Three Documents Related to the Thirty-Eighth Statistical Commission's Consideration of the Recommendations for the Update of the *1993 SNA*

Document 1: Sections III C and III D from the Report of the ISWGNA (E/CN.3/2007/7)

C. Results of the consultations on the provisional recommendations

23. The consultations show unanimous or near unanimous support for almost all of the provisional recommendations of the Advisory Expert Group. The near unanimous support now extends to one issue, pension schemes, that a year ago led the Statistical Commission to note that further consideration of government unfunded pensions was needed. As a result of subsequent consultations, a solution emerged that is now widely accepted and incorporated in the *Consolidated Recommendations*. A key feature of the solution is that the updated SNA would include an additional standard table on pensions. That table would show all flows and stocks of the pension entitlements for all pension schemes. Such a table would make cross-country comparisons of financial aspects of pensions possible while still allowing flexibility in how far the pension entitlements conveyed by the schemes are reflected in the core accounts. Given the different institutional arrangements in different countries, the updated SNA will permit recording only some of those pension entitlements in the core accounts. However, it will be a requirement that the rationale and criteria be provided to explain the distinction between those schemes whose entitlements are carried forward to the core accounts and those for which they are recorded only in the new standard table.

24. On five issues, however, there was significantly less than unanimous support, and that situation called for especially careful consideration by the Intersecretariat Working Group of the extent of the disagreement, the reasons for the disagreement and the possibility that further consultation might lead to some resolution. For those issues, the description and recommendation of the Advisory Expert Group, the comments received — in favour and in disagreement — during the consultation period, and the issue-specific considerations of the Advisory Expert Group are set out below to facilitate their consideration by the Statistical Commission.

Research and development (issue 9)

25. *Description and recommendation of the Advisory Expert Group*: The 1993 SNA does not recognize research and experimental development as capital formation, despite the fact that it is thought to be a major contributor to future economic growth. Were the SNA to be changed, consideration is required of whether

all expenditure on research and development, or only some, should be recorded as capital formation. To overcome all the practical difficulties of deriving satisfactory estimates, the possibilities of using expenditure data collected in accordance with the *Frascati Manual 2002: Proposed Standard Practice for Surveys on Research and Experimental Development*, and obtaining appropriate deflators and service lives, need to be assessed.

26. The recommendation is that research and development should be treated as capital formation and the value should be determined in terms of the economic benefits it is expected to provide in the future (including the provision of public services in the case of research and development acquired by Governments). In principle, research and development that does not provide an economic benefit to its owner does not constitute a fixed asset and should be treated as intermediate consumption. Unless the market value of the research and development is observed directly, it may be valued at the sum of costs, including the cost of unsuccessful research and development.

27. *Consultation on the recommendation*: A substantial majority of countries expressed support for the recommendation on the capitalization of research and development. The view was expressed that implementation of the recommendation would improve studies of growth and productivity. While a number of countries expressed their agreement with the principle, they also expressed concerns about one or more aspects. In their comments, some countries noted the difficulty of distinguishing those research and development expenditures that should not be capitalized because ownership is not established or future returns could not be identified. Others voiced reservations regarding the practical implementation of the recommendation, including the difficulty of working with accounting and survey-based data. Several suggested the need for detailed guidance.

28. Those who expressed disagreement with the recommendation did so on both conceptual and practical grounds (besides objecting to inclusion of the issue on the agreed list). A few comments state that expenditures are a poor proxy for the benefits brought by research and development, and several mention practical problems such as determining service lives and/or identifying appropriate price indices of the research and development assets. Those countries that stressed the need for compilation experience seem to suggest that a delayed implementation was a way towards eventually including research and development expenditure within the asset boundary of the System.

29. *Considerations of the Intersecretariat Working Group*: The country comments indicate that there is substantial support for the principle of capitalizing research and development in the SNA. There are some concerns, however, about specific aspects. Those include scope, service lives and price indices for research and development assets. Subsequent to the provisional recommendation, there were further consultations about scope (centering on what is known as freely available research and development), and those led to the recommendation in the

Consolidated Recommendations. Further, some regional meetings continued to discuss this issue.

30. The Intersecretariat Working Group is confident that the combination of countries' experience and ongoing research (as represented, for example, by the papers presented at the October 2006 meeting of the OECD Working Party on National Accounts), further collaboration between the Canberra II Group and the research and development survey statisticians and further consultations by the United Nations Statistics Division with the corporate sector, academic and international accounting community can resolve the problems in the future. Thus, the Intersecretariat Working Group puts forward the following wording designed to adopt the principle of treating research and development expenditure as fixed capital formation and to encourage focused work to implement the principle in a sound and internationally comparable way:

> In principle, research and development expenditure should be recognized as part of capital formation. However, there are a number of difficulties to be overcome before the objective can be reached. Satellite accounts will provide a useful way of working towards solutions that give the appropriate level of confidence in the resulting measures and practical guidance on implementation will help to ensure international comparability. Therefore, the *1993 SNA, Rev.1* will describe the objective and its conceptual underpinnings, note the difficulties and provide links to work underway to overcome them and recognize that for many countries implementation will take some time. The Intersecretariat Working Group will report periodically to the Statistical Commission on progress and signal when widely accepted implementation guidelines are available.

Cost of capital services (issue 15)

31. *Description and recommendation of the Advisory Expert Group*: Capital services provided by non-financial assets to the production process are not explicitly mentioned in the 1993 SNA. The OECD manual entitled *Measuring Capital: Measurement of Capital Stocks, Consumption of Fixed Capital and Capital Services*, published in 2001, defines capital services as inputs that flow to production from a capital asset. They may be estimated as the sum of consumption of fixed capital, expected real holding gains/losses and a return to capital, similar in value to the cost of interest on the remaining value of the asset. The rental paid by the user of a rented non-financial asset to the owner covers both the costs incurred by the owner in providing the rental service and the capital services rendered by the asset to the owner. For non-financial assets used by the owner, capital services appear implicitly as part of the gross operating surplus.

32. The recommendation begins by noting that capital services for assets used in market production are implicitly included within the 1993 SNA but are not separately identified. Given the importance of identifying them for productivity

measurement and other analysis, a new chapter will be added to the *1993 SNA, Rev.1* explaining the role and appearance of capital services in the system and stressing the desirability of calculating capital services, capital stock and consumption of fixed capital in an integrated and consistent manner. No changes will be made to standard entries in the accounts to show capital services but an explanation will be provided of how supplementary items or tables could be derived and presented.

33. *Consultation on the recommendation*: Overall, there was substantial support for the recommendation; disagreement was limited to only a few countries. However, a number of comments were hard to interpret. Some stressed that the estimates of capital services should be optional, voluntary or presented only in satellite accounts, and it is not clear that the intent of the recommendation to treat them as optional was understood.

34. Of the few countries that disagreed, some mentioned (besides objecting to inclusion of the issue on the agreed list) the negative effect on international comparability of the somewhat arbitrary choice of a rate of return.

35. *Considerations of the Intersecretariat Working Group*: The Intersecretariat Working Group notes the almost unanimous support for the recommendation on cost of capital when it is understood, as intended, that the identification of the cost of capital for market producers is not called for in the core accounts and that it is voluntary within the recommended supplementary accounts. The Intersecretariat Working Group thus puts forward for adoption the recommendation incorporated in the *Consolidated Recommendations*.

Government and other non-market producers: cost of capital of own assets (issue 16)

36. *Description and recommendation of the Advisory Expert Group*: When summing costs to measure non-market output, the 1993 SNA recommends that the value of the services provided by a producer’s own non-financial assets should be measured as consumption of fixed capital. Neither a return to capital on these assets or, equivalently, an opportunity cost of capital is recognized. That gives rise to an inconsistency between the costs of owned and rented assets to the non-market producer.

37. The Advisory Expert Group recommended, after extensive discussion at three of its meetings, that a return to fixed capital owned and used by government and other non-market producers be included in the estimation of output in addition to consumption of fixed capital. The restriction to fixed capital is a compromise with a view to practical implementation. For the rate of return, the expected real rate on government bonds is recommended, supplemented if necessary by other indicators of the cost of borrowing by government.

38. *Consultation on the recommendation*: Comments after the early Advisory Expert Group discussions led to the specification in the recommendation of the scope of the assets (fixed assets) and a rate of return to be used (expected real rate on government long-term bonds). The more recent comments showed that more countries are comfortable with the recommendation. Agreement came from a wide range of countries. Several comments noted the consistency with the market sector that would come about as a result of implementing the recommendation and that users' analytical needs would be met. Some, from both large and small countries, reported that they could produce estimates of capital services of a reasonable quality. A number of comments were in favour of the recommendation in principle, but were concerned about implementation, some indicating the kind of guidance that they would like to see provided in manuals.

39. Disagreement with the recommendation also came from a range of countries but was concentrated in Europe. Some disagreement was on conceptual and some on practical grounds. Some comments were lengthy and detailed; the following points were common to several sets of comments: market and non-market production are different and the difference should be reflected in the method of measuring output; implementation would lead to more estimates based on modelling rather than observation, and that should be avoided; for many countries, the required estimates of capital stock are not well developed, so even estimation of consumption of fixed capital is difficult; and identifying appropriate rates of return is problematic and would lead to additional non-comparability among countries.

40. *Considerations of the Intersecretariat Working Group*: The Intersecretariat Working Group has taken note of the views expressed in the course of the last year on the issue, which has engaged theorists, users and national accounting practitioners over several decades. The issue is complex and the discussion evolved as the complexities were set out in the Advisory Expert Group's meetings during the update's issue-oriented phase. Since then, the process of stepping back to review the set of recommendations as a whole has focused attention on the consistency of the treatment of financial and non-financial assets. The review has brought an added dimension. To bring this consistency dimension to the Advisory Expert Group for its consideration and to get its advice in light of the differences of view as expressed in the country comments on the Advisory Expert Group recommendation, the Intersecretariat Working Group is undertaking an electronic consultation among the Advisory Expert Group members. The consultation will be the basis of further Intersecretariat Working Group consideration of the way forward, which will be presented in a conference room paper to be prepared as a supplement to the Intersecretariat Working Group's report to the Statistical Commission.

Military expenditures (issue 19)

41. *Description and recommendation of the Advisory Expert Group*: In the 1993 SNA, offensive weapons and their means of delivery are excluded from capital formation regardless of the length of their life. That treatment implies that military

assets provide defence services only and entirely in the period of acquisition. Further, weapons whose expense has been expressed as intermediate consumption, according to the present treatment, can be sold or exported in another accounting period, calling for counter-intuitive entries in the accounts for government.

42. The recommendation is that all military expenditure that meets general SNA criteria for capital formation — that is, being used in production over a period in excess of one year — will be treated as capital formation. Weapon systems and military inventories would be distinguished within fixed capital formation and inventories, respectively.

43. *Consultation on the recommendation*: Some comments noted the difficulty of implementing the 1993 SNA treatment, which calls for distinguishing military equipment that can be put to civilian use. Several comments favoured the recommendation because it would bring national accounts into line with the way Governments recorded military expenditure (which, in turn, was in line with international public sector accounting standards). In a similar vein, it was noted that the recommendation eliminates an inconsistency in the 1993 SNA in that not all assets are included that contribute to the delivery of defence services.

44. Of the comments disagreeing with the recommendation, a number expressed concern about the lack of data given the confidential nature in many countries of information on military expenditures. If some countries had the necessary data to make estimates and others did not, international comparability would be undermined. Other comments were conceptual, elaborating on the argument that expenditure for defence purposes does not generate production of services.

45. *Considerations of the Intersecretariat Working Group*: The Intersecretariat Working Group considers that the accounting principles underlying this recommendation are important. The lack of data in some countries is indeed a concern but the recommendation that weapons systems should be considered capital assets in international public accounting standards should be recognized. To the extent that the problem is that data are not available, this is a deficiency in the measurement of government output, whether the weapons are treated as intermediate consumption or capital formation. Since the first publication of the SNA in the late 1950s, changing political circumstances have led to the recognition that capital expenditures on offensive weapons render services by their existence rather than only by their use. The Intersecretariat Working Group acknowledges that the views on the recommendation differ. However, it considers that the recommendation included in the *Consolidated Recommendations* should be adopted to maintain the analytical relevance of the SNA in a changing global security environment.

Goods for processing (issue 40)

46. *Description and recommendation of the Advisory Expert Group*: Both the 1993 SNA and the *Balance of Payments Manual* treat goods that are sent abroad for

processing and then returned to the country from where they were dispatched as undergoing an effective change of ownership. The goods are therefore recorded in exports and imports when they leave the first country and again when they return to it. The country undertaking the processing is shown as producing goods that are recorded at their full value, even though the processor never has to pay for the value of the goods on entry. With the increasing importance of offshore processing, such treatment is increasingly questionable. It is further complicated by a different recommendation for goods being processed in one country for a second which, instead of being returned to the second country, are sold (on behalf of the owner in the second country) to a third country.

47. The recommendation is that imports and exports should be recorded on a strict change of ownership basis. That is, goods being processed in one country on behalf of another would no longer be part of imports and exports in the balance of payments and SNA. That would be a change from the 1993 SNA. The consequences affect the recording of transactions within the national economy as well as international transactions. The decision to record on a pure change of ownership basis implies that no transactions will be recorded for intra-enterprise (interestablishment) deliveries when goods are passed from one country to another for processing and then returned. That has implications for the input-output tables, which on the proposed basis will reflect what each unit contributes to the production process rather than the physical technology, as previously was the case. This recommendation recognizes that many goods move from one country to another without entailing a consequential payment from the recipient country to the sending country. The recommendations have implications for the way in which the physical movement of goods, captured in merchandise trade statistics, is reconciled with the international flows to be recorded in the balance of payments and the SNA. The IMF Committee on Balance of Payments Statistics was in favour of the recommendation.

48. *Consultation on the recommendation*: Comments were received in two rounds of global consultations, following the discussion of the issue at two meetings of the Advisory Expert Group. A substantial number of countries supported the recommendation but few gave their reasons why. Harmonization with the balance of payments treatment was mentioned, as was a preference for following the change of ownership principle. However, comments noted practical problems in determining changes in ownership of the goods. Several comments indicated the need for guidance in identifying and recording such goods in international merchandise trade.

49. Disagreement with the recommendation is spread across regions. Several comments are concerned by the difficulty of matching the transformed goods on exit with the goods as they return to ensure the correct adjustments are made to merchandise trade figures. Some countries would prefer to continue to impute change of ownership. One other mentioned disruption in the historical time series of input-output tables with the change of principle of recording.

50. *Considerations of the Intersecretariat Working Group*: The Intersecretariat Working Group recognizes that the recommendation affects the balance of payments and input-output accounts as well as national accounts, but sees it as an important step towards recording that will shed light on a kind of transaction that is increasingly important in a globalized economy. Guidance on issues of data collection and reconciliation with data sets that are useful in their own right will be a key. In that light, the Intersecretariat Working Group considers that the recommendation should be adopted.

D. Summary of the considerations of the Intersecretariat Working Group on National Accounts

51. In addition to the issue-specific considerations noted above, the Intersecretariat Working Group took into consideration several general, interrelated factors expected to affect the reception that may be accorded the recommendations for the update of the 1993 SNA. One factor is that national statistical offices and other statistical units that prepare national accounts often face budget constraints and increasing demands that require careful scrutiny of proposals that are a drain on resources. Another factor is that one of the demands is for international comparability of statistics, which, certainly in some parts of the world, has become a driving force. Yet another factor is the greater awareness of several elements related to implementation. One element is the awareness of the need for practical and sometimes even detailed guidance on implementation to supplement the SNA's general framework of the SNA. Reference is sometimes made to the different ways in which the recommendation to capitalize software was implemented in the 1990s and the effect that those differences had on the international comparability of certain key aggregates. Another element is the awareness of the different potential implementation schedules in different parts of the world, as is evident from a survey conducted by OECD.

52. The Intersecretariat Working Group carefully reviewed the country comments. It reached the conclusion that the set of recommendations it is bringing to the Statistical Commission is crucial to maintaining the relevance of the SNA for analysis and for policy formulation and monitoring. The Intersecretariat Working Group had been aware of the importance of guidance on implementation, and the comments from countries on the provisional recommendations firmly underlined that. The Intersecretariat Working Group is committed to providing that guidance; indeed, some work is already under way, for example in exploring what kinds of manuals may be needed to support SNA implementation. Further, the Intersecretariat Working Group confirms its intent to bring a strategy for implementation to the thirty-ninth session of the Commission, when the draft *1993 SNA, Rev.1* will be proposed for adoption by the Commission.

53. Thus, the Intersecretariat Working Group asks the Commission to adopt the recommendations as set out in the background document entitled *The Full Set of*

Consolidated Recommendations with the additional considerations on five issues described in section III.C, summarized as follows:

(a) **Research and development**: The Intersecretariat Working Group proposes adoption of the principle of treating research and development expenditure as fixed capital formation and the encouragement of focused work to implement that principle in a sound and internationally comparable way. The Intersecretariat Working Group will report periodically to the Statistical Commission on progress and indicate when widely accepted implementation guidelines are available;

(b) **Cost of capital services**: The Intersecretariat Working Group proposes for adoption the recommendation incorporated in the *Consolidated Recommendations* with the understanding that the identification of the cost of capital for market producers is voluntary within the recommended supplementary accounts;

(c) **Government and other non-market producers: cost of capital of own assets**: The Intersecretariat Working Group is undertaking electronic consultation among members of the Advisory Expert Group that will be the basis of further consideration by the Intersecretariat Working Group of the recommendation to be provided to the Commission in a separate conference room paper as an addendum to the present report;

(d) **Military expenditure**: The Intersecretariat Working Group considers the accounting principles underlying the recommendation to be important and the recommendation in the *Consolidated Recommendations* should be adopted to maintain the analytical relevance of the SNA in a changing global security environment;

(e) **Goods for processing**: The Intersecretariat Working Group sees the recommendation in the *Consolidated Recommendations* as an important step towards recording a kind of transaction that is increasingly significant in a globalized economy and considers that the recommendation should be adopted.

Document 2: Supplement to the ISWGNA Report

1. In its report (E/CN.3/2007/7), the Inter-secretariat Working Group on National Accounts asked the Commission to adopt the recommendations as set out in the background document entitled The Full Set of Consolidated Recommendations with additional considerations on five issues. On four of the five issues, it presented these considerations. On the fifth, Government and other non-market producers: cost of capital of own assets, it wished to undertake further consultations before coming to the Statistical Commission with its considerations.

2. The further consultations were completed. The arguments were much the same as summarized in paragraphs 38 and 39 of the ISWGNA report. In each round of consultation, views have been divided. On the one hand, a majority of countries that responded within the

SNA update consultation process supports the principle that a return to capital should be included when non-market output is estimated by the sum of costs. A large majority of the AEG members who responded in the recent e-consultation supported the original recommendation to include an estimate of the return to capital in the measurement of non market output. They recognize that some determinants, especially the rate of return to use, are the subject of on-going research. Moreover, the methodology should consider the case where basic data are sparse or of poor quality as well as the optimal case of data availability. On the other hand, other countries argue that the issue of a return to capital on own assets used in non-market production raises substantial conceptual and implementation difficulties, which may hamper comparability across countries and groups of countries. Those that hold this view also indicate the need for further research.

3. Without doubt, a consensus would be preferable, but consensus has not emerged despite considerable effort. The ISWGNA notes that, for some countries, the issue is seen as critical to the relevance of their accounts in order to avoid a conceptual inconsistency in the SNA between market and non market estimates and they are prepared to move ahead. Some other countries favor more caution for conceptual and practical reasons. In trying to reconcile these positions, the ISWGNA brings to the Statistical Commission the view that more research should be undertaken in a manner that deals squarely with the unresolved points, tests as conclusively as possible the impact on GDP, and takes into account the differing degrees of data availability around the world. The ISWGNA is prepared to coordinate this research and to report to the Statistical Commission on progress. In the meantime, the updated 1993 SNA will recommend that countries continue with the current 1993 SNA's recommendations regarding the estimation of non-market output.

Document 3: Decision 6: National Accounts (unedited draft text pending approval by the rapporteur)

The Commission:

(a) Commended the Intersecretariat Working Group on National Accounts (ISWGNA) for completing the recommendations of the 44 issues identified for the update in a transparent manner, involving the global statistical community in accordance with the agreed time table.

(b) Adopted the package of ISWGNA recommendations on the update of the 1993 SNA presented by the ISWGNA to the Commission as set out in the background document *Full Set of Consolidated Recommendations* with additional considerations on five issues as set out in the Report of the Intersecretariat Working Group on National Accounts in section III.C and III.D and its supplementary report.

(c) Emphasized the need to establish guidelines on when to recognize pension entitlements in the core set of accounts, the need for additional research on the estimation of research and development as capital formation, provide guidelines taking into consideration the impact of the treatment of goods for processing on input-output analysis and the recording of international trade and elaborate on the guidelines on the integrated measurement of the informal sector within the national accounts.

(d) Reiterated its request to the ISWGNA to submit a strategy for the implementation of the SNA to the Commission in 2008, based on regional consultations in 2007, reflecting user perspectives and taking into account the different levels of SNA implementation across countries.

(e) Took note that this update retains the framework of the 1993 SNA and therefore encouraged countries to continue with the implementation of the 1993 SNA.

(f) Requested the ISWGNA to act on the concerns raised by the Commission to support countries in establishing a basic data collection strategy for the implementation of the SNA, the integration of the informal sector in the national accounts and the need for capacity building to implement the strategy and recommendations.

(g) Underlined the importance of preparing handbooks and manuals with implementation guidance and to enhance capacity building through training and technical assistance.

(h) Took note of the proposal by the ISWGNA to present the draft of the update of the 1993 SNA in two volumes to the Commission; in 2008 volume one, comprising a full set of chapters that represents the SNA framework in terms of accounting conventions, the accounts, and the integration of the accounts and incorporates the adopted recommendations on the 44 issues; and in 2009 volume two, comprising interpretations of the accounts and extensions such as satellite accounts.

(i) Requested the ISWGNA to continue reporting to the Commission the progress on the implementation of the SNA by countries, focusing on scope, coverage and quality.

(j) Supported the formation of a high-level group to examine long-term implications of SNA and possible future changes, taking into consideration rapid changes of the global economy; the need to balance users' needs, theory and the ability to collect primary data, the choice between imputed versus observable transactions, and the role of satellite accounts vis-à-vis the core accounts. The Commission requested the ISWGNA to establish this high-level group with representatives from countries to be included.