



Special Series on Statistical Issues in Response to COVID-19

This is one of a series of notes produced by the Statistics Department to help members address the COVID-19 emergency. This note, drafted by the IMF, has been developed in conjunction with the price statistics experts from the Inter secretariat Working Group on National Accounts (Eurostat, International Monetary Fund, Organization for Economic Cooperation and Development, United Nations, and the World Bank). The views expressed in this note are those of IMF staff and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

National Accounts Statistics Continuity

The outbreak of COVID-19 (Coronavirus) and measures implemented to limit its spread could impact the routine compilation and dissemination of national accounts and their source data. Issues and challenges include increased non-response in surveys, the temporary closure of businesses, delays in sources and compilation, and restrictions on movement.

I. GENERAL OPERATIONAL ISSUES

To deal with partial/total closures or staff working remotely, national statistics offices (NSOs) should develop plans to ensure continued dissemination of national accounts and other statistics. In cases where these developments have not yet happened, there is an opportunity to plan for possible future developments. (Decisions to work remotely may occur at very short notice.) An increase in staff on sick leave is also a possibility. At the same time, users and data suppliers may also be facing the same issues.

For NSOs that are making plans or already have begun to work remotely, individual country circumstances will dictate remote work arrangements in practice. Some issues to consider include:

- Computer access – staff will need office laptops or home computers to work remotely.
- Software – laptops should be equipped with any necessary software and documents to support compilation.
- Data security – protocols developed to ensure data remain secure and confidentiality not at risk.
- Monitor IT capacity – prioritize releases and only essential staff should be allowed on the network.
- Designation of key staff (limited) needed to access headquarters to process and release the estimates.

- For countries that compile using Excel. Protocols should be developed to ensure final worksheets are shared with more than one staff to limit any problems resulting from equipment failure or illness if only one staff has access.
- Establish channels for communication – organize a messenger group (for example, WhatsApp, Viber, etc.) for staff to communicate.
- Data release – develop protocols for the remote approval and dissemination of data releases.

II. NATIONAL ACCOUNTS SOURCE DATA

National accounts staff should contact the major data sources to monitor factors such as delays and falling response rates. Where source data are collected via administrative processes, email, phone, or internet portals, data collection can continue. However, respondents may have reduced capacity to report and follow-up may become more difficult. Therefore, compilers should request only essential information required for the key aggregates. Furthermore, in some countries, governments are relaxing or providing extensions for submission/compliance of key administrative tax reports. As such, delays in source data should be expected and other imputation techniques need to be considered.

Collection should also be focused on key respondents and key industries impact by COVID-19. One alternative to the regular collection processes is to contact large (in terms of economic activity) respondents directly via telephone and see if they will complete the survey with you over the phone. In these cases, estimates of their activity are acceptable as they may not be able to provide precise figures. For example, while a firm may not be able to provide a precise figure of their sales for the quarter or month, they may be able to provide an indication of the percentage decline in sales. This information can be used to estimate the sales for the current period by multiplying this percentage against the previous period's sales figure.

When facing increased missing or late reporting, it is important to communicate with respondents to ensure continued cooperation and reporting. Usual imputation methods for missing questionnaires may need to be reassessed, in particular, “not reporting but operating” needs to be distinguished from “not reporting because no longer operating.” For example, if non-responders are normally estimated using trends from businesses in the same industry, this may distort the results if an unusually large proportion of non-respondents had closed operations. In these cases, the compiler may want to extrapolate results from a matched sample or alternatively introduce alternate data sources and methods. NSOs should make efforts to communicate with respondents to stress the importance of the continued dissemination of a reliable data.

Metadata on the number of missing respondents is good practice. These data are especially important given the current circumstances as they will enhance transparency and build user confidence.

III. NATIONAL ACCOUNTS COMPILATION

Delayed availability or lower quality of major data sources will raise the issue of whether the regular publication cycle needs to be delayed. Consultation with the main users as to their priorities is key, and delays should always be discussed and notified in advance. The circumstances may differ – for example, the required timeliness of annual national accounts may be inflexible if required as an input for budget preparation, but more flexible in other cases. Quarterly national accounts are time-critical, so compilers will need to consider how usual timeliness and quality will be affected.

Priority setting should be discussed so that key variables and metrics are emphasized, and secondary analytical information will be provided at a later date. Giving early indications of the extent of economic downturn and turnaround will be crucial in this period, so quarterly national accounts and other monthly and quarterly indicators will be in high demand.

It is essential to raise awareness of users about any increased range of uncertainty in the national accounts. Press releases and metadata should highlight any identified problems in the data sources. It would be useful to highlight the potential bias or error.

Particularly for the most recent quarter(s), quarterly national accounts have gaps in sources that require that some components are extrapolated or estimated using relationships with other series. At a time of unique and large economic disruption, some of these methods may rely on assumptions that are no longer valid. To the extent possible, assumptions should be reviewed and adjusted to be realistic for the current circumstances, to make the data more representative and less prone to future revision. One method that may become inappropriate is the use of two monthly estimates to represent the remaining month of the quarter, for example because the trends in January and February were entirely different to March. Using measured activity to extrapolate the informal sector may become misleading, if people laid off from the formal sector shift to informal operations.

If some data sources are unavailable or late, it may be desirable to investigate alternative sources. For example, it may be possible to use information on mobile money transactions, credit card transactions, website activity, and administrative records that have not been used previously. Ad hoc adjustments for modelled activity could be considered. Any new sources or methods would need to be tested and users notified of the change, especially if there is a possibility that the future revisions would be greater than normal due to these extraordinary circumstances. Hence, additional caution when interpreting current period trends. If the sources are so limited that it is decided they are insufficient to calculate quarterly GDP, it may still be possible to use the available indicators to produce a composite indicator as a backup for economic monitoring. Please see *A Monthly Indicator of Economic Growth for Low Income Countries*, IMF Working Paper 20/13.¹

Users may seek the assistance of national accounts compilers to quantify the effect of COVID-19 on economic developments. To the extent that some data sources may help identify the changes, this could be monitored, e.g., activities particularly affected such as health and tourism. Seasonal adjustment will identify the irregular component of quarterly data, which could be considered, though the separation of trend and irregular components for the most recent quarter is subject to some uncertainty. National accounts compilers can provide technical background to assist analysts who are making estimates of the COVID-19 effect. Any estimates would be subject to a high degree of uncertainty.

¹ <https://www.imf.org/~media/Files/Publications/WP/2020/English/wpiea2020013-print-pdf.ashx>