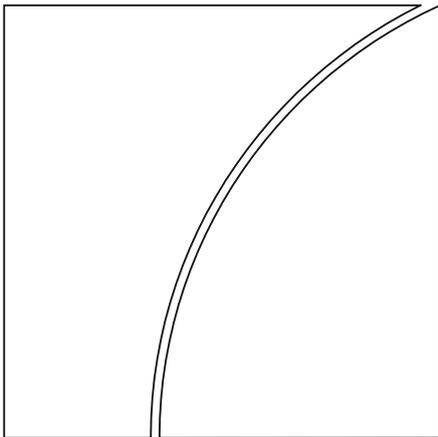


Irving Fisher Committee on Central Bank Statistics



2023 IFC Annual Report

January 2024

Irving Fisher Committee on
Central Bank Statistics



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2023 Annual Report of the Irving Fisher Committee on Central Bank Statistics

On 10 January 2024 the BIS All Governors' meeting approved the publication of the 2023 Annual Report of the Irving Fisher Committee on Central Bank Statistics (IFC). It provides a brief update on the IFC's governance and a review of its main workstreams, including planned initiatives.

Executive summary

As a global network that discusses and develops statistical issues of interest to central banks, the IFC now has 103 members and is an affiliated member of the International Statistical Institute (ISI). It is chaired by Pablo García of the Central Bank of Chile.

Responses to the Committee's **regular membership survey** last year underlined the relevance of IFC's role as a centre to promote knowledge-sharing and collaboration on statistics-related methodologies, initiatives and training among central banks, reflecting their important role in the production of official statistics. In addition, the 2023 survey collected information on the implementation of the Statistical Data and Metadata eXchange (SDMX) standard as well as on the resources and organisation of central banks' statistical units.

Ensuring wider cooperation with the global statistical community also remained high on the IFC agenda in 2023. A key aspect was related to the **international cooperation framework under the G20 Data Gaps Initiative (DGI)**, especially its third phase that calls for better data to understand climate change, income and wealth, financial innovation and inclusion, and access to private and administrative data and data-sharing. In addition, the Committee was actively involved in the activities of the ISI, in particular on the occasion of its 64th biennial World Statistics Congress (WSC) in Canada, for which several IFC sessions were sponsored on behalf of the central bank community. Furthermore, IFC members and the BIS have continued to follow the ongoing **revision of the international statistical manuals** – eg covering the System of National Accounts (SNA) and balance of payments (BPM). They have also contributed to various initiatives to strengthen the international statistical infrastructure – including the global legal entity identification (LEI) system and SDMX.

The main areas covered by the IFC, thanks to the support of its member central banks, the ISI and a number of international organisations, have centred on:

- **Evolution and prospects for official statistics:** the Committee reviewed the post-pandemic landscape for central bank statistics and will further analyse their evolving contribution to policymaking at its flagship Biennial Conference in August 2024. Moreover, the IFC has continued to participate in international forums dealing with data governance issues, especially in the context of the ISI and the United Nations (UN).
- **Micro data:** the Bank of Canada and the IFC organised last year a dedicated seminar on granular data in conjunction with the 64th ISI WSC. The objective was to take an integrated view of the use of micro data by central banks, highlighting

the analytical value and the tools and approaches needed to unlock its potential as well as the challenges it poses.

- **Data science:** the IFC conducted an in-depth review of central bank applications supporting artificial intelligence (AI), with a focus on natural language processing (NLP) tools and large language models (LLMs). It has also been organising with the Bank of Italy recurrent data science workshops to review developments in the big data ecosystem and the ongoing adoption of data analytics.
- **Communication of official statistics:** the IFC published a report last year analysing the recent evolution of the statistical communication function within central banks and identifying potential actions for improvement.
- **Fintech:** the Committee has continued to work on the statistical implications of fintech developments, not least in the context of the ongoing revision of international statistical classification systems and manuals.
- **Sustainable finance:** a dedicated IFC working group has been tasked to work on sustainable finance data issues in recent years, especially in the G20 context to develop indicators for green finance – to this end, a specific workshop was co-organised by the South African Reserve Bank (SARB) with the support of the European Central Bank (ECB) in 2023. The Committee has also taken several initiatives to spur progress on the carbon content measurement of economic output and on addressing climate change data needs.

Looking ahead, the IFC will continue to promote knowledge-sharing and international cooperation on statistics-related methodologies, initiatives and training. The Committee will also further its work in the various areas outlined above, and **several events** will be organised in this context with the support of the ECB and the central banks of Chile, France, Germany, Italy, Spain and Türkiye.

The Committee's governance and organisation

Governance

The IFC is a **global network** of statisticians, economists and policymakers who discuss statistical issues of interest to central banks and develop related methodological work. Its activities are overseen by the BIS All Governors' Meeting. It is chaired by Pablo García, Vice Governor of the Central Bank of Chile, supported by two Vice-Chairs, Robert Kirchner (Deputy Director General of the Directorate General Data and Statistics at the Deutsche Bundesbank) and Gloria Peña (Statistics and Data Division Director at the Central Bank of Chile).

The Committee's institutional members comprise central banks and international and regional organisations formally involved in central banking issues. The Central Bank of the Dominican Republic, the Central Bank of Ecuador, the Central Bank of Egypt, the Maldives Monetary Authority and the National Bank of Moldova joined the IFC as new members in 2023. The Committee now has **103 members**, including all BIS shareholder central banks.

The IFC is an **affiliated member of the ISI**, under a memorandum of understanding with the BIS, and also participates in the activities of the International Association for Official Statistics (IAOS). In addition, a significant number of IFC central banks (about one third) have become ISI corporate members in recent years. The IFC has continued its involvement in ISI undertakings in 2023, especially on the occasion of its biennial WSC (see below).

The Committee held its annual meeting on 16 July 2023 to discuss its activities, examine future work and review the composition of its executive body (see Annex 1 for the composition of the IFC Executive as of 1 January 2024).

2023 survey of IFC membership

The Committee organises regular membership surveys to gather feedback from members on its activities, governance issues, and suggestions for future work.

As regards the **IFC work programme**, the 2023 survey underlined that Committee members are primarily interested in (Annex 2, Table 1):

- communication, dissemination and visualisation of statistics;
- sustainable finance;
- technology in statistics and IT-related aspects (eg big data, data science);
- monetary and financial stability policies;
- fintech;
- data governance and statistical standards; and
- securities and external sector statistics as well as financial accounts.

Interest appears somewhat more limited for topics such as derivatives, organisation issues, impact of regulation, composite indicators, inequalities, Islamic finance and the impact of Covid-19.

The survey results have been helpful in the **preparation of the Committee's future activities**. They also show that central banks' interest and participation in IFC global events remain strong, especially as regards its flagship biennial conference and ISI WSC-related events (Annex 2, Graph 1). Moreover, a large majority of member jurisdictions have been involved in IFC main initiatives in some form or another (eg meetings, publications, surveys, statistical resource web pages). But interest in virtual events, regional workshops and thematic working groups seems lower. Limited resources, especially as regards available staff, and competing priorities appear to restrict participation in the wide range of IFC activities.

The survey also suggests that the Committee is fulfilling its mandate appropriately, as measured by its members' degree of satisfaction, especially as regards the usefulness of its surveys, internal and external communication, decision-making processes and the secretariat's activities.

IFC as a statistical knowledge centre

Another lesson of the membership survey is the importance of the role played by the IFC as a **centre for knowledge-sharing and international cooperation** on statistics-related methodologies, initiatives and training. The aim is to showcase the experience of central banks in pursuing statistical production work and facilitate access to methodological material, relevant initiatives and training opportunities.

A first focus point relates to **IFC publications**. The public readership of *IFC Bulletins* has increased significantly over the past decade (Annex 3, Graph 2.A), and the number of citations has steadily expanded (Graph 2.B). In addition, the IFC has launched new series in recent years, notably the *IFC Reports* since 2015.

Second, the Committee has developed its dissemination work on methodological issues by leveraging the experience of its members. In particular, short *IFC Guidance Notes* have been available since 2022 on the **IFC knowledge centre webpage** – see the ones published last year on data-sharing practices and time series products. More informally, and at the request of any of its members, the Committee also provides a secured platform for sharing among fellow central banks restricted information on the practical handling of specific issues.

Third, the IFC now hosts the **historical monetary and financial statistics (HMFS) central bank network**. This network brings together statisticians and academic experts to focus on monetary and financial data that are relevant to policymakers. It provides a forum to discuss approaches to compiling historic data and to learn from each other. The [HMFS webpage](#) contains detailed information on the network composition, relevant data sets and country contributions, and general documentation. Significant progress has been already achieved on the dissemination of long-term statistics related to credit, interest rates and house prices, and this work is being expanded to cover data series on central bank balance sheets.

Fourth, the Committee is actively providing training facilities. A key initiative relates to **financial accounts**, an essential element of the SNA, which central banks are responsible for compiling in many countries. In view of the strong demand from central bank staff for learning opportunities in this area, the Committee has been supporting the development by the OECD/Sapienza University in Rome of an online course on macroeconomic financial accounts with Coursera, the US-based massive

open online course provider.¹ Following the completion of the first part of the course (a general introduction on financial accounts and balance sheets within the SNA), a second part covering financial markets and institutional sectors is planned for early 2024. Moreover, the IFC continues to sponsor, together with a number of central banks, the **postgraduate programme in statistical systems with a specialisation in Central Banks' Statistics**, developed by the NOVA Information Management School (NOVA IMS) of Universidade Nova de Lisboa in collaboration with Banco de Portugal. Lastly, the IFC is serving as a platform for its members to access relevant material developed in the context of the **European Master in Official Statistics** (EMOS) network arranged by the European Statistical System Committee.

Resources and organisation of the central bank statistical function

In the context of the 2023 IFC regular membership survey, member central banks were invited to provide **information on the resources and organisation of their statistical units**.

The main survey's findings were as follows (see Annex 4):

- About 40% of surveyed central banks employ less than 50 staff members for their statistical work (Graph 3.A). Yet, the absolute size of statistical units can be relatively large, representing between 100 and 500 staff in one third of the cases.
- The size of IT units appears somewhat larger (Graph 3.B); but their actual contribution to statistical support and projects seems more limited, representing less than 30 staff members in three quarters of responding central banks (Graph 3.C).
- For most respondents (61%), the statistics team is a separate unit in central banks (Graph 4.A). However, it is part of a larger department or is split among multiple areas in, respectively, 21% and 18% of the cases.
- In terms of budget, the resources used to finance the statistic teams and projects is relatively limited, representing less than 5% of the central bank's total budget in about one third of the cases, and between 5% and 10% in about half of the cases (Graph 4.B).
- As regards how financial resources are distributed across activities, the bulk (about 60%) of the statistical area's budget is devoted to current operations (Graph 5.A). The rest is split between IT maintenance, strategic projects, continuous improvement projects and, to a lesser extent, training.
- These resources are mostly covering internal staff costs (for about 80%), with the rest almost equally split between consultancy services and non-staff costs (Graph 5.B).

¹ This project draws on the OECD's "Understanding financial accounts" manual, to which several IFC members have contributed. The BIS/IFC, the ECB and the Bank of Italy are acting both as funding sponsors of the project and as members of its scientific committee.

IFC involvement in global statistical initiatives

The G20 Data Gaps Initiative

An important aspect of the Committee's work is to explore information gaps and ways for strengthening data collection in the context of the **G20 DGI initiative**,² ie the cooperation framework set up in response to the Great Financial Crisis (GFC) of 2007–09. The main goal has been to enhance data availability, especially as regards to timeliness, frequency and international comparability, and to participate in the general improvement of the global statistical infrastructure. Three main factors have been instrumental here: the structured collaboration set up between international organisations and national statistical systems (NSS); the close connection with current official priorities, with annual reporting to policymakers and prioritisation of the related statistical implications; and the peer pressure mechanism for spurring the involvement of G20 national authorities as well as other interested jurisdictions.

Following the completion of the two first phases of the DGI, IAG members with the support of the Financial Stability Board (FSB) and major economies set up in 2022 a workplan for a **new, third phase of the DGI (DGI-3)** spanning over a five-year horizon. This workplan aims to address the critical data gaps that exist in the face of the climate crisis, increasing economic polarisation, and large-scale digital transformation. Its 14 recommendations are clustered around four statistical areas, namely (i) climate change; (ii) household distributional information; (iii) fintech and financial inclusion; and (iv) access to private sources of data and administrative data and data-sharing. Moreover, an annual reporting framework has been established to help assess advancements, as documented on the IMF-maintained [webpage](#) – this monitoring covers both the new workplan as well as ongoing efforts to address previous DGI recommendations, especially in areas of particular relevance to the central banking community such as securities financing transactions, financial accounts, banking and securities statistics, cross-border corporate exposures, non-bank financial intermediation and property prices.

SDMX

The ISO **SDMX standard** is sponsored by the members of the IAG and, since 2023, the International Labour Organization (ILO). It is widely used by international organisations, national statistical offices (NSOs), and other data-producing agencies to streamline the transmission of data and strengthen their production and dissemination. The IFC/BIS continued to support the dissemination of this standard last year, with four aspects.

First, the **SDMX Fusion Metadata Registry (FMR)**, which is a free and open source software project launched under the umbrella of the BIS Open Tech initiative. FMR enables organisations to manage statistical metadata effectively and efficiently –

² In liaison with the BIS's involvement in the Inter-Agency Group on Economic and Financial Statistics (IAG), which comprises the BIS, the ECB, Eurostat, the IMF (Chair), the OECD, the UN and the World Bank.

a key consideration for automating data processing and collection in a metadata-driven environment.

Second, the **sdmx.io platform** is an ecosystem providing a suite of free open source SDMX software tools and resources, designed to support various aspects of official statistics like data collection and dissemination. This initiative also includes an extensive library of learning resources and best practices. In addition, it is conducted in close collaboration with the Statistical Information System Collaboration Community, which is a reference open source community for official statistics. This synergistic partnership facilitates the global sharing of innovative tools and methodologies in developing and implementing statistical information systems.

Third, the IFC supported the organisation of the **SDMX Global Conference**, which is a biannual event attended by official statistics' compilers and users worldwide. The 2023 edition, on "Empowering data communities", was organised by the Bahrain Information and eGovernment Authority with the support of the UN Economic and Social Commission for Western Asia and the Bank of Italy. A key takeaway is the need to intensify SDMX tooling and capacity-building initiatives and leverage emergent technologies such as generative AI. In addition, emphasis needs to be placed on SDMX-based data dissemination and visualisation techniques to make data more accessible, comprehensible and actionable. Moreover, advocacy and outreach are crucial; central banks can be instrumental in spurring the adoption of SDMX and its interoperability with other standards, in turn ensuring robust, reliable and high-quality data in official statistics. An important initiative in this regard was the organisation of the first global SDMX Hackathon to foster enhancement and innovation in the field of statistical data management and dissemination.

Fourth, the IFC conducted a **membership survey to review SDMX development** and its state of adoption. The results show that the standard is increasingly implemented (as reported by about 80% of IFC members), especially to support the reporting to other institutions and data production. Moreover, there is overall satisfaction with using the SDMX tools made available by the international community. But there is still an important knowledge gap limiting implementation, which puts a premium on developing learning initiatives and empowering the data community with adequate products and collaboration opportunities.

Other international initiatives

The central banking community supports ongoing efforts to **revise international statistical manuals**, ie for the SNA and the BPM, with the development of adequate methodologies (eg for defining green securities as well as fintech-related activities and cryptoassets) and a common glossary for macroeconomic statistics – related progress is documented at "Towards the 2025 SNA" and "Update of the sixth edition of the balance of payments and international investment position manual (BPM6)".

Another notable initiative for enhancing the international statistical infrastructure relates to the **Global LEI system**. The IFC participates as an observer in the LEI Regulatory Oversight Committee (ROC), which involves financial markets regulators and other public authorities to coordinate and oversee the LEI and its wider adoption. Of particular interest is the ongoing work on enhancing the quality of the LEI and broadening its coverage for the benefit of financial data reporting, improving the

ability to monitor financial risk, and lowering regulatory reporting costs – with a specific initiative to work on data quality issues by pairing the LEI with other types of identifier, including the ones used for compiling BIS international financial statistics.

Lastly, cooperation with the international statistical community remains high on the Committee's agenda. During the ISI's 64th biennial WSC in Ottawa in 2023, the IFC organised several sessions on sustainable finance, financial innovation, communication, data governance, data science, commercial real estate indicators etc. The event provided a key opportunity to further deepen the dialogue between central bank statisticians, their counterparts in NSOs and international organisations, and academia. Moreover, the Committee greatly values the general statistical cooperation among the international organisations regrouped within the **CCSA**, the inter-agency Committee for the Coordination of Statistical Activities. It is also supporting a number of regional statistical initiatives, including the Forum of Financial Information (FIF) established by the Central Banks Center for Latin American Monetary Studies (**CEMLA**) to identify and discuss issues related to the improvement of financial information models at central banks, as well as the Steering Committee of the Arab Statistics Initiative ("**Arabstat**"). Finally, the Committee also cooperates with the Centre for International Research on Economic Tendency Surveys (**CIRET**).

Main ongoing IFC workstreams

The IFC has been furthering its work in several key areas, leveraging the support of its member central banks, the ISI and a number of international organisations. Its activities are centred primarily on the evolution of official statistics, micro data, data science, statistical communication, data governance, fintech, sustainable finance and external sector statistics. The related publications are listed in Annex 5.

Evolution and prospects for official statistics

Statisticians have quickly adapted to the consequences of the Covid-19 pandemic and are now **reassessing ways to produce and make use of information**. While data producers must provide more and more varied indicators, the last crisis was a reminder that they should continually adapt to reach their various user groups more effectively. As key elements of the NSS, central banks have been at the forefront of these discussions. They have been drawing from their unique role as producers and consumers of data to support their policies – as documented in the IFC Bulletin on the "Post-pandemic landscape for central bank statistics".

Looking ahead, several challenges remain, calling statistical compilers to adapt their frameworks to better reflect structural developments in the global economy. A first focus point is how to leverage IT innovation, as the new normal for central bank statisticians is likely to rely more heavily on data science to make a better use of the large amount of information available "organically" in modern societies. In addition, the demand for timely, high-quality and varied data is likely to increase further, which calls for a more flexible global statistical infrastructure, for instance through the development of universal registers and identifiers, the promotion of data-sharing and the facilitating of the access to new sources of information. The **next IFC Biennial Conference to be held at the BIS in August 2024** will provide an opportunity to

discuss these issues. Its main theme, “Statistics and beyond: new data for decision-making in central banks”, will cover the evolving role of the central banks’ statistical function, the opportunities and challenges related to new data sources and tools, and ongoing international statistical initiatives.

Micro data

Historically, central banks have relied upon traditional sources of data such as censuses and official statistical surveys, which provide many advantages but also come with some challenges and costs. In contrast, the recent growth of available granular structured/unstructured data, along with the development of sophisticated techniques and computational methods for handling and analysing them, have opened the door to new approaches. To shed light on these issues, the Bank of Canada and the IFC organised a **satellite seminar** on “Granular data: new horizons and challenges for central banks” in conjunction with the 64th ISI WSC. The objective was to take an integrated view of the use of micro data by central banks, highlighting the analytical benefits, the tools and approaches needed to unlock its value, and the challenges it poses.

One lesson is that granular data offer multiple opportunities for central bank research and policy, providing valuable insights and answers where aggregate/consolidated data could not. But they also push the limits of traditional analytical approaches, techniques and tools, putting a premium on making the best possible use of advances in data science and technology. Moreover, working with granular data poses important challenges, including but not limited to privacy and confidentiality, data quality and coverage, governance, and data interpretability and communication. Lastly, a key issue faced by central banks as both producers and receivers of statistics relates to the **sharing of granular data**, as analysed last year in a dedicated *IFC Guidance Note* – which took stock of the experience reported by Committee members on initiatives and practical ways to promote data-sharing, the use of common statistical identifiers and agreed standards, and the balancing of confidentiality requirements and users’ needs.

The IFC also continued to support a number of important international initiatives in the area of micro data in 2023. The first one takes place in the context of the G20 DGI-3 initiative’s recommendation on enhancing micro data-sharing, with the aim to work towards an international microdata standard (to be coordinated with existing developments, including in the context of the SDMX standard). A second initiative relates to a group of central banks, several NSOs and international organisations involved in **INEXDA**, the International Network for Exchanging Experience on Statistical Handling of Granular Data. The IFC has energetically supported its work, which comprises the development of a metadata schema to describe granular data sets, the identification of data access procedures and the review of best practices. The BIS is providing eBIS as a platform for internal communication in the network, and a joint session was co-organised on the access to granular administrative data at the ISI 2023 WSC.

A third fruitful cooperation in the micro data domain relates to the European Committee of Central Balance Sheet Data Offices (ECCBSO). This group aims to improve the analysis of non-financial corporate enterprises data through the exchange of information and joint studies. It plans to organise with the IFC and the

Bank of Spain a workshop in 2024 on the value of financial statements statistics and their communication to users. One noteworthy development from this perspective is that financial statements should offer a new and valuable information source for climate-related firm data in future, in line with the implementation of the standards developed by the [International Sustainability Standards Board \(ISSB\)](#). Another important aspect is to foster cooperation between central banks and NSOs in this area, as for instance in Europe based on the data developed in the context of the Corporate Sustainability Reporting Directive (CSRD).

Data science

The IFC has been actively reviewing **developments in the big data ecosystem**. One objective is to showcase projects and share experience so as to develop in-house knowledge and reduce the reliance on external services providers. Fortunately, there are already many current projects in the central banking community, not least to deal with the sheer volume and complexity of financial data available in today's societies. Another triggering factor has been the greater focus on real-time, evidence-based policymaking, which requires better analytical capacities and access to new types of data. These issues were extensively discussed in an *IFC Bulletin* on "Data science in central banking: applications and tools" published last year, with a focus on natural language processing (NLP) tools and large language models (LLMs).

A key lesson is that **data science** is fundamentally different from traditional data analysis, as it typically applies to large, complex and/or unstructured information sets. Hence the role of data scientists lies at the intersection of three areas. The first is IT: central banks are increasingly aware that a modern IT architecture is crucial to reliably and securely deal with data. Regarding in particular the handling of time series by central banks, the Committee decided to analyse this issue by conducting a dedicated survey last year (with the results published in an *IFC Guidance Note*). The second area relates to the leveraging of mathematical and statistical techniques to deal with the raw data at hand. Many different approaches can be followed to help improve the efficiency and effectiveness of central banks' operations, especially to support monetary policy, micro supervision and macroprudential tasks as well as for broader financial stability-related goals, including the functioning of the payment system, financial inclusion, consumer protection and anti-money laundering. In addition, the use of AI could transform the whole production chain of official statistics, making it potentially more efficient, resilient and user-friendly. The third key aspect is to ensure close cooperation between data specialists and subject matter experts involved in data science projects. Analysing statistics calls for an awareness of the way they have been compiled as well as of the complex factors that drive them – which are essential elements for transforming data into knowledge and taking informed policy decisions.

Looking ahead, an important way to leverage data science in central banking is to enhance the **access to alternative data sources as well as the sharing of information** (including data but also metadata and training data sets), as underscored in the G20 DGI-3 initiative's recommendations. This topic was the focus of the third IFC "Data science in central banking" workshop organised at the Bank of Italy in 2023. The event underlined that coping with shifts in user demands triggered by unprecedented shocks such as pandemics requires tapping into new information sources, often held by private actors and government agencies. Furthermore,

cooperation can be instrumental to facilitate access to privately held data and administrative registers. Lastly, data-sharing can help to ensure the broadest possible data availability in the most efficient way, while keeping the reporting burden under control.

Communication of statistics

The statistical teams of many central banks have recently taken important steps to strengthen their communication function. Yet, despite ongoing efforts, the dissemination of official statistics remains a constant challenge, not least in view of the difficulties posed by new data sources and the need to secure public confidence. In this context, the Committee published an *IFC Report* in 2023 to review the **evolution of central banks' statistical communication** and identify actions for improvement.

A key message is that almost all central banks are proactively developing communication initiatives as a complement to their statistical production work. While they are not alone in this field, they appear well positioned, not least in terms of their credibility, visibility and trusted independence. But they are also perceived to be somewhat outdated when communicating statistics, especially with respect to the use of advanced visualisation tools to communicate statistical content effectively. Moreover, interacting with the public involves dealing with sometimes complex concepts. To address these challenges, central bank statisticians are adopting a more segmented communication strategy, with the production of specific content tailored to targeted, pre-defined audiences using a diversified range of channels.

Data governance

The IFC has contributed substantially to international discussions on data governance issues in recent years. It is represented on the **ISI Advisory Board on Ethics**, which promotes the observance of existing ethical principles in statistics and reviews their content. One key achievement was the revision conducted in 2023 of the *ISI Declaration on Professional Ethics* so as to better reflect the increasing use of a diversity of data sources, linked data sets and computationally heavy statistical methods. In addition, the IFC represented the central banking community in the task force set up by the UN Economic Commission for Europe (**UNECE**) to review data stewardship and the role of NSOs in the new data ecosystem. Moreover, it is supporting the work of the UNECE High-Level Group for the Modernization of Official Statistics, which provides international guidance on, in particular, cross-standard interoperability, the application of data science methods and related communication aspects.

Another important initiative was in the context of the ISI Regional Statistics Conference organised with the IAOS in Zambia – which also represented an opportunity to extend IFC outreach to **Africa** in coordination with the relevant central banks. The Committee organised a discussion on the role of data and statistics in the digital transformation of public services. A strong administrative, information and technical infrastructure is required for official statistics. Important building blocks are the countries' administrative registers and business and citizens' records, implying that statisticians need to be actively involved in their setup. This calls for careful

planning and monitoring of the related development plans, for instance as regards the legislation process, the introduction of international standards and the spreading of good practices. A national data strategy would be useful to strengthen the stewardship role of NSOs and other NSS partners and ensure the adequate management and oversight of national data assets. Moreover, the establishment of strong data governance frameworks covering all the institutions involved is essential, and the ongoing digital transformation presents an important opportunity to achieve that. Central banks have a keen interest in engaging with other public and private units in this context, eg to ensure that data are only collected once, that adequate statistical standards are followed, that effective coordination takes place within the NSS and across the whole data ecosystem, and that sufficient digital capacity is built in the country.

Fintech

Extensive IFC work in recent years has documented how **fintech, or technological innovation in financial services**, is creating several challenges for the provision of statistical information on the financial system. To address them, the IFC has set up a dedicated Working Group on Fintech Data Issues. Four important global initiatives are worth noting in this context. First, the IFC has continued to participate in the UN-organised **Global Consultation on the revised structure of the International Standard Industrial Classification (ISIC)** of All Economic Activities. In its last round of comments, submitted in 2023, the Committee emphasised the need to clarify the scope of the “Financial and Insurance activities” section. This would be achieved by the setup of explanatory notes for the treatment of activities such as:

- cryptoassets without a corresponding liability;
- fintech credit, including crowd-funding operations;
- tokenisation of financial instruments and related activities;
- new forms of supply chain activities, including factoring;
- robot financial activities;
- paytech; and
- digital-only banks, quasi-banks and banktech.

Second, the Committee is supporting UN work to strengthen business registration in countries, improve the availability of (national and global) unique identifiers and facilitate access to administrative data. Third, it is monitoring the implications of fintech for the revision of international statistical manuals and organised a session at the 2023 ISI WSC to review approaches for constructing, collecting and disseminating information on fintechs. Lastly, the IFC supports the fintech-related recommendations of the G20 DGI-3, and its members’ experience is being leveraged to cover topics such as the measurement of fintech credit, central bank digital currencies and digital money, and the improvement of financial inclusion and access through digital instruments and services.

Sustainable finance

The IFC has launched several **initiatives on sustainable finance data issues** in recent years, in close coordination with other international bodies including the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), the supervisory initiatives led by the FSB and standard-setting bodies, and the various actions undertaken on data issues related to climate change in the G20 DGI-3 context.

In particular, one important focus has been on the provision of methodological guidance for the development of more **comparable indicators for green finance** (ie debt and equity financing), in the context of a dedicated G20 DGI-3 recommendation led by the international Working Group on Securities Databases (WGSD).³ The Committee co-organised with the WGSD a G20 workshop on securities statistics and climate finance hosted by the SARB in 2023. This event proved instrumental in establishing reporting templates, kicking off methodology work for defining green securities, and deepening the exchange of experience in compiling climate finance statistics, including as regards the selection of data sources, the use of security-by-security data, and the addressing of user needs.

In addition, the Committee will participate in **two important initiatives** next year. First, it will co-organise in February 2024 with the IMF, Eurostat, the Deutsche Bundesbank, the Central Bank of Chile and the University of Oxford a workshop on the carbon content measurement of economic output. This issue is at the heart of sustainability issues, since controlling and bringing down CO₂ emissions calls for a meaningful measure of the carbon content at the various levels of countries, sectors, companies and products. This initiative will thus support the development of a universal carbon accounting system based on the collection of reliable, consistent and accessible macro- and micro-level data.

A second important event will be the IFC workshop on “Addressing climate change data needs: the global debate and central banks’ contribution”, to be hosted by the Central Bank of the Republic of Türkiye with the support of the Deutsche Bundesbank and the Bank of France in May 2024. This event will provide an opportunity to review the key elements of the climate change statistical agenda, including the measurement of economic activities’ impact, the role of government expenditure to mitigate climate risks, and the development of forward-looking physical and transition risk indicators that are critical to understanding both the effects and the risks of climate change on the economy and the financial system.

External sector statistics

The Committee has been organising with the ECB a **series of events on external sector data**, a key area of interest for central bank statisticians. The aim is to foster regular discussions and sharing of experiences within the IFC community as well as with other interested stakeholders and users to identify the main analytical needs, prioritise data collections and address upcoming challenges. The second workshop,

³ The [WGSD](#) was tasked after the GFC with improving information on securities markets. Its core members are the BIS (Chair), the ECB and the IMF.

devoted to “External statistics after the pandemic: addressing novel analytical challenges”, will be hosted by the Bank of Spain in February 2024 and will follow the first edition organised in 2020 with Banco de Portugal. It will focus on the ongoing BPM revision as well as on the recent factors that have been reshaping the landscape for external statistics, including the consequences of the pandemic and its aftermath, digitalisation, geopolitical tensions and the growing attention to environmental issues.

Annex 1: Members of the IFC Executive as of January 2024

Executive member	Institution	Term
Pablo García (Chair)	Central Bank of Chile	2022–25 ⁴
Robert Kirchner (Vice-Chair)	Deutsche Bundesbank	2020–25
Gloria Peña (Vice-Chair)	Central Bank of Chile	2019–24
Yakubu Aminu Bello	Central Bank of Nigeria	2021–25
Elizabeth Holmquist	Board of Governors of the Federal Reserve System	2022–24
Ko Nakayama	Bank of Japan	2020–24
Michael Machuene Manamela	South African Reserve Bank	2024–26
Fernando Alberto Rocha	Central Bank of Brazil	2018–24
Eyal Rozen	Bank of Israel	2021–26
Silke Stapel-Weber	European Central Bank	2019–24
Luís Teles Dias	Banco de Portugal	2022–24

⁴ Three-year period starting 12 September 2022.

Annex 2: Selected results of the IFC membership survey

Main statistical topics of interest to central banks

Table 1

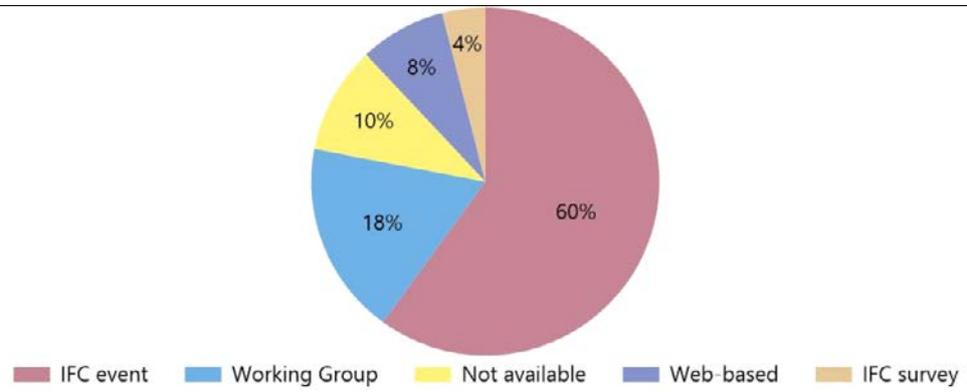
Communication/dissemination/visualisation of statistics
Sustainable finance (eg environmental, social and governance (ESG) issues)
Technology in statistics, IT infrastructure, cyber risk
Monetary policy
Fintech
Big data analytics (eg ML, AI), data science
Financial stability policy, macroprudential data
Data governance and management
International statistical standards (eg SNA, BPM), official statistics
Securities statistics
External statistics
Big data sources (eg internet, administrative data, commercial providers)
Financial accounts
Inflation
SDMX
Data-sharing/INEXDA-related work
Payment systems and data
Supervisory data
Statistical literacy
Credit (eg public and private debt)
Financial inclusion
Property prices
International banking
FX data (eg exchange rates, competitiveness)
Experimental statistics
Derivatives, off-balance sheet
Organisational issues (eg HR, resources, central bank statistical function, cooperation with NSOs/IOs)
Impact of regulation, evidence-based policy
Composite indicators
Inequalities, distribution issues
Islamic finance
Covid-19

Source: 2023 IFC Survey; responses sorted by level of preference (higher in green).

Preferred type of IFC activity

As a percentage of respondents¹

Graph 1



¹ Based on 51 responses.

Source: 2023 IFC Survey.

Annex 3: Readership of IFC publications

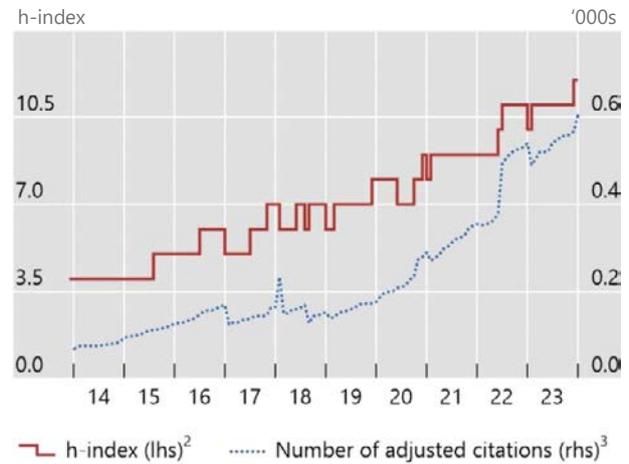
IFC Bulletins ranking and citation metrics

Graph 2

A. Ranking among all series by citations¹



B. Citation metrics



All indicators are based on last 10 years works for IFC Bulletins (ie not including IFC Reports and Guidance Notes).

^a Change of methodology. Since (before) October 2013, the ranking has been based on last 10 (all) years publications.

¹ Aggregate rankings (summary rankings that aggregate the various criteria). The IDEAS/RePEc rankings database provides various rankings related to research in Economics, including top institutions, journals, working paper series, and authors. Regarding economic publications among top series by citations, the *IFC Bulletins* ranked 1,348th among all series in December 2023, compared to 2,721st in August 2012. ² h is the number of works with at least h citations. ³ Excludes citations from the same series.

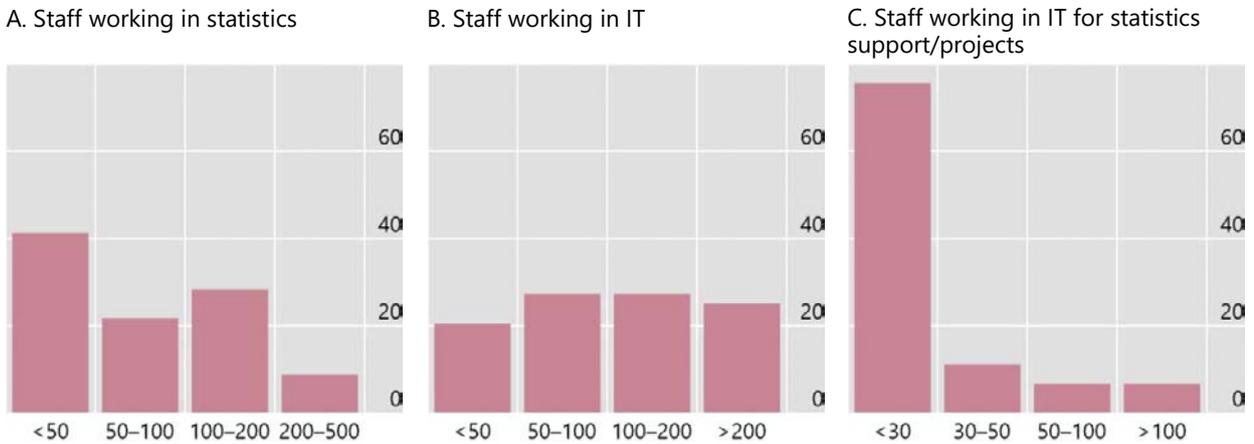
Sources: IDEAS/RePEc; BIS calculations.

Annex 4: Resources and organisation of the central bank statistical function

Staff allocation in central banks

Number of staff reported by jurisdictions, as a percentage of survey respondents¹

Graph 3



¹ Based on 51 responses; total number of responses may differ across panels.

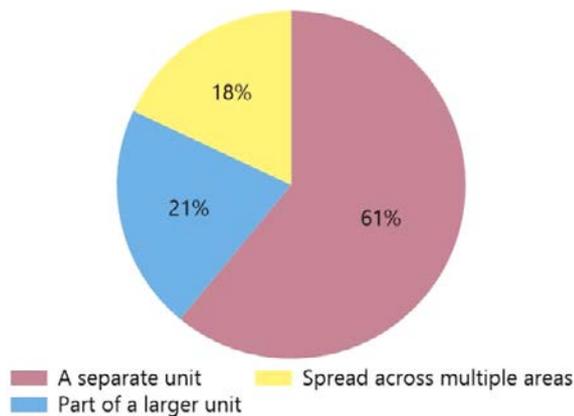
Source: 2023 IFC Survey.

Organisation of the statistics function/budget

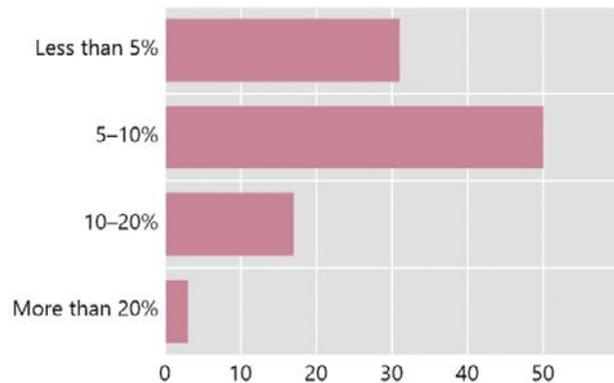
As a percentage of respondents¹

Graph 4

A. How is the statistics team organised?



B. Part of total budget allocated to statistical teams/projects



¹ Based on 51 responses; total number of responses may differ across panels.

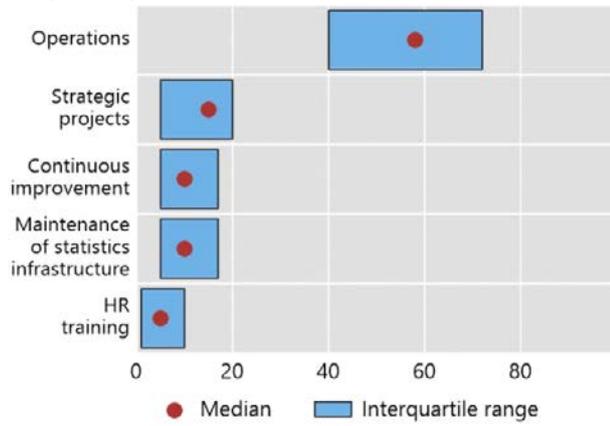
Source: 2023 IFC Survey.

Distribution of the statistics area's budget

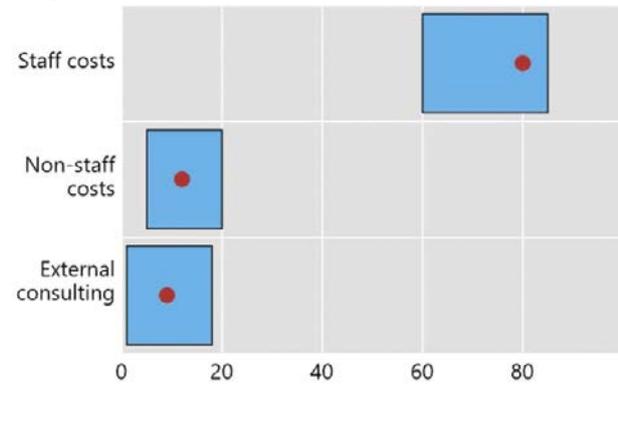
As a percentage of total statistics budget¹

Graph 5

A. By activity



B. By source of costs



¹ Based on 51 responses; total number of responses may differ across panels.

Source: 2023 IFC Survey.

Annex 5: IFC publications in 2023

January	<u><i>IFC 2022 Annual Report</i></u>
February	<u><i>IFC Report, no 15, "How central banks communicate on official statistics"</i></u>
March	<u><i>IFC Guidance Note, no 3, "Data-sharing practices"</i></u>
June	<u><i>BIS Bulletin, no 58, "Post-pandemic landscape for central bank statistics"</i></u>
October	<u><i>IFC Bulletin, no 59, "Data science in central banking: applications and tools"</i></u>
December	<u><i>IFC Guidance Note, no 4, "Central banks' use of time series products"</i></u>