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Feasibility of Compiling and Disseminating a G-20 International Trade Aggregate

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Background

1. At its meeting in March 2014, the Inter-Agency Group on Economic and Financial Statistics (IAG) requested that the IMF undertake a feasibility study on compiling and disseminating a quarterly G20¹ aggregate for international trade (goods and services) and indicate the way forward. G20 members represent around 85 percent of global gross domestic product and around 75 percent of global trade.² The goal is to advance work to disseminate the new trade aggregate on the Principal Global Indicators (PGI) website (http://www.principalglobalindicators.org/pages/default.aspx).

2. For the information of the Committee, the remainder of this paper presents results from a preliminary feasibility study undertaken by the IMF and presented at the IAG's meeting in June 2014, as well as a summary of the discussion by the IAG.

The preliminary feasibility study suggested that the best option for generating quarterly G20 aggregates of total exports and total imports of goods and services would be to use the IMF's balance of payments database, provided some existing constraints were resolved.

IMF's Balance of Payments Data

3. *Coverage*: The balance of payments database maintained by the IMF includes quarterly goods and services data for all G20 economies. This database could support compilation of aggregate trade indicators (i.e., total exports and total imports of goods and services for G20 members) as well as derived indicators (balance on goods and services trade; ratio of the trade balance to GDP; etc.). The advantage of this source is its good quality of data, which follow *BPM6*,³ and its complete coverage of goods and services. As of June 2014, only eight out of the 43 members covered by the G20 group⁴ implemented *BPM6*; the IMF transforms these data to a *BPM6* presentational basis and also adjusts the data for *BPM6* changes in methodology (including in the treatment of goods for processing without any

¹ G20 countries include 19 individual countries—Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russian Federation, Saudi Arabia, South Africa, Turkey, United Kingdom, United States—and the European Union (EU). The EU currently consists of 28 member countries (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and the United Kingdom).

² Figures are based on data reported in the IMF's International Financial Statistics and on PGI.

³ IMF released data according to *BPM6* with observations from 2005 onward.

⁴ These are the European Union (28 member countries) plus the 15 other individual country members of the G20.

ownership change). A significant number of G20 economies, including all EU members, are expected to begin reporting on a *BPM6* basis during 2014.

4. *Timeliness*: Data are reported to the IMF with various lags. From the IMF's tracking log (as of May 7, 2014) covering the most recent five reported quarters, out of the 43 member countries covered by the G20 group, nine submit balance of payments data with a lag of greater than three months, of which five exceed four months. The latter have a significant weight in the G20 group, representing about one-fourth of total exports in 2012.

5. Compilation to dissemination: A compilation to dissemination process to produce a G20 trade aggregate using the IMF's balance of payments database should consider: (i) preparation of the input data; (ii) generation and review of the aggregate, including the methods for compiling the aggregate to fill data gaps for late reporting; and (iii) compilation and dissemination of related metadata. The IMF would redouble collaborative efforts with G20 economies to encourage them to report goods and services trade data in the IMF's balance of payments database on a timely basis. This also could be envisaged possibly through SDDS subscription by all G20 members, which would require balance of payments data dissemination within a three-month lag. Considering the significant weight of late reporters and also of *BPM5* basis reporters in the G20 group, the IMF does not propose disseminating a G20 trade aggregate based on balance of payments data until more G20 countries adopt *BPM6* and the lag in reporting is reduced. Once reporting delays have been reduced and data are reported on a *BPM6* basis, a G20 aggregate might be compiled quarterly and disseminated with four months timeliness from the reference period.

Other Data Sources Explored Under This Feasibility Study

6. The study also explored other data sources with a view to assess the coverage, periodicity and timeliness of these alternative sources, as well as the amount of work required to adjust the estimates for use in compiling a G20 trade aggregate. The three other options explored were: (1) WTO merchandise trade database and WTO-UNCTAD services trade database; (2) merchandise export and import data for the G20 vis-à-vis the rest of the world sourced from IMF's Direction of Trade Statistics database (DOTS); and (3) OECD databases.

WTO merchandise trade database and WTO-UNCTAD services trade database

7. *Coverage*: The merchandise trade database maintained by the WTO contains the most current quarterly merchandise exports and imports data⁵ for G20 members and do not

⁵ Monthly data (converted to US dollars, where applicable, by using the period average exchange rates as disseminated in the IFS) are released for all G20 members, except Saudi Arabia, for which the WTO only releases quarterly merchandise trade data. Partial monthly merchandise trade values for Saudi Arabia are

include gap-filling estimates. Merchandise trade values are sourced, as applicable, directly from the relevant national data sources, or indirectly from Eurostat (for the European countries), the Global Trade Atlas database, or the IMF's *International Financial Statistics* (*IFS*). With regard to the services trade component, the UNCTAD-WTO database includes quarterly totals for "commercial services"⁶ (i.e., total services minus government not included elsewhere), and omits data for government services.

8. *Timeliness*: The database is updated daily, and draws on data that follow the SDDS advance release calendars for each country. WTO's services trade data are generally published around 90–100 days after the reference quarter (because of the availability/publication of data for some of the large economies, including the EU aggregate).

9. *Compilation to dissemination*: These databases are maintained by the WTO for merchandise and UNCTAD-WTO for services. A significant amount of work could be needed to collect and process the input data and to generate the G20 aggregates. Also, the WTO trade data on services would have to be adjusted for coverage (assuming coverage of government services is desired), a process that could require significant resources and ongoing consultation with the WTO. In any case, collaboration with the WTO should be coordinated with IAG agencies, perhaps facilitated by the IMF.

IMF's Direction of Trade Statistics (DOTS)

10. *Coverage*: The quarterly issue of the DOTS provides the values of merchandise exports and imports disaggregated according to their most important trading partners. The data omit services. However, these data also could serve as inputs to construct quarterly merchandise exports and imports of the G20 versus the rest of the world. The database includes data reported with various periodicities and timeliness, including monthly data for virtually all advanced countries and a number of developing economies. Given the uneven availability of partner country data, mirror estimates are compiled for the countries submitting less current data.

11. *Timeliness:* Most of the G20 economies submit monthly data for the DOTS with a lag of about four months or less, however, a couple do not report these data (Argentina and Saudi Arabia) and one reports with a lower frequency (South Africa reports quarterly data with an annual frequency). Therefore, quarterly merchandise exports and imports of the G20 versus

available on its website. These exclude oil exports. Export values including oil are available only quarterly, from www.sama.gov.sa. Merchandise trade data released on the website (http://www.sama.gov.sa. Merchandise trade data released on the website (http://www.wto.org/english/res_e/statis_e/short_term_stats_e.htm) cover the period 2005 onwards; however, longer series may be available in other WTO databases.

⁶ Services trade data released on the website cover the period 2006 onwards; however, longer series may be available in the WTO-UNCTAD database.

the rest of the world could be compiled with a four-month lag, but data for South Africa would need to be estimated each quarter. Depending on the time lag considered, these aggregates would necessarily entail a certain (perhaps large) degree of estimation; the shorter the lag and the lower the number of reporting economies, the higher the degree of mirror data estimation.

12. *Compilation to dissemination:* Setting up a quarterly G20 trade aggregate would entail compilation programming and is estimated to take about one month of IMF staff time. This would put in place the program needed to estimate the mirror data for the missing figures. It is possible to derive and update the merchandise aggregates for G20 trade on a monthly basis; however, this would require a substantial amount of estimation that would vary over time. The G20 aggregates' reliability would also depend on the frequency of reporting by the members and the size of revisions over time. The mirror estimates are compiled by applying a conversion cif-fob factor of 10 percent. Data are converted to US dollars in cases where they are reported in national currencies.⁷ Once such a program is in place, the allocation of staff resources should take into account the (eventual) regular revision of the aggregates before their publication. However, a main drawback of this option is that it only covers merchandise trade data, not services trade.

OECD trade in merchandise and services

13. *Coverage:* The OECD merchandise trade and trade in services database (Main Economic Indicators) includes data for some, but not all, G20 economies, which is sourced from national authorities' websites, Eurostat, and the WTO.

14. *Timeliness:* Monthly and quarterly data are updated according to the availability from the sources. Some countries, such as the BRICS, have longer lags. The time series date back at least to 1999 (but only to 2007 on the web); with some countries reporting much longer time series.

15. *Compilation to dissemination:* A significant amount of work could be needed to collect and process the input data and to generate the G20 aggregates. Users should be made aware of the limited coverage and lags in data reporting.

A Proposal to the IAG

16. Considering the above, the IMF proposed at the June 2014 IAG meeting to use the IMF's balance of payments database as the best option for generating a G20 trade aggregate of goods and services. However, it also indicated that due to data lags and the current mix of

⁷ For the euro area, data are received in Euros and converted to USD using the exchange rate provided by Eurostat.

BPM5/BPM6 data, it was not presently in a position to compile a reliable G20 trade aggregate. Compilation of a G20 aggregate with a quarterly frequency and a four months timeliness lag could be considered once reporting delays have been reduced and *BPM6* data were reported by additional economies.

Outcome from the IAG Meeting of June 2014

17. The options presented by the IMF were discussed during the meeting, and it was agreed that the IMF and the OECD would take a closer look into the issues of compiling a G20 trade (goods and services) aggregate and get back to the IAG with a firmer proposal by March 2015. The proposals should focus on: (i) concepts; (ii) coverage; (iii) data availability; and (iv) timeliness.

Question for the Committee

Do Committee members have any observations on the proposal to compile and disseminate a quarterly G20 trade (goods and services) aggregate?