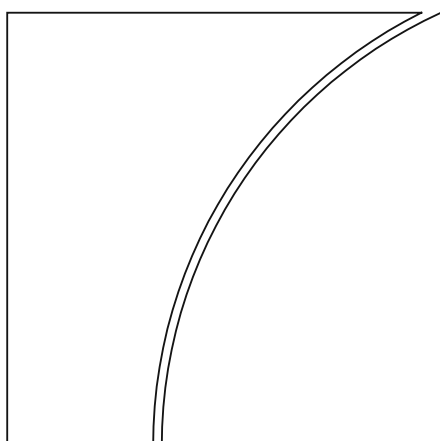Irving Fisher Committee
on Central Bank Statistics

2016 IFC Annual Report

January 2017

The views expressed in this Annual Report do not necessarily reflect the views of individual IFC member institutions or the Bank for International Settlements.

This publication is available on the BIS website (www.bis.org).

# Contents

# 2016 Annual Report of the Irving Fisher Committee on Central Bank Statistics

On 9 January 2017 the BIS All Governors' meeting approved the publication of the 2016 Annual Report of the Irving Fisher Committee on Central Bank Statistics (IFC). It provides a brief update on the governance of the IFC, a review of its activities over the past year, and a summary of its plans for future initiatives.

## Executive summary

The IFC is a global network that discusses statistical issues of interest to central banks. The Committee has now 85 members and is an affiliated member of the International Statistical Institute. It is chaired by Claudia Buch of the Deutsche Bundesbank.

A key IFC event in 2016 was the Eighth Biennial Conference of central bank statisticians, on "Statistical implications of the new financial landscape". In addition, the Committee conducted its regular membership survey.

The IFC work agenda covers the following main areas:

- **Data-sharing.** Following up on its recommendations published in 2015, in the context of the G20 Data Gaps Initiative (DGI) the IFC was invited to conduct a survey of data-sharing experiences among national and international bodies. The results of this survey will now be communicated to the G20 and will support the identification of good practices to foster collaboration and micro data-sharing both within central banks and among public institutions.

- **Financial inclusion.** In 2016 the IFC surveyed its member central banks on national policies and practices for financial inclusion. A number of recommendations have been identified regarding the definition of financial inclusion, central banks' mandate in this area, internal coordination, data gaps to be addressed and international cooperation. The IFC will continue to identify ways to promote financial inclusion through better data, building on its members' cumulated experience.

- **Big data.** A 2015 IFC survey underlined the central banking community's strong interest in sharing experiences and cooperating to explore the topic of big data. The Committee has accordingly decided to focus on a few pilot projects, related not only to the internet but also to the various large, micro data sets that are already available (eg administrative, commercial and financial market data sets).

- **SDMX.** The 2016 IFC report on central banks' use of and interest in the SDMX standard for exchanging data emphasised that it has become a fairly common and useful standard for central banks, especially for sharing data with international organisations. But its use is still concentrated in a few statistical areas and is mainly directed towards data dissemination rather than data collection. This calls for developing new internationally agreed SDMX data structures covering finance, trade, business and price statistics as priorities.

- **Statistics for financial stability.** Ongoing IFC work has highlighted the need to make better use of firm-level statistics for monetary and financial stability purposes. In particular, administrative sources of granular information represent a "new data frontier" for central banks, and specific attention needs to be

devoted to the matching of micro and macro data sets. The development of sectoral financial accounts should also be encouraged.

- ***Other work supporting international statistical initiatives.*** The IFC has taken steps to support international initiatives related to balance of payments issues and the second phase of the DGI.

In 2017, the Committee will further its work in the various areas outlined above. In the light of the feedback received from its members, it will also increase its focus on financial stability indicators, "traditional" BIS statistics, external sector statistics and data management issues.

## Governance and organisation

The IFC is a global network of central bank economists, statisticians and policymakers that discusses statistical issues of interest to central banks. Its institutional members comprise central banks or international and regional organisations formally involved in central banking issues. The last members to join the IFC in 2016 were the Central Bank of São Tomé e Príncipe and the Central Bank of Montenegro. The Committee has now 85 members – including almost all the BIS shareholder central banks.

The IFC is an affiliated member of the International Statistical Institute (ISI) under a memorandum of understanding (MoU) agreed with the BIS. In addition, a growing number of IFC central banks – 31 as at the end of 2016 – have become ISI corporate members in recent years.

On 7 September 2016, the Committee held its annual meeting under the vice chairmanship of Ms Katherine Hennings, Senior Adviser at the Economic Department of the Central Bank of Brazil, and Mr Aurel Schubert, Director General of the Statistics Department at the ECB. The Committee discussed its activities, examined future work and reviewed the composition of its executive body.

On 12 September 2016, in accordance with the IFC statutes, and following consultations with central banks, the BIS All Governors' Meeting formally endorsed the proposal to elect Claudia Buch, Vice President of the Deutsche Bundesbank, as the new IFC Chair for a three-year term, with immediate effect (see Annex 1 for the composition of the IFC Executive as of 1 January 2017).

## Main activities

The IFC organised several activities in 2016 with the support of its member central banks, the ISI and a number of international organisations. It held its Eighth Biennial Conference of central bank statisticians and furthered its work in the following main areas: data-sharing; financial inclusion; big data; the SDMX standard; statistics for financial stability analysis; and other aspects supporting international statistical initiatives.

### Eighth Biennial IFC Conference

In September the IFC held in Basel its Eighth Biennial Conference, on "Statistical implications of the new financial landscape". It was attended by almost 150 participants representing central banks and statistical agencies from 63 countries

as well as international organisations and the ISI. The theme of the conference reflected the importance of central bank statisticians' ongoing efforts to have better-quality, more comprehensive and flexible data sets. The event was a key opportunity for sharing various country experiences on statistical issues, from both a methodological and an empirical perspective.

The first area of focus was related to the statistical efforts undertaken by the central banks after the recent financial crisis to enhance data frameworks, especially to better capture systemic risk. Several central banks presented their work to build new, comprehensive databases for regulatory and macroprudential purposes. Second, the conference reviewed ongoing changes in financial intermediation patterns, especially to better capture structural shifts such as the growing role played by shadow banks. Third, it was felt that the post-crisis evolution in monetary policies had important statistical implications, for instance to better take into account risk-taking behaviours. A fourth part of the conference was devoted to assessing vulnerabilities in today's financial landscape. Central banks' presentations underlined the importance of mobilising granular data to assess exposures to exchange rate movements, balance sheet fragilities and macroeconomic risks more generally. The last part of the event focused on how to deal with the expanding availability of micro-level information and the associated challenges in terms of data-sharing and dissemination.

## Data-sharing

In 2013 the IFC established a task force to take stock of existing practices for data-sharing between central banks and supervisory groups. Based on several case studies provided by central banks, the IFC published a set of recommendations to foster collaboration and data-sharing. While the focus was narrowly limited on the cooperation between supervisors and central bank statisticians at the national level, the findings were expected to also help to improve data-sharing practices among both other national authorities and international bodies. To this end, the report established a suite of six good practices for stakeholders involved in data-sharing schemes, covering in particular communication, governance and cooperation. These recommendations also addressed collecting and preserving the confidentiality of data.

This initial work, together with other initiatives, has fostered a growing recognition by the international community of the need for improved data-sharing in the aftermath of the Great Financial Crisis of 2007–09 (GFC). In 2015, the second phase of the G20 DGI was launched and included a specific Recommendation (II.20) on the promotion of data-sharing. The aim was to "promote and encourage the exchange of data and metadata among and within G-20 economies, and with international agencies, to improve the quality (eg, consistency) of data, and availability for policy use". An increase in "the sharing and accessibility of granular data, if needed by revisiting existing confidentiality constraints" was also encouraged. Among the various action plans set up to implement this recommendation, the BIS was invited to update in 2016 the IFC survey of data-sharing practices, following up on the initial report.

The main findings of the 2016 survey can be summarised as follows:

**1 – *Sharing within central banks.*** Senior policymakers in central banks view the internal sharing of micro data within their own institutions as a very important issue, particularly as regards supervisory information, monetary and financial statistics and

macroprudential data. In many cases, various central bank departments are already able to share micro data internally. When this is not the case, legal constraints or other confidentiality restrictions are the most prevalent factors precluding or limiting internal sharing.

**2 – *External data-sharing.*** Senior policymakers also consider the external sharing of micro data between central banks and other authorities as important, albeit less so than the internal sharing of such data within their own institutions. Indeed, sharing with external counterparties is less widely enabled than within central banks, due mainly to legal or confidentiality reasons, but also because of technological obstacles. Among these external counterparties, supervisory authorities are the prime counterparty of central banks for sharing micro data. Survey respondents stressed in particular the importance of allowing the use of supervisory data for financial stability / macroprudential analysis, and, in turn, of macroprudential data for supervisory purposes.

**3 – *Arrangements to share data.*** Specific sharing arrangements, such as legal agreements, MoUs, data aggregation, synthesis or anonymisation, often govern sharing of micro data. Obviously, they are more extensively used for external sharing, but they also frequently govern internal sharing practices within central banks.

**4 – *Academia.*** The sharing of micro data with academia is typically governed by bespoke bilateral agreements. Several central banks are currently working on refining MoUs or establishing technical and legal frameworks to allow researchers to access their micro data.

**5 – *Matching data sets.*** Almost half of the central banks have an environment to perform matching of micro data sets produced for different purposes through anonymous or true identifiers. Such matching allows the same data set to be used for several purposes, thus obviating the need to collect it multiple times. It can also be used to perform quality control, provide a micro-level drill-down for aggregates, and more generally benefit from the wealth of information available from granular "administrative" data sets.

**6 – *Plans for change.*** One third of surveyed central banks have major plans to change their current practices (including their IT environments) with regard to sharing micro data. But the vast majority of central banks are of the view that they can influence the public debate on these matters even when they have no plans to make changes or direct authority on data-sharing.

**7 – *Commercial data providers.*** One third of respondents felt that there is a strong or very strong need to ease the legal constraints imposed by commercial agreements that restrict the sharing among public authorities of micro data provided by private vendors.

The IFC results will now be communicated to the G20 in the context of the upcoming Workshop on Data-sharing co-organised by Eurostat, the IMF and the Deutsche Bundesbank on 31 January–1 February 2017.

## Financial inclusion

A significant part of IFC work in recent years has been devoted to financial inclusion, with the aim of facilitating central bank discussions on related data issues. As part of this endeavour, the IFC surveyed its member central banks on national policies and practices for financial inclusion, together with the implementation of international data initiatives and related challenges. The objective was to compare financial

inclusion policies along four dimensions: definitions; central bank mandates, policies and governance structures; data types and sources; and collaboration with global forums and contributions to international initiatives.

This survey, published in 2016, highlighted six key messages:

*1 – Definitions.* The survey confirmed that there is no standard, universally accepted definition of financial inclusion. Central banks that do not currently use an official definition of financial inclusion should consider the merits and drawbacks of having one. In addition, work to clarify the definition of small and medium-sized enterprises (SMEs) – and to distinguish them from households – in the specific context of financial inclusion would be desirable.

*2 – Central bank contributions.* The survey revealed that most central banks have some form of direct or indirect remit to promote financial inclusion. But first and foremost, central banks emphasised that they make indirect contributions to financial inclusion by pursuing their traditional objectives of price and financial stability. The central bank community, and the IFC in particular, could clarify and communicate more on the wide range of central bank contributions to improving financial inclusion. Central banks should consider the pros and cons of having an explicit financial inclusion mandate from this perspective. Even in the absence of an explicit mandate, monetary and supervisory authorities could further explain and communicate on how they contribute to financial inclusion by pursuing their traditional policy objectives.

*3 – Internal coordination.* Although most central banks report formally or informally on their activities in the area of financial inclusion, operations in this domain are often decentralised. Central banks should address logistical and organisational challenges to enhance the internal coordination of their financial inclusion work. This effort should cover the various functional areas in charge of monitoring and implementing the different aspects of financial inclusion policies, and in particular also data-gathering and analysis. Adequate governance structures may have to be put in place, especially when units are involved both within and outside the central bank.

*4 – Data collection.* Although data on financial inclusion are widely collected, significant gaps still exist. Work to improve data availability in the following areas would be desirable: (i) data on access, usage and quality of financial services and of financial infrastructure, on SME financing and on non-bank financial service providers; and (ii) data that allow policy implementation in the area of financial inclusion to be directly assessed.

*5 – International cooperation.* Collaboration between central banks and interaction with international groupings should be further enhanced, especially in order to favour an effective exchange of views and best practices when defining, measuring and analysing financial inclusion.

*6 – International data-sharing.* Ongoing efforts to internationally harmonise definitions and measurements relating to financial inclusion should be encouraged, not least to facilitate data-sharing among countries and international bodies. However, enhanced data harmonisation should leave room for capturing country specificities. Furthermore, efforts to enhance data-sharing and harmonisation should primarily leverage existing international collaboration initiatives.

Looking ahead, the IFC will continue to support the identification of a number of ways to promote financial inclusion through better data, building on its members' cumulated experience with data and measurement issues. There is widespread

recognition among central banks that well founded data frameworks are essential when developing financial services for the poor, in both formal and informal markets, and adequate indicators are a precondition for good financial inclusion policies. They ensure that financial inclusion is properly assessed and that policies aimed at developing it are adequately implemented, monitored and adjusted as required. Good statistics can also help to strike a proper balance between encouraging innovation and the growth of financial services on the one hand, and ensuring that financial stability is preserved on the other.

A key event from this perspective will be an IFC Satellite Seminar on Financial Inclusion, on the occasion of the ISI World Statistics Congress in Morocco, co-organised with the Central Bank of Morocco on 14 July 2017.

## Big data

The IFC has been actively working on the issue of "big data". This concept has emerged as an important topic in the fields of data creation, storage, retrieval and analysis, and most central banks have been trying to catch up with this development. A 2015 IFC survey underlined the strong interest in the central banking community for sharing experiences and cooperating to explore this topic. The IFC has therefore continued to monitor developments and issues related to big data – such as the methodologies for its analysis, its value added compared with "traditional" statistics, and the specific structure of the data sets. These issues were discussed extensively in *IFC Working Paper* no 14 (*Big data: the hunt for timely insights and decision certainty*) published in 2016.

Considering that the scope of this work can be quite large, the Committee has decided to focus on a few pilot projects on which central banks have been invited to cooperate so as to share specific experiences. These pilots cover four main areas: (i) internet data; (ii) administrative data; (iii) commercial data; and (iv) financial market data.

A key event from this perspective will be the co-organisation with Bank of Indonesia and other central banks of an IFC Satellite Seminar on Big Data, on the occasion of the ISI Regional Statistics Conference, in Indonesia on 21 March 2017.

## SDMX standard

In 2016, the IFC published a report on central banks' use of and interest in SDMX (Statistical Data and Metadata eXchange). SDMX is an ISO standard to describe statistical data and metadata, normalise their exchange and improve their efficient sharing. It provides an integrated approach to facilitating statistical data and metadata exchange, enabling interoperable implementations within and between systems concerned with the exchange, reporting and dissemination of statistical data and their related meta-information.

The IFC report was derived from a broader online survey organised by the SDMX sponsor organisations[1] with the aim of measuring the acceptance and

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[1]    The seven sponsor organisations are the BIS, the ECB, Eurostat, the IMF, the Organisation for Economic Co-operation and Development (OECD), the World Bank and the United Nations Statistics Division (UNSD).

implementation of SDMX in the international community of official statistics (ie central banks, statistical offices, international organisations) in general. It focused on three areas of importance to central banks: (i) their experience with the SDMX standards; (ii) their degree of satisfaction; and (iii) their expectations regarding potential developments in the standards.

The main conclusions were the following:

*1 – SDMX usage.* The use of SDMX is fairly common amongst central banks. Two thirds of the respondents already use the standards, and more than one tenth of the group are planning to start using them soon. However, one in four of the respondents do not plan to use SDMX in the near future.

*2 – Satisfaction.* The vast majority of central banks using SDMX find the implementation useful. Less than one tenth of the respondents do not share this positive general view.

*3 – International data exchanges.* Most central banks already exchange or share data with international organisations using the SDMX standards, and in particular with the IMF and the BIS. In addition, European central banks also participate actively in data-sharing arrangements with the ECB and Eurostat.

*4 – Statistical domains.* The use of SDMX standards to share data is still concentrated in a few statistical areas. Central banks use the SDMX standards mainly in a limited number of statistical areas for which international data structure definitions (DSDs) have been clearly established, eg balance of payments (BoP), sectoral national accounts (SNA), foreign direct investment and SDDS – the Special Data Dissemination Standard established by the International Monetary Fund to guide countries in the provision of their economic and financial data to the public. The versions of the standards most commonly used are SDMX-ML 2.0 and SDMX-ML 2.1.

*5 – Data collection versus dissemination.* For most central banks, SDMX implementation is directed towards data dissemination. Data and metadata collection are comparatively less important objectives. Note: for most central banks, "dissemination" includes their reporting to international organisations.

*6 – Priorities.* Looking ahead, macroeconomic and finance statistics (in addition to the areas already covered such as SNA/BoP), international trade statistics, business statistics and prices are the four priority domains for developing new SDMX data structures.

*7 – Data reporting.* SDMX is very convenient for users of statistics. A key benefit of implementing the standards for central banks is to ease the burden of reporting to international organisations.

*8 – Challenges.* The main challenge is that internationally agreed DSDs and metadata structure definitions (MSDs) are still missing for some important statistical domains. The lack of adequate human resources and training capacities, as well as difficulties getting subject matter statisticians' support, are also widely reported as issues that need to be addressed to further implement SDMX concepts and processes.

## Statistics for financial stability analysis

Following the successful organisation with the Narodowy Bank Polski (Poland) in 2015 of a workshop on "Combining micro and macro statistical data for financial stability analysis: experiences, opportunities and challenges" – and the related publication of

*IFC Bulletin* no 41 in 2016 – the IFC co-organised with the European Committee of Central Balance Sheet Data Offices (ECCBSO) and the Central Bank of the Republic of Turkey a conference on the "Uses of central balance sheet data offices' information".

The conference reviewed the value-added provided by central balance sheet data offices' information, the policy use of those data, especially by central banks, and the challenges for economic research. It also underlined central banks' increasing interest for mobilising institution-level statistics for monetary and financial stability purposes. A key message was that granular administrative data sets represent a new data frontier for central banks and that particular attention should be devoted to the matching of micro and macro data sets.

Another aspect of IFC work on these issues has been to support the development of sectoral financial accounts. To that end, the IFC has been organising workshops on developing and improving sectoral financial accounts for central banks in various regions, in close coordination with other organisations such as the IMF and central banks. One of these regional workshops was co-organised for African central banks at the Bank of Algeria in January 2016, and the IFC also supported parallel initiatives led by the central banks of Montenegro and Turkey. An important objective for the central banking community is to augment the traditional national accounts framework to present information on financial flows and positions on a sectoral basis. Such integrated sectoral financial accounts can be instrumental in supporting financial stability analyses. However, the development of financial accounts brings with it important data challenges, as analysed in *IFC Working Paper* no 15 (*Development of financial sectoral accounts: new opportunities and challenges for supporting financial stability analysis*), published in 2016. The IFC will continue to promote knowledge-sharing on this important topic for central banks and to identify best practices.

## Other work supporting international statistical initiatives

Turning to work on BoP issues, the IFC has established the BOP.*net* network of BoP compilers. This network allows central bank members to promote knowledge-sharing and the exchange of experiences on BoP issues. Work has already been initiated on bilateral BoP data and holdings of securities. Moreover, the network is also seen as a useful vehicle for collecting central banks' views and liaising flexibly with the appropriate bodies, such as the IMF BOPCOM Committee, which are reflecting on future developments related to BoP statistics.

Another significant part of the Committee's work has been pursued in liaison with other international initiatives, especially the second phase (2016–20) of the DGI, namely in the area of data-sharing, sectoral accounts, cross-border exposures and international data cooperation and communication.

## 2016 survey of IFC membership

In addition to the specific section on "Central banks' access to and sharing of micro data", the 2016 IFC membership survey also gathered feedback from members on IFC activities and suggestions for future work.

As regards the IFC work programme (Graph 1), the survey underlined that Committee members are most interested in the following statistical subjects: (i) financial stability indicators (especially macroprudential data); (ii) "traditional" BIS

statistics (eg debt securities, international banking statistics); (iii) external sector statistics; and (iv) data management issues (eg communication and dissemination, technology). Interest was slightly lower, though still quite high, for the topics already explored by the Committee in the recent past (eg big data, data-sharing, property prices, debt indicators, SDMX, financial inclusion). This feedback will help in the preparation of the future activities of the Committee.

Membership survey: IFC activities – Which topic would be of interest to your institution?

In per cent                                                                                        Graph 1
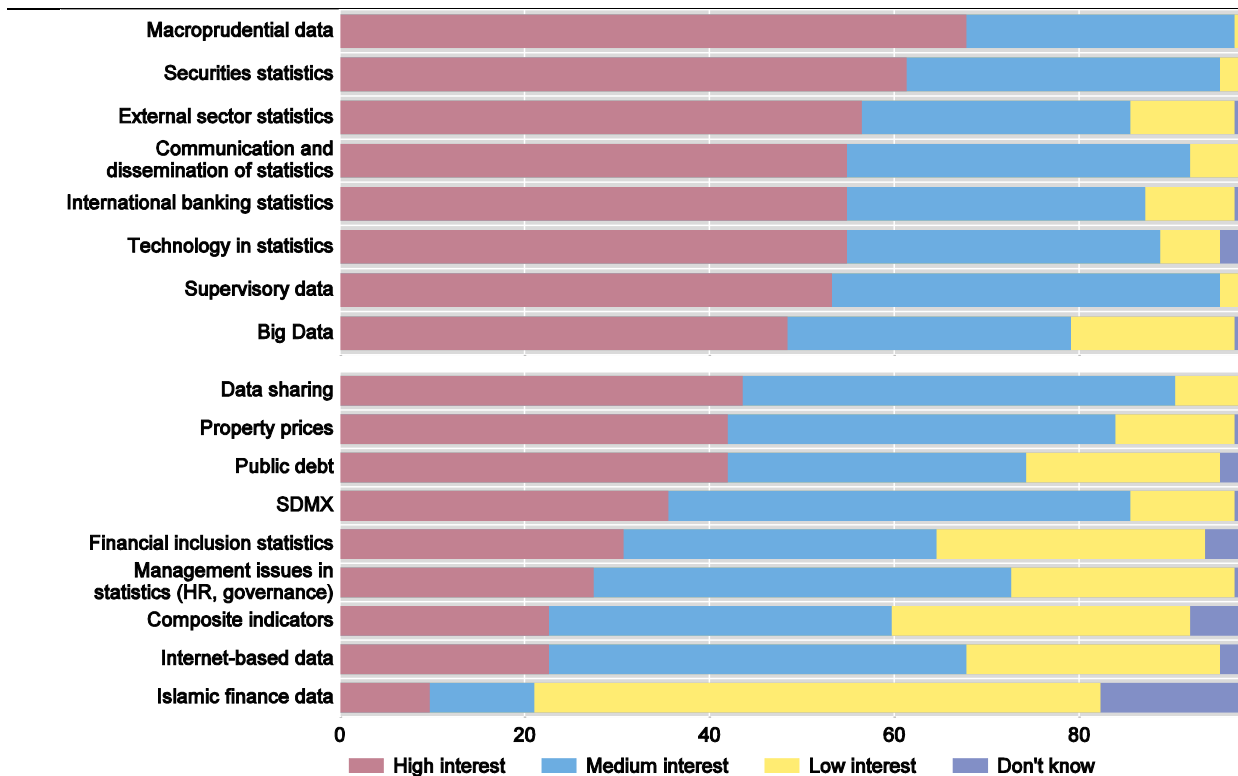


Source: IFC membership survey, 2016.

## Looking ahead

In 2017, the Committee will further its work in the various areas outlined above, especially on big data, financial inclusion, financial stability analysis, balance of payments issues and financial accounts. It will also continue to work on those aspects of the DGI that are relevant for the central banking statistical community.

On 18–19 May, an IFC workshop will be co-organised with the National Bank of Belgium on data issues raised by macroprudential policies, reflecting the strong interest expressed by IFC members in this topic.

Furthermore, the IFC will continue to contribute actively to the activities of the ISI, in particular with the organisation of several IFC-sponsored sessions at the ISI Regional Statistics Conference in Indonesia on 22–24 March and the 61st ISI World Statistics Congress in Morocco on 17–18 July 2017. As mentioned above, on these occasions the IFC will also organise, with the close support of Bank Indonesia and the Bank of Morocco, two IFC Satellite Seminars for central banks on big data and financial inclusion.

# Annex 1:
# Members of the IFC Executive as of January 2017

Following the nomination of Eugeniusz Gatnar to the Monetary Policy Council of the Narodowy Bank Polski (Poland) in January 2016, and in line with IFC rules, the new NBP representative in the IFC (Mr Józef Sobota) joined the IFC Executive until the completion of Mr Gatnar's remaining term (end-2016).

On 12 September 2016, the BIS All Governors' Meeting approved the appointment of Claudia Buch as Chair of the IFC for a three-year term.

In October 2016, the Committee approved, by written procedure, the nominations of the following IFC Executive members for a three-year period as of from 1 January 2017: Mr Mario Alejandro Gaytán González, Director of Financial System Information at the Bank of Mexico; Mr Olorunsola Emmanuel Olowofeso, Deputy Director of Statistics at the Central Bank of Nigeria (mandate renewed); and Ms Gülbin Şahinbeyoğlu, Executive Director of the Statistics Department of the Central Bank of the Republic of Turkey. These nominations resulted from the termination of the terms of Robert Kirchner, Emmanuel Olowofeso and Józef Sobota at end-2016. The table below shows the composition of the IFC Executive as of 1 January 2017.

| | Executive member | Institution | Term |
|---|---|---|---|
| 1. | Ms Claudia BUCH (Chair) | Deutsche Bundesbank | 2016[2]–19 |
| 2. | Ms Katherine HENNINGS (Vice-Chair) | Central Bank of Brazil | 2010–18 |
| 3. | Mr Aurel SCHUBERT (Vice-Chair) | European Central Bank | 2006–18 |
| 4. | Mr João CADETE DE MATOS | Bank of Portugal | 2015–17 |
| 5. | Mr Mario Alejandro GAYTAN GONZALEZ | Bank of Mexico | 2017–19 |
| 6. | Mr Masahiro HIGO | Bank of Japan | 2013–18 |
| 7. | Mr Olorunsola Emmanuel OLOWOFESO | Central Bank of Nigeria | 2014–19 |
| 8. | Mr Seung Hwan PARK | Bank of Korea | 2015–18 |
| 9. | Ms Gülbin SAHINBEYOGLU | Central Bank of the Republic of Turkey | 2017 –19 |
| 10. | Mr Charles THOMAS | Board of Governors of the Federal Reserve System | 2009–18 |
| 11. | Mr Hock Chai TOH | Central Bank of Malaysia | 2015–17 |

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[2]     Three-year period starting 12 September 2016.

# Annex 2:
# IFC publications in 2016

January        IFC 2015 Annual Report

February       *IFC Working Paper* no 14: "Big data: The hunt for timely insights and decision certainty – central banking reflections on the use of big data for policy purposes"

March          *IFC Report* on "Central banks' use of the SDMX standard"

May            *IFC Bulletin* no 41: "Proceedings of IFC workshop on 'Combining micro and macro statistical data for financial stability analysis'", Warsaw, December 2015

June           *IFC Report* on "Measures of financial inclusion – a central bank perspective"

November       *IFC Working Paper* no 15: "Development of financial sectoral accounts – new opportunities and challenges for supporting financial stability analysis"

               *IFC Working Paper* no 16: "Measuring bank risk-taking behaviour – the risk-taking channel of monetary policy in Malaysia"

December       *IFC Report* on "The sharing of micro data – a central bank perspective"