Economic and Social Council

Distr.: General
17 December 2014

Original: English

Statistical Commission
Forty-sixth session
3-6 March 2015
Item 3 (g) of the provisional agenda
Items for discussion and decision: international
trade and economic globalization statistics

Report of the Friends of the Chair group on the measurement of international trade and economic globalization

Note by the Secretary-General

In accordance with Economic and Social Council decision 2014/219, the Secretary-General has the honour to transmit the report of the Friends of the Chair group on the measurement of international trade and economic globalization. The group, established by the Statistical Commission at its forty-fourth session, was tasked with preparing a concept paper on the measurement framework for international trade and economic globalization and with recommending an improved coordination mechanism for that area of work. The report provides an overview and assessment of the conceptual, compilation and analytical issues that have emerged in respect of the prominence and governance of global value chains in international production and trade. Those global production networks cause economic, environmental and social interdependencies and have an impact on sustainable development in both developed and developing countries. The group concludes that a system of extended international and global accounts is needed to address the measurement issues in a coherent way. The Commission is invited to express its views on the proposals provided in the final section of the report.

Please recycle

Report of the Friends of the Chair group on the measurement of international trade and economic globalization

I. Introduction

1.   In accordance with decision 45/106, adopted by the Statistical Commission at its forty-fifty session, the present report is submitted by the Friends of the Chair group on the measurement of international trade and economic globalization and contains proposals for a conceptual framework, programme of work and coordination mechanism in that regard. In the report, the group addresses the topics raised by the Commission in decision 45/106, such as asymmetries in bilateral trade statistics, the role of small and medium-sized enterprises, the situation of developing and least developed countries and the burden of additional data sources. The report provides an overview of measurement issues (section II) and a summary (section III) of the further discussions on those issues in the context of the recent International Conference on the Measurement of Trade And Economic Globalization held in Aguascalientes, Mexico, from 29 September to 1 October 2014. It also provides information on the outcome of the group meeting (section IV) that was convened on 2 October 2014. It contains proposals regarding the future work programme in this area and a proposal for its coordination (section V).

2.   Today, the production of most goods and services is organized through a complex network of tasks that are geographically fragmented among many countries, making the countries involved in the arrangements become regionally and globally interdependent. For example, the textile industry has a global value chain comprising designers in cities such as Shanghai (China), Milan (Italy) or New York; cotton farmers in countries such as Brazil, India, Turkey or the United States of America; and spinning, weaving, cutting and sewing factories on all five continents. Automotive industries have very diversified supply networks involving small, medium-sized and large firms in many countries and assembly lines in Brazil, China, Mexico or Morocco. Many other industries, such as the computer electronics and medical equipment industries, are equally diversified and geographically fragmented.

3.   Large enterprises are not the only ones involved in the production networks; small and medium-sized firms also have their stake in the value chains. The patterns of production and trade have, in large measure, not only been driven by the declining costs of trade, such as reductions in tariffs and behind-the-border costs, but also, to a lesser extent, by the emergence of new technologies in transport, and in information and communications. These structural changes are facilitated by foreign direct investment. The fragmentation of production concerns not only goods but also services. Back office services or business process outsourcing, for example, have become significant sources of income- and employment-generation for countries such as India and the Philippines.

4.   Enterprises in many countries contribute to the global value chains of specific industries, which create international economic, social and environmental interdependencies. In such countries, value-added and employment are created and natural resources are used. In other words, the traditional model of specific goods being produced and traded by just one country has been transformed into a new interdependent system of production, trade and foreign direct investment that is

driven by locational advantages and efficiency gains through domestic and international sourcing of intermediate inputs, either within or outside the boundaries of the firm. It is that newly emerged international economic integration of production and trade and their governance that has to be better measured and analysed, including in respect of the benefits, costs and risks associated with engaging in global value chains.

5.   Traditional statistics of international trade do not provide all the necessary data about the composition of the production and about value chains. In particular, they do not directly provide information about the foreign content of exports or the domestic content of imports resulting from the fragmentation of the global production of goods and services; they also do not provide information about the sectoral origin of the domestic value added that is exported. Some case studies trace the various stages of the global chain from the upstream raw materials to the downstream assembly lines and customer care services. While such studies provide critical evidence of geographical fragmentation and the governance of global value chains, they do not illustrate the full measure of the direct and indirect contributions and cross-country interdependencies involved in the creation of value added and jobs or of the use of natural resources.

6.   Policymakers and trade negotiators, in developed as well as developing and least developed countries, need to understand the cross-country benefits and risks by being able to "look through" the global value chains and see the specific contributions other countries are making to production networks involving their domestic firms. The new trade patterns that have emerged with trade in intermediates, foreign direct investment and governance structures in production networks are more complex than what traditional statistics tend to suggest, calling for a new generation of indicators.

7.   Improved statistics should promote further understanding of the role of the external sector in an economy, the openness of its domestic and foreign markets and the impact of openness on social, economic and environmental upgrading, including the level and quality of employment. There are a number of areas where the current statistical information system fails to meet those needs, including at the most basic level. International trade statistics both in goods and services have been developed over the past decades without systematic cross-checking of reported trade among trading partners, leading often to large asymmetries in bilateral trade statistics. The increasing rise of global value chains has accelerated the need to address these issues since the absence of coherent trade data will prompt uncertainties and hamper policymaking.

8.   However, this is not the only area where more is needed. An enhanced understanding of the role of investment (foreign direct investment) and of the value created by, and associated impacts of, foreign affiliates at home and abroad is crucial to better informing policymakers, especially given the growing dominance of multinational enterprises in global value chains and the growing contribution of services, such as intellectual property, where significant measurement challenges remain. Information is also required about the characteristics of firms engaged in exports and imports, in particular information regarding their global business strategies, modes of production ("factoryless" processing) and outsourcing of business functions. In that regard, a broader set of statistics on multinational enterprises is also needed.

9.   Statistics that more clearly reveal the full extent of the interconnectedness involved, such as those that can be developed through global supply and use tables or a global input-output table, are important additions to the suite of indicators needed. Advances can certainly be made by better exploiting national supply and use tables and input-output tables, which can be used to illustrate how industries add value to the chain, how many jobs are involved and how natural resources are used. However, global tables provide an ability to see the whole chain and better understand how upstream and downstream industries in different countries interact, therefore providing a better understanding of who really trades with whom. While there are challenges in the construction of global supply and use tables, much of what is needed can be achieved by improving what already exists (notably, bilateral trade statistics and data that better reflect the characteristics of exporting and importing firms).

10.   In all of those areas, it is clear that more and higher quality data is needed in developed, emerging and developing economies alike: interconnected economies require interconnected statistics, and all economies can benefit from a better understanding of those relationships. Smaller developing and least developed economies need to understand their specific opportunities and risks in entering global value chains, or how their positions in a global value chain can be economically and socially upgraded by expanding more of their business operations across borders. Understanding such opportunities would significantly advance the formulation of industrial policies on the basis of a sustainable development strategy.

11.   One of the ways to meet the specific needs of developing countries is to work not only on global supply and use tables but also on some of their subsets, such as regional or subregional supply and use tables, where the importance of the position of a developing country's industry inside a regional production network is more recognizable. It is important to remember, however, that supply and use tables always present a macro view and that additional ways of investigating global value chains are therefore essential in order for a micro perspective to be given, such as through the development of data on business functions and on global value chain mappings. In such an investigation, particular criteria for measuring the benefits and risks for smaller developing countries should be made explicit, including specific links to the generation of income and jobs and to the use of natural resources by small and medium-sized enterprises in, for instance, agriculture, manufacturing and services.

12.   While many international task teams are working in those fields on various underlying measurement issues, the lack of international standards for an overarching conceptual framework and the need for an improved global coordination mechanism have been recognized. In its decision 44/106 (see E/2013/24), the Commission therefore agreed to the creation of a friends of the chair group tasked with preparing a concept paper on the scope and content of a framework for the measurement of international trade and economic globalization and on an appropriate mechanism for coordination. The related reports submitted to the Commission in 2013 (E/CN.3/2013/7) and 2014 (E/CN.3/2014/7) and provided an overview of many measurement issues but did not contain a proposal for a specific framework to address the issues. The present report makes a concrete proposal for the development of a system of extended international and global accounts, which will give direction to solving a number of the measurement issues on a priority basis.

II. Overview of the measurement issues

13.   During its first meeting, held in New York from 6 to 8 November 2013, the Friends of the Chair group reached an agreement on the scope of the statistics in the area of international trade and economic globalization and the related initial set of measurement issues. The scope covered all basic statistics that are primarily intended to provide information about cross-border transactions in goods, services, income and financial flows, as well as the corresponding more aggregated macroeconomic statistics, such as those used in supply and use tables. In principle, those statistics comprised a full set of integrated trade and economic statistics, including their economic-financial, socioeconomic and environmental-economic dimensions. Moreover, the supply and use tables and input-output tables were identified as useful organizing instruments. The basic, sectoral and macroeconomic statistics constituting the supply and use tables were complemented by relevant analytical tools and related indicators, such as industry-specific indicators derived from global value chain mapping, firm-based indicators by trade characteristics or the trade in value added estimates and estimates for the use of natural resources.

14.   Pursuant to decision 44/106, the Friends of the Chair group was also requested to present a proposal for a coordination mechanism for the domain of international trade and economic globalization. The group considered both intergovernmental and inter-agency mechanisms, and concluded, at its meeting held in November 2013, that a committee of experts, as an intergovernmental body, could be considered a coordinating mechanism (see E/CN.3/2014/7). Members formally appointed to such committees are usually the senior managers of national statistical agencies, international organizations or regional organizations, given the strategic and organizational nature of the mechanism. By contrast, a United Nations expert group or city group has a technical orientation, and its members would therefore be technical experts in specific fields. On the one hand, intergovernmental bodies are country-led groups, where country representation is geographically balanced for both developed and developing economies. On the other hand, inter-agency working groups or task forces are set up first and foremost to enhance coordination and cooperation among international organizations working in the same field. In the context of an inter-agency working group, country experts can be asked to provide specific advice, but are not part of the decision-making structure and are not members of the group. As it stated in its previous report to the Commission, the Friends of the Chair group did not reach a conclusion on the coordination mechanism, although, at the time, the group was of the opinion that the mechanism should be a country-led mechanism (E/CN.3/2014/7, para. 23).

A.   Schematic framework

15.   Also at its meeting held in November 2013, the Friends of the Chair proposed a schematic framework to identify extensions that go either into greater depth (that is, from macrostatistics to microstatistics) or greater breadth (that is, into internationalization and globalization studies) in respect of the scope of the existing core accounts. The breadth refers to the distinction between internationalization statistics, which national offices can compile from their bilateral relations, and globalization statistics, which concern data compiled by combining statistics from

two or more countries or data involving the statistics of all countries, for example, in the case of global supply and use tables.

16.   The extensions cover items that have often found their way into international standards as recommended supplementary items or as new initiatives proposed by national policy departments, researchers or international agencies. The items often have emerged in response to the recognition that the core accounts simply do not address all of the issues associated with internationalization and globalization. Examples of such extensions are statistics on modes of supply in trade in services, alternative sectoral aggregations and details in supply and use tables, global supply and use tables, or detailed outward foreign affiliates statistics.

17.   The annex to the present report contains a generic schematic framework that allows for the classification of data initiatives related to cross-border activity, and internationalization and globalization initiatives. Initiatives are classified in the framework in terms of existing core statistics, enhancements or extensions in the context of the traditional domestic and cross-border statistics or internationalization-globalization extensions. The initiatives are broken down further between aggregate statistics or microdata-based statistics, the latter clearly subject to confidentiality restrictions. It also indicates whether the initiatives are under the purview of national statistical offices and provides examples of them.

18.   The schematic framework could be used for statistical purposes, such as global assessments of national statistical practices (including progress, frequency and timeliness) in order to better understand the status of statistical development by country; and the feasibility of collecting statistics and indicators and of developing supply and use tables with sufficient detail for trade and globalization purposes. It could also be used for policy purposes by categorizing the main policy questions associated with national trade and globalization initiatives — both present and emerging — so as to better understand and prioritize work, at the national and international levels. Last, it could be used to map the ongoing work of international working groups and task forces in order to better understand their interrelations and identify overlaps and gaps in their mandates.

B.   List of issues for further consideration

19.   In June 2014, a consolidated list of 72 potential conceptual, compilation, indicator or analysis issues was compiled. The issues were drawn from the existing methodological standards, such as the *System of National Accounts 2008* (2008 SNA), the *Balance of Payments and International Investment Position Manual, Sixth Edition* or the *OECD Benchmark Definition of Foreign Direct Investment, Fourth Edition*, and from the recent publications of the Economic Commission for Europe (ECE) on the impact of globalization on national accounts and on measuring global production. The Friends of the Chair group was asked whether those issues would be relevant for the future programme of work on measuring international trade and economic globalization.

20.   In relation to extended international and global accounts, the Friends of the Chair group identified that further attention needed to be given to the measurement of direct investment, transactions between affiliated parties, charges for the use of intellectual property, merchanting of services, multinational enterprise statistics, "factoryless" goods producers and outsourcing on a fee or contract basis, while

building on and implementing the recommendations and guidelines provided in the ECE "Guide to measuring global production".

21. In addition to the above-mentioned conceptual issues, the following compilation issues were singled out for further consideration: compilation of statistics on multinational enterprises and foreign affiliates, identification of ultimate country of origin and destination for foreign direct investment, allocation of income within multinational enterprises and outsourcing of business functions within global value chains. A significant area of work highlighted by the group was on bilateral trade asymmetries in goods and services (and on the allocation of imports to intermediate and final users) as well as on bilateral asymmetries in foreign direct investment, which are important contributions in their own right but also as important inputs to the compilation of global supply and use tables.

III. Outcomes of the International Conference on the Measurement of Trade and Economic Globalization

22. The second meeting of the Friends of the Chair group was held in Aguascalientes on 2 October 2014, directly after the International Conference on the Measurement of Trade and Economic Globalization. The Conference provided insights into the purpose (by articulating the policy needs and perspectives) and objective (in terms of measurement) of ongoing efforts in the field of trade and globalization. The Conference highlighted the interconnectedness of national economies through the geographical fragmentation of the production of goods and services and the impact on the creation of jobs, the generation of income and the corresponding use of natural resources (both in terms of extraction and consumption).

23. The three discussion papers, which the Statistics Division of the Department of Economic and Social Affairs of the United Nations had commissioned for the Conference, also provided input for the meeting of the Friends of the Chair group, in respect of consolidating the conceptual and compilation issues, namely, on (a) a system of extended international accounts; (b) new ways of differentiating among enterprises within industry categories based on their involvement in global value chains; and (c) the asymmetries that exist in bilateral merchandise trade statistics.

24. In the discussion paper entitled "Implications and challenges associated with developing a new system of extended international accounts",[1] the author argued that the most important implication of such an integrated system would be significant improvements in the relevance and accuracy of the economic-financial statistics used by public and private decision-makers. The system would also contribute to improving the accuracy, efficiency and international comparability of the existing system of economic statistics through the reconciliation of such data as bilateral and global trade balances, export and import prices, assets and liabilities, data exchanges, the use of administrative and other "big data" and common global business registers. The author also suggested that such an extended system would need to appropriately address significant challenges, such as minimizing additional data collection cost sand respondent burdens, and maximizing the use of administrative data sources through record linkage initiatives. He argued that the statistical agencies would have to work

_____

[1] Available from http://unstats.un.org/unsd/trade/events/2014/mexico/default.asp.

with businesses and Governments in harmonizing accounting systems for the measurement of statistics related to global value chains.

25. The International Conference addressed many of the conceptual and compilation issues raised by the paper, such as on measuring economic ownership and control in global production networks; transfers associated with intellectual property products; the need for a global register of enterprise groups and the identification of the ultimate controlling parent; the classification issues related to economic activity and business functions to redress firm heterogeneity among firms engaged and/or not engaged in global value chains; and the influence of firm heterogeneity in the national economy on the construction of supply and use tables. The author also identified the need to address more urgently the existing asymmetries in merchandise trade, trade in services and foreign direct investment for the purposes of compiling global supply and use tables. Finally, emphasis was put on furthering the work on microdata linking, including on trade by enterprise characteristics and trade in services by enterprise characteristics.

26. The second discussion paper, entitled "Combining the global value chain and global input-output approaches",[1] explored best how to combine the approaches of the often detailed studies on global value chains and the more macro-level analysis of trade in value-added estimates. The author proposed searching for that link by extending the International Standard Industrial Classification (ISIC). A promising new approach would involve using the value chain reference model to establish alternative aggregations of basic ISIC categories. Those aggregations should be based on enterprise activities in the offshoring of business functions, the use of intermediate inputs, the kinds of basic classes of goods produced and the variety of end markets. The reason for making those distinctions is that it is not possible, in the current ISIC, to distinguish the significant differences between enterprises that operate domestically and those that operate globally. The harmonization of enterprises into groups of similar make-up would significantly improve the accounting structure of the supply and use tables for the analysis of global value chains; harmonization could be achieved in terms of industry, supply chain position, end markets and the extent of the use of business functions being outsourced.

27. The third discussion paper, entitled "Asymmetries in official international trade statistics and analysis of globalization",[1] provided background information on ways to improve existing asymmetries in international merchandise trade statistics. The author indicated that, from a conceptual perspective, compiling trade data by the country of consignment offered the possibility of obtaining consistent statistics and reasonable comparability since it promoted recording the same transactions by direct importing and exporting countries. The author argued that the approach would result in greater symmetry of data since goods recorded as imports by one country would be recorded as exports by another. That implied, however, that the documentation defining the consignment agreement was available and used by the trade data compilers of both countries. He stressed that the attribution of imports to the country of consignment created a set of trade statistics with different economic meaning than the existing attribution of imports by the country of origin. Other adjustments to merchandise trade statistics, on valuation or on differences in trading systems, were more straightforward to address.

IV. Outcomes of the Meeting of the Friends of the Chair group in 2014

28. The Friends of the Chair group convened its meeting immediately after the International Conference in order to build upon the outcomes of the Conference. The group was in agreement that the medium-term programme of work should focus on:

(a) Drafting a handbook on a system of extended international and global accounts, where the term "international" implied direct bilateral economic relations and "global" implies direct and indirect multilateral economic relations;

(b) Promoting and advancing the creation of a global enterprise group register, while assessing the challenges and building on the experience of the EuroGroups Register of multinational enterprise groups, in order to produce high quality statistics on global business activities, such as foreign affiliates statistics and foreign direct investment;

(c) Improving the measurement of firm heterogeneity for global value chain purposes by further developing a classification for business functions and by refining enterprise classifications based on microdata linking;

(d) Addressing asymmetries in bilateral trade and investment;

(e) Mainstreaming the development of recurrent global supply and use tables and input-output tables, building on work done by OECD, to expand the coverage of the OECD-World Trade Organization database on trade in value added.

29. The Friends of the Chair group suggested that the immediate analytical and policy needs for measuring interdependencies and risk across countries would necessarily lead to the more formal development of a system of extended international and global accounts. The group identified that the first task would be to complete the articulation of the overall conceptual framework, building upon the existing frameworks of the 2008 SNA and the sixth edition of the International Monetary Fund (IMF) *Balance of Payments and International Investment Position Manual*. Such a framework would clearly need to develop a coherent picture of trade- and investment-related statistics, global supply and use tables, and international real and financial accounts. Another task would be to formalize the description of the scope and issues related to extended international and global accounts.

30. The schematic framework would help to give structure to the development of the extended system. As shown in the annex to the present report, the distinctions are broken down by existing and new macroaccount statistics, on the one hand, and existing and new microstatistics, on the other. The system of extended international and global accounts could start from the schematic framework and then build upon the accounts, which should provide insights into the economic and related interdependencies of countries.

31. Wherever possible the work would be conducted in a coordinated fashion, capitalizing upon and supporting, rather than duplicating, ongoing initiatives. For example, most of the work associated with developing integrated financial accounts should probably remain with IMF, the Group of 20, central banks and finance ministries charged with addressing the measurement gaps in the cross-border risks revealed by the financial crisis. However, national accountants would need to play an important role in harmonizing such data and helping, where possible, to ensure

that such extended international financial accounts can become an effective tool in an extended and integrated set of macroeconomic international accounts.

32. In respect of the coordination mechanism, the Friends of the Chair group agreed to the establishment of an interagency mechanism, such as that currently used within the national accounts area, namely, an inter-secretariat working group for trade and economic globalization. The working group would monitor and coordinate the international work programme in that field. The group also agreed to propose the creation by the Commission of a separate expert group, specifically mandated to develop a handbook for a system of extended international and global accounts.

V. Points for discussion

33. The Commission is invited to express its views on:

(a) The development of a system of extended international and global accounts as the overarching measurement framework for international trade and economic globalization;

(b) The establishment by the Commission of an expert group specifically tasked with the development of a handbook on a system of extended international and global accounts;

(c) A programme of work for the measurement of international trade and globalization focusing on the following priorities:

(i) Promoting and advancing the creation of a global enterprise group register, while assessing the challenges and building on the experience of the EuroGroups Register for producing high quality statistics on global business activities;

(ii) Improving the measurement of firm heterogeneity for global value chain purposes by further developing a classification for business functions and by refining enterprise classifications based on microdata linking;

(iii) Addressing asymmetries in bilateral trade and investment;

(iv) Mainstreaming the development of recurrent global supply and use tables and input-output tables and building on work undertaken by OECD, in order to expand the coverage of the OECD-WTO database on trade in value added;

(d) The establishment of an inter-secretariat working group for the measurement of international trade and globalization with the mandate to coordinate the programme of work.

Annex

Schematic classification for measuring international activities, internationalization and globalization, with select examples

Scope	Statistical dimension	Existing and new aggregate statistics	Existing and new microdata-based statistics and analysis (record linkages); confidentiality at national statistical offices
Existing core statistics and developments	Domestic and cross-border (under national statistical systems)	Core national and international accounts, merchandise trade and related business statistics, including development, interpretation and implementation of core recommendations of international manuals, such as measurement of global production, including "factoryless" goods production	Microdata-based estimates of domestic and cross-border processing in manufacturing
Enhancements to core statistics	Domestic and cross-border (under national statistical systems)	Enhanced country bilateral data confrontation; implementation of selected recommended items, such as modes of supply for trade in services; additional details in supply and use tables, trade and foreign direct investment	Microdata-based estimates, including of value added, trade and investment, and assets
Internationalization extensions	Domestic and cross-border (under national statistical systems)	Country measures of trade in value added; inward foreign affiliates statistics, including employment, sales, trade and foreign ownership and control statistics; outward foreign affiliates statistics, including employment, sales, trade and control; statistics on activities of multinational enterprises	Inward/outward foreign affiliates statistics and statistics on activities of multinational enterprises, including firm heterogeneity (export intensities, firm size, productivity); international trade-investment-business statistics; insourcing and outsourcing of business functions

Scope	Statistical dimension	Existing and new aggregate statistics	Existing and new microdata-based statistics and analysis (record linkages); confidentiality at national statistical offices
Globalization extensions — summation of country activities	Beyond cross-border (typically not under national statistical systems)	Global supply and use tables; Organization for Economic Cooperation and Development-World Trade Organization trade in added value; International Monetary Fund coordinated direct investment surveys and coordinated portfolio investment surveys; aggregate tables built from country microdata studies; globally consolidated multinational enterprises, including activities, financial statements and risk exposures	
Globalization extensions	Beyond cross-border (typically not under national statistical systems)	Analysis by researchers of global value chains	Analysis by researchers of microdata-based global value chains