February 13, 2009

Mr. Herman Smith
Chief of the National Accounts Section
United Nations Statistics Division

Dear Mr. Smith,

The staff of the U.S. Bureau of Economic Analysis has reviewed the full draft of volume 2 of the *System of National Accounts 2008*. We have attached some detailed comments on the draft.

We would like to take this opportunity to express again our enthusiastic support for this update to the SNA. The updated System will help the Bureau of Economic Analysis and other producers of national accounts statistics to produce data that are relevant for the modern, globalized economy. We appreciate the tremendous effort that was required by the Intersecretariat Working Group on National Accounts, the editor, the project managers, and the many national and international experts who contributed to this revision.

Sincerely,

J. Steven Landefeld
Director

Detailed comments from the U.S. Bureau of Economic Analysis

Paragraph 19.81 – The term "border workers" used in 19.81 appears to have the same meaning as "frontier workers" that is used in 19.32. If they are intended to have the same meaning, it would be better to stick to a single term.

20.20 – This paragraph says the age-price profile that corresponds to one-hoss shay efficiency flows is not "intuitively obvious," but Table 20.10, renamed, spells it out.

20.23 – The algebra and terminology of this paragraph (and the next-to-last sentence of 20.27) are confused.

The equation linking this period's asset value (V_t) with next period's (V_{t+1}) is written as:

$$V_t = a_t + r\ V_{t+1}$$

with "a_t" this year's productive service-input flow and "r" a "discount factor." Yet 20.27 says the discount factor is five percent, which is the text's interest rate. Plainly, the discount factor here is not really r, but 1/(1+r), so to make the math work, write:

$$V_t = a_t + V_{t+1}/(1+r).$$

In the geometric case where $V_{t+1} = f\ V_t$ (with $0<f<1$), solving the two equations jointly for V_t and V_{t+1} gives:

$$V_t = a_t(1+r)/(1+r–f) \qquad V_{t+1} = a_t f(1+r)/(1+r–f).$$

It is apparent that next year's productive service-flow input "a_{t+1}" must equal $a_t f$.

20.25 to **20.26**, **20.31** to **20.32**, and **20.68 –** The apologies made in these paragraphs for making various simplifying assumptions are to a great extent repeated. Once, prominently, is enough.

20.28 – This paragraph introduces the notion of a risk-free investment, without assuring that the asset's service-flows are not also risk-free. It would be better to say the alternative investment has risk *equivalent to* the contemplated investment.

20.41 – The same considerations discussed in our comment on paragraph 20.23 lead to writing the infinite sum in this paragraph as:

$$S = a + a/(1+r) + a/(1+r)^2 + a/(1+r)^3 + a/(1+r)^4 + \ldots$$

However, for a=20 and r=.05 (the text's values), S works out as 420, not 400. To get 400, one would need to write $S = a + a(1–r) + a(1–r)^2 + a(1–r)^3 + a(1–r)^4 + \ldots$, which follows a different discrete-time discounting convention than the rest of the chapter (at least as the chapter is presently written).

20.45 to **20.47 –** The example is unrealistic in that rates of extraction from a mine or harvest from a forest are taken as *given* (even by the mining company!), when really they are choice variables. One can sympathize, however, with the need to say something useful about green accounting.

20.53 and **20.54 –** The topic treated in these paragraphs, "costs of ownership transfer on acquisition"—although located between two similar analytical extensions ("assets with a residual value" and "terminal costs")—is conceptually different from its neighbors and its treatment in this chapter exposes some conceptual inconsistencies. Neither residual values nor terminal costs alter the age-efficiency profiles on the leading diagonals of Tables 20.6 or 20.8 (instead, they adjust the split of productive input-flows between depreciation and net income). On the other hand, the spread-out acquisition costs of Table 20.7 are intended to be added to Table 20.6, *in order to alter the age-efficiency diagonal* (paragraph 20.53), with the timing constrained to match the expected holding period (not the expected lifespan) so that the asset's disposal value (300) is the same with or without acquisition costs. But there's a big problem: the acquisition costs have not really improved the asset's efficiency-unit flows. Now, maybe the firm that lengthened its costly search found a rare, more productive asset, but that should be reflected in the asset's higher initial purchase price or its higher residual value. Consider, too, *another* firm, better placed than the first, that also acquired one of the rare assets after only a brief search. Is the lucky second firm actually unlucky because of a proposed accounting convention, when really the two firms have equally productive assets? Search has no further productive contribution once the asset has been found and so, at first glance, should be expensed. Nonetheless, to the degree that search and acquisition activity is considered an investment, then the asset that is accumulated is not the item that was bought and installed, but rather knowledge of input-market conditions. This knowledge is an intangible asset, and its acquisition costs should not be buried among tangible assets that are better understood. Of course it could be that accountants simply lump all the costs of installing an asset together anyway and call the figure "purchase price," so that D.5 is really an approximation; but then say so clearly, and do not pretend that such accountants would be careful to limit the allocation of acquisition costs only to the expected holding period.

20.62 – The example shown in this paragraph and in table 20.9 is problematic. *Actual* investment flows are taken to be 50 in each of four years, while the final asset value is set to 200. There is no way to link these numbers through time if the interest rate is not zero. The solution in the text is to replace the investment flows in favor of their discounted counterparts; I think it makes more sense to replace the final value in favor of the future values of the summed investments: at 5 percent this is $50\times(1.05^3 + 1.05^2 + 1.05 + 1)$
$= 215.51$. (Neither approach allows any depreciation of the unfinished investments.)

20.70 and **Table 20.11 –** In the top portion of the table, it would be useful to include below "mixed income," "operating surplus," and "taxes less subsidies on production," lines that say "*of which*, attributed to capital services." In calculating capital services from national accounts data, portions of each of these types of primary income must be attributed to capital services, and it would be helpful for users to see how they are allocated in the supplemental table. (Note that in some cases—specifically, an endogenous rate of return—all of the operating surplus may be attributed to capital services.)

22.29 – Although we recognize that it is probably too late to change it, we think it is unfortunate that the SNA has added the "50 percent rule" to its explanation of economically significant prices, even though this guidance is described as non-prescriptive. The existence of this rule will result in countries overlooking other, more relevant criteria related to the distinction between market and non-market producers.

22.31 – states, "It can be presumed that prices are economically significant when the producers are private enterprises." We recommend changing "private enterprises" to "private for-profit enterprises," since prices are not necessarily presumed to be economically significant for non-profit institutions.

22.34 – The following statement needs to be clarified. "Sales exclude all payments received from government unless they are granted to any producer undertaking the same activity." Presumably, the intention of the statement is to exclude subsidies on products before comparing receipts on sales to production costs. The sentence as written, however, would seem to also exclude payments for actual sales to government. For example, if a government unit purchases cars from one producer, these payments would appear to be excluded from sales unless the government also purchases cars from all other producers. That interpretation, however, doesn't make sense within the context.

22.68 – This paragraph is unclear. It mentions that "certain imputed sales are included in revenue," but unless the reader already knows what types of imputed sales are included, the statement would appear to be meaningless (since it is possible to imagine the imputation of a sale for any government output that is provided free of charge). If a list of these imputed sales is available, it would be helpful to include or reference it.

22.100 – It would be helpful if the full term "special drawing rights (SDRs)" were written out the first time that it is used in the chapter.

22.131a – The sentence is unclear and we aren't sure we understand what it means. Our guess is that the intention was to say, "The purchase price should equal the current market price in order to record the transaction as a sale."

23.1 – We suggest changing "to cover costs" to "to cover a large proportion of costs" to be consistent with the discussion of economically significant prices in 23.6, 22.29, and elsewhere.

23.4 – It is not explicitly stated, but is presumed to be the case that for market NPIs whose sales do not cover (all) costs, their inclusion with the corporations sector means that their output would be measured by their sales, which implies negative "profits" (net operating surplus), since the larger expenses would be netted against sales. It would be useful to explicitly make this point and to describe the other sources of funds that might be used to fund the negative net operating surplus.

23.5 – “Standard-setting organisations” seemed to us to be an unusual example of a non-profit institution serving government (though perhaps such institutions are more common elsewhere). Perhaps it would be helpful to add another example, such as a research academy controlled by government.

23.8 – The last sentence (“Those that fall under the second bullet point under (c) are allocated to the NPISH sector and their output is treated as actual final consumption of households delivered as social transfers in kind”) seems to contradict paragraph 23.45, which allows for an NPISH to provide collective services. The possibility of collective services should also be mentioned in paragraph 23.8.

23.14 and **23.15 –** At least in the United States, foundations would generally fit better with “‘public benefit’ organisations” in paragraph 23.15 than with mutual societies, cooperatives, and associations in paragraph 23.14.

24.74 – We suggest that it may be clearer to replace “pension provisions” with “pension schemes.”

26.2 – This paragraph seems to occupy a prominent place as an opening statement about how the rest of the world account differs from the accounts for the domestic sectors of the economy. However, the discussion becomes bogged down with references to balancing items and the extent to which these are used or not used in other accounts. This point is rather confusing and the example about the difference between GDP and GNI is not very helpful in clarifying this point.

26.5 – The explanation would perhaps be better stated as something like “…because only the total amount exported to another economy, not the use made of the goods and services in that economy, is relevant for the national economic accounts.”

26.6 – The last sentence of this paragraph, “…thus shows how far residents call on saving by non-residents…,” is unclear.

26.10 – This paragraph clarifies that the rest of the world account is drawn up from the perspective of the rest of the world while BPM6 and the international accounts look at the same stocks and flows from the perspective of the domestic economy, and as a result, the international accounts are the mirror image of the SNA rest of the world account. A reference to this reversal appears again in paragraph 26.12. Awareness of this difference in presentation is important for interpreting differences between the SNA and BPM6. Perhaps there should be more discussion of the rationale for this presentation and its implications for analysis.

26.13 – The phrase “accounting rules” should be replaced with “accounting principles” (each time it appears) to maintain consistency with the rest of the Manual.

26.16 – While grammatically correct as written, it would be helpful to have a comma after the term “currency unions” because it is a very different subject than the subject of “currency conversions" which follows it. The comma would help avoid the implication that the two topics might be related.

26.21 – This paragraph discusses, in the historical context, the change of ownership basis as it relates to the recording of goods under merchanting. However, it does not make it clear that merchanting was previously classified as a service in BPM5. If the historical context is going to be included, this is an important point to make.

26.31 – In the last sentence, the last phrase, "by delivering them to another location," is unnecessary.

26.37 – In the second-to-last sentence, "…is sufficient to establish a principal dwelling…" would be better stated as "…is sufficient to qualify as having a principal dwelling…" This is the wording used in BPM6.

26.38 – Item e on cross-border workers should say "There is no special treatment," not "There is no exception." The word "exception" is too ambiguous. Also, in f, the term "legal status" could be misleading. Perhaps the wording from BPM6 would be better here, so "…regardless of their legal status or intention to return" would instead be "…even if that residence is involuntary, transient, and its future status is unclear."

26.49 – In explaining the timing of the recording of exports and imports of goods and services, perhaps it should also be mentioned that exports and imports of services are recorded when the service is delivered, and that the provision of services should be recorded on an accrual basis (see BPM6 paragraph 3.47).

26.53 – In this paragraph, the contrast between IMTS and balance of payments treatment of goods for processing due to the use of change of ownership basis could be more clearly stated.

26.57 – The first sentence is very vague. A discussion of the supplemental detail on services should be included, perhaps with a few examples, or the statement should be left out altogether.

26.68 – This paragraph seems to refer to the insurance services flows, not the related current transfers. In that case, this paragraph (or something similar) should be included under Section C, part 1 on the goods and services account, and language explaining the relevant transfers should be added to this section on the secondary income account. Also, the chapter might benefit from an explanation of the related concept of an adjustment for claims volatility (see BPM6 A6c.21-A6c.22). While the principles used in calculating insurance transactions in the SNA and BPM6 are conceptually similar, the adjustment for claims volatility term is not explicitly defined in the SNA.

26.69 – The second sentence should read "To illustrate, the primary income account has its own balancing item…"

26.74 – In this paragraph, the sentence that begins “In the case of financial claims…” is also true for financial liabilities. Perhaps this statement could be worded better to point out that cross-border financial claims and liabilities arise when one party is a resident and one a non-resident, with the exception of gold bullion.

26.77 – Perhaps section C, part 7 should begin with an introductory paragraph about the other changes in financial assets and liabilities account and how it relates to SNA, instead of the statement in paragraph 26.77 about breaking assets and liabilities down by currency of denomination.

26.85 – In this paragraph, the parenthetical statement on fellow enterprises should be rewritten to read “(Fellow enterprises are direct investment enterprises that have less than ten percent equity in each but which share a common direct investor).” The last clause, “that is a direct investor of at least one of the fellows,” can be dropped.

Table 26.6 – This table should include a footnote explaining why some X’s are uppercase and some are lowercase. The footnote that is included with the corresponding table in BPM6 reads “X shows applicable functional categories (x shows cases considered to be relatively uncommon) for the most detailed instrument categories.”

26.91 – In this paragraph, the first sentence is unclear and should be rewritten. Perhaps it should read “Portfolio investment depends on organized financial markets and associated bodies such as dealers, exchangers, and regulators.” The second sentence might be revised to read “In contrast, the parties to direct investment and other investment transactions…,” as an investor is party to a transaction, not an instrument.

26.105 to **26.107 –** The spelling “debt reorganization” is used here but “debt reorganisation” is used throughout the remainder of the Manual. The spelling should be made consistent throughout.

26.111 – In this paragraph, the 7th sentence should read “Such is the case when most or all transactions in the parallel market are sanctioned by the authorities or when the authorities actively intervene in the market to affect the parallel rate, or both.”

29.39 – This paragraph is a bit cryptic and does not fit well with the topic of the chapter. It could be improved with an additional sentence or phrase that links the issues of high inflation and holding gains to an alternative satellite account presentation. We suggest as an introductory phrase to the last sentence in the paragraph: “In these conditions of high inflation, a satellite account presentation may be used to show the component of nominal interest that serves as a holding gain for the borrower and a …”

29.101 – Table 28.X is missing.

29.139f – What are “ultimate mirrors”?

A4.35 – This paragraph doesn't make any sense to us and appears to have been garbled by a faulty edit. Please correct the problem.

A4.44 – This Annex contains a discussion on broadening the fixed asset boundary to include other intellectual property assets and attempts to distinguish between the innovation activity that is within the new fixed asset boundary and that which is outside of it. As currently written, the activities excluded from R&D are drawn too broadly, and are in conflict with the definition of R&D in Volume 1, which is based directly on the *Frascati Manual*. The questionable sentence is the second one in the fragment below.

"... It is evident that R&D captures part, but not all, of the innovation process. It excludes expenditures by the production and engineering departments of an enterprise on developing new products and processes."

We suggest rewording the sentence: "It may exclude many expenditures by the production and engineering departments of an enterprise."

By way of background, paragraph 10.103 from volume 1 provides a definition that is based on the *Frascati Manual* and does not include this broad exclusion. That is to say, the definition of R&D does not impose an organizational criterion for what is and is not considered R&D.

A4.52 – This paragraph is unclear and needs to be edited for clarity.