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2020 Global Stocktaking of National Accounts Statistics: Availability for Policy and Surveillance

by Anthony Silungwe, Andrew Baer, Vanda Guerreiro

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WORKING PAPER

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Statistics Department

2020 Global Stocktaking of National Accounts Statistics: Availability for Policy and Surveillance

Prepared by Anthony Silungwe, Andrew Baer, Vanda Guerreiro

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ABSTRACT: This paper analyzes the availability, methodological soundness, and scope of National Accounts statistics in IMF member and non-member countries in 2020. National Account statistics are instrumental in the development of fiscal and monetary policy and in monitoring economic developments. This analysis examines the appropriateness of the current set of global national accounts statistics for current policy development and highlights regions where further development may be required. The assessment is based on the results of a national accounts survey conducted by Fund staff that examined the scope of national accounts programs in IMF member countries. The survey was completed by statistical authorities between March 2021 and July 2021. The information reflects the state of National Accounts Programs as of the end 2020. In cases of non-response, IMF staff used information taken from the IMF's Dissemination Standards Bulletin Board (DSBB) and country websites to provide the status of national accounts compilation practices. This analysis summarizes the following key indicators: time lag of national accounts benchmarks, availability annual and quarterly GDP estimates, vintage of the System of National Accounts (SNA), index formula used for calculating annual constant price (volume) estimates, availability of GDP by different approaches, timeliness of disseminating and annual and quarterly GDP estimates, availability institutional sector accounts, and access to source data.

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GLOSSARY

<i>1968 SNA</i>	<i>System of National Accounts 1968</i>
<i>1993 SNA</i>	<i>System of National Accounts 1993</i>
<i>2008 SNA</i>	<i>System of National Accounts 2008</i>
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
GDP	Gross Domestic Product
GDP-E	Gross Domestic Product by expenditure
GDP-P	Gross Domestic Product by production (economic activity)
ISIC	International Standard Industrial Classification of All Economic Activities
NSDP	National Summary Data Page
NA	National Accounts
RCDCs	Regional Capacity Development Centers
SDDS	Special Data Dissemination Standard
SUT	Supply and Use Tables
STA	Statistic Department of the IMF
WEO	World Economic Outlook

I. INTRODUCTION AND BACKGROUND

In March 2021, the IMF Statistics Department (STA) launched a new global survey to capture a broad set of data about the availability, methodological soundness and scope of national accounts statistics in 206 economies.¹ The results of this survey can be used to 1) monitor progress on the development of national accounts statistics in member economies, 2) analyze the quality of national accounts statistics, and 3) compare the scope of national accounts statistics from one country to another and 4) examines the appropriateness of the global set of national accounts statistics for policy development and economic monitoring. Most countries publish information about the scope and coverage of their national accounts program. In many cases this information is contained in manuals and documents and is not presented in a consistent way that makes it possible to report on the overall state of global national accounts statistics. The novelty of the Fund Staff survey is that it is a tool that countries can use to present their information in a consistent way so that it can be easily compared to international recommendations and best practices and peer national account programs.

This analysis is an update to the evaluation of Gross Domestic Product (GDP) compilation practices that was conducted by the STA in [2018](#).² The 2018 working paper assessed six key features of national accounts programs. This included (1) the years elapsed since the most recent benchmark year to indicate whether the current structure of the economy is appropriately represented, (2) the availability of annual and quarterly data, for forward looking policy analyses and forecasting, (3) the timely dissemination of annual and quarterly data, (4) the availability of GDP by production, expenditure, and income approaches, (5) the availability of independently estimated GDP approaches, and (6) the vintage of the SNA applied. The topics covered in this study go beyond GDP compilation to also look at the sequence of accounts³ by institutional sectors and the source data used to compile national accounts. This survey reflects information as at the end of December 2020. While the COVID-19 pandemic had an impact on the statistical operations of many national accounts program this survey did not attempt to measure this impact.

The 2020 IMF's National Accounts Statistics Program survey was completed by statistical authorities between March and July 2021. The information reflects the state of National Accounts Programs as of end 2020. In cases of non-response, IMF staff estimates were used. Staff

¹ The term "economy," as used in this paper, does not in all cases refer to a territorial entity that is a state as understood by international law and practice. The term also covers some non-sovereign territorial economies, for which statistical data are maintained and provided internationally on a separate and independent basis. The 206 economies include the non-sovereign territories for which statistical data are maintained. The following economies were included in the analysis: Anguilla, Antigua & Barbuda, Aruba, Bermuda, British Virgin Islands, Cayman Islands, Cook Islands, Curacao, Montserrat, Niue, Sint Maarten, Taiwan, Tokelau, Turkmenistan, Turks and Caicos Islands and West Bank and Gaza.

² <https://www.imf.org/en/Publications/WP/Issues/2018/03/02/The-Status-of-GDP-Compilation-Practices-in-189-Economies-and-the-Relevance-for-Policy-45669>.

³ Sequence of accounts shows the flow of accounts linked to different types of economic activity taking place within a given period, together with balance sheets that record the values of the stocks of assets and liabilities held by institutional units or sectors at the beginning and end of the period. Each flow relates to a particular kind of activity such as production, or the generation, distribution, redistribution or use of income (2008 SNA, Para 1.14).

estimates were based on information taken from the [IMF's Dissemination Standards Bulletin Board \(DSBB\)](#)⁴ and country websites to provide the status of national accounts compilation practices.

Table 1 below shows the number of economies that provided an update or responded to the survey by geographic region. Overall, out of 206 economies, 133 economies (64.6 percent) responded to the survey. Information for the remainder of the countries was compiled based on publicly available information. European authorities were more responsive to the survey than any other region with an 81.0 percent response rate.

Table 1. Number of Economies Responded to the Survey by Regions⁵

	Provided updates	Based on economist review	Total	Response rate
WEO Classification				
Advanced Economies	31	6	37	83.8
Commonwealth of Independent States	7	4	11	63.6
Emerging and Developing Asia	17	18	35	48.6
Emerging and Developing Europe	12	1	13	92.3
Latin America and the Caribbean	26	16	42	61.9
MENA, Afghanistan, and Pakistan	11	11	22	50.0
Sub-Saharan Africa	29	17	46	63.0
Memo: UN Geographical Regions				
Africa	32	22	54	59.3
Americas	26	17	43	60.5
Asia	33	17	50	66.0
Europe	34	8	42	81.0
Oceania	8	9	17	47.1
Total	133	73	206	64.6

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

II. NATIONAL ACCOUNTS COMPILATION PRACTICES IN 206 ECONOMIES (2)

The status of national accounts compilation practices has been assessed against seven criteria as listed in Table 2. The criteria include timeliness, scope, frequency, accessibility, source data, and dissemination. These criteria align with some aspects of the IMF's Data Quality Assessment Framework (DQAF).⁶

⁴ <https://dsbb.imf.org/nsdp>. IMF data portal that allows users to access the metadata or browse link to online datasets for all available National Summary Data Page (NSDP) subscribers.

⁵ See Annex 1: United Nations geographic regions (M49 Regions). Note that the database includes other analytical classifications (i.e., Analytical Country Groups used in the World Economic Outlook and other IMF publications; IMF Area Departments (AD Regions); and countries covered by IMF Regional Capacity Development Centers (RDCs)).

⁶ https://dsbb.imf.org/content/pdfs/dqrs_nag.pdf. The DQAF is rooted in the UN Fundamental Principles of Official Statistics and is organized around a set of prerequisites and five dimensions of data quality—assurances of integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility.

Table 2. Selected Criteria for Assessing the global stock taking of NA

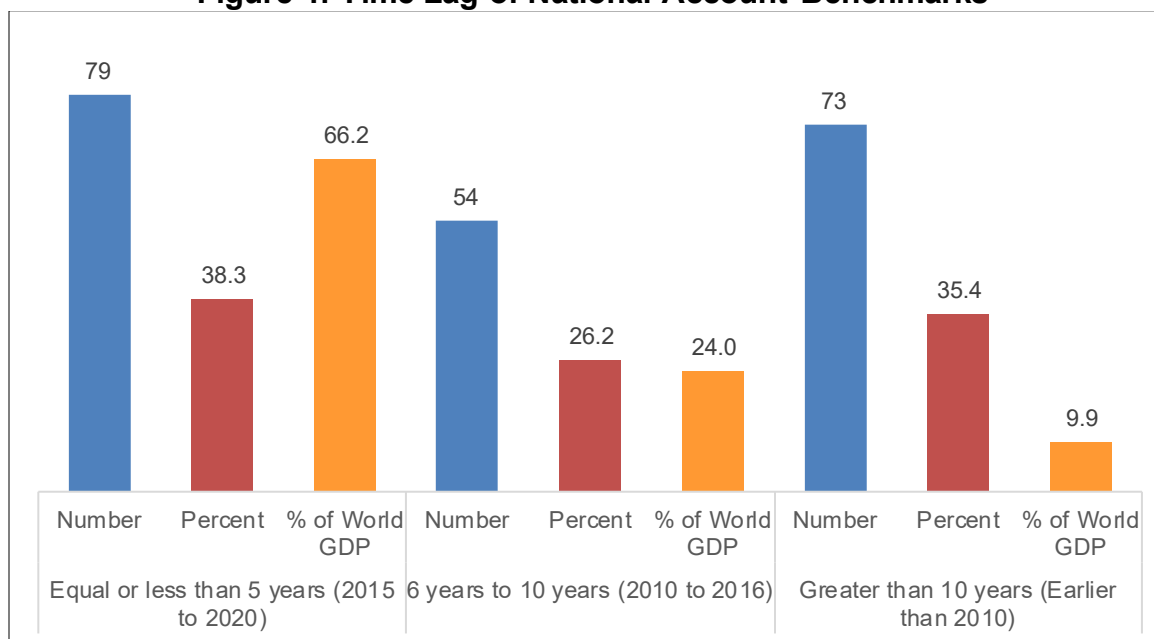
1	Time lag of national accounts benchmarks
2	Annual and Quarterly GDP compilation
3	Vintage of the SNA applied
4	Index formula used to calculate the annual constant price (volume) estimates
5	Timeliness of disseminating annual and quarterly GDP estimates
6	Institutional sector accounts
7	Source data access

III. TIME LAG OF NATIONAL ACCOUNTS BENCHMARK IN 206 ECONOMIES

The number of years elapsed since the most recent benchmark estimate of GDP is a key indicator of data quality of national accounts. The benchmark year refers to the year in which economy's transactions such as production, input costs, consumption, capital formation, international trade, and taxes are comprehensively measured using the most complete and high-quality source data. The benchmark estimates most accurately reflect the structure and size of the economy (in current price GDP). Some countries develop benchmark estimates for each year, usually with a two-to-three-year time lag. Most countries do not have the resources to develop annual benchmark estimates and therefore produce these benchmark estimates on a periodic basis. As the structure of an economy evolves and as more or better data become available, updated benchmarks are needed to ensure an accurate reading on the size and structure of the economy. Updating the benchmark year generally improves the quality of national accounts estimates because of the incorporation of newly available and revised data sources, enhanced coverage as well as improved estimation methods. Benchmark estimates often benefit from the availability of a recent comprehensive household budget survey, recent population censuses, business structural surveys or censuses, and up-to-date business registers. Compiling these statistics (including data collection and processing) is costly and may take several months. Often, the compiling agency will require additional funding for these activities.

There were 78 economies representing 38.3 percent of World economies (66.2 percent of World GDP) that updated their national accounts benchmarks in the latest five years.⁷ For 54 economies (26.2 percent) the latest benchmark estimates are available with a lag between 6 to 10 years, and the benchmark estimates have a lag of more than 10 years for 73 economies.

⁷ The data was weighted by GDP valued at purchasing power parity for the year 2020 as published in the WEO of April 2021.

Figure 1. Time Lag of National Account Benchmarks

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

This distribution varies by region. The benchmark year is lagged by less than five years in 33 of the 42 European economies. In Asia, 16 economies out of 50 (27.9 percent of World GDP) have benchmark estimates with a lag of less than five years. In Africa and the Americas, 15 of 54 and 7 of 43 economies, respectively, have benchmark estimates with a lag of less than five years.

The GDP-PPP weighted average benchmark year for the World economy was 2013. This falls outside the IMF recommendation to have national accounts benchmarks with less than a five-year lag. In Oceania, recent benchmark updates in Australia and New Zealand brought the weighted average benchmark year estimates to 2019. The weighted average benchmark year for Asia is influenced by China and India where the benchmark year for these economies is 2015.

Table 3. Time Lag of National Account Benchmarks

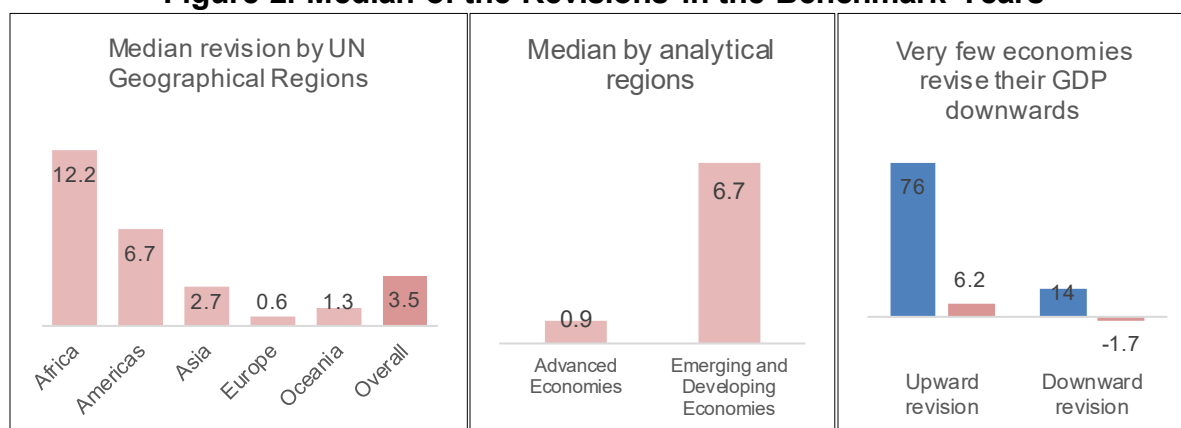
	Equal or less than 5 years (2015 to 2020)		6 years to 10 years (2010 to 2016)		Greater than 10 years (Earlier than 2010)		Total	Weighted Average
	No.	% of GDP	No.	% of GDP	No.	% of GDP		
Advanced Economies	28	36.4	6	4.5	3	0.5	37	2015
Commonwealth of Independent States	8	4.1	1	0.0	2	0.4	11	2014
Emerging and Developing Asia	9	20.9	12	9.8	14	2.6	35	2013
Emerging and Developing Europe	9	2.0	1	0.0	3	2.0	13	2012
Latin America and the Caribbean	7	0.6	12	4.9	23	1.8	42	2010
MENA, Afghanistan, and Pakistan	4	1.3	10	3.0	8	2.0	22	2010

	Equal or less than 5 years (2015 to 2020)		6 years to 10 years (2010 to 2016)		Greater than 10 years (Earlier than 2010)		Total	Weighted Average
Sub-Saharan Africa	14	0.8	12	1.7	20	0.6	46	2010
Memo: UN Geographical Regions								
Africa	15	1.8	14	1.7	25	1.4	54	2010
Americas	7	16.6	13	6.3	23	1.8	43	2013
Asia	17	27.9	19	13.2	14	6.3	50	2013
Europe	33	18.8	5	2.8	4	0.3	42	2015
Oceania	7	1.2	3	0.0	7	0.0	17	2019
Total	79	66.2	54	24.0	73	9.9	206	2013

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

The introduction of national accounts benchmarks generally results in a revision to previously published national accounts statistics. This is one of the reasons why the compilation of regular benchmark estimates is recommended since the non-benchmark year estimates can drift due to less complete and outdated source data used to compile the national accounts. The 2020 survey examined the magnitude of national accounts revisions following the introduction of new national account benchmarks. The results show that the introduction of the benchmark estimates has generally resulted in increases in nominal GDP levels with a median increase of 3.5 percent. Analysis by region shows that Africa recorded the highest median revision – a 12.2 percent increase in GDP in the benchmark year. The Americas reported a 6.7 percent median revision to nominal GDP following the introduction of GDP benchmarks. Emerging and developing economies have been recording higher revisions in the benchmarks than Advanced economies.

Figure 2. Median of the Revisions in the Benchmark Years



Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

IV. ANNUAL AND QUARTERLY GDP COMPILATION

Estimates of GDP can be compiled according to the production approach (GDP-P), the expenditure approach (GDP-E) and the income approach (GDP-I). Estimates of GDP-P focus on the production of goods and services and are normally presented by industry. Estimates of GDP-E focus on final expenditures and are presented by expenditure categories such as

household final consumption expenditure, gross fixed capital formation or exports and imports. Estimates of GDP-I focus on the generation of income and are presented by the factors that generated the income (labor and capital). Countries that compile GDP using all three approaches provide users with multiple perspectives on their economic activity. In addition, there are important quality benefits in compiling all three approaches of GDP in that compilers can compare and contrast the estimates and identify statistical discrepancies. Supply and use tables (SUTs) are useful tools for not only compiling GDP but also identifying data quality issues present in the source data. SUTs are presented in the form of matrices that record how the supply of different kinds of goods and services originate from domestic industries and imports and how the supply of goods and services are used in the economy (i.e., as intermediate, and final uses including exports). They provide an accounting framework whereby the total supply and use of goods and services are systematically balanced. Compilation of SUTs play an important role in ensuring the quality of national accounts statistics and are used extensively when developing benchmark estimates of GDP. A vast range of sources data and resources are required to compile SUTs, and for this reason in some economies they are only compiled for benchmark years.

Annual GDP was compiled by 205⁸ economies (99.5 percent) out of 206 economies in 2020. GDP by the production approach is compiled and disseminated by over 96.6 percent of economies (199) while GDP by the expenditure approach is compiled by 175 economies. However, GDP by the income approach is only compiled by 46.1 percent of economies (95). This reflects the challenges many countries have in estimating the operating surplus of corporations (financial and nonfinancial) and the mixed income of households. Many times, these components are estimated residually (*2008 SNA para. 15.177*).

Only 45.6 percent of the economies compile GDP at current prices using all the three approaches and only 15.0 percent compile volume estimates according to all three approaches. The income approach is not usually compiled at constant prices or in volumes since there are challenges with price deflators for some components of the income GDP such as mixed income and operating surplus. However, deflation of the compensation of employees and net taxes on production are possible (*2008 SNA para. 14.157*).

About 68 percent of the economies compile SUTs mainly driven by the Euro area with 83.3 percent of them compiling and publishing SUTs.⁹ In Oceania only three economies (Australia, New Zealand, and Fiji) compile SUTs, while in Africa, Americas and Asia SUTs are compiled by two thirds of the economies in each region.

⁸ Eritrea in Africa does not disseminate national accounts.

⁹ Regular production of SUT is a requirement by members in the Euro Area.

Table 4. Compilation of Annual GDP by Production, Expenditure, and Income Approaches

	Africa		Americas		Asia		Europe		Oceania		Total	
Annual GDP	No	%	No	%	No	%	No	%	No	%	No	%
Production or Expenditure or Income	53	98.1	43	100.0	50	100.0	42	100.0	17	100.0	206	99.5
Production at current prices	48	88.9	43	100.0	49	98.0	42	100.0	17	100.0	199	96.6
Production at constant prices	47	87.0	42	97.7	49	98.0	41	97.6	15	88.2	194	94.2
Expenditure at current prices	46	85.2	36	83.7	46	92.0	41	97.6	6	35.3	175	85.0
Expenditure at constant prices	43	79.6	26	60.5	40	80.0	41	97.6	6	35.3	156	75.7
Income at current prices	19	35.2	17	39.5	23	46.0	34	81.0	2	11.8	95	46.1
GNI at constant prices	8	14.8	8	18.6	11	22.0	5	11.9	2	11.8	34	16.5
All three Approaches at current prices	19	35.2	17	39.5	22	44.0	34	81.0	2	11.8	94	45.6
All three Approaches at constant prices	7	13.0	7	16.3	10	20.0	5	11.9	2	11.8	31	15.0
Compile SUT ¹⁰	39	72.2	30	69.8	34	68.0	35	83.3	3	17.6	141	68.4
Total	54	100.0	43	100.0	50	100.0	42	100.0	17	100.0	206	100.0

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

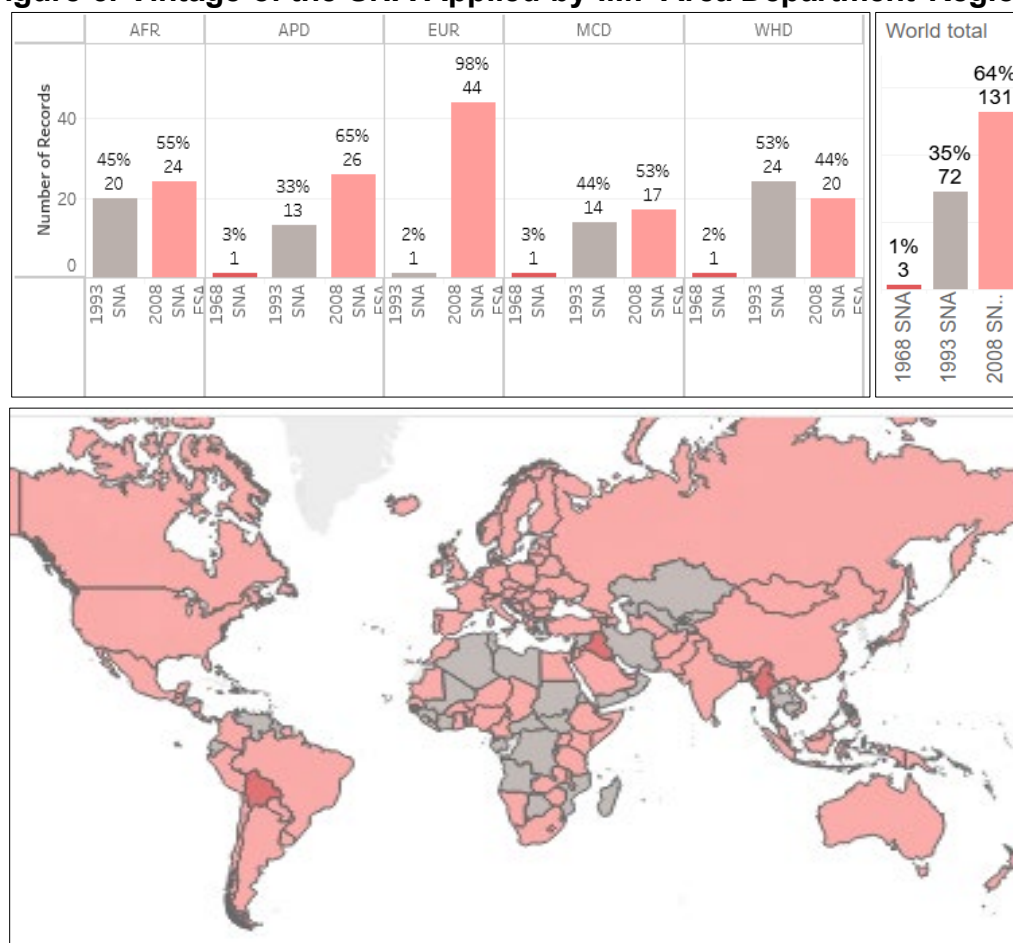
%. Share of the economies in the UN geographical regions.

V. SNA FRAMEWORK

The System of National Accounts (SNA) represents the internationally recommended conceptual framework that countries are requested to follow when compiling and presenting their national accounts. Over the last 70 years the SNA has been updated several times to reflect changes in the global economy. The current version of the SNA was published in 2009. The National Accounts of countries that have adopted the *2008 SNA* conceptual framework can be considered more reflective of current economic conditions compared with countries that have are still using the older vintages of the SNA. While ideally all economies would compile and present their national accounts according to the latest framework, this is not always the case due to resource constraints. National Accounts for some economies are still compiled and presented according to previous versions of the SNA (such as the *1993 SNA* or the *1968 SNA*). By the end of 2020, 130 economies had reported their national accounts in line with *2008 SNA* and *2010 ESA*¹¹ representing 64.0 percent of world GDP. Three economies, Bolivia, Iraq, and Myanmar are still using the *1968 SNA*. The rest of the economies are using the *1993 SNA*.

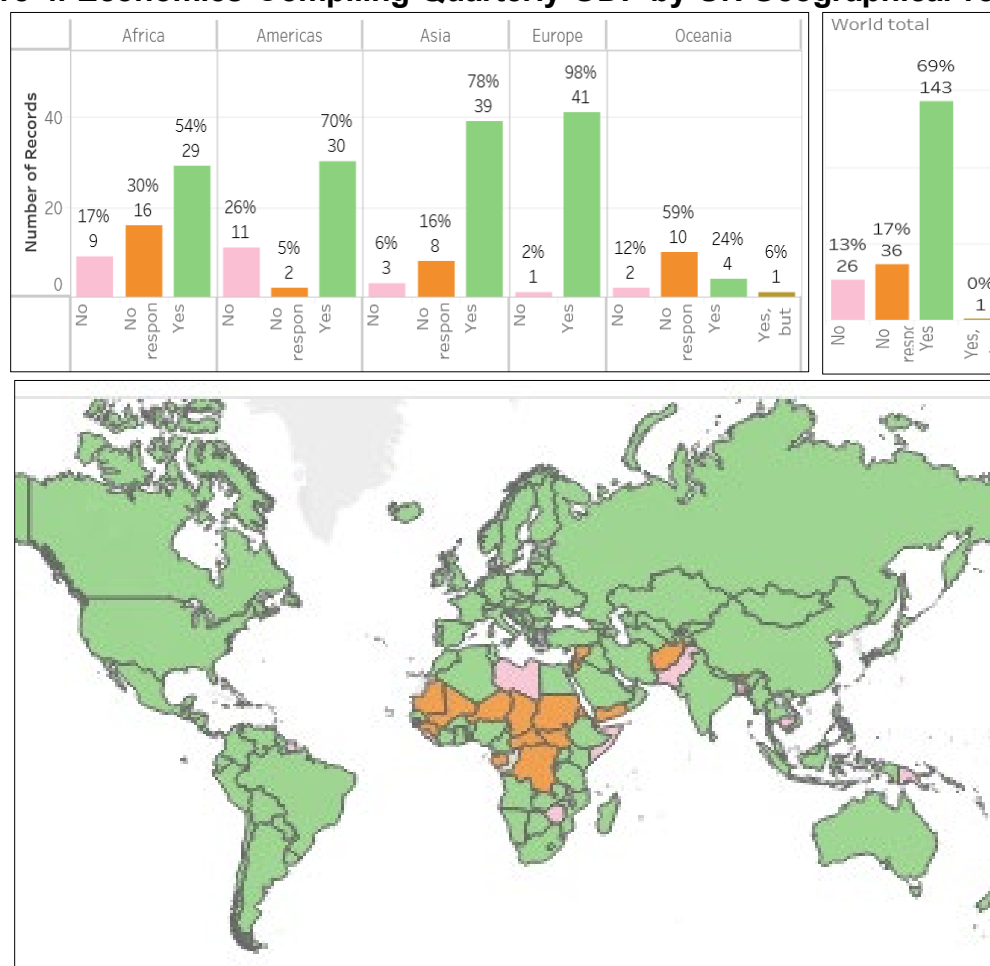
¹⁰ Includes economies that compile SUT for internal use only.

¹¹ The European System of Accounts 2010 is consistent with the *2008 SNA*: <https://ec.europa.eu/eurostat/documents/3859598/5925693/KS-02-13-269-EN.PDF/44cd9d01-bc64-40e5-bd40-d17df0c69334>.

Figure 3. Vintage of the SNA Applied by IMF Area Department Regions

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

Users often require quarterly national accounts estimates to analyze economic trends in a timely manner and better understand the business cycle. This is especially important for early detection of turning points. Quarterly estimates of GDP improve the responsiveness of policy to these sudden shifts in supply and demand. Quarterly GDP is compiled by 140 economies representing 68 percent (96.3 percent of world GDP in 2020). This is mainly accounted by economies in Asia, the Americas and Europe.

Figure 4. Economies Compiling Quarterly GDP by UN Geographical regions

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

Most of the economies in Europe compile quarterly GDP (97.6 percent), 78.0 percent of the Asia economies and 74.4 percent of the American economies compile estimates of quarterly GDP. The constant price/volume estimate of GDP by the production approach is the most common method of producing quarterly GDP, with 69.4 percent of the World's economies (GDP-PPP weighted) using this approach. Few economies compile quarterly GDP by the income approach at only 21.4 percent in 2020.

Table 5. Compilation of Quarterly GDP by Production, Expenditure, and Income Approaches

	Africa		Americas		Asia		Europe		Oceania		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Quarterly GDP	29	48.1	32	74.4	39	78.0	41	97.6	4	23.5	143	69.4
Production or Expenditure												
Production current prices	26	48.1	28	65.1	35	70.0	39	92.9	4	23.5	132	64.1
Production constant prices	27	50.0	30	69.8	40	80.0	39	92.9	4	23.5	140	68.0
Expenditure current prices	10	18.5	22	51.2	31	62.0	40	95.2	2	11.8	105	51.0
Expenditure constant prices	12	22.2	23	53.5	29	58.0	40	95.2	2	11.8	106	51.5
Income current prices	2	3.7	4	9.3	9	18.0	28	66.7	1	5.9	44	21.4

GNI constant prices	5	9.3	11	25.6	18	36.0	17	40.5	1	5.9	52	25.2
Total	54	100.0	43	100.0	50	100.0	42	100.0	17	100.0	206	100.0

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

?: Percentage share of economies in the region.

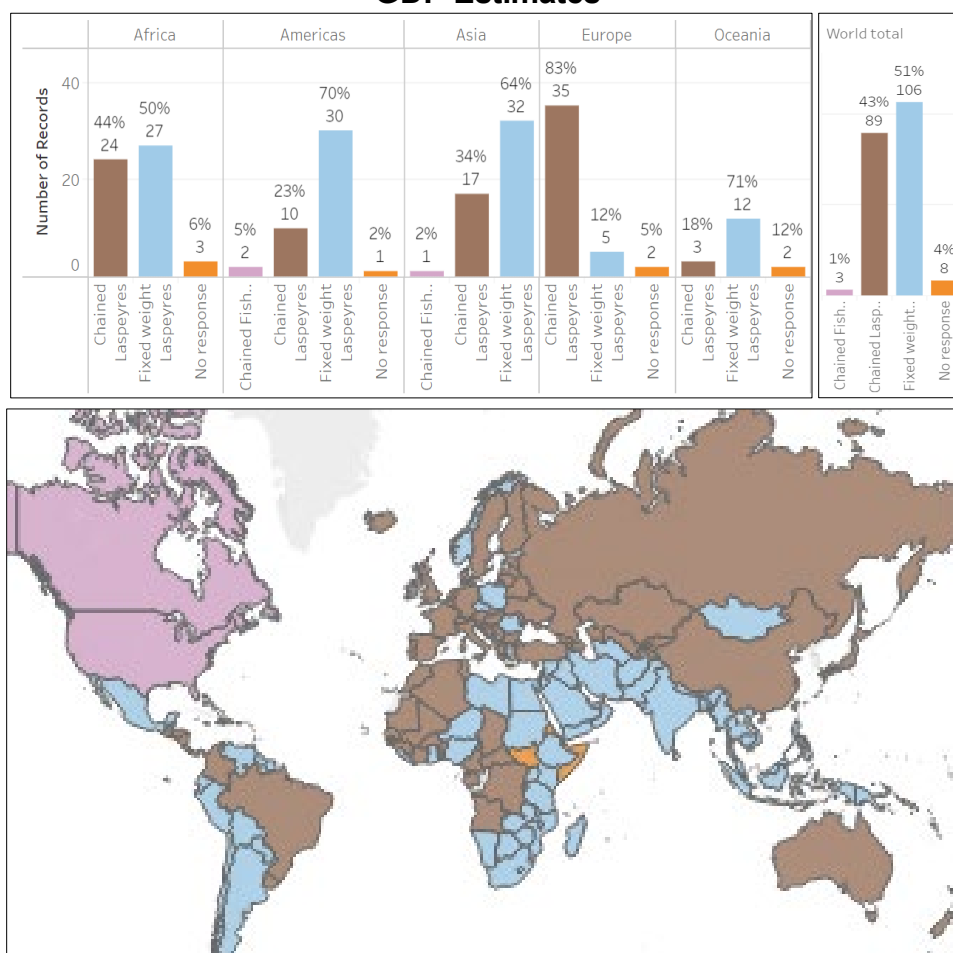
VI. INDEX FORMULA USED TO CALCULATE THE ANNUAL CONSTANT PRICE (VOLUME) ESTIMATES

A number of different index formula can be used to calculation volume estimates. Many countries use the Laspeyres formula to derive constant price estimate of GDP. In some cases, the weights used to aggregate the elemental indexes are fixed while in other cases they are updated on an annual basis. The “*Fixed weight Laspeyres*” uses the base year weights to compute the most recent year constant prices while the “*Chained Laspeyres*” uses the previous year current price weights to compute the current year volume estimates. The use of previous year weights is the approach recommended by the IMF.¹² The use of fixed weights can result in a deterioration in the quality of constant price estimates the further a country moves away from the base year. This is because economies evolve over time and aggregating the elementary indexes based on a fixed weight at some point in the past will not reflect the emerging structural changes. The COVID-19 pandemic is a good example of a period where dramatic changes occurred. Aggregating elementary indexes using weights prior to the COVID-19 pandemic may result in an overestimate or underestimate of growth. The choice of an index formula to be used to derive the constant or volume estimates is dependent on the availability of detailed component data both in current values and prices or volumes.

In 2020, about half of the world economies (106) compile the constant price annual estimates using fixed weights. 43 percent of the world economies used previous year weights to compile constant price annual GDP estimates. Most of the economies (84 percent) in Europe use a chained Laspeyres index formula to compile volume estimates. In Africa, most of the countries that use the chained Laspeyres index formula are from west Africa and parts of Central Africa.

¹² <https://www.imf.org/external/pubs/ft/wp/2016/wp16133.pdf>.

Figure 5. Index Formula Used to Calculate Annual Constant Price (Volume) GDP Estimates

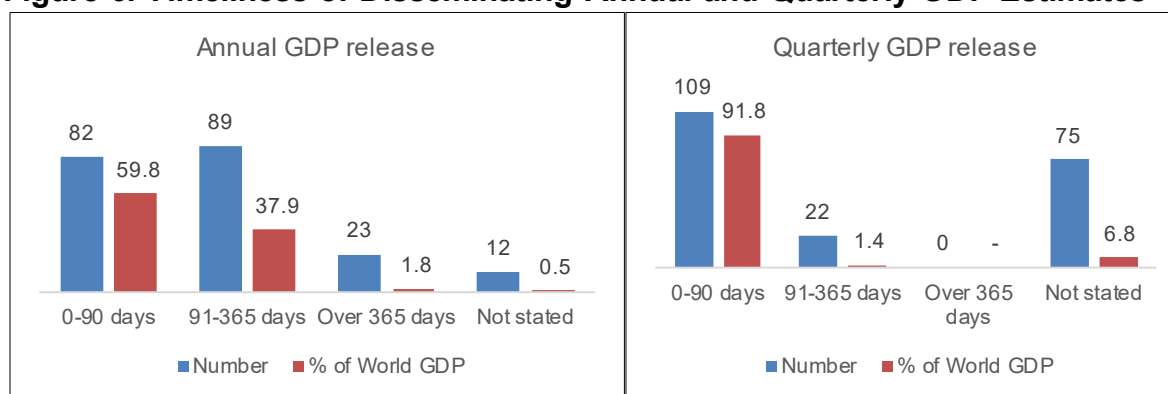


Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

VII. TIMELINESS OF DISSEMINATING ANNUAL AND QUARTERLY GDP ESTIMATES

The timeliness of the annual and quarterly national accounts is a key dimension of quality. The IMF's Special Data Dissemination Standard ([SDDS](#) and [SDDS Plus](#)) require economies to disseminate quarterly GDP within 90 days after the reference period. Eighty-two (82) percent of the World economies (representing 59.8 percent of World GDP) disseminates the annual national accounts within 90 days after the reference period. Figure 5 shows timely annual data were disseminated by 82 economies, while 109 economies achieved the quarterly national accounts timeliness target (representing 59.8 percent of World GDP). Over the last few years, many countries have started to release “flash” estimates of GDP.¹³ These estimates are intended to provide an early reading on economic activity. Flash estimates of GDP are normally released within 30 days following the reference period. Four economies in Europe and five economies in Asia disseminate quarterly GDP within 30 days after the end of the reference period.

¹³ The document provides an overview of methods used in Eurostat member countries for compiling GDP flash estimates 30 days after the end quarter. <https://ec.europa.eu/eurostat/en/web/products-statistical-working-papers/-/ks-tc-16-006>.

Figure 6. Timeliness of Disseminating Annual and Quarterly GDP Estimates

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.
Not Stated: Means no response.

Table 6. Timeliness of Disseminating Annual and Quarterly GDP Estimates

	Africa		Americas		Asia		Europe		Oceania		Total	
Annual GDP												
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
0-90 days	11	20.4	16	37.2	26	52.0	28	66.7	1	5.9	82	39.8
91-365 days	30	55.6	22	51.2	19	38.0	12	28.6	6	35.3	89	43.2
Over 365 days	7	13.0	3	7.0	1	2.0	2	4.8	10	58.8	23	11.2
Not stated	6	11.1	2	4.7	4	8.0	0	0.0	0	0.0	12	5.8
Quarterly GDP												
0-90 days	20	37.0	20	46.5	26	52.0	39	92.9	4	23.5	109	52.9
91-365 days	6	11.1	9	20.9	5	10.0	1	2.4	1	5.9	22	10.7
Over 365 days	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not stated	28	51.9	14	32.6	19	38.0	2	4.8	12	70.6	75	36.4
Total	54	100.0	43	100.0	50	100.0	42	100.0	17	100.0	206	100.0

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.
%: Percentage share of economies in the region.

VIII. INSTITUTIONAL SECTOR ACCOUNTS

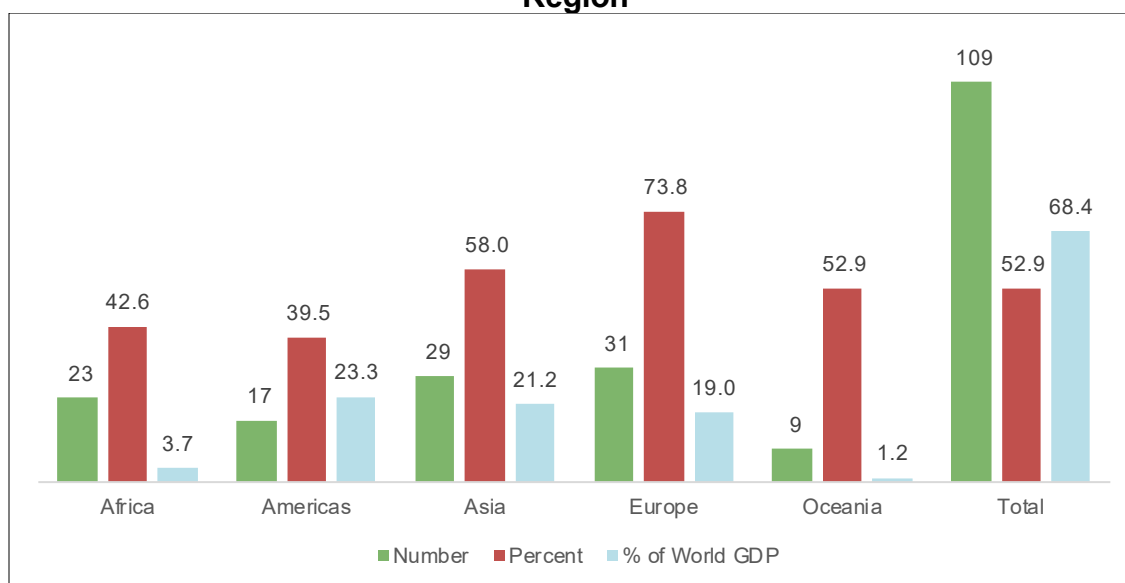
While GDP can be considered the National Accounts headline indicator, the national accounts are much more than GDP. The national accounts include a set of institutional sector accounts that include high quality, timely indicators related to household income, savings, wealth, government deficits, debt, corporation's assets and liabilities, and transfers to and from other sectors of the economy (to name a few). Despite their importance, only 52.4 percent of the economies (representing 68.4 percent of World GDP) compile institutional sector accounts.

More than 73 percent of the European economies (representing 19.0 percent of World GDP) compile institutional sectoral accounts.¹⁴ In Asia and Oceania, only 58.0 percent and 52.9 percent of economies, respectively, compile some degree of institutional sector

¹⁴ European regulation requires EU-27 countries to compile institutional sector accounts. The compendium summarizes the key reference information for European statistical production.
<https://ec.europa.eu/eurostat/documents/3859598/10276257/KS-GQ-19-012-EN-N.pdf/f7c1b8dd-7246-01a3-dccc-328d2f38acd9?t=1575018024000>.

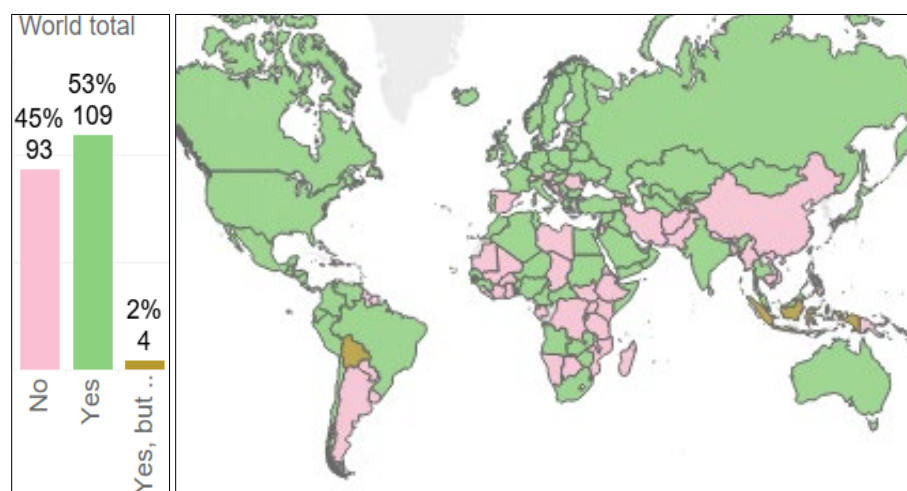
accounts.

Figure 7. Number Economies Compiling Institutional Sector Accounts by Region



Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.
 %: Red bars represent percentage share of economies in the region.

Figure 8. Number Economies Compiling Institutional Sector Accounts



Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

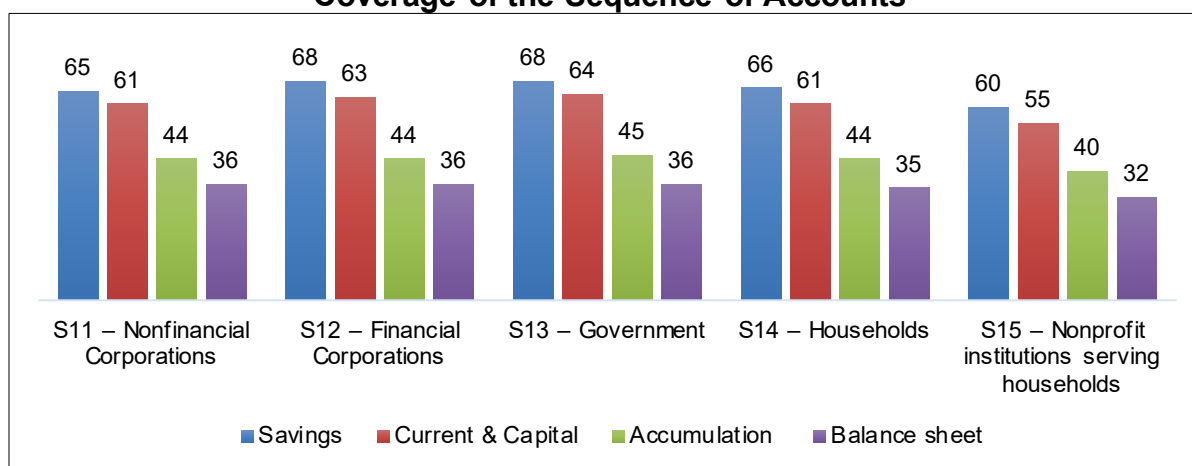
The 2015 [Global Conference on the G-20 Data Gap initiative \(DGI\)](https://www.imf.org/en/News/Seminars/Conferences/2016/12/31/Global-Conference-on-the-G-20-Data-Gaps-Initiative-DGI)¹⁵ recommended that sectoral accounts flows and balance sheet data, based on the internationally agreed template, should be compiled, and disseminated on a quarterly basis and on an annual frequency. This includes data for the Other Financial Corporations (OFC) sector and from-whom-to-whom

¹⁵ <https://www.imf.org/en/News/Seminars/Conferences/2016/12/31/Global-Conference-on-the-G-20-Data-Gaps-Initiative-DGI>.

matrices for both transactions and stocks to support balance sheet analysis.

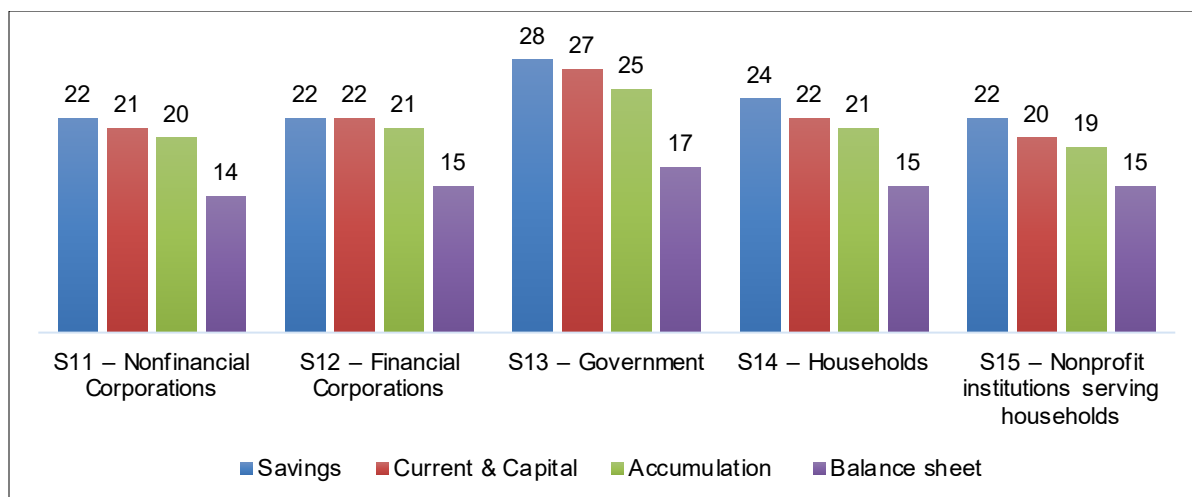
Economies are encouraged to compile accounts for all the five institutional sectors: Non-financial corporations, Financial corporations, Government, Households, Nonprofit institutions serving households including the Rest of the world. About 32 economies compile the full sequence of accounts by institutional sectors up to balance sheets on an annual basis. Many more economies compile savings for the financial and government sectors. Fewer economies compile the institutional sectors accounts up to the balance sheet at a quarterly frequency.

Figure 9. Annual Institutional Sector Accounts: Number of Economies by Coverage of the Sequence of Accounts



Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

Figure 10. Quarterly Institutional Sector Accounts: Number of Economies by Coverage of the Sequence of Accounts



Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

IX. SOURCE DATA ACCESS

To compile high quality national accounts, national accountants require access to high quality and comprehensive source data covering each economic activity of the economy, each type of transaction, and extensive information on prices and quantities. The depth and breadth of the source data directly impacts the overall quality of the national accounts. Key data sources that national accountants require include regular data on business revenues and expenses, household income and expenditures, government incomes and expenditures, imports and exports, transfer payments, transactions, and stocks of financial and nonfinancial assets. Much of this information originates from surveys or administrative records. Table 10 outlines the typical source data requirements for national account compilers and the availability of this information by region.

Consumer price indices are a key input in deriving estimates of real GDP. Consumer price indexes are regularly compiled by 99.0 percent of the surveyed economies (204 economies). Population censuses are available every 10 years in most economies (96.6 percent). However, access to administrative data is still low, with only 60 percent of the countries having access to value added tax information and 46.1 percent having access to corporate income tax information. Even though the results show that many statistical authorities have access to these data sources the challenge of regular access cannot be over emphasized.

Table 7. Number of Economies with Access to Source Data

	Africa		Americas		Asia		Europe		Oceania		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Population Census	52	96.3	41	95.3	48	96.0	41	97.6	17	100.0	199	96.6
Agricultural Census	29	53.7	16	37.2	35	70.0	25	59.5	6	35.3	111	53.9
Business Register	30	55.6	22	51.2	31	62.0	34	81.0	9	52.9	126	61.2
Structural business survey data	33	61.1	23	53.5	35	70.0	33	78.6	7	41.2	131	63.6
Labor Force Survey	41	75.9	30	69.8	36	72.0	34	81.0	5	29.4	146	70.9
Household Budget Survey/ Survey of Living Conditions	47	87.0	24	55.8	38	76.0	33	78.6	14	82.4	156	75.7
Other agricultural information	34	63.0	25	58.1	35	70.0	31	73.8	7	41.2	132	64.1
Value Added/Goods and Services Taxation information ¹⁶	38	70.4	15	34.9	24	48.0	31	73.8	16	94.1	124	60.2
Corporate Income Tax information	33	61.1	15	34.9	14	28.0	27	64.3	6	35.3	95	46.1
Personal Income Tax information	15	27.8	10	23.3	10	20.0	27	64.3	4	23.5	66	32.0
Social Security Information (employment or benefits information)	22	40.7	18	41.9	16	32.0	29	69.0		52.9	94	45.6
Customs import and export declarations information from customs authorities	44	81.5	26	60.5	34	68.0	32	76.2	11	64.7	147	71.4
Consumer price indices	54	100.0	42	97.7	50	100.0	42	100.0	16	94.1	204	99.0
Producer price	28	51.9	23	53.5	32	64.0	33	78.6	3	17.6	119	57.8

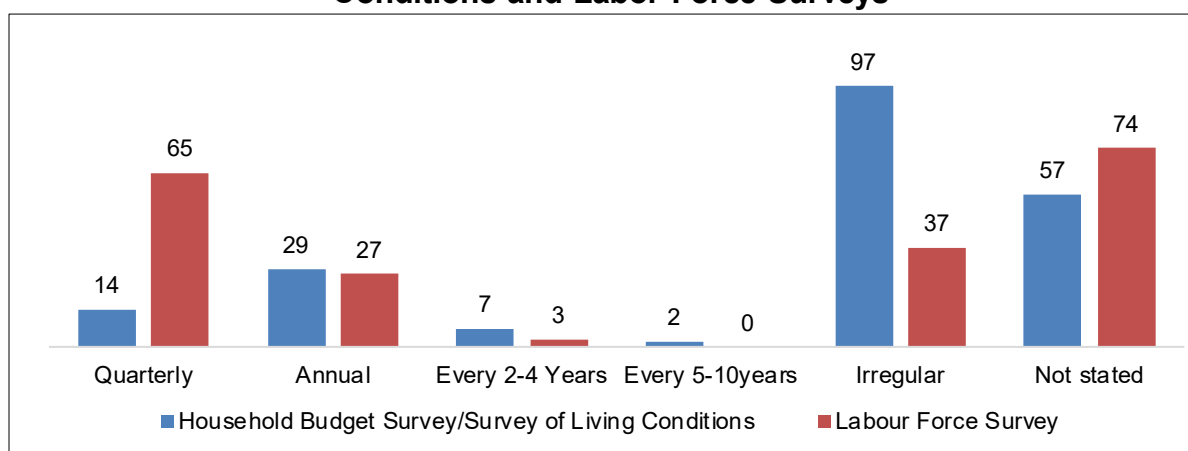
¹⁶ This percent may underestimate the actual as the survey did not ask about the presence of the VAT and Corporate income tax programs in an economy.

	Africa		Americas		Asia		Europe		Oceania		Total	
indices												
Import and export price indexes	17	31.5	21	48.8	21	42.0	29	69.0	5	29.4	93	45.1
Total	54	100.0	43	100.0	50	100.0	42	100.0	17	00.0	206	100.0

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

National accounts compilation requires timely access to source data. Release calendars and benchmark years of GDP estimates are usually aligned with access to key data sources. Three of the more important data sources required to compile high quality GDP by expenditure are a population and housing census, a household budget surveys and labor force surveys. Out of 206 economies, 96 economies conduct population and housing censuses every ten years with 39 economies conducting it irregularly. Despite the collection of Labor Force Survey and Household Budget Survey/Living Conditions Survey being mandated by the statistical authorities, the two surveys are conducted irregularly by many economies.

Figure 11. Periodicity of the Household Budget Survey/Survey of Living Conditions and Labor Force Surveys



Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

Not Stated: Means no response.

Table 8. Number of Economies by Periodicity of Data Source Type

	Monthly	Quarterly	Annual	Every 2-4 Years	Every 5-10 Years	Irregular	Not stated
Population Census	0	0	0	0	111	39	56
Agricultural Census	0	0	2	0	44	70	90
Business Register	35	3	48	0	3	34	83
Structural business survey data	20	13	61	0	1	38	73
Labor Force Survey	23	42	27	3	0	37	74
Household Budget Survey/Survey of Living Conditions	1	13	29	7	2	97	57
Other agricultural information	18	30	62	1	1	14	80
Value Added/Goods and Services Taxation information	47	43	23	0	0	5	88
Corporate Income Tax information	11	13	69	0	0	3	110
Personal Income Tax information	12	11	41	0	0	4	138
Social Security Information (such as employment or benefits information)	23	27	33	0	0	8	115

	Monthly	Quarterly	Annual	Every 2-4 Years	Every 5-10 Years	Irregular	Not stated
Customs import and export declarations information from customs authorities	106	22	9	0	0	1	68
Consumer price indices	205	1	0	0	0	0	0
Producer price indices	61	34	5	0	0	4	102
Import and export price indices	43	30	7	0	0	2	124

Source: 2020 - IMF staff based on the Annual Global Survey on the SNA Statistical Programs.

X. CONCLUSION

While national accounts statistics are generally of high quality there are significant regional disparities. The availability of sub-annual national accounts data in Africa, Asia, and parts of Central America is substantially lower than that of Europe, Oceania, and the large economies of North America. While most countries publish estimates of GDP, the level of detail varies significantly impacting the breadth and depth of the analysis. The differences in the SNA vintage hamper comparison among countries and regions. The scope of national accounts statistics also differs significantly from country to country and region to region. This is particularly acute with respect to the availability of institutional sector accounts. As countries emerge from the COVID-19 pandemic it will be important to understand the flow of incomes and expenditures across sectors and between residents and non-residents. The institutional sector accounts are important tools that policy makers need to understand these linkages.

Finally, while the availability of source data is generally good, there is need to look beyond the traditional sources used by national accountants to improve the frequency and timeliness of national accounts statistics. National accountants need to first secure access to a new “non-traditional” set of source data and find innovative ways to use these data to advance on improving the timeliness and frequency of national accounts statistics.

Looking forward, the IMF Statistics Department intends to conduct a national accounts compilation practices survey on an annual basis to monitor progress and assess the global quality of national accounts statistics. This information will also be useful for member countries to benchmark their national program with regional and global benchmarks.

ANNEX

Annex 1. United Nation Geographic Regions (M49 Regions)

Africa	Americas	Asia	Europe	Oceania
Algeria	Anguilla	Afghanistan	Albania	Australia
Angola	Antigua & Barbuda	Bahrain, Republic of	Andorra	Cook Islands
Benin	Argentina	Bangladesh	Austria	Federated States of Micronesia
Botswana	Aruba	Bhutan	Belarus	Kingdom of Tonga
Burkina Faso	Barbados	Brunei Darussalam	Belgium	Kiribati
Burundi	Belize	Cambodia	Bosnia and Herzegovina	Nauru
Cabo Verde	Bermuda	China P.R.: Macao	Bulgaria	New Zealand
Cameroon	Bolivia	China P.R.: Mainland	Croatia	Niue
Central African Republic	Brazil	China, P.R.: Hong Kong	Czech Republic	Papua New Guinea
CHAD	British Virgin Islands	Cyprus	Denmark	Republic of Fiji
Comoros	Canada	Georgia	Estonia	Republic of Palau
Congo, Democratic Republic of	Cayman Islands	India	Finland	Republic of the Marshall Islands
Congo, Republic of	Chile	Indonesia	France	Republic of Vanuatu
Cote d'Ivoire	Colombia	Iran, Islamic Republic	Germany	Samoa
Djibouti	Costa Rica	Iraq	Greece	Solomon Islands
Egypt	Curacao	Israel	Hungary	Tokelau
Equatorial Guinea	Dominica	Japan	Iceland	Tuvalu
Eritrea	Dominican Republic	Jordan	Ireland	
Ethiopia	Ecuador	Kazakhstan	Italy	
Gabon	El Salvador	Korea	Kosovo, Republic of	
Gambia	Grenada	Kuwait	Latvia	
Ghana	Guatemala	Kyrgyz Republic	Lithuania	
Guinea	Guyana	Lao, Democratic Republic	Luxembourg	
Guinea Bissau	Haiti	Lebanon	Malta	
Kenya	Honduras	Malaysia	Moldova	
Lesotho	Jamaica	Maldives	Montenegro	
Liberia	Mexico	Mongolia	Netherlands	
Libya	Montserrat	Myanmar	North Macedonia	
Madagascar	Nicaragua	Nepal	Norway	
Malawi	Panama	Oman	Poland	
Mali	Paraguay	Pakistan	Portugal	
Mauritania	Peru	Philippines	Romania	
Morocco	Sint Maarten	Qatar	Russian Federation	
Mozambique	St. Kitts and Nevis	Armenia	San Marino	
Namibia	St. Lucia	Republic of Azerbaijan	Serbia, Republic of	
Niger	St. Vincent and the Grenadines	Republic of Uzbekistan	Slovak Republic	
Nigeria	Suriname	Saudi Arabia	Slovenia	
Republic of Mauritius	The Bahamas	Singapore	Spain	
Rwanda	Trinidad and Tobago	Sri Lanka	Sweden	

Africa	Americas	Asia	Europe	Oceania
São Tomé and Príncipe	Turks and Caicos Islands	Syria	Switzerland	
Senegal	United States	Taiwan	Ukraine	
Seychelles	Uruguay	Tajikistan	United Kingdom	
Sierra Leone	Venezuela	Thailand		
Somalia		Timor-Leste		
South Africa		Turkey		
South Sudan		Turkmenistan		
Sudan		United Arab Emirates		
Tanzania		Vietnam		
The Kingdom of Eswatini		West Bank and Gaza		
Togo		Yemen		
Tunisia				
Uganda				
Zambia				
Zimbabwe				

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