

G20

DATA GAPS INITIATIVE 3

Workplan



DELIVERING INSIGHTS FOR ACTION

G20 Data Gaps Initiative 3

Workplan

Prepared by IMF Staff in collaboration with the Inter-Agency Group on Economic and Financial Statistics and the Financial Stability Board Secretariat¹

Abstract

In the face of the climate crisis, increasing economic polarization, and large-scale digital transformation, policymakers are facing a new wave of complex and multidimensional policy challenges. G20 Leaders, at their meeting in Bali, Indonesia in November 2022, noted the world is “*at a time of unparalleled multidimensional crisis. We have experienced the devastation brought by the Covid-19 pandemic, and other challenges including climate change, which has caused economic downturn, increased poverty, slowed global recovery and hindered the achievement of the Sustainable Development Goals.*” To develop the right policy measures to tackle these issues, policymakers need robust, comprehensive, and comparable data. However, data gaps exist in several areas that limit the ability to develop the right policy measures. Recognizing these gaps, the G20 Leaders, in both the G20 FMCBGs October 2022 meeting and the G20 Bali Leaders’ Declaration welcomed the workplan for a new Data Gaps Initiative (DGI) and asked the IMF, the Financial Stability Board (FSB), the Inter-Agency Group on Economic and Financial Statistics (IAG) along with the G20 and participating economies to begin filling these data gaps. The range of data to be developed through this initiative goes “Beyond GDP” and is aimed at helping policymakers navigate their way through four main policy priority areas: climate change mitigation and adaptation, household distributional aspects, financial innovation and inclusion, and data access and sharing.

¹ The members of the IAG are the Bank for International Settlements, the European Central Bank, Eurostat, the IMF (Chair), the Organisation for Economic Co-operation and Development, the United Nations, and the World Bank, with the Financial Stability Board Secretariat participating in IAG meetings. The IAG was first established in 2008 to coordinate international statistical work following the 2007–09 Global Financial Crisis.

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Acronyms

2008 SNA	System of National Accounts, 2008
BD4	OECD Benchmark Definition of Foreign Direct Investment, 4 th Edition (BD4)
BIS	Bank for International Settlements
BPM6	Balance of Payments and International Investment Position Manual, Sixth Edition
CBDC	Central Bank Digital Currencies
CID	Climate Change Indicators Dashboard, IMF
DAO	Decentralized Autonomous Organization
DDI	Data Documentation Initiative
DeFi	Decentralized Finance
DGI	Data Gaps Initiative
EC	European Commission
ECB	European Central Bank
EG-DFA	Expert Group on Distributional Financial Accounts (ECB)
EG-DNA	Expert Group on Distributional National Accounts (OECD)
ESCB	European System of Central Banks
EU	European Union
FDI	Foreign Direct Investment
FMCBG	Finance Ministers and Central Bank Governors
FSB	Financial Stability Board
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GFSM 2014	Government Finance Statistics Manual, 2014
GVC	Global Value Chain
HSS	Handbook on Securities Statistics
IAG	Inter-Agency Group on Economic and Financial Statistics
IEA	International Energy Agency
IFC	Irving Fisher Committee on Central Bank Statistics
IMF	International Monetary Fund
INEXDA	International Network for Exchanging Experience on Statistical Handling of Granular Data
MNE	Multinational Enterprise
MFSMCG	Monetary and Financial Statistics Manual and Compilation Guide, 2016
NBFI	Non-bank Financial Intermediation
NDC	Nationally Determined Contributions
NGFS	Network of Central Banks and Supervisors for Greening the Financial System
OECD	Organisation for Economic Co-operation and Development
PEFA	Physical Energy Flow Accounts
SDMX	Statistical Data and Metadata eXchange
SEEA	System of Environmental-Economic Accounting
SNA	System of National Accounts
SPE	Special Purpose Entities
TEC	Trade by Enterprise Characteristics
TiVA	Trade in Value Added, OECD
UNCEEA	United Nations Committee of Experts on Environmental-Economic Accounting
UNFCCC	United Nations Framework Convention on Climate Change
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNSD	United Nations Statistics Department
WGSD	Working Group on Securities Databases

Introduction

1. The world is facing an increasing number of policy challenges—the climate crisis, increasing economic polarization, and large-scale digital transformation. G20 Leaders, at their meeting in Bali, Indonesia in November 2022, noted the world is “*at a time of unparalleled multidimensional crisis. We have experienced the devastation brought by the Covid-19 pandemic, and other challenges including climate change, which has caused economic downturn, increased poverty, slowed global recovery and hindered the achievement of the Sustainable Development Goals.*” To develop the right policy measures to tackle these issues policymakers need robust, comprehensive, and comparable data. However, data gaps exist in several areas that limit their ability to develop the right policy measures.

2. Policy makers require an expanded set of data to address diverse policy challenges. In the April 2021 communiqué, the G20 Finance Ministers and Central Bank Governors (FMCBG) under the G20 Italian presidency, asked the International Monetary Fund (IMF), the Inter-agency Group on Economic and Financial Statistics (IAG) and the Financial Stability Board (FSB) Secretariat, to prepare a concept note for a new Data Gaps Initiative (DGI). The G20 FMCBGs asked the IAG and G20 and participating economies to address critical data gaps in the area of climate change, economic inclusion and digitally-driven financial innovation and that the new initiative builds on the close collaboration among the participating economies and the international organizations that characterized previous iterations of the G20 DGI.

3. In the fall of 2021, the G20 FMCBGs endorsed the concept note for a new DGI. They requested that the IAG work with the G20 and participating economies to develop a high-level workplan. Throughout 2022, under the leadership of the Indonesian G20 presidency, the IAG and G20 and participating economies developed a high-level workplan to address these critical data gaps. The workplan (i) builds on existing work; (ii) reflects differences in resources, statistical capacities, and levels of development among G20 economies; (iii) incorporates existing methodological and statistical frameworks; (iv) leverages existing data sources; and (v) includes flexible targets and timelines.

4. A new DGI workplan was delivered to the G20 FMCBGs in the fall of 2022. In the Chair’s Summary issued after the October 2022 meeting of the G20 FMCBGs, the G20 FMCBGs “*welcome[d] the workplan on the new Data Gaps Initiative (DGI) prepared by the IMF, FSB, and the Inter-Agency Group on Economic and Financial Statistics (IAG) in collaboration with participating members. [They asked] the International Monetary Fund (IMF), the FSB and the IAG to begin work on filling these data gaps and report back on progress in the second half of 2023, noting that the targets are ambitious, and delivery will need to take into account national statistical capacities, priorities, and country circumstances as well as avoiding overlap and duplication at international level.*”

5. The governance of the new DGI is similar to that of DGI 1 and 2. It will be characterized by strong support and guidance from the G20, and close collaboration between the participating economies and the international organizations. The DGI will be coordinated by the IMF, in close cooperation with the IAG and the FSB Secretariat, with annual reports to the G20 FMCBG. The IAG will continue to play the role of global facilitator and strategic coordinator, contributing to the enhancement of the global statistical infrastructure.

6. The latest installment of the G20 DGI will leverage existing international statistical workstreams. The IAG will work with a range of stakeholders to ensure efforts are coordinated with existing initiatives to avoid duplication and leverage synergies. Where available, existing statistical standards and methodological frameworks will serve as the basis for the development of the indicators. Where additional methodological development is needed, the IAG will prioritize efforts to develop and achieve consensus on concepts, definitions, and indicators to allow sufficient time for participating economies to collect and process the data. As part of the governance structure, various task teams comprising members of the IAG, representatives from participating economies, and relevant stakeholders will be established to assist with implementing the recommendations.

7. The reach of the G20 DGI extends beyond the G20 and participating economies. While the DGI is focused on G20 and non-G20 FSB member economies,¹ it provides other economies with valuable guidance, tools, and political support to address climate change, take into account household distributional aspects, and financial innovation and inclusion data gaps that may exist in their jurisdictions. The objective of the DGI is to encourage economies to provide data to assist policymakers to address the most relevant policy needs. We anticipate that all G20 economies will achieve the targets outlined in the workplan. However, we recognize that there are different levels of statistical development and statistical capacity, legislative constraints, and priorities among the participating economies. This will be reflected in the progress reporting framework for the new DGI.

8. The data aim to address the most urgent policy needs. The data gaps have been grouped into three broad thematic categories and one cross-cutting category. Seven recommendations pertain to supporting the development of policies to assist the world in mitigating and adapting to the implications of climate change. Two recommendations focus on providing data that will better reflect household distributional aspects across the G20. Three recommendations aim to provide new data that will provide insight into the effect the digital transformation is having on credit, money, and financial inclusion. The last two recommendations will support both researchers and data producers with tools to acquire and exchange the growing set of “big data” available to support research and the production of official statistics. The remainder of this note outlines the specific recommendations and the policy uses of the data.

¹ Non-G20 FSB Economies participate in the DGI on a voluntary basis and therefore, implement only the recommendations that are deemed relevant for their national context.

Climate Change-Related Data Gaps

9. In 2016, 191 economies signed onto the Paris Climate Agreement² in a global effort to limit greenhouse gas emissions. To achieve these targets, economies will need to undergo important structural reforms. This will require a rich dataset that will allow policymakers to monitor the impact of these reforms on GHG emissions and adjust these reforms as they progress towards their 2030 and 2050 targets. The first pillar of the DGI comprises seven recommendations that seeks to provide policymakers with critical statistics that will assist them in developing appropriate policy responses to help mitigate and adapt to the changing climate.

Recommendation 1: Greenhouse Gas Emission Accounts and National Carbon Footprints³.

Policy Driver: G20 FMCBGs have identified a need to monitor progress towards emission targets and the transition towards a low carbon economy. All G20 economies have updated their Nationally Determined Contributions (NDCs) as outlined under the Paris Climate Agreement. Consequently, there will be a need to track progress towards these targets on a regular and timely basis. In order to achieve these targets, G20 economies will need to undergo important industrial and structural reforms—in particular within the energy sector. There will be a need to monitor the progress of these reforms and their impact on GHG emissions and carbon footprints. The development of internationally comparable annual Air Emission accounts and National Carbon Footprints will assist G20 and participating economies in monitoring the source of emissions and whether or not climate mitigation policies are having the desired effect.

Target Statistical Products: G20 and participating economies will prepare annual Air Emissions Accounts (for GHGs) by industry and estimates of National Carbon Footprints by demand category (exports, household consumption etc..) consistent with macroeconomic indicators such as industrial output, value added and real Gross Domestic Product.

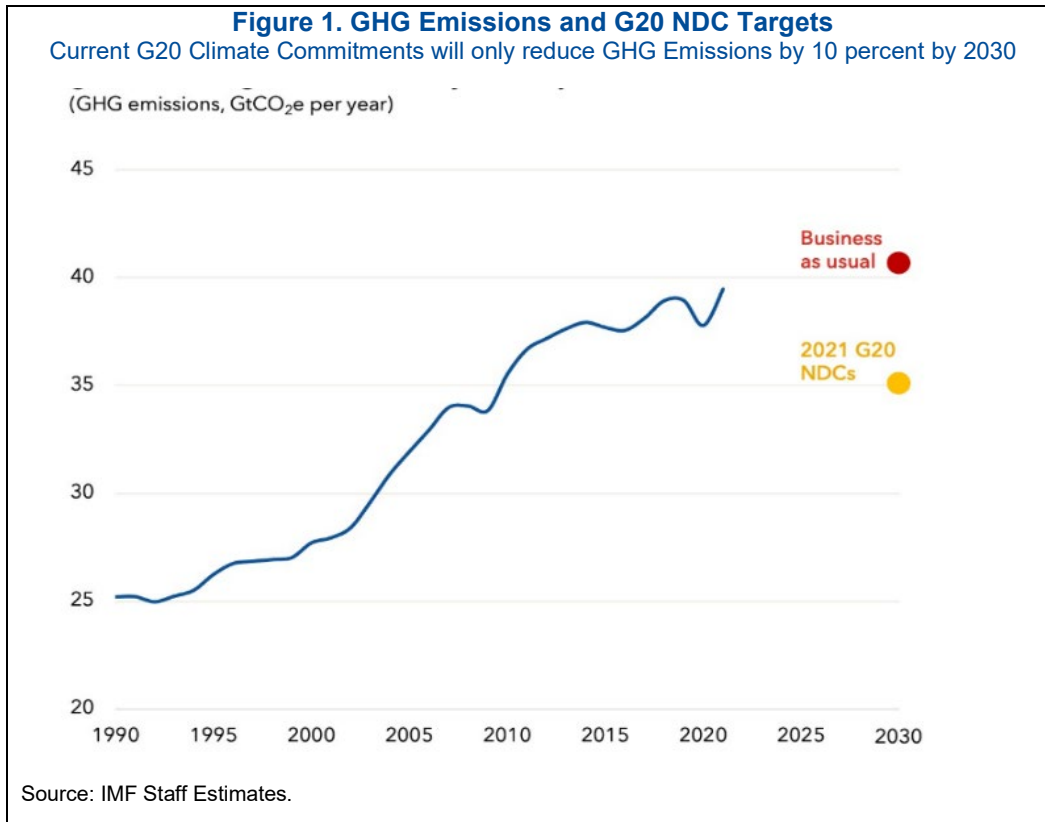
10. Greenhouse Gas Emissions are the single largest contributor to global warming.⁴

Greenhouse Gas Emission Accounts and estimates of National Carbon Footprints (Recommendation 1) aim to assist policy makers in monitoring progress towards emission targets and the transition towards a low-carbon economy. All G20 economies have updated their national determined contributions (NDCs) as outlined under the Paris Climate Agreement. Consequently, there will be a need to track progress towards these targets on a regular and timely basis. To achieve these targets, G20 economies will need to undergo important industrial and structural reforms. They will need to monitor the impact of these reforms on Greenhouse Gas (GHG) Emissions and Carbon Footprints over time.

² [Paris Agreement - Status of Ratification | UNFCCC](#)

³ The lead and contributing agencies for this recommendation are Eurostat, IMF, the United Nations Statistics Division (UNSD) (leads), and the Organization for Economic Co-operation and Development (OECD).

⁴ Climate Change is caused by increasing anthropogenic emission of greenhouse gases. ([Chap1 ns2.PDF \(unfccc.int\)](#))



11. GHG emissions can be examined from two perspectives—that of producer and that of consumer. The two measures provide different perspectives on GHG emissions. For instance, in an economy with export-oriented carbon intensive industries, the production/territory related GHG emissions might be much higher than the consumption-related emissions. Conversely, in a comparably service-dominated economy, the consumption-based emissions might be higher than the production / territory related emissions. In order to reduce GHG emissions, G20 economies will need to alter both their production and consumption patterns. The new DGI recommends that G20 and participating economies develop and disseminate estimates of both production and consumption based GHG emissions.

12. Air Emission Accounts complement the territory based GHG inventories. They detail which economic activities generate what types of emissions, using a sectoral breakdown and measurement principles that are fully aligned with mainstream economic indicators (such as estimates of GDP by industry). As a result, these accounts have multiple analytical and policy uses including the derivation of emission intensities by industry, the calculation of consumption-based estimates as well as in policy scenario analysis in support of the NDCs. Air emission accounts and physical flow energy accounts are compiled according to the System of Environmental Economic Accounting-Central Framework (SEEA-CF), which was adopted as an international statistical standard in 2012. Air emission accounts can be compiled using the United Nations Framework Convention on Climate Change (UNFCCC) national GHG inventories in combination with energy accounts/statistics (see Recommendation 2) as well as

additional information (e.g. on international transport and tourism) to align with the resident principle underpinning accounting standards such as the System of National Accounts and SEEA.

Recommendation 2: Energy Accounts^{5, 6}.

Policy Driver: Transformation of the energy sector is key to addressing climate change. To achieve NDCs defined under the Paris Agreement, policymakers will need to employ policies to facilitate the energy transition towards a low carbon economy. The energy accounts can be used to monitor the energy mix (including the share of renewable energy sources) used by economic activities in production, energy transformation and final consumption. As such, they are useful to monitor a wide variety of energy policies. Due to their consistency with the supply and use tables of the national accounts, energy accounts allow for the calculation of energy intensities (by economic activities), calculating multipliers, energy footprints, or performing structural decomposition analysis.

Target Statistical Product: G20 and participating economies will prepare annual Energy Accounts which record the supply and use of energy from natural inputs, energy products, energy residuals and other residual flows in physical units of measure.

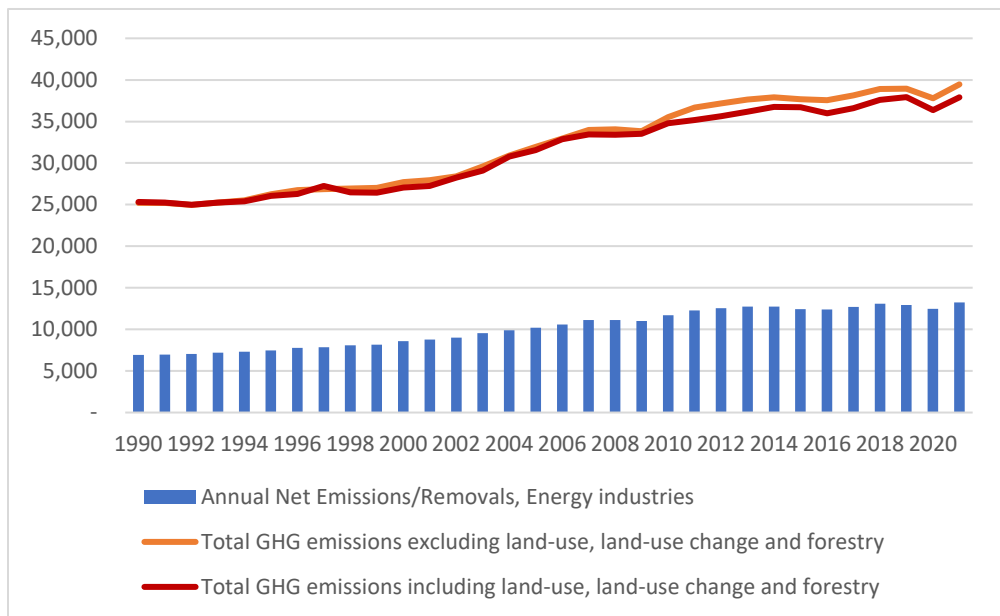
13. The transformation of the energy sector across the G20 group is key to reducing GHG emissions and limit global warming. The energy sector is the largest contributor to GHG emissions. The International Energy Agency (IEA) estimates that energy accounts for more than two-thirds of the GHG emissions globally. To respond to the need to monitor energy policies, the DGI calls for G20 economies to develop comparable energy accounts (Recommendation 2)—in line with the SEEA-CF. Energy accounts describe the supply and use of energy by economic activity and energy source. They are constructed either directly from energy statistics and energy balances and can be readily integrated with economic data since they use the same classification and concepts that are used in macroeconomic accounting.

14. Energy accounts will be critical in assisting G20 and participating economies monitor the energy transition. Energy accounts can be used to monitor the energy mix (including the share of renewable energy sources) used by economic activities in production, energy transformation and final consumption. As such, they are useful to monitor a wide variety of energy policies. Due to their consistency with national accounts supply and use tables, energy accounts allow for the calculation of energy intensities (by economic activities), calculating multipliers, energy footprints, or performing structural decomposition analysis. Combined with information about energy taxes and subsidies, they provide a useful tool for policy analysis.

⁵ The lead and contributing agencies for this recommendation are: UNSD (lead), as Secretariat of the United Nations Committee of Experts on Environmental-Economic Accounting (UNCEEA), with Eurostat and IMF.

⁶ While energy accounts consist of flow accounts and asset accounts in physical and monetary terms, the scope of this recommendation pertains to physical energy flow accounts (PEFA).

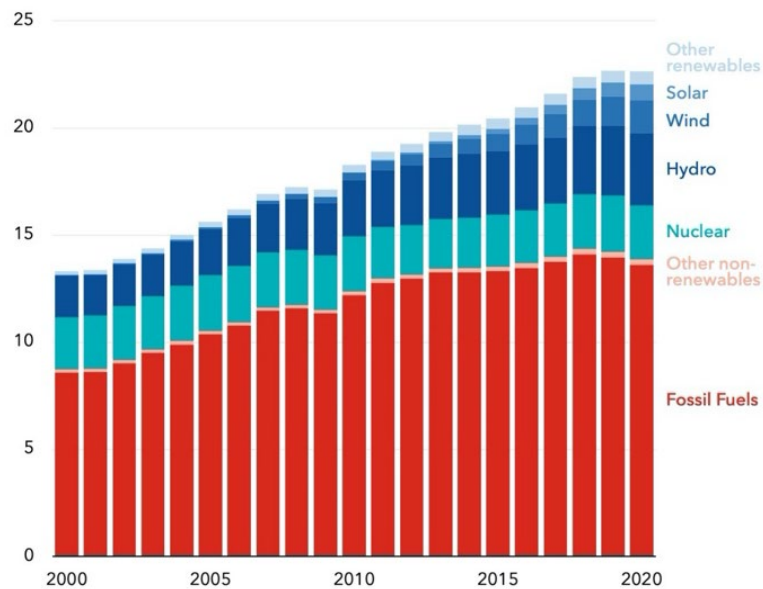
Figure 2. GHG Emissions from Energy Sector, G20
Million metric tons of CO₂ equivalent (MtCO₂Eq)



Source: IMF Climate Change Indicators Dashboard.

Notes: Energy industries correspond to public electricity and heat production, petroleum refining and the manufacture of solid fuels.

Figure 3. Electricity Generation from Various Sources
(Power generation by source, millions of gigawatt hours)



Source: IMF Climate Change Indicators Dashboard.

15. While statistical standards for air emission accounts and energy accounts exist, not all G20 economies currently compile them. According to the 2021 Global Assessment on SEEA implementation, 58 countries have compiled physical energy flow accounts within the last five years, of which 12 are G20 members,⁷ and 48 countries have compiled air emission accounts, of which 10 are G20 members.

Recommendation 3: Carbon Footprints of Foreign Direct Investment⁸

Policy Driver: *Understanding the source of GHG emissions is key in developing effective policy. Estimates of GHG emissions broken down by Multinational Enterprises (MNEs) and domestic enterprises would help policymakers better understand where CO2 emissions are generated, who owns the enterprises generating them, and where the associated goods and services are consumed.*

Target Statistical Product: *CO2 emissions per unit of output of foreign controlled multinational enterprises and domestic controlled enterprises by industry.*

16. Foreign Direct Investment (FDI) related policies are one channel that policymakers can use to help address climate change. Foreign Direct Investment can be used as a vehicle to transfer low-carbon technology across borders, assisting economies in meeting their emission targets. While FDI can assist in the transfer of low-carbon technology across borders, it also allows firms to circumvent tighter emissions standards by locating more carbon-intensive stages of production in economies with less stringent standards (e.g., carbon leakage) and then exporting the final product to other economies. Understanding these trends requires an additional dimension, that of ownership, to be added to the estimates of carbon footprints. Tracking the emissions of Multinational Enterprises (MNEs) will help policymakers better understand where GHG emissions are generated, who owns the enterprises generating them, and where the associated goods and services are consumed. This information will be critical in helping develop globally coordinated climate change related policies and whether policy asymmetries exist across countries.

Recommendation 4: Climate Finance (Green Debt and Equity Securities Financing)⁹

Policy Driver: *There is a growing need for policies that incentivize investment in green projects and activities that can mitigate climate change and help countries adapt to its implications. Policymakers will require data to track the source of funds available to fund these projects. Green financing is considered globally as a key instrument to support the transition to a more resilient economy.*

Target Statistical Product: *Statistics on green debt securities and listed shares by sector of issuer and holder.*

⁷ The G20 numbers exclude the EU but include individual EU member states.

⁸ Lead and Contributing International Organizations: IMF (lead), with OECD.

⁹ Lead and Contributing International Organizations: BIS and ECB (lead), with IMF, OECD, FSB (user perspective) and with the work being coordinated by the BIS-ECB-IMF Working Group on Securities Databases (WGSD).

17. It is estimated that 1 trillion dollars will need to be invested annually to transition to a low carbon economy. Policymakers will need to understand whether there are sufficient funds available for this transition, the sources of funds and how the funds are being used. Currently there is a lack of reliable and comparable indicators for tracking “green” financing via debt securities and equity instruments across the G20 economies. This recommendation aims at addressing this data gap through the development of methodological guidance and reporting templates to produce more comparable indicators of green financing via debt and equity securities.

18. The work will focus on presenting data on issuances and holdings of green debt securities and listed shares by participating economies. It will include a stocktaking of national compilation approaches and aim to develop methodological guidance to ensure greater interoperability and comparability of data reported across economies. The work will build on the methodology of the Handbook on Securities Statistics developed during the DGI-1 and will leverage the reporting templates developed under the DGI-2, in which many G20 economies developed security-by-security databases, which will assist greatly in developing robust estimates. These data will also help policymakers to better assess the carbon footprint of the financial sector by providing insights into the (equity) financing of carbon intensive activities and hence the related risks posed to the financial sector. Such information would also help to inform on the GHG intensity of cross-border portfolio flows.

Recommendation 5: Forward Looking Physical and Transition Risk Indicators¹¹

Policy Driver: *There is a need to monitor risk related to increasingly frequent and severe climate hazards (such as floods, drought, and fires) and the transition effect of climate policy on populations, national wealth, and firms’ profitability and stability. These indicators will assist policymakers in determining the timing and scope of climate policies. It will also provide them an important tool to develop support for climate action.*

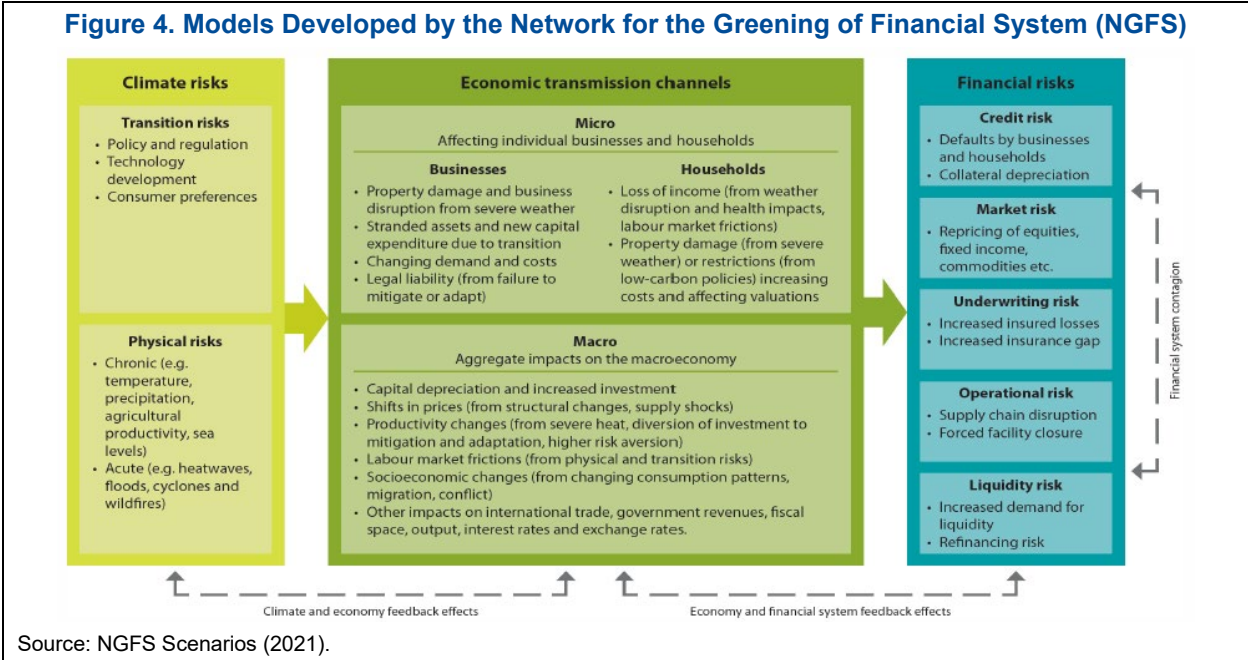
Target Statistical Product: *Forward-looking physical and transition risk indicators related to populations, assets, output/production, firm profitability, and wealth.*

19. Climate change risk consists of physical and transition risk. Physical risks arise from the potential impact increasingly frequent and severe climate hazards may have on population, buildings, infrastructure. These risks can manifest themselves in two ways: acutely and chronically. Acute impacts refer to more frequently occurring short-duration extreme weather events such as storms and floods. Chronic impacts are longer-term and pervasive risks such as droughts or sea level rise due to global warming, that will deprive economic sectors (e.g. agriculture) in certain regions of the world.

¹¹ IMF (lead), with World Bank, ECB, OECD, FSB, and BIS/Irving Fisher Committee on Central Bank Statistics (IFC). Workshops organized in the context of this recommendation as well as related distribution lists would also include representatives of the NGFS, in order to ensure a close exchange and cooperation between the work on this recommendation and the NGFS.

20. Transition risks emerge from the potential impacts of climate policy on economic performance and the stability of corporates and the financial system. The transition to a low-carbon economy brings uncertainties. These include technological developments, job loss and creation, modified consumer preferences, and policy and regulation adjustments, affecting businesses, households, and the broader economy.

21. While the methodological guidance on physical and transition risk indicators is still being developed¹² significant progress has been made over the last number of years¹³ to standardize the models and pathways that support the compilation of these indicators. Work in this area will focus on helping countries develop estimates of the potential loss (measured in terms of income, asset values, and populations) arising from climate hazards like rising storms, drought conditions or flooding caused by rising sea levels and those arising from climate mitigation policies such as carbon pricing.



Recommendation 6: Climate-Impacting Government Subsidies¹⁴

Policy Driver: Subsidies are one of the government policy tools available to tackle climate change. Policymakers required comparable estimates that provide insights into the extent government subsidy regimes are conducive to tackling climate change (or exasperating climate change).

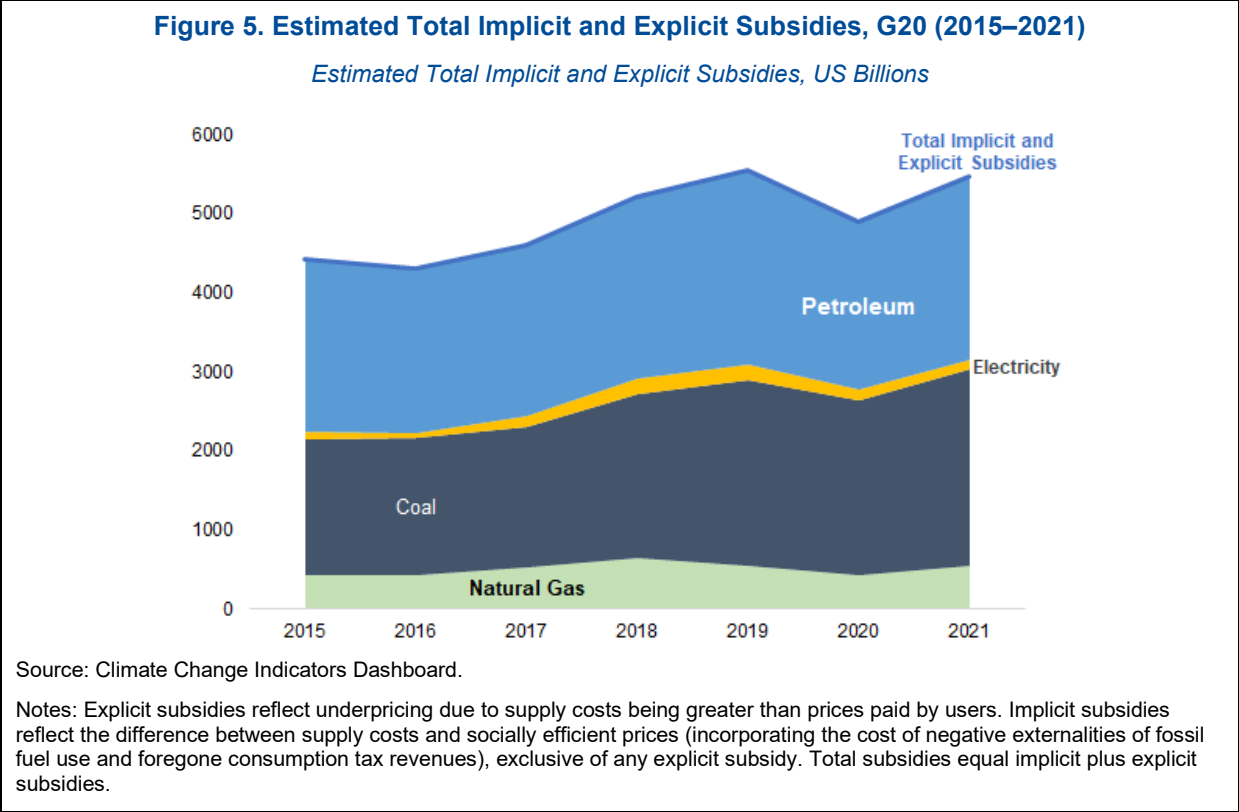
Target Statistical Products: Annual estimates of government subsidies by type of subsidy.

¹² ECB Report: "Towards climate-related statistical indicators," January 2023.

¹³ E.g., models developed by the Network for the Greening of Financial System (NGFS).

¹⁴ Lead and Contributing agencies: IMF, OECD, and UNSD (leads) with EUROSTAT.

22. Government subsidies can play an important role in addressing or exasperating climate change, depending on whether the activities being promoted have a positive or negative impact on the environment. The concept of climate-impacting subsidies is not currently well-defined and differences in reporting across the G20 economies exist. Work is required to develop comparable indicators of climate-sustaining and climate-damaging subsidies. The starting point will be the definition of environmental subsidies in existing statistical standards such as the SNA, the Government Finance Statistics Manual, 2014 (GFSM 2014), and the SEEA-CF. Work will be undertaken to develop and agree on a methodology to estimate implicit subsidies. An example of a possible approach is shown in Figure 5.



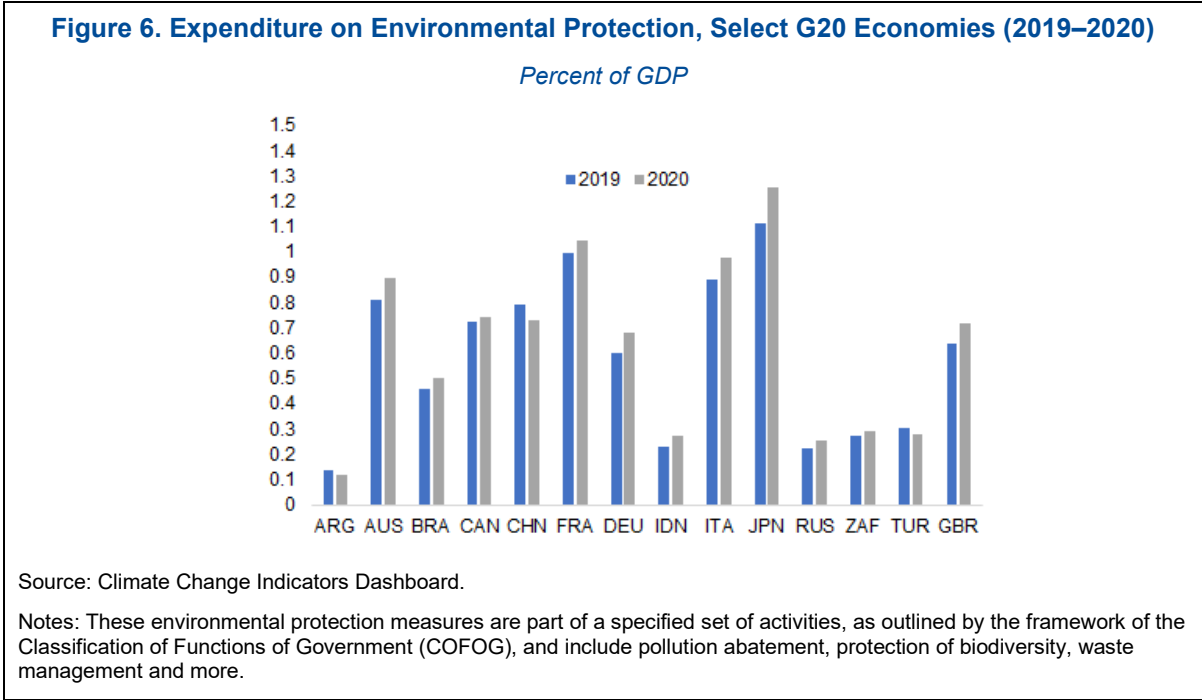
Recommendation 7: Climate Change Mitigation and Adaptation Expenditures¹⁵

Policy Driver: *The Paris Climate agreement represents a key global effort to reduce greenhouse gas emissions and adapt to a changing climate. There is a need to track the level of expenditures incurred across G20 economies to mitigate and adapt to the effects of climate change to ensure G20 economies are on track to achieve national commitments.*

Target Statistical Product: *Annual estimates of current and capital expenditures on climate mitigation and adaptation activities by sector (Governments, nonprofit institutions serving households, households, nonfinancial corporations, financial corporations).*

¹⁵ Lead and contributing agencies for this recommendation are IMF and UNSD (leads), with Eurostat, World Bank, and OECD.

23. Investment is required across all sectors of the economy to mitigate climate change and adapt to implications. Governments, corporations, and households will need to make substantial current and capital expenditures to attain GHG emission reduction commitments. This would include, inter-alia, investment in non-carbon emitting energy systems and the construction of climate adapting infrastructure such as sea walls, dikes, and levees. The statistics can be extended to include estimates of the impact this investment is having on the labor market in terms of number of so-called green jobs. The estimates will be compatible with the physical measures outlined in Recommendation 1 (GHG emissions), Recommendation 2 (energy accounts) and Recommendation 4 (green debt and equity securities financing) allowing policymakers to be able to triangulate investment, financing, and impact. The recommendation will also support efforts by national authorities to track current and capital expenditure on climate change adaptation and mitigation in national budgets and to make available information on green government expenditure and green investments.



Household Distributional Information Data Gaps

24. The second pillar of the new DGI includes two recommendations related to household distributional information. A key criticism of macroeconomic statistic is that they may conceal what is going on at more detailed levels. The key aggregates we publish each month, quarter, year are simply that—aggregates/averages which may hide key elements of the economic story. Particularly regarding households, they may conceal large differences across household groups. These aggregates provide a picture of how “we” are doing but not how you

or I are doing. The recommendations under this pillar will result in a better understanding of the distributional impact of policy and how economic progress is shared across households.¹⁶

Recommendation 8: Distribution of Household Income, Consumption and Savings¹⁷

Recommendation 9: Distribution of Household Wealth¹⁸

Policy Driver: *Policymakers are requesting statistics that allow them to understand the distributional impacts of policy choice. They require timely and granular distributional data alongside aggregate estimates to understand who is benefiting from economic growth, and how inequality develops over time. This will assist them in developing policies that are targeted towards specific household groups, to assess the distributional impact of specific policies and events, and to foster inclusive growth.*

Target Statistical Product: *Annual estimates of household income, consumption, saving and wealth by quintile or decile.*

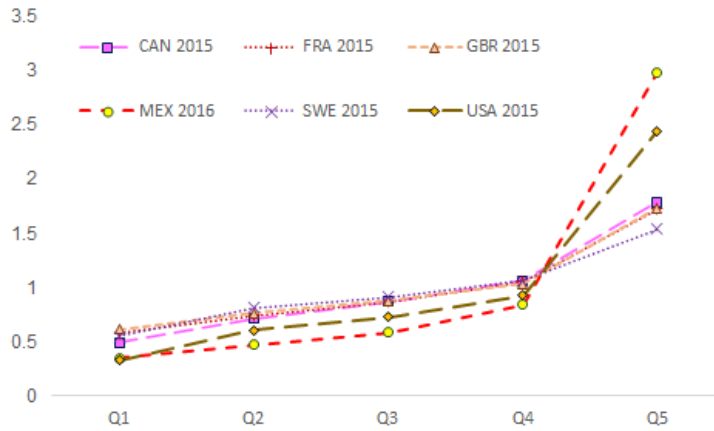
25. There is a strong demand to better understand the distributional effects of economic growth/contraction and government policy. Shocks such as the Global Financial Crisis and the Covid-19 pandemic have stressed the importance of having better information on the distribution of income, consumption, and wealth across socio-economic groups. While estimates of national income provide relevant insights into aggregate and average trends, they conceal differences between household groups. Regular, timely, and granular distributional information which is aligned with national accounts totals will allow policymakers to have a better understanding on how policy decisions work through the economy, impact economic agents and influence the economic developments. Moreover, they provide insight in key dimensions of material well-being across household groups and help policymakers develop policies that foster inclusive growth.

¹⁶ The past years have seen several initiatives to estimate distributional results on income, consumption, and saving, aligning microdata and national accounts totals. For example, as part of DGI Phases 1 and 2 (Recommendations I.16 and II.9), Eurostat and the OECD have developed guidance to estimate distributional results on income, consumption, and savings under the Expert Group on Distributional National Accounts (EG DNA), with experimental results already available for a range of economies. Furthermore, work has been initiated to improve the quality and consistency of the underlying microdata which is providing an important impetus for the quality of the distributional results. In this regard, Eurostat and the OECD have developed methodological guidance to produce joint income, consumption, and wealth distributions (EG ICW), which has resulted in experimental joint micro distributions for the EU and several non-EU OECD economies.

¹⁷ Lead and Contributing International Organizations: OECD (lead), with Eurostat, UNSD, World Bank and IMF.

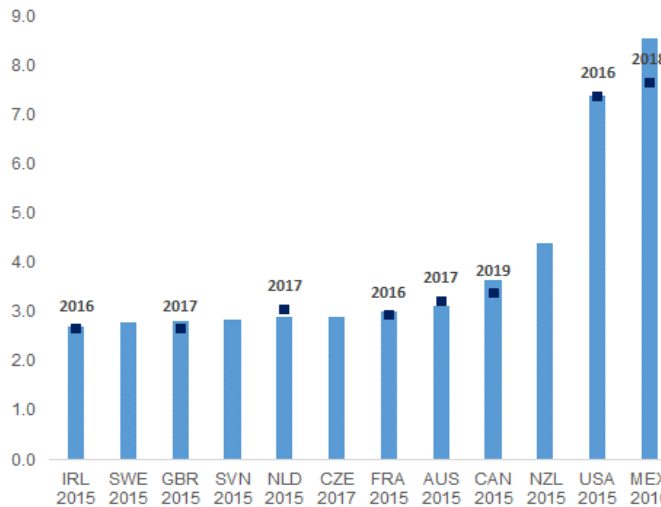
¹⁸ Lead and Contributing International Organizations: OECD (lead), with ECB, Eurostat and UNSD.

Figure 7. Relative Position of Each Household Group Compared to the Average for the Household Sector as a Whole, by Equivalized Disposable Income Quintile



Source: Zwijnenburg, J., et al. (2021), "Distribution of household income, consumption and saving in line with national accounts: Methodology and results from the 2020 collection round", OECD Statistics Working Papers, No. 2021/01, OECD Publishing, Paris, <https://doi.org/10.1787/615c9eec-en>.

Figure 8. Relative Position of the 20 Percent Highest Income Households to the 20 Percent Lowest Income Households, by Equivalized Disposable Income Quintile



Source: Zwijnenburg, J., et al. (2021), "Distribution of household income, consumption and saving in line with national accounts: Methodology and results from the 2020 collection round," OECD Statistics Working Papers, No. 2021/01, OECD Publishing, Paris, <https://doi.org/10.1787/615c9eec-en>.

26. While many of the G20 economies have distributional estimates of household income and (less so) wealth—these estimates are not aligned with macroeconomic concepts. This recommendation aims to provide policymakers with comparable and temporarily consistent estimates of the distribution of income, consumption, saving and wealth across households in line with macroeconomic aggregates. The compilation of these statistics involves

combining distributional information from household surveys or administrative data with macroeconomic estimates of income, consumption, and financial and non-financial wealth. These data provide insights into economic inclusion assisting policymakers to build better policies, and also help policymakers understand the distributional implications of a given policy choice.

Digitalization and Financial Innovation and Inclusion

27. The third pillar of the new DGI includes three recommendations related to financial innovation. Innovation is accelerating and touching all sectors of the economy and the financial sector is no exception. From the types of investment vehicles available to investors to our understanding of money—today’s financial services products are vastly different from yesterday’s and can be expected to change tomorrow. To develop appropriate policy, statistical compilers need to keep pace with this changing landscape and provide policymakers with statistics that provide real-time sightlines into the stability, risk and inclusion implications associated with this innovation.

Recommendation 10: Fintech Credit¹⁹

Policy Driver: *Policymakers need more comprehensive information to understand the access and usage of non-bank Fintech credit services and the potential build-up of vulnerabilities that could affect global financial stability.*

Target Statistical Product: *Estimates of Fintech credit aggregates and linkages of Fintech credit entities with the financial and non-financial sectors.*

28. Digitalization is having a significant impact on the financial sector. Consistent and comprehensive statistics are required to better understand global trends in financial innovation, such as the use of Fintech credit services, and the potential vulnerabilities and stability implications. Fintech credit can be broadly defined to include all types of lending facilitated by electronic platforms, such as peer-to-peer lending and BigTech or other platform-based direct lending that may not be currently captured within traditional measures of lending. Non-bank Fintech credit may include credit facilitated by banks but originated through platforms that are not operated by banks, and for which risks, and rewards are not borne by banks. Collection of comparable national aggregated data across jurisdictions and sectors would help policymakers in understanding the use of Fintech credit services, especially if such data are based on an adequately detailed and standardized Fintech taxonomy. It will also provide important information on build-up of vulnerabilities that could affect global financial stability.

29. As a first step in addressing this data gap the initiative will review the potential for collecting data on non-bank Fintech credit as part of the FSB’s annual monitoring of global trends, vulnerabilities, and innovations in non-bank financial intermediation (NBFi). This would complement the picture already available (to some extent at least) on related activities by

¹⁹ Lead and contributing agencies for this recommendation: FSB (lead), with BIS/IFC and ECB

banks. The effort will consider the work on the International Standard Industrial Classification of All Economic Activities (ISIC) Rev. 4 and European System of Central Banks (ESCB) suggestions for the Central Product Classification. It will build on past work such as the [FSB \(2019\)](#), [FSB and CGFS \(2017\)](#) and [Cornelli et al \(2020\)](#), as well as other national/international initiatives and may benefit from contributions from BIS/IFC²⁰ and forthcoming work in the ESCB.²¹

Recommendation 11: Digital Money²²

Policy Driver: *The growing presence of new forms of digital money and crypto-assets used as a means of payment poses the potential for various policy issues such as cross-border usage and currency substitution. Establishing a data collection framework and collecting data on digital money will help policymakers to monitor these developments and any associated risks in the future, including on use of foreign CBDCs, stablecoins, and other types of crypto-assets used as means of payment to ensure the proper coverage of monetary aggregates and international capital flows.*

Target Statistical Product: *Estimates of the stock and flow of digital money by type*

30. Central banks and private entities in G20 economies are leading efforts to develop CBDCs, global stablecoins and other types of crypto-assets. The growing presence of new forms of digital money and crypto-assets used as a means of payment pose several policy and supervisory challenges such as cross-border usage and currency substitution. Some emerging and developing countries are already experiencing “cryptoization”²³—substitution of domestic currency and assets with crypto assets.

31. The widespread adoption of crypto assets could threaten the effectiveness of monetary policy. Currency substitution can lead to a serious underestimation of broad money and international capital flows (due to the use of new Distributed Ledger Technology (DLT)—based payment channels), especially in countries under financial distress. This phenomenon is exacerbated by the global nature of crypto assets and the limitations of national compilers to collect data when their residents use *foreign* digital money (CBDCs or stablecoins issued by other countries) or *foreign* currency wallets or exchanges out of their reach. Also, fast digital dollarization can negatively affect monetary independence and financial stability of the economies.

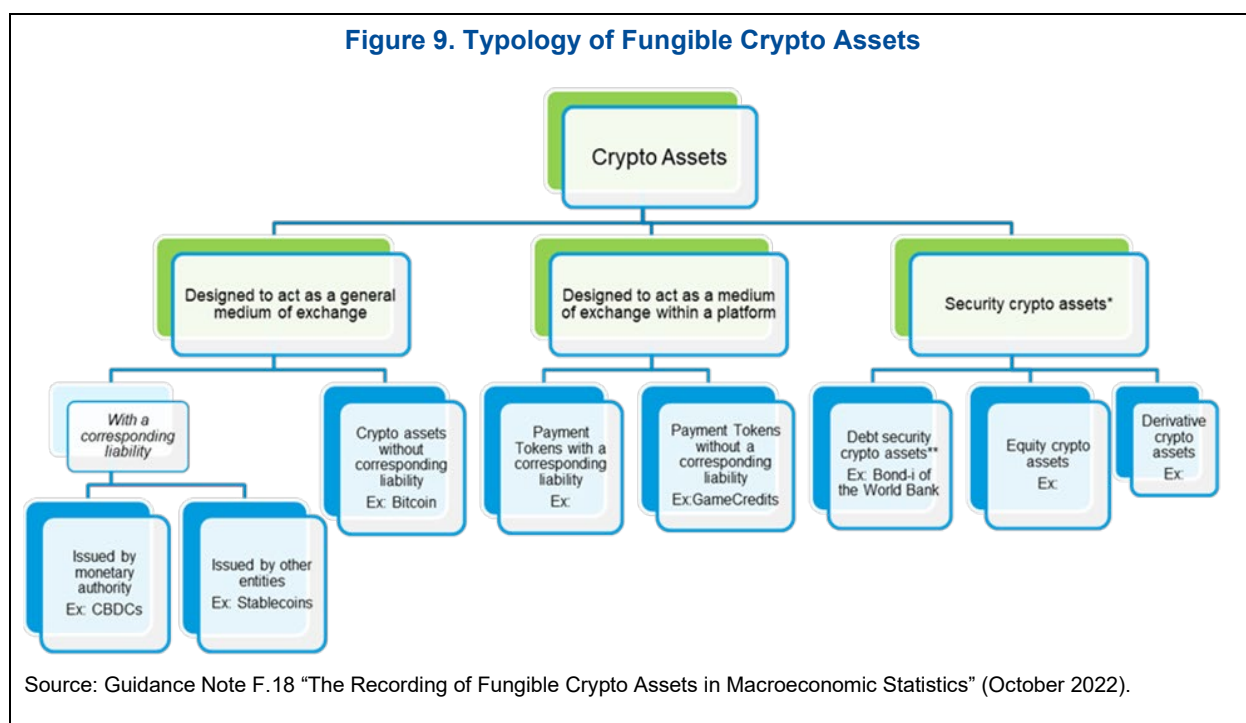
²⁰ Final Report of Irving Fisher Committee on Central Bank Statistics (IFC) Working Group of Fintech Data Issues, Towards [monitoring financial innovation in central bank statistics](#), July 2020.

²¹ Ulf von Kalckreuth and Norman Wilson, Deutsche Bundesbank, Celestino Giron and Urszula Kochanska, ECB, Enzo Buthiot and Yann Wicky, Bank of France, Luis Ángel Maza and Román Santos, Bank of Spain, Fintech in statistical classifications: suggestions and tentative figures in a central bank context. Paper presented at the 11th Biennial IFC Conference “Post-pandemic landscape for central bank statistics”, BIS, Basel, 25-26 August 2022.

²² Lead and contributing agencies for this recommendation are IMF (lead), with BIS/IFC, ECB, and FSB (user perspective)

²³ First use of the term in the October 2021 Global Financial Stability Report ([October GFSR](#)), December 9, 2022—[Some Key Elements of Crypto Regulation \(imf.org\)](#) by Deputy Managing Director Bo Li, October 1, 2021—[Blog Crypto Boom Poses New Challenges to Financial Stability](#)

32. The new DGI aims to develop a common framework and collect test data on new forms of digital money and crypto assets used as a means of payment enabled by Fintech. This work will draw on the current methodological guidance on the treatment of crypto assets in macroeconomic statistics,²⁴ which the IMF in collaboration with other International Organizations, are currently discussing. Using Figure 9 as reference, this recommendation focuses on the first category of “crypto assets designed to act as a general medium of exchange.” Data collected on positions and transactions in CBDCs, global stablecoins, and other types of crypto assets used as a means of payment will be used to improve measurement of monetary and liquidity aggregates as well as international capital flows. This will help policymakers monitor developments and any associated risks.



Recommendation 12: Fintech-enabled Financial Inclusion²⁵

Policy Driver: Financial inclusion is critical for sustainable and inclusive growth. Digitalization and fintech are having a significant impact on financial inclusion and access; yet the data to assist in understanding these trends are very scarce. Enhanced indicators on access to and usage of digital financial services, such as mobile payments, internet banking, and alternative financing platforms is key to monitoring the impact of financial innovation on financial inclusion of individuals, especially for the most vulnerable and financially underserved groups.

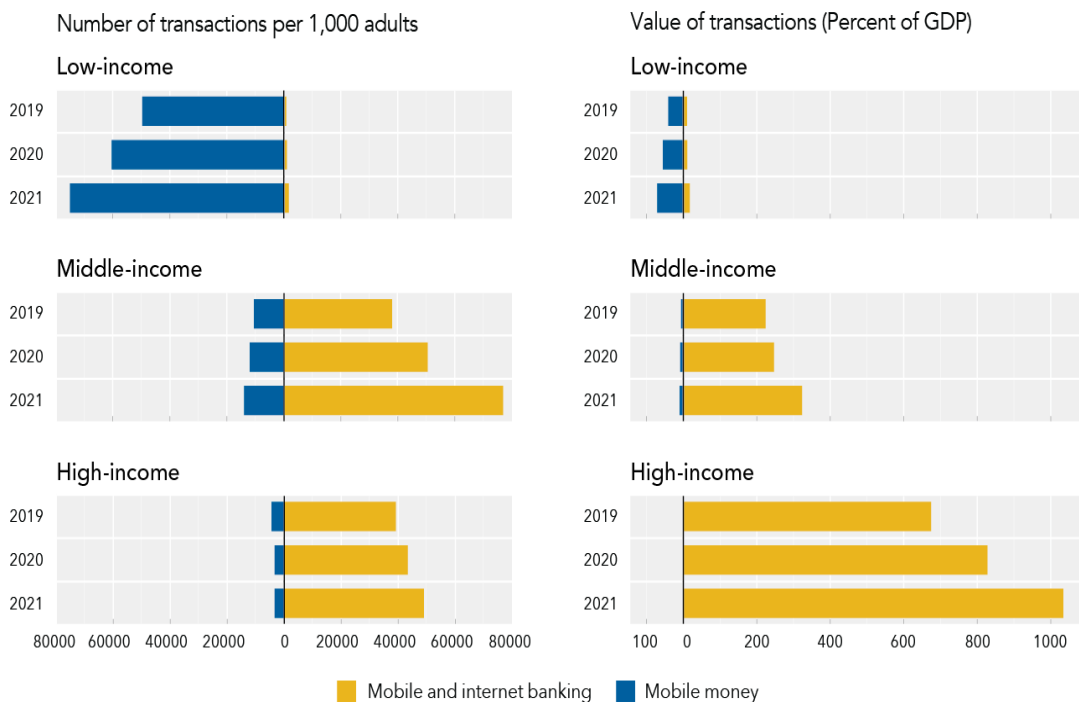
Targeted Statistical Products: Annual estimates of Fintech-enabled financial inclusion and access by type of access and sector.

²⁴ The Recording of Crypto Assets in Macroeconomic Statistics. Paper by FITT ([BOPCOM 22/05](#))

²⁵ The lead and contributing agencies for this recommendation are World Bank and IMF (joint leads), with BIS/IFC, and OECD.

33. Financial inclusion is critical for sustainable and inclusive growth. Digitalization and Fintech are transforming the way people access financial services, but the data to track the developments in this area are limited and not readily available. More information on access to and usage of digital financial services, such as mobile payments, internet banking, and alternative financing platforms is needed to help guide policy makers in developing appropriate policies. Against this backdrop, there is an increasing need for new and more granular data on financial inclusion, notably to gauge the impact of Fintech on financial inclusion. The objective of this recommendation is to improve the availability of information to assess Fintech-enabled financial inclusion, including access to and usage of digital financial instruments and services. This work will mainly build on both the IMF’s Financial Access Survey (FAS) and the World Bank’s Global Findex Survey by strengthening these vehicles to support the monitoring of the impact of Fintech on financial inclusion for different population groups, especially the most vulnerable and financially underserved groups. This work supports the G20 High-Level Principles for Digital Financial Inclusion.

Figure 20. Surge of Digital Financial Services Compared to Pre-Pandemic Levels



Source: Financial Access Survey and IMF staff calculations.

Notes: The chart includes countries whose data are available for 2019–2021.

According to the IMF’s [FAS’s Guidelines and Manual](#), mobile money is different from mobile and internet banking. Mobile money is a financial service offered by a mobile network operator or another entity that partners with mobile network operators, independent of the traditional banking network. A bank account is not required to use mobile money services—the only prerequisite is a basic mobile phone. Meanwhile, mobile and internet banking is the facility which enables customers of a financial institution to execute financial transactions electronically via the internet, either using a mobile phone or another electronic device.

Access to Private and Administrative Data, and Data Sharing

34. The fourth pillar of the new DGI includes two recommendations related to access to private sector and administrative data and data sharing. The FMCBGs recognize that policy is highly dependent on data. Increasingly, the private sector is generating data that could be used to complement and improve official statistics. Improving access to private sector and administrative data and improving data sharing mechanisms will result in more timely, granular information for decision making as well as entirely new datasets providing important insights related to climate change, economic inclusion, and financial innovation.

Recommendation 13: Access to Private and Administrative Data²⁶

***Policy Driver:** G20 Finance Ministers and Central Bank Governors (FMCBGs) recognized that “improving data availability and provision, including on environmental issues, and harnessing the wealth of data produced by digitalization, while ensuring compliance with legal frameworks on data protection and privacy, will be critical to better inform [their] decisions.”*

35. The building blocks for good statistics are increasingly held by the private sector. The new DGI aims to develop tools to facilitate access to private and administrative data by statistical authorities and researchers. Key activities envisioned under this recommendation include:

- engaging with private data holders to define a set of principles that should be observed to make private data accessible for official statistics and economic policy use²⁷
- developing a taxonomy of the characteristics of private data sources and define data models that facilitate access and sharing, considering legal specificities of jurisdictions and the features of the underlying data.
- promoting a coordinated approach to data access among statistical authorities (national statistical institutes, national central banks, and other institutions responsible for official statistics).
- promoting exchange of methods and techniques to access private and administrative data while preserving data protection and privacy, including the potential of anonymization techniques.
- analyzing and promoting the benefits of the use of administrative data for producing official statistics.
- developing tools to inform administrative data holders about the benefits of using administrative data in the production of official statistics.

²⁶ The IAG is responsible for implementing this recommendation.

²⁷ This work will consider existing data access frameworks and initiatives in order to maximize synergies and avoid duplications and preserving the trust of the various stakeholders and their data rights, while building on what has already been done by different actors and in different fora. For instance, the stocktaking exercise published by the IFC in 2021 on the related data governance aspects.

36. This recommendation builds on the *Promotion of Data Sharing - DGI-2, rec. 20*. Seven principles related to increasing the accessibility and sharing of granular data were agreed to under DGI-2. These principles will serve as the basis for work in this area.

Table 1. DGI-2 Rec.20 to Increase Accessibility and Sharing of Granular Data

1. *Promoting the use of common statistical identifiers*
2. *Promoting the exchange of experience on statistical work with granular data and improving transparency*
3. *Balancing confidentiality and users' needs*
4. *Linking different datasets*
5. *Provision of data at the international level*
6. *Consideration of ways of improved data sharing of granular data*
7. *Collection of data only once*

Recommendation 14: Data Sharing²⁸

Policy Driver: *Access to data is not sufficient. Procedures to share data in a secure and privacy preserving manner is required. Recommendation 14 aims to work towards an international microdata standard would cover principles, enablers, use cases of best practice data sharing (e.g., access for research purposes, cooperation between public and private sectors, open data initiatives, and good practices from non-statistical examples of data sharing), and measures of success.*

37. Data sharing requires trust. In the context of data sharing, a key component of trust is embedded in the tools and methods adopted when sharing data. This effort will focus on the development of an international microdata²⁹ sharing standard. This standard will include the principles, enablers, and modalities to permit the exchange of microdata between institutions. Work will include an analysis of national (and international) legal issues relating to the exchange of confidential information. It will also explore the use of new architecture, tools and the technical expertise to facilitate the sharing of microdata (e.g., the use of privacy-preserving techniques and new encryption techniques).

38. This work will be coordinated with existing groups working on data sharing. This includes the International Network for Exchanging Experience on Statistical Handling of Granular Data (INEXDA), the follow-up work to the UNECE report guided by the Conference of European Statisticians, as well as with the ongoing development of the Statistical Data and Metadata eXchange (SDMX) standard (especially for microdata) sponsored by the IAG

²⁸ The lead and contributing agencies for this recommendation are Eurostat and ECB (leads) with World Bank, and other IAG members.

²⁹ The term "microdata" refers primarily to record-level data.

organizations and other relevant work at international level such as linked open statistical data initiatives, classifications and the Data Documentation Initiative (DDI).

Way Forward

39. The new DGI is an ambitious initiative with a challenging timeline. The ambitious nature of the initiative and challenging timeline reflects the need for action. The new DGI will deliver insights to policymakers—policymakers will be expected to use the data to take action. Given different statistical capacity across the G20 and different policy needs each G20 DGI dataset will be slightly different, tailored to the country's specific needs. While the scope of the data set may differ slightly from jurisdiction to jurisdiction the resulting statistics will be constructed using the latest statistical methods and methodologies. The data will be internally consistent, temporally consistent, and comparable across economies.

40. Implementation of the new DGI will start in the first quarter of 2023. G20 and participating economies will leverage existing statistical methodologies, global datasets, and ongoing statistical initiatives to deliver data sooner rather than later. The initiative will take an agile approach, developing and releasing experimental estimates fit for use to be refined over the course of the initiative. The statistical compilers will need to be resourced in order to undertake this work and will require support from domestic policymakers. It is expected that throughout the initiative policymakers and compilers will work together to ensure the resulting data meet the quality needs of users.