Where there is no entry in Tables 2 or 3, the figures in Table 2.8 would be unaffected.

It is seen from Tables 2 and 3 that, of the total corporate retained earnings of 61 (12 + 49) in the SNA93 example, 55 ultimately end up in household saving whereas 6 end up as government saving. The closing balance sheet is of course unaffected by a change to full accrual accounting for corporate earnings. The same is true for the recording of reinvested earnings on direct foreign investment, the rerouting of property income accruing to insurance policy holders as well as for the treatment of discounts on bonds and index-linked bonds already in SNA93.

The values in the balance sheets are observable market values which are given and independent of the way reinvested earnings are recorded. The one-to-one relationship between the changes to property income flows, financial flows and revaluations compared to the corresponding items in Table 2.8 of SNA therefore follows from the accounting structure of the SNA and in itself requires no behavioural assumption. However, if one were to go beyond that statement and take the numerical example to imply a comparative statics proposition that the value of firms is (entirely) independent of the extent to which corporate earnings are retained, that would clearly involve behavioural assumptions, cf. the discussion in Section 2.1. Such comparative statics analysis is outside the scope of this paper.

6. QUANTIFICATION

It should be noted that recording reinvested earnings as accruing to shareholders does not require an explicit breakdown of the observed revaluation of

TABLE 2
INTEGRATED ECONOMIC ACCOUNTS. DIFFERENCES COMPARED TO TABLE 2.8 OF SNA93

Accounts	Current accounts									
	Uses					Resources				
	S.14	S.13	S.12	S.11	Code	S.14	S.13	S.12	S.11	
	Households	General Government	Financial Corporations	Non-Financial Corporations		Households	General Government	Financial Corporations	Non-Financial Corporations	
Allocation of primary income account	0	0	26	49	D.4	Property income	55	6	14	0
	55	6	-12	-49	B.5.g	Balance of primary income, gross				
	55	6	-12	-49	B.5.n	Balance of primary income, net				
Secondary distribution of income account	14	0	0	0	D.61	Social contributions	0	0	14	0
	41	6	2	-49	B.6.g	Disposable income, gross				
	41	6	2	-49	B.6.h	Disposable income, net				
Redistribution of income in kind account	41	6	2	-49	B.7.g	Adjusted disposable income, gross				
	41	6	2	-49	B.7.h	Adjusted disposable income, net				
Use of income account	0	0	14	0	D.8	Adjustment for the change in net equity of households in pension funds	14	0	0	0
	55	6	-12	-49	B.8.g	Saving, gross				
	55	6	-12	-49	B.8.h	Saving, net				

TABLE 3
INTEGRATED ECONOMIC ACCOUNTS. DIFFERENCES COMPARED TO TABLE 2.8 OF SNA93

		Accumulation accounts									
		Changes in assets				Changes in liabilities and net worth					
		S.14	S.13	S.12	S.11			S.14	S.13	S.12	S.11
Accounts	Households	General Government	Financial Corporations	Non- Financial Corporations	Code	Transactions and Other Flows, Stocks and Balancing Items	Households	General Government	Financial Corporations	Non- Financial Corporations	
I.1	Capital account					B.8.n B.10.I	Saving, net Changes in net worth due to saving and capital transfers	55 55	6 6	-12 -12	-49 -49
		55	6	-12	-49	B.9	Net lending (+)/ net borrowing(-)				
I.2	Financial account	55	6	14	0	F	Net acquisition of financial assets				
						F	Net incurrence of liabilities	0	0	26	49
		41	6	14	0	F.5	Shares and other equity	0	0	12	49
		14	0	0	0	F.6	Insurance technical reserves	0	0	14	0
III.3.2	Revaluation account	-55	-6	-14	0	AF	Financial assets/liabilities	0	0	-26	-49
						B.10.3	Changes in net worth due to nominal holding gains (+)/losses(-)	-55	-6	12	49
		Balance sheets									
		Assets				Liabilities and net worth					
IV.3	Closing balance sheet	0	0	0	0	AF	Financial assets/ liabilities	0	0	0	0

Note: Tables 2 and 3 through the Capital and Financial Accounts (1.1 and 1.2) form a complete set of transactions and accounting entries for the rerouting. Thus, the entries in B.10.1 are balanced by the entries in B.9 and provide for balanced Capital and Financial Accounts.

shares into a part due to reinvested earnings and one attributable to windfall profits and losses.

As demonstrated in the numerical example in Section 5, all that is required is to quantify the reinvested earnings on the basis of company accounts. Then, given that the value of shares in the opening and closing balance sheets are directly observable, and that the transactions in shares in the financial account are also directly observable, the accounting structure of SNA93 automatically gives the revaluation due to windfall gains or losses in the revaluation account. The revaluations in the revaluation account are always determined as residuals or balancing items given the transactions and other flows recorded in the accounts plus the opening and closing balance sheets. In SNA93 this is already the way reinvested earnings on foreign direct investment and the associated revaluations due to other factors than reinvestment of earnings are recorded in the accounts. The method can easily be extended to cover portfolio investment.

The logic in recording reinvested earnings on domestic stock investments as accruing to domestic shareholders, as well as in extending this way of recording to portfolio investment, is exactly the same as for foreign direct investment in SNA93 and the fifth balance of payments manual.

7. HOW LARGE ARE THE AMOUNTS INVOLVED

7.1. Current Levels of Reinvested Corporate Earnings

To get an idea of the overall importance of reinvested corporate earnings it is interesting to first look at the relative importance of total reinvested earnings as opposed to total paid-out dividends. Table 4 shows dividends and retained earnings of corporations in six of the G7 economies for 1995. In addition, the

TABLE 4
TOTAL NET EARNINGS OF CORPORATIONS, DIVIDENDS (NET) AND REINVESTED EARNINGS 1995
(million US\$)

	U.S.A.	Japan	Germany	France	Italy	U.K.
Total net earnings	461,400	119,958	47,385	90,839	39,161	54,702
Dividend disbursements, net	251,900	52,381	19,748	41,152	15,553	23,652
Reinvested earnings	209,500	67,578	27,637	49,686	23,608	31,050
Consumption of fixed capital	740,100	432,171	254,656	104,112	51,219	66,904
Net national operating surplus	804,500	164,602	179,331	131,386	248,295	114,700
Net national disposable income	6,279,300	2,787,879	1,776,873	1,178,190	896,755	877,148
	Per cent					
Total net earnings	100	100	100	100	100	100
Dividend disbursements, net	55	44	42	45	40	43
Reinvested earnings	45	56	58	55	60	57
Reinvested earnings in percent of NNDI	3.3	2.4	1.6	4.2	2.6	3.5

Source: OECD, National Accounts, Detailed Tables, Volume II, 1984-96, 1998. Eurostat, National Accounts ESA 1985-96. It has not been possible to find comparable figures for Canada.

Note: For Germany, France, Italy and U.K. dividend receipts in S50 Insurance Corporations have been rerouted to dividend disbursements to adjust for property income attributed to insurance policy holders.

table shows net national disposable income plus the net operating surplus of the whole economy as reference variables. It is seen that retained earnings are important in all six economies but of varying size with the share of retained earnings out of total net earnings lying between 45 and 60 percent. The relative importance of reinvested earnings to net national disposable income lies between 1.6 and 4.2 percent for the six countries.

7.2. Current Levels and Growth of International Portfolio Investment in Equities

To get a picture of the importance of reinvested earnings in respect of portfolio investment in foreign stocks the ideal would be to have figures for the amounts involved. Unfortunately such data do not exist. Alternatively it is relevant to look at various countries' holdings of foreign securities to get an idea of the importance of reinvested earnings on foreign stocks and thereby the impact on the distribution of income between nations as a result of the way of recording them in the national accounts.

Tables 5 and 6 show that not only are the current levels of international investment in equities of a significant magnitude but also that they have become increasingly important during the 1990s.

TABLE 5
INTERNATIONAL INVESTMENT POSITION FOR G7 COUNTRIES 1996
(million US\$)

	U.S.A.	Japan	Germany	France	Italy	U.K.	Canada
Equity securities							
Assets	876,790	154,900	156,920	65,230	17,209	404,670	56,279
Liabilities	656,750	315,650	104,160	155,220	27,245	296,290	34,573
Direct investment							
Abroad	1,517,080	258,610	231,410	445,480	113,251	352,860	129,257
Foreign	1,223,670	29,940	90,870	409,990	74,640	249,800	127,467

Source: IMF Balance of Payments Statistics, Yearbook 1998. Part 1: Country Tables.
Figures for Germany refer to the year 1995.

The absolute amounts of international investment in equities for the G7 countries are considerable. Table 5 shows that the relative importance of portfolio investment in equities is not negligible either, amounting to approximately 40 percent of foreign investment for most countries with France and Italy as exceptions at the lower end with 13 percent and the U.K. at the top with 53 percent. It is interesting to look more closely at Japan. When looking only at direct investment, the investment position of Japan is clearly positive, but, when taking account of the large negative investment position on portfolio investment in equities, the picture changes to an overall international investment position approximately neutral. This point is also valid for the other G7 economies but to a varying degree.

For selected countries Table 6 shows the amounts of reinvested earnings on foreign direct investment. In addition, the rates of reinvested returns are calculated as reinvested earnings in percent of assets/liabilities. To illustrate the impact of reinvested earnings on portfolio investment in equities on the income distribution between countries, the rates of return of reinvested earnings on direct

TABLE 6
REINVESTED EARNINGS ON DIRECT INVESTMENT AND IMPUTED INVESTMENT INCOME
ON EQUITIES 1996
(million US\$)

	U.S.A.	Japan	Germany	U.K.	Canada
Direct investment income: reinvested earnings					
From investment abroad	54,580	2,250	2,090	25,980	3,418
To foreign investors	11,210	720	-700	10,640	4,483
Reinvested return in percent of assets/liabilities (from Table 5.2)					
From investment abroad	3.60%	0.87%	0.90%	7.36%	2.64%
To foreign investors	0.92%	2.40%	-0.77%	4.26%	3.52%
Estimated imputed reinvested earnings on equity securities					
Assets	31,544	1,348	1,417	29,795	1,488
Liabilities	6,016	7,591	-802	12,620	1,216
Net	25,528	-6,243	2,220	17,174	272

Source: IMF Balance of Payments Statistics, Yearbook 1998. Part 1: Country Tables and own calculations.

Figures for Germany refer to the year 1995.

investment are used to estimate figures for imputed reinvested earnings on equity securities. The assumption that the rate of reinvestment on foreign equities is of the same size as for direct investment is of course more than questionable, and the results have to be interpreted with all possible reservations. For various reasons portfolio investors will typically not reinvest the same proportion as direct investors. In addition, total returns on equity and the country composition may be very different for direct and portfolio investment. Consequently, it has to be underlined that the imputed figures in the table only serve as an illustration to give a rough idea of the amounts involved. With all possible reservations, Table 6 shows that considerable amounts would be involved and that the impact on net national income (NNI) would not be negligible.

From Table 7 it is evident that the holdings of foreign stocks have increased considerably in the period 1990–97. The largest growth appears for the U.S. with holdings increasing 507 percent over the period. Increases in other countries vary between 162 and 367 percent.

Table 8 gives a more detailed picture of the increasing importance of U.S. investment abroad and foreign investment in the U.S. In the period 1984–98 U.S.

TABLE 7
INTERNATIONAL INVESTMENT POSITION, ASSETS, EQUITY SECURITIES
(million US\$)

	1990	1991	1992	1993	1994	1995	1996	1997
U.S.A.	197,600	278,980	314,230	543,880	586,630	699,090	876,790	1,001,250
Japan						146,260	154,900	158,770
Germany	42,700	55,070	90,530	108,660	137,580	156,920		
France	40,200	44,420	42,510	51,840	53,760	57,940	65,230	
Italy	16,005	15,428	12,442	11,996	14,294	14,264	17,209	26,887
U.K.	193,100	237,390	207,860	284,350	287,940	331,850	404,670	411,720
Canada	25,870	34,021	35,204	39,982	44,327	46,444	56,279	58,752

Source: IMF Balance of Payments Statistics, Yearbook 1998. Part 1: Country Tables.

TABLE 8
INTERNATIONAL INVESTMENT POSITION OF THE UNITED STATES AT YEAR-END
(million US\$)

	1984	1987	1990	1994	1995	1996	1997	1998
U.S. assets abroad								
Direct invest.	270,574	590,246	731,762	1,067,803	1,307,155	1,526,243	1,784,494	2,140,528
Corp. stocks	25,994	94,700	197,596	627,460	776,809	1,002,928	1,201,000	1,407,130
Foreign assets in the U.S.								
Direct invest.	172,377	316,200	539,601	757,853	1,005,726	1,229,118	1,642,365	2,194,102
Corp. stocks	96,056	175,643	221,741	371,618	490,142	611,417	863,498	1,121,071

Source: Survey of Current Business, July 1999.

Notes: Direct investment at market value.

Estimates of foreign assets in the U.S. of corporate stocks include results of 1978, 1984 and 1989 portfolio benchmark surveys conducted by the U.S. Department of the Treasury. Figures for 1994–98 differ from U.S. figures based on IMF data.

direct investment abroad has increased almost 8 times and U.S. investment in foreign corporate stocks has increased 54 times albeit from a low level. In the same period foreign direct investment in the U.S. has increased almost 13 times and foreign investment in U.S. corporate stocks has increased approximately 12 times. Table 8 confirms the picture from Table 7, and it indicates that, for the U.S., the growth in foreign stocks has not only been very high in the 1990s but even higher in the 1980s.

Figures for portfolio investment for the U.S. are based on results from the U.S. Treasury Department's new benchmark survey of U.S. portfolio investment abroad as of March 1994 (Pappas, 1997). The latest benchmark survey of U.S. portfolio investment abroad was conducted more than 50 years ago in May 1943. The new benchmark survey has resulted in major revisions to the levels of U.S. portfolio investment abroad. For the year 1993 holdings of foreign stocks were increased by \$241.1 billion to the new level of \$543.9 billion (Bach, 1997).

It has to be mentioned that IMF is conducting a co-ordinated portfolio investment survey of stocks of assets in the form of cross-border equities and bonds with reference to year-end 1997. It is likely that the results of this survey will lead to large revisions of participating countries' portfolio investments and thereby holdings of foreign equities. Another result of the IMF co-ordinated portfolio investment survey is that the statistical basis for estimating stocks of assets and liabilities for equities and the associated reinvested earnings is likely to be very much improved in the near future.

Finally, Table 9 shows the size of stock markets in EU-countries, North America and Japan. Measured in percent of GDP, the size of the stock market is very variable—ranging from 19 percent in Italy to 127 percent in the U.K. The size of the stock markets reflects different financial structures and traditions in the various countries.

The mere fact that the importance of stockmarkets varies so much among the industrial nations means that the country distribution of international portfolio investment in stocks is likely to be very skew in the coming years, as big institutional investors will try to achieve a higher degree of international portfolio

TABLE 9
 SIZE OF STOCK MARKETS IN SELECTED COUNTRIES 1995
 (billion US\$)

	GDP	Stock Market Capitalization	Stock Market Capitalization as Percent of GDP
EU (15)	8,427.0	3,778.5	45
France	1,537.9	522.1	34
Germany	2,412.5	577.4	24
Italy	1,087.2	209.5	19
U.K.	1,106.3	1,407.7	127
North America	8,065.6	7,314.7	91
U.S.	7,253.8	6,857.6	95
Canada	565.6	366.3	65
Japan	5,114.0	3,667.3	72

Source: Prati, A. and Schinasi, G. J., 1997.

diversification. In the longer term it seems plausible that, faced with the liberalization of capital movements and wide-ranging privatizations, the currently small stockmarkets of continental Europe will gradually approach the levels attained in the Anglo-Saxon countries and Japan.

7.3. *Holdings of Equities by Households*

As described in Section 4, the retained earnings of corporations are not shown in the national accounts as distributed to domestic shareholders. This has consequences for the income distribution within nations, and in particular for disposable income in households. The consequences are of course more important when the holdings of stocks in households are large, and it may lead to a biased picture not only of the income distribution between households and other sectors but also among different types of households.

The Federal Reserve's Triennial Survey of Consumer Finances is a survey of American families' balance sheets, their use of financial services, their pension rights, their labour force participation and their demographic characteristics.

As can be seen from Table 10, the results of the four latest surveys show an increasing importance of stocks in families' financial assets and at the same time an increasing number of families having direct or indirect stock holdings.² At the same time, the share of financial assets in families' total assets has risen noticeably. This is mainly due to growth in families' holdings of stocks, investment in mutual funds and tax deferred retirement accounts (Kennickell *et al.*, 2000). The overall picture is that the distribution of shareholdings is very skew, with both the percentage of households owning shares and median holdings rising very markedly with income.

The figures in Table 10 only refer to publicly traded stocks. Family-owned corporations and other stocks that are not publicly traded are not included, and

²Direct and indirect stock holding includes direct ownership, ownership through a mutual fund, a retirement account, a trust or another type of managed investment account.

TABLE 10
U.S. FAMILIES' DIRECT AND INDIRECT STOCK HOLDINGS (PUBLICLY TRADED STOCKS)

	1989	1992	1995	1998
Percent of all families				
Families having direct or indirect stock holdings	31.6	36.7	40.1	48.8
Stock holdings' share of total financial assets	27.8	33.7	40.0	53.9
Financial assets as a percentage of total assets	30.4	31.5	36.6	40.6
Percent of families having direct or indirect stock holdings				
Income in 1998 US\$:				
less than 10,000	—	6.8	5.4	7.7
10,000–24,999	12.7	17.8	22.2	24.7
25,000–49,999	31.5	40.2	45.4	52.7
50,000–99,999	51.5	62.5	65.4	74.3
100,000 and more	81.8	78.3	81.6	91.0
Median value among families with holdings (thousands of 1998 dollars)				
Income in 1998 US\$:				
less than 10,000	—	6.2	3.2	4.0
10,000–24,999	6.4	4.6	6.4	9.0
25,000–49,999	6.0	7.2	8.5	11.5
50,000–99,999	10.2	15.4	23.6	35.7
100,000 and more	53.5	71.9	85.5	150.0

Source: (Kennickell *et al.*, 2000). Tables 4 and 6.

Notes: Vehicles are included in total assets.

the figures therefore understate the importance of equity for the distribution of income and wealth in the U.S.

According to the 1998 Survey of Consumer Finances the share of stocks in total household assets (including vehicles) has gone up from 8.5 percent in 1989 to 22 percent in 1998. The most important household asset continues to be residential property whose share of total household assets has gone down from 38 percent in 1989 to 33 percent in 1998.

One important factor which has to be borne in mind, and which is also stressed by (Kennickell *et al.*, 2000) is the booming stockmarket. For at least the most recent years, not only increased stock holdings, but also higher stock prices, have influenced the value of families' stock holdings.

8. CONCLUSION

The paper has reviewed the consequences for the analytical uses of national accounts data of the treatment of retained corporate earnings in the 1993 System of National Accounts.

The SNA revision process was terminated in 1991 and the discussion of the treatment of reinvested earnings must be considered to be closed as far as SNA93 is concerned. The intention of this paper is not to suggest that SNA93 should be changed on such a fundamental point. Rather, it is to point out a problem, as the authors of this paper see it, in the accounting structure of the system and to indicate what appears to them an important line of future research and development.

Given that the IMF coordinated portfolio investment survey will shortly improve the data situation regarding international portfolio investment very substantially, a first step towards a more satisfactory description of income distribution in the national accounts could be to develop satellite accounts featuring national accounts on an SNA93 basis but extended to full accrual accounting of property income in general and of corporate earnings in particular. The decision for the next edition of the SNA could then be taken purely by judging the case on its merits rather than based on data constraints. In the meantime, analysts would have access to an alternative representation of the balance of payments surplus as well as macroeconomic aggregates which, although only supplementary to official national accounts, would be drawn up in the internationally recognized framework of SNA concepts as opposed to independent and more *ad hoc* academic research.

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