<u>Comments on Volume 1 of the updated 1993 SNA</u>

Chapter 1: Introduction

A. What is the system of National Accounts?

Para 1.1

The first sentence “The system of National Accounts is the internationally agreed standard set of recommendations on how to compile measures of economic activity in accordance with strict accounting conventions based on economic principles” does not capture the spirit of the SNA. We would prefer the definition provided in 1993 SNA which captures the reality of the SNA. This definition reads “The SNA consists of a coherent, consistent and integrated set of macroeconomic accounts, balance sheets and tables based on a set of internationally agreed concepts, definitions, classifications and accounting rules”

Chapters 6: The Production Account

Page 6.5

Minor point: The text does not follow the usual tabloid format.

9. Research and development

(**Para. 6.203**)

The definition of research and development provided in Para 6.203 is not in line with the definition provided in chapter 10 (Capital Account, Para 10.104). Both definitions should be consistent.

Para 6.203 defines “Research and development by a market producer is an activity undertaken for the purpose of discovering new products, including improved versions or qualities of existing products or discovering or developing new or more efficient processes of production” while Para 10.104 defines “Research and (experimental) development consists of the value of expenditures on creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture, and society, and use of this stock of knowledge to devise new applications. This does not extend to including human capital as assets within the system.”

Para.6.18

This paragraph (taken from paragraph 6.10 in 1993 SNA) should reinstate item “d” to cover insurance etc. as part of services. The item “d” reads “change in the general economic state of institutional unit itself: the producer provides insurance, financial intermediation, protection, guarantees, etc.”

Chapter 7: The Distribution of Income Accounts

Para.7.1
For clarity, state that the distribution of income accounts comprises the generation of income account and the allocation of primary income accounts.

Also say that the "the entrepreneurial income account and the allocation of other primary income accounts are subdivision of the allocation of primary income account" (see 7.22of this chapter)

Table7.1: Generation of income Account
Compensation of employees and Operating Surplus
In the 1993 SNA, the values of these items were 762 and 459 respectively. The corresponding values in the 1993 SNA Rev.1 are 769 and 452. The changed values should be used in Table 14.12 also.

Table7.3: Entrepreneurial and allocation of other Primary income Accounts-uses
The components of property income (D41-D45) should sum to D4 in *the allocation of other primary income account.*

Table7.3: Entrepreneurial and allocation of other Primary income Accounts-resources
The totals of gross mixed income and net mixed income are missing in column S1 (Total economy) in *the entrepreneurial account.* Also the components of property income (D41-D45) should sum to D4 in columns S1 in both *Entrepreneurial Account and Allocation of Other Primary Income Account.*

Chapter 10: The Capital Account

3. The structure of the capital account

Table 10.1: The Capital Account
Topics in this section correspond to the listings in Table 10.1. The para.10.23(c) reads *acquisitions less disposals of non-produced non-financial assets* .So the corresponding descriptor in Table 10.1 should also read *acquisitions less disposals of non-produced non-financial assets*

Chapter 11: The Financial Account

It is a dis-service to the structure of the accounts not to include a technical discussion of flow of funds (FOF) accounts in this chapter. Logically, it follows the capital account chapter and precedes the balance sheet account chapter. So an introduction of flow of funds accounts complementing the discussion on financial account is in order here as was in the 1993 SNA, perhaps leaving discussion of uses for Chapter 26.

Para.11. 1 Line 15
The simple statement that "net balance of the financial account is conceptually equal in magnitude, but on the opposite side of the account, to the balancing item of capital account" will not help the countries who are faced with a discrepancy between the two accounts. It may be useful to recognize this discrepancy as an explicit entry even if the example sticks to the ideal. Refer to Para 2.111 of this volume where this difficulty has been recognized.

Para.11.34
This paragraph, for clarity, should begin with a description of the underlying principle of valuation of financial transactions.

Para.11.34 Line 8
Typo: change rice to price.

Para.11.92
The discussion of reinvested earnings (RIE) is vague. The implementation of RIE should state quite clearly what the implications are for the financial account -- an imputed re-investment flow (assets and liabilities). Given the imputation to share issues and acquisitions, and re-definition of the nature of a financial transaction in the core accounts, some guidance on building alternative measures of actual financing activity (of key interest to users of financial statistics) should likely be provided.
The last sentence, "because it is not actually withdrawn, it adds to the value of the equity of the enterprise by recording under this heading in the financial account" should be elaborated. There is no argument with the generic statement that earnings add to the value of the enterprise but, other than that, the rationale (*because it is not withdrawn*) is questionable and one-sided and the need/relevance to add it to the financial account is not evident (nor is the stock-flow element).
Replace the last sentence in this Para with the following:

Because it is not actually withdrawn, other adjustments are required in the sequence of accounts. The reinvested earnings imputation carries down into the estimates of sector saving − the resources side of the capital account − and is subsequently also reflected in net lending or borrowing. As net lending or borrowing in the capital account is the link to the financial account, a second matching imputation is required to bring the sector accounts into balance in the equity category: Equity liability flows (in the case of inward foreign direct investment) and asset flows (in the case of outward foreign direct investment) are expanded beyond financial transactions to include reinvested earnings flows. The imputation for reinvested earnings in the financial account can be seen as adding value to the equity of the enterprise by a recording a flow under this heading (see 12.112). Given the analytical importance of measures of activity in equity markets, compilers may wish to generate a supplementary table showing equity transactions excluding reinvested earnings.

Para 11.98

The statement "the increase in value of investment fund shares or units is shown in the system as distributed to the shares or unit holders and reinvested by them in the financial account" is not accurate with respect to fluctuations in unit holder's equity. A suggested rewrite follows:

Given that investment funds are collective investment schemes, their investment income is recorded as accruing to the investors leaving the this sector's saving typically negligible or zero. Current account flows for investment funds may be recorded on a gross or net basis, though the System recommends a gross basis. On a gross basis, income is reported in the institutional sector (investment fund) and is shown as re-distributed to the investors, such that saving is zero (or negligible); and, the sum of net financial transactions (financial asset transactions less transactions in liabilities, excluding unit holders' equity) is equal to unit holders' equity transaction. The unit holders' equity transaction is equivalent to the total sources of funds, as contributions less withdrawals plus investment income. On a net basis, there are no current accounts for this institutional sector (net income entries recorded as net investment income of investors), such that saving is unchanged and the unit holders' equity transaction is the same as described above. Given that the investment income of these trust arrangements is treated as accruing to the investors (or unit holders), the investment income portion of the unit holders' equity flow is sometimes described as being *reinvested*.

Para.11.107 Line 5

The statement "the only transaction for pension entitlements recorded in financial account is the difference between net contributions receivable and benefits payable" is not fully accurate and requires clarification. Reproduce the calculation of change in pension entitlement from paragraph 9.25 in the chapter *the use of income account*. Add that the holding gains and losses on the invested assets flows are recorded in the revaluation account.

Invested assets flows in pension funds reflect from the saving of those funds -- contributions and investment income (income being re-invested) less benefits payable. The net entitlement flow (liability of funds - asset of households) should be equal to this net financial investment flow.

Para.11.108

For clarity, it should explicitly refer to defined-benefit plans, at least as an example. Also, this is a one-sided discussion. Without a corresponding entry elsewhere in the system, simply adding (increasing/decreasing) an F64 entry as a liability of the employer and as an asset of a fund would result in sector measurement error. Argument and rationale need to be fleshed out.

Para.11.124 Line 11
The statement “if this is not possible, they (stock options) may have to be recorded at the vesting date. Thereafter transactions are recorded at exercise date or, if they are tradable and are actually traded, between the vesting date and the end of the exercise period” misses the qualifier on page 13, Para. 4 line 6 in *the full set of consolidated recommendations* which reads “Any change in value between the vesting date and exercise date is not treated as compensation of employee but as a holding gain or loss. During this period, an increase in value of the share price is a holding gain for the employee and a holding loss for the employer and vice versa”

Chapter 12: The other changes in assets accounts

Para 12.11
First, the mixing up of investment fund units (collective investment schemes) and direct investment (inter-corporate investment) is not particularly helpful. These are two very different types of investment, which may only have certain similar looking entries in the SNA. Second, the very terse discussion here does not do justice to the treatment of reinvestment earnings (RIE). For RIE, we are re-defining financial transactions and therefore by extension, significantly re-defining revaluations. This has to be explicitly acknowledged in the interest of clarity. The sentence “Reinvestment of earnings increases the value of equity …” is correct in financial accounting but is only true indirectly (this is an imputation) if the SNA wealth concept is market value. If we measure shares outstanding at market value in the balance sheet, then earnings may or may not be relevant to fluctuations in positions in any given period. It is difficult to have this both ways unless we admit to a significant exception in the case of equity. A suggested re-write follows:

12.112a. With respect to equity at market value, holding gains/losses represent that change in the value of the position not accounted for by financial transactions (issues, redemptions, purchases and sales); and, for listed shares, these holding gains/losses reflect fluctuations in stock process from one period to the next. However, with respect to the equity for corporations that are direct investment enterprises, any undistributed earnings are imputed as reinvested earnings in the distribution of primary income account and as reinvestment of earnings in the financial account (see 11.92). Perceptions of future earnings (as reflected in current corporate earnings) are reflected, along with other factors, in the fluctuations in stock prices. By treating reinvested earnings of direct investment enterprises as an imputed financial transaction it is necessary to adjust the calculation of holding gains correspondingly, such that re-invested earnings financial flows account for part of the revaluation in the market value of equity positions. Therefore, for the equity of direct investment enterprises, only the changes in the value other than direct investment enterprises' reinvested earnings are treated as holding gains and losses in the system. Given the analytical importance of holding gains/losses in equity markets, compilers may wish to generate a supplementary table showing total holding gains/losses on outstanding equity positions.

12.112b. Investment funds are collective investment schemes. As such, investment income is recorded as accruing to the investors and sector saving estimates are typically negligible or zero. Current account flows can be recorded on a gross or net basis (see 11.98). Unit holders' equity transaction is equivalent to the total sources of funds, as contributions less withdrawals plus investment income, and is derived as follows: The sum of net financial transactions (financial asset transactions less transactions in liabilities, excluding unit holders' equity flows. In the balance sheet account, unit holders' equity positions reflect invested assets at market values (notably, investment fund units/shares may be listed). With investment funds assets and investment fund units at market values (or approximations thereof) holding gains/losses, by invested asset type as well as for unit holders' equity, are calculated in the same manner as with other types of assets.

12.112c. However, investment funds may also be direct investment enterprises. To the extent that this is the case, any undistributed earnings of foreign subsidiaries would be recorded as reinvested earnings in the distribution of primary income account and as re-investment of earnings in the assets of the financial account. This makes it necessary to adjust the calculation of holding gains correspondingly, such that re-invested earnings financial flows account for part of the revaluation in the market value of equity positions of the assets as well as the unit holders' equity of investment funds. Given the analytical importance of holding gains/losses in investment funds, compilers may wish to generate a supplementary table showing total holding gains/losses on outstanding positions.

Chapter 13: The Balance Sheet

Generally, this chapter and/or Chapter 16 (Summarizing and integrating the accounts) should explicitly introduce the concept of a *National Balance Sheet* / *National Wealth Account* as well as the new aggregates *National Wealth* and *National Net Worth*. These are analytically meaningful constructs (in use in many countries) and are far preferable to the non-descript TOTAL ECONOMY (as opposed to TOTAL).

Without doing a detailed calculation, it is not intuitively clear on why the number entitled *net worth* for total economy in Table 13.1 (5625) is not the same as the bottom right-hand number entitled *net worth* in Table 13.2 (5633). Why aren't there values for non-financial assets in the sectors of table 13.1?

Adding a ***consolidated*** TOTAL ECONOMY (*National Balance Sheet*) to Table 13.1 would make the whole thing more understandable. However, to do this, a simpler presentation to follow might be to move TOTAL ECONOMY (*National Balance Sheet*) after TOTAL and add *Consolidated National Balance Sheet*. Concepts of *National Wealth* and *National Net Worth* then fall out quite simply.

The produced and non-produced asset classification in the text is a poor reflection of the structure of the sequence of SNA accounts. The text should follow the standard non-financial - financial assets split as presented in Table 13.1: *Opening and closing balance sheets with changes in assets.*

Implementing the recommendation directly above then allows for a definition of National Wealth (at the outset of section C) as the sum of the non-financial assets (both produced and non-produced) of all of the sectors of the economy

Statistics Canada would be pleased to provide text around these recommendations.

Paragraphs 13.62-13.67 (Loans)
A significant compromise in the manual's approach (also in 1993 SNA) to **consistent valuation** for assets is with respect to loans. Its impact on estimates of net worth should be made clear at the outset in section B. This is not a problem in valuation or an approach to valuation, but rather a conceptual concession. It should remain in the manual, but it should be clearly acknowledged. Residual corporate net worth in banking and other lending sectors can be significantly affected in periods of significant fluctuations in interest rates (market risk) or changes in proportions of non-performing loans (credit risk).

4. Net Worth
The concept of net worth has a special meaning in the SNA, but the discussion of corporate net worth is lacking. Is the net worth that corporations are seen to have in the system is a measure of error (see para.13.88), or does it have economic meaning? Own funds seems to be more of a book value concept (see 13.89) and is a poor descriptor of what the residual is, especially if it is due to missing or mis-valued assets (13.88). We cannot casually mix financial accounting book value concepts with SNA market value concepts in this manual.
13.86. In the System, net worth of corporations … Thus, even though a corporation is wholly-owned by its shareholders collectively, it is seen to have a net worth (which could be positive or negative) in addition to the value of the shareholders' equity liability. This is referred to as residual corporate net worth. It is the difference between two measures of corporate net worth in the System: Equity liabilities at market value and net asset values (assets less liabilities, excluding equity liabilities at market value). Residual corporate net worth is that portion of corporate net worth not allocated to investors, and it is a key element in the System that is required for calculation of *National Net Worth*.

Residual corporate net worth

13.87. A non-zero value for residual net worth can arise for a number of reasons. One general factor is mis-measurement or mis-valuation of assets. For example, the existence of certain assets that are not recognized as such in the System − such as goodwill and marketing assets − can be problematic. These missing assets will not be reflected in net asset values, but will likely be reflected in the estimates of equity at market value. As another example, the System's view of some financial assets − such as bonds and loans − may not coincide with a fair value approach, driving a wedge between equity at market values and net asset values. Another general factor is that the market value of equity reflects market sentiment about future income streams which may fluctuate with much more volatility that the underlying value of the corporation − that is, the net asset value. Residual corporate net worth can be seen as a variable with analytical interpretation.

13.88. The net asset value calculation of corporate net worth is similar to the treatment of quasi-corporations. This calculates the value of shareholders' equity in such a way that net worth is zero. This calculation is a net asset value and is calculated as the sum of its assets less the sum of its liabilities (sometimes likened to own funds of quasi-corporations). However, since this method would include for balancing purposes allocating the residual net worth to investors, net asset value approach is recommended as a memorandum item in the System.

Paragraphs 13.89 and 13.90
This is a digression that describes a flows and stocks related to the book value concept of corporate net worth (retained earnings)… It is not clear why this is being discussed. The sub-component of equity that includes retained earnings only exists in a <u>book value</u> accounting framework and not in a national accounting <u>market value</u> framework. What is the point being made here? This marriage of concepts is awkward to say the least. It should probably be dropped or noted as a significant digression (by using its own sub-title). It is assumed that it trying to link re-invested earnings with the market value of corporate equity. A suggested re-write of selected paragraphs follows:

Digression: Own funds of corporations and re-invested earnings

13.89. Own funds include accumulation over time of retained (and reinvested) earnings. It is part of corporations' book value equity position. Once current transfers receivable are added to entrepreneurial income and current transfers payable (and the pension entitlement) adjustment) are deducted, what remains is available for distribution in the form of dividends. The retained earnings flow in any given period represents the amount of a corporation's income available for distribution as dividends that are not so distributed. In other words, these funds are retained by the corporation for investment purposes, and add to the corporation's book value equity position. The retained earnings flow may be negative on occasion, representing a withdrawal of own funds − that is, a reduction in the corporation's book value equity position. ~~From time to time, some of own funds may be assigned to (or withdrawn from) either general or special reserves. They may be augmented by an injection of capital by the owners or by the receipt of investment grants.~~

13.90. In the case of a direct investment enterprise a proportion of retained earnings is imputed as being distributed, the proportion depending on the extent of the direct investor's control of the corporation. These earnings are also recorded in the financial account (re-invested earnings) as being reinvested in the corporation as an addition to own funds (see 11.92), such that the corporation's book value equity position is unchanged by the imputation.

National Net Worth

13.95. *National Net Worth* is the sum of the net worth of all of the sectors of the economy, excluding the non-resident sector. It can alternatively be derived on the National Balance Sheet (currently referred to as TOTAL ECONOMY) as economy-wide non-financial assets (*National Wealth*) less the nation's net international investment position (the net worth of the non-resident sector).

Chapter 16: Summarizing and integrating the accounts

The macro-economic aggregates in the system

This section should also cover other macroeconomic aggregates the system generates:
Saving
Investment
National wealth
If desired, Statistics Canada would be pleased to draft text on these aggregates.