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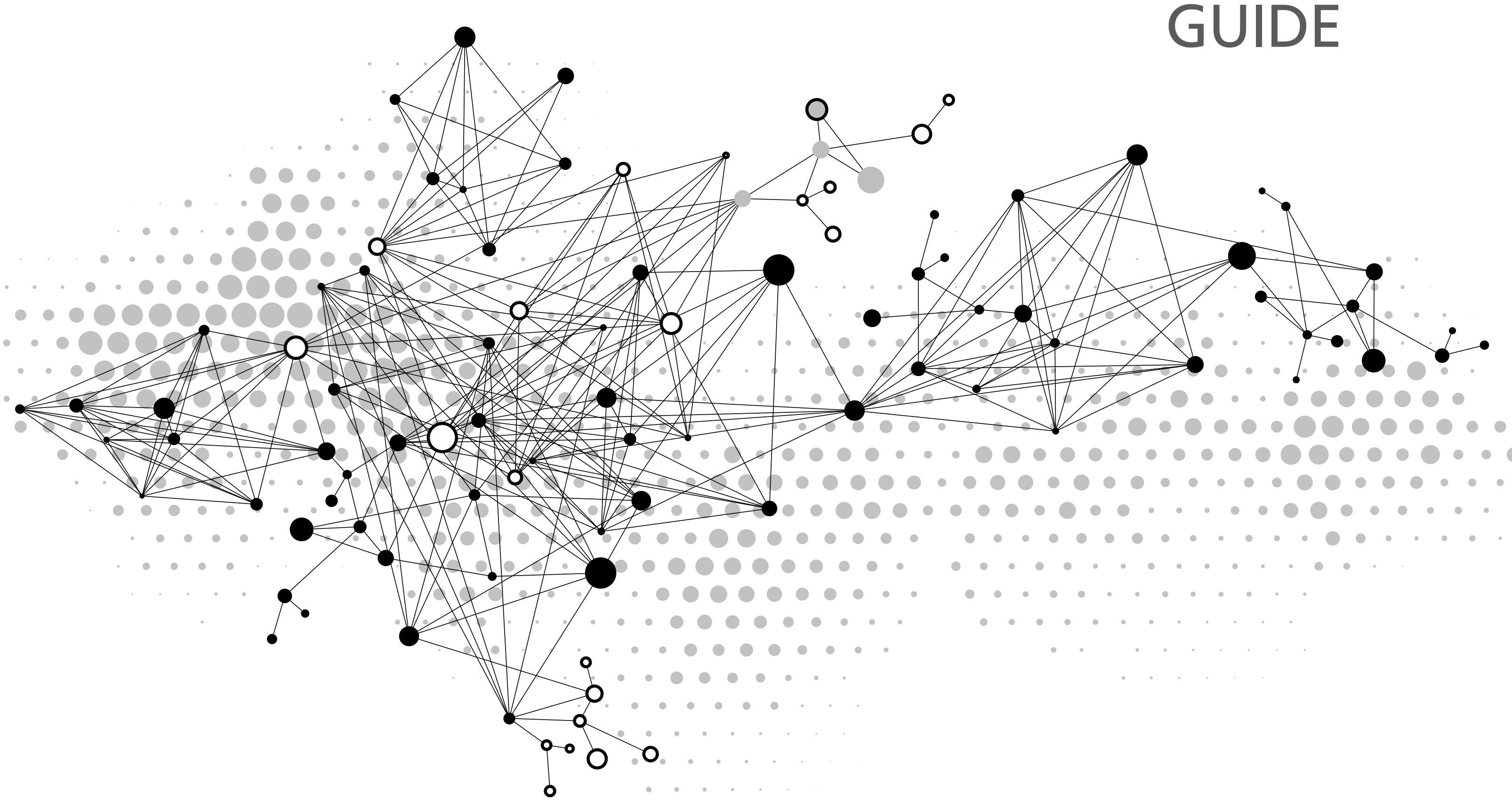
COORDINATED PORTFOLIO INVESTMENT SURVEY GUIDE

THIRD EDITION

INTERNATIONAL MONETARY FUND

GUIDE



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2017

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Cataloging-in-Publication Data
IMF Library

Names: International Monetary Fund. | International Monetary Fund. Statistics Department.
Title: Coordinated portfolio investment survey guide.
Other titles: CPIS.
Description: Third edition. | Washington, DC : International Monetary Fund, 2017. | Completed by a team from the IMF Statistics Department. | Includes bibliographical references.
Identifiers: ISBN 9781484331897 (paper)
Subjects: LCSH: Investments. | Securities. | Portfolio management.
Classification: LCC HG4521.C656 2017

ISBN: 978-1-48433-189-7 (paper)
978-1-48435-505-3 (PDF)
978-1-48435-497-1 (ePub)
978-1-48435-500-8 (Mobi)

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Preface

This third edition of the *Coordinated Portfolio Investment Survey Guide* (*Guide*) has been prepared to assist economies that participate or are preparing to participate in the Coordinated Portfolio Investment Survey (CPIS). It builds on and updates the second edition of the *CPIS Guide* (2002) to reflect the adoption of the *Balance of Payments and International Investment Position Manual, sixth edition* (*BPM6*) as the standard framework for compiling cross-border position statistics.

The CPIS is conducted under the auspices of the International Monetary Fund (IMF) across a wide range of economies. It is conducted simultaneously by all participating economies, uses consistent definitions, and encourages best practices in data collection. It is thus a unique tool in capturing the global totals and the geographical distribution of portfolio investment assets, thereby contributing to a better understanding of capital flows.

The CPIS was initially undertaken in 1997, in response to concerns about imbalances and gaps in statistics on global capital flows; and originated in a recommendation contained in the final *Report on the Measurement of International Capital Flows*, published in 1992, and further developed with advice from the IMF Committee on Balance of Payments Statistics (IMF Committee). Beginning in 2001, the CPIS was conducted annually; and effective with the data collection for end-June 2013, the frequency of the CPIS was increased to semiannual. This higher frequency was implemented in the aftermath of the 2007/08 financial crisis, after the IMF Committee endorsed enhancements to the CPIS in the context of the G-20 Data Gaps Initiative (DGI). These enhancements also included an expansion in variables, with a focus on sectorization. As of the writing of this updated *Guide*, more than 80 economies participate in the CPIS.

The updated *Guide* was completed by a team from the IMF Statistics Department (STA) comprising Marcelo Dinenzon and Venkat Josyula, senior economists in STA's Balance of Payments Division. Paul Austin, deputy division chief of Balance of Payments Division, oversaw the work that was undertaken under the general direction of Carlos Sanchez-Muñoz, division chief of Balance of Payments Division. The contributions of Ralph Kozlow and Manik Shrestha, former division chiefs of Balance of Payments Division, are also acknowledged. Contributions from several countries (including Austria, Australia, Belgium, Bermuda, France, Germany, Ireland, Israel, Japan, Malaysia, Netherlands, Portugal, Romania, Russian Federation, Slovak Republic, Thailand, Turkey, and the United States) and international organizations (Bank for International Settlements, European Central Bank, and Eurostat) enriched the contents of the *Guide*. In addition, this *Guide* has benefited from comments of the IMF Committee and CPIS compilers during the public comment period. Gemma Diaz and Redley Pinkney provided administrative support in preparing the *Guide*.

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Abbreviations

ABS	Australian Bureau of Statistics
ADRs	American depository receipts
ANNA	Association of National Numbering Agencies
BIS	Bank for International Settlements
BOJ	Bank of Japan
BOPCOM	IMF Committee on Balance of Payments Statistics
BPM6	Sixth edition of the *Balance of Payments and International Investment Position Manual*
CBR	Central Bank of the Russian Federation
CBRT	Central Bank of Turkey
CD	certificates of deposit
CDOs	collateralized debt obligations
CP	commercial paper
CPIS	Coordinated Portfolio Investment Survey
CSDB	Centralized Securities Database (European System of Central Banks)
CUSIP	Committee on Uniform Securities Identification Procedure
DGI	Data Gaps Initiative
DI	direct investment
DNB	De Nederlandsche Bank/Netherlands Central Bank
DRs	depository receipts
ECB	European Central Bank
FDI	Foreign Direct Investment
FDIR	Framework for Direct Investment Relationships
FHLMC	Federal Home Loan Mortgage Corporation (United States)
FIPS	foreign interest payment security
FNMA	Federal National Mortgage Association (United States)
FRNs	floating-rate notes
FRS	Federal Reserve System
GDRs	global depository receipts
GNMA	Government National Mortgage Association (United States)
HSS	*Handbook on Securities Statistics*
IBCs	international business companies
ICPF	insurance corporations and pension funds
IIP	international investment position
IMF	International Monetary Fund
IOs	international organizations
ISIC	*International Standard Industrial Classification of All Economic Activities*
ISIN	International Securities Identification Number
ISO	International Organization for Standardization
IT	information technology
ITRS	International Transactions Reporting System

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LIBID	London interbank bid rate
LIBOR	London interbank offered rate
LIMEAN	London interbank mean rate
LYON	Liquid yield option note
MBS	mortgage-backed securities
MFSMCG	*Monetary and Financial Statistics Manual and Compilation Guide*
MMFs	money market funds
MNCs	multinational corporations
NASDAQ	Nasdaq Stock Market
NBR	National Bank of Romania
NFCs	nonfinancial corporations
NIF	note issuance facility
NPISHs	nonprofit institutions serving households
OECD	Organisation for Economic Co-operation and Development
OeNB	Oesterreichische Nationalbank/Central Bank of Austria
OFCs	other financial corporations
RCB	Reverse Convertible Bond
RCBs	regional central banks
RUF	revolving underwriting facility
SBS	security-by-security
SDDS Plus	Special Data Dissemination Standard Plus
SDR	Special Drawing Right
SEC	Securities and Exchange Commission (United States)
SEDOL	Stock Exchange Daily Official List
SEFER	Survey of Securities Held as Foreign Exchange Reserves
SEIFiCs	small economies with international financial centers
SHSDB	Securities Holdings Statistics Database (European System of Central Banks)
SICC	Securities Identification Code Conference
SII	Survey of International Investment
SPEs	special purpose entities
SSIO	Survey of Securities Held by International Organizations
STA	IMF Statistics Department
strips	Stripped securities
T-bill	Treasury Bill
2008 SNA	*System of National Accounts 2008*
2013 *EDS Guide*	2013 *External Debt Statistics: Guide for Compilers and Users*
VALOR	Valorennummer

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1 Introduction

This Guide *has been prepared to assist economies that participate or are preparing to participate in the Coordinated Portfolio Investment Survey (CPIS). For economies already participating in the CPIS, the* Guide *provides statistical guidelines that compilers may find useful for improving the quality of the data and for compiling additional items that were introduced in the aftermath of the 2007–2008 financial crisis. Additionally, this third edition updates the second edition of the* CPIS Guide *(2002) to reflect the adoption of the sixth edition of the* Balance of Payments and International Investment Position Manual *(*BPM6*) as the standard framework for compiling cross-border position statistics and to provide compilation guidance drawing on International Monetary Fund (IMF) staff and IMF members' experience. This chapter covers the purpose and background of the CPIS and provides an overview of how the* Guide *is organized.*

Purpose of the CPIS

1.1 The Coordinated Portfolio Investment Survey (CPIS) is a voluntary data collection exercise[1] conducted under the auspices of the International Monetary Fund (IMF). The purpose of the CPIS is to improve the quality of portfolio investment statistics in the international investment position (IIP)—that is, holdings of portfolio investment assets in the form of equity and investment fund shares,[2] long-term debt securities, and short-term debt securities—and the availability of these statistics by counterpart economies. Therefore, the CPIS supports the objective of developing from-whom-to-whom cross-border data and contributes to a better understanding of financial interconnectedness.

1.2 Specifically, the objectives of the CPIS are as follows:

- To collect, compile, and disseminate comprehensive information, with geographical detail on the economy of residence of the issuer and on holdings of portfolio investment securities (data are separately requested for equity, long-term debt securities, and short-term debt securities), for use in the compilation or improvement of IIP statistics. The IIP statistics, in turn, can provide information to check the coverage of recorded estimates of portfolio investment financial flows and associated investment income transactions recorded in the balance of payments.
- To collect, on an "encouraged" basis, portfolio investment assets data by institutional sector of resident holder, institutional sector of nonresident issuer, sector of resident holder and sector of nonresident issuer for specified economies, currency composition of the holdings, and short or negative positions. Portfolio investment liabilities, with geographical detail on the economy of residence of holder, are also encouraged. These expanded collections complement the core data on portfolio investment assets.
- To provide information on the geographic distribution of nonresident creditors (mirror statistics on portfolio investment liabilities of the economies), thereby more fully disclosing cross-border financial linkages and potential exposures to spillovers.
- To reconcile global portfolio investment asset and liability positions by augmenting the data that are reported in the CPIS with data from two other surveys: that is, Securities Held as Foreign Exchange Reserves (SEFER) and Securities Held by International Organizations (SSIO). SEFER

[1] Except for adherents to the IMF's Special Data Dissemination Standard (SDDS) Plus, which prescribes participation in the CPIS by provision of at least the core set of data (see paragraph 1.17).

[2] Equity and investment fund shares are not reported as separate financial instruments in the CPIS. In this *Guide*, the terms "equity" or "equity securities" are subsequently used to cover both instruments, within the functional category of portfolio investment.

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provides geographic and instrument detail on securities that are held as reserve assets, and SSIO provides the geographic and instrument detail on securities that are held by international organizations. Data from the CPIS and SSIO surveys provide comprehensive information on holdings of portfolio investment securities and, together with data from the SEFER survey, the geographic detail captured in these three surveys are used by the IMF to derive estimates of portfolio investment liabilities for every economy.

- To exchange data among the participating economies as well as with other economies. By exchanging comparable data (subject to confidentiality constraints), participating economies should be able to improve their statistics on nonresident holdings of their portfolio investment liabilities as well as associated financial account flows and investment income data.

1.3 The results of the CPIS (data and metadata) are to be reported to the IMF which publishes nonconfidential information on its website (http://data.imf.org/CPIS).

Background

1.4 The CPIS was initiated in response to the recommendations contained in the Report on the Measurement of International Capital Flows (the Godeaux Report), which was published by the IMF in 1992. The report highlighted the increasing importance of portfolio investment across international borders, reflecting the liberalization of financial markets, financial innovation, and the changing behavior of investors. The increased liberalization of international flows, however, brought measurement difficulties. These difficulties are reflected in the imbalances at the worldwide level between recorded financial assets and liabilities, with higher flows usually being recorded for liabilities than for assets. Concerned by these global imbalances and the associated discrepancies in income flows at the global level, the IMF Committee on Balance of Payments Statistics (the IMF Committee) decided in 1993 to support an internationally coordinated benchmark survey of long-term portfolio investment holdings to facilitate cross-economy comparisons, permit data exchanges, and encourage standardization and best practice. By undertaking a benchmark survey of holdings, it was hoped that many economies, for the first time, would be in a position to obtain a good estimate of the outstanding balances, at market price, of portfolio investment holdings by their residents. A survey-based estimate of holdings would be preferable to an estimate of holdings developed from a summation of estimates of flows over a period of time. In this manner, a more accurate estimate of positions might be obtained that would reduce to some extent the discrepancy at global and sub-global levels.

1.5 Developing such data was also seen as a basis for future data exchange and possible substitution of asset for liability data, particularly on a "bilateral" basis. However, some specific issues require attention:

- One of the problems in recording portfolio investment liabilities on a bilateral basis is that, for reasons of practicality, they are often not allocated to the economy of residence of the acquirer of the claim. That is, the economy of initial sale is recorded, but subsequent transactions with residents of other economies are frequently not recorded by the compilers in the economy of residence of the issuer.
- Moreover, the transaction is frequently recorded with the economy of residence of the broker rather than with the economy of residence of the beneficial owner, which may be different from that of the broker. Consequently, if a security of economy A is sold to a resident of economy B, who in turn sells it to a resident of economy C, balance of payments compilers in economy A may not know that the second transaction has occurred. In addition, if the same security is subsequently sold by the resident in economy C to a resident of economy A, then that too may not be recorded or incorrectly recorded under assets by economy A, such that economy A's portfolio investment liabilities would be overstated.

1.6 As a result of the problems cited above, the IMF organized the first internationally coordinated portfolio investment survey, using a common set of definitions and a common reference date. It was conducted as of the end of December 1997 (the 1997 CPIS). All major investing economies were invited to participate in the 1997 CPIS, and 29 economies[3] took part. The

[3]The economies were Argentina, Australia, Austria, Belgium, Bermuda, Canada, Chile, Denmark, Finland, France, Iceland, Indonesia, Ireland, Israel, Italy, Japan, Korea, Malaysia, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain,

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results were published by the IMF in December 1999.[4] Following the publication of the results of the 1997 CPIS, the IMF published an analysis[5] that explored these results in depth.

1.7 In 1999, a CPIS Task Force (the Task Force) composed of national compilers of the participating economies reported that the 1997 CPIS had produced several benefits, including demonstrating that an organized effort toward standardizing the scope, coverage, timing, definitions, and concepts used in the compilation of data could be successfully coordinated among a large number of economies—proving an effective vehicle for establishing and disseminating, on a "worldwide" basis, appropriately high methodological standards and facilitating the attribution of portfolio investment assets by economy, although there were some difficulties relating to issuers resident in small economies with international financial centers. The Task Force also was of the view that the lessons of international financial crises of 1997 and 1998 reinforced the importance of the 1997 CPIS.

1.8 The main gaps in the coverage of the 1997 CPIS for portfolio investment assets were viewed as comprising the following:

- the nonparticipation of some important investing economies for which alternative data sources proved inadequate,
- the nonparticipation of several economies with offshore financial centers (in this *Guide*, the preferred term for these jurisdictions is *small economies with international financial centers*, or SEIFiCs) for which there were no alternative data sources,[6] and
- difficulties faced by many participating economies in capturing cross-border portfolio investment by households (and in some cases, enterprises) that do not use the services of resident custodians.

1.9 In light of the positive aspects of the 1997 CPIS and the potential room for improvements, the Task Force recommended to the IMF Committee that the CPIS be repeated, with the reference date of the end of December 2001 (2001 CPIS), and that it be undertaken on a "regular" basis thereafter. The IMF Committee agreed to the recommendation to conduct the 2001 CPIS and supported conducting the survey annually.

1.10 It was decided to include cross-border portfolio investment holdings of each of the following items in the 2001 CPIS, on a "mandatory" basis by economy of residence of issuer[7]:

- equity,
- long-term debt securities, and
- short-term debt securities

1.11 In addition, it was decided to include the following "encouraged" categories for all economies in a position to provide the data:

- Currency breakdown of all securities for assets (equities, long-term debt, and short-term debt) in aggregate (i.e., not by counterpart economy). Even though it is not directly relevant for the CPIS in constructing a portfolio of assets by counterparty of issuer, the currency breakdown would provide important additional information for the analysis of an economy's cross-border vulnerabilities. The Task Force considered that to include a full currency breakdown within the CPIS framework (i.e., by instrument by economy of issuer[8]) would add materially to the collection costs and would make the resulting matrix of data too big to manage or understand.
- Institutional sector of the holder, as a further disaggregation of the instrument by economy of residence of the issuer.
- Portfolio investment liabilities (equity securities, long-term debt securities, and short-term debt securities)—each broken down by economy

Sweden, Thailand, the United Kingdom, the United States, and Venezuela.

[4] See IMF, *Results of the 1997 Coordinated Portfolio Investment Survey* (Washington, DC: IMF, 2000).

[5] See IMF, *Analysis of the 1997 CPIS: Results and Plans for the 2001 CPIS* (Washington, DC: IMF, 2000).

[6] From a statistical perspective, a SEIFiC may be characterized in terms of the size of its transactions and positions on both sides of the balance sheet with the rest of the world in relation to the size of the domestic economy. From a statistical point of view, SEIFiCs can be characterized as jurisdictions that have financial institutions engaged primarily in business with nonresidents and having financial systems (i) with external assets and liabilities out of proportion to domestic financial intermediation designed to finance domestic economies and (ii) where enterprises owned or controlled by nonresidents play a significant role in providing financial services to nonresidents.

[7] Only equity and long-term debt securities were "mandatory" items in the 1997 CPIS. Short-term debt was a "nonmandatory" item.

[8] And by sector of holder if that encouraged item was also compiled.

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of residence of holder.[9] The designation of these liabilities as "encouraged" reflected the predominant view that existing collection systems are unlikely to produce a reliable breakdown of portfolio liabilities by economy of foreign holder. It was, however, judged useful to compare with partner economies' holdings to determine the size of the discrepancies.

1.12 The IMF Committee recommended that participating economies also supply a geographical breakdown of the value of securities holdings that are included in reserve assets. Accordingly, the SEFER survey has been held in parallel with the CPIS. The IMF Committee also recommended that a survey be conducted of large international organizations (the survey of SSIO) in order to obtain the value of their holdings of securities. To maintain confidentiality of individual returns, special procedures are used by the IMF to collect the data on the SEFER and SSIO. Data from these two surveys are published only in aggregated form so that no economy's or organization's data are identifiable. The SEFER and SSIO are discussed further in Chapter 2.

1.13 In the aftermath of the 2007–2008 financial crisis, the IMF Committee endorsed a number of enhancements to the CPIS in the context of the G-20 Data Gaps Initiative (DGI), effective with the data collection for end-June 2013. These enhancements cover three areas: frequency (from annual to semiannual data), timeliness (reducing the reporting lag by three months), and widening the scope of the encouraged items. Further, to align the CPIS and SEFER data with the overall framework of the sixth edition of the *Balance of Payments and International Investment Position Manual* (*BPM6*), the revised reporting forms adopt *BPM6*-based financial instrument and institutional sector classifications. The enhancements to frequency and timeliness were also introduced for the June 2013 SEFER.[10]

1.14 Beginning with the reporting of end-June 2013 data, semiannual collections of both the CPIS and SEFER data were introduced for the reference periods end-June and end-December each year. CPIS and SEFER semiannual data should be reported to IMF Statistics Department about six months after the end of the reference period.[11]

1.15 As part of the enhancements to the scope of the CPIS, economies are encouraged to report the following three additional extensions:

- Sector of Nonresident Issuer of Securities: In this extension, the core data are further classified according to the institutional sector of the nonresident issuer of the security. This extension is also included as an encouraged item in SEFER.
- Sector of Resident Holder and Sector of Nonresident Issuer for Specified Economies: This encouraged extension aims to further enhance the granularity of the CPIS data so users can identify "from-whom-to-whom" positions according to sectors of both the security-issuing and security-holding economies (as reported by the latter). The reporting structure builds on the sector of resident holder breakdowns (existing encouraged item) by adding a geographical cross-classification by sector of nonresident issuer for each of the 25 economies identified by the IMF Executive Board as having systemically important financial sectors.
- Short or negative positions: In this extension, short or negative asset positions are reported separately, using the structure of the core items reporting.[12]

1.16 The CPIS is included in the Special Data Dissemination Standard Plus (SDDS Plus), established in 2012 as a third tier of the IMF's Data Standards Initiatives, to address data gaps revealed during the global crisis. The SDDS Plus goes beyond the focus of the SDDS on access to international capital markets by placing emphasis on economies that have systematically important financial sectors that are

[9] These were "nonmandatory" items in the 1997 CPIS.

[10] See "Update on the Revised Reporting Forms for the Coordinated Portfolio Investment Survey (CPIS) and the Survey of Securities Held as Foreign Exchange Reserves (SEFER)" (http://data.imf.org/CPIS).

[11] Economies may continue to report only annual CPIS and/or annual SEFER data, and they are not excluded from the CPIS.

[12] Short positions occur when an institutional unit sells securities for which it is not the economic owner. For example, a security subject to a repurchase agreement may be on-sold by the security-receiving party. Delivery to the purchaser is made through the use of the borrowed security. The party with the short position records a negative value for the holding of the asset. The short position is shown as negative asset, rather than a liability (*BPM6*, paragraph 7.28).

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integral to the working of the international monetary system. In this regard, an SDDS Plus adherent must observe additional requirements for nine data categories, in addition to being an SDDS subscriber in full observance of all SDDS requirements. Participation in the CPIS is one of these nine data categories. The SDDS Plus requires participation in the CPIS by provision of at least the core set of data (i.e., holdings of securities are to be allocated geographically by the economy of residence of the issuer, broken down by equity and debt securities, of which a further breakdown into short- and long-term maturities is required).[13]

1.17 At its meetings in Washington, DC, in October 2016, the IMF Committee supported an IMF proposal to move to quarterly CPIS (see the Summary of the Outcomes of the Committee's Discussions: BOPCOM 16/18[14]). At the time of updating this *Guide*, the IMF is examining the resource implications of moving to quarterly data collection.[15] In addition, the committee supported the possibility of organizing a centralized exchange of information across economies aimed to enhance the sectorization of nonresident issuers. Such information would be key to producing from-whom-to-whom information on securities, broken down by (a) economy and sector of the holder (who finances) and (b) economy and sector of the issuer (who is financed). At the time of updating this *Guide*, the IMF is organizing a pilot to assess the feasibility of such an exchange.

[13] See http://dsbb.imf.org/Pages/SDDS/Home.aspx?sp=y.
[14] Available at https://www.imf.org/external/pubs/ft/bop/2016/29.htm.
[15] Under the DGI Phase 2 (DGI-2), the recommendation on the CPIS calls for an examination of the feasibility of reporting quarterly CPIS data.

Organization of the *CPIS Guide*

1.18 This *Guide* is organized as follows:

- Chapter 1: Introduction. This chapter provides general information on the background and purpose of the CPIS.
- Chapter 2: Scope and Modalities. This chapter explains the scope and modalities of the CPIS, SEFER, and SSIO.
- Chapter 3: Concepts and Principles. This chapter provides practical guidance on key topics that are relevant for undertaking a CPIS.
- Chapter 4: Collection Methods. This chapter provides guidance to compilers on various collection strategies, security databases, thresholds, and third-party holdings.
- Chapter 5: Undertaking a Portfolio Investment Survey: This chapter describes the preparatory steps for conducting a national portfolio investment survey for the first time.
- Chapter 6: Experience in Conducting the CPIS. This chapter summarizes country experiences in conducting the CPIS.
- There are four appendices:
  - o Model report forms for collection of portfolio investment data (Appendix 1—A, B, and C),
  - o Portfolio investment survey forms/instructions of some CPIS participating countries—web links (Appendix 2),
  - o Reporting forms for CPIS, SEFER, and SSIO data submission to the IMF, including metadata questionnaire—web links (Appendix 3), and
  - o Definitions and descriptions of securities (Appendix 4).

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2 Scope and Modalities

This chapter sets out the scope and modalities of the Coordinated Portfolio Investment Survey (CPIS), Securities Held as Foreign Exchange Reserves (SEFER), and Securities Held by International Organizations (SSIO).

Scope of the CPIS

Participation and Reference Date

2.1 All economies are welcome to participate in the Coordinated Portfolio Investment Survey (CPIS). The focus of the survey is on economies with sizable assets of portfolio investment securities (including small economies with international financial centers, or SEIFiCs) and economies with sizable assets of securities classified in reserve assets (covered by Securities Held as Foreign Exchange Reserves (SEFER)).

2.2 At present, the CPIS is conducted biannually. Each participating economy is invited to conduct its own national survey twice a year, in respect of portfolio investment positions as at the close of business on June 30 and at the close of business on December 31 of each year. However, it is recognized that some economies can currently compile reliable estimates only for end-December of each year. These economies are therefore participating in the CPIS for the end-December data collection exercises even if they cannot participate in the end-June rounds.

2.3 In its current format, the scope of the CPIS comprises both mandatory (or core) and "encouraged" items. Appendix 3 of this *Guide* presents the detailed reporting forms for the submission of the CPIS and the SEFER results to the IMF, including the metadata questionnaire. To participate in the IMF's CPIS data collection, an economy is required to report at least the core items, in line with Table 1 of the reporting template (see Appendix 3 of this *Guide*).

Mandatory (Core) Items

Portfolio investment assets by economy of nonresident issuer of securities (CPIS Table 1)

Assets

2.4 The national survey should cover portfolio investment assets of domestic residents: that is, securities issued by nonresidents and owned by residents[1]—outward investment.

Type of securities

2.5 The national survey should cover equity securities (including investment fund shares), debt securities with an original maturity of over one year (long-term), and debt securities with an original maturity of one year or less (short-term) issued by nonresidents and owned by residents of the compiling economy. Equity securities must be reported **separately** from debt securities, and short-term debt securities should be reported separately from long-term debt securities, based on the original maturity of such instruments. These categories of securities are more fully defined in Chapter 5 of the sixth edition of the *Balance of Payments and International Investment Position Manual* (*BPM6*) and in Appendix 4 of this *Guide*.

Economy breakdown

2.6 To facilitate data exchanges, a full geographic attribution of securities issued by nonresidents and owned by residents is an important feature of the CPIS. Accordingly, securities are to be allocated geographically by the economy of residence of the issuer, by type

[1] *Residence* is an important concept in the CPIS and should not be confused with nationality. The economy in which an entity has its center of predominant economic interest is where it resides, regardless of the location of its headquarters. Residents need not be nationals of the economy in which they are located. The country of legal incorporation—or in the absence of legal incorporation, legal domicile—is one practical method of determining residence of corporate entities. See paragraphs 3.5–3.33 of this *Guide* for further discussion on residence.

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of security. In some instances, to reduce respondent burden, some reporters apply a threshold such that holdings below that threshold are not required to be reported separately (i.e., they are usually collected as a total, with no further breakdown).

2.7 The economy breakdown is to be based on the International Organization for Standardization economy codes (i.e., ISO 3166). Securities issued by international organizations (IOs) are **not** to be allocated to the country in which the IO is located but rather to a separate IO category. Guidance on geographic attribution is provided in Chapter 3.

Methodology

2.8 The concepts and principles underlying the CPIS conform with those contained in *BPM6*. The most important of these, for the conduct of the CPIS, are discussed in Chapter 3 of this *Guide*. When compilers apply the concepts and principles to their surveys, practical reporting issues will arise for which a consistent treatment across economies is required. Indeed, it is important for purposes of data exchange that methodology be applied as consistently as possible across economies, given the CPIS's goal of providing mirror statistics for the compilation of national portfolio investment liabilities broken down by counterpart economy. Departures from international methodological standards should be identified in the metadata. Guidance is provided in Chapter 4.

Encouraged Items

2.9 Several items of the survey are not necessary for CPIS participation; economies are encouraged to collect and report these additional data items if they want to extend the scope of the national survey beyond the core data requirements of the CPIS.

2.10 In an environment with increasing cross-border vulnerabilities, the CPIS provides critical information on cross-country financial linkages. The G-20 Data Gaps Initiative (DGI) launched by the Financial Stability Board and the IMF at the request of the G-20 has promoted the improvement of frequency, timeliness, and granularity of the CPIS. Specifically, the second phase of the initiative (DGI-2) includes a separate recommendation (recommendation II.12) on the CPIS, which underscores the reporting of encouraged tables—in particular, the identification of the sector of the holder and the nonresident issuer. The combination of cross-sectoral and cross-economy exposures (who finances whom) is key to support the understanding of global cross-border exposures of different types of investors and borrowers, considering that different institutional sectors and economies usually involve a completely different level of risk.

Currency breakdown of portfolio investment assets (CPIS Table 2)

2.11 The national survey could be extended to include a currency breakdown of securities issued by nonresidents and owned by domestic residents (the CPIS only collects this information by type of instrument, not by counterpart economy). This provides compilers with more scope to verify income data using position data because the yields calculated will be more accurate if they are computed by currency. At minimum, the suggested currency breakdowns include U.S. dollar, euro, British pound, Japanese yen, Swiss franc, and others (see Table 2 in Appendix 3).[2] For economies that do not have or cannot make use of a securities database, or which are collecting data on an aggregate basis (versus a security-by-security approach), it may be more difficult to obtain such additional information without increasing the response burden.

Portfolio investment assets by sector of holder and economy of nonresident issuer of securities (CPIS Table 3)

2.12 National compilers may want to identify in their national survey the institutional sector of domestic investors: for instance, collective investment schemes (mutual funds, unit trusts), pension funds, and insurance companies. This would provide analytically useful information. For the CPIS, the following institutional sector classifications are to be used in reporting data by sector of resident holder of securities:

- Central Bank
- Deposit-taking corporations, except the Central Bank
- Other financial corporations

[2]Starting with the collection of end of June 2017 data, the currency composition list was expanded to also separately identify holdings denominated in Chinese renminbi, Australian dollar, and the Canadian dollar.

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- o Insurance corporations and pension funds
- o Money market funds
- o Other
- General government
- Nonfinancial corporations (NFCs), households, and nonprofit institutions serving households (NPISHs)
  - o NFCs
  - o Households
  - o NPISHs

The sectoral breakdown is explored further in Chapter 3.[3]

Portfolio investment liabilities by economy of nonresident holder of securities (CPIS Table 4)

2.13 Compilers might consider extending the national survey to include securities issued by residents and owned by nonresidents (i.e., portfolio investment liabilities of residents—inward investment). The national survey would then cover both outward and inward investment. Compilers could compare the data from the inward survey with that received from the data exchange. However, it is recognized that collecting geographic data on liabilities on a correct basis—using the *debtor/creditor* principle—may be very challenging, with just a few exceptions in which some sort of direct collection may be possible. Most frequently, countries can only collect information on the first nonresident counterpart to which a domestic security is sold, thus attributing the liability to the economy of residence of the first party that acquired the security (i.e., on a *transactor* basis). Any subsequent trading between nonresidents will not be recorded because the national compiling system may not be able to obtain this information. Therefore, a correct attribution of the liability to the actual holder (i.e., on a *debtor/creditor* basis) is usually not possible.[4]

[3]For definitions of these institutional sector classifications, see *BPM6*, Chapter 4.

[4]A comparison of data compiled under the two approaches (debtor/creditor basis and transactor basis) might provide useful information on the extent of secondary market trading.

Portfolio investment assets by sector and economy of nonresident issuer of securities (CPIS Table 5)

2.14 The national survey could be extended to have the core data further classified according to the institutional sector of the nonresident issuer of the security. As mentioned in Chapter 1, the IMF Committee is considering the possibility of organizing a centralized exchange of information across CPIS reporters aimed at enhancing the sectorization of nonresident issuers.

Portfolio investment assets by sector of resident holder, and sector and economy of nonresident issuer for specified economies (CPIS Table 6)

2.15 National compilers may want to further enhance the granularity of the CPIS data so users can identify "from-whom-to-whom" positions according to sectors of both the security-issuing and security-holding economies (as reported by the latter). The reporting structure builds on the sector of resident holder breakdowns by adding a geographical cross-classification by sector of issuer.[5]

Portfolio investment assets by economy of nonresident issuer: short or negative positions (CPIS Table 7)

2.16 The national survey could also separately identify short or negative asset positions, using the structure of the core items reporting (i.e., with equity, long-term debt securities, and short-term debt securities separately identified; and with the securities allocated by the economy of residency of the issuer, by the type of security).

Modalities of the CPIS

2.17 Given the possible challenges in organizing a portfolio investment survey—no matter which approach is taken—compilers undertaking the survey for the first time are strongly recommended to

[5]The CPIS reporting form structure builds on the sector of resident holder breakdowns by adding a geographical cross-classification by sector of issuer for each of the 25 economies identified by the IMF Executive Board as having systemically important financial sectors (the 25 economies are listed in the CPIS Table 6). For the sector of nonresident issuers, the reporting form adopts less detailed breakdowns so as to minimize reporting burden (see Appendix 3).

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undertake initial investigations with financial market participants before deciding which approach to take. This issue is discussed in Chapter 4.

2.18 In determining the approach to take, national compilers must focus on two key issues: whom to survey (*coverage*) and the *degree of detail* to request. This will determine the collection methods to use. Guidance on how to make these important decisions is provided in Chapter 4, drawing on the practical experiences of economies involved in previous surveys of portfolio investment. Chapter 5 guides compilers on some of the other practical applications.

Coverage

2.19 National compilers are encouraged to investigate how to achieve comprehensive coverage of resident investment in securities issued by unrelated nonresidents. To that aim, it is important to note that the population of investors is not necessarily the population to be surveyed. Economies may consider different (nonmutually exclusive) options regarding the reporting population:

- primarily end-investors (e.g., banks, security dealers, pension funds, insurance companies, mutual funds, NFCs, and households);
- primarily custodians, who hold or manage securities on behalf of others; and
- a combination of end-investors and custodians.[6]

2.20 The advantages and disadvantages of each approach are explained in Chapter 4. No matter which approach is taken, it is important that national compilers have a degree of understanding of the relationship between domestic investors and survey respondents, to avoid undercounting or double counting.

Degree of Detailed Information

2.21 The data required to meet the objectives of the CPIS can be collected through either a security-by-security approach (where survey respondents provide information on their holdings of individual securities issued by nonresidents) or an aggregated approach (where holdings of securities issued by nonresidents are reported in aggregate, for instance by counterpart economy, instrument, or currency).

2.22 The advantages and disadvantages of the two approaches are detailed in Chapter 4. Whichever approach is adopted, it is important that good control checks are established in order to ensure high-quality data (see also Chapter 5).

Other Modalities

2.23 Considerable other preparations are required for a portfolio investment survey: namely, establishing a timetable, taking account of legal and confidentiality considerations, developing a mailing list of survey respondents, choosing and developing computer software to process the data provided, and maintaining quality-control checks. Chapter 5 provides guidance on these modalities.

For Guidance Not Contained in the Survey Guide

2.24 The IMF Statistics Department (STA) recognizes that national compilers, as they prepare for their national survey, might require advice in addition to that provided in this *Guide*. National compilers who require additional advice are urged to contact STA at the following e-mail address: cpis@imf.org.

Data Exchange

2.25 After the survey data are collected, validated, compiled, and checked for quality, national compilers will submit them to the IMF[7] for public dissemination. Data can be denominated either in domestic currency or in U.S. dollars (economies will be asked to indicate which has been used). To help ensure international comparability and for future reference, each economy is invited to complete and submit a metadata questionnaire (describing the coverage, approach, collection methods, etc.) to the IMF on how it conducted the survey.[8] An understanding of the survey procedures and of the overall coverage and reliability is important, not only for users of the data, but also

[6] An alternative approach is to survey investment managers. Operating within specific contractual guidelines, and in return for the payment of a fee, investment managers buy and sell securities on behalf of their clients to maximize the goals set out under the contract. The investment managers do not take these assets on to their own balance sheets. Surveying investment managers is complex, and this approach is recommended only when compilers have experience in conducting such surveys. For economies interested in exploring this approach further, a discussion of the advantages and disadvantages is presented in paragraphs 4.42–4.46 of this *Guide*.

[7] See Appendix 3 for the detailed reporting forms.

[8] See Appendix 3 and http://data.imf.org/CPIS for the detailed metadata questionnaire.

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because of the CPIS's target to provide counterpart economies with mirror data for their possible use to construct their liability positions. Providing as much detail as possible is essential for that assessment, and economies are encouraged to be as comprehensive as possible. Moreover, to the extent that there may be data exchange bilaterally, any elements of the data that may affect any counterpart economy should be identified. Data exchange has strong potential benefits between two economies, but each economy must be able to provide the other economy with additional information—while, at the same time, being able to ensure that any confidentiality concerns are adequately addressed.

Timeliness

2.26 It is requested that the results from each end of June and each end of December CPIS be provided to the IMF within seven months of the measurement date at the latest (i.e., by about mid-July for data pertaining to the previous end of December and by about mid-January for data pertaining to the previous end of June). If final data are not available by the due date, preliminary estimates are acceptable. The results of the survey are published by the IMF within nine months of the measurement date (i.e., about two months after economies are requested to submit their CPIS data to the IMF—in March for data pertaining to the previous June and in September for data pertaining to the previous December).

Modalities of the SEFER

2.27 SEFER is a survey of the geographical breakdown of holdings of securities held as part of reserve assets. It is related to the CPIS, in that it uses the same concepts and definitions and is necessary to give a comprehensive view of securities markets and portfolio investment. However, different data collection, processing, and publication procedures are used.

2.28 One of the main objectives of the CPIS is to reconcile portfolio investment asset and liability positions. Although the foreign securities component of reserve assets appears under a separate heading from portfolio investment in *BPM6*, securities held as part of reserve assets are part of the portfolio investment liabilities of the issuers. From the perspective of the issuer, securities that are held by nonresident investors as reserve assets are indistinguishable from those held in portfolio investment. Moreover, securities held as part of reserve assets make an important contribution to the size of the securities markets and should not be ignored. Consequently, it is necessary to cover portfolio investment and reserve assets in an integrated way for a comprehensive reconciliation of portfolio investment asset and liability positions.

2.29 One key concern about the reporting of data on the geographical breakdown of securities issued by nonresidents and held as part of a country's reserve assets is that the combination of geography and holding sector would reveal the identity of the holder. To overcome this concern, the data are provided to the IMF on a confidential basis and are published only in totals together with data on the holdings of portfolio investment of selected large IOs. In the CPIS, all economies are asked to report CPIS data that exclude reserve asset holdings and to report asset holdings data separately through SEFER.

2.30 Data reported for the SEFER survey are treated in a confidential manner. Data reported for SEFER are handled separately by a small number of IMF staff using secure procedures to ensure confidentiality. Transmission of data is fully protected by the confidential classification. The set of guidelines governing the security of information entrusted to the IMF on a confidential basis ensures that necessary and sufficient levels of protection against unauthorized access and disclosure are afforded to all sensitive information. The results of SEFER are published in aggregate form only. These aggregates comprise the securities holdings within *reserve assets* of all countries reporting for SEFER, plus the portfolio investment holdings of the IOs (for which see next section, "Modalities of the SSIO"). If any aggregated component is dominated by the holdings of a single or small number of reporters, it is not published.

2.31 Those economies that wish to publish the geographical breakdown of their securities holdings within reserve assets are free to do so. However, to ensure international consistency within the CPIS, they are requested to supply separately to the IMF CPIS data (excluding reserves) and the reserves data (for inclusion in SEFER results), respectively.

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2.32 Data reported under SEFER are aggregated and included in the CPIS published database. Therefore, the SEFER data should be reported to the IMF according to the same timeline as for the CPIS, for inclusion with the CPIS published results.

Modalities of the SSIO

2.33 The Survey of Geographical Distribution of Securities Held by International Organizations (SSIO) is a survey of IOs with significant holdings of securities. The survey is conducted by the IMF on a confidential basis and is designed to obtain the value of these organizations' holdings of securities on an economy-by-economy basis. The SSIO is an annual survey, and data reported for each end of December are combined with those from SEFER and are published as a single vector, so that no one organization's holdings can be identified. Therefore, the SSIO data should be reported to the IMF according to the same timeline as for the end of December CPIS and end of December SEFER, for inclusion with the published results from these surveys.[9]

2.34 For the purposes of the CPIS, the balance of payments, and the international investment position, separately constituted pension funds of IOs are treated as residents of the economies in which they are located (see *BPM6*, paragraph 4.141). Consequently, these holdings should be excluded from the SSIO and included instead in the CPIS. For further discussion of IOs, see paragraphs 3.29 through 3.33, of this *Guide*.

[9]CPIS and SEFER are conducted semiannually (as of 2017), whereas SSIO is conducted annually. Given the small size and dynamics of holdings of securities by international organizations, the SSIO remained an annual exercise to reduce reporting burden.

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3 Concepts and Principles

Although the procedures for conducting the national survey are shaped by the national compiling agency, the concepts and principles underlying the survey content should conform to the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6)*. From this viewpoint, practical guidance on the following key topics that are relevant for undertaking a Coordinated Portfolio Investment Survey (CPIS) are discussed in this chapter: (i) nomenclature, (ii) residence and institutional sector attribution, (iii) valuation, (iv) distinction between direct and portfolio investment, and (vi) treatment of securities where there is potential for double counting. In addition, an appendix discusses the institutional sectors.*

3.1 The concepts and principles underlying the Coordinated Portfolio Investment Survey (CPIS) are based on the sixth edition of the *Balance of Payments and International Investment Position Manual* (*BPM6*). As national compilers apply these concepts and principles, some reporting issues may arise: these practical dimensions are addressed in Chapter 4. In addition, to guide compilers, in 2014, the International Monetary Fund (IMF) published the *BPM6 Compilation Guide*, which is a companion document to *BPM6* and describes how the conceptual framework in *BPM6* can be implemented in practice.

Nomenclature

3.2 As discussed in Chapter 2, the CPIS focuses on collecting information on equity securities and on long-term and short-term debt securities issued by nonresidents and owned by residents. *BPM6* defines equity securities in paragraphs 5.21 and 5.24 and debt securities in paragraph 5.44 (see also Appendix 4 of this *Guide*).

3.3 As financial markets continually evolve, national compilers face challenges relating to changing classification or valuation, or other balance of payments accounting problems.

3.4 For the CPIS, national compilers should endeavor to use the methodology of *BPM6* to classify financial instruments; compilers may also find valuable references for further guidance in Chapter 3 ("Financial Instruments Classified as Securities") of the *Handbook on Securities Statistics,*[1] Appendix 1 ("Specific Financial Instruments and Transactions: Classification") of the 2013 *External Debt Statistics: Guide for Compilers and Users*[2] (2013 *EDS Guide*), and Appendix 4 of this *Guide*.

Residence and Institutional Sector Attribution

3.5 A principal requirement of participation in the CPIS is the identification of the residence and the institutional sector of the issuer and of the holder of the security so that bilateral information can be exchanged. This section addresses the issues raised by these two requirements.

3.6 The concept of residence followed in the CPIS is in line with that in *BPM6* and in the *System of National Accounts 2008* (*2008 SNA*).[3] Thus, the economic territory of a country is the basis on which residence is determined. It includes the geographic territory administered by a government, territorial enclaves, and free trade zones and bonded warehouses operated by offshore enterprises under customs control. These principles have been applied to small economies with international financial centers

[1] Bank for International Settlements, European Central Bank, and International Monetary Fund, *Handbook on Securities Statistics* (Washington, D.C., 2015).

[2] Bank for International Settlements, Commonwealth Secretariat, European Central Bank, Eurostat, International Monetary Fund, Organisation for Economic Cooperation and Development, Paris Club Secretariat, United Nations Conference on Tarde and Development, and World Bank, 2013 *External Debt Statistics: Guide for Compilers and Users* (Washington, D.C., 2014).

[3] Commission of the European Communities, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, and World Bank, *System of National Accounts 2008* (New York, 2009).

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(SEIFiCs) so that they are treated as resident in the economic territory of which they are a part, regardless of their treatment under local exchange control, tax, or employment regulations.[4] Apart from being consistent with the concept of residence recommended in *BPM6* and in the *2008 SNA*, this treatment is critical to ensure consistency in applying a common principle of residence across economic territories.

3.7 Both *BPM6* and the *2008 SNA* define the residence of institutional units in terms of their center of predominant economic interest. The application of this concept to individuals and enterprises for the purposes of the CPIS is the same as in *BPM6* and the *2008 SNA*.[5] Both *BPM6* and the *2008 SNA* recommend that offshore enterprises (which may be engaged in manufacture, trade, and financial services) be treated as resident in the economy in which they are located.[6] *BPM6* gives particular attention to the residence and classification of special purpose entities (SPEs) as direct investment enterprises.[7] SPEs are commonly engaged in providing financial services.

3.8 Institutional sectors are formed by grouping the institutional units. The units in each institutional sector have similar economic objectives, functions, and behavior. The concept of institutional sector used in CPIS is consistent with *BPM6* and the *2008 SNA*. The institutional sector classification is mainly applied to resident units, but should also be applied when compiling the encouraged CPIS tables that require the sector of the nonresident counterpart. Annex 1 provides details on the institutional sectors classification followed in the CPIS and definitions of institutional sectors/subsectors following *BPM6* and the *2008 SNA*.

3.9 For the CPIS, it is necessary to provide further clarification of the treatment of so-called brass plate companies, international business companies (IBCs), shell companies, and SPEs that may have a limited physical presence in the economy in which they are located, may be offshore in the sense just defined, and yet may be significant vehicles for cross-border portfolio investment. To ensure their inclusion in the CPIS, the legal domicile of an enterprise is a preferred indicator of residence. In a typical SEIFiC, the transactors that are likely to meet the test of legal domicile may well include the following: (i) companies that are incorporated in the jurisdiction (including IBCs and "exempt" companies) even though they may be managed or administered in another jurisdiction, (ii) branches of companies incorporated abroad (including financial holding companies), and (iii) unincorporated enterprises that are deemed to be legally domiciled, can produce separate accounts, and are expected to be in business for a period of one year or more. This test of residence is consistent with that followed in *BPM6* (e.g., see paragraph 4.115), the *2008 SNA* (e.g., see paragraph 4.15), and the 2013 *External Debt Statistics: Guide for Compilers and Users* (e.g., see paragraph 2.20) which treat debt issues on the balance sheet of entities legally incorporated or domiciled in SEIFiCs as external debt of the SEIFiC. Although IBCs in SEIFiCs are resident of the countries in which they are incorporated, the collection of CPIS data on IBCs in SEIFiCs may be very challenging. Unless these units undertake financial intermediation with other residents, they may be unregulated, which makes the collection of data challenging.

3.10 The residence of individuals that hold securities is established by their center of economic interest, as described in *BPM6* and the *2008 SNA*. This is determined by the location of their principal residence (as a member of a household). Being present for one year or more in a territory or intending to do so is sufficient to qualify as having a principal dwelling (or residence) in that territory (see *BPM6*, paragraph 4.117).

[4] Being subject to the income tax system is an indicator that may help to determine the residence of an entity. This is so regardless of the rate of tax. The important consideration is whether the entity is subject to the laws and taxes of the jurisdiction in which it is located even if it may have a tax-exempt status (*BPM6*, paragraph 4.27(c)).

[5] For the purposes of balance of payments statistics, "an enterprise is defined as an institutional unit engaged in production. Investment funds and other corporations that hold assets and liabilities on behalf of groups of owners are also enterprises, even if they are engaged in little or no production. . . . An enterprise may be a corporation (including a quasi-corporation), a nonprofit institution, or an unincorporated enterprise" (*BPM6*, paragraph 4.23).

[6] According to paragraph 4.72 of *BPM6*, an offshore bank is a deposit-taking corporation that engages exclusively, or almost exclusively, with nonresidents. They are included in the deposit-taking corporations, but they may be excluded from the money-issuing sector because their liabilities are not included in broad money. Enterprises other than banks may also be called offshore enterprises. See Annex I at the end of this chapter for additional details.

[7] The securities held by an SPE should also be covered in the CPIS if they fulfill the criteria for being regarded as portfolio investment assets. See paragraphs 3.43–3.48 of this chapter for further discussion of the distinction between *portfolio investment* and *direct investment.*

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As explained in *BPM6*, there are specific guidelines for determining the residence of students, medical patients, ship's crew, national diplomats, and other individuals, but these are likely insignificant for compiling the CPIS.

Residence and Institutional Sector Attribution of the Issuer of a Security

3.11 The issuer of a security is likely to be a government agency, a public or private corporation (including financial institutions), or a branch (although branches are unlikely to issue securities) or subsidiary of a public or private corporation (including a financial institution). Depending on their data sources, CPIS compilers may face difficulty in determining the institutional sector of nonresident issuers of securities held by their residents.[8] As noted below, for some multinational companies, there may be difficulty in determining residence, either of the issuer or of the holder.

3.12 Ensuring the correct residence and institutional sector classification of the issuer and of the holder of a security is a central element of the CPIS. For mirror data to be exchanged with the right counterpart, a correct identification of the issuer's residence is fundamental, regardless of whether the national survey is conducted on a security-by-security (SBS) basis or on an aggregated basis (see Chapter 4 for the discussion of these approaches).

3.13 The coding systems used by the securities industry to identify securities can help ensure consistency of geographic attribution of securities by compilers across economies. For example, International Securities Identification Number (ISIN) codes are now allocated to many internationally traded long-term securities[9] by national numbering agencies, which have the sole right to allocate numbers within their jurisdiction. Each security has its own unique identifier. For equity securities (but not debt securities), the first two digits can be used to identify the country of the issuer (see paragraph 4.57, Chapter 4 for some exceptions). In applying this guidance, compilers should exercise caution when these securities are issued in foreign markets using depository receipts (DRs): American depository receipts (ADRs) provide one example. In such cases, use of the ISIN codes may lead to an inaccurate geographical attribution, because the country code is that of the organization that issued the receipt rather than that of the one that issued the underlying security. For debt securities, the ISIN code may identify the residence of the lead manager and not the issuer.[10] Further, securities issued by international organizations (IOs) (e.g., securities of the World Bank) are assigned a code based on the currency of denomination and therefore compilers need to apply caution in using these data based on ISIN codes. Chapter 4 provides additional details. When discussing their national survey with potential survey respondents, national compilers should evaluate the use of the ISIN code system in their own economy and gauge its potential use in classifying securities in their national survey. More information on the coding system and the associated security databases is provided in Chapter 4.

3.14 Large multinational corporations (MNCs) may have more than one center of predominant economic interest; others appear to have more than one head office. However, there are usually either separate corporations that operate within the larger entity or there may be a standard allocation principle among the economies of residence of the different owners, based on their equity shares. Moreover, some companies, listed on major stock exchanges and having all the characteristics of a resident of that economy, may be incorporated in another jurisdiction altogether. In addition, some MNCs may use a shell company or an

[8] As noted in Chapter 1, the IMF is currently considering the possibility to organize a centralized exchange of information across economies aimed at enhancing the sectorization of nonresident issuers of securities held by domestic investors.

[9] Securities from more than 120 countries are identified by ISINs.

[10] ISIN consists of a total of 12 characters as follows: the first two characters are taken up by the alpha-2 country code as issued in accordance with the international standard ISO 3166 of the country where the issuer of securities, other than debt securities, is legally registered or in which it has legal domicile. For debt securities, the relevant country is the one of the ISIN allocating national numbering agency. In the case of depository receipts, such as ADRs, the country code is that of the organization who issued the receipt instead of the one who issued the underlying security. The next nine characters are taken up by the local number of the security concerned. Where the national number consists of fewer than nine characters, zeros are inserted in front of the number so that the full nine spaces are used. The final character is a check digit. See http://www.anna-web.org/standards/isin-iso-6166/.

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SPE,[11] domiciled and registered in another country or economic territory—typically a SEIFiC—to issue securities (usually debt instruments), even though there is "no physical presence" in the economy or territory. In that instance, following the statistical principle of separate institutional unit, the securities should be attributed to the economy or territory in which the issuing entity is legally incorporated, as opposed to the economy of the parent enterprise, even though the legal entity in the SEIFiC may merely be a conduit for raising funds for the parent company.

3.15 Even where the issue is guaranteed by the parent company, either explicitly or implicitly, and the funds are for use by the parent company, the residence of the issuer should be attributed to the place of registration of the special financing vehicle. Even for economies using an SBS approach (see Chapter 4), special attention should be paid to the information stored in the securities database because the residence of the issuer, especially for such special financing vehicles, may not always be correctly attributed by commercial data providers.

3.16 Securities issued by IOs should be recorded as such, and not be attributed to the economy in which they are physically located. Other characteristics of a security—such as the currency of denomination; the market where it is issued, listed, or traded; or the residence of the guarantor or underwriter of the issue—should not be used as a substitute for identifying the residence (economy or IO) of the issuer.

Residence and Institutional Sector Attribution of the Security Holder

3.17 The holder of a security may be a government entity, a public or private corporation (including a financial institution), a quasi-corporation (including a financial institution), an enterprise as defined in *BPM6*, a nonprofit institution serving households (NPISH), or an individual. For the CPIS, the national compiler needs to be able to identify (and only include in their CPIS reports) resident holders of securities issued by nonresidents. The following addresses problems that may arise when the residence of the holder cannot be readily determined from the available data sources (such as reporting by investment managers, custodians, or settlement agents), problems related to the treatment of nominee accounts, issues concerning the treatment of insurance company technical reserves, pension funds, mutual funds, trust service providers, and the treatment of defeasance.

3.18 The correct determination of the holder's residence is particularly difficult where the information is provided by custodians, nominees, or trustees. They may not be aware of whether the registered owner is also the ultimate beneficial owner or, alternatively, they may not know the residence of the beneficial owner. When investment managers or custodians are asked to report the value of securities they hold on behalf of others, it is important that they are provided with guidelines to determine the basis of residence of the asset holder(s). For the most part, they use postal addresses; however, in some instances, this will be inappropriate for the reasons noted above.

3.19 Challenges also arise as custodians may be unable to readily identify the residence of the beneficial holder. Custodians will sometimes hold securities on behalf of other custodians. Investors may place their portfolios with "global custodians," which, in turn, use the services of "local" or "sub-" custodians. In that case, it is important, where possible, to have the sub-custodian ignore its holdings on behalf of the global custodian, which should then be asked to report the information on behalf of the securities' ultimate owners. This is because the global custodian, in this instance, may be aware of that information, whereas the sub-custodian may not. However, this exercise may require considerable coordination and involve substantial resources, especially as cross-border dimensions are involved. Further, there is considerable risk that double or undercounting may result.[12] Accordingly, it is recommended that this process of "looking through" the sub-custodian to the global custodian should be undertaken only where there is a strong likelihood of good intercompany coordination and cooperation. If this is not possible, attempting such an exercise is ill-advised. Clear instructions to both global and local or sub-custodians are necessary

[11] See paragraphs 4.50–4.52 of *BPM6* for discussion of "shell companies," "brass plate companies," "international business corporations," and SPEs.

[12] For example, if the sub-custodian does not remove its holdings on behalf of the global custodian and the latter reports the holdings as well, overcounting will result; while undercounting will result if both the sub-custodian and the global custodian make the adjustment.

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to ensure that attribution of economy of residence is done consistently between them.

3.20 When using investment brokers or custodians as a data source for the CPIS, issues related to the treatment of nominee accounts may arise. A nominee account is a device through which an investor acquires ownership of securities without his/her/its name appearing on the security register. Nominee accounts are offered by *nominees*, which are often companies that are operated by lawyers, accountants, securities dealers, or other financial institutions. Nominees are a legal device for holding assets for confidentiality or convenience reasons (*BPM6*, paragraph 4.160). In countries that use trusts, the nominee usually holds the assets as a trustee and may have no discretion in the management of the assets. Securities acquired via a nominee are registered in the nominee's name. Nominee accounts are sometimes used to make an initial accumulation of shares, up to the legal limit permitted before disclosure is required, pending a takeover bid. More generally, they are used by investors as a convenient means to buy and sell shares through a securities dealer (which will have its own nominee company). Holdings of securities by a nominee, although registered in the name of the nominee, should be attributed to the economy of residence of the beneficial owner. The nominee should always know this information. If the beneficial owner of the securities is a nonresident of the compiling economy, the holdings of the portfolio investment assets should not be included in the portfolio investment assets of the economy of the nominee. However, if the data are collected from custodians[13] rather than directly from the nominee, it may be very difficult for the custodian to determine who the beneficial owner is because the custodian's records may only record the legal owner (i.e., the nominee). Where the nominee is a resident of the compiling economy and the beneficial owner is a nonresident, ownership of portfolio investment assets may be incorrectly attributed to the resident economy. On the other hand, where the nominee is a nonresident and the beneficial owner is a resident, unless the resident custodian is aware of that situation, the portfolio investment asset holdings will be excluded from the CPIS by the custodian—thereby understating the compiling economy's assets.

3.21 The treatment of pension funds in the CPIS is fully consistent with the *2008 SNA* and *BPM6*. Pension funds to be included as respondents comprise those that are constituted as separate institutional units from the units that created them. Sometimes, the management of pension funds takes place in another jurisdiction from that in which the pension fund itself is resident. For the CPIS, pension funds that are separate institutional units (and not their owners, managers, or others) should be regarded as the owners of the underlying pension fund assets, and thus the economy attribution is based on where the pension fund is resident.

3.22 The treatment of collective investment schemes (such as mutual funds) in the CPIS is fully consistent with *BPM6* and the *2008 SNA*. For mutual funds, it is not uncommon, especially in SEIFiCs, for them to be registered in one jurisdiction, managed in another, and administered in a third. "Managing" means buying and selling assets and other front office activity, such as market research and economic analysis. "Administering" in this context means bookkeeping, legal, and other back office activities. For the CPIS, collective investment schemes that are legally incorporated or registered in an economy are deemed to be residents of that economy, even if their management or administration is undertaken in another economy.

3.23 Trusts are arrangements where one party (the *trustee(s)*) has the legal title to, and often control of, a portfolio of assets while others (the *beneficiary(ies)*) have the right to benefits of the portfolio or income generated by it. Trusts in this use of the term are usually found only in Anglo-American legal systems. The trustee is subject to fiduciary obligations to protect the beneficiaries' interests (e.g., the trust property is kept separately from the personal property of the trustee). The assets are held off the trustee's balance sheet. Because their essential aspect is the separation of different aspects of ownership, trusts give rise to questions on the attribution of their ownership and residence.

3.24 A general treatment of trusts is provided in *BPM6* (paragraph 4.48). Trusts are treated in the same way as entities that undertake equivalent economic

[13] Custodians hold securities on behalf of investors. These securities may be held in physical form, although nowadays they are overwhelmingly "dematerialized": that is, in electronic form. Custodians do not actively trade securities, though they may perform that function separately as investment managers or brokers.

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functions with different legal structures. This is based on the principle that economic function of the entity is relevant in economic analysis, rather than the type of legal structure used. The relevant aspects for identification of the economic function for statistical units are (i) the degree of separation of the unit from others that established and own it (as evidenced by its decision-making and whether it has its own accounts) and (ii) the nature of the activities it undertakes (e.g., financial intermediation, market production of goods and services, general government operations, nonprofit production, or simply holding assets).

3.25 By reasons of the fiduciary duties of the trustee, the trust will have its own accounts and maintain a separate identity from both the trustee and the beneficiaries. Trusts that undertake financial intermediation (securitization, collateralized securities, and investment pools such as collective investment schemes) are often found to be separate units and resemble their corporate equivalents undertaking the same activities. For example, unit trusts, mutual funds, real estate investment trusts, and other collective investment vehicles should be treated the same way as any other corporations or quasi-corporations that perform the same economic functions. Similarly, pension funds that use trusts should be treated the same way in economic statistics as those that use corporate structures. The assets of the trust are attributed to the trust itself (as a separate institutional unit), while its equity capital is attributed to the shareholders of the trust.

3.26 Trusts are also sometimes used solely to hold assets for a small group of people and, in this case, may not be open to the public.[14] Such trusts are often set up by one or more family members for their relatives (and possibly themselves). However, they can also be used as vehicles for small groups of unrelated investors. Trustees may be relatives of the beneficiaries or professional trustees, such as lawyers or licensed trustee companies established for the purpose. In some cases, the trustee has legal title without decision-making power, as the trust deed requires that the trustee follow the instructions of the beneficiary(ies). In these cases, which include nominee companies, the trust is not the effective decision-making unit. However, in other cases, the trustee has independent control of the assets.[15] Trusts are often managed by professional trust service providers, who may be potential data sources. Such a collection approach is analogous to custodians, which are used as a convenient data collection point in many countries.

3.27 A distinction is made in the international statistical standards between entities who act as principals and those who act as agents or custodians. In the case where a trust is acting solely as a custodian, where feasible, the assets of the trusts should be regarded as directly owned by the beneficiaries. When the trust and beneficiaries are in the same country, this does not present practical problems. However, in practice, beneficiaries and the trust are often located in different countries, particularly for the many trusts operating in SEIFiCs. In the case where the trust is acting solely as a custodian, it is recognized that it may be very challenging to correctly attribute the underlying holdings of the trust to the country of the beneficiaries.

3.28 Defeasance merits mention. Debt defeasance is an arrangement whereby a debtor (whose debts are in the form generally of debt securities and loans) sets aside cash or other assets to match outstanding liabilities (including any amounts that may accrue, such as future interest payments). Some countries permit defeased assets and liabilities to be taken off the balance sheet of the defeasing debtor because the values are offsetting. However, under balance of payments and the CPIS concepts, both the assets and liabilities should be regarded as belonging to the defeasing party (see *BPM6*, paragraphs 8.30–8.31).

Residence of International Organizations and Regional Central Banks

3.29 In the balance of payments, international investment position (IIP), and the CPIS, IOs are not treated as residents of any economy. Although physically located in an economy, they are treated as nonresidents of the economy for statistical purposes because they are created by agreements between governments and are outside the authority of an individual government. Any assets or liabilities they may hold are not the assets or liabilities of the economies in which they are physically located.

[14] Similarly, shelf companies are often used only to hold financial assets.

[15] Indeed, the objective of many trusts is to take advantage of the trustee's asset management skills or to protect the beneficiaries from their lack of management skills (e.g., infants or the not-yet born).

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However, a separately constituted pension fund of an IO is considered a resident of the economy in which the pension fund is located, and if lacking a physical presence, it is considered a resident of the economy in which it is incorporated or registered.

3.30 The IMF conducts a survey of the portfolio investment assets held by IOs (the Survey of Securities Held by International Organizations) to complement the results of the CPIS. These holdings are included in the global CPIS results.[16] Portfolio investment assets of IOs should not be included in national CPIS data because their inclusion would result in double counting. For economies that are hosts to IOs, the IOs' portfolio investment assets should not be included in their national data. Similarly, any securities issued by residents that are held by an IO are liabilities of the issuing economy to a nonresident. Correct classification may be an issue if data are obtained through custodians, and IOs may be incorrectly identified as residents if the classification is based on their physical location.

3.31 Similarly, for the CPIS, holdings of securities issued by IOs should be reported as a separate category under a specific code for IOs (code "XX," the last code in the list of countries in the model forms and in the reporting forms for the submission of the CPIS results to the IMF), rather than under the economy where an IO is physically located.

3.32 Securities held by regional central banks (RCBs) may be included in both reserve assets and portfolio investment asset holdings. For example, pension fund portfolio investment assets holdings (if not held in a separate institutional unit) or securities held for monetary policy purposes may be recorded as *portfolio investment* rather than as *reserve assets*. In some cases, RCBs may hold securities issued by member economies of the RCB. Under statistical guidelines, these latter securities are not included in the RCB's reserve assets. In this case, these securities should be reported by the RCB as securities claims on the member economies of the RCB as part of their portfolio investment asset holdings. Holdings of securities by an RCB should not be reallocated to the member economies of the RCB and they should always be treated as having been issued by a nonresident.[17]

[16] The data are reported on a confidential basis to the IMF and are published as global aggregates, so that confidentiality is maintained.
[17] Methodological guidance on the recording of reserve assets in the context of regional arrangements are provided in Appendix 3 of *BPM6*. See also Appendix 6 of IMF's *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template* (Washington, D.C., 2013), http://www.imf.org/external/np/sta/ir/IRProcessWeb/pdf/guide2013.pdf.

3.33 As noted above, the holder of any securities issued by RCBs should report them in its portfolio holdings in the IOs line in the economy allocation.

Valuation

3.34 Market price valuation is recommended in the CPIS because of the following:

- the recommended basis in *BPM6* and other macroeconomic statistics manuals,
- a method in which assets and liabilities can be valued on the same basis, and
- the basis for economic and portfolio investment theory.

For the creditor, it reflects the command it has over resources; while for the debtor, it is the measure of the amount of funds required to eliminate the liability if the securities were re-acquired by the debtor under current market conditions. This has become increasingly important as debtors are active liability managers.

3.35 Indeed, paragraph 3.84 of *BPM6* recommends that positions in financial assets and liabilities be valued at current market prices[18] at the appropriate reference date. It also provides advice on how to value securities:

> *Positions of financial assets and liabilities should, in general, be valued as if they were acquired in market transactions on the balance sheet reporting date*. Many financial assets are traded in markets on a regular basis and therefore can be valued by directly using the price quotations from these markets. If the financial markets are closed on the balance sheet date, the market prices that should be used in the valuation are those that prevailed on the closest preceding date when the markets were open.

3.36 Consistency of valuation across economies is essential for data quality. For those securities that are traded, which should be the majority by far, prices should be commonly available from bond and stock exchanges, commercial vendors (e.g., Reuters and Bloomberg), or organizations that maintain security databases (e.g., the International Capital Market

[18] Market prices are defined in paragraph 3.68 of *BPM6* as ". . . amounts of money that willing buyers pay to acquire something from willing sellers."

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Association and SIX Financial Information). Where the bid and asking-prices are both quoted, the mid-point should be used. The market value should be that as at the close of business on the relevant date (June 30 or December 31 of the appropriate year, under the existing periodicity of the CPIS)[19] in each compiling economy. This means that there may be price differences across economies in different time zones for the same securities quoted in different markets. However, given that the survey is to be used as input to an economy's IIP, the relevant price for that economy is the market price at close of business in that economy. Accordingly, this timing difference is a valuation inconsistency that should be recognized.

3.37 *BPM6* recommends that interest accrued, but not yet payable, be included in the price of the debt security (see *BPM6*, paragraphs 7.27 and 11.49): the so-called "dirty" price. In line with that recommendation, this survey should be conducted on the basis that debt securities are to be reported on a dirty price basis. This is particularly important for zero coupon or deep discount instruments with terms to maturity greater than one year, where the accrual of interest can be large in relation to the initial funds advanced. However, in many economies, the market price of debt securities is the so-called "clean" price (i.e., excluding interest accrued but not yet due). Wherever possible, data on debt securities, reported on a clean price basis, should be converted to a dirty price basis. This may not always be possible, especially for economies that use an aggregate approach for data collection. Compilers are asked to provide methodological notes setting out the basis of reporting, together with the methods used, if any, to adjust the data to a dirty price basis (see Appendix 3, CPIS metadata questionnaire, question 4.9).

3.38 Respondents may record their security holdings, especially debt instruments on a variety of different valuation principles, notably par value, acquisition cost, amortized value, or market price, depending on the purpose of the investment and the accounting practices of the institution or economy. As stated at the beginning of this section, compilers should endeavor to report securities holdings at market prices.

3.39 Accordingly, wherever possible, respondents should be asked to report their holdings at market price. In some cases, securities have been issued at a substantial premium, as the coupon is much higher than the market rate of interest at the time of issue. The security should be reported at market price, which should approximate the present value of the future stream of payments, discounted by an appropriate current rate of interest.

3.40 Survey respondents may face the same problems that compilers face in obtaining good information on market valuation (Box 3.1). Therefore, when compilers rely on respondents to provide information

[19] For quarterly CPIS, market value should be considered at the close of business of the relevant quarter (March 31, June 30, September 30, or December 31).

Box 3.1 Approaches to Approximating Market Prices

Where market prices are not available for securities (e.g., in private placements and in organized exchanges where they are not actively traded), valuing securities may create difficulties for national compilers.

In some economies that have a security-by-security approach, in the absence of a readily observable price, custodians reporting security holdings of clients are instructed to value listed securities at the price chosen for the valuation of the respondent's portfolio for unlisted securities. In some economies that have an aggregated approach, respondents are given a range of possibilities with which to value both equities and debt. Six alternative methods of approximating market value of shareholders' equity are given in *BPM6* (paragraphs 7.16–7.17). A standard ranking of the alternative methods is not proposed for valuing instruments when current market prices are not directly observable (*BPM6*, paragraph 7.18). Positions in unlisted equity securities may be valued using the same methods (*BPM6*, paragraph 7.29).

Some listed debt securities also may have no quoted prices: for example, if the market is illiquid or the security ceases trading due to suspension, default, or bankruptcy. A market price can be estimated for such debt securities by discounting future cash flows using a discount rate that takes into account the risk of default (present value approach; see *BPM6*, paragraph 7.29).

Choosing the market price of a comparable company (in the same industry, of similar size, with a comparable number of shares on issue) is not a recommended option since there are too many other factors (not least, the management) that are uncertain and could produce a considerable distortion in the valuation. At the same time, illiquidity itself tends to depress the price of a security.

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on the market value of securities, it is important that some method of quality control be introduced. When survey respondents report on an SBS basis, compilers are advised to request additional information: for example, the number of equity shares held by individual issuer or the face value of the debt instrument and the price used to value it. With this information, compilers could confirm that the reported price is appropriate, either by using their own knowledge or by comparing prices quoted for comparable or the same securities by other respondents. Infrequently traded securities pose challenges.[20] The compiler could use a price index to provide a means for revaluation to market prices if nominal values are provided by the respondent. The index could vary in complexity between that based on similar maturities in the same currency and that which identifies individual issues that mirror the characteristics of the unpriced security. If national compilers intend to create their own price index from information already available, they need to carefully consider technical complexities. See Box 3.2 for some of the problems associated with valuation of a particular type of instrument: asset-backed securities.

[20] The boundary between securities and loans may, in certain circumstances, be difficult to draw. In principle, one of the defining features of securities is that they are negotiable, whereas other instruments are not. However, there are instances where loans have been sold to third parties, usually at a discount to their nominal value. Unless there is evidence that these transactions are likely to prompt similar types of transactions, the loans should not be reclassified to securities.

3.41 Regarding those respondents who report on an aggregate basis, the compilers' scope for independently verifying that securities have been correctly valued is more restricted. If the data are being collected within an integrated system, the compiler could request that the reporters reconcile transactions and position data on the same survey form; alternatively, the compilers themselves could reconcile transactions and position data (see Chapters 5 and 6 for more information on quality controls). Independent information, such as an entity's published balance sheet or statement of assets under management or under custody, could also be used. However, it is important to bear in mind when making these comparisons that like be compared with like: accordingly, if the published balance sheet is for the consolidated group's global activities, it would not be appropriate for this survey (or for balance of payments or the IIP) since securities held by nonresident affiliates will be included, while intragroup positions will be consolidated and thus not be reflected in the consolidated balance sheet. In addition, for assets under management (or held in custody), it is important that the data adequately reflect what is managed or held on behalf of residents and what is managed or held on behalf of nonresidents. If this distinction cannot be made, the comparison for verification purposes is limited. In all cases, where comparisons are made, it is necessary that the alternative sources of data provide the basis for valuation in notes to the balance sheet or statement of assets under management to ensure that comparisons with the CPIS are on the same valuation basis.

Box 3.2 Valuation of Asset-Backed Securities

Asset-backed securities are securities collateralized or backed by pools of assets (e.g., residential mortgages).

These securities have a special feature given that there can be partial repayments[1] of principal at any time. Because the market price is a function of market interest rates and perceived creditworthiness, not just the amount of principal outstanding, simply revaluing the original face value to end-period market prices will cause an overvaluation of position data if there has been a partial repayment. The compiler need only to revalue the face value of the remaining amount outstanding—the so-called factor value. For example, if the original face value of a security is $1,000,000 and $700,000 of the principal has been repaid, the factor value is 0.300.

There is a need to apply caution if custodians who report data to compilers have different approaches. For example, some custodians may keep track of only the original face value amount of principal outstanding on the security, whereas other custodians may keep track of only the remaining principal outstanding. Thus, when collecting data on a security-by-security basis from custodians, compilers are advised to ask for both the original and the remaining principal outstanding. If only one is available, the compiler should at least be clear as to which has been reported so that the appropriate adjustments can be made. If data are collected on an aggregate basis, prior consultation with major respondents is recommended to decide upon the appropriate course of action.

[1] For example, in the United States, the mortgage-backed securities (MBS) issued by Ginnie Mae (GNMA) have this feature. If a homeowner pays off his mortgage early, a corresponding portion of any related GNMA MBSs are retired early and investors may receive prepayment of their investments.

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3.42 Economies that intend to conduct an aggregate survey, particularly a first-time survey targeted at custodians, are advised to gain some idea of the reported value of securities not revalued to end-period market prices. One approach is to ask respondents to report this information (such as holdings at acquisition price or nominal value) on the survey form. This information could be requested as supplementary to the main data for the CPIS. For example, in the model survey forms in Appendix 1C, this information could be collected at the end of the forms on equities, long-term debt securities, and short-term debt securities as items "of which value of total securities issued by nonresidents held on respondent's books or on behalf of residents that is not recorded at market price." Alternatively, the total value of all equity and long- and short-term debt securities could be recorded separately from the information for individual economies' issues. These figures might provide only a rather rough indication of the size of the problem in value terms, but they may serve as a useful basis for the CPIS because they would help compilers identify, contact, and, perhaps, directly assist those survey respondents who have the most difficulty revaluing securities.

Distinguishing Between Direct and Portfolio Investment in Securities

3.43 The objective of the CPIS is to collect data on residents' investment in securities issued by nonresidents for use in the compilation of portfolio investment data. If the securities held are issued by an enterprise that is in a direct investment relationship with the holder, they should be excluded from portfolio investment. Hence, not all holdings of securities issued by a nonresident come under the scope of the CPIS.

3.44 Direct investment is defined in paragraph 6.8 of *BPM6* and in the *OECD Benchmark Definition of Foreign Direct Investment* (fourth edition, Paris: OECD, 2008). Paragraph 6.8 of *BPM6* describes direct investment as follows:

> *Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy*. As well as the equity that gives rise to control or influence, direct investment also includes investment associated with that relationship, including investment in indirectly influenced or controlled enterprises (*BPM6*, paragraph 6.12), investment in fellow enterprises (see *BPM6*, paragraph 6.17), debt (except selected debt set out in *BPM6*, paragraph 6.28), and reverse investment (see *BPM6*, paragraph 6.40). The Framework for Direct Investment Relationships (FDIR) provides criteria for determining whether cross-border ownership results in a direct investment relationship, based on control and influence. The definition of direct investment is the same as in the fourth edition of the *OECD Benchmark Definition of Foreign Direct Investment*, which provides additional details on the FDIR and the collection of direct investment data.

3.45 Therefore, both the equity held that establishes the direct investment relationship and any other holdings of equity or debt[21] that are issued by the direct investment enterprise or the direct investor or its affiliates and owned by them should be excluded from the CPIS. The one exception is transactions between affiliated financial intermediaries. Securities (and other debt positions) between selected affiliated financial corporations are not classified as direct investment because such positions are not considered to be strongly connected to the direct investment relationship. Paragraph 6.28 of *BPM6* states this as follows:

> Debt between selected affiliated financial corporations is not classified as direct investment because it is not considered to be so strongly connected to the direct investment relationship. The financial corporations covered by this case are:
>
> (a) deposit-taking corporations (both central banks and deposit-taking corporations other than the central bank);
>
> (b) investment funds; and
>
> (c) other financial intermediaries except insurance corporations and pension funds.

3.46 In other words, the usual direct investment definitions apply for captive financial institutions and money lenders, insurance corporations, pension funds, and financial auxiliaries. All debt positions between the selected types of affiliated financial corporations are excluded from direct investment and are included under portfolio or other investment. Both affiliated parties must be one of the selected types of financial corporations, but they need not be the same type. In

[21] Already held when the threshold of 10 percent is reached or other securities acquired subsequent to the reaching of that threshold.

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practice, the method by which they are excluded may well depend on the general collection method adopted.

3.47 In an end-investor survey, the reporting instructions should be clear on what should be included and what should be excluded. Because end-investors are best informed about the composition of their investments, they should be able to distinguish portfolio from direct investment assets. Indeed, as direct investment statistics are commonly collected through a survey of investors, the reporting instructions can make clear to respondents that securities reported as direct investment should not be reported as portfolio investments. Countries usually require separate reporting of direct and portfolio investment data. The compiler can also compare the direct and portfolio investment returns for each respondent as an additional check.

3.48 In a custodial survey, the instructions should also clearly state that securities that have been issued by an enterprise that is in a direct investment relationship with the holder should be excluded; however, the applicability of these instructions might well vary among countries. The experience among compilers is that, in some markets, investors tend to hold all portfolio investment securities with custodians, whereas securities issued by an enterprise in a direct investment relationship are frequently held separately from their portfolio investments and away from custodians. It is recommended that national compilers conducting a custodian survey evaluate market practice in their own country and ensure that custodians understand the direct investment relationship and that any holdings of securities between the direct investment enterprise and the direct investor are to be excluded from the survey. In markets where investors tend to hold all securities with custodians, compilers collecting data for the CPIS from custodians will need to be particularly vigilant in ensuring that securities that should be classified as direct investments are excluded.[22] (Alternatively, as a quality check, such securities could be identified separately as a memorandum item.) This could take the form of monitoring particularly large holdings of securities and comparing data from direct investment survey returns with those from the CPIS. Box 3.3

[22] Surveys that give the number of securities held can provide a useful check against the total number of shares on issue to determine whether any one investor holds more than 10 percent.

Box 3.3 Austria's Experience in Separately Identifying Direct Investment and Portfolio Investment Holdings of Securities

In Austria, custodians provide the Oesterreichische Nationalbank with information on individual securities at par value (and market value), for their own and customer's holdings which are grouped by institutional sector. Custodians are not able to distinguish between portfolio investment holdings and securities held for direct investment purposes. Hence, all securities are included in the report by custodians and are automatically classified as portfolio investment (PI). Direct investment (DI) holdings are afterward manually adjusted on a security-by-security basis to avoid double counting, as follows:

(1) In the case of securities issued by residents, the classification as DI liabilities is mostly based on media information and consultation of the reporting unit.

(2) In the case of securities issued by nonresidents and for a few securities issued by residents, DI positions are identified by high transaction data, especially in sectors which are well-known for DI transactions (e.g. nonfinancial corporations, insurance companies, and other financial institutions). For every suspected case, the domestic reporting unit will be consulted.

If there is no information about changes in DI, the asset and liability positions are perpetuated. When changes occur, data are accordingly adjusted.

Additionally, debt securities that are issued and held exclusively within multinational enterprises are marked and compiled as DI positions and therefore excluded from PI. The number of these cases in Austria is rather small. Therefore, the needed information to separately identify PI and DI holdings is mostly based on research and information by the reporting unit (but not automatically collected).

Finally, national compilers—whether they approach end-investors or custodians—need to be careful when classifying securities issued by entities based in offshore centers. If held by the parent enterprise or associated affiliate, these securities should be classified under DI. As noted in earlier, an exception is made for some holdings by financial intermediaries when the nonresident entity that issued the debt security and the resident owner of the debt security are affiliated financial intermediaries.

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illustrates how Austria ensures that direct equity investment securities are excluded from its survey of portfolio investment.

Treatment of Securities Where There Is Potential for Double Counting

3.49 In this section, four types of transactions of growing importance, which could lead to potentially significant double or undercounting of securities holdings between countries, are identified. These types of transactions are (i) repurchase agreements, (ii) securities lending agreements, (iii) DRs, and (iv) stripped securities.

3.50 Repurchase agreements and securities lending fall under the broad category of reverse transactions (see *BPM6*, paragraphs 7.58–7.61). Reverse transactions are arrangements that involve a change of legal ownership of securities or gold with a commitment to repurchase the same or similar securities or gold either on a specified date or *with open maturity*. They include securities repurchase agreements, gold swaps, securities lending, and gold loans. The commitment to reverse the change in legal ownership in the future at a fixed price means that the original owner retains the risks and rewards of changes in the price of the asset. Accordingly, there is no change of economic ownership of the security or gold, so no transaction in that security or gold is recorded, and ownership of the asset as shown in the IIP is unchanged.

3.51 A reverse transaction may be with or without the supply of cash. If cash is supplied, as in a repurchase agreement (repo or securities lending with cash collateral), and in return the other party supplies securities, the arrangement is regarded as giving rise to a loan or deposit. (The classification of the cash supplied is discussed in paragraphs 5.52–5.54 of *BPM6*.) Analogously to repos, a gold swap for cash is treated as being a loan with the gold as collateral, and there is no change in the economic ownership of the gold.

3.52 If a party that receives securities under a reverse transaction on-sells the securities to a third party, then it has a short position. The treatment of short positions is discussed in paragraph 7.28 of *BPM6*. Repurchase agreements and securities lending are discussed in detail below.

Repurchase Agreements

3.53 *A repurchase agreement is an arrangement involving the provision of securities in exchange for cash with a commitment to repurchase the same or similar securities at a fixed price*. The commitment to repurchase may be either on a specified future date (often one or a few days hence, but also further in the future) or an "open" maturity. Repos, securities lending with cash collateral, and sale-buybacks are different terms for arrangements with the same economic effect as a repurchase agreement—all involve the provision of securities as collateral for a loan or deposit. The term "repo" is used from the perspective of the securities provider, while the term "reverse repo" is used from the perspective of the securities taker (see *BPM6*, paragraph 5.52), both referring to the same type of transaction. Repos sometimes require that the value of the securities be greater than the cash provided, to provide (initial) margin against the possible default on the part of the repo party. If the value of the security falls, additional securities (variation margin) may be required; on the other hand, if the value of the securities rises, part of the original margin may be returned to the repo party (depending on country practice). In other cases, substitution of the security provided is permitted (which may arise if the security goes "special"[23] or if the repo party needs the security to make delivery on another contract).

3.54 There is more than one type of repo. In some repo transactions, ownership of the underlying security remains with the seller; in others, the underlying security is held by a third party for safekeeping (the so-called tri-party repos); and in others, the ownership of the underlying security changes hands. Some repos are "cash driven": that is, the primary purpose of the transaction is for the repo party to acquire cash. In other instances, the transaction may be "security driven": that is, where the reverse-repo party has need for a particular security, if the security has gone "special" or the reverse-repo party needs to make delivery on a contract. The supply and receipt of funds under a securities repurchase agreement, regardless of whether the transaction is "cash driven" or "securities driven" (the economic nature is the

[23] A *special* is an asset that is subject to exceptional specific demand in the repo and cash markets compared with very similar assets. For additional details, refer to the website of International Capital Market Association at www.icmagroup.org.

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same), is treated as a loan or deposit (see ahead). It is generally a loan, but it is classified as a deposit if it involves liabilities of a deposit-taking corporation and is included in national measures of broad money. Regardless of the type of repo transaction, the market risks of owning the security and all significant benefits remain with the "seller." If a repurchase agreement does not involve the supply of cash (i.e., there is an exchange of one type of securities for another or one party supplies securities without collateral), there is no loan or deposit. Margin calls in cash under a repo are also classified as loans (see *BPM6*, paragraph 5.53).

Potential for double counting

3.55 Repurchase agreements were developed primarily as a method of financing securities positions. Hence, they have been used as a means of leverage,[24] but they also have become a method by which investors can borrow securities to cover "short positions." Short positions occur when an institutional unit sells securities for which it is not the economic owner. For example, a security subject to a repurchase agreement may be on-sold by the securities-receiving party (see *BPM6*, paragraph 7.28). Accounting practice in many countries is to regard the securities involved in repo transactions as remaining on the books of the seller and to record the cash received as a collateralized loan. On the other hand, some countries (for institutional, legal, or other reasons) treat repos, where ownership changes hands, as transactions in the underlying security: that is, as an outright sale of the security for cash. The subsequent repurchase is regarded as a separate and independent security transaction. Under *BPM6*, the *2008 SNA*, and related statistical methodologies, a repo is treated as a collateralized loan or deposit, reflecting the economic nature of the transaction.

3.56 In practice, national compilers in some countries find that they have no realistic choice other than to require data on security holdings (and transactions) to be reported in line with the accounting or regulatory conventions prevailing in their countries. It appears that the vast majority of countries prefer that repos be treated as collateralized loans or deposits (so that the "seller," not the "buyer," reports the holding).[25] Only a few countries record repos as a transaction in securities; however, it is also probable that in many countries, the recording practices are not universally applied, so compilers should be very careful in their preparation for the survey to be sure that the respondents know what is required to be reported. This concern applies particularly to countries that obtain the data for the CPIS from custodians (see the following discussion on "Treatment of repos in the CPIS"). Compilers are encouraged to discuss with custodians the recording practices applied to these transactions and to see to what extent such transactions can be identified and reported on the basis required for the CPIS. It is important that reporting of repos (and securities lending) is consistent within an economy.

Treatment of repos in the CPIS

3.57 Because of the mixed nature of these transactions, differences in the statistical recording of repos can lead to miscounting of cross-border holdings of the securities involved. Accordingly, a practical and consistent approach must be adopted regarding the reporting of securities holdings underlying repos. It is recommended for the purposes of this survey, and in line with the statistical methodologies, that repos be recorded as collateralized loans or deposits. However, implementing this proposal is not always straightforward, particularly in countries where accounting and statistical practices are not in line with this proposal, or where there is asymmetry in the recording of repos versus the recording of reverse repos. There is an added problem in countries where custodians are a primary source of information as securities on repo are not necessarily identified or identifiable by the custodian (for either the repo party or the reverse-repo party). In that case, the custodian may only be able to report what is held in custody at any one time—therefore, a security on repo may not be identifiable and will be

[24] Repo is a common means for mutual funds to leverage investors' funds. Consequently, an investment of $100 million in securities may generate additional returns if (some of) the securities are repoed, to increase the value of the fund several times over the initial investment. The survey should collect data on the total portfolio investment holdings by resident investors, including repoed securities.

[25] If the "buyer" on-sells the security acquired under a repo to a third party, then a negative or "short position" in the security should be reported; otherwise, the holding of the security will be double-counted (see Box 3.6 in this chapter).

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excluded from the custodian's (and, consequently, the repo party's) holdings. Similarly, a security acquired under reverse repo may not be identifiable as such on the books of the custodian and may, therefore, be recorded inappropriately as part of the custodian's holdings on behalf of clients (and hence the reverse-repo party's holdings).

3.58 There are several elements to this exercise. As a first step, national compilers are encouraged to obtain some idea of the importance of the repo market in their own economy. If it is significant, then they should gain an understanding on the modalities of the market.

3.59 Second, compilers should ascertain the recording practices of respondents and attempt to ensure internal consistency within the economy. If the treatment of repo holdings is not consistently applied among all respondents within a creditor country, claims on the debtor country will be inaccurately measured. Box 3.4 explains the reasoning behind these conclusions. However, ensuring internally consistent instructions is not necessarily straightforward, particularly for those countries that conduct a custodian survey. They will, for instance, need to capture "short positions"; otherwise, the security holdings could be double-counted (see Box 3.4). Boxes 3.5 and 3.6 provide examples of some of the problems that can result from the measurement of repos (and securities lending).

3.60 For those countries that collect data through an end-investor survey, the respondents should be asked to report repos and reverse repos as collateralized loans or deposits—in other words, as if the security has not changed hands. If the reverse-repo party then repos again the security to a third party, the transaction should be treated in the same manner—as

Box 3.4 Statistical Treatment of Repurchase Agreements

Explaining the possible statistical entries arising from repurchase agreements (repos) can soon become immensely complicated, not least because there are frequently three variables to consider: the two counterparties to the repo transaction and the issuer of the underlying security (and in a tri-party repo, the custodian holding the security).

If both counterparties are resident in the same country and if their statistical treatment of repos is identical (i.e., national compilers ensure that all respondents have the same instructions), then only one party should have claims vis-à-vis the country of issuance of the underlying security, thus not leading to possible double counting. For example, in the example in Box 3.5, if Resident X of Country A repos 100 security liabilities of Country B to Resident Y of Country A, then regardless of whether X maintains this holding on its books and Y does not, or vice versa, Country A has a claim of 100 on Country B: that is, only one entity in Country A has a reported claim on Country B.

If, however, Resident X treats repos as a collateralized loan and Resident Y treats repos as a purchase of securities, then Country A's claim on B will be incorrectly measured at 200: that is, both X and Y report a claim on Country B. Similarly, if Resident X treats repos as a sale of securities and Resident Y treats repos as a collateralized loan, then Country A's claim on B will be incorrectly measured at zero: that is, neither X nor Y reports a claim on Country B.

Additional complexity arises if repoed securities are on-sold. Assume that X and Y both treat repos as collateralized loans, but Y on-sells the securities outright, not as a repo, to fellow Resident Z. Y's sale of the security may be accurately reported in the transactions data, but given that Y has sold a security that was not on its balance sheet, then Y should record a "short" or negative position. In this case, two parties (X and Z) would register a claim on Country B, while Y would register a negative position vis-à-vis the same country, thus leading to an overall balanced position of Country A versus Country B without any double counting.

The potential reporting possibilities become more complex if one of the counterparties is a nonresident (see Box 3.5). From the viewpoint of the CPIS, the residence of the counterparty to the repo transaction is not directly relevant. It is rather the residence of the issuer of the security used for the repo that is relevant, because the CPIS is measuring security claims on nonresidents. However, the residence of the counterparty is of relevance to the extent that the treatment of the securities underlying repos differs between countries. To the extent that national compilers adopt different treatments, there is potential for under- or over-recording at the global level for the same reasons as explained above in the domestic context.

The same considerations that apply to repos also apply to securities lending.

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Box 3.5 Repurchase Agreements: Examples of International Position Data-Reporting Possibilities of Portfolio Investment

A. Resident of A repos securities worth 100 issued by a resident of Country C with a resident of B

Method of treatment	**Country A claims on C**	**Country B claims on C**	**Reported nonresident claims on C**
1. Both countries (A and B) treat repos as collateralized loans	100	0	100
2. Both countries (A and B) treat repos as sales and purchases of securities	0	100	100
3. Country A treats repos as collateralized loans, and Country B as sales and purchases of securities	100	100	200
4. Country A treats repos as sales and purchases of securities, and Country B as collateralized loans	0	0	0

B. Resident of A repos securities worth 100 issued by a resident of Country B with a resident of B

Method of treatment	**Country A claims on B**		**Reported nonresident claims on B**
1. Both countries treat repos as collateralized loans	100		100
2. Both countries treat repos as sales and purchases of securities	0		0
3. Country A treats repos as collateralized loans, and Country B as sales and purchases of securities	100		0
4. Country A treats repos as sales and purchases of securities, and Country B as collateralized loans	0		100

C. Resident of A repos securities worth 100 issued by a resident of Country A with a resident of B

Method of treatment		**Country B claims on A**	**Reported nonresident claims on A**
1. Both countries treat repos as collateralized loans		0	0
2. Both countries treat repos as sales and purchases of securities		100	100
3. Country A treats repos as collateralized loans, and Country B as sales and purchases of securities		0	100
4. Country A treats repos as sales and purchases of securities, and Country B as collateralized loans		100	0

Box 3.6 Example of a Reverse Repo Followed by Outright Sale

Treating a repo as a collateralized loan may result in an incorrect statement of a country's external securities liability.

If a resident acquires temporarily under a repo agreement a domestic security from a nonresident and then sells it outright to another nonresident, an overstatement of the country's securities liabilities will result: two nonresident holders (the original owner and the ultimate acquirer) will claim to be in possession of the same domestic security. While this is usually offset by a short position (liability) of the intermediating party, in this case such short position is purely domestic and thus doesn't appear in the international investment position.

Let us consider a resident in Country B who acquires a domestic (i.e., issued by the government of Country B) security worth 100 from a nonresident (resident of Country A). In turn, the security acquired under this repo is sold outright to a resident of Country C. Country B's external securities liabilities positions would be recorded as follows:

Securities liability to Country A (since the original holder in A will still hold a claim on the security)	100
Securities liability to Country C (liability of General Government to the ultimate holder in C)	100
Total securities claims by nonresidents on Country B	200

(both the original holder of country A and the ultimate holder of country C will have a claim on the General Government of country B)

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Box 3.6 Example of a Reverse Repo Followed by Outright Sale (*concluded*)

While in other circumstances, the two claims would be offset by a negative asset (short) position by the party in between (i.e. by the resident in B who acquired the security via a repo with A and on-sold it to C), in this case the negative position will remain purely domestic, so the nonresidents' claims in the form of securities will be overstated by 100.

In the IIP statement of Country B, the overstatement of resident liabilities in securities (i.e., nonresidents' claims) by 100 is balanced by the recording of other investment loan assets following the acquisition of securities by the resident of Country B from Country A under a repo transaction.

The availability of additional information on resident-issued debt securities acquired under reverse security transactions would help interpret the overstating of liabilities in the form of securities of Country B. For details on the presentation of resident-issued debt securities involved in reverse security transactions, see paragraphs 4.18–4.19 and Table 4.6 of the *2013 EDS Guide*. Further, Appendix 2 of the *2013 EDS Guide* sets out examples of how different types of reverse security transactions should be recorded in the gross external debt position and in the memorandum table (Table 4.6), when debt securities are involved (see Table A2.1 Appendix 2 of the *2013 EDS Guide*). Specifically, example 2(e) of this Table A2.1 presents the case of a resident selling the security outright to a nonresident following the resident buying the security under a repo from a nonresident. In this case, the acquisition of the security by the resident is presented with a negative sign in the above-mentioned memorandum Table 4.6 (i.e., debt securities issued by residents and acquired by residents from nonresidents) to properly track liabilities in the form of debt securities.

The same situation applies with a securities loan of a resident-issued security by a nonresident "lender" to a resident "borrower," who followed the loan with an outright sale to another nonresident.

Other circumstances may produce a similar overstatement of a country's debt securities liabilities.

a collateralized loan or deposit. However, if a security acquired under reverse repo is on-sold outright, the reverse-repo party should record a short position (as described in Box 3.4). Where, due to accounting and legal requirements, the practice in the country is to record repos as transactions in securities, end-investor respondents should be asked to make every effort to report them as collateralized loans or deposits. It is especially important that there be consistency within an economy on the treatment of repos of nonresident-issued securities to ensure that the overall position of that economy vis-à-vis the issuing economy is correctly stated. If some respondents report on one basis (as collateralized loans or deposits) and others on another basis (as transactions in securities), the result could be a substantial over- or underestimate of the claims on the issuing economy.

3.61 Countries that collect data from custodians will need to discover whether their custodians can separately identify securities held under repo agreements when reporting clients' holdings. This should not be an issue though regarding their own holdings, where securities on repo or acquired under reverse repo should be clearly identifiable. In some countries, the custodian of the repo party will know that the security is on repo because the records are set up to identify securities on repo to ensure that they are not sold twice. However, in these countries, even the custodian for the reverse-repo party frequently will not be aware that the security has been acquired under reverse repo. There is no need for the custodian to know this information in many instances: if the security can be on-sold, to all intents and purposes as far as the custodian is concerned, the security acquired is no different from any other transaction in a security and can be sold in the same way. Moreover, in many countries, the custodian will not know whether a security is on repo. Accordingly, in all instances where custodians are principal sources of information, compilers should explain to custodians the importance of being able to identify securities on repo or reverse repo, and ways should be sought to ensure that they can meet the survey's needs.

3.62 An additional avenue to ensure consistency across borders in the recording of repos is for national compilers to consult directly their counterparts in the appropriate foreign country(ies)—where the issuer(s) of the securities is (are) resident—to discover whether both countries are treating repos in a consistent manner. Different approaches can lead to asymmetric

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reporting of securities holdings; given the size and growth of the repo market, this could cause problems when the results are aggregated and when data are exchanged. Bilateral exchanges of additional information might be required to meet both countries' needs.

3.63 Finally, information on how countries are intending to treat repo holdings could be reported to the IMF[26] (along with other documentation regarding the conduct of the survey at the national level) so that inconsistencies in approach between countries can be monitored and, if need be, brought to the attention of the relevant national compilers.[27]

3.64 However, as noted in Box 3.6, a country's debt security liabilities may be overstated when a reverse repo is followed by an outright sale if there are difficulties to record negative positions. If both the original holder and the final purchaser are nonresidents and the security has been issued by a resident, the security holders will both record ownership. The balancing entry should be the negative position that the on-selling party should record, having sold the security without owning it. This issue is one that requires continuing work to resolve.[28]

Securities Lending Agreements

3.65 Securities lending is an arrangement whereby the ownership of a security is transferred usually in return for collateral,[29] typically another security, under the condition that similar securities are returned to the original owner on a specified future date or on demand.[30] If cash exchanges hands, the transaction has the same economic nature as a repo and should be treated as a repo.

[26] As there is no specific question on repos in the CPIS metadata questionnaire, such information could be reported under question 4.2 (see Appendix 3, CPIS metadata questionnaire, question 4.2).
[27] Cross-border transactions in repos have been so large in recent years that it may be valuable for countries to collect this information for balance of payments purposes given the importance of repos as a financing and leveraging tool.
[28] For additional details, see the Committee paper (BOPCOM 04/7, https://www.imf.org/external/pubs/ft/bop/2004/04-7.pdf) "Progress Report of the Technical Group on Reverse Transaction" and Annual Report 2004 (https://www.imf.org/external/pubs/ft/bop/2004/ar/index.htm). This issue was retained on the research agenda (see Committee paper BOPCOM 05/44, https://www.imf.org/external/pubs/ft/bop/2005/05-44.pdf).
[29] In some instances, no collateral is provided.
[30] Often, the collateral provided to the securities "lender" cannot be on-sold except on default by the "borrower."

Potential for double counting

3.66 Securities lending is an activity usually associated with securities dealers needing to meet commitments to deliver securities that they have sold but do not own, such as covering a "short" position or meeting their obligation to deliver a security to a nonresident purchaser before that same security has been delivered to it by a resident seller (possibly due to differences in security delivery requirements in different jurisdictions). Basically, a securities loan, in the absence of cash collateral,[31] involves swapping the borrowed securities for other acceptable securities (or other acceptable collateral). Depending on the nature of the transaction and the relative credit risks of the parties involved, the value of securities received as collateral may be the same or greater than the value of the securities "lent." As with repos, the market risks of owning the securities involved in a securities loan (and all significant benefits) remain with the original owners. In all cases, the ownership of the securities "lent" changes hands. Securities lending (along with repos and similar arrangements) are discussed in paragraphs 7.58–7.61 of *BPM6*.

3.67 In most countries, the statistical practice is to regard the securities (both those lent and those provided in return as collateral) as remaining on the books of the original owner. If a borrowed security is on-sold (which is usually the case), then both the original owner and the third party will each regard itself as owning the security, while the "borrower" will regard itself as having a negative holding (a "short" position). As far as the initial "borrowing" is concerned, no transaction is recorded (i.e., the nature of the initial "borrowing" is similar to that of a repo, without cash being exchanged). Because it is only the cash portion of a repo that is recorded—the exchange of ownership of the securities is ignored—for securities lending, the same applies. Therefore, since no cash is involved in securities lending, to be consistent with the treatment of repos, under *BPM6*, no transaction is recorded for the exchange of securities under securities lending. If a "borrowed" security is on-sold outright, then the "borrower" (the reverse-repoing party) should record a "short" position. From the above, it can be readily seen that, as with repos, there

[31] If cash is given as collateral, the transaction should be treated as a repo.

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is the possibility of asymmetric reporting within and among countries, if some countries record securities lending as a transaction in its own right.

Treatment of securities lending in the CPIS

3.68 The preferred treatment for the purposes of the CPIS is to treat securities lending/borrowing without exchange of cash as if no transaction had taken place so that the original owners continue to report that they still hold the security. If the security is on-sold by the temporary "borrower" of the security, a "short" position should be recorded.

3.69 As can be seen, the recording issues for securities lending are similar to those for repos, and the importance of both internal and external consistency of approach is equally valid. Therefore, the recommendations regarding repos apply equally to securities lending: the importance that the market be assessed, internally consistent reporting instructions developed after consultation with potential survey respondents, investigation of the scope for the lending to nonresidents of securities issued by nonresidents, bilateral contacts established with national compilers in the appropriate countries, and information on the intended treatment sent to the IMF. The problems of collecting information from custodians are similar for both repos and security lending: custodians, especially for the "borrower," may be unaware that a security has only been "lent/borrowed" and may have no means of identifying that the security is to be returned, or that a "short" position should be recorded, in the event of an on-sale. It is strongly recommended that compilers make every effort to ensure that the custodian understands the requirements and can provide the information on the bases recommended. It is suggested that contacts with all respondents regarding securities lending and repos, but especially for custodians, be undertaken simultaneously.

Depository Receipts

3.70 DRs are securities that represent ownership of securities in other economies. DRs listed on one exchange represent ownership of securities listed on another exchange, and ownership of the DRs is treated as if it represents direct ownership of the underlying securities.[32] They facilitate transactions in securities in economies other than their home listing. The underlying securities may be equity or debt securities (*BPM6*, paragraph 5.23).

3.71 ADRs and global depository receipts (GDRs) are most common types of DRs. They are normally denominated in U.S. dollars and euros. ADRs are mostly traded on U.S. exchanges and GDRs on European stock exchanges. In general, each DR represents a single or more than one share of an underlying equity.

Potential for double counting

3.72 The issuance of DRs is becoming increasingly prevalent: issuers and intermediaries are finding that investors frequently prefer to acquire securities in the financial markets where payment and settlement systems, registration procedures, and so on are familiar, rather than in the home market of the issuer where systems and procedures may not be as familiar or as efficient. The potential for double counting lies in the existence of both the underlying security, held by the depository, and the DRs: that is, two securities could be reported as held, but only one liability exists. Clear guidance to survey respondents is required to avoid double counting.

Treatment of depository receipts in the CPIS

3.73 The way in which DRs should be recorded is that the financial institution "issuing" the receipts should be "looked through": that is, the holder of the receipts should be taken to have a claim on the unit that underlies the receipts.

3.74 The reporting should follow the guidelines below:

- DRs are securities that represent ownership of securities held by a depository. The economy of issue of the underlying securities is different from the economy in which the DRs are issued. They allow investors to acquire an interest in companies in other economies, while still using the payment and settlement systems and registration procedures of another economy. They are treated as being a claim on the issuer of the underlying security, not that of the issuer of the DR (*BPM6*, paragraph 4.161). In other words, ADRs are liabilities of the non-U.S. enterprise whose securities underlie the ADR issue and not of the U.S. financial institution that issued the ADRs.

[32] A depository is an entity to whom securities are entrusted for safekeeping.

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- Consequently, the economy attribution of the issuer of DRs should be based on the economy of issue of the underlying security. Similarly, the classification by sector of nonresident issuer of DRs should be based on the sector of the issuer of the underlying security. However, the currency classification of DRs (and similar "repackaged" debt securities) presents challenges. For instance, many equity securities owned by U.S. investors are held in the form of ADRs, which while technically denominated in U.S. dollars, more properly reflect exposure to the currency of the underlying equity security. Thus, while a security-level database may correctly classify ADRs as U.S. dollar–denominated foreign equity, it understates the true foreign currency exposure of U.S. investors. Therefore, in line with the guidelines for classifying DRs by type of instrument (equity or debt securities), economy of residence of the issuer, and sector of nonresident issuer (i.e., the classification is based on the underlying security), this *Guide* recommends that the currency classification of DRs be based on the currency of denomination of the underlying security.[33]
- Financial intermediaries should not report holdings of any securities issued by nonresidents against which DRs have been issued and sold. If a DR has been issued before the financial institution arranging the issue has acquired the original (or underlying) securities, then that financial institution should report a negative holding in the original (or underlying) securities.

Stripped Securities

3.75 Stripped securities are securities that have been transformed from a principal amount with coupon payments into a series of zero-coupon bonds, with a range of maturities matching the coupon payment date(s) and the redemption date of the principal amount(s). They are also called strips. The function of stripping is that investor preferences for particular cash flows can be met in ways that are different from the mix of cash flows of the original security. Stripped securities may have a different issuer from the original issuer, in which case new liabilities are created. The following are two cases of stripped securities:

- When a third party acquires the original securities and uses them to back the issue of the stripped securities, then new funds have been raised and a new financial instrument is created.
- When no new funds are raised and the payments on the original securities are stripped and separately marketed by the issuer or through agents (such as strip dealers) acting with the issuer's consent (*BPM6*, paragraph 5.50).

3.76 In the first case, financial corporations purchase bonds or similar instruments, strip the coupon payments, and sell the future cash flows to separate investors (i.e., the principal-only claim is sold separately from the coupon-only claims). The principal-only- and coupon-only-strip investors receive the cash flows from the bonds on a pass-through basis. The financial corporation that is the issuer of the strip records liabilities (classified under debt securities) for the cash flows that were stripped and sold. Financial corporations are purchasers, as well as originators, of principal-only and coupon-only strips.

3.77 When the issuer of the original security creates principal-only and coupon-only strips, the original security issuer retires the original securities or leaves them in a repository (e.g., a settlement or clearing facility) on a "dormant basis" until such time when the securities are reissued or redeemed. The strip-like securities replace the original securities to avoid double counting of the issuer's liabilities (see paragraphs 4.230–4.233 of the *Monetary and Financial Statistics Manual and Compilation Guide*[34]).

Potential for double counting

3.78 The issuance of stripped securities is becoming more prevalent. The creation through strips of zero-coupon bonds eliminates the reinvestment risk inherent in a bond with a coupon and allows investors greater leverage: that is, less money needs to be invested to gain the same market exposure as with an equivalent bond with a coupon. When the entity issuing the strips is creating new liabilities, double counting does not arise. The potential for double counting arises when the strips have replaced the

[33] This treatment is analogous to the treatment of securities indexed to foreign currency (see *BPM6*, paragraph 3.101).

[34] International Monetary Fund, *Monetary and Financial Statistics Manual and Compilation Guide* (Washington, D.C., 2015).

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original security, even though the latter has not been redeemed. Effectively, the original security is "dormant" in the settlement or clearing house, until it is reconstituted or redeemed.

Treatment of stripped securities in the CPIS

3.79 The reporting instructions should follow the guidelines below:

- If strips have been issued by an entity in its own name, then the residence of the issuer is that of the entity that issued the strips, and the issuing entity should report its holdings of the existing securities issued by nonresidents.
- If strips have been created from a nonresident security and remain the direct obligation of the original issuer, then the residence of the issuer remains the same as for the original security.
- Dealers who request that a settlement or clearing house creates strips from an existing nonresident security should not report their holdings of the underlying nonresident security after the strips have been created.
- Strips with an original maturity of less than one year are short-term debt securities. If identifiable, they should be reported as such.

3.80 Box 3.7 indicates the experience in two countries in the CPIS in attempting to avoid double or undercounting of holdings that may result from repo, securities lending, DRs, and stripped securities.

Instruments

3.81 Appendix 4 to this *Guide* describes in detail many of the instruments that are available to investors. The information may assist both compilers and respondents to classify these instruments as equity or long- or short-term debt.

Annex 1: Institutional Sectors

For purposes of financial surveillance and analysis, it is useful to have data on the sector of the holder and the sector of the issuer of the specific securities. The CPIS Table 3[35] collects data on portfolio investment assets by sector of resident holder and Table 5 collects data on portfolio investment assets by sector of nonresident issuer of securities. In CPIS Table 6, data by sector of resident holder cross-classified by economy and sector of the nonresident issuer for specified

[35] See Appendix 3, CPIS Data Template, for Tables 1–7 of CPIS.

Box 3.7 Treatment in the CPIS of Financial Transactions That May Lead to Double or Undercounting

Portugal: Reporting instructions on these issues were drawn up according to this *Guide* (note, however, that stripped securities were not covered in the Portuguese survey). Any question could be clarified with the Banco de Portugal and contacts with major reporters were made, so the reported data provided guarantees that double counting was excluded. Double counting is also avoided because the resident custodians report to the Banco de Portugal the number of the opened dossiers of foreign securities (this is attributed by the Banco de Portugal according to its technical instructions); that number is also used in the direct report by final investors. Each dossier number of the foreign securities is given an enterprise register number that allows the Banco de Portugal to identify the underlying client. In addition, since 2014, there is a monthly direct report to Banco de Portugal from incorporated entities with external relations by an amount of exceeding €100,000 per year, where direct investment relations are identified. Therefore, the split between portfolio investment and direct investment is reinforced. This feature allows the implementation of a quality control and data capture system. Furthermore, these aspects are in accordance with the collection and statistical production of the balance of payments system, which assures better reconciliation of flows and stocks. One of the main concerns is to ensure that an integrated approach is followed with the balance of payments current, capital and financial accounts, and IIP compiled jointly and consistently.

United States: Respondents were instructed to report as if repo and securities lending activities do not exist. That is, if a custodian has securities that are temporarily involved in a repo agreement, they are to report these securities as if they are continuously held. Further, the counterparty is instructed not to report these securities that they have temporarily acquired. Collateral received as part of the repo agreement is not to be reported, and collateral given is to be reported as continuously held. Likewise, securities lent are to be reported as continuously held, securities borrowed are not to be reported, and any collateral involved is to be reported as if held by the original owner (in the same manner as for repos).

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economies are collected.[36] As discussed in Chapter 2, CPIS Tables 3, 5, and 6 are encouraged and not part of the core dataset, but such reporting is strongly encouraged. The resident sectors identified in the CPIS are central bank, deposit-taking corporations excluding the central bank, other financial corporations (total) as well as by subsector (i.e., insurance corporations and pension funds (ICPFs), money market funds (MMFs), and "other"), general government; and the sum of nonfinancial corporations (NFCs), households, and NPISHs as well as provision for reporting these sectors separately. Descriptions of these sectors as they appear in *BPM6* are repeated below.

Central Bank

Paragraphs 4.67–4.70 of *BPM6* describes the central bank subsector as follows:

The central bank is the financial institution (or institutions) that exercises control over key aspects of the financial system. It carries out such activities as issuing currency,[37] managing international reserves, transacting with the IMF, and providing credit to deposit-taking corporations. The central bank of a currency union is classified as a central bank in the data for the currency union as a whole; in the data of individual member states, it is part of the rest of the world sector. Central banks in some economies also accept deposits from or provide credit to entities in other sectors.

The central bank subsector includes the following:

(a) central banks, which in most economies are separately identifiable institutions that are subject to varying degrees of government control, engage in differing sets of activities, and are designated by various names (e.g., central bank, reserve bank, national bank, or state bank);

(b) currency boards or independent currency authorities that issue national currency that is fully backed by foreign exchange reserves; and

(c) government-affiliated agencies that are separate institutional units and primarily perform central bank activities.

If an institutional unit is mainly engaged in central banking activities, the entire unit is classified in the central bank subsector. Many central banks regulate or supervise other deposit-taking corporations and other financial corporations, and these central bank activities also are included in the central bank subsector. However, units that are affiliated with the government or with other sectors and are mainly engaged in regulating or supervising financial units are classified as financial auxiliaries rather than as units in the central bank subsector. Private units that perform activities such as check-clearing operations are assigned to other financial corporations subsectors depending on their activities, rather than to the central bank.

A few economies do not have central banks. Typical central banking activities that are performed by general government and cannot be separated into specific institutional units are treated as part of general government and are not allocated to the central bank subsector. In economies in which some central banking functions are performed wholly or partly outside the central bank, particularly holding reserve assets, consideration should be given to compiling supplementary data for the monetary authorities sector. The concept of monetary authorities underlies reserves assets.

Monetary Authorities

Although the reserves component of data for the monetary authorities sector (i.e., securities held as reserve assets) are not captured by the CPIS itself,[38] they are captured by Securities Held as Foreign Exchange Reserves, which is a companion survey to the CPIS. Paragraph 6.66 of *BPM6* describes monetary authorities as follows:

The functional concept of monetary authorities is essential for defining reserve assets. Monetary

[36] Starting with the June 2013 CPIS data collection, the specified economies were economies for which the IMF Executive Board endorsed mandatory financial stability assessments under the Financial Sector Assessment Program, to be conducted every five years. These were Australia, Austria, Belgium, Brazil, Canada, China (Mainland), Hong Kong (Province of China), France, Germany, India, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, Russian Federation, Singapore, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States. Data for all other economies combined also are to be reported, but without sector detail.

[37] There could be exceptions. In some economies, for example, in Hong Kong, three commercial banks (namely, The Hong Kong and Shanghai Banking Corporation Limited, the Bank of China (Hong Kong) Limited and the Standard Chartered Bank (Hong Kong) Limited) are authorized to issue the Hong Kong dollars. See the website of the Hong Kong Monetary for details (http://www.hkma.gov.hk/eng/key-functions/monetary-stability/notes-coins-hong-kong/notes.shtml).

[38] However, securities held by central banks which are not part of reserve assets (i.e., securities classified as portfolio investment in the IIP) are to be included in the CPIS.

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authorities encompass the central bank (which subsumes other institutional units included in the central bank subsector, such as the currency board) and certain operations usually attributed to the central bank but sometimes carried out by other government institutions or commercial banks, such as government-owned commercial banks. Such operations include the issuance of currency; maintenance and management of reserve assets, including those resulting from transactions with the IMF; and operation of exchange stabilization funds. In economies in which extensive reserve assets are held outside of the central bank, supplementary information should be provided on the institutional sector of holdings of those reserve assets.

Deposit-Taking Corporations except the Central Bank

Paragraphs 4.71–4.72 of *BPM6* define the deposit-taking corporations except the central bank subsector as follows:

> *Deposit-taking corporations, except the central bank have financial intermediation as their principal activity. To this end, they have liabilities in the form of deposits or financial instruments (such as short-term certificates of deposit) that are close substitutes for deposits*. In general, the following financial intermediaries are classified in this subsector:
>
> (a) commercial banks, "universal" banks, and "all-purpose" banks;
>
> (b) savings banks (including trustee savings banks and savings and loan associations);
>
> (c) post office giro institutions, post banks, and giro banks;
>
> (d) rural credit banks and agricultural credit banks;
>
> (e) cooperative credit banks and credit unions;
>
> (f) traveler's check companies that mainly engage in financial activities; and
>
> (g) specialized banks or other financial institutions if they take deposits or issue close substitutes for deposits.

The liabilities of deposit-taking corporations to residents are typically included in measures of broad money. The money-issuing sector may be identified on a supplementary basis to assist in reconciliation with monetary data. It consists of the central bank plus deposit-taking corporations plus other institutions included in the definition of broad money (e.g., MMFs in some cases).[39] Deposit-taking corporations that engage exclusively (or almost exclusively) with nonresidents, often called offshore banks or offshore banking units, are included in deposit-taking corporations, but they may be excluded from the money-issuing sector because their liabilities are not included in broad money.

Other Financial Corporations

In the CPIS, "other financial corporations" consists of ICPFs, MMFs, and "other." The "other" category, in turn, consists of non-MMFs, other financial intermediaries except ICPFs, financial auxiliaries, and captive financial institutions and money lenders.

Insurance Corporations and Pension Funds

Paragraphs 4.88–4.90 of *BPM6* define and describe ICPFs as follows:

> *Insurance corporations consist of incorporated, mutual, and other entities whose principal function is to provide life, accident, health, fire, or other forms of insurance to individual institutional units or groups of units or reinsurance services to other insurance corporations*. Captive insurance is included, that is, an insurance company that serves only its owners. Deposit insurers, issuers of deposit guarantees, deposit protection schemes, and other issuers of standardized guarantees that are separate entities and act like insurers by charging premiums and have reserves are classified as insurance corporations.
>
> Pension liabilities arise when members of households participate in a social insurance scheme that will provide income in retirement (and often benefits for death or disability). Such schemes may be

[39] MMFs are separate from deposit-taking corporations. Paragraph 4.73 of *BPM6* notes that when MMFs are included in monetary aggregates, showing MMFs as an extra subsector will assist comparability.

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organized by employers or by government; they also may be organized by insurance corporations on behalf of employees; or separate institutional units may be established to hold and manage the assets to be used to meet the pension obligations and to distribute the pensions. Pension schemes may be operated by a separately constituted pension fund or a fund that is part of the employer, or they may be unfunded. *The pension fund subsector consists of only those social insurance pension funds that are institutional units separate from the units that create them*.

Social security schemes are not included in pension funds, although they sometimes may have pension entitlement liabilities if they provide pensions to public sector employees. In the case of unfunded pension schemes, general government and corporations other than pension funds may have pension entitlement liabilities. Nonautonomous pension funds are not separated from the entity of which they are part.

Money Market Funds

Paragraph 4.73 of *BPM6* defines MMFs as follows:

MMFs are collective investment schemes that raise funds by issuing shares or units to the public. The proceeds are invested primarily in money market instruments, MMF shares and units, transferable debt instruments with a residual maturity of less than one year, bank deposits, and instruments that pursue a rate of return that approaches the interest rates of money market instruments. MMF shares can be transferred by check or other means of direct third-party payment. Because of the nature of the instruments that MMFs invest in, their shares or units may be regarded as close substitutes for deposits. When MMFs are included in monetary aggregates, showing MMFs as an extra subsector will assist comparability.

Other Financial Corporations—Other

As noted above, the "other financial corporations—other" category, in turn, consists of non-MMFs, other financial intermediaries except ICPFs, financial auxiliaries, and captive financial institutions and money lenders. Each of these is described in *BPM6* as shown below.

Non-Money Market Investment Funds (non-MMFs)

In paragraph 4.74 of *BPM6*, non-MMFs are described as follows:

Non-MMF investment funds are collective investment schemes that raise funds by issuing shares or units to the public. The proceeds are invested predominantly in long-term financial assets and nonfinancial assets (usually real estate). Investment fund shares or units are generally not close substitutes for deposits. They are not transferable by means of check or third-party payments. Some funds may be limited to certain investors only, whereas others are available to the public generally. Investment funds can be open or closed ended. Open-ended funds or open funds are those whose shares or units are, at the request of the holders, repurchased or redeemed directly or indirectly out of the undertaking's assets. Closed-ended, closed, or exchange-traded funds are those with a fixed share capital, where investors entering or leaving the fund must buy or sell existing shares. Investment funds may be constituted as follows: (a) under the law of contract (as common funds managed by management companies), (b) under trust law (as unit trusts), (c) under a statute (as investment companies), or (d) otherwise with similar effect. Some investment funds invest in other funds ("funds of funds"). Pension funds are excluded; they are part of the insurance companies and pension funds subsector. Real estate investment trusts are included. Fund managers of investment funds are financial auxiliaries.

Other Financial Intermediaries except Insurance Corporations and Pension Funds

In paragraphs 4.76–4.78 of *BPM6*, other financial intermediaries except ICPFs are described as follows:

Other financial intermediaries, except ICPFs, consist of financial corporations and quasi-corporations that are engaged in providing financial services by incurring liabilities, in forms other than currency, deposits, or close substitutes for deposits, on their own account for the purpose of acquiring financial assets by engaging in financial transactions on the market, and that are not included in

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another subsector. It is a feature of a financial intermediary that operations for both sides of the balance sheet are carried out in open markets.

In general, the following financial intermediaries are classified in this subsector:

(a) financial corporations engaged in the securitization of assets;

(b) underwriters, and securities and derivative dealers (on own account). In contrast, security brokers and other units that arrange trades between buyers and sellers but do not purchase and hold securities on their own account are classified as financial auxiliaries;

(c) financial corporations engaged in lending, including financial leasing, as well as personal or commercial finance;

(d) central clearing counterparties, which provide clearing and settlement of market transactions in securities and derivatives. Clearing refers to the process of offsetting obligations and entitlements vis-à-vis counterparties to transactions so that settlement—which involves the actual exchange of securities, derivatives, and funds—can occur more efficiently on a net basis. The central clearing counterparties involve themselves in the transaction and mitigate counterparty risk;

(e) specialized financial corporations that assist other corporations in raising funds in equity and debt markets and provide strategic advisory services for mergers, acquisitions, and other types of financial transactions. (These corporations are sometimes called "investment banks.") In addition to assisting with the raising of funds for their corporate clients, such corporations invest their own funds, including in private equity, in hedge funds dedicated to venture capital, and in collateralized lending. However, if such corporations take deposits or close substitutes for deposits, they are classified as deposit-taking corporations; and

(f) any other specialized financial corporations that provide short-term financing for corporate mergers and takeovers; export and import finance; factoring companies; and venture capital and development capital firms.

Securitization involves raising funds by selling a security backed by specific assets or income streams. For example, an originating mortgage lender could sell a portfolio of loans to a special purpose vehicle that issues units sold to investors. The originator may continue to provide administrative services, but the vehicle is the legal owner of the portfolio. Such vehicles are included in "other financial intermediaries, except ICPFs" if the entity is the legal owner of a portfolio of assets, sells a new financial asset that represents an interest in the portfolio, and has or potentially has a full set of accounts. However, in cases in which the originator issues asset-backed securities on its own books, then securitization may take place without the creation of a separate entity. When the portfolio is not transformed, or the vehicle does not bear market or credit risks, then it can be combined with its parent (if resident in the same economy) or treated as a captive intermediary (if in a different economy to that of its parent).

Financial Auxiliaries

In paragraphs 4.79–4.81 of *BPM6*, financial auxiliaries are defined as follows:

> *Financial auxiliaries consist of all financial corporations that are principally engaged in activities associated with transactions in financial assets and liabilities or with providing the regulatory context for these transactions but in circumstances that do not involve the auxiliary taking ownership of the financial assets and liabilities being transacted.*
>
> In general, the following financial corporations are classified in the financial auxiliaries subsector:
>
> (a) insurance brokers, salvage administrators, and insurance and pension consultants;
>
> (b) loan brokers, securities brokers that arrange trades between security buyers and sellers but that do not purchase and hold securities on their own account, investment advisers, and so on (securities dealers that trade in securities on their own account are other financial intermediaries);
>
> (c) flotation corporations that manage the issue of securities;
>
> (d) corporations whose principal function is to guarantee, by endorsement, bills and similar instruments;

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(e) corporations that arrange derivative and hedging instruments, such as swaps, options, and futures (without issuing them);

(f) stock exchanges, insurance exchanges, and commodity and derivative exchanges;

(g) other corporations providing infrastructure for financial markets, such as securities depository companies, custodians, clearing offices, and nominee companies;

(h) fund managers of pension funds, mutual funds, and so on (but not the funds they manage);

(i) nonprofit institutions recognized as independent legal entities serving financial corporations, but that are not themselves providing financial services, for example, bankers' associations;

(j) holding companies that exercise some aspects of managerial control over their subsidiaries (see paragraph 4.85 of *BPM6*);

(k) foreign exchange bureaus and money transfer operators;

(l) resident offices of foreign banks that do not accept deposits or extend credit on their own account;

(m) corporations primarily involved in operation of electronic payment mechanisms that do not incur liabilities against the instruments (if they do incur liabilities against the instruments, then they are other financial intermediaries except ICPFs); and

(n) central supervisory authorities of financial intermediaries and financial markets when they are separate institutional units.

Corporations facilitating financial transactions, such as central clearing counterparties, stock exchanges, derivative exchanges, and repurchase agreement settlement institutions are financial intermediaries, if they generally act as principals to the counterparties to the underlying transactions; otherwise they are financial auxiliaries.

Captive Financial Institutions and Money Lenders

In paragraphs 4.82–4.83 of *BPM6*, captive financial institutions and money lenders are described as follows:

Captive financial institutions and money lenders consist of institutional units providing financial services other than insurance, where most of either their assets or liabilities are not transacted on open financial markets. It includes entities transacting only within a limited group of units, such as with subsidiaries or subsidiaries of the same holding corporation, or entities that provide loans from own funds provided by only one sponsor. Other financial intermediaries, except ICPFs are distinguished from captive financial institutions and money lenders in that the latter serve a limited group only for at least one side of their balance sheet.

In general, the following financial corporations are classified in this subsector:

(a) institutional units with the function of simply holding assets, such as trusts, estates, agencies accounts, and some "brassplate" companies;

(b) institutional units that provide financial services exclusively with own funds, or funds provided by a sponsor to a range of clients and incur the financial risk of the debtor defaulting. Examples are money lenders and corporations engaged in lending (e.g., student loans, import and export loans) from funds received from a sponsor such as a government unit or nonprofit institution;

(c) pawnshops that predominantly engage in lending;

(d) financial corporations, such as SPEs, that raise funds in open markets to be used by affiliated corporations (in contrast to securitization vehicles); and

(e) conduits, intragroup financiers, and treasury functions when these functions are undertaken by a separate institutional unit.

Captive insurance companies and pension funds are not included in this subsector.

Holding Companies

In paragraphs 4.84–4.85 of *BPM6*, holding companies are described as follows:

Holding companies are included in this subsector, financial auxiliaries, or nonfinancial corporations, according to which functions they undertake. One type of holding company is a unit that holds equity in one or more subsidiaries

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but does not undertake any management activities. These companies are described in the *International Standard Industrial Classification of All Economic Activities* (*ISIC*), Rev. 4, in section K class 6420 as follows:

> This class includes the activities of holding companies, i.e., units that hold the assets (owning controlling-levels of equity) of a group of subsidiary corporations and whose principal activity is owning the group. The holding companies in this class do not provide any other service to the businesses in which the equity is held, i.e., they do not administer or manage other units.

Such units are captive financial institutions and are included in the financial corporations sector even if all the subsidiaries are nonfinancial corporations. The subsidiaries may be resident in the same economy or in other economies.

Another type of unit referred to as a holding company is the head office that exercises some aspects of managerial control over its subsidiaries. The head office sometimes may have noticeably fewer employees, and at a more senior level, than its subsidiaries, but it is actively engaged in production. These types of activities are described in *ISIC*, Rev. 4, in section M class 7010 as follows:

> This class includes the overseeing and managing of other units of the company or enterprise; undertaking the strategic or organizational planning and decision making role of the company or enterprise; exercising operational control and managing the day-to-day operations of their related units.

Such units are allocated to the nonfinancial corporations sector unless all or most of their subsidiaries are financial corporations, in which case they are treated by convention as financial auxiliaries. The subsidiaries may be resident in the same economy or in other economies. Other entities that hold and manage subsidiaries may have substantial operations in their own right, in which case the holding company functions may be secondary, so they would be classified according to their predominant operations.

Conduits

In paragraphs 4.86 of *BPM6*, conduits are described as follows:

> *A conduit is an entity that raises funds on open financial markets for passing on to other affiliated enterprises*. Often, the conduit's liabilities are guaranteed by a parent company. If a conduit issues new financial instruments, which could be debt securities, shares, or partnership interests, that represent a claim on the conduit, it is acting as a captive financial institution.

Wealth-holding Entities

In paragraphs 4.87 of *BPM6*, wealth-holding entities are described as follows:

> Institutional units that solely hold assets and liabilities, along with the associated property income, for their owners are classified as captive financial institutions. Some SPEs and trusts perform these functions. . . . Although there is no internationally standard definition of SPEs, in economies in which they are important they may be identified separately, according to either a national company law definition, or in terms of a functional description, possibly referring to their limited physical presence and ownership by nonresidents. In economies with large direct investment flows through resident SPEs, it is recommended that these flows be shown as a supplementary item, so that they can be identified separately.

General Government

Paragraphs 4.91–4.92 of *BPM6* define the general government sector as follows:

> *Government units are unique kinds of legal entities established by political processes and have legislative, judicial, or executive authority over other institutional units within a given area.* Viewed as institutional units, the principal functions of government are to assume responsibility for the provision of goods and services to the community or individual households and to finance their provision out of taxation or other incomes; to redistribute income and wealth by means of transfers;

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and to engage in nonmarket production. In general terms:

(a) A government usually has the authority to raise funds by collecting taxes or compulsory transfers from other institutional units.

(b) Government units typically make three different kinds of outlays. The first group consists of actual or imputed expenditures on the free provision to the community of collective services, such as public administration, defense, law enforcement, public health, and so on. The second group consists of expenditures on the provision of goods and services for free or at prices that are not economically significant. The third group consists of transfers to other institutional units that are made to redistribute income or wealth.

Within a single territory, many separate government units may exist when there are different levels of government, specifically central, state, or local government. In addition, social security funds also constitute government units. The general government sector consists of departments, branches, agencies, foundations, institutes, nonmarket nonprofit institutions controlled by government, and other publicly controlled organizations engaging in nonmarket activities. The operations of a government that are located abroad and that are largely exempt from the laws of the territory in which they are located, such as embassies, consulates, and military bases, are a part of the home government. Government units are mainly involved in the production of goods and services that may be provided free of charge or sold at prices that are not economically significant. Government-controlled enterprises that (a) produce market output (i.e., charge prices that are economically significant), and (b) have complete sets of accounts are excluded from general government and are included as public enterprises in the appropriate nonfinancial or financial corporations sector. The requirement that prices be economically significant means that prices must be high enough to have an impact on the demand for, and supply of, a good or service.[40]

Nonfinancial Corporations

NFCs are defined and described in paragraph 4.62 of *BPM6* as follows:

> *Nonfinancial corporations are corporations whose principal activity is the production of market goods or nonfinancial services*. These include legally constituted corporations, branches of nonresident enterprises, quasi-corporations, notional resident units owning land, and resident nonprofit institutions that are market producers of goods or nonfinancial services.

Some NFCs or quasi-corporations may have secondary financial activities: for example, producers or retailers of goods may provide consumer credit directly to their own customers. Such corporations or quasi-corporations are nevertheless classified as belonging in their entirety to the NFC sector provided their principal activity is nonfinancial. Sectors are groups of institutional units, and the whole of each institutional unit must be classified to one or other sector of the SNA even though that unit may be engaged in more than one type of economic activity (*2008 SNA*, paragraph 4.95).

That having been said, however, if a financing arm of an NFC or quasi-corporation maintains a separate set of books from its parent and can acquire financial and nonfinancial assets and liabilities in its own name, then it should be treated as a separate institutional unit and be classified to financial corporations.

Households

Households are defined and described in paragraphs 4.96–4.99 of *BPM6* as follows:

> *A household is defined as a group of persons who share the same living accommodation, who pool some or all of their income and wealth, and who consume certain types of goods and services collectively, mainly housing and food*. Households often coincide with families. However, members of a family are not always members of the same household, if they live separately. Equally,

[40]The classification of a "special purpose government fund" controlled by government in the general government or financial corporations sectors is determined according to the criteria set out in paragraph 4.92 of *BPM6*, such as whether they charge economically significant prices for their services. If the fund is an entity incorporated abroad or quasi-corporation located abroad, it is classified as a separate institutional unit in the financial corporations sector resident in its economy of incorporation. See also paragraphs 6.93–6.98 of *BPM6* for more information on "special purpose government funds."

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members of the same household do not necessarily have to belong to the same family if they share resources and consumption.

Households may be of any size and take a wide variety of different forms in different societies or cultures depending on tradition, religion, education, climate, geography, history, and other socioeconomic factors. Institutional households include persons in retirement homes, jails, hospitals, and religious orders.

Although each member of a household is a legal entity, the household is an appropriate unit for statistical purposes because many economic decisions are made at the household level and transactions within the household are outside the scope of economic statistics. The members of a household are all residents in the same economic territory. A person who pools income with the household in one economic territory, but is resident of another economic territory, is not classified as a member of that household. A single person can constitute a household.

The household sector includes enterprises owned by household members that do not satisfy the definition of a quasi-corporation. For example, if the business affairs of a household are not separable from the personal consumption of household members, then the business would not satisfy the requirements for a quasi-corporation of having the ability to produce accounts.

Members of the household who have resided abroad for more than one year are considered as nonresidents and do not form part of the resident household, unless the member of the household is studying abroad or is a medical patient abroad.

Nonprofit Institutions Serving Households

NPISHs are discussed in paragraphs 4.100–4.101 of *BPM6* as follows:

NPISHs are entities mainly engaged in providing goods and services to households or the community at large free of charge or at prices that are not economically significant (and thus are classified as nonmarket producers), except those that are controlled and mainly financed by government units. Examples include charities, relief and aid organizations financed by voluntary transfers, as well as trade unions, professional or learned societies, consumers' associations, religious institutions, and social, cultural, and recreational clubs that do not charge economically significant prices. They may be corporations, foundations, trusts, or other unincorporated entities.

NPISHs are mainly financed from contributions, subscriptions from members, or earnings on holdings of real or financial assets. The NPISH sector is a subset of nonprofit institutions. Those that charge economically significant prices are included in the financial or nonfinancial corporations or households sectors, as relevant. Additionally, nonprofit institutions serving businesses, such as chambers of commerce and trade associations, are included in the corporations sectors.

While NPISHs are separate institutional units, they are sometimes included with households in some statistical systems because of difficulties in collecting separate information.

Rest of the World

Paragraph 4.102 of *BPM6* discusses the rest of the world as follows:

The rest of the world consists of all nonresident institutional units that enter into transactions with resident units or that have other economic links with resident units. The rest of the world sector is identified in the national accounts, while it is the counterparty in all international accounts items.

International Organizations

Paragraphs 4.103–4.107 of *BPM6* states the following:

International organizations have the following characteristics:

(a) The members of an international organizations are either national states or other international organizations whose members are national states; they thus derive their authority either directly from the national states that are their members or indirectly from them through other international organizations.

(b) They are entities established by formal political agreements between their members that have the status of international treaties; their

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existence is recognized by law in their member countries.

(c) International organizations are created for various purposes:

- International financial organizations—these entities conduct financial intermediation at an international level (i.e., channeling funds between lenders and borrowers in different economies). A central bank to a group of economies (including currency union central banks) is an example of an international financial organization. Other examples are the IMF, World Bank Group, BIS, and regional development banks;
- Other international organizations—these entities provide nonmarket services of a collective nature for the benefit of their member states, such as peacekeeping, education, science, policy issues, and other research.

International organizations may be global or regional. An international agency responsible for functions normally undertaken by general government, such as administration and policing, is classified as an international organizations, but it may be useful to identify such agencies separately in statistics.

International organizations are treated as not being resident of the territories in which they are located. This treatment is because they are generally exempted from, or are only partially subject to, national laws or regulations, and so they are not considered to be part of the national economy of the territory, or territories, in which they are located.

International organizations may be presented as an institutional sector in some cases. First, they may appear in data for a currency union or economic union, in which case, international organizations of the union are residents of the whole union. Second, they may be of relevance when data by sector of counterparty are prepared, for example, for sources of current transfers. Such data are of interest in economies in which international organizations have a substantial presence.

In contrast to international organizations, enterprises owned jointly by two or more governments are not treated as international organizations but like other enterprises. The distinction is based on whether the organization produces for the market and is important because of the different treatments for the residence of international organizations and enterprises. Separate pension funds for the staff of international organizations are treated as pension funds, rather than as international organizations.

Offshore Financial "Sector"

There is no offshore financial sector in either the *2008 SNA* or *BPM6*. However, in economies that have

(a) a financial services industry that is primarily engaged in business with nonresidents,

(b) where the institutional units in this industry have assets and liabilities out of proportion to the domestic financial intermediation designed to finance domestic economies, and

(c) where many or most of these institutional units are direct investment enterprises,

these institutional units are considered residents, and should be covered in the CPIS. For analytical purposes, national authorities may wish to distinguish between an "onshore" and an "offshore" financial sector. However, for reporting national CPIS results to the IMF, such a split is not required.

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4 Collection Methods

Organizing a portfolio investment survey requires informed choices by data compilers on the relative merits and demerits of a collection system. To ensure both consistency and quality of reporting across the participating economies in the Coordinated Portfolio Investment Survey, this chapter covers certain practical issues that go beyond those covered in the International Monetary Fund's BPM6 Compilation Guide.

This chapter provides guidance for compilers on the following issues: choosing a collection system (preliminary investigations, coverage, and degree of detail required), security databases, thresholds, and third-party holdings.

Data Considerations

4.1 Although it is essential that Coordinated Portfolio Investment Survey (CPIS) data are comparable across economies (for the data exchange as much as for international comparability), it is **not** necessary that all economies use the same data collection systems. Instead, national compilers should tailor their collection systems to the circumstances of their economies.

4.2 Past experience indicates that the national data collection system for collecting CPIS source data can target primarily any of the following groups: (i) end-investors, (ii) custodians (financial corporations that administer or manage securities issued by nonresidents on behalf of domestic residents), (iii) a combination of both end-investors and custodians, and (iv) investment managers in combination with either custodians or both end-investors and custodians. However, because of the special and challenging nature of surveying investment managers, targeting this group is not recommended for economies that have not conducted a portfolio investment survey before. A discussion of the advantages and disadvantages in conducting a survey using investment managers is discussed later in this chapter.

4.3 Data can be collected either on a *security-by-security* (SBS) or an *aggregated* basis. To guide national compilers, this chapter provides arguments to consider when deciding which type of collection system should be used for the CPIS. It also discusses the difficulties inherent in collecting this information for the household sector.

Choosing a Collection System

4.4 Choosing an appropriate data collection system is central to the quality of CPIS source data. This decision may be the most important one that national compilers will need to make. Potential errors, such as the possibility of double or under counting, need to be considered regardless of which system is chosen. Consequently, before deciding on the type of data collection system to use, national compilers should undertake some preliminary investigations, particularly among financial corporations/custodians, considering both the objectives for the CPIS and their own information requirements.

Preliminary Investigations

General issues

4.5 As a starting point, issues that need to be explored both within the compiling agency and with market participants should include the following:

- What objectives are being established for the survey at the national level? For instance, what type of information is being sought? How important are frequency of the survey and timeliness of results?
- What, if any, is the legal authority that governs the collection of the information?
- Which residents invest in and/or own securities issued by nonresidents? In a broad sense, who are the largest investors? What, if any, legal restrictions exist on the investments of resident sectors in securities issued by nonresidents?
- How do residents arrange for the custody of their holdings of securities issued by nonresidents:

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with domestic custodians, directly with nonresidents, in their own custody, or some combination of these?

- How are data currently collected on securities issued by nonresidents, for both transactions and positions? Is it possible to adapt an existing survey and/or administrative source data, or is there a need to develop a new approach?
- What are the record-keeping and internal arrangements of potential survey respondents? What type of survey would most easily and efficiently fit these arrangements?
- Should the data be collected SBS or in aggregate? Would one type of collection system be more efficient in terms of producing good-quality data at lower cost than the other? What is the view and the reporting costs of market participants? What budget and resource constraints does the compiler face?

4.6 The answers to the above questions will assist compilers in making an informed decision about the type of collection system to adopt.

What objectives are being established for the survey at the national level? For instance, what type of information is being sought? How important are frequency of the survey and timeliness of results?

4.7 The objectives of the survey may be dependent on the resources available for conducting the CPIS. In principle, the survey is aimed at collecting data on all resident holdings of securities issued by unrelated nonresidents[1] (equities and long- and short-term debt securities), by economy of issuer. However, it is not always practical to cover all holdings of all sectors, not least when the survey is conducted for the first time. Further, in setting objectives, compilers would need to consider which of the CPIS encouraged items would be collected in the short-term and which can be part of a medium-term work plan. The decision of whom and what to cover may well be based on two critical criteria: financial resources for conducting the survey and identification of relevant institutional sectors. That is, what can realistically be surveyed with the resources available and which are the most important sectors/respondents to cover with those resources to maximize the benefit from the available resources, while minimizing the costs to the respondents? At the same time, the issue of frequency and timeliness of data collection must be addressed as part of this process. Data that are unavailable to the compiler until well after the reference date may not be very timely for CPIS reporting purposes.[2] Also, the desired frequency of the data needs to be carefully evaluated (i.e., can the respondents and the compiling agency produce CPIS data more regularly?).

What, if any, is the legal authority that governs the collection of the information?

4.8 In many countries, a statistics act or the legislation under which the central bank or national statistical office operates will provide the legal authority for the collection of the information. Ideally, the legal authority should state that reporting of statistical information is mandatory, that it should be provided accurately and within a reasonable time of the request, and that there can be sanctions/fines for failure to comply. The legislation should also indicate that the individual data are confidential to the compiling agency and that there should be no means through which any individual respondent's data can be identified (without the express approval of that respondent).

4.9 In countries where the legislation is insufficiently clear or where non-reporting penalties are missing, the authorities may wish to seek improvements to the law. Other countries may lack legal authority; in these cases, the survey might be conducted on a voluntary basis, and a good working relationship between the compiling agency and the potential respondents is essential for the success of the exercise. Even when there is adequate legal authority to collect the data on a mandatory basis, involving industry associations is often a useful step and a valuable public

[1]Foreign direct investment positions are excluded from the CPIS except for the case of debt instruments of financial intermediaries under a direct investment relationship. Under the international statistical standards including the sixth edition of the *Balance of Payments and International Investment Position Manual (BPM6)* and the fourth edition of the *OECD Benchmark Definition of Foreign Direct Investment* (Paris: OECD, 2008), debt positions between financial intermediaries (other than captive financial institutions and money lenders, insurance corporations, pension funds, and financial auxiliaries) that are in a direct investment relationship are excluded from direct investment and classified instead in portfolio or other investment. See paragraph 6.28 of *BPM6* for details. In the circumstance where the data are classified in portfolio investment, the data would be in-scope of the CPIS.

[2]The timelines for reporting CPIS data to the IMF are discussed in Chapter 1.

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relations exercise—it may help relations with individual respondents if the association is seen to be actively involved and can see the benefits of the undertaking.

Which residents invest in or own securities issued by nonresidents? In a broad sense, who are the largest investors? What, if any, legal restrictions exist on the investments of resident sectors in securities issued by nonresidents?

4.10 A useful starting point may be to review existing data sources for portfolio investment that are provided for the balance of payments or the international investment position (IIP) to find out which investors are the most important and what existing data can be built on for the CPIS. In addition, discussions with market participants may provide a useful additional source of information—since the compiler may not be aware of some avenues of investment or some players in international investment activity. In some countries, there may be restrictions on investments of residents in some types of securities issued by nonresidents and some instances on the amount of funds they can invest. It would be useful to gather such information at the preparatory stage of the survey.

How do residents arrange for the custody of their holdings of securities issued by nonresidents: with domestic custodians, directly with nonresidents, in their own custody, or some combination of these?

4.11 This issue should also be explored with institutional investors and others with knowledge of local market conditions and investment conduits. See the discussion later in this chapter (paragraphs 4.27–4.41) on the pros and cons of using an end-investor survey, a survey of custodians, or a combination of both approaches.

How are data currently collected on securities issued by a nonresident, for both transactions and positions? Is it possible to adapt an existing survey and/or administrative source data, or is there a need to develop a new approach?

4.12 If data for either portfolio investment in the financial account of the balance of payments or in the IIP are presently collected from resident sources, a review of what information is available, how it is collected, and the bases of valuation will give an indication of the types of institutions that could be approached (the periodicity with which revaluation of the portfolio is undertaken is also important information).

4.13 However, these sources of data are usually insufficient without additional information being collected. Given that one of the objectives of the CPIS is to gain information on a geographic basis, if information for an IIP is presently collected, obtaining the geographical breakdown for the CPIS may not involve much additional burden on respondents, depending on how the respondents maintain their records. This should be undertaken with recognition of the materiality of the data. If holdings are small, an appropriate threshold may be established if by so doing a significant reduction in respondent burden results. However, determining a threshold (if any) should be done following discussions with investors to identify what might represent a reasonable cut-off point while still maintaining substantial coverage and geographical detail (see paragraphs 4.62–4.65, below).

What are the record-keeping and internal arrangements of potential survey respondents? What type of survey would most easily and efficiently fit these arrangements?

4.14 Discussions with respondents about their internal record-keeping are important to determine the best and easiest way to obtain the information on the bases required. In some economies, information that is central for the CPIS may be available, in one form or another, in many large financial institutions. Other investors in securities issued by unrelated nonresidents may need more assistance. Some investors classify their exposure to various investment markets based on several variables, such as economy of parent, currency, region, industry, credit rating, and economy of issue (which may not necessarily be the economy of residence of the *issuer*). The concept of residence that is central to the balance of payments, the IIP, and the CPIS is not necessarily always used. This concept should be clarified (see the discussion on residence in Chapter 2) and its importance reinforced. In some cases, if the respondents prefer, it may be easier for them to provide the complete file of their holdings to the compiler, if adequate safeguards can be provided.

Should the data be collected SBS or in aggregate? Would one type of collection

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system be more efficient in terms of producing good-quality data at lower cost than the other? What is the view and the reporting costs of market participants? What budget and resource constraints does the compiler face?

4.15 In deciding the best method to obtain the data, factors that should be considered include what resources are available to the compiler and what is the easiest and cheapest way for the respondents to provide the data. If resources are limited, using the aggregate approach may be the better choice, but the drawback is that the respondents may be required to do a considerable amount of reordering and reaggregating of their data that they might not otherwise have to do (depending on their internal management and accounting information systems). In addition, the quality of the reported data cannot usually be assessed readily by the compiler. On the other hand, providing data on an SBS basis may reduce respondent workload (depending on the existing means through which data are collected) but increase the workload of the compiler—although data-processing technologies have largely addressed this. Conversely, under an SBS data collection approach, the compiler has far wider flexibility to serve new user demands by reclassifying the data, providing new breakdowns, and/or delivering more detailed data for particular categories of securities. Additionally, the compiler can recalculate time series without having to collect additional data from respondents. The ultimate choice will depend on an assessment of the costs and benefits of the alternative approaches for both the compiler and the respondents.

4.16 In addition, choosing an end-investor approach, a custodian approach, or a combination of the two will depend on the extent to which the compiler can determine the best coverage while minimizing overlap. Clear instructions and discussions with respondents will result in better data. A more extended discussion on the merits and disadvantages of an aggregate versus an SBS approach is presented later in this chapter (see paragraphs 4.48–4.53).

Sectors to consider in the survey

4.17 In undertaking the preliminary investigations (as discussed in the preceding section), compilers should also consider the institutional sector dimension, not only for analytical and data-reporting purposes but also to ensure maximum coverage without double counting. A description of the sectors is given in Chapter 3 (Annex 1).

4.18 National compilers are advised to examine domestic sources of information to establish, in a broad sense, the saving pattern of major sectors of their respective economy: financial corporations (including the central bank, deposit-taking corporations except the central bank, and other financial corporations), general government, nonfinancial corporations (NFCs), households, and nonprofit institutions serving households (NPISHs), provided such data are available for different sectors. This examination might provide some indication of which sectors are likely to be the largest holders of securities issued by nonresidents. In this regard, it may be particularly important to gauge the extent to which the household sector acquires securities issued by nonresidents, and where these securities are held.

4.19 *Financial corporations* are usually major investors either on their own account or as agents on behalf of other sectors (such as the households) through collective investment schemes, insurance corporations, or pension funds. Monetary authorities hold securities as part of reserve assets; these should be kept separate from portfolio investment and reported through a separate collection vehicle—Securities Held as Foreign Exchange Reserves (SEFER; see the discussion on SEFER in Chapters 1 and 2).

4.20 The *general government* sector is not usually a major investor in international portfolio markets, although governments are frequently major issuers of debt instruments acquired by international investors.[3] Holdings of international reserves are not

[3] Some governments create special purpose government funds, usually called sovereign wealth funds (SWFs). Created and owned by the general government for macroeconomic purposes, SWFs hold, manage, or administer assets—including securities—to achieve financial objectives and to employ a set of investment strategies which include investing in foreign financial assets. The funds are commonly generated out of balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, fiscal surpluses, and/or receipts resulting from major commodity exports. The issue of whether the external assets held in the fund should be included in reserve assets is discussed in paragraphs 6.93–6.98 of *BPM6*. The classification of a "special purpose government fund" controlled by government in the general government or financial corporations sectors is discussed in paragraph 4.92 of *BPM6*.

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attributed to the general government sector. These holdings are included with monetary authorities and should be reported on SEFER.

4.21 *NFCs* typically do not have large holdings of portfolio investment assets (although, like governments, they may well have substantial portfolio liabilities). International investment by NFCs are more likely to take the form of direct investment, which is not covered in the CPIS (direct investment positions are covered in the IMF's Coordinated Direct Investment Survey; see the discussion on separating direct investment from portfolio investment in Chapter 3 and on experiences of some countries in Chapter 6).

4.22 The *household* sector is a major source of saving in many economies, but it is often difficult to survey directly, given the size of the potential reporting population and the inherent problems in building a representative sample. Thus, national compilers are encouraged to investigate the channels through which this sector invests in and holds securities issued by nonresidents.

Does the household sector own securities issued by nonresidents through domestic pension funds and investment funds? Do custodians and fund managers manage securities issued by nonresidents directly for the household sector? Does the household sector directly transact with, or directly deposit securities with, nonresident financial entities, such as for tax minimization reasons?

4.23 National compilers may take various approaches for covering private household sector holdings of securities issued by nonresidents. One approach is to survey collective investment funds (e.g., mutual funds and investment trusts) used by households to invest in securities issued by nonresidents. In these cases, the households' interests are indirect: that is, they are represented by claims on resident funds that directly hold nonresident security assets. A second approach is to survey financial entities, such as custodians who keep in custody securities issued by nonresidents for their household customers or fund managers who manage holdings on behalf of households. The next section places these various options in context.

4.24 The problem remains, however, of covering household holdings in securities issued by a nonresident held directly with nonresident custodians (financial entities). In some economies, this is an insignificant issue; in others, it is very significant. For the latter group of countries, there is no simple solution.

4.25 One approach would be to try to estimate the extent of investment made by domestic households that is held directly abroad based on domestically available statistical information. To this end, comparisons could be made between (i) the net savings of households measured by the production, income, and use of income accounts as the difference between income and spending and (ii) household saving as measured by financial accounts. Such comparisons could, together with an analysis of net errors and omissions of the balance of payments, indicate whether household saving held directly abroad is significant. At best, it could give some indication of the amount of this kind of saving. It is unlikely, however, that comparisons of this kind could contribute to the CPIS, which requires details regarding country breakdown of portfolio investment assets.

4.26 Another approach would be to seek international cooperation and the exchange of information between economies. Through this approach, countries in which financial institutions provide custodian services to nonresident households would collect information on these so-called third-party holdings (TPH) and share that information with partner countries. The partner country could, in turn, add this information to its portfolio assets. Given the lack of experience in collecting TPH data for this purpose (except among European Union countries), the complexity and potential for double counting,[4] and the possible lack of legal authority to collect information that is unrelated directly to domestic policy needs, economies considering this approach are advised to make careful investigations and preparations. Some of the practical and methodological problems connected

[4]For example, both a local and a global custodian could report the same holdings when the latter has placed securities in the custody of the former, or an end-investor could report the same holdings as a custodian in a third country.

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with undertaking a TPH survey are described in paragraphs 4.66–4.91 of this chapter.[5]

Coverage (End-Investors, Custodians, or Both)

4.27 The most suitable approach for ensuring comprehensive coverage of securities issued by nonresidents that are owned by residents varies according to a given country's circumstances. Economies differ in their financial structure for legal, institutional, and historical reasons. The types of residents that invest in securities issued by nonresidents and how they arrange for the custody of their securities vary from economy to economy. Nonetheless, experience suggests that most economies rely primarily on either (i) end-investors to report their own account holdings, (ii) custodians to report their own account and client holdings, or (iii) a combination of the two.[6] Set out below are the advantages and disadvantages of these three approaches.

An end-investor survey

4.28 An end-investor survey approaches directly the resident holders of securities issued by nonresidents. This approach should provide good coverage when investment in securities issued by nonresidents is concentrated in institutional investors, such as banks, security dealers, mutual funds, and pension funds and insurance corporations. This type of survey typically collects good data from the largest investors in portfolio investment securities. The quality of the data provided should also be good because end-investors are likely well informed about the size, composition, and value of their own portfolio. They should also be the best source on repos, which would help ensure that securities holdings include securities temporarily lent but not securities temporarily acquired under repo agreements (see paragraphs 3.53–3.64 of Chapter 3 for additional details on reporting of repos). The assets of smaller institutional and corporate investors, as well as those of the household sector, are typically not measured by this type of survey if they invest directly in securities issued by unrelated nonresidents.

4.29 If data from investment managers are supplementary to this survey, the coverage gap can be decreased. However, this would require careful instructions to both end-investors and investment managers. End-investors might be instructed to report their foreign holdings regardless of whether they employ domestic investment managers. Domestic investment managers might then also be instructed to report on all securities issued by nonresidents that they hold on behalf of domestic clients, but they should also be instructed to provide the name(s) of the institution(s) on whose behalf they are acting and the amount(s) held for each client, such that those covered by the end-investor survey can be excluded. For private individuals not covered by the end-investor survey, managers may be required to disclose the amount invested for all private individuals combined without disclosing individual identities. In this way, double counting can be avoided.

4.30 If the current method of collecting portfolio investment data is through an end-investor survey, and if it is considered that coverage is comprehensive and it is possible to amend or supplement existing statistical collections, then continuing to use this approach should be the most cost-effective method. Data from the survey could be cross-checked against other data sources as a method of quality control (see paragraphs 5.24–5.47, Chapter 5).

4.31 However, if collecting portfolio investment data through this survey is a new approach for the national compiler, additional preparation will be required. Most importantly, the compiler needs to prepare a comprehensive register of potential survey respondents/end-investors and engage in extensive discussions with the institutions most likely to hold securities issued by nonresidents. Otherwise, there is the possibility of under coverage (see paragraphs 5.5–5.22, Chapter 5 on the issues related to establishing and maintaining a register). Creating and maintaining the register of those institutional units with portfolio

[5] TPHs are securities that have been placed with a custodian resident in one jurisdiction directly by end-investors resident in another jurisdiction. The IMF Committee on Balance of Payments set up the Technical Group on Third-Party Holdings (TGTPH) in 2000, with a remit to examine how TPHs might be captured in official statistics. As such holdings lie outside the scope of balance of payments and IIP statistics of the economy of the custodians' jurisdiction, and as households, and small and medium enterprises are usually not covered in surveys of end-investors, these holdings are likely to be missed in countries' IIPs and their CPISs. See the report of the TGTPH at https://www.imf.org/external/pubs/ft/bop/2004/04-6.pdf.
[6] Investment (or fund) managers may also sometimes be approached.

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investment in securities issued by nonresidents require sufficient resources. National compilers must also avoid either double counting or over-recording of securities holdings. For instance, in their reports, entities might consolidate holdings of resident subsidiaries that report separately to the national compiler (double counting) or holdings of subsidiaries located outside the resident economy (over-recording). Essentially, compilers should know whose holdings are covered by the survey respondent. Moreover, compilers should be alert to the possibility that entities not familiar with completing portfolio investment survey forms may have difficulty in reporting the required information and may require advice. Indeed, regular contact with and follow-up visits to potential respondents are very worthwhile exercises that are often indispensable during the initial years of the survey or until respondents become familiar with the survey's requirements. An end-investor approach also gives a better means of determining the holdings by sector.

4.32 Valuation by end-investors may also vary among holders and even within a respondent's own accounts. Some end-investors mark their holdings to market daily; others do it weekly, monthly, quarterly, or annually. Others may not do it on any regular basis, depending on what their needs are. Some investors may hold both a trading account and an investment account. In these cases, investment accounts are sometimes not marked to market because they are to be held to maturity[7] or are held for other purposes (such as reserve or capital requirements). Respondents should be asked to specify where they maintain valuation on a different basis from that required for the survey (i.e., market price on the reference date). Where valuation is provided on a different basis from market price, efforts should be made whenever possible to revalue the securities to market price.

A custodian survey

4.33 A custodian survey focuses primarily on those financial institutions that hold securities issued by nonresidents on behalf of end-investors. In other words, the survey population is not the same as the population of domestic investors. This type of collection system should provide good coverage when residents mainly hold their securities issued by nonresidents with domestic custodians. Because the number of survey respondents may be fewer than the number of end-investors, the difficulties inherent in identifying and maintaining the appropriate reporting population are much reduced compared to those associated with an end-investor survey.

4.34 However, to compile good-quality data from a survey of custodians, the national compiler must be aware of the potentially complex relationships between end-investors and custodians and among custodians. Because of the hierarchy of custodians (the investor may deal with a primary custodian who in turn deals with a global custodian, or vice-versa),[8] the possibility that a security holding may be double-counted is ever present and should not be underestimated. Essentially, national compilers should understand the structure of the custodian business, know who should report, and provide very clear instructions on the survey form.

4.35 Custodians may store information in a format that makes it difficult for them to extract the data required for CPIS. They may encounter difficulties in (i) distinguishing between holdings of residents and nonresidents (unless they have a reason, such as for tax purposes, to make such a distinction), (ii) providing details of the geographic breakdown of resident holdings of securities issued by nonresidents, and (iii) valuing some securities at market value. Hence, it is essential that economies undertaking a custodian survey begin by pre-consulting domestic custodians. As with a survey of end-investors, ongoing contact and follow-up visits are an important mechanism to ensure that data are reported as required. Such quality-control checks are essential.

4.36 The limitation of this approach is that all securities entrusted directly to nonresident custodians by

[7] Positions in debt securities holdings might also be valued at nominal value if such securities are designated as held-to-maturity securities (see *Handbook on Securities Statistics*, paragraph 5.52).

[8] A global custodian manages the custody of end-investors' securities via a global sub-custodian network of subsidiaries and correspondent agent banks. A primary or local custodian may not have a global sub-custodian network and, therefore, may subcontract the safekeeping of the client's securities to a domestic global custodian.

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any sector of the economy are missed. However, if investment managers are added to this type of survey, then that portion of foreign holdings entrusted directly to nonresident custodians that are managed by domestic investment managers would be captured. As with an end-investor survey, care would need to be taken to avoid double or undercounting. Only securities issued by unrelated nonresidents, managed by a domestic investment manager and not entrusted to a domestic custodian should be reported by the investment manager.

4.37 In addition, at times, multiple domestic custodians are involved in the safekeeping of the same securities issued by nonresidents. This occurs when a domestic custodian (Custodian 1) that is not in the foreign custody business nonetheless accepts the custody of securities issued by a nonresident. In such cases, the securities might in turn be entrusted to another domestic custodian (Custodian 2) that provides international custodian services. This creates a situation where two domestic custodians have records pertaining to the same securities issued by nonresidents. Reporting instructions must specify how each custodian is to report in such cases. This might be handled by instructing the custodian who provides the safekeeping of the securities issued by nonresidents (Custodian 2) to report these holdings on the survey, and to instruct the custodian who passed on safekeeping responsibilities (Custodian 1) not to report such holdings, while instructing Custodian 1 to report the name of Custodian 2 and the amount entrusted for cross-checking purposes. Alternatively, it might be preferable to have the custodian that is in direct contact with the investor to report so that there is a lower possibility of misallocation of residence. Whichever approach is chosen, the instructions should be clear to avoid misreporting.

Combined custodian/end-investor survey

4.38 Surveys that cover domestic custodians only would miss any securities owned by domestic residents that are held directly with nonresident custodians or in own custody. More complete coverage would be obtained by also surveying end-investors who hold securities issued by nonresidents. Economies that use combined custodian/end-investor surveys have adopted the approach of collecting data primarily from custodians (and from end-investors only when the end-investors do not use domestic custodians or have own custody).

4.39 However, with this approach, there is a clear possibility of double counting; domestic investors might erroneously report securities deposited with domestic as well as with nonresident custodians. Hence, compilers will need to clearly define the respondent population and provide clear reporting instructions. In some cases, national compilers require the custodian to indicate the name of the end-investor on the behalf of which the securities issued by nonresidents have been entrusted.

4.40 Let us assume that primary reporting responsibility is placed with custodians. In this case, reporting instructions might be as follows:

(a) Domestic custodians that provide international custodian services are instructed to report all holdings of securities issued by nonresidents on behalf of residents.

(b) Domestic custodians that accept securities issued by nonresidents for safekeeping but in turn pass them on to another domestic custodian are instructed not to report these holdings or are instructed to report only the name of the custodian they passed the securities on to and the value of such securities. Alternatively, the custodian that is in direct contact with the investor might be asked to report because this custodian would be in a better position to determine whether the investor is a resident of the economy (or to allocate to the appropriate institutional sector, if encouraged items are being reported). Custodians who receive securities from other custodians should be advised not to include those holdings in their reporting.

(c) Investment managers are instructed to report holdings of securities under their management that were issued by nonresidents and not entrusted to other domestic investment managers or to domestic custodians.

(d) Investment managers that pass on assets under their control to other domestic investment managers are instructed not to report these securities.

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(e) End-investors are instructed to report only their holdings of securities issued by nonresidents that are not under the control of a domestic investment manager and not entrusted to a domestic custodian.

4.41 Extensive coverage is achieved with this approach, but the possibility of errors arising from misunderstood reporting requirements is increased. The situation could arise in which a domestic end-investor employs a domestic investment manager who employs another domestic investment manager who employs a domestic custodian who in turn employs another domestic custodian. Five different domestic entities that are potential reporters thus have information pertaining to the same securities issued by unrelated nonresidents, but only one must report in the survey.

Investment (fund) managers survey

4.42 In addition to collecting the portfolio investment data of resident institutions following one of the above approaches (end-investor, custodian, or combined custodian/end-investor surveys), surveying investment managers is another option.

4.43 Investment managers are individuals or groups providing investment advice and management for a fee. The funds that investment managers invest remain the portfolio investment assets of their clients and are not their own assets. The ultimate responsibility for the investment remains with the client. For example, when a pension fund has all or part of its assets invested through investment managers, the trustees of the pension fund remain responsible for the investments, not the investment manager.

4.44 The advantage of including investment managers as one of the possible data sources is that more complete coverage of portfolio investment holdings of residents might be obtained. The disadvantage is that both the complexity of the survey and the possibility of double or undercounting are increased.

4.45 A typical coverage gap—even in the case of combined custodian/end-investor surveys—is small business enterprises and individuals with high net worth who own securities issued by unrelated nonresidents, particularly if they entrust these securities directly to foreign-based custodians. Although it is not usually practical to include such investors directly in asset surveys, these investors sometimes employ the services of domestic investment managers to manage their portfolios. The leading investment managers can often be identified and surveyed because in many economies, investment managers must register with a government agency and disclose the size of funds under their control.

4.46 Yet, investment managers are not employed only by individuals and small companies; they are also used by large institutions whose assets are already being measured by the survey, so care must be taken to carefully delineate and explain reporting responsibilities.

Degree of Detail Required (Security-by-Security or Aggregate)

4.47 The degree of detail required for the CPIS can be met by collecting data either on an *SBS* basis or on an *aggregate* basis. Deciding which approach to take depends on the degree of detail required by the national compiler for domestic statistical purposes, on the costs involved, and perhaps on the type of respondent being approached.

Security-by-security basis

4.48 Collecting data on an SBS rather than on an aggregate basis provides detailed information and allows greater possibility for data verification,[9] with a considerable gain in accuracy and consistency of the data. It also provides the possibility of deriving flows from high-frequency stock data and the calculation of interest on an accrual basis. This approach not only provides the building blocks required to construct the geographically allocated position data and allows for verification of certain variables, such as price and country of issuer, but it can also provide additional information—for instance, on currency attribution, industry/sector of the issuer, and yields on securities—that facilitate the economy's reporting of the CPIS encouraged items. It could also help identify direct investment securities. An additional side benefit of an SBS approach, in conjunction with a securities database, is that other data series may be constructed from it or be used to supplement information required for other statistics, such as external

[9] In an integrated end-investor survey system that collects aggregate data, some of the additional detail may be collected on other survey forms.

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debt data or the data template of reserve assets and foreign currency liquidity. But the national compiler will probably need to acquire a database that provides information on individual securities so that securities can be correctly allocated and valued.[10] Before deciding on implementation of SBS database system, the compiler needs to decide whether the extra information from such database is required for their country.

4.49 The decision whether to collect data SBS will also depend on the costs involved and whether respondents are prepared to provide the information on that basis. Given the considerable amount of information to be collected, this type of survey requires electronic reporting, which involves developing compatible software to receive and process the information from survey respondents.

Aggregate basis

4.50 In contrast, an aggregated survey relies on the survey respondent to perform the aggregation, allocation, and valuation of securities, thus entailing relatively less involvement from national compilers.

4.51 Regarding data quality, an end-investor survey should produce good-quality data reported on an aggregate security basis, if the national compiler ensures that survey respondents are fully aware of the survey requirements: for instance, regarding market valuation and country attribution of issuer. This is because end-investors are the best informed about the size, composition, and value of their portfolio investments, and there is a direct link with their balance sheet data. Hence, end-investor surveys tend to be associated with an aggregated approach.

4.52 In contrast, to ensure that (i) double counting is kept to a minimum, (ii) securities are correctly valued, and (iii) quality is maintained, the evidence from those countries collecting data from custodians is that it is advisable to collect data at the individual security level.

4.53 Nonetheless, aggregate custodian surveys can produce good-quality data. A key factor in ensuring success appears to be the experience of the national statistical agency in organizing custodian surveys. The greater the experience, the deeper the knowledge. The more frequent the survey, the more reliable the data from an aggregate security survey of custodians.

Securities Databases

4.54 The Association of National Numbering Agencies (ANNA) has a database covering equities and debt securities for more than 120 national numbering and partner agencies that accept International Securities Identification Number (ISIN) codes.[11] The ANNA Service Bureau (ASB) is a central data hub that has been collecting and enriching securities data from around the world since 2001. On a daily basis, the national numbering agencies feed new ISINs and Classification of Financial Instruments (CFIs) as well as updates to existing data to the ASB. These data are provided to the other numbering agencies, as well as non-members of ANNA such as financial services firms and financial data vendors. The ASB was developed and is operated by ANNA partners CUSIP Global Services and SIX Financial.[12] This database was completely redesigned in 2014 to collect and maintain not only ISINs and related CFIs but also a host of other related International Organization for Standardization (ISO)-standards identifiers and their data elements, including the Legal Entity Identifier (LEI).[13] Securities are identified by ISIN codes. Key information[14] on each security is generally available, but there is no information on prices or on holders. Before acquiring a database, national compilers should be aware of one potential difficulty: different respondents could submit different security identifiers for the same security because any widely traded security could be allocated identifiers by more than one coding system. Indeed, in some of the model survey forms in Appendix 1, survey respondents are given the option of reporting either an ISIN code or a code allocated by another of several coding systems.[15]

[10] See next section for more detail on securities databases.

[11] See http://www.anna-web.org/ for more details.

[12] See http://www.anna-web.org/service-bureau/about-the-anna-service-bureau/

[13] The Legal Entity Identifier (LEI) is a 20-character, alphanumeric code, to uniquely identify legally distinct entities that engage in financial transactions (see https://www.leiroc.org/).

[14] ISIN number, ISIN status, issuer long name, issue description, CFI code, currency of issue, maturity/expiry date, etc. (see http://www.annaservice.com/anna/whats.jsp).

[15] Other popular securities coding systems include Committee on Uniform Securities Identification Procedure (CUSIP) used in North America, Stock Exchange Daily Official List (SEDOL) in United Kingdom, SICC Code in Japan, and VALOR in Switzerland, Belgium, and Liechtenstein. ISIN combines the

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National compilers should discuss this issue with potential survey respondents; the allocation exercise becomes more straightforward and efficient if national compilers can rely on survey respondents to use primarily one coding system—ISIN, for instance. If not, then the agency is advised to acquire a database that contains all the various identifier codes that a given security has been assigned by the different coding systems, and then build links between all these data and the reported information.

4.55 Some countries use ISIN codes as their only securities identification system. However, many advanced economies developed their own national numbering systems prior to the introduction of ISIN codes, and these have remained in widespread use in many cases. Thus, private firms have adopted a variety of different securities identification systems as their primary identifier. Thus, some national compilers have respondents that report securities identified by several different security identification systems, such as SEDOL (United Kingdom and Ireland), CUSIP (United States and Canada), or VALOR (Switzerland, Belgium, and Liechtenstein), as well as ISIN. This can result in identical securities being reported by different respondents with different security identification codes, since the same security might trade in different countries using different codes.

4.56 Having a database that contains all the various worldwide identification codes that each security is identified by can be very useful. This makes it possible to know when the same security is being reported regardless of whether it is identified by an ISIN code or a SEDOL code or yet another code. Without such a cross-reference database, the value of having a securities database (as discussed earlier) is significantly reduced. Cross-reference databases are generally available from the same commercial firms that provide international securities databases.

code allotted by NNA of country (in the case of CUSIP) with the country code as per ISO of the security issuer and a check digit. For example, Amazon.com stock listed on NASDAQ has the following securities identification numbers: ISIN US0231351067 and CUSIP 023135106. The last digit (7) in the ISIN is the check digit calculated from algorithm and the first two letters are country code of the issuer of Amazon stock which is the United States.

4.57 Some national numbering agencies issue ISIN codes to neighboring or related jurisdictions that do not have a national numbering agency of their own. For example, securities issued by Crown dependencies and territories of the United Kingdom may be assigned a United Kingdom ISIN code.

Security-by-Security (SBS) Database

4.58 An SBS database is a micro database that stores statistics at an individual security level. It offers features that cannot be matched by pre-aggregated data. Micro-data can be compiled on a multipurpose basis and be customized ex-post for each specific analysis or used to produce new aggregates (including recalculating time series) in a flexible way without imposing additional burden and requirements to reporting agents. SBS database also allows the use of micro-data as such, permitting to analyze individual or specific groups of instruments and issuers. Timeliness is an additional advantage of an SBS database, as information can be individually received and recorded on a frequent basis. Furthermore, new statistical standards can be more easily implemented by using an SBS database, as it permits to adjust mappings and calculations at an individual security level in an automatic way. The SBS database is also efficient for statistical compilers as it allows to check the data only once for multiple purposes. A crucial aspect of SBS database is its reliance on unique identifiers for instruments and entities, namely the ISIN (ISO 6166) for securities and the LEI (ISO 17442) for legal entities. Furthermore, the SBS database not only applies international statistical standards but typically also makes use of ISO standards for compiling attributes referred to: for example, country (ISO 3166), currency (ISO 4217), financial instrument short name (ISO 18774), market identification code (MIC) (ISO 10383), and CFIs (ISO 10962).

4.59 While the SBS database brings quality improvements to the CPIS, there are significant costs in its setting and maintenance, which can't be overlooked. This entails mainly expenses on acquiring securities data from commercial databases and the computer hardware/software. In addition, trained staff with technical know-how would be necessary.

4.60 Prominent examples of SBS databases on securities issues and holdings are the Centralized

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Securities Database (CSDB) and the Securities Holdings Statistics Database (SHSDB) set up by the European System of Central Banks. These data serve as the basis for the compilation of the statistics on securities required under IMF's Special Data Dissemination Standard Plus[16] and Second Phase of G-20 Data Gaps Initiative.[17] Box 4.1 provides further details on the CSDB and the SHSDB.

4.61 Further, Box 4.2 provides information on the Bank for International Settlements securities database that is available to central banks on request and, depending on circumstances, to statistical agencies.

Reporting Thresholds

4.62 To limit the amount of respondent burden, it may be appropriate to establish reporting thresholds.

[16] The Special Data Dissemination Standard Plus prescribes the dissemination of debt securities data covering holdings of debt securities by issuer and holder on a from-whom-to-whom basis.

[17] As per the recommendation II.7 of the Second Phase of G-20 Data Gaps Initiative on securities statistics, G-20 economies provide on a quarterly frequency debt securities issuance data to the Bank for International Settlements consistent with the *Handbook on Security Statistics* (Washington, DC: IMF, 2015), starting with sector, currency, type of interest rate, original maturity, and, if feasible, market of issuance.

Box 4.1 The Use of the Centralized Securities Database and Securities Holdings Statistics Database in the European System of Central Banks in Compiling the Coordinated Portfolio Investment Survey

Background

The Centralized Securities Database (CSDB) provides comprehensive and up-to-date information on all securities relevant to the European System of Central Banks (ESCB), including its statistical objectives. In particular, the CSDB contains information on over six million debt securities, equities (both listed and unlisted shares), and investment fund shares/units issued or held by residents of the European Union (EU) member states or denominated in euro.[1] From a statistical angle, the CSDB serves two purposes: supply information for the *direct* compilation of aggregates for the euro area (such as monthly indicators on debt securities issuance and service by EU governments) and supply reference information on individual securities (i.e., on a security-by-security—SBS—basis) and issuers to *support other statistical data collections* in the euro area and EU (e.g., the compilation of the portfolio investment both flows and stocks).

Since 2008, the use of an SBS collection system with coverage of at least 85 percent of the total portfolio investment stocks is mandatory for the compilation of portfolio investment in balance of payments and international investment position (IIP) statistics for euro area economies. As IIP data for portfolio investment is fully aligned with the CPIS, SBS data also serves as the basis for the latter exercise.[2] Since 2014, as a way to consolidate and enhance all the existing SBS data on the holdings of securities by euro area residents, a new SBS data collection has been launched by the ESCB—the Securities Holdings Statistics Database (SHSDB). This covers also the domestic tranche of the holdings from resident custodians and from resident end-investors of debt securities, listed shares, and investment fund shares/units.[3] The linkage of the SHSDB with the CSDB is based on the International Securities Identification Number code of the individual securities. Together, these databases provide very rich and granular information both on the securities' holder and issuer perspectives.

Benefits of Using the CSDB and SHSDB

One of the main advantages of the CSDB and SHSDB in the compilation of Coordinated Portfolio Investment Survey (CPIS) data, when compared to aggregate reporting, is that compilers, rather than respondents, are responsible for the statistical classification of securities in a standardized and harmonized way. This promotes accuracy and consistency of the data, and adherence to international statistical standards, improving the quality and homogeneity of the data collection.

The CSDB in combination with the SHSDB allows for the compilation of aggregated statistics at mark-to-market value: for example, providing all the required breakdowns addressed in the CPIS reporting framework—that is, by instrument type,[4] issuer (holder) sector, issuer (holder) economy, and currency of denomination, including also short selling positions.[5]

Both the CSDB and SHSDB provide great flexibility to cater for new or additional output requirements in the CPIS: for example, changes in geographical areas, granularity of holder and issuer sectors, detail by instrument, and maturity and currency of denomination breakdowns. Also, the information on prices available in the CSDB allows for the compilation of positions both at market and nominal values. This is often possible without additional requests to the reporting entities, by means of amendments to the aggregation procedures managed by the compiler himself.

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Box 4.1 The Use of the Centralized Securities Database and Securities Holdings Statistics Database in the European System of Central Banks in Compiling the Coordinated Portfolio Investment Survey (*concluded*)

The SBS approach increases the quality of the data as it allows for better checking and greater accuracy in the calculation of position and flow data. Numerous quality checks are performed at the level of the individual security, instead of at aggregate level. For example, it allows for comparisons for debt securities of total outstanding issuances (or market capitalization regarding equities) and holdings at individual security level, reconciliation of flows and positions for individual securities, analysis of the consistency of the reference data over time at the SBS level, and improved bilateral geographical data comparisons.

From the euro area perspective and regarding securities issued by euro area residents, the availability of comprehensive SHSDB data permits one to perform detailed checks of the so-called derived euro area portfolio investment liabilities, obtained residually after deducting euro area holdings from total euro area issuances.

Challenges Associated with Using the CSDB and SHSDB

Challenges arising from the use of granular data for the compilation of statistics are quite diverse. On the one hand and despite the automated rules and algorithms implemented, some outliers might remain in the SBS databases. Consequently, the responsible staff should be well skilled and trained on the system to monitor and solve these issues. In addition, both the setting-up and maintenance costs of the CSDB and SHSDB were not marginal, largely attributable to purchasing and developing the necessary hardware and software to handle large volumes of data.

Conversely, the SBS reporting, in comparison with aggregated reporting, implies a shift of the costs from reporting agents to compilers, while the overall costs are expected to be lower. If reporters would have to aggregate the data according to statistical classifications themselves, each one of them would have to keep track internally of SBS information and run aggregation procedures, which would imply higher costs. Moreover, the marginal costs of introducing new statistics have been reduced (reporting forms do not need to be changed) and the consistency among the various types of statistics has been improved. However, all these costs from SBS reporting are deemed to be offset by the associated benefits in the medium term.

Source: European Central Bank.

[1] For more information, see the publication ECB, "The Centralized Securities Database in Brief," *Centralized Securities Database* (February 2010): 1–7, https://www.ecb.europa.eu/pub/pdf/other/centralisedsecuritiesdatabase201002en.pdf.
[2] In the past years, SBS reporting has been also increasingly used (and has in some cases become legally required) for statistics on investment funds, financial vehicle corporations, monetary financial institutions, and insurance corporations.
[3] For more information, see ECB, "Who Holds What? New Information on Securities Holdings," *Economic Bulletin* 2, no. 2 (2015): 72–84, https://www.ecb.europa.eu/pub/pdf/other/eb201502_article02.en.pdf.
[4] It should be recalled that the SHSDB scope does not include unlisted shares.
[5] The CSDB is also useful in the context of balance of payments and IIP statistics for the purposes of estimating revaluations and other changes in the volume of assets and liabilities by type of financial instrument, as well as to derive transactions from high-frequency position data (when not collected directly). It also allows for the derivation of investment income data on an accruals basis.

Box 4.2 BIS International Debt Securities Statistics

The Bank for International Settlements (BIS) maintains a security-by-security database covering international debt securities.

To define international debt securities, the BIS focuses on the primary market: that is, the market where securities are issued for the first time. Different primary markets are distinguished by referring to the residence of the issuer. The domestic market is where residents issue, and the international market is where nonresidents issue. Therefore, international debt securities are those issued in a market other than the local market of the country where the borrower resides. They encompass what market participants have traditionally referred to as foreign bonds and eurobonds. Foreign bonds are issued by nonresidents under the registration rules of a local market: for example, U.S. dollar bonds issued in the U.S. market by borrowers residing outside the United States. Eurobonds, also known as offshore bonds, are issued outside the registration rules of any local market, usually in a foreign currency.

The focus on the primary market has three advantages.[1] First, it helps to answer questions about the functioning of local capital markets. Second, in the absence of specific information on the currency of denomination or governing law, the

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Box 4.2 BIS International Debt Securities Statistics (*concluded*)

market of issue can provide insights into a range of financial stability questions. The third advantage of focusing on the primary market is that it complements the statistics compiled by many national agencies, which typically are also based on the market of issue regardless of currency.

The BIS international debt securities statistics capture bonds, notes, and money market instruments, starting in 1962. Data on bonds are obtained from Dealogic and Thomson Reuters, and data on notes and money market instruments from Euroclear. Data before 1996 are mainly from the Bank of England, as well as the OECD (Organisation for Economic Co-operation and Development) for some issues in the 1970s. Information on events occurring during the lifetime of an issue (e.g., exercised call and put options, sinking funds, and early redemptions) are obtained from Trax. The BIS merges the data obtained from these different sources, identifies and removes duplicates, and ensures that individual issuers are classified consistently. It then aggregates the data and calculates gross issues, net issues, and amounts outstanding.

The BIS international debt securities statistics are harmonized with the recommendations of the *Handbook on Securities Statistics*, an internationally agreed framework for classifying securities issues. The statistics are classified by residence of both the issuer and the issuer's parent (i.e., the issuer's nationality), sector of the issuer and its parent, currency, maturity, and interest rate type. The statistics are disseminated quarterly on the BIS website (https://www.bis.org/statistics/secstats.htm).

[1] Branimir Gruić and Philip Wooldridge, "Enhancements to the BIS Debt Securities Statistics," *BIS Quarterly Review* (December 2012): 63–76, http://www.bis.org/publ/qtrpdf/r_qt1212h.htm.

A reporting threshold is a value that, if exceeded, indicates whether a respondent will be required to report its holdings of portfolio investment. The threshold can be for a minimum of total holdings of nonresident-issued securities or for the level of holdings by country. The way a threshold is established and how it is used depend to a certain extent on the way in which the survey is conducted.

4.63 The survey may be conducted first by mailing all on the register of potential investors (or their agents) in securities issued by nonresidents (see Figure 5.1, Chapter 5 of this *Guide*) to ascertain the level of holdings, without any detail being sought. The mailing may be structured to "cast the net as widely as possible": that is, to include all possible investors of significant size, without specific knowledge of the holdings of many on the register. In this way, maximum coverage may be established, but there will also probably be many institutional units that will report zero, or a very low level of, holdings of securities issued by nonresidents.

4.64 To avoid collecting information from many units with very small holdings (which, therefore, add very little to the results), some economies may decide that a threshold of total holdings should be established. This could be set at a certain percentage of total value reported from the survey (e.g., 95 percent), and then a grossing up done for the balance. Alternatively, it could be set at the largest units (e.g., the top 100 or 500 in terms of value of holdings), depending on the resource capacity of the compiling agency.

4.65 One of the drawbacks of using thresholds is that it limits the usefulness of the data for counterparties. Country A may have established a threshold that is appropriate for its own purposes (to limit respondent burden or the burden on the compiler's own resources) but excludes information for Country B. In view of the cooperative nature of the CPIS, the information on Country A's investments in Country B may be of high importance to Country B. This is particularly true if Country B is much smaller than Country A, and investments that seem small to Country A are significant to Country B.

Third-Party Holdings Survey

Background

4.66 Experience from the CPIS showed that economies are unable to capture comprehensive information directly from domestic households on their holdings of securities issued by unrelated nonresident entities. Practical difficulties in targeting and surveying a relevant sample of households, the sensitivity of the information hampering the response rate, and the quality of the responses received are main reasons for this inability. Insofar as domestic households that hold their portfolio investment directly with nonresident

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financial entities, there will be gaps in the coverage of the CPIS. Coverage of other investors (such as small companies and NPISHs) may also be incomplete. These shortages in the coverage of assets in the CPIS often mirror gaps in the national and international accounts, and hamper the analysis of key policy indicators such as an economy's level and composition of savings, net lending/net borrowing, and the size and composition of its IIP.

4.67 A TPH survey is a way of obtaining information on holdings in securities owned by nonresidents and held directly with resident financial entities.[18] The information that is obtained from the resident financial entities should not be reported on the resident jurisdiction's CPIS (because the CPIS covers data on securities that are owned by residents not by nonresidents), but that information could be exchanged with TPH survey data collected by other countries, increasing the robustness of the CPIS results for all jurisdictions who receive information from TPH surveys conducted by others. This improvement in the CPIS results requires international collaboration and exchanges of information.

4.68 Below, some issues are described that need consideration before embarking on the task of conducting a TPH survey.

Preparatory Investigations

4.69 Because of the lack of experience with TPH surveys in most the countries, thorough preparatory investigations are necessary. The following describes the preparations that should be undertaken by a compiler conducting a TPH survey in which nonresident investors' holdings of securities entrusted directly with local custodians are to be covered.

4.70 A TPH survey should be adapted to the institutional arrangements through which nonresident investors hold or entrust their securities to domestic financial entities. Nonresident investors can arrange for their securities investments directly with local custodians in different ways. The following are two examples:

- Possibly the most widely used approach is the one in which a nonresident investor entrusts securities issued by a nonresident directly to a resident custodian for safekeeping. Nonresident investors in this case act as customers vis-à-vis the custodian and do not make use of intermediaries in their own country.
- Alternatively, a nonresident investor could directly entrust asset management to an investment manager abroad. These assets are not on the balance sheet of the investment manager that administers the assets by investing the funds and entrusting securities to a local (to the investment manager) custodian for safekeeping on behalf of the customer. Investment management services are commonly provided by banks, but some investment managers operate independently from banks.

4.71 To cover such portfolio investments, the agency conducting the TPH survey (central banks and statistical offices) should approach the local custodians and/or investment managers.

4.72 By investigating how market players use these kinds of financial services vis-à-vis nonresident customers, the concerned agency will be able to design and target the TPH survey to obtain maximum useful output.

4.73 If both custodians and investment managers are approached in a TPH survey, there is a distinct possibility of double counting. If the investment manager, acting on behalf of nonresidents, has entrusted securities to local custodians, instructions should be clear as to who is to report the information to the compiler.

4.74 A TPH survey also should be designed within the legal provisions of the country. In general, many countries have no legal provisions authorizing the collection of information on holdings by nonresidents. In these countries, it may be feasible to conduct the TPH survey on a voluntary basis.

4.75 It is also necessary to initiate contacts with major players (including custodians) in the market. In particular, central banks and statistical offices need to gauge the availability of information on the residence of the customers of custodians and on the residence of the issuers of the securities held by custodians. Another issue is whether the respondents can distinguish households among their nonresident

[18] For a TPH survey to provide as much information to the third party as possible, securities issued by entities resident (as well as by entities that are not resident) in the same jurisdictions as the custodian, and held on behalf of nonresident investors, should be included.

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customers, and whether they can distinguish in more detail different kinds of nonresident customers, such as institutional investors and NFCs. The quality of the data is also affected by whether this information is readily available in the records of the respondents or if it is necessary for them to make additional calculations or estimations.

Scope

4.76 A TPH survey could also be designed to consider the needs of the partner countries with whom the information from the survey is to be shared. In many of the countries participating in the CPIS, one of the major problems encountered was the coverage of the household sector because many households had entrusted their holdings directly with nonresident custodians. To maximize the benefits of a TPH survey requires targeting the holdings of nonresident households—the *household approach.*

4.77 However, depending on the survey system in place in partner countries (end-investor survey, custodian survey, or a combination of the two), the extent of the lack of coverage can differ and may not be confined to the household sector. Gaps in coverage of portfolio assets can also be related to other non-institutional investors, such as securities owned by trade unions, religious societies, and NFCs that are held with nonresident custodians. This would imply the need, from the partner country's view, to have the coverage of the TPH survey extended to include nonresident investors other than those in the household sector—the *extended approach.*

4.78 Another issue with the scope of the TPH survey is how households should be defined (see Chapter 3).

4.79 If the extended approach is chosen, it is not possible to give advice on the coverage and breakdown of categories of nonresident investors. These issues should be decided after consultations with partner countries. It is in any case very important to have a consistent treatment in the TPH survey and in the partner country to avoid double counting.

4.80 In considering whether to conduct a TPH survey, the national compiler should consider the complexity of the extended approach, not least because it requires a breakdown of its nonresident customers into different subcategories.

4.81 The extended approach is also associated with an increased risk of double counting by the partner country. The risk that the information shared with the partner country is to some extent already covered in the partner country's own compilation, leading to double counting, must always be carefully watched. Extending the survey beyond the household sector would increase this potential for double counting.

4.82 The household approach is less demanding for the respondents that merely must focus on nonresident private persons, and it would in general be easier to control the risk of double counting. On the other hand, the information from the household approach may not satisfy the information needs of the partner countries in some cases.

How to Avoid Double Counting

4.83 Another issue is how to make sure that the risk of double counting is minimized. In the example presented in Figure 4.1, the compiler of Economy A is undertaking a TPH survey (the *household approach*), approaching local custodians, and asking them about securities entrusted to them by nonresident private persons. The issue is which of the compilers in the different economies is to collect the information on the holdings of Mr. Peterson and which is to collect those of Mr. Andersson. Mr. Andersson and Mr. Peterson have entrusted their securities in different ways.

4.84 Mr. Peterson, a resident of Economy B, has entrusted his securities to a sub-custodian within his own economy (Custodian W), who in turn entrusts them to Custodian X, who is a resident of Economy A. In this case, the compiler in Economy B will cover the assets of Mr. Peterson in the standard CPIS, if domestic custodians are covered. The information on Mr. Peterson's holdings, even though held with Custodian X in Economy A, should still be available to Custodian W in Economy B.

4.85 Mr. Andersson, on the other hand, has entrusted his securities directly to Custodian X, who in turn placed them with Custodian Y, another resident of Economy A. However, Custodian Y then placed them with Custodian Z, a resident of Economy B. In this case, the compiler of Economy B will not be able to trace these holdings (since there is no direct

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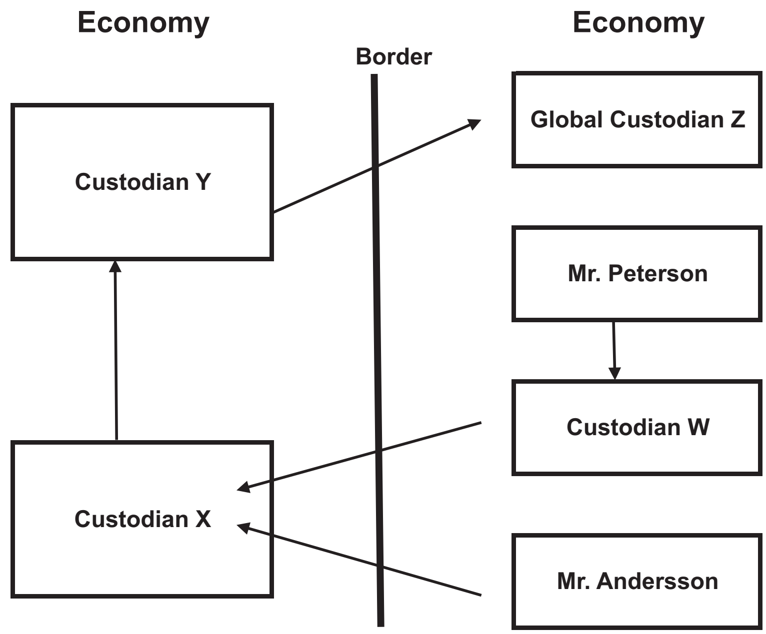
Figure 4.1 Potential Double Counting in Compiling Third-Party Holdings Surveys



Note: For explanation, see paragraphs 4.83 through 4.89.

survey of households) and so is dependent on the information from the TPH survey, if any, conducted by the compiler in Economy A.

4.86 Thus, if compilers in Economy A were to undertake a TPH survey, it should cover only those securities that have been entrusted directly by nonresident households. If securities indirectly entrusted (through an intermediary, Custodian W) by a nonresident household (that of Mr. Peterson) are also covered in the TPH report by Custodian X to the compiler in Economy A, double counting of TPH in Economy A will occur because Mr. Peterson's holdings will also be reported by Custodian W to the compiler in Economy B. Accordingly, the instructions for the custodian survey in Economy A should make clear that any securities that have been entrusted to them by another custodian, whether resident or nonresident, should be excluded.

4.87 The clarity of instructions is particularly important in this example because of the sequence of on-entrustment. If Custodian Y reports (to the compiler in Economy A) its holdings of nonresident-issued securities on behalf of residents of Economy A and also reports the holdings entrusted to it by Custodian X, and if Custodian X were to include in its report to the compiler in Economy A these same securities, the holdings of residents of Economy A of securities issued by nonresidents of Economy A would be overcounted. At the same time, if Custodian Y were unaware that some of these securities were owned by a nonresident (Mr. Andersson), there would be an additional overstatement of Economy A's securities holdings.

4.88 The situation is further compounded in this example because Mr. Andersson's securities were placed with Global Custodian Z, a resident of Economy B. In this instance, if Global Custodian Z were to report nonresident ownership of those shares placed by Custodian Y (a resident of Economy A), the effect would be to overstate Economy A's holdings of nonresident-issued securities because the report would include the holdings of a nonresident

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of Economy A (Mr. Andersson) to the extent that Mr. Andersson's shares were not issued by residents of Economy A.

4.89 To make sure that only directly entrusted securities are covered in a TPH survey, it is crucial for the compiler to keep track of the custodian chain within the compiler's own economy. Custodian X is acting as first custodian vis-à-vis Mr. Andersson and is in the best position to supply the compiler with correct detailed information. Therefore, in a TPH survey, custodians in the retail business acting directly for nonresident customers should be approached.

What Information to Collect

4.90 After the compiler has targeted the population of custodians and the respondent has identified the nonresident households among its counterparts, then the issue arises of what is to be reported.

4.91 The reporting should contain, for nonresident households in each country, a breakdown of types of securities (equity, long-term debt, and short-term debt securities) and for each of these categories a breakdown of country of issuer. An important difference, compared with the standard CPIS, is that the TPH survey should also cover domestic securities: that is, securities issued by residents of the same economy as the compiler. On the other hand, holdings by nonresident households of securities issued by residents of their own economy do not have to be reported. In the example above, Custodian X would not report any holdings of residents of Economy B of securities issued by other residents of Economy B. Such holdings do not represent any claim on nonresidents from the partner country's perspective and are not relevant for CPIS or IIP purposes. However, for simplicity, it may be easier for the custodian to report all holdings of securities owned by nonresidents, including securities issued by residents. As geographical detail of all holdings, by residence of issuer, and by residence of holder (while observing confidentiality) would thus be provided, any resident-to-resident claims would be identified and could be eliminated for the purposes of the CPIS (but that information may be valuable for other statistical purposes).

Conclusions

4.92 National compilers are advised to choose the method of collection that best suits their domestic circumstances, ensures good-quality data, and meets the objectives of their national survey. The IMF is available to provide targeted guidance, including on the choice of collection system.

4.93 Appendix 1 of this *Guide* provides model report forms for collection of data using different approaches. In addition, Appendix 2 provides web links to survey forms/instructions of some CPIS participating countries. Both these sources could be useful to implement suitable collection systems for countries that plan to introduce CPIS for the first time, and help in improving the existing surveys.

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5 Undertaking a Portfolio Investment Survey

This chapter describes the preparatory steps and provides practical advice to compilers for conducting a portfolio investment survey for the first time. The chapter covers: (i) timetable; (ii) legal and confidentiality considerations; (iii) compiling, maintaining, and using a register of respondents; (iv) choosing and developing a computer package to process the survey results; and (v) quality control.

Timetable

5.1 In preparing for the Coordinated Portfolio Investment Survey (CPIS), one of the first steps is to produce a timetable. It serves two main purposes: tasks are identified and their sequencing is established. A timetable will help ensure the success of a national survey.[1]

5.2 Each economy's timetable will depend on its circumstances. For example, those conducting a portfolio investment position survey for the first time may have a different timetable from those economies that conduct them regularly. A broad framework to guide first-time compilers of the CPIS is set out below. It can be adapted and, if necessary, expanded to meet local circumstances. Figure 5.1 provides a summary of the framework.

At least 12 months before the reference date of the survey,

- begin preliminary discussions with potential respondents to provide a broad overview of what is to occur by the survey date and to help determine the type of survey to be undertaken: that is, (i) end-investor, custodian, investment (fund) manager, or a combination of these and (ii) aggregate or security-by-security;
- determine under whose authority the survey will be conducted, and if needed, seek agreement from the appropriate regulatory bodies;
- prepare draft survey forms and discuss them with a sample of potential respondents;
- determine the approximate quantity and type of data to be collected, and undertake initial investigations on how the data should be reported and processed—in this regard, consult with a sample of potential respondents;
- begin development of a detailed register of potential respondents; and
- inform all potential respondents of the survey.

At least nine months before the reference date of the survey,

- finalize survey forms and send them to all respondents so that they can set up the computer systems and other tools they will need to complete the survey.

At least six months before the reference date of the survey,

- conduct a trial run with a sample of respondents; all other respondents should be reminded of the survey.

About three months before the reference date of the survey,

- begin seminars and other programs to educate respondents about the survey, and
- recontact respondents to remind them of the survey's reference date and when data are due to be reported.

About one month after the reference date of the survey,

- send questionnaires to the respondents;
- request them to acknowledge and report the data within three months of the survey reference date;

[1] See also paragraphs 2.46–2.55 of *BPM6 Compilation Guide* for an approximate timetable for conducting surveys.

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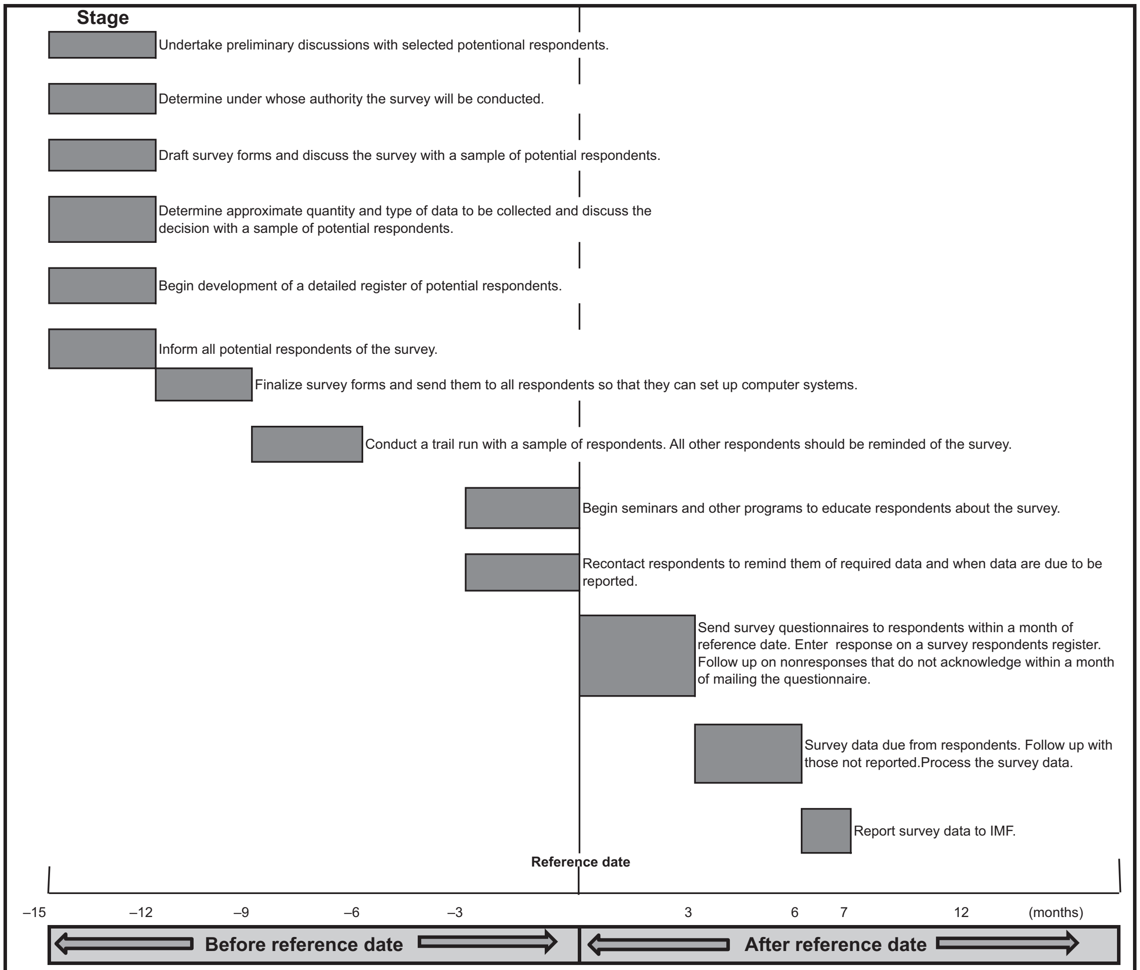
Figure 5.1 Indicative Timeline for Conducting the Coordinated Portfolio Investment Survey*



* This timeline focuses on biannual reporting of CPIS data to International Monetary Fund.

- follow up with respondents that do not acknowledge within a month; and
- enter responses on a survey respondents register (see Appendix 1, Model Form A).

About three months after the reference date of the survey,

- survey data are due from respondents and follow up those that have not reported, and
- enter responses on register and process results—in processing the survey results, procedures should be established for addressing queries with respondents.

Six months after the reference date of the survey

- report survey data to the International Monetary Fund (IMF) within seven months of the reference date.

Legal and Confidentiality Considerations

5.3 Wherever possible, it is very important for countries to have the appropriate legislation in place that would enable the CPIS to be conducted on a mandatory basis. The legislation also should address

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concerns survey respondents may have about the confidentiality of data supplied.

5.4 Each country is unique in respect of legal and confidentiality considerations. Experience indicates that the CPIS information is collected on a mandatory basis in most of the CPIS participant economies; the information is collected on a voluntary basis for a few economies only. In some economies, collection is either mandatory with no penalties or mandatory for some sectors such as deposit-taking corporations.[2] In general, CPIS data collection is undertaken within the overall framework of balance of payments and international investment position (IIP) data collection system and securities statistics. In most cases, the CPIS is conducted by the agency responsible for balance of payments and IIP compilation (national central bank or national statistical agency). However, in a few economies, CPIS operations are conducted jointly with the statistical agency covering the nonfinancial sector and the central bank or financial regulator collecting information from the financial sector falling under its purview.[3]

Compiling, Maintaining, and Using a Register of Respondents

5.5 Producing a register of survey respondents (register) is an important function for the implementation of any national survey. CPIS compilers will need to ensure that such register complies with the relevant data protection legislation. In some economies, if a register is maintained on a computer system and includes information about any identifiable institutional unit, that information may be used only for an authorized purpose.

5.6 This section presents some background on compiling and maintaining a register, ideas about what can be stored on the register (and on a computerized register), and finally an explanation of how the register can be used during the national survey. No register can be developed until national compilers decide how they intend to achieve comprehensive coverage of domestic residents' holdings of securities issued by nonresidents, whether primarily through an end-investor survey, a custodian survey, an investment (fund) manager survey, or a combination of these options.

Compiling a Register

5.7 The sources of information on potential survey respondents are varied, and the work required to compile a register will depend on the extent to which a register already exists in the statistical agency. Box 5.1 provides guidance on how to compile a register, including the possible sources of information, based on the experience of the Australian Bureau of Statistics (ABS). In addition, national compilers should refer to Chapter 2 of the IMF's *BPM6 Compilation Guide* on "How to Conduct a Survey," and particularly paragraphs 2.8–2.19, "Developing a Register."[4] The primary sources of information used in building the register of CPIS participants include the following: monetary authorities' records (including exchange control and international transactions reporting systems), other regulatory/supervisory authorities' records, companies' registration records/reports, securities and exchange commission information, and already-available business registers in statistical agencies.[5]

5.8 The next step after the initial examination of the sources of information is to produce a detailed list of potential survey respondents. The compiling agency must be careful to select the "correct" population (frame of the survey). To do so, the compilers should ideally engage in some preliminary discussions with the largest institutional investors, such as pension

[2] CPIS data were collected on a mandatory basis in more than two-thirds of the economies that participated in the end-June 2015 survey.

[3] See the CPIS Individual and Cross-Economy Metadata Reports on the CPIS website for detailed cross-economy information on what is the legal basis for collecting the CPIS data.

[4] See also Eurostat, *Business Registers Recommendations Manual* (Luxembourg: Publications Office of the European Union, 2010), http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf.

[5] See the CPIS Individual and Cross-Economy Metadata Reports on the CPIS website. For nonfinancial corporations and other financial institutions, compilers may not be able to develop a complete business register. Therefore, there may be challenges in cross-checking any survey sample with the total population for these units.

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Box 5.1 Australia's Experience in Compiling a Register: Practical Advice

Australia has no central repository or transaction system for identifying or reporting international investment position statistics. Australia has had an open economy with a freely floating exchange rate for over three decades, and no controls or approvals are required for investment flows (although some investment targets in Australia require approval of foreign ownership). To run surveys to measure international investment, it has therefore been necessary to compile a register of organizations from which the data can best be obtained.

The major source for the Survey of International Investment (SII) business frame comes from the Australian Business Register (ABR). The Australian Bureau of Statistics (ABS) has recently moved from having a separate register of enterprise groups with international involvement to the "common frame" maintained by the ABR. The Economic Units Model is used by the ABS Business Register to describe the structure of Australian businesses and other organizations. The Economic Units Model defines organizations by enterprise group, type of activity, location, and legal units to enable organizations to provide data to the ABS at suitable levels of detail. The new register is now able to identify those financing company parts of businesses that channel all the international finance accessed by the enterprise group.

The ABS Business Register is a dynamic database that is updated daily via profiling activity and monthly using Australian Tax Office and ABR data. In order to maintain the Business Register, the ABS profiles large, complex, and economically significant organizations and structures them to accord with the Economic Units Model. These groups are known as the Profiled population. The remainder of Australian Business Number (ABN) registrants are assumed to have simple structures. They are regarded as single legal entity and single enterprise group. These units are known as the Non-profiled population. The two populations are mutually exclusive and cover all organizations in Australia which have registered for an ABN.

The ABS Business Register provides a frame for most ABS economic surveys to enable a consistent, coherent, and point-in-time picture of the Australian economy. Data is extracted from the ABS Business Register on a quarterly basis, producing the "Common Frame." Subsequently, survey frames are extracted from the Common Frame and supplied to various areas of the ABS on cyclical intervals including the SII.

Other sources of information for the SII frame include the following:

- *Government administrative sources.* Depending on legislation and administrative arrangements or the authority of the collection agency, these sources might include the following:
  - (a) taxation records, files, or lists;
  - (b) information held by foreign investment approval or monitoring boards information held by other regulatory authorities, such as lists of entities coming under their supervision and data monitored through supervision requirements (e.g., registered banks, other deposit-accepting institutions, securities brokers, investment managers, investment advisers, and authorized pension or mutual funds);
  - (c) listings of registered custodial businesses that can hold debt securities and other assets on behalf of nonresidents, and lists of registered fund managers that can act on behalf of nonresidents;
  - (d) statutory company reports and company registration details; and
  - (e) records held in foreign exchange control or international transaction reporting systems (e.g., records identifying the originators or recipients of large portfolio investment flows—not available in Australia).
- *Other official sources.* Other official and regulatory sources, many publicly available, include annual statutory accounts for public companies held by the Australian Securities and Investment Commission, submissions made to the Foreign Investment Review Board, various material held by the Reserve Bank of Australia, and annual reports of other government bodies.
- *Media reports.* Newspapers and periodicals are particularly useful sources of information on potential reporting entities. A high proportion of significant transactions are reported in the media, and these reports are used not only to update the register, but also to confirm data reported in the SII. Apart from significant transactions, the media cover many smaller transactions as well as a high proportion of unusual transactions. The use of traditional print media is being supplemented with information obtained electronically from commercial business news services and via the Internet.
- *Publicly available databases.* A wide variety of information is available from public databases. The information differs in completeness, accuracy, and the extent to which it is of use for an SII. These sources include the stock exchange register, possibly packaged by the stock exchange with additional information; commercial equity registries' information services; international credit rating agencies' publications (e.g., Moody's and Standard and Poor's); and market research reports or services, such as reviews by accounting or brokerage firms. The ABS uses several Australian Stock Exchange products, such as monthly updates of share issues listed on the exchange and their prices and indices.

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Box 5.1 Australia's Experience in Compiling a Register: Practical Advice (*concluded*)

- *Industry associations.* These associations and their reports and releases can be a useful source. Apart from the public relations and liaison aspects of a close relationship between the statistical agency and industry associations, many either list members publicly or can make available lists of members, often with indications of their importance or the range of services provided. Particularly in the financial sector, their members are also likely to be significant users of official statistics and thus have a vested interest in accurate data and in assisting statistical or data collection agencies.

funds, mutual funds, banks, insurance corporations, and so on, as well as the appropriate trade associations. The discussions should make these institutions aware of the survey and help the compiling agency to develop an accurate survey frame and decide upon the design of the survey.

5.10 If national compilers decide to conduct an aggregate survey primarily targeted at end-investors, they must decide whether to set a minimum threshold that excludes units with low-value investments in securities issued by nonresidents. For instance, the number of potential survey respondents identified in the review of sources may be very high; but in practice, a significant proportion of investment in securities issued by nonresidents may be undertaken by, or channeled through, a relatively small number of large investors or financial institutions. A minimum threshold may reduce the respondent burden without adversely affecting quality; if necessary, the compiler might consider requiring reports from a sample of these "smaller investors." However, if there is to be a minimum threshold, the compiling agency must be careful not to exclude potentially important respondents. See also the discussion on reporting thresholds in paragraphs 4.62–4.65 of this *Guide*.

5.11 If the compiling agency decides to conduct a survey targeted primarily at custodians but one that also covers end-investors, it is important to understand the relationship between major investors holding securities issued by nonresidents and custodians to avoid omission or duplication of data. This point is emphasized in paragraphs 4.27–4.53 of this *Guide*. One approach to this issue is to require all large investors to identify their domestic custodians, as well as to indicate any holdings of securities issued by nonresidents that they maintain with nonresident custodians. The relationship between end-investors and custodians could also be kept on file, but updating this could prove time-consuming.

5.12 Further, proper care is also needed in choosing which respondents to approach; in particular, an awareness of the operations, record-keeping, and accounting practices of the target businesses is helpful for national compilers. Most importantly, statistical reporting targets the holdings of individual resident institutional units, which may significantly differ from consolidated reporting obligations of businesses. Depending on the degree of centralization or autonomy of businesses holding securities, it may be helpful in some circumstances to permit certain units to report on behalf of other units of the same group.

5.13 When approaching an end-investor that is also a custodian, compilers should ensure that the custodian reports its own account holdings as well as those held on behalf of other resident institutional units.

5.14 The treatment and capture of data from unincorporated entities needs particular attention. Because these entities may not prepare full sets of accounts, their holdings of securities issued by nonresidents may be missed in the survey.

5.15 The register will need to be maintained given the likelihood that the survey will be performed on a continuing basis; otherwise, information regarding the entities to be surveyed and the statistical unit to be approached can quickly become out of date. Media reports are a good and timely source of updates for significant businesses, but a review of the sources referred to in Box 5.1 might be appropriate at discrete intervals, especially close to the time of dispatch of the survey forms.

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Details Stored on a Register

5.16 The register should contain more than a list of names and addresses. It should also include the following: relevant information on each reporting entity, control the mail-out and receipt of survey forms, and provide information on the status of the response. A possible list of items that can be stored is indicated in Box 5.2.

5.17 Computerizing the register save compilers time and effort, and reduces the scope for error in dealing with survey respondents when the survey is in operation. If a computerized register is to operate efficiently, careful planning and careful maintenance are required. The type of issues and tasks that need to be considered include the following:

- taking account of the information flows to and from the database (the use of charts and diagrams are highly recommended in the planning phase),
- taking account of the specifications for interrogations and reports to be generated,
- devising a coding structure that embodies the defining characteristics of each respondent in its unique identification number (this is important because it allows the sorting and analysis of respondents and the tracking of nonresponse),

Box 5.2 Information That Can Be Stored on a Computerized Register

Classification Information

Respondent identification code:

Respondent name:

Type of respondent (custodian, mutual fund, pension fund, etc.):

Respondent contact person:

Address, telephone number, and e-mail address of respondent:

Survey form e-mailed (Yes or No):

Flags to alert for special cases (to be handled separately from the automated system):

Response Log Details

Response status (form e-mailed, completed survey form received, in contact, form re-mailed, exempt, etc.):

Date survey form e-mailed:

Date survey form re-mailed or reminder sent:

Date completed survey form received:

Type of data provided by the respondent (aggregate or detailed data):

Add other fields (based on local requirements):

Some Useful Advice

- At the planning stage, it is important to consider which fields will be filled automatically by the computerized system. For example, would the “Date survey form e-mailed” field be updated directly by the e-mailing program or requires manual entry?
- Take care when assigning default values to fields and (as a safeguard against inputting errors) have an accessible, online, separate file that lists those types of input that are currently acceptable for a specified field; that way, unacceptable inputs will be rejected. It is also useful to have a comment area for each entry.

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- ensuring that supporting hardware and software are sufficient for the task,
- allowing time for a thorough trial run of the system before "live" use,
- backing up copies of data and software on a regular basis and storing them both on-site and at a remote location so that the files can be restored in the event of a system breakdown,
- ensuring appropriate systems security and access authorization,
- producing thorough documentation on the system, and
- providing for a suitable filing system for associated papers—not least the completed survey forms.

Use of the Register

5.18 Once the national survey is under way, the benefits of an efficient computerized register become apparent. The benefits accrue both at the initial stage of sending out survey forms and at the follow-up stages and beyond.

5.19 At the initial stage, compilers need to e-mail the survey forms and letters. The e-mail address list from the register can be used to implement this task efficiently. At the same time, a record can be written noting which survey respondents will be sent a questionnaire (e.g., set e-mail status to "yes"). Compilers can also perform a quality check to ensure that the right respondent is receiving the right survey form(s). This is particularly important if the e-mailing includes more than one type of survey form. In this way, compilers can quickly identify problems and initiate follow-up action.[6] The national compiler should note in the response log those entities that have acknowledged the receipt of e-mail/survey forms. Also, the receipt of the completed survey forms need to be entered in the response log, along with the date of receipt. Any changes required to the register (e.g., name and address) could then be made. Compilers could run a report to verify that the correct entries have been made. Thereafter, they could distribute survey forms to the concerned staff for data capture and editing.

5.20 Compilers should keep a record of each telephone call or correspondence, either in a manual file or as a note against the appropriate record in the response log file. If a survey respondent requires more time to complete the survey form, the compiler should note this information so that reminders are not sent. In such a case, the response log status is changed to indicate "in contact" and follow-up procedures are suspended for a specified period. When new copies of the survey forms are requested, a re-mail is initiated and additional forms are sent to the respondent with the follow-up procedures kept in place. The compiler must update the register if updated information is provided and run a check to confirm that correct details have been stored.

5.21 When the closing date for the return of completed survey forms has passed, the compilers can select the overdue survey respondents from the response log, based on the response status of "outstanding" and the mailing date, and follow-up on nonresponses.

5.22 Several reports can be produced on a regular basis to assess the status of the survey, including the following:

- *transaction reports* lists changes sorted (e.g., by name, ID code, and date) and
- *response log reports* summarizes counts of survey forms mailed, received, deleted, and percentage outstanding; response log listing all survey respondents; and survey status sorted (e.g., by name and identification code).

Choosing and Developing a Computer Package to Process the Survey Results

5.23 Choosing an appropriate computer package is important and needs to be considered carefully by national compilers. The most straightforward approach is to choose the computer package that is already standard in one's own statistical agency. This approach has several advantages: staff are already trained on how to use the package, the capabilities of the package are known, and computer support is

[6] The U.S. authorities publish a legally binding notice that announces the survey and states that any institution meeting the reporting guidelines is legally required to report, whether or not the institution has received a survey questionnaire. This approach might bring in some firms that are not on the register. Whether this approach can be undertaken in other jurisdictions depends on local institutional and legal arrangements. See http://ticdata.treasury.gov/Publish/frshc2016(12-2016).pdf for the notice on the survey of ownership of foreign securities by U.S. residents as of December 31, 2016.

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presumably available if any technical difficulties arise. In addition, only limited time and effort needs to be spent on deciding on the appropriate package. However, if the survey is a new undertaking, it is worthwhile to consider whether the existing standard package can meet the processing requirements of the survey.

Quality Control

5.24 The accuracy and reliability of individual economy reporters' CPIS data and the IMF's collective CPIS database ultimately depends on high-quality source data.[7] Quality control at the survey level is paramount; if, despite all the preparations, survey respondents submit poor-quality data, the value of the whole exercise is undermined.

5.25 Experience suggests that national compilers can expect survey respondents to make mistakes. Compilers conducting a national survey for the first time need to be especially vigilant in checking the data supplied; the more experience the respondent has in completing the survey form, the less likely that significant errors will be made. Nevertheless, even the most experienced respondents can make mistakes.

5.26 Quality-control checks can be conducted at various levels in several ways. The compilers can include automated checks in the survey form (for internal consistency), cross-check survey data against other reported data, and devise analytical checks. They should also be able to check data received from the domestic custodians or domestic end-investors at a detailed or aggregated level.

5.27 This section provides some guidance on a range of possible checks. Nonetheless, the more the survey form fits the domestic circumstances and the more that survey respondents are consulted about what is required of them, the greater the probability of receiving good-quality data. In addition, the greater the likelihood of cooperation if the national compiler could request clarification from the respondents on the data supplied by them.

5.28 Based on the CPIS cross-economy metadata reports, Table 5.1 presents a summary of the comparisons and reconciliations made by national compilers with other sources and series to validate the CPIS data. Other sources used to validate CPIS data include data obtained from regulatory sources and from other statistical collections (such as securities statistics collected by central banks and regulatory agencies), and balance of payments and IIP data. In addition, CPIS data for the reporting period are usually compared with data for the previous period and plausibility checks are done to detect and address any outliers that may represent errors.

5.29 Because one of the purposes of the CPIS is for comparable data to be exchanged among participating economies, compiling agencies may receive data on their residents' portfolio investment liabilities to nonresidents. Some broad checks on the data

[7] See Chapter 6 of this *Guide* for some practical examples from countries involved in the CPIS.

Table 5.1 Practices of CPIS Participants to Validate the CPIS Data

Validation Methods Used →	CPIS data are compared with totals obtained from regulatory sources (1)	CPIS data are compared with totals obtained from other statistical collections (2)	CPIS data are reconciled with BOP/IIP data (3)	CPIS data for reporting period (*t*) compared with previous period (*t* – 1) (4)	All of the first four methods (5)	A combination of the first four methods (6)
Number of economies	2	4	14	12	17	24

Source: CPIS Cross-Economy Metadata Reports.

Notes: CPIS, Coordinated Portfolio Investment Survey; BOP, balance of payments; and IIP, international investment position.

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received—either by individual counterpart country or on a global basis (i.e., total liabilities to nonresidents)—should be possible. The following subsections focus on the various checks.

Quality-Control Checks through the Survey Form

5.30 The sooner errors are identified and corrected, the better. For this reason, it is recommended that national compilers consider devising a survey form that explicitly includes quality-control checks or requires extra information that can be used as a consistency check.

5.31 For example, collection of following additional pieces of information in survey forms can help national compilers in cross-checking the information reported by custodians:

- *Security identification number:* With the help of a securities database, the security number can help to identify debtor and distinguish a domestic from a nonresident security and a long- from a short-term security, and denote the currency of the security, etc.
- *Quantity of securities held:* This information can allow the national compiler to derive the implicit market value of holdings and help to detect errors in market value reported.
- *Face or nominal value of the (debt) security:* This again is a check on the implicit price valuation in the report and may highlight securities for which survey respondents are unable to provide market prices.

5.32 Further quality checks to the survey forms can be implemented by requesting the respondents to report using a form with standard layout[8] with inbuilt consistency checks. In some national data collections, positions and transactions data are gathered on the same survey form, and so the reconciliation is done directly by the respondent. The national compiler of a first-time national survey might consider requesting that survey respondents provide the value of total security assets held against which the reported nonresident holdings could be compared.

[8]For example, the survey on Canadian portfolio investment requires the respondents to provide the survey data using an Excel file with a standard layout (see http://www23.statcan.gc.ca/imdb-bmdi/document/1537_D3_T1_V3-eng.pdf for additional details).

5.33 It is recommended that simple computer-checking procedures be developed to process reported data. For example, a program could be developed that compares the sums of the individual country data with the reported total holdings; the difference should either be zero or a positive value (where country detail is suppressed for confidentiality reasons). Similarly, a program could be in place to highlight zeros or data above a certain size so that any unusual figures can immediately be brought to the national compiler's attention. Many other similar routine checks can be devised.

5.34 More generally, the national compiler could require a senior official of the responding entity to certify that the information provided is complete and accurate; this could help to ensure the data quality and punctuality. Similarly, requesting the name of a contact person helps to ensure that follow-up inquiries are dealt with efficiently.

Quality-Control Checks against Other Reported Data

5.35 Different possibilities exist for checking data against other reported data, especially for assets of financial intermediaries like banks or investment companies, both at the individual respondent and aggregated levels. These financial intermediaries might report separately statistics on portfolio investment position data for supervisory or statistical requirements. Some examples are given below. Verification of the basis for valuation of the assets needs to be ascertained because valuation principles for these other sources may not be at market price. Moreover, it is also necessary to ensure that the data are provided on the residence basis required for the CPIS, since some data sources may be on the entity's global consolidated balance sheet, not just the balance sheet for the domestic economy. It is important to ascertain that the reporting unit is the same and that there is no double counting: for example, one unit within an enterprise group does not report if there is a consolidated report for the whole domestic group.

Central bank (monetary authorities)

5.36 As noted in Chapter 1, reserve assets should be shown separately in global totals and not as part of a country's portfolio investment. Accordingly, data on the geographical breakdown of securities included in

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reserves is collected separately by the IMF in a confidential survey—Securities Held as Foreign Exchange Reserves (see paragraphs 2.27–2.32 of this *Guide*).

Banks

5.37 Position data on investment in securities issued by nonresidents are included in the banking statistics and balance sheets. Furthermore, many reporting central banks provide the Bank for International Settlements with information on their commercial banks' investment in securities issued by nonresidents, including a breakdown by country of issuer and by major currency. However, it should be borne in mind when comparing survey results with banking data that the banking data may have been collected for other statistical or other (e.g., supervisory) purposes and that some banks may not record (all) their holdings of securities assets at market prices, especially those held in the "investment account"[9] (which may be held for reserve or capital requirement purposes and be recorded on a different valuation basis).

Insurance corporations and pension funds

5.38 Position data on investment in securities issued by nonresidents should be included on the balance sheets of insurance corporations and pension funds. However, when undertaking these types of checks, it is important to remember that definitions of terms may differ according to purpose. For example, for pension funds in the United States, securities issued by nonresidents but trading on U.S. securities markets may be categorized as "U.S. securities."

Investment companies

5.39 Position data on investment in securities issued by nonresidents should be included on the balance sheets of investment companies. In addition, the geographical allocation of the individual investment funds may be estimated through knowledge of their published investment strategy.

Nonfinancial economic sectors (such as corporations or households)

5.40 Position data on investment in securities issued by nonresidents could be included in corporate balance sheets, but it might be difficult to confirm the data for nonfinancial sectors.

5.41 For those countries where there are no balance of payments transaction data and, therefore, where the range of analytical checks that can be conducted is limited (see next section), attribution of investments by sector and a comparison with available sector data, as outlined above, are probably the best checks that can be made.

Quality Control through Analytical Checks

5.42 The degree to which analytical checks can be developed depends on the availability of comparable data. If data are available, the following checks can be devised:

- If stock data and flow data are independently assembled, an attempt should be made to reconcile these data. Doing so requires consideration of effects caused by different prices, exchange rates, other adjustments like write-offs, or thresholds. Checks can be applied at the individual respondent and aggregate data levels. However, it should be noted that some reconciliation may not be possible, depending on data sources. For example, transactions data may be reported by securities dealers, which could involve some securities held with nonresident custodians. In that case, these securities are unlikely to be recorded if the survey focuses on resident custodians.
- In economies where transactions data are available and the position data are being produced for the first time, an attempt could be made to reconcile position data that were estimated by accumulating transactions data with reported position data. The method of calculating position data from transactions data is described in paragraphs 9.81–9.89 of the *BPM6 Compilation Guide*.[10] The degree of deviation of the cumulated transactions and reported position data could depend on the composition of the holdings, the variability of the relevant exchange rates and market prices of securities, the length of time over which transactions have been cumulated, and net errors and omissions in the

[9] As opposed to the "trading book," which is usually marked to market prices on a regular basis.

[10] Also see IMF, *Quarterly International Investment Position Statistics: Data Sources and Compilation Techniques* (Washington, DC: IMF, March 2011), pp. 16–24, https://www.imf.org/external/np/sta/iip/2011/pdf/030111.pdf

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reporting systems. However, if the national compiler judges the discrepancy to be significant, it should be investigated. Given the number of assumptions and potential time frame of observations, this check is probably more appropriate for aggregate data, although it could be developed for checking individual respondent's data. The more frequent the surveys of positions, the more reliable the reconciliation.

5.43 One important piece of information required to develop these analytical checks is the currency composition of the portfolio assets, without which the currency and security price revaluations are, at best, an estimate. Therefore, the national compiler might ask survey respondents to provide a breakdown of investments by currency—although this is not a mandatory requirement of the CPIS. As a second-best option, the national compiler might use data on the currency composition of holdings provided by different financial intermediaries (e.g., banks) as a proxy for the currency composition of all survey respondents' holdings.

5.44 Some compilers may face problems, particularly when checking data for claims vis-à-vis individual countries, if their transactions data are based on the "transactor" principle (see *BPM6*, paragraph 4.154), as opposed to the debtor/creditor principle used for position data (see *BPM6*, paragraph 4.148). In other words, it might not be possible to reconcile cumulated transactions data with the positions data from the national survey because different principles of geographic allocation are being used.

Quality Control from the Viewpoint of the Recipient (Debtor) Economy

5.45 Because comparable portfolio investment data may be exchanged among participating economies (subject to confidentiality constraints), national compilers may receive data on their residents' liabilities to nonresidents. Checks could be carried out on data vis-à-vis a single counterpart (creditor) economy or on data vis-à-vis a group of reporting economies, and at the level of counterpart institutional sectors. While quality control of the assets data is primarily the responsibility of national compilers, compilers in the counterpart economy should also check the "derived liabilities" data and provide useful feedback to the counterpart compiler. As noted in Chapter 1 of this *Guide*, the IMF is organizing a pilot to assess the feasibility of organizing a centralized exchange of information to enhance the sectorization on nonresident issuers. Such information could permit a better sectorization of the counterpart (creditor) economy data and thus a finer reconciliation by individual domestic sectors.

5.46 Regarding individual counterparty data, the recipient compiler (debtor economy) could check the data received to do as follows:

- Compare the data with those previously published. At present, several economies publish data at a bilateral level on their investment in securities issued by nonresidents, which can be used as an approximated range for the position data.
- For debt securities, use information about interest payments vis-à-vis single counterpart economies. From these data, the economy attribution of the outstanding volume of domestic securities could be estimated. However, care is needed with this check because the residence of recipients of interest payments on bearer securities may itself be estimated.

5.47 Each of the estimation methods discussed above are only a broad check. To the extent that data sources like the balance of payments are on a transactor basis, it is not uncommon for the bilateral data to be misleading when compared with data sources (such as the CPIS) that are constructed on the creditor/debtor principle. Nonetheless, these estimates could provide the recipient compiler with a benchmark against which to judge the quality of the data received.

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6 Experience in Conducting the CPIS

This chapter summarizes various economies' experience in conducting the Coordinated Portfolio Investment Survey (CPIS). This information could be useful particularly for economies preparing to participate in the CPIS for the first time, or for those wishing to extend or improve the scope of their present CPIS reporting. The experience of economies on the following practical issues are addressed: (i) coverage (choice of collection method and limitations in approaches to coverage), (ii) separating direct investment from portfolio investment, (iii) market price valuation, (iv) treatment of accrued interest, (v) treatment of collective investment schemes, (vi) direct holdings abroad, (vii) quality control, and (viii) steps taken to address low coverage or low response rates. In addition, given the growing importance of data collected for the CPIS encouraged categories, the experience of some countries in implementing the CPIS for these data elements is presented.

Coverage

Choice of Collection Method

6.1 Portfolio investment data collection methods are determined by several factors, such as availability of the data, ease of collection, respondent burden, availability of resources, existing surveys, national circumstances, and the institutional and legal framework for data collection (i.e., statistics law). It is important that the choice of the collection method maximizes the data coverage (without double counting), while minimizing the costs to the respondents and bearing in mind the compiler's resources.

6.2 Either an aggregate/end-investor approach or a security-by-security (SBS)/end-investor approach[1] is mostly used by Coordinated Portfolio Investment Survey (CPIS)-reporting economies for deposit-taking corporations, except the central bank and other financial corporations (OFCs). Given the difficulties in collecting data for the household sector, around a quarter of reporting economies exclude this sector from their CPIS data coverage, while others mostly use indirect approaches (i.e., either aggregate/custodian approach or SBS/custodian approach or a combination of both). Table 6.1 summarizes the choices of approaches used for CPIS data collection for different institutional sectors/subsectors by the 73 economies that participated in the end-June 2015 CPIS. Selected country-specific cases are discussed below.

Austria

6.3 The Austrian Central Bank (Oesterreichische Nationalbank, OeNB) uses an SBS approach for both direct (end-investors) and indirect (custodians) reporters to collect monthly data on portfolio investment. An SBS/end-investor approach is used for deposit-taking corporations, including the central bank, money market funds (MMFs), and investment funds. Portfolio investment of nonfinancial corporations (NFCs), households, nonprofit institutions serving households (NPISHs), OFCs, and general government are obtained through an SBS/custodian approach. The information from banks are supplemented by compulsory reports by nonbanks (corporations and households) on securities which are not deposited with resident custodians, which means securities either deposited with nonresident custodians or in own custody. The reporting thresholds are annually for stocks above of 5 million euros and quarterly for stocks above 30 million euros. However, reporting gaps exist for the holdings of resident individuals that are undertaken via custodians abroad, except for some extremely wealthy households and family trusts who directly report to the OeNB. To close the gap, additional estimations for residents' holdings abroad are undertaken based on mirror data and information on tax agreements with certain countries like Switzerland as well as some third-party-reporting data from

[1] See Chapter 4 of this *Guide* for additional details on these approaches.

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Table 6.1 Summary of Choice of Collection Method for CPIS Data Collection

Institutional Sector/ Subsector	Aggregate Approach		Security-by-Security Approach		Combination of Approaches	NA/ Data Not Collected
	End-investor	Custodians/ investment Managers	End-investor	Custodians/ Investment Managers		
Deposit-taking corporations except the central bank	27	1	30	2	13	0
OFCs covering insurance corporations and pension funds	26	2	18	6	17	4
OFCs covering money market funds	20	4	22	6	12	9
Nonfinancial corporations	18	6	7	11	19	12
Households	5	10	1	27	8	22

Source: CPIS metadata (as of December 2015).

Notes: CPIS, Coordinated Portfolio Investment Survey; NA, not applicable; and OFCs, other financial corporations.

the Securities Holdings Statistics Database (SHSDB) of the European Central Bank (ECB).

Bermuda

6.4 The bulk of Bermuda's cross-border portfolio investments are held by the financial sector. The financial sector is broken down into two broad segments: the domestic sector and the international sector. The international sector provides financial services to clients worldwide, and the size and relevance of this sector makes Bermuda an international financial center. Most of the international sector's holdings are placed with nonresident custodians. From discussions with the relevant industry associations, it was considered more appropriate and efficient for the financial sector to provide the required information as aggregates. For these reasons, an aggregate/end-investor approach was selected. In addition, the data on government's portfolio holdings are collected directly using an aggregate/end-investor approach.

Israel

6.5 In its preliminary investigations, the Bank of Israel concluded that because residents are required to report their cross-border portfolio investment under exchange control regulations, data sources based on these regulations ensure complete coverage of cross-border portfolio investment and can also be compiled with a high frequency. Stock exchange registers are the main source for building a register of resident entities holding portfolio investment assets. An SBS/end-investor approach is used for data on deposit-taking corporations, whereas data for households are based on an aggregate/custodian approach, and data for other sectors are compiled via an aggregated/end-investor approach. Data are reported by resident custodians (using an SBS approach to facilitate quality control and checking on an instrument basis against other data sources) and by end-investors (on an aggregate basis). Reporting by end-investors comprises those residents who use the services of nonresident custodians or hold securities in self-custody, and includes businesses and households.

6.6 As this approach was developed to support the compilation of an international investment position (IIP) statement for portfolio investment assets and liabilities, the resulting database compiled by the Bank of Israel's Foreign Exchange Control Department covers residents' holdings of cross-border portfolio assets and nonresidents' holdings of securities issued by residents. Resident custodians report the value of securities traded in Israel that are held by nonresidents. Residents' holdings of shares issued by Israeli companies abroad are compiled from information supplied by the issuers. This information was used to derive estimates of

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Figure 6.1 Framework of Data Collection in Japan[1]

Banks	Securities Companies	Institutional Investors
Deposited overseas in respondent's name	Deposited overseas in respondent's name	Deposited overseas in respondent's name
(1) Own account	(1) Own account	
(2) Held in custody for clients[2]	(2) Held in custody for clients[2]	
Deposited in other domestic banks		Deposited in domestic banks
Deposited in domestic securities companies		Deposited in domestic securities companies

[1]To avoid double counting, only the data in the shaded areas are aggregated to produce total Japanese portfolio investments.
[2]Disaggregated into public sector, banking sector, and other sectors.

nonresidents' holdings of shares issued by Israeli entities abroad.

Japan

6.7 Figure 6.1 illustrates the framework of data collection in Japan. In its preliminary investigations, the Bank of Japan (BOJ) concluded that institutional investors are the only sector likely to use the services of nonresident custodians. Both the NFC sector and households were believed to prefer the services of domestic custodians. For this reason, reporting by resident custodians and institutional investors was concluded to be sufficient to provide complete coverage for the CPIS and IIP. For deposit-taking corporations except the central bank and OFCs, data are obtained from aggregate approach (end-investors and custodians). An aggregate/custodian approach is the primary source for NFCs, households, and NPISHs.

6.8 The BOJ collects and disseminates the data on portfolio investment under the legal authority of Ministry of Finance. The Foreign Exchange and Foreign Trade Act and related ordinances provide the legal framework for collecting portfolio investment assets and liabilities as part of the IIP. This legal framework required that a summary breakdown of portfolio investment assets, by the country of residence of the issuer, be reported and specified that data be reported on an aggregate basis. Deposit-taking corporations (mainly banks) were required to report both in their capacity as end-investors and custodians. Hence, the legal framework met the requirements of the CPIS.

6.9 For the IIP and CPIS, the BOJ relied mainly on reports submitted by deposit-taking corporations (as end-investors and custodians), securities companies, and institutional investors under the framework prescribed by the Foreign Exchange and Foreign Trade Act. This authority to collect statistics has remained in place notwithstanding financial deregulation.

6.10 The most important reason for choosing an aggregate approach was to build on the existing reporting system for IIP purposes and to avoid any additional burden on reporters (as would be seen to result from any change of the reporting basis) at a time of financial deregulation. CPIS data for each reporting period are compared with data for the previous period and plausibility checks are carried out to detect/address any outliers that may represent errors. In aggregate, year-on-year changes are checked if they are reconciled with the combination of the following: transactions, relevant exchange rate, and price changes.

Malaysia

6.11 The CPIS data are collected as part of an integrated framework for compiling quarterly balance of payments, external debt, and IIP statistics. Malaysia is one of the earliest countries to develop an SBS portfolio investment data collection system. The custodian agencies record information about transactions and positions of the securities using the International Securities Identification Number (ISIN) codes and additional details from the database.

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6.12 To ensure comprehensive coverage, the compilation guidelines clearly define the reporting methods for the different types of reporting entities. Listed below are the data sources for CPIS:

- Data on holdings of securities issued in domestic currency and sold in Malaysia are obtained from custodian agencies.
- Data on holdings of securities issued by nonresidents in the international market are obtained from both the end-investors and custodian agencies, with some form of declaration to eliminate double counting.
- Data on debt securities (bonds) issued in foreign currency and sold abroad are obtained from the end-investors.

Netherlands

6.13 The Netherlands was one of the 29 economies that participated in the first CPIS at the end of 1997. The Netherlands Central Bank (De Nederlandsche Bank, or DNB) has long years of experience in conducting surveys of portfolio investment. At present, the data are collected every month, mostly following an SBS approach for both balance of payments and IIP. An SBS/end-investor approach is used for deposit-taking corporations except the central bank, OFCs (excluding MMFs), and NFCs. Data for households and NPISHs are obtained from an SBS/custodian approach, while the data for MMFs are based on an aggregate/end-investor approach. Given the relatively small size of MMFs sector, data on their holdings are collected annually. However, there are plans to introduce monthly reporting for MMFs in the near future.

6.14 For SBS reports, information is based on the residence of the issuer available in the Centralized Securities Database (CSDB) of the ECB. For aggregated reports, clear instructions in the guidelines ensure that residence of the issuer is properly reported. From its experience over the years, the DNB concluded that, except institutional investors, residents generally use the services of domestic custodians. From discussions with custodians, it was concluded that custodians could be relied upon to provide accurately the required information on an aggregate basis. Hence, a combined custodian/end-investor reporting system was selected, with the latter confined to institutional investors and a few important investment companies. For pension funds and insurance companies, total holdings as reported in the CPIS end-investor survey could be checked against data reported in their annual balance sheets. Any differences between these totals and those reported to be held by resident custodians on behalf of pension funds and insurance companies are taken to be securities held with nonresident custodians.

Russian Federation

6.15 Data on resident holdings of securities are collected quarterly and used not only for compiling the CPIS data, but also for compiling the balance of payments and the IIP data. The Central Bank of the Russian Federation (CBR) uses an SBS approach for both direct (end-investors) and indirect (custodians) reporters. Deposit-taking corporations and OFCs report on a mandatory basis with penalties for nonreporting. There are census for deposit-taking corporations and sample surveys for OFCs. The current legislation allows the CBR to conduct mandatory surveys of NFCs and individuals; however, there is no penalty for nonreporting. The CBR requests information on portfolio investment in securities issued by nonresidents from a sample of nonfinancial enterprises, which is built on the basis of data obtained from financial statements and the International Transactions Reporting System (ITRS). Moreover, portfolio investment of NFCs, households, NPISHs, and general government are obtained through an SBS/custodian approach. In order to avoid double counting in nonfinancial enterprises data, the end-investor report form contains a question on the location of custody of securities so that securities held in resident custodians could be excluded. The CPIS data include CBR's holdings of foreign securities which are not held as reserve assets.

Thailand

6.16 The Bank of Thailand uses data from multiple sources. The following explains the data sources for portfolio investment assets and liabilities separately:

a) *Portfolio investment assets:* Data on holdings of securities issued abroad by nonresidents are submitted by banks (as end-investors and custodians), securities companies, and institutional investors under the framework prescribed by

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the Exchange Control Act to an SBS database. Data cover all types of equity and debt securities invested by all resident sectors, including private funds. For debt securities issued in Thailand by nonresidents (e.g., foreign government, international organizations, etc.), data are obtained from The Thai Bond Market Association and custodians on an SBS basis.

b) *Portfolio investment liabilities:* For securities issued in Thailand and held by nonresidents, data are mainly obtained from administrative sources (The Thai Securities Depository, The Thai Bond Market Association, and custodians)—also on an SBS basis. Data cover all types of equity and debt securities, both traded in the securities exchange and over-the-counter. For debt securities issued abroad by Thai residents and held by nonresident investors, data are mainly obtained from the Ministry of Finance (for government offshore bonds and notes) and the quarterly external debt survey (for bonds and notes issued abroad by private enterprises).

United States

6.17 The United States is the largest CPIS reporter in terms of market value of portfolio holdings of securities. The CPIS data are collected and disseminated by the Federal Reserve System (FRS) under legal authority of the U.S. Department of Treasury. From its experience of conducting a survey similar to the CPIS, the U.S. Treasury concluded that the bulk of residents' holdings of cross-border portfolio investment assets were entrusted with resident custodians. Reporting by custodians was preferred because there are comparatively a small number of custodians as against the very large number of enterprises that are likely to hold cross-border portfolio investment, and because reporting by custodians made it possible to include the household sector and small businesses. Sampling enterprises was considered but eventually not thought practical, given the prospect of complete reporting by custodians. For institutional investors likely to use the services of nonresident custodians, an end-investor survey was used. An SBS approach was chosen for custodians because experience had shown that initial data received from custodians were frequently inaccurate as regards the country of residence of the issue and the price of securities. It was found that errors could most readily be detected and resolved only by collecting security-level data. Also, by collecting security-level data, more detailed information would be available for analysis.

6.18 Primary custodians who employ the services of domestic global custodians are required only to report the custodian's name and the amount entrusted, and these data are used in the same manner as those of end-investors employing domestic custodians. End-investors are required to report their foreign holdings SBS only when they do not utilize a resident custodian. If they used a resident custodian, they are required to report only the custodian's name and the amount entrusted. These amounts are not added to the survey totals since this would cause double counting, but they are used to verify the accuracy of the data reported by custodians.

Limitations in Approaches to Coverage

6.19 Each of the systems faces potential problems of coverage. In the primarily custodian-based systems, there are two potential challenges. First, holdings may be missed if residents do not use the services of resident custodians. In the Netherlands, compilers address this issue by using published annual accounts of the major investing institutions, although they acknowledge potential gaps among NFCs and the household sector. Austria and the United States require large investors who entrust securities directly with foreign-based financial institutions to report their holdings directly to the compiler. Both these countries consider that the aggregate holdings of small investors (including the household sector) that are in self-custody or entrusted to nonresident custodians are relatively small. Second, securities on repos, securities lending, and similar arrangements are not necessarily identified by the custodian and may only be able to report what is held in custody at any one time. In such cases, a security on repo and other similar arrangements may not be identifiable and will be excluded from the custodian's (and, consequently, the repo party's) holdings. Similarly, a security acquired under reverse repo may not be identifiable on the books of custodian and may, therefore, be recorded incorrectly as part of the custodian's holdings on behalf of clients (and hence the reverse-repo party's holdings). See paragraphs 3.53–3.69 of this *Guide* for additional discussion on this issue.

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6.20 For these collection approaches, the risk of missing direct holdings abroad (especially of households) increases as more residents engage in online trading of securities issued by nonresidents directly with nonresident brokers. This remains a compilation challenge, and mechanisms for self-disclosure by households (including through household surveys) have not been successful.

Separating Direct Investment from Portfolio Investment

6.21 A key statistical challenge for compiling balance of payments and IIP data is the separation of financial investment into functional categories. Specifically, in the context of CPIS, direct investment should be separated from portfolio investment; and if the underlying source data do not support this distinction, compilers need to implement mechanisms that will ensure that the data remain as cleanly separate as possible.

6.22 As resident custodians are unlikely to be able to identify whether securities are issued by parties (direct investment enterprises) related to the issuer (direct investor), other sources of data will be needed to determine such holdings of securities, which should be included under direct investment abroad. Sometimes direct investors keep such securities in self-custody, but practices differ across countries. Most countries conduct end-investor direct investment surveys in conjunction with portfolio investment surveys and usually provide clear instructions to respondents for distinguishing direct and portfolio investment.

Australia

6.23 Australia has an ongoing, integrated collection system—the Survey of International Investment (SII)—that collects, among other things, portfolio and direct investment and integrates flows and balances. Throughout the SII survey forms, respondents are asked to record separately their liabilities to and claims on (i) nonresident direct investors, (ii) direct investment groups abroad, and (iii) other nonresident investors. Only data collected for the third of these categories are relevant to the CPIS. The definition of direct investment is in line with *Balance of Payments and International Investment Position Manual* (*BPM6*). For each instrument, respondents are generally required to record separately particulars for nonresident direct investors, direct investment groups abroad, fellow enterprises abroad, and other nonresident investors on the same page of the survey forms. This helps to prevent misreporting among these three categories.

Malaysia

6.24 The integrated compilation framework classifies the reporting of external financial assets and liabilities by direct investment, portfolio investment, financial derivatives, and other investment, which are being reported under one survey. Guidance notes, aligned to *BPM6*, provide clear instructions on method of reporting to prevent misreporting between direct and portfolio investment by the reporting entities. In addition, the information obtained from the direct investment reported by the end-investors are used as a basis for reconciliation to avoid double counting.

Netherlands

6.25 The Netherlands mainly uses an SBS/end-investor approach for the CPIS. The end-investor surveys provide guidelines for distinguishing portfolio from direct investment holdings.

Portugal

6.26 The exclusion of direct investment securities was accomplished by the following procedure. First, the guidance notes to the CPIS clearly define direct and portfolio investment, and provide precise instructions to respondents on how to exclude direct investment positions. Second, information were taken from results of the direct investment survey that were conducted at the same time as the CPIS to ensure that there was no double counting. Finally, the monthly direct reporting of external operations from 2014 onward allows clearly identifying direct investment operations. These operations are not included in the CPIS.

Romania

6.27 The separation between portfolio investment and direct investment depends on the type of instruments:

In the case of listed/unlisted shares and investment funds, a general formula is applied at the level of each instrument and each holder:

$$\text{Investment type}^{2} = \frac{\text{Number of held instruments}}{\text{Number of issued instruments}}.$$

[2]If the result <10 percent, investment type = portfolio investment; and if the result ≥10 percent, investment type = direct investment.

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An exception applies for umbrella funds, where investment type is classified as portfolio investment regardless of the share of held instrument.

6.28 A comparison between data sources (Foreign Direct Investment survey and direct reporting from resident custodians) is made to avoid double counting of the information related to the direct investors. In the case of debt securities, all the instruments are classified as portfolio investment, private placement being excluded, and other investment or direct investment (depending on the specific case).[3]

Thailand

6.29 In the case of investment in equity securities issued in Thailand, an SBS database automatically keeps track of the percentage of participation of each investor and assigns a “direct investment flag” once participation reaches the ten-percent statistical criteria.

United States

6.30 As noted in the section on collection methods, portfolio investment data are collected following an SBS/custodian approach. Custodians are provided with the necessary guidelines for distinguishing portfolio and direct investments.

Market Price Valuation

6.31 One of the central principles of the CPIS is the use of market price.[4] For regularly traded equities and debt securities, this should not present any problems except that end-investors may not value all their holdings of securities at market prices and resident custodians may not maintain records of the market prices of the securities they are holding. End-investors may follow alternative valuation principles, such as par value, acquisition cost, amortized value, or keep separate books for different portfolios of securities. For example, banks may maintain separate trading books (at current market prices) and investment books (at acquisition cost) for debt securities. On the other hand, institutional investors and collective investment schemes are likely to use market prices for all their holdings of securities to price them on a regular and frequent basis. Other problems arise in the case of infrequently traded securities. Lastly, where market sources are used for prices, issues arise concerning the treatment of interest accrued, the use of bid or ask prices, and the impact of time zones.

6.32 Following is the description of the experience of nine countries (Australia, France, Indonesia, Japan, Malaysia, Portugal, Russian Federation, Thailand, and the United States) where data are either reported on a market price basis or there are mechanisms in place by the compiler to make adjustments, where necessary. Securities not traded actively or denominated in foreign currencies present compilation challenges.

Australia

6.33 Respondents to the SII are requested to report stocks at market value and the explanatory notes provided guidelines on possible valuation methods. In measuring the value of equity securities, respondents were asked to adhere to the following principles. For listed enterprises, the market value of the equity positions should be reported using a recent transaction share price; if recent transaction prices were not available, the midpoint of the quoted buy and sell prices of the shares on their main stock exchange on the reference date specified provided a useful approximation. For unlisted enterprises, if a market value of the shares was not available, the respondent was asked to estimate the market value by one of the following methods (in descending order of preference): a recent transaction price, a director’s valuation, or net asset value. For debt securities, survey respondents were asked to report traded price on the date specified. If that value was not available, they were asked to report using, in order of preference, one of the following methods: yield to maturity, discounted present value, face value less written-down value of discount, issue price plus amortization of discount (less amortization of premium), or another mark-to-market basis. The bases upon which debt securities were actually valued are not known.

France

6.34 Survey respondents are asked to report holdings at market prices on closing dates, with accrued interest included in the value of debt securities. For securities without available market prices, respondents are advised to refer to the last quoted price,

[3] Until now, just a few cases have been identified, and most of the debt instruments are issued by the general government.

[4] See paragraphs 3.34–3.42 of this *Guide* for details on market price valuation.

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expert appraisal, or nominal value to select the most relevant value, taking into account a concern of cautiousness. However, this case represents a small share of total holdings. Several consistency checks are also applied, allowing the detection of mispriced holdings. In particular, inadequacies at the security level between holdings and amount outstanding at market price are carefully analyzed—the latter being separately collected by the Euro system (CSDB). It is noted that holdings of equities not listed on traded markets are not covered in the CPIS.

Indonesia

6.35 Equity securities listed on traded markets are valued at market prices, whereas market valuation of equity holdings in the unlisted enterprises is based on the own funds at book value approach recommended in the *BPM6*. In general, debt securities are not valued at market prices.

Japan

6.36 Equity securities listed on traded markets are valued at market prices. However, the valuation of equity in the unlisted enterprises is based on the historic cost approach. Regarding debt securities, market price valuation is applied if available. If not, they are valued at book value.

Malaysia

6.37 Reporting entities are required to report stocks and positions of each securities at market value. If market value is not available, respondents are asked to provide book value as a proxy for market value. Other estimation methods are explored but not preferred as the complexity of these methods will introduce a heavy burden in calculating an estimated market value for the respondents. Additionally, the securities that are probably undervalued are very small in percentage over the total value.

Portugal

6.38 Equity securities listed on traded markets and debt securities are generally valued at market prices. In the cases where it is not possible to adjust fully to market prices due to lack of information, nominal values have been used. This led to further discussion with respondents. The Lisbon Stock Exchange's publications were consulted to perform quality checks on unit values of securities reported in the CPIS and to perform consistency checks against the total value of each investment fund. For each investment fund, published data provided information on the portfolio composition (quantity, market price, and currency) for relevant dates. For equity securities not listed on traded markets, the valuation is considered at the recent transaction price (which corresponds to the value paid for that security, excluding any income, commissions, and taxes at the time the acquisition took place) or at the nominal value (or face value) if the recent transaction price is not available.

Russian Federation

6.39 Respondents are obliged to report market values at the end of a reporting period for listed securities (the values of debt securities are recorded, including accrued income). In the case of unlisted securities, estimations should be presented using the following methods: the value of discounted future payments associated with the securities, the issue price adjusted for the amortization of the discount or the premium, and the value of securities for accounting or regulatory purposes. For unlisted enterprises, if a market value of a share is not available, the respondent is required to make an estimation by one of the following methods: a net asset value, a recent transaction price, or a director's valuation. The CBR provides respondents with full methodological assistance through detailed guidelines, consultations, meetings, and CBR's official website information. Among the respondents, custodians address the CBR on the issues of valuation more often. The reason for this is the core function of the Russian custodians in managing the safekeeping of securities. The CBR places and regularly updates on its official website explanatory guidelines and notes on the issue of estimation of market value as it is one of the most frequently asked questions. The end-investor report form contains a question on the selected method of valuation. As long as the CBR collects data on an SBS basis, the verification of prices reported by respondents is conducted. In case of significant deviations from average values, a respondent is contacted in order to find a coordinated solution. Moreover, the CBR plans to use the data of authorized valuation centers to enrich the data.

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Thailand

6.40 For listed enterprises, market capitalization method is used for valuing holdings of equity securities. Own funds at book value is used for unlisted enterprises. Debt securities are valued at market price exclusive of accrued interest.

United States

6.41 Reporters are instructed to provide the fair market value of their holdings as well as the number of shares, from which prices can be deduced. The price for a given security is determined by examining the price information from all respondents who report holdings of a given security. For rarely traded securities, the estimate of fair value should be based on the best information available in the circumstances. The estimate of fair value should consider prices for similar assets and the results of valuation techniques to the extent available in the circumstances.

Treatment of Accrued Interest

6.42 The CPIS recommends market prices of debt securities to include interest accrued but not yet paid (the so-called dirty price).[5] This is consistent with the valuation of long-term debt securities in some markets.

6.43 Although not recommended by *BPM6* or by this *Guide*, alternative valuations may be applied at country level. In some countries, long-term debt securities are priced on a "clean" basis: that is, excluding accrual of interest. Where prices for bonds exclude accrued interest, the difference between clean and dirty prices is usually not substantial when coupons are paid frequently.

6.44 For long-term debt securities held in investment accounts (i.e., they are held for prudential or reserve capital requirements and not for trading purposes), the valuation is often that of par or acquisition price, and the valuation does not change with market conditions. While the CPIS seeks information on market prices, respondents will frequently not revalue their "investment book" (as opposed to their "trading book," which is usually marked to market on a frequent basis—daily, weekly, or monthly). In the same manner, they are unlikely to record accrued interest, and it is often difficult for compilers to obtain the data on the required basis.

6.45 For zero-coupon or deep-discount bonds, the difference between the market value recommended by *BPM6* and the acquisition price can be substantial because the amount of interest accruing can amount to a substantial proportion of the initial principal lent/borrowed, especially the longer the original maturity of the instrument and the higher interest rates. In these instances, if respondents are reporting on an aggregate basis, it is important to have respondents report their holdings on a dirty price basis as far as possible. If their holdings are reported on an SBS basis, the compiler should be able to value securities themselves or to make the necessary adjustments with the information available in a reference securities database.

6.46 Most short-term debt securities are issued at a discount: that is, they are zero-coupon instruments. There are several methods used to record money market instruments: at acquisition cost, at amortized value, at par value, or at market price. Respondents may be able to report at market price those securities held for trading purposes, but, as with bonds held for investment purposes, some respondents may use one of the other methods and be unable or unprepared to report on a different basis. However, because of the shortness of time in which interest can accrue, the issue is less important than for zero-coupon, or deep-discount, bonds. Even so, whenever possible, respondents should be encouraged to include accrued interest.

6.47 Around two-thirds of the economies participating in the CPIS report[6] that accrued interest is included in the market price of debt securities. Others have either not included accrued interest or included it for some debt securities only. A small number of economies do not know whether accrued interest is included in the value of debt securities or not. The experiences of Ireland, Malaysia, Portugal, and Slovak Republic are described below.

Ireland

6.48 Respondents were asked to provide positions on a clean price market-value basis, market-priced transactions, and valuation changes. In addition,

[5]See *BPM6*, para 7.27.

[6]As of end of June 2015.

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details of outstanding interest (positions) and movements in interest (flows) were required. For the CPIS, the clean price positions were combined with outstanding interest to obtain the dirty price market values of the stocks.

Malaysia

6.49 All reporting of the securities is done on a clean price market-value and market-priced transactions as recommended in *BPM6*. The reporting of interest accrued but not yet paid is captured separately under the income-reporting framework. For the reporting of CPIS, these two values are then combined to obtain the dirty price.

Portugal

6.50 In general, accrued interest is included in the value of debt securities. Respondents were requested to include accrued interest in the market price valuation. Where custodians and investors were unable to do so, no adjustments were made.

Slovak Republic

6.51 Although respondents are requested (mainly deposit-taking and OFCs) to provide information on accrued interest directly in their regular reports for CPIS, it is calculated using the attributes from the CSDB of ECB. For the debt instruments, accrued income factor (daily accrual) is used for calculation, as well as the last coupon date information. It is noted that the use of the CSDB provided satisfactory outcome so far.

Treatment of Collective Investment Schemes

6.52 Investment fund shares or units in collective investment schemes (mutual funds, investment trusts, and unit trusts) are classified as equity securities,[7] regardless of the type of fund or assets that the fund acquires. Thus, for example, if a resident in Country A owns investment fund shares in a collective investment scheme domiciled in Country B that holds only bonds issued by the government of Country C, the resident of Country A should report that he or she holds an equity claim on Country B not a holding in government bonds from Country C. It is important that respondents are aware of this classification because they may classify their portfolios on the basis of ultimate risk and may, therefore, "look through" the collective investment scheme, and report holdings of government bonds of Country C as if they did not have units in the mutual fund in Country B.

6.53 The residence of a collective investment scheme is determined by its legal domicile. Collective investment schemes may be legally domiciled in one economy (e.g., a small economy with international financial center), be managed in a second, be administered in a third, and be listed in several jurisdictions. An investor may be interested in where and how funds are invested, and possibly in the ownership of the mutual fund (such as the parent company), but less so in its legal domicile. For this reason, care will need to be taken to identify the legal domicile of mutual funds in an end-investor reporting system, especially if they are registered, listed, managed, and administered in different jurisdictions. It is also worth emphasizing that units in collective investment schemes are unlikely to be held with custodians for safekeeping. Hence, the investing economy will rely on end-investor reporting.

6.54 The treatment of collective investment schemes in Bermuda, Ireland, Israel, Slovak Republic, Thailand, and the United States is described below.

Bermuda

6.55 An end-investor reporting system was introduced for all authorized mutual funds legally domiciled in Bermuda. The data captured include mutual funds that are legally domiciled and administered in Bermuda, and authorized mutual funds that are legally domiciled in Bermuda but administered elsewhere. Although reporting by resident custodians was considered, this did not prove practically feasible because Bermuda's authorized mutual funds tended to use the services of nonresident custodians. Respondents are asked to report their gross holdings of cross-border portfolio investment. These could differ from shareholders' values (net asset values) as a result of leveraging by the managers of the funds (such as by borrowing, the use of repos, or the use of financial derivative instruments). However, in the Bermuda experience, leveraging is not a critical issue. On the asset side,

[7] As mentioned in Chapter 1 (see footnote 2), equity includes investment fund shares for the purpose of CPIS. Data on equity and investment fund shares are not collected separately.

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only portfolio investments were included (e.g., any marked-to-market holdings of financial derivative instruments on their balance sheets would be excluded). Holdings of units issued by other mutual funds were reported as issued by the country where such funds were legally domiciled.

6.56 Because the survey is conducted on a voluntary basis, a means for grossing up for nonresponse was needed. This was done by using the net asset values of respondents as a benchmark, which were required to be reported for regulatory purposes.

Ireland

6.57 Data are collected from mutual funds that are legally domiciled and/or administered in the Dublin International Financial Services Center. However, for the purposes of the CPIS, only the cross-border portfolio investment assets of mutual funds legally domiciled in Ireland are included.

Israel

6.58 Holdings in mutual funds are categorized as investments in equity securities regardless of the type of fund or assets held by the fund.

Slovak Republic

6.59 There are two perspectives in this particular area. First, Slovak holdings abroad represented by investment in a form of Collective Investment Schemes are collected directly under the end-investor approach from all institutional units/respondents in Slovak economy. Data are collected on a granular SBS basis and produced to final stage by using the combination of attributes from CSDB of ECB. This form of investment became very significant in recent periods and represents substantial portion of equity assets. Second, from the perspective of Slovak investment funds (and their investments abroad) themselves, those are subject to regular reporting on a SBS basis. As end-investors, they provide data of a very good quality. Nevertheless, the data are also combined with reference data from CSDB for final statistics production.

Thailand

6.60 Collective investment schemes are treated as investment fund shares and marked-to-market at the end of the reference period.

United States

6.61 If U.S. residents own investment fund shares in a mutual fund resident of another country, these holdings are counted as equity holdings in the country in which the mutual fund is legally domiciled. This was so regardless of what type of security the mutual fund purchases or where the mutual fund managers physically reside. U.S.-based mutual funds (or their U.S.-based custodian) reported in detail the securities they owned that were issued by unrelated nonresidents.

Direct Holdings Abroad

6.62 One of the major challenges faced in collection of CPIS data relates to determining the extent to which residents used the services of custodians abroad or held securities in self-custody. For some economies, compilers' inability to find reliable data sources for such holdings by households and small companies (which could not be covered by end-investor surveys) is of serious concern. For others, such investments are considered to be small and their omission not likely to much affect the results of the survey. The full extent of the problem is difficult to quantify,[8] but it is likely to affect some countries much more than others. For example, in countries where there is a history of bypassing resident financial institutions and investing directly abroad, countries did not have mechanisms to collect the information because a direct survey of households is not a feasible proposition. Quite apart from the cost and difficulty of deriving a representative sample (with a bias toward high-wealth individuals), there is the problem of response rate. If the capital has been placed directly abroad to avoid the attention of the country's authorities, it is probable that those individuals will be disinclined to provide the information for a statistical survey, regardless of assurances of confidentiality. The difficulties in obtaining this information and the perception of its importance is related

[8] An indication of the problem may be persistently large negative net errors and omissions in the balance of payments. Although there are many reasons for errors and omissions, and a low figure may only indicate offsetting errors and omissions, if the number is large and has been growing strongly since any liberalization of capital markets, there is a possibility that measured outflows in portfolio investment are undercounted. In some countries, estimates of cross-border portfolio investment are made on the basis of cumulative flows—but not included in the CPIS because there is no breakdown by the country of residence of the issuer.

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to how information may be obtained from third-party custodians (i.e., custodians who hold securities issued by nonresidents on behalf of nonresidents). See footnote 5 and paragraphs 4.66–4.91 of Chapter 4 for discussion of the issues related to third-party holdings and developments relating to the International Monetary Fund's (IMF's) Technical Group on Third-Party Holdings.

6.63 The experiences of Australia, Israel, Malaysia, Netherlands, Russian Federation, Slovak Republic, and Thailand in addressing the issue of direct holdings abroad in their CPIS are outlined below.

Australia

6.64 Direct holdings abroad by Australian enterprises are directly covered in the SII collection. The SII targeted all Australian enterprises that were known to have any international investment activity. Although most enterprises channel such activity through investment (fund) managers or the custody system, those enterprises that have direct holdings abroad are asked to report directly on these holdings. Direct holdings abroad by Australian households, on the other hand, are not directly covered by the SII. Households may invest abroad through one of three routes: (i) direct personal holdings of securities issued by nonresidents, (ii) enterprises and legal entities set up by individuals and families to manage their financial affairs (e.g., for tax-efficiency reasons), or (iii) superannuation (pension fund) and other collectively managed investment vehicles. While individuals may deal directly with foreign-based brokers, nominee companies, or foreign-based fund managers, such direct holdings are regarded as being relatively insignificant in the Australian context and are not measured in the SII. Since it is considered that the great majority of investment abroad by households passes through either the second or third routes, holdings by households of securities issued by nonresidents were assumed to be adequately covered in Australian statistics.

Israel

6.65 Aggregate data for holdings abroad are compiled quarterly from entities with annual sales turnover greater than $50 million (businesses) or with a balance of financial assets abroad greater than $20 million (businesses, nonprofit organizations, and households).

Malaysia

6.66 The reporting of the portfolio investment which are grouped by institutional sector facilitates identifying the pattern of investment. Institutional investors tend to have direct holdings abroad, while the mutual funds, unit trusts, and households are more likely to invest through the nominees as reported by the custodians. Both end-investors and custodians report similar details, such as ISIN codes and countries of residence issuers, to facilitate reconciliation if the investments through the nonresident custodians are rechanneled back to home country.

Netherlands

6.67 Resident institutional investors (such as pension funds and insurance companies) and, to a lesser extent, resident investment institutions (such as mutual funds and unit trusts) are likely to have direct holdings abroad. For institutional investors, total holdings of foreign shares and bonds are known from balance sheet information. In contrast to the figures derived from the custodian survey, they are not broken down by country. As a consequence, direct holdings may be estimated as the difference between these sources, but without a geographical breakdown. Additionally, the most important institutional investors are required to report their direct holdings annually, broken down by country of residence of the issuer. A similar method is used for investment institutions. For the nonfinancial sector, no information on direct holdings is available. It is assumed that households mainly prefer to use the services of resident custodians rather than invest directly abroad, and that the size of direct holdings abroad by households is, therefore, likely to be small.

Russian Federation

6.68 If securities are purchased by a resident (excluding a deposit-taking corporation and the central bank) via foreign bank accounts and are kept with nonresident custodians, the CBR may not have information on such security holdings. However, this problem is mostly solved by the use of the ITRS data on sale of securities and on income payments (coupon or dividend) for the securities held by residents. This practice allows the CBR to enlarge the scope of the CPIS respondents. Besides, the ITRS may serve as an additional source of indirect

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indication of residents' holdings of securities issued by nonresidents and allows making some alternative estimations on local sectoral distribution of holdings.

Slovak Republic

6.69 For the purpose of CPIS, but mainly for other external datasets (such as the balance of payments and the IIP), the reporting channels were designed from the very beginning as an end-investor approach reporting system on the asset side. As such, it enables excellent identification of direct holdings abroad. The data are collected from whole range of institutional units on an SBS basis, later combined with selected attributes of CSDB of ECB. This method brings reasonable outcome, regularly checked against balance sheets of individual respondents. The only area out of scope of end-investor approach is the NFCs sector as well as holdings of households. While for NFCs there are alternative channels for obtaining the information on their direct holdings abroad (although only on an aggregated basis), the custodian approach for the households is not sufficient. It addresses only domestic custodians, while the general knowledge is that the households use widely alternative channels to purchase foreign securities, mainly equity. This is a prerequisite for data gaps that may be of significant amounts. Therefore, household's holdings are estimated based on statistical monitoring or by using the comparisons vis-à-vis similar economies' household's holdings.

Thailand

6.70 Unless reported as direct investment, direct holdings abroad are treated as portfolio investment and are reported as "marked-to-market" value at the end of the reference period by end-investors and custodians.

Quality Control

6.71 Data received by the compiler should be verified because respondents may not provide the information on the basis required for the survey. These checks can take a variety of forms. Following is a description of some of the major verification checks that were used by Australia for an aggregate approach and by Malaysia, Portugal, Romania, Slovak Republic, and Thailand for an SBS approach. Many of the checks used are applicable though to whichever approach is used to collect data for the survey. See also paragraphs 5.24–5.46 of this *Guide*.

Aggregate Approach

Australia

6.72 *Through survey forms*. In Australia, the international investment reporting forms are structured so that there is a full reconciliation for each item between the opening and closing levels of investment and for transactions during the period as illustrated in Table 6.2.

6.73 In the Australian experience, this approach both educates respondents about the relationships between individual data items and forces them to consider the consistency of the data reported. The Australian Bureau of Statistics (ABS) has found that full data on transactions and other reasons for changes in stocks are usually available when survey respondents provide data on their own accounts or client activity: for example, pension funds investing and managing their own assets, investment (fund) managers managing assets on behalf of other entities, and trading entities managing their own portfolios. These entities will collect all relevant stocks and transactions data at market prices.

6.74 *Through other reported data.* For both the financial and NFCs sectors, independent sources

Table 6.2 Reconciliation of Reporting of International Investment Position and Balance of Payments Data in Australia

(1)	(2)	(3)	(4)	(5)	(6)	(7)
	+	−	+	+	+	=
Position at market value at start of period	Purchases during period	Sales during period	Market price changes	Exchange rate variations	Other changes	Position at market value at end of period

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(e.g., published stock or bond price indices or exchange rate movements over the period) are used to judge whether the reported data are accurate. For example, if a 20-percent change in the value of a U.K. asset in Australian dollar terms is explained by a negative entry in the "Exchange rate variations" column (implying a decline in the value of sterling relative to the Australian dollar) and it is known that the bilateral rate had not moved in that direction or by that approximate magnitude over the period, then the ABS questions the respondent. Information from share price indices provides a useful check on entries in the "other factors"[9] box for equity. Anecdotal evidence, such as that derived from market or media comment or contact with other data providers, is also used to confirm data. For example, if there has been evidence that Australian enterprises in general were selling securities in a specific market, but a particular respondent reported a large increase in assets in that market owing to positive net transactions, the respondent is questioned. Comparisons are also made with the general magnitude, type, and direction of data reported by similar entities to see if they are behaving similarly and providing consistent explanations for movements.

6.75 *Through analytical checks*. Within the ABS, individual analysts are responsible for confirming the reported data. They produce editorial notes that identify and explain all large movements at the aggregate level by reference to the entities contributing significantly to those movements. The computer system edits and checks the arithmetic and compares large changes in levels with the "reconciliation" data at the individual respondent level. All large amounts (approximately A\$200 million for entities other than banks and approximately A\$500 million for banks) reported in the transactions, exchange rate variations, and "other factors" boxes are validated with respondents. Additionally, income item movements above A\$50 million are also validated with respondents.

6.76 *Other edit checks*. Survey outputs are verified through (i) data confrontation with results obtained from the ABS's Survey of Financial Information, which collects data on institutional units' balance sheets, transactions, and "other changes," not just transactions and balances with nonresidents (the Survey of Financial Information does not provide geographical detail); (ii) an examination of the comparability of balance of payments and financial account balancing items; (iii) data confrontation with annual reports and Australian Stock Exchange reports (especially for dividends and reinvested earnings); and (iv) checking details provided against press clippings and unit profiling checks.

[9]On the ABS form.

Security-by-Security Approach

Malaysia

6.77 Reporting entities are required to report all the individual securities based on the ISIN codes provided by the Central Bank of Malaysia, which integrate directly with the bonds data warehouse. This has helped to ease the reporting burden by the reporting entities and to ensure accuracy of profiles of the securities issuers. The Central Bank maintains the entity database that includes the ISIN codes and profiles of the issuers, and other entity's information for validation of the information submitted to the Central Bank. Other detailed information on entities such as institutional and business sector are captured to facilitate the publication of statistics aligned with international standards.

6.78 The integration with the bond data warehouse, a back-end debt securities trading platform of Real-time Electronic Transfer of Funds and Securities System, facilitates the cross-checking of data on debt securities issued in domestic currency and sold in Malaysia being reported by the custodian agencies, as the aggregated exposures by each custodian are transparent to the Central Bank. On the other hand, data on local equity securities are cross-checked against the Kuala Lumpur Securities Exchange managed by the Bursa Malaysia.

6.79 The main quality framework involves comparisons against official sources such as the stock registrars, approval database, as well as other datasets like the monthly financial and banking, ITRS statistics, and the annual reports of companies.

Portugal

6.80 Through SBS forms, respondents were asked to provide the security identification number, quantity of securities held, and face or nominal value of each security. Methodological explanations and

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definitions, in line with those in the second edition of the *CPIS Guide*, were included in the instructions. For banks, data reported in the CPIS were compared with information reported in money and banking surveys. For investment companies, data reported in the CPIS were checked against data provided by the Lisbon Stock Exchange.

6.81 In the case of some NFCs, the accounting reports were used to check the reported information. Using a breakdown of portfolio assets by the currency in which issues are denominated, a reconciliation between flows and stocks was performed.

6.82 In the event of misreporting (such as of market values or units of values), respondents were asked to provide corrected values. For some banks, the reported figure is replaced by data from money and banking statistics. A comparison between the investment funds (aggregated data) and the data provided by the Lisbon Stock Exchange is made. Checks are also made at the level of aggregated and detailed data reported by each custodian. Double counting was minimized by the fact that the CPIS was conducted primarily on a custodian basis and the requirement that end-investors reported only their holdings of securities held in self-custody or with nonresident custodians.

Romania

6.83 Different validation and cross-checking controls are made before releasing the data:

- Checks are made at the level of instruments, and implausible values are detected, investigated, and corrected based on consultations with the reporters.
- Aggregated figures are checked and compared with other macroeconomic statistics such as monetary financial statistics, balance sheets of investment funds and insurance companies, government statistics, and CPIS data (see Table 8).

Slovak Republic

6.84 An SBS collection system, together with end-investor approach, and a use of reference CSDB of ECB provide a good basis for having the data of appropriate quality, completeness, and timeliness. For the purpose of stocks statistics (CPIS among them), the final statistics according to sectoral, instrumental, and territorial breakdowns is regularly checked against the balance sheets of respondents and against the developments of time series. All outliers are checked prior to compilation. The CPIS itself serves as a very reliable source of data quality measurement. Although the CPIS is primarily aimed at the asset side holdings of individual economies, at the end, it enables a derivation of national liabilities toward other economies after aggregation of their holdings vis-à-vis a particular economy (provided by the IMF as one of the CPIS outputs). As there are only a few possibilities to measure the quality of portfolio liabilities, the CPIS serve as an important source for this purpose. Slovak portfolio liabilities are regularly checked against CPIS results and are found to be satisfactory. Both statistics have similar trends and relatively constant difference (not all countries report, some data are confidential). It is of extreme importance to follow whether derived liabilities of CPIS are higher than those reported in IIP of individual country. In such case, it may indicate insufficient national coverage of data and its quality.

Thailand

6.85 Segregation between direct investment and portfolio investment is verified against the securities register. The overall transaction flow of portfolio investment in equity securities (liabilities) is cross-checked against the monthly and quarterly trading volume of the Stock Exchange of Thailand to ensure data consistency. Data from different sources are cross-checked against one another to ensure no duplication in the aggregates. Data on debt securities issued abroad by Thai residents and purchased through secondary market by Thai residents (i.e., bond buybacks) are detected through an SBS database and subtracted from the portfolio investment liabilities positions.

Steps Taken to Address Low Coverage or Low Response Rates

6.86 If data are collected through a survey not covering the whole potential universe of respondents or if there is a low response rate, there may be a need to gross up results. The experiences of Bermuda and Malaysia are summarized below.

Bermuda

6.87 The Bermuda Monetary Authority (the Authority) incorporated additional lines to the CPIS main template to allow respondents to reconcile their

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Table 6.3 Number of Reporters of Core and Encouraged Items (End-June 2016 CPIS)

	Encouraged Items					
Core	Currency of Denomination	Sector of Holders	Liabilities	Sector of Issuers	Cross-Sectors Classification[a]	Short or Negative Positions
(Table 1)	(Table 2)	(Table 3)	(Table 4)	(Table 5)	(Table 6)	(Table 7)
72	54	59	15	29	20	4

Note: CPIS, Coordinated Portfolio Investment Survey.

[a]Cover data by sector of resident holder and sector of nonresident issuer for specified economies.

CPIS data with their prudential data. This has helped in enhancing the integrity of the data. In addition, the CPIS data are collected on a voluntary basis and some reliance is placed on estimation procedures to account for assets held by nonrespondents. The totals reported by each sector are aggregated, and a calculation is made for the securities held in each economy as a percentage of the total assets (prudential data) reported. The respective percentages are applied to derive an estimate and allocation of the total assets for the nonrespondent entities. These estimation techniques assumed that the breakdown by the economy of residence of the issuer, as reported by CPIS respondents in that sector, was representative of all companies within that sector (i.e., including those that did not complete the CPIS questionnaire). In addition, the Authority publishes a comprehensive report on its website, on an annual basis, analyzing Bermuda's CPIS results. The report contributes to improved understanding of Bermuda as an international financial center and its impact on global financial intermediation.

Malaysia

6.88 CPIS is collected on a mandatory basis in Malaysia with 100-percent response rate from the reporting entities. Penalties and legal actions can be taken for any respondents that do not comply with the reporting requirements, including incidences of nonreporting.

Experience of Economies in Compiling the Encouraged CPIS Data

6.89 Beginning with the end-June 2013 data collection, the IMF introduced enhancements to the CPIS in the context of the G20 Data Gaps Initiative. These enhancements cover three areas: (i) frequency (from annual to semiannual data), (ii) timeliness (reducing the reporting lag by three months), and (iii) widening the scope of the encouraged items (increasing the number of reporting tables from three to six; see Table 6.3). In addition, the reporting forms were revised to align the financial instrument and institutional sector classification with the overall framework of the *BPM6*.

6.90 As discussed in Chapter 2, CPIS Table 1 is a mandatory or core item for participation in the CPIS. Tables 2–7 are not necessary for participation, and economies are encouraged to report these data if they want to extend the scope of the national survey beyond the core requirements of the CPIS. Of these tables, Tables 5–7 are introduced as part of the enhancements to the scope of encouraged tables from the end-June 2013 CPIS.

6.91 While 72 countries reported Table 1 for the end-June 2016 data, the number of countries that reported the encouraging items, and especially the enhanced items (Tables 5–7), is much less. Table 6.3 provides the number of reporters of core and encouraged items for June 2016 survey. The issues pertaining to data collection on encouraged items are of importance given the slow progress in number of countries reporting these data. What are the challenges faced by countries in collection of these data? Why only some countries are successful in providing such data? An examination of metadata shows that most of the economies that implemented the enhancements collects data through an SBS approach, which facilitates the identification of many attributes within the database.

6.92 The experience of the following four countries (Romania, Russian Federation, Turkey, and the

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United States) illustrates the challenges and plans of these countries in compiling the data on encouraged categories (including the enhancements).

Romania

6.93 The National Bank Romania (NBR) has been compiling CPIS data since 2004. From the end-June 2013 CPIS, core and all the encouraged data elements (except Table 7) are reported. This has become possible with implementation of a new data collection system based on an SBS basis starting with 2013.

6.94 In terms of the coverage of securities, Romanian securities issued on external capital markets are covered mostly from national data sources, since debt instruments are mainly issued by Romanian public administration sector. In the case of listed shares, most of them are issued on the domestic market; just a few depository receipts (DRs) have been issued until now. The NBR extracts the data on holdings of nonresident securities mainly from CSDB of ECB.

6.95 The NBR also collects information about securities under repo agreements and security lending. NBR's accounting practice is to regard the securities involved in repo transactions as remaining on the books of the seller and to record the cash received as a collateralized loan. For CPIS, the same treatment is applied.

6.96 Adjustments are undertaken for improving the estimates and data coverage in the following cases:

a) Since the coverage of nonresident holders of Romanian securities is incomplete, estimation (Δ) is carried out to obtain the whole stock of nonresidents holdings:

   Δ = Total resident issuances − Total holdings (collected information concerning resident and nonresident holders).

This amount is added to the nonresident holdings of Romanian debt securities, taking also into account the country breakdown included in the mirror datasets with respect to the nonresidents holdings of Romanian debt securities provided by CPIS, published on the IMF web page—*Derived Portfolio Investment Liabilities (All economies) by economy of nonresident holder (Derived from Creditor Data).*

b) Country allocation adjustments of investors in case of liabilities side of portfolio investment is also applied, since the experience showed that information received from custodians is not precise in terms of country breakdown of the holder. Comparing the results based on NBR's data sources to mirror datasets presented in CPIS (Table 8), Derived Portfolio Investment Liabilities (all economies) by economy of nonresident holder (Derived from Creditor Data), high discrepancies were identified for some countries. Therefore, starting with 2015 data, NBR derives the country breakdown based on the information reported in the CPIS (mirror data/Table 8). The approach considers the weight of individual countries in the total reported holdings from CPIS (Table 8), broken down by instrument type (equities and debt securities). Each percent is applied to the total holdings of securities available from the domestic data sources. For example, revised data for 2015 (revision made in September 2016) have been calculated based on the latest weights per country and per instruments derived from end-June 2015 CPIS.

6.97 Extending data sources in case of nonresident holders of Romanian securities could improve the coverage and quality of these data in future. A new database, SHSDB, has been developed at the level of ECB and Bundesbank with participation of euro zone countries, whereas the other European Union (EU) central banks have been also encouraged to supply data about their own country security holders. The system contains granular information (SBS data) related to holdings of debt securities, listed shares, and unit funds; transactions; reevaluations; and stocks of holdings are calculated at nominal/market value. The NBR has been reporting monthly data about resident holders to ECB starting with December 2013. The NBR together with other EU countries asked ECB for the permission to access the data needed for compiling the liabilities side of portfolio investments, and currently the negotiations are in progress.

Russian Federation

6.98 The CBR has been participating in the CPIS since 2001 survey. The report covers all mandatory and encouraged tables on the currency structure of investment, the sector of holders, and the sector of issuers. The frequency is semiannual with prescribed timeliness. In 2017, the CBR has launched a quarterly survey and thus is ready to provide CPIS data on a

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quarterly basis. The CBR sets as its priority the reduction of timeliness and the development of the encouraged breakdowns.

6.99 *Treatment of DRs:* As mentioned in paragraph 3.74 of this *Guide*, the economy attribution of the issuer of DRs should be based on the economy of issue of the underlying security. In addition, it is also clarified that the currency classification of DRs should be based on the currency of denomination of the underlying security. However, the respondents sometimes report to the CBR of the country in which the DRs are issued instead of the country of residence of the issuer of the underlying securities. Further, currency of denomination may be reported in the form of the currency of a DR. The CBR maintains and updates the database of the DRs, which is used to enrich and control the submitted data even when the respondents don't make the necessary adjustments.

6.100 *Sectors of nonresident issuers:* Another challenge for respondents is the correct identification of the sector of nonresident issuers. Given the significant number and variety of securities traded in international markets, the CBR elaborates and maintains the database on foreign securities which helps to ensure the quality of data. However, there are some difficulties with the sector classification of foreign holding companies that are engaged in many economic activities. The CBR is planning to address this problem by participating in the IMF pilot initiative for the international exchange of the data on sectors of nonresident issuers.

6.101 Regarding Table 4 on portfolio investment liabilities by country of residence of nonresident holder, the CBR has encountered some difficulties due to the following reasons:

a) The national custodian system has only started providing enough information to make a clear portfolio investment classification of liabilities according to the country of residence since July 2017 and the quality of this information is under review.

b) Some transactions with Russian securities between nonresidents take place in foreign markets making it hardly possible for the CBR to be based on its main information sources, such as the ITRS. The issue may be addressed by making mirror comparisons with the largest global custodians for the Russian securities held abroad.

c) The data on DRs on Russian securities obtained from custodians quite often contain the information on nominees, such as Deutsche Bank or the Bank of New York, acting on behalf of beneficiaries, without disclosure of owners.

6.102 In the CBR's opinion, the principal source of information for liabilities should become the data of resident custodians that hold the bulk of Russian issues enriched with some additional data, such as information from stockholder registers updated to the meetings, ITRS data, and partner-country data. The CBR has already been analyzing the mirror data. Table 4 data could be presented by the CBR only if its high-quality standards would be met.

Turkey

6.103 The Central Bank of Turkey (CBRT) has been reporting CPIS data to the IMF since 2001. Prior to the CPIS enhancements that were implemented during 2013, the CBRT was reporting Tables 1 and 3. From the end-June 2013 survey, core and all the encouraged data elements (except Tables 4 and 7) are reported. In fact, the CBRT has been conducting the CPIS on quarterly basis since the first quarter of 2006 to incorporate the survey results into the quarterly IIP statistics to improve consistency between the two datasets. While the data collection system for depository corporation's holdings is based on SBS/end-investor approach, combination of approaches (directly and indirectly using the reports of custodians) are used for other sectors. These data are collected on a mandatory basis with penalties for nonreporting. The following steps were undertaken toward the implementation of CPIS enhancements:

- A feasibility study was undertaken including a short survey with questions on the prospective changes and extensions. The reporting forms were sent to the main CPIS respondents (i.e., custodian banks and big companies) to seek their opinion before officially sending out the new forms.
- Although the sector of the resident holder of the securities were already available, details were not enough to comply with the new requirements of the CPIS. Hence, the respondents

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Table 6.4 Period of Addition of Survey Components

Details of the Survey Component	Period of Addition to the Survey
Geographical breakdown of nonresident issuer of securities	Available in the previous survey
Sector of the nonresident issuer of securities	2013 Quarter 2
Sector of the resident holder of securities	Available in the previous survey
Detailed breakdown of the sector of resident holder of securities	2013 Quarter 4
Currency breakdown of holdings of securities (original currency and the U.S. dollar equivalent)	2013 Quarter 2

were asked whether they could provide a more detailed sectoral breakdown of the resident holder of the securities, the sector of the nonresident issuer along with the geographical breakdown, and the currency composition of securities both in original currencies and the U.S. dollar equivalents.

- Based on the feedback from the respondents, it was concluded that data on the sector of the resident holder and the sector of the nonresident issuer for specified countries could be derived by combining data to be requested newly with the existing encouraged items.
- Data on short or negative positions were not requested as holding such positions is legally forbidden in Turkey.
- Based on the positive feedback from respondents, reporting forms were revised by adding the following dimensions in the second and fourth quarter surveys of 2013 (see Table 6.4).

6.104 Regarding portfolio investment liabilities of Turkey, data on nonresidents' holdings of equity securities and debt securities issued domestically by resident in Turkey are obtained from the Central Registry Agency and the custodians with country information. Country information for nonresidents' holdings of Government Domestic Debt Instruments can also be compiled from the CBRT records. The stock of the bonds issued abroad by the public banks and the Undersecretariat of Treasury (UT) are provided by the UT. Following the residency principle, resident banks' and other sector's holdings of bonds issued abroad by the UT are deducted from UT's bond issues abroad. The same principle is also applied for bonds issued abroad by resident banks and other sectors. However, due to partial coverage of the country information, the CBRT is currently not able to report Table 4 of the CPIS on portfolio investment liabilities. Studies to enhance the coverage of detailed holder information of mentioned instruments are also in progress in cooperation with the relevant institutions.

6.105 In addition to the above, the challenges faced in implementation of enhancements mainly pertain to information technology (IT) issues. The respondents' databases and application programs were needed to be revised to meet the requirements of the enhanced CPIS. In practice, each reporting institutions had different IT infrastructure and human resources, which could be assigned to provide these data. Thus, it is not an easy task to carry forward the transition process and complete all the enhancements in a time-bound manner. Moreover, the transition process also required a very close cooperation between the Statistics and IT departments of CBRT. Given that the IT department was loaded with other projects, planning, preparation, testing, verification, and final implementation took considerable time.

United States

6.106 The CPIS data are collected by the FRS under legal authority of the U.S. Department of Treasury. A typical annual survey of cross-border holdings involves collecting and processing roughly 1.25 million records of data at the underlying security (CUSIP[10] or ISIN) level. The data are collected on a mandatory basis with penalties for nonreporting. Mostly, the data are reported on an SBS basis by custodians or on an SBS by end-investors if the foreign holdings are held with nonresident custodians. In general, the coverage of different sectors exceeds 90 percent of the value of holdings of respective sectors. In addition to Table 1, which is mandatory, the FRS has been reporting Table 2 (partially). While

[10]Committee on Uniform Securities Identification Procedure.

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some requested data elements (including data on short positions) are not collected under the present system, other requested data breakdowns are feasible but present various challenges.

6.107 *Currency breakdowns:* Currently, the United States reports Table 2 on the currency breakdown of portfolio investment assets partially. While the currency breakdown is reported for debt securities (both long and short terms), equity and investment fund shares are reported without such breakdown due to the following difficulties. Currency breakdowns, which are available only from annual surveys, present challenges regarding the handling of DRs for equity and the growing issuance of similar "repackaged" debt securities. Many stocks owned by U.S. investors are held in the form of American depository receipts (ADRs), which while technically denominated in U.S. dollars, more properly reflect exposure to the currency of the underlying equity security. The security-level database categorizes ADRs as U.S. dollar–denominated foreign equity and understates the true foreign currency exposure of the resident investors. Due to the understatement of currency risk, the FRS is not comfortable in providing a currency breakdown for U.S. holdings of foreign equity. There is also an increase in the holdings of emerging market economies' local currency sovereign debt that has been repackaged and issued as U.S. dollar–denominated DRs. Overall, correctly handling the reporting of this growing phenomenon is highly problematic and considerable resources are devoted for ensuring the proper currency assignment that reflects the currency of the underlying bond.

6.108 *Country-level holdings by sector of domestic investor:* The United States previously collected, and continues to collect, data on holdings by mutual funds, insurance corporations, and pension funds. The annual claims survey forms are revised to collect more detailed information and to identify the holding of foreign securities by the following sectors in addition to the existing sectors: depository institutions, managed funds other than mutual and pension funds, nonbank financial institutions, and nonfinancial institutions. The additional sector breakdowns were first collected for the December 2014 survey; after a period of review, CPIS sectoral data for all dates back to December 2014 were submitted in 2017. The FRS intends to report this information in the CPIS Tables 3, 5, and 6 with some limitations. The report forms do not break out holdings by monetary authorities and the general government, or the holdings by MMFs. It is considered that in both cases, any potential benefit to provide this level of detail is outweighed by the associated increase in reporter burden to provide this information as well as the cost to compilers in processing this additional level of detail. In rare cases where the U.S. monetary authority could have sizable non-reserve holdings (as was the case with holdings in the Federal Reserve's Maiden Lane III facility[11]), the collection system can capture such information. However, the ability to provide such data in the CPIS submission will necessarily depend on the extent to which this information is made publicly available. Most of the non-reserve government funds are of government pension funds and thus classified as pension fund holdings. Regarding MMFs, the Securities and Exchange Commission filings indicate that majority of their holdings are not in fact cross-border holdings.

6.109 *Country-level holdings by sector of foreign issuer:* The FRS considers that the data collection of these items are rather challenging. As a first step, a review of the reliability of the vendor data to assign industry codes (using the North American Industry Classification System) to the large volume of securities reported in the annual surveys is undertaken. Preliminary findings suggest that some manual assignments will be necessary.

[11] On November 10, 2008, the Federal Reserve and the Treasury announced a restructuring of the government's financial support to American International Group (AIG). As part of this restructuring, two new limited liability companies (LLCs)—Maiden Lane II LLC and Maiden Lane III LLC—were created. On November 25, 2008, the Federal Reserve Board of New York began extending credit to Maiden Lane III LLC, an LLC formed to purchase multisector collateralized debt obligations on which AIG had written credit default swap and similar contracts in return for the cancellation of those contracts. The loans to Maiden Lane II LLC and Maiden Lane III LLC were extended under the authority of section 13(3) of the Federal Reserve Act, which permitted the board, in unusual and exigent circumstances, to authorize Reserve Banks to extend credit to individuals, partnerships, and corporations. For additional details, see https://www.federalreserve.gov/regreform/reform-aig.htm.

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Further, it is also found that the sector of issuer is easier to assign for some securities than others. For example, sovereign debt is generally easy to identify, but is rather difficult to correctly classify debt issued by public–private enterprises. In addition, distinguishing the debt issued by financial institutions and financing arms of NFCs is also found to be challenging.

6.110 With additional improvements, the United States intends to provide a more detailed breakdown by country, crossed by both holder and issuer sectors.

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APPENDIX

1 Model Forms

A. Model Form for a Mixed Custodian and End-Investor Security-by-Security Survey

Survey of Portfolio Investment: Holdings of Equities and Debt Securities Issued by Unrelated Nonresidents as at June 30/ December 31, [Year]

Purpose of Collection

This survey collects information on holdings of residents of [**name of economy**] in equities and debt securities issued by unrelated nonresidents as at June 30/ December 31, [Year]. The data from the survey will be used in the compilation of the balance of payments and international investment position statistics of [**name of economy**]**.** These statistics are published by [**name of compiling agency**] and reported to the Statistics Department of the International Monetary Fund**.** The survey is conducted in coordination with other economies to facilitate international data comparability.

Collection Authority

The information requested is collected under the authority of [**state legal authority**]. ***[Delete if voluntary]***

Confidentiality

The completed forms will remain confidential to the [**name of compiling agency**].

What to Report

The survey should be completed in accordance with the reporting instructions provided. If there are any questions regarding these instructions, please contact [**name of member of the survey staff**] at [**name of compiling agency**].

When and Where to Report

Please provide the results of this survey by [**specify the date**] to

[Postal address/e-mail/telephone and fax numbers of compiler].

Respondents unable to meet the reporting deadline should contact [**name of member of the survey staff**] at [**name of compiling agency**] to request an extension.

How to Report

Data may be submitted electronically using the online survey form, e-mail, or paper forms (use the option applicable). Please keep a copy for your records.

[Name of compiling agency and date]

Notes

Note 1. Who Must Report

(a) Custodians that are resident in [**name of economy**] and that, as at close of business on June 30/December 31, [Year], manage the safekeeping of securities issued by nonresidents on behalf of residents of [**name of economy**], or on their own account. Resident custodians are defined as entities located in [**name of economy**] who manage the safekeeping of securities for investors.

(b) Investors that are resident in [**name of economy**] and own equities or debt securities issued by unrelated nonresidents of [**name of economy**] as at the close of business on June 30/December 31, [Year], and that do not entrust the safekeeping of any or all of these securities to **resident** custodians. This includes both those who invest for their own account as well as those who invest on behalf of asset pools, such as the managers of mutual funds, insurance companies, and pension funds.

All entities that receive a copy of the survey forms must reply. Those that do not fall into either of the above two categories need to complete only the identification information on Form 1a and mark the box

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indicating that they are exempt from completing Forms 2 and 3.

Note 2. What Must Be Reported

All entities that receive either Form 2 or Form 3 must return the respondent identification section (Form 1a) **within 30 days** of receipt of the form, even those entities indicating that they are exempt from completing Form 1a.

Those respondents meeting the criteria above (see Note 1) must return the completed survey forms (Forms 1b, 2, and 3) by [**specify the date**]. Respondents unable to meet the reporting schedule should contact [**name of compiling agency**] indicated on the first page of this form to request an extension.

Reporters can file a consolidated report for all related entities that are resident in [**name of economy**], or each resident entity may file independently. If two or more entities are filing separately, please contact the member of the survey staff indicated on the first page of this form at [**name of compiling agency**] for additional identification numbers. If a consolidated report is being supplied for two or more entities, do not supply separate reports for the same entities.

Form 2: Detailed Holdings is used to report detailed information on holdings of securities issued by unrelated nonresidents. Such information must be provided by the following:

(a) **Resident custodians** in respect of securities issued by nonresidents that they manage the safekeeping of, for residents, or on own account. Securities issued by nonresidents that are entrusted to other resident custodians and those that are managed for nonresidents are excluded from Form 2; they should be included on Form 3.

(b) **Investors** in respect of securities that are issued by unrelated nonresidents that are not entrusted to the safekeeping of resident custodians. (See Note 6 to determine whether an entity is related.) Securities issued by unrelated nonresidents and entrusted to the custody of a resident custodian should be reported on Form 3.

Form 3: Summary of Holdings Entrusted to Custodians is to show the total value and custodian information. Such information must be provided by the following:

(a) **resident custodians** in respect of securities that are issued by nonresidents and that are entrusted to the safekeeping of other resident custodians and

(b) **investors** in respect of securities that are issued by nonresidents and that are entrusted to the safekeeping of resident custodians.

These holdings of securities should not be reported in detail on Form 2. Instead, only the total amounts entrusted to resident custodians should be reported, along with the name and address of the resident custodian.

Some respondents need to complete both Form 2 and Form 3.

Note 3. Residence

The reporting unit for this form is a **resident of** [**name of economy**]: that is, an individual, an enterprise, or other institutional unit domiciled in [**name of economy**]. It includes branches and subsidiaries of nonresident enterprises if the branches or subsidiaries are domiciled in [**name of economy**]. Domicile is defined as the center of predominant economic interest of the entity: for instance, where an enterprise engages in production. Corporations legally registered in [**name of economy**] are considered to be resident even if they have no "physical presence." **A nonresident** of [**name of economy**] is any individual, enterprise, or other organization domiciled in a country other than [**name of economy**]. Branches and subsidiaries of [**name of economy**] enterprises domiciled in other jurisdictions are regarded as nonresidents of [**name of economy**].

The securities are classified by the jurisdiction of **residence of the issuer of the securities**. The residence of an enterprise can be taken to be where it is legally incorporated or, in the absence of legal incorporation, where it is legally domiciled. The **economy** of residence of the issuer may differ from the currency of issue, the place of issue, or the country of the guarantor of the security. Some securities are guaranteed by another party (such as the parent company or a government), and the guarantee may be either explicit or implicit. Even where the funds raised are for use by the guarantor, the residence of

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the **issuer** of the security should be used, **not** the residence of the guarantor. Securities issued by international organizations should be shown under the separate code for international organizations (XX), not included under the **economy** in which the organization is located.

[If one or more international organization(s) is/are located in your **economy**, **[specify the name(s) of these international organizations**] should **not** be considered to be resident(s) in **[name of economy]** and their holdings should not be reported in this return. However, **pension funds** for employees of these international organization(s) are considered to be resident in [**name of economy**]. ***(If not relevant, delete this paragraph.***]

Note 4. Definition of Equities and Debt Securities

Refer to Appendix 4 of this *Guide* for details on definition and description of equity and debt securities. If you have any questions about how to classify an instrument, please contact the survey staff member indicated on the first page of this form at [**name of compiling agency**].

Note 5. Valuation

Market value should be used to report all holdings of securities. Do **not** report the face value of the security as the market value.

Equity securities should be reported at market prices converted to [**domestic currency**] using the exchange rate prevailing at the close of business on June 30/December 31, [Year].

For enterprises listed on a stock exchange, the market value of your holding of their equity securities should be calculated using the market price on their main stock exchange prevailing at the close of business on June 30/December 31, [Year].

For unlisted enterprises, if a market value is not available at the close of business on June 30/December 31, [Year], estimate the market value of your holding of equity securities by using one of the six alternatives methods (see Box 3.1 of this *Guide*).

Debt securities should be recorded at market prices converted to [**domestic currency**], using the exchange rate prevailing at the close of business on June 30/December 31, [Year]. For listed debt securities, a quoted traded market price at the close of business on June 30/December 31, [Year], should be used. When market prices are unavailable (e.g., in the case of unlisted debt securities), the use of following methods for estimating fair value (which is an approximation of the market value of such instruments) are recommended:

- discounting future cash flows to the present value using a market rate of interest[12] and
- using market prices of financial assets and liabilities that are similar.

Refer to Box 10.3, *BPM6 Compilation Guide* **for further details.**

Note 6. Exclusion of Securities Issued by Related Enterprises

Securities (whether equities or debt) issued by a nonresident enterprise that is related to the resident owner of those securities **should be excluded** from this survey. Related nonresident enterprises are enterprises in which an enterprise **group** has an equity interest of 10 percent or more, or where a nonresident has more than 10 percent or more holdings in your group. Ownership is measured in terms of ordinary shares or voting stock of incorporated enterprises or equivalent beneficial interest in unincorporated enterprises. Where such a relationship exists, exclude all securities (debt and equities) from the scope of Coordinated Portfolio Investment Survey.

The only exception is if the nonresident entity that issued the security and the resident owner of the security are affiliated financial intermediaries (e.g., banks). In these circumstances, securities issued by related enterprises, other than equity or permanent debt, should be reported in this survey.

Note 7. Treatment of Securities Involved in Repurchase and Securities Lending Arrangements

A repurchase agreement is an arrangement involving the provision of securities in exchange for cash with a commitment to repurchase the same or similar securities at a fixed price. A reverse repo is the same

[12] For examples on the calculation of present value and accrual of interest costs, refer to the *2013 External Debt Statistics: Guide for Compilers and Users* (appendix, Chapter 2).

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transaction seen from the other side: that is, an agreement whereby a security is purchased at a specified price with a commitment to resell the same or similar securities at a fixed price on a specified future date. **Securities (or stock or bond) lending** is an arrangement whereby the ownership of a security is transferred in return for collateral, usually another security, under the condition that the security or similar securities will revert to its original owner at a specified future date.

- Securities acquired under reverse repos or securities borrowing arrangements are to be *excluded* from the survey.
- Securities sold under repos or "lent" under securities lending arrangements are to be *included* in the survey.
- Securities acquired under reverse repos or securities borrowing arrangements and subsequently sold to a third party should be reported as a *negative* holding—namely, a short position (see Form 2, Item 10).
- Valuations of securities under repos or securities lending arrangements should be at *market value* as at the close of business on June 30/December 31, [Year].

Note 8. Treatment of Depository Receipts

Depository receipts (DRs), which denote ownership of equity or debt securities issued by nonresidents (for instance, American DRs and global DRs), should be attributed to the country of residence of the issuer of the security underlying the DR. Financial intermediaries should not report holdings of any securities against which DRs have been issued and sold; however, if a DR has been issued before the financial institution arranging the issue has acquired the underlying securities, that financial institution should report a negative holding in the underlying security (see Form 2, Item 10).

Note 9. Treatment of Stripped Securities

Stripped securities (strips) are securities that have been transformed from a principal amount with periodic interest coupons into a series of zero-coupon securities, with the range of maturities matching the coupon payment dates and the redemption date of the principal amount.

- If strips remain the direct obligation of the original issuer, then the residence of the issuer of the strips remains the same as for the original security. Dealers who request that a settlement house or clearing house create strips from an existing security issued by a nonresident should not report ownership of the underlying security after the strips have been created.
- If strips have been created and issued by an entity in its own name, then the security should be classified according to the residence of the issuer of the strips. In turn, such an issuer of strips should report its ownership of the underlying securities if they were issued by a nonresident.

Strips with an original maturity of less than one year are classified as money market instruments and thus, if identifiable, should be reported as short-term debt securities.

Refer to paragraphs 3.49–3.80 in Chapter 3 of this *Guide* for additional details on Notes 7–9.

Note 10. Asset-Backed Securities

In reporting the market value of holdings of asset-backed securities, the respondent must be aware of the possibility of early partial redemption of principal. The market value of the principal amount outstanding at close of business on June 30/December 31, [Year], should be reported; if principal has been repaid, this market value will **not** be the same as the original face value revalued at end-period market prices.

If there are any questions regarding these instructions, please contact the survey staff member at [name of compiling agency] indicated on the front of this form.

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Survey of Portfolio Investment—June 30/December 31, [Year]

FORM 1a: RESPONDENT IDENTIFICATION

To be returned within 30 days

1. Identification no.: Enter the identification number from the mailing label/e-mail on this survey. ☐
2. Company name:
3. Street address:
4. City: 5. State: 6. Postal code:
7. Reporting status ☐ Form 2 ☐ Form 3 ☐ Exempt

   Form 2: Detailed Holdings is used to report detailed information on holdings of securities issued by unrelated nonresidents. Such information must be provided by the following:

   (a) **Resident custodians** in respect of securities issued by unrelated nonresidents that they manage the safekeeping of, for residents, or on own account. Securities that are entrusted to other resident custodians and those that are managed for nonresidents are excluded.

   (b) **Investors** in respect of securities that are issued by unrelated nonresidents that are not entrusted to the safekeeping of resident custodians.

   Form 3: Summary of Holdings Entrusted to Custodians is used to report the total value of securities and custodian information. Such information must be provided by the following:

   (a) **resident custodians** in respect of securities that are issued by nonresidents and that are entrusted to the safekeeping of other resident custodians, and

   (b) **investors** in respect of securities that are issued by nonresidents and that are entrusted to the safekeeping of resident custodians.

   These holdings of securities should not be reported in detail on Form 3. Instead, only the total amounts entrusted to resident custodians should be reported, along with the name and address of the resident custodian.

   Some respondents will need to complete both Form 2 and Form 3.

   Respondents with **no holdings of securities** issued by unrelated nonresidents **should check "exempt."**

8. In the event of a query, the national compiler may contact:
9. Tel. no.: 10. Fax no.: 11. E-mail address:

   By signing the certification line, the Certifier acknowledges that

   - he/she has read and understood the reporting requirements of this survey,
   - he/she is aware of any penalties that may be imposed for filing an inaccurate report, ***[Delete if voluntary]*** and
   - he/she certifies that he/she is sufficiently knowledgeable about the activities of the reporting organization that he/she can knowingly and with reasonable confidence certify that the information provided in this report is both accurate and complete.

Certifier's signature

12. Certifier's name and title:

13. Certifier's telephone no.: 14. Date signed:

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Form 1b Instructions

This form must be completed by all organizations that receive these survey forms and are not exempt. It is used to

- provide basic identification particulars and
- provide summaries of data reported on Forms 2 and 3.

Notes on Selected Items

Item 1: **Identification number**—Enter the identification number provided on survey forms/e-mail sent to you [keep the relevant option]. If your number is unknown, please contact the member of the survey staff indicated on the first page of this form at **[name of compiling agency]**.

Item 9: **Number of Form 2 records reported**—Enter the total number of Form 2 records submitted with your report (whether they are submitted on paper or electronically).

Item 10: **Number of Form 3 records reported—**Enter the total number of Form 3 records submitted.

Item 11: **Total [domestic currency] value of all priced equities—**For all equity securities (Form 2, Item 7, Type 1) for which prices are known, enter the total domestic currency value (Form 2, Item 10) of all such records.

Item 12: **Total [domestic currency] value of all priced long-term debt securities—**For all long-term debt securities (Form 2, Item 7, Type 2) for which prices are known, enter the total domestic currency value (Form 2, Item 10) of all such records.

Item 13: **Total [domestic currency] value of all priced short-term debt securities—**For all short-term debt securities (Form 2, Item 7, Type 3) for which prices are known, enter the total domestic currency value (Form 2, Item 10) of all such records.

Item 14: **Total number of shares of unlisted equity—**For all equity securities (Form 2, Item 7, Type 1) for which prices are unknown, enter the total number of shares (Form 2, Item 12) of all such records.

Item 15: **Total face value of all unlisted long-term debt securities—**For all long-term securities (Form 2, Item 7, Type 2) for which prices are unknown, enter the total face value (Form 2, Item 12) of all such records.

Item 16: **Total face value of all unlisted short-term debt securities—**For all short-term securities (Form 2, Item 7, Type 3) for which prices are unknown, enter the total face value (Form 2, Item 12) of all such records.

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Survey of Portfolio Investment—June 30/December 31, [Year]

FORM 1b: RESPONDENT IDENTIFICATION

To be returned with completed Forms 2 and 3 by [specify the date]

1. Identification no.:
2. Company name:
3. Street address:
4. City: 5. State: 6. Postal code:
7. In the event of a query, the national compiler may contact:
8. Tel. no./Fax no./E-mail address:

SUMMARY OF FORM 2 AND FORM 3 INFORMATION

9. No. of Form 2 records reported ----------------------------	
10. No. of Form 3 records reported ----------------------------	
11. Total value of all priced equities in [millions of domestic currency] ------------	
12. Total value of all priced long-term debt in [millions of domestic currency]	
13. Total value of all priced short-term debt in [millions of domestic currency]	
14. Total no. of shares of unlisted equity ----------------------------	
15. Total face value of all unlisted long-term debt ----------------------------	
16. Total face value of all unlisted short-term debt ----------------------------	

CERTIFICATION

By signing the certification line, the Certifier acknowledges that

- he/she has read and understood the reporting requirements of this survey,
- he/she is aware of any penalties that may be imposed for filing an inaccurate report, ***[Delete if voluntary]*** and
- he/she certifies that he/she is sufficiently knowledgeable about the activities of the reporting organization that he/she can knowingly and with reasonable confidence certify that the information provided in this report is both accurate and complete.

Certifier's signature

17. Certifier's name and title:

18. Certifier's telephone no.: 19. Date signed:

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Form 2 Instructions

This form should be used by the following:

(a) **Resident custodians** to report holdings in their custody for resident clients of securities issued by nonresidents (if these securities have not in turn been entrusted to other resident custodians).

(b) **Resident investors** that own such securities but have not entrusted the safekeeping of these securities to resident custodians (i.e., include any securities that have been entrusted to nonresident custodians). Own account holdings that have not been entrusted to other custodians should also be included.

Securities issued by entities related to the investor should **not** be reported (see Note 6 to the survey, above, for more information on securities issued by related enterprises).

Resident custodians who entrust their holdings of securities issued by unrelated nonresidents to other resident custodians should report these holdings on Form 3, not on Form 2. Only the custodian who arranges for the safekeeping of securities abroad (either directly or through a foreign local sub-custodian) should report its holdings on Form 2.

However, securities entrusted by custodians directly to central securities depositories (such as Depository Trust Company, Euroclear, and Clearstream, or other nonresident custodians) should be reported on Form 2 by the custodian who entrusted the securities to the central depository.

Notes on Form 2

Item 1: **Identification number—**Enter the identification number from Form 1a, Item 1.

Item 2: **Sequence number—**Starting at 1, sequentially number each record. The last record should have the same sequence number as the total number of records reported on Form 1b, Item 9.

Item 3: **Security identification code—**Enter the security identification code used to identify this record. Use either an International Securities Identification Number (ISIN) code or a code issued by a national or international numbering agency, such as a SEDOL, CUSIP, or common code. For example, Amazon stock listed on NASDAQ has securities identification number of US0231351067 under ISIN system. Hence, for the holdings of Amazon securities, this code be reported against this item. **Do not use internally created codes unless this security has not been assigned a code by any recognized numbering agency.**

Item 4: **Security identification coding system—**From Annex A, select the coding system that corresponds to the code reported in Item 3 (e.g., ISIN, CUSIP, SICC, SEDOL, VALOR, etc.). For the example in Item 3 on Amazon, ISIN be reported as the coding system.

Item 5: **Name of other identification coding system—**If the security identification code entered in Item 3 above was issued by a security identification coding system not listed in Annex A, enter the name of that system here.

Item 6: **Ownership code—**Indicate whether the security is held on (1) own account or (2) on behalf of a client.

Item 7: **Security type—**Indicate whether the security is (1) equity, (2) long-term debt, or (3) short-term debt.

Item 8: **Name and economy of issuer—**Enter the name and economy of the organization that issued this security.
Economy of issuer of security—Enter the two-digit country code from the list provided in Annex B that corresponds to the country of domicile of the entity issuing the security. Holdings of issues of international organizations (such as the World Bank or United Nations) should be entered as country code XX, not as issues of the countries in which they are physically located.

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Item 9: **Security description—**Provide pertinent descriptive information.

Item 10: **[National currency] value of security held—**Enter the total national currency value (price times quantity) of your holdings of this security. If reporting a negative position in the security, enter "S" before the value (see also Note 7 to the survey, above, on repurchase and securities lending arrangements and Note 8 on depository receipts).

For equity securities (Form 2, Item 7, Type 1), enter the national currency price equivalent (Form 2, Item 11) of this security multiplied by the number of shares held (Form 2, Item 12).

For long-term debt securities (Form 2, Item 7, Type 2), enter the product of the price (Form 2, Item 11) of this security and its face value (Form 2, Item 12) in the currency of denomination multiplied by the exchange rate (Form 2, Item 14).

For short-term debt securities (Form 2, Item 7, Type 3), enter the product of the price (Form 2, Item 11) of this security and its face value (Form 2, Item 12) in the currency of denomination multiplied by the exchange rate (Form 2, Item 14).

Item 11: **Market price—**See Note 5 to the survey (on valuation), above, for further information on market prices. For equity securities, enter your best estimate of the price per share in national currency.

For both long- and short-term debt securities, enter the price as a percentage of the security's original face value. Thus, if a security is trading at 90 percent of its original value, enter 0.9 in this field. In the case of long-term zero-coupon or deep-discount issues, which trade when issued at a small percentage of their face value at maturity, enter the percentage of their face value at maturity that they are worth as at June 30/December 31, [Year]. Thus, if a zero-coupon bond were originally issued at a value equal to 17 percent of its face value at maturity and has—by June 30/December 31, [Year]—appreciated to 43 percent of its face value at maturity, enter 0.430 in this field.

Note: Custodians must provide prices for securities in a manner consistent with their normal business practices for providing prices to their customers. Thus, if a firm typically provides prices to its customers for all securities for which prices are commercially available, the same practice should be followed when reporting on the survey.

Item 12: **Face value or number of shares held—**For equity securities, enter the number of shares held, rounded to the nearest share. For both long-term and short-term debt securities, enter the face value held **in the currency of denomination**. For asset-backed securities, for which principal is repaid over time, enter the **remaining**, unrepaid face value of principal outstanding for this security as at close of business on June 30/December 31, [Year].

Item 13: **Original face value for asset-backed securities only—**Pertaining to the amount entered in Item 12 above, enter the original face value of principal that would have been outstanding if no principal had been repaid.

For example, if $1,000,000 of an asset-backed security were bought at date of issue, and 30 percent of the principal of this security had been repaid as at close of business on June 30/December 31, [Year], $700,000 should be entered in Item 12, and $1,000,000 should be entered in Item 13. The ratio between the amounts entered in Item 12 and Item 13 (700,000/1,000,000 = 0.700) should equal the "factor value" for this security.

Item 14: **Exchange rate used—**Enter the exchange rate used to convert the currency of denomination into national currency. This rate should be that prevailing at the close of business on June 30/December 31, [Year], and should be expressed as the national currency value of one unit of the currency of denomination.

Item 15: **Currency of denomination—**Enter the three-digit code corresponding to the currency used in Item 14 from the list provided in Annex C. If the currency used in Item 14 is not listed in Annex C, please contact the member of the survey staff at [**name of compiling agency**] indicated on the front page of this form.

Item 16: **Amount on loan—**Of the total amount held of this security as reported in Item 12, indicate how much of this position was on loan as at June 30/December 31, [Year].

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Survey of Portfolio Investment—June 30/December 31, [Year]

FORM 2: DETAILED RECORD OF HOLDINGS

This form should be used by (a) resident custodians that manage the safekeeping of securities and (b) investors that own securities issued by unrelated entities and that do not entrust them to the safekeeping of resident custodians.

1. Identification no.: Enter the identification number from Form 1a, Item 1.
2. Sequence no.: From 1 to the number of detailed records submitted.
3. Security identification code:
4. Security identification coding system: Enter the relevant code from Annex A.
5. Name of the other security identification coding system: If the security identification code is not listed in Annex A, enter the name of that system here:
6. Ownership code:
   1. Own portfolio
   2. Custody for other
7. Security type:
   1. Equity
   2. Long-term debt securities
   3. Short-term debt securities
8. Name and economy of issuer (from Annex B):
9. Security description:
10. [National currency] value of security held: Value (price times quantity) of your holdings of this security. For equity, enter the [national currency] price (Form 2, Item 11) times the number of shares held for this security. For debt, enter the price (Form 2, Item 11) multiplied by the face value (Form 2, Item 12) multiplied by the exchange rate (Form 2, Item 14). If reporting a negative position in the security, enter "S" in the first (separate) box.
11. Market price: For equity, enter the price per share in [national currency]. For debt, enter the price as a percentage of the security's original face value.
12. Face value or no. of shares held: For equity, enter the number of shares held, rounded to the nearest share. For debt, enter the face value held in the currency of denomination. For asset-backed securities, enter the remaining face value of principal still outstanding.
13. Original face value for asset-backed security: Pertaining to the amount entered in Item 12, enter the face value of principal which would have been outstanding if no principal had been repaid (for asset-backed securities only)
14. Exchange rate used: Enter the exchange rate used to convert the price in Item 10 into national currency, if known.
15. Currency of denomination: Enter the code from Annex C for the currency used in Item 14 (see also Notes on Form 2, Item 15).
16. Amount on loan: Of the total national currency value held (as reported in Item 10), enter the amount of this position that was on loan as at June 30/December 31, [Year].

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FORM 3: SUMMARY OF HOLDINGS ENTRUSTED TO CUSTODIANS

This form should be used by (a) **investors** that own securities issued by unrelated nonresidents and that entrust the safekeeping of securities to resident custodians, **as well as** (b) **custodians** that have entrusted the safekeeping of securities entrusted to them to other resident custodians. In Item 1, starting at number 1, sequentially number each record. The last record should have the same sequence number as the total number of records reported on Form 1b, Item 10. Indicate the names and addresses of the domestic custodian to whom the securities have been entrusted as well as the total estimated market value, as at June 30/December 31, [Year], in Item 7.

Survey of Portfolio Investment—June 30/December 31, [Year]

Identification no.: Include the identification number for this entity on each page

1. Sequence no.:

2. Name of custodian:

3. Street address of custodian:

4. City / 5. State / 6. Postal code

7. Total [**domestic currency**] market value of equities and debt securities issued by nonresidents entrusted to this custodian as at June 30/December 31, [Year], rounded to the [nearest million].

1. Sequence no.:

2. Name of custodian:

3. Street address of custodian:

4. City / 5. State / 6. Postal code

7. Total [**domestic currency**] market value of equities and debt securities issued by nonresidents entrusted to this custodian as at June 30/December 31, [Year], rounded to the [nearest million].

1. Sequence no.:

2. Name of custodian:

3. Street address of custodian:

4. City / 5. State / 6. Postal code

7. Total [**domestic currency**] market value of equities and debt securities issued by nonresidents entrusted to this custodian as at June 30/December 31, [Year], rounded to the [nearest million].

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Annex A: Security Identification Coding Systems*

Issuing Agency/Countries	Security Identification Coding System
Association of National Numbering Agencies	International Security Identification Number
Japan	SICC Code (Securities Identification Code Conference)
Switzerland	VALOR (Valorennummer)
United Kingdom	SEDOL (Stock Exchange Daily Official List)
United States	CUSIP (Uniform Securities Identification Procedure)
Other agency/country	Other (specify)

* This list is not exhaustive. Please add security identification coding systems and issuing agency/countries, relevant for your economies

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Annex B: Jurisdiction Codes

Jurisdiction	Code
Afghanistan, Islamic State of	AF
Albania	AL
Algeria	DZ
American Samoa	AS
Andorra	AD
Angola	AO
Anguilla	AI
Antigua and Barbuda	AG
Argentina	AR
Armenia, Republic of	AM
Aruba	AW
Australia	AU
Austria	AT
Azerbaijan, Republic of	AZ
Bahamas, The	BS
Bahrain, Kingdom of	BH
Bangladesh	BD
Barbados	BB
Belarus, Republic of	BY
Belgium	BE
Belize	BZ
Benin	BJ
Bermuda	BM
Bhutan	BT
Bolivia	BO
Bonaire Sint Eustatius and Saba	BQ
Bosnia and Herzegovina	BA
Botswana	BW
Brazil	BR
British Virgin Islands	VG
Brunei Darussalam	BN
Bulgaria	BG
Burkina Faso	BF
Burundi	BI
Cabo Verde	CV
Cambodia	KH
Cameroon	CM
Canada	CA

Annex B: Jurisdiction Codes (*continued*)

Jurisdiction	Code
Cayman Islands	KY
Central African Republic	CF
Chad	TD
Chile	CL
China, People's Republic of	CN
Christmas Island	CX
Cocos (Keeling) Islands	CC
Colombia	CO
Comoros, Union of the	KM
Congo, Democratic Republic of the	CD
Congo, Republic of	CG
Cook Islands	CK
Costa Rica	CR
Côte d'Ivoire	CI
Croatia, Republic of	HR
Cuba	CU
Curacao	CW
Cyprus	CY
Czech Republic	CZ
Denmark	DK
Djibouti	DJ
Dominica	DM
Dominican Republic	DO
Ecuador	EC
Egypt, Arab Republic of	EG
El Salvador	SV
Equatorial Guinea, Republic of	GQ
Eritrea, The State of	ER
Estonia, Republic of	EE
Ethiopia, The Federal Democratic Republic of	ET
Faroe Islands	FO
Falkland Islands (Malvinas)	FK
Fiji, Republic of	FJ
Finland	FI
France	FR
French Guiana	GF
French Polynesia	PF
French Southern Territories	TF

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Annex B: Jurisdiction Codes (*continued*)

Jurisdiction	Code
Gabon	GA
Gambia, The	GM
Georgia	GE
Germany	DE
Ghana	GH
Gibraltar	GI
Greece	GR
Greenland	GL
Grenada	GD
Guadeloupe	GP
Guam	GU
Guatemala	GT
Guernsey	GG
Guinea	GN
Guinea-Bissau	GW
Guyana	GY
Haiti	HT
Honduras	HN
Hong Kong SAR, People's Republic of China	HK
Hungary	HU
Iceland	IS
India	IN
Indonesia	ID
Iran, Islamic Republic of	IR
Iraq	IQ
Ireland	IE
Isle of Man	IM
Israel	IL
Italy	IT
Jamaica	JM
Japan	JP
Jersey	JE
Jordan	JO
Kazakhstan, Republic of	KZ
Kenya	KE
Kiribati	KI
Korea, Democratic People's Republic of	KP
Korea, Republic of	KR

Annex B: Jurisdiction Codes (*continued*)

Jurisdiction	Code
Kosovo	XK
Kuwait	KW
Kyrgyz Republic	KG
Lao, People's Democratic Republic	LA
Latvia, Republic of	LV
Lebanon	LB
Lesotho, Kingdom of	LS
Liberia	LR
Libya	LY
Liechtenstein	LI
Lithuania, Republic of	LT
Luxembourg	LU
Macao SAR, People's Republic of China	MO
Macedonia, former Yugoslav Republic of	MK
Madagascar, Republic of	MG
Malawi	MW
Malaysia	MY
Maldives	MV
Mali	ML
Malta	MT
Marshall Islands, Republic of the	MH
Martinique	MQ
Mauritania, Islamic Republic of	MR
Mauritius	MU
Mayotte	YT
Mexico	MX
Micronesia, Federated States of	FM
Moldova, Republic of	MD
Monaco	MC
Mongolia	MN
Montenegro	ME
Montserrat	MS
Morocco	MA
Mozambique, Republic of	MZ
Myanmar	MM
Namibia	NA
Nauru, Republic of	NR

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Annex B: Jurisdiction Codes (*continued*)	
Jurisdiction	**Code**
Nepal	NP
Netherlands	NL
New Caledonia	NC
New Zealand	NZ
Nicaragua	NI
Niger	NE
Nigeria	NG
Niue	NU
Norfolk Island	NF
Northern Mariana Islands	MP
Norway	NO
Oman	OM
Pakistan	PK
Palau, Republic of	PW
Panama	PA
Papua New Guinea	PG
Paraguay	PY
Peru	PE
Philippines	PH
Pitcairn Islands	PN
Poland, Republic of	PL
Portugal	PT
Puerto Rico	PR
Qatar	QA
Réunion	RE
Romania	RO
Russian Federation	RU
Rwanda	RW
Samoa	WS
San Marino, Republic of	SM
São Tomé and Príncipe, Democratic Republic of	ST
Saudi Arabia	SA
Senegal	SN
Serbia, Republic of	RS
Seychelles	SC
Sierra Leone	SL
Singapore	SG
Sint Maarten	SX

Annex B: Jurisdiction Codes (*continued*)	
Jurisdiction	**Code**
Slovak Republic	SK
Slovenia, Republic of	SI
Solomon Islands	SB
Somalia	SO
South Africa	ZA
South Sudan, Republic of	SS
Spain	ES
Sri Lanka	LK
St. Helena	SH
St. Kitts and Nevis	KN
St. Lucia	LC
St. Pierre and Miquelon	PM
St. Vincent and the Grenadines	VC
Sudan	SD
Suriname	SR
Swaziland, Kingdom of	SZ
Sweden	SE
Switzerland	CH
Syrian Arab Republic	SY
Taiwan Province of China	TW
Tajikistan, Republic of	TJ
Tanzania, United Republic of	TZ
Thailand	TH
Timor-Leste, Democratic Republic of	TL
Togo	TG
Tokelau	TK
Tonga	TO
Trinidad and Tobago	TT
Tunisia	TN
Turkey	TR
Turkmenistan	TM
Turks and Caicos Islands	TC
Tuvalu	TV
Uganda	UG
Ukraine	UA
United Arab Emirates	AE
United Kingdom	GB
United States	US

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Annex B: Jurisdiction Codes (*continued*)

Jurisdiction	Code
United States Minor Outlying Islands	UM
United States Virgin Islands	VI
Uruguay	UY
Uzbekistan	UZ
Vanuatu	VU
Vatican City State	VA
Venezuela, República Bolivariana de	VE
Vietnam	VN

Annex B: Jurisdiction Codes (*concluded*)

Jurisdiction	Code
Wallis and Futuna Islands	WF
West Bank and Gaza	WBG
Western Sahara	EH
Yemen, Republic of	YE
Zambia	ZM
Zimbabwe	ZW
Not specified (including confidential)	_X
International organizations	XX

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Annex C: Currency Codes

Jurisdiction	Currency	Currency Code
Afghanistan, Islamic State of	Afghani	AFA
Albania	Lek	ALL
Algeria	Algerian dinar	DZD
Angola	Kwanza	AOA
Anguilla	East Caribbean dollar	XCD
Antigua and Barbuda	East Caribbean dollar	XCD
Argentina	Peso	ARS
Armenia	Dram	AMD
Aruba	Aruban florin	AWG
Australia	Australian dollar	AUD
Austria	Euro	EUR
Azerbaijan, Republic of	Manat	AZN
Bahamas, The	Bahamian dollar	BSD
Bahrain, Kingdom of	Bahraini dinar	BHD
Bangladesh	Taka	BDT
Bank of Central African States	CFA franc BEAC	XAF
Barbados	Barbados dollar	BBD
Belarus, Republic of	Belarusian rubel	BYN
Belgium	Euro	EUR
Belize	Belize dollar	BZD
Benin	CFA franc BCEAO	XOF
Bermuda	Bermuda dollar	BMD
Bhutan	Ngultrum	BTN
Bolivia	Boliviano	BOB
Bosnia and Herzegovina	Convertible mark	BAM
Botswana	Pula	BWP
Brazil	Real	BRL
Brunei Darussalam	Brunei dollar	BND
Bulgaria	Lev	BGL
Burkina Faso	CFA franc BCEAO	XOF
Burundi	Burundi franc	BIF
Cabo Verde	Escudo	CVE
Cambodia	Riel	KHR
Cameroon	CFA franc BEAC	XAF
Canada	Canadian dollar	CAD
Cayman Islands	Cayman Islands dollar	KYD
Central African Republic	CFA franc BEAC	XAF
Central Bank of West African States	CFA franc BCEAO	XOF
Chad	CFA franc BEAC	XAF
Chile	Chilean peso	CLP
China, People's Republic of	Yuan	CNY
Colombia	Colombian peso	COP
Comoros, Union of the	Comorian franc	KMF
Congo, Democratic Republic of	Congolese franc	CDF
Congo, Republic of	CFA franc BEAC	XAF
Costa Rica	Costa Rican colon	CRC
Côte d'Ivoire	CFA Franc BCEAO	XOF
Croatia, Republic of	Kuna	HRK
Cuba	Cuban peso	CUP
Cyprus	Euro	EUR
Czech Republic	Czech koruna	CZK

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Annex C: Currency Codes (*continued*)

Jurisdiction	Currency	Currency Code
Denmark	Danish krone	DKK
Djibouti	Djibouti franc	DJF
Dominica	East Caribbean dollar	XCD
Dominican Republic	Dominican peso	DOP
Eastern Caribbean Central Bank	East Caribbean dollar	XCD
Egypt, Arab Republic of	Egyptian pound	EGP
Equatorial Guinea, Republic of	CFA franc BEAC	XAF
Eritrea, The State of	Nafka	ERN
Estonia, Republic of	Euro	EUR
Ethiopia, The Federal Democratic Republic of	Birr	ETB
European Central Bank	Euro	EUR
Falkland Islands	Falkland pound	FKP
Fiji, Republic of	Fijian dollar	FJD
Finland	Euro	EUR
France	Euro	EUR
French Guiana	Euro	EUR
French Polynesia	CFP franc	XPF
Gabon	CFA franc BEAC	XAF
Gambia, The	Dalasi	GMD
Georgia	Lari	GEL
Germany	Euro	EUR
Ghana	Cedi	GHC
Gibraltar	Gibraltar pound	GIP
Greece	Euro	EUR
Greenland	Euro	EUR
Grenada	East Caribbean dollar	XCD
Guatemala	Quetzal	GTQ
Guernsey	Guernsey pound	GGP
Guinea	Guinean franc	GNF
Guinea-Bissau	CFA franc BCEAO	XOF
Guyana	Guyanese dollar	GYD
Haiti	Gourde	HTG
Honduras	Lempira	HNL
Hong Kong SAR, People's Republic of China	Hong Kong dollar	HKD
Hungary	Forint	HUF
Iceland	Icelandic krona	ISK
India	Indian rupee	INR
Indonesia	Rupiah	IDR
Iran, Islamic Republic of	Iranian rial	IRR
Iraq	Iraqi dinar	IQD
Ireland	Euro	EUR
Isle of Man	Manx pound	IMP
Israel	New shekel	ILS
Italy	Euro	EUR
Jamaica	Jamaican dollar	JMD
Japan	Yen	JPY
Jersey	Jersey pound	JEP
Jordan	Jordanian dinar	JOD
Kazakhstan, Republic of	Tenge	KZT
Kenya	Kenya shilling	KES
Kiribati	Kiribati dollar	No code

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Annex C: Currency Codes (*continued*)

Jurisdiction	Currency	Currency Code
Korea, Democratic People's Republic of	North Korean won	KPW
Korea, Republic of	South Korean won	KRW
Kuwait	Kuwaiti dinar	KWD
Kyrgyz Republic	Som	KGS
Lao, People's Democratic Republic	Kip	LAK
Latvia, Republic of	Euro	EUR
Lebanon	Lebanese pound	LBP
Lesotho, Kingdom of	Loti	LSL
Liberia	Liberian dollar	LRD
Libya	Libyan dinar	LYD
Lithuania, Republic of	Euro	EUR
Luxembourg	Euro	EUR
Macao SAR, People's Republic of China	Pataca	MOP
Macedonia, former Yugoslav Republic of	Denar	MKD
Madagascar, Republic of	Ariary	MGA
Malawi	Malawian Kwacha	MWK
Malaysia	Ringgit	MYR
Maldives	Rufiyaa	MVR
Mali	CFA franc BCEAO	XOF
Malta	Euro	EUR
Mauritania, Islamic Republic of	Ouguiya	MRO
Mauritius	Mauritian rupee	MUR
Mayotte	Euro	EUR
Mexico	Mexican peso	MXN
Moldova, Republic of	Leu	MDL
Mongolia	Togrog	MNT
Montserrat	East Caribbean dollar	XCD
Morocco	Moroccan dirham	MAD
Mozambique, Republic of	Metical	MZN
Myanmar	Kyat	MMK
Namibia	Namibian dollar	NAD
Nepal	Nepalese rupee	NPR
Netherlands	Euro	EUR
New Caledonia	CFP franc	XPF
New Zealand	New Zealand dollar	NZD
Nicaragua	Cordoba	NIO
Niger	CFA franc BCEAO	XOF
Nigeria	Naira	NGN
Norway	Norwegian krone	NOK
Oman	Omani rial	OMR
Pakistan	Pakistan rupee	PKR
Panama	Balboa	PAB
Papua New Guinea	Kina	PGK
Paraguay	Guarani	PYG
Peru	New sol	PEN
Philippines	Philippine peso	PHP
Poland, Republic of	Zloty	PLN
Portugal	Euro	EUR
Qatar	Qatari riyal	QAR
Romania	Romanian new leu	RON
Russian Federation	Ruble	RUB

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Annex C: Currency Codes (*concluded*)

Jurisdiction	Currency	Currency Code
Rwanda	Rwandan franc	RWF
Samoa	Tala	WST
São Tomé and Príncipe, Democratic Republic of	Dobra	STD
Saudi Arabia	Saudi Arabian riyal	SAR
Senegal	CFA franc BCEAO	XOF
Seychelles	Seychellois rupee	SCR
Sierra Leone	Leone	SLL
Singapore	Singapore dollar	SGD
Slovak Republic	Euro	EUR
Slovenia, Republic of	Euro	EUR
Solomon Islands	Solomon Islands dollar	SBD
Somalia	Somali shilling	SOS
South Africa	Rand	ZAR
South Sudan, Republic of	South Sudanese pound	SSP
Spain	Euro	EUR
Sri Lanka	Sri Lankan rupee	LKR
St. Helena	St. Helenian pound	SHP
St. Kitts and Nevis	East Caribbean dollar	XCD
St. Lucia	East Caribbean dollar	XCD
St. Vincent and the Grenadines	East Caribbean dollar	XCD
Sudan	Sudanese pound	SDG
Suriname	Surinamesse dollar	SRD
Swaziland, Kingdom of	Lilangeni	SZL
Sweden	Swedish krona	SEK
Switzerland	Swiss franc	CHF
Syrian Arab Republic	Syrian pound	SYP
Taiwan Province of China	New Taiwan dollar	TWD
Tajikistan, Republic of	Somoni	TJS
Tanzania, United Republic of	Tanzanian shilling	TZS
Thailand	Baht	THB
Togo	CFA franc BCEAO	XOF
Tonga	Pa'anga	TOP
Trinidad and Tobago	Trinidadian dollar	TTD
Tunisia	Tunisian dinar	TND
Turkey	Turkish lira	TRL
Turkmenistan	Manat	TMM
Uganda	Ugandan shilling	UGX
Ukraine	Hryvnia	UAH
United Arab Emirates	Emirati dirham	AED
United Kingdom	British pound	GBP
United States	US dollar	USD
Uruguay	Uruguayan peso	UYS
Uzbekistan, Republic of	Som	UZS
Vanuatu	Vatu	VUV
Venezuela, República Bolivariana de	Bolivar	VEF
Vietnam	Dong	VND
Wallis and Futuna Islands	CFP franc	XPF
Yemen, Republic of	Yemeni rial	YER
Zambia	Zambian Kwacha	ZMW
Zimbabwe	Zimbabwean dollar	ZWL

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B. Model Form for an End-Investor Survey on an Aggregate Basis

Survey of Portfolio Investment

Holdings of Equities and Debt Securities Issued by Unrelated Nonresidents as at June 30/ December 31, [Year]

Purpose of Collection

This survey collects information on holdings of residents of [**name of economy**] in equities and debt securities issued by unrelated nonresidents as at June 30/December 31, [Year]. The data from the survey will be used in the compilation of the balance of payments and international investment position statistics of [**name of economy**]. These statistics are published by [**name of compiling agency**] and reported to the Statistics Department of International Monetary Fund. The survey is being conducted in coordination with other countries to facilitate international data comparability.

Collection Authority

The information requested is collected under the authority of [**state legal authority**]. ***[Delete if voluntary]***

Confidentiality

The completed forms will remain confidential to the [**name of compiling agency**].

What to Report

The survey should be completed in accordance with the reporting instructions provided. If there are any questions regarding these instructions, please contact [**name of member of the survey staff**] at [**name of compiling agency**].

When and Where to Report

Please provide the results of this survey by [**specify the date**] to

[**Postal address/e-mail/telephone and fax numbers of compiler**].

Respondents unable to meet the reporting deadline should contact [**name of member of the survey staff**] at [**name of compiling agency**] to request an extension.

How to Report

Data may be submitted electronically using the online survey form, email, or paper forms (use the option applicable). Please keep a copy for your records.

[Name of compiling agency and date]

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Notes

Note 1. Who Must Report

Entities that are resident in [**name of economy**] and that own equities or debt securities issued by unrelated nonresidents of [**name of economy**] as at the close of business on June 30/December 31, [Year].

Note 2. What Must Be Reported

All entities that receive a copy of the forms must return the respondent identification section (Form 1) **within 30 days** of receipt of the forms, even those entities indicating that they are exempt from completing Form 1.

Those respondents meeting the criteria above (see Note 1) must return the completed survey forms (Form 2) by [**specify the date**]**.** Respondents unable to meet the reporting schedule should contact [**name of compiling agency**] indicated on the first page of this form to request an extension.

Reporters can file a consolidated report for all related entities that are resident in [**name of economy**], or each resident entity may file independently. If two or more entities are filing separately, please contact the member of the survey staff indicated on the first page of this form at [**name of compiling agency**] for additional identification numbers. If a consolidated report is being supplied for two or more entities, do not supply separate reports for the same entities.

Note 3. Residence

The reporting unit for this form is a **resident of [name of economy**]: that is, an individual, an enterprise, or other organization domiciled in [**name of economy**]. It includes branches and subsidiaries of nonresident enterprises if the branches or subsidiaries are domiciled in [**name of economy**]. Domicile is defined as the center of predominant economic interest of the entity: for instance, where an enterprise engages in production. Corporations legally registered in [**name of economy**] are considered to be resident even if they have no "physical presence." A **nonresident** of [**name of economy**] is any individual, enterprise, or other organization domiciled in a country other than [**name of economy**]. Branches and subsidiaries of [**name of economy**] enterprises domiciled in other jurisdictions are regarded as nonresidents of [**name of economy**].

The securities are classified by the jurisdiction of **residence of the issuer of the securities**. The residence of an enterprise can be taken to be where it is legally incorporated or, in the absence of legal incorporation, where it is legally domiciled. The economy of residence of the issuer may differ from the currency of issue, the place of issue, or the economy of the guarantor of the security. (Some securities are guaranteed by another party (such as the parent company or a government), and the guarantee may be either explicit or implicit. Even where the funds raised are for use by the guarantor, the residence of the **issuer** of the security should be used, **not** the residence of the guarantor.) Securities issued by international organizations should be shown under the separate code for international organizations (XX), not included under the country in which the organization is located.

Note 4. Definition of Equities and Long- and Short-term Debt Securities

Refer to Annex IV for details on definition and description of equity and debt securities. If you have any questions about how to classify an instrument, please contact the survey staff member indicated on the first page of this form at [**name of compiling agency**].

Note 5. Valuation

Market value should be used to report all holdings of securities. Do not report the face value of the security as the market value.

Equity securities should be reported at market prices converted to [**domestic currency**] using the exchange rate prevailing at June 30/ December 31, [Year].

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For enterprises listed on a stock exchange, the market value of your holding of their equity securities should be calculated using the market price on their main stock exchange prevailing at June 30/December 31, [Year].

For unlisted enterprises, if a market value is not available at the close of business on June 30/December 31, [Year], estimate the market value of your holding of equity securities by using one of the six alternatives methods (see Box 3.1)

Debt securities should be recorded at market prices converted to **[domestic currency]**, using the exchange rate prevailing at the close of business on June 30/December 31, [Year]. For listed debt securities, a quoted traded market price at the close of business on June 30/December 31, [Year], should be used. When market prices are unavailable (e.g., in the case of unlisted debt securities), the use of following methods for estimating fair value (which is an approximation of the market value of such instruments) are recommended:

- discounting future cash flows to the present value using a market rate of interest and[13]
- using market prices of financial assets and liabilities that are similar.

Refer to Box 10.3 of *BPM6 Compilation Guide* for further details.

Note 6. Exclusion of Securities Issued by Related Enterprises

Securities (whether equities or debt) issued by a nonresident enterprise that is related to the resident owner of those securities **should be excluded** from this survey. Related nonresident enterprises are enterprises in which an enterprise **group** has an equity interest of 10 percent or more, or where a nonresident has more than 10 percent or more holdings in your group. Ownership is measured in terms of ordinary shares or voting stock of incorporated enterprises or equivalent beneficial interest in unincorporated enterprises. Where such a relationship exists, exclude all securities (debt and equities) from the scope of Coordinated Portfolio Investment Survey.

In the circumstances where the nonresident entity that issued the security and the resident owner of the security are affiliated financial intermediaries (e.g., banks), the securities (other than equity or permanent debt) should be included in this report.

Note 7. Treatment of Securities Involved in Repurchase and Securities Lending Arrangements

A repurchase agreement is an arrangement involving the provision of securities in exchange for cash with a commitment to repurchase the same or similar securities at a fixed price. **Securities (or stock or bond) lending** is an arrangement whereby the ownership of a security is transferred in return for collateral, usually another security, under the condition that the security or similar securities will revert to its original owner at a specified future date.

- Securities acquired under reverse repos or securities borrowing arrangements are to be *excluded* from the survey.
- Securities sold under repos or "lent" under securities lending arrangements are to be *included* in the survey.
- Securities acquired under reverse repo or securities borrowing arrangements and subsequently sold to a third party should be reported as a *negative* holding—namely, a short position.
- Valuations of securities under repurchase or securities lending arrangements should be at *market value* as at June 30/December 31, [Year].

Note 8. Treatment of Depository Receipts

Depository receipts (DRs), which denote ownership of equity or debt securities issued by nonresidents (for instance, American DRs and global DRs), should be attributed to the country of residence of the issuer of the security underlying the DR. Financial intermediaries should not report holdings of any securities against which

[13] Refer to the *2013 External Debt Statistics: Guide for Compilers and Users* (appendix, Chapter 2) for examples on the calculation of present value and accrual of interest costs.

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DRs have been issued and sold; however, if a DR has been issued before the financial institution arranging the issue has acquired the underlying securities, that financial institution should report a negative holding in the underlying security.

Note 9. Treatment of Stripped Securities

Stripped securities (strips) are securities that have been transformed from a principal amount with periodic interest coupons into a series of zero-coupon securities, with the range of maturities matching the coupon payment dates and the redemption date of the principal amount.

- If strips remain the direct obligation of the original issuer, then the residence of the issuer of the strips remains the same as for the original security. Dealers who request that a settlement house or clearing house create strips from an existing security issued by a nonresident should not report ownership of the underlying security after the strips have been created.
- If strips have been created and issued by an entity in its own name, then the security should be classified according to the residence of the issuer of the strips. In turn, such an issuer of strips should report its ownership of the underlying securities if they were issued by a nonresident.

Strips with an original maturity of less than one year are classified as money market instruments and thus, if identifiable, should be reported as short-term debt securities.

Refer to paragraphs 3.49–3.80 in Chapter 3 of this *Guide* for additional details on notes 7–9.

Note 10. Asset-Backed Securities

In reporting the market value of holdings of asset-backed securities, the respondent must be aware of the possibility of early partial redemption of principal. The market value of the principal amount outstanding at June 30/ December 31, [Year], should be reported; if principal has been repaid, this market value will **not** be the same as the original face value revalued at end-period market prices.

If there are any questions regarding these instructions, please contact the survey staff member at [name of compiling agency] indicated on the front of this form.

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Survey of Portfolio Investment—June 30/December 31, [Year]

FORM 1: RESPONDENT IDENTIFICATION
To be returned within 30 days

1. Identification no.: Enter the identification number from the mailing label/e-mail on this survey. ☐
2. Company name:
3. Street address:
4. City: 5. State: 6. Postal code:
7. Reporting status ☐ Form 2 ☐ Exempt

   Respondents with **no holdings of securities** issued by unrelated nonresidents **should check "exempt."**
8. In the event of a query, the national compiler may contact:
9. Tel. no.: 10. Fax no.: 11. E-mail address:

   By signing the certification line, the Certifier acknowledges that

   - he/she has read and understood the reporting requirements of this survey,
   - he/she is aware of any penalties that may be imposed for filing an inaccurate report, ***[Delete if voluntary]*** and
   - he/she certifies that he/she is sufficiently knowledgeable about the activities of the reporting organization that he/she can knowingly and with reasonable confidence certify that the information provided in this report is both accurate and complete.

Certifier's signature

12. Certifier's name and title:

13. Certifier's telephone no.: 14. Date signed:

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Survey of Portfolio Investment—June 30/December 31, [Year]

FORM 2: HOLDINGS OF SECURITIES ISSUED BY UNRELATED NONRESIDENTS

[Delete own jurisdiction if it is included on this list]
[Add appropriate currency and units]

		Market Value of Securities as at June 30/December 31, [Year] (Currency in millions)			
Jurisdiction of Issuer[a]	Code	Equities	Long-Term Debt Securities	Short-Term Debt Securities	Office Use Only
		(1)	(2)	(3)	
Afghanistan, Islamic State of	AF				
Zimbabwe	ZW				
Other (please specify)					
International organizations	XX				
Total value of securities reported					

Notes: For presentation, only the first and last countries on the list are shown here. The complete list of countries is shown in Annex B of Appendix IA.

[a]In general, for small economies with an international financial center (SEIFiC), the jurisdiction of issuers is concentrated in a small set of economies and mostly known to the national compilers. Hence, jurisdiction of issuers be listed in the first column for SEIFiC.

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C. Model Form for a Mixed Custodian/End-Investor Survey on an Aggregate Basis

Survey of Portfolio Investment:

Holdings of Equities and Debt Securities Issued by Unrelated Nonresidents as at June 30/December 31, [Year]

Purpose of Collection

This survey collects information on holdings of residents of [**name of economy**] in equities and debt securities issued by unrelated nonresidents as at June 30/December 31, [Year]. The data from the survey will be used in the compilation of the balance of payments and international investment position statistics of [**name of economy**]. These statistics are published by [**name of compiling agency**] and reported to the Statistics Department of International Monetary Fund. The survey is being conducted in coordination with other countries to facilitate international data comparability.

Collection Authority

The information requested is collected under the authority of [**state legal authority**]. ***[Delete if voluntary]***

Confidentiality

The completed forms will remain confidential to the [**name of compiling agency**].

What to Report

The survey should be completed in accordance with the reporting instructions provided. If there are any questions regarding these instructions, please contact [**name of member of the survey staff**] at [**name of compiling agency**].

When and Where to Report

Please provide the results of this survey by [**specify the date**] to

[**Postal address/e-mail/telephone and fax numbers of compiler**].

Respondents unable to meet the reporting deadline should contact [**name of member of the survey staff**] at [**name of compiling agency**] to request an extension.

How to Report

Data may be submitted electronically using the online survey form, e-mail, or paper forms (use the option applicable). Please keep a copy for your records.

[Name of compiling agency and date]

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Notes

Note 1. Who Must Report

(a) **Custodians** that are resident in **[name of economy]** and that, as at June 30/December 31, [Year], manage the safekeeping of securities issued by nonresidents on behalf of residents of **[name of economy]**, or **on their own account**. Resident custodians are defined as entities located in **[name of economy]** who manage the safekeeping of securities for investors.

(b) **Investors** that are resident in **[name of economy]** and that own equities or debt securities issued by unrelated nonresidents of **[name of economy]** as at June 30/December 31, [Year], as well as that do not entrust the safekeeping of any or all of these securities to **resident** custodians. This includes both those who invest for their own account as well as those who invest on behalf of asset pools, such as the managers of mutual funds, insurance companies, and pension funds.

All entities that receive a copy of the survey forms must reply. Those that do not fall into either of the above two categories need only complete the identification information on Form 1 and mark the box indicating that they are exempt from completing Forms 2a–2c (for end-investors) and Form 2d (for custodians).

Note 2. What Must Be Reported

All entities that receive a copy of the survey forms must complete the **respondent identification section** of Form 1 and return a copy to the **[name of compiling agency] within 30 days** of receipt of the survey forms.

All entities that receive a copy of the survey forms must submit their survey responses by [**specify the date**] to [**name of compiling agency**], whose address is listed in the key information section of Form 1. Respondents unable to meet the reporting schedule should contact **[name of member of the survey staff shown on the front of this form]** at [**name of compiling agency**] to request an extension.

End-Investors

Resident end-investors of [**name of economy**] should complete Form 1 and Form 2a (for equity holdings), Form 2b (for long-term debt securities holdings), and Form 2c (for short-term debt securities holdings) in respect of securities issued by unrelated nonresidents:

(a) held on their own account (i.e., not entrusted to a custodian) (Column 1) and

(b) entrusted to a nonresident custodian (Column 2) as at June 30/December 31, [Year].

Securities entrusted to resident custodians should be excluded from this form because they will be reported by the custodians.

Custodians' own account holdings should be included in Form 2a, 2b, or 2c, as appropriate.

Reporters can file a consolidated report for all related entities that are resident in [**name of economy**], or each resident entity may file independently. If two or more entities are filing separately, please contact the member of the survey staff indicated on the first page of this form at [**name of compiling agency**] for additional identification numbers. Do **not** file both a consolidated report for the entire resident organization **and** for the separate units.

Custodians

In addition to Form 1, all custodians of [**name of economy**] should complete Form 2d in respect of securities issued by nonresidents and which were held as at June 30/December 31, [Year], on behalf of residents of [**name of economy**]. Report the holdings of equities in Column 1, long-term debt securities in Column 2, and short-term debt securities in Column 3.

Do not include own account holdings in Form 2d; these should be reported on Forms 2a–2c, as appropriate.

Securities issued by entities that are related to the investor should **not** be reported (see Note 6 on exclusion of securities issued by related enterprises).

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Where securities have been entrusted by a resident of [**name of economy**] to a custodian who is a resident of [**name of economy**], and that custodian has passed the securities to another custodian, the **first** custodian should report the holding. The second (or subsequent) custodian in that chain of custody should **not** report holdings of securities issued by nonresidents held on behalf of another custodian.

All entities who receive any of the above forms must return the respondent identification section (Form 1) **within 30 days** of receipt of the forms, even those entities indicating that they are exempt from completing Form 1.

Those respondents meeting the criteria above (see Note 1) must return the completed survey forms (Forms 2a–2c for end-investors and Form 2d for custodians) by [**specify the date**].

Respondents unable to meet the reporting schedule should contact [**name of compiling agency**] indicated on the first page of this form to request an extension.

Note 3. Residence

The reporting unit for this form is a **resident of** [**name of economy**]: that is, an individual, an enterprise, or other institutional unit domiciled in [**name of economy**]. It includes branches and subsidiaries of nonresident enterprises if the branches or subsidiaries are domiciled in [**name of economy**]. Domicile is defined as the center of predominant economic interest of the entity: for instance, where an enterprise engages in production. Corporations legally registered in [**name of economy**] are considered to be resident even if they have no "physical presence." A **nonresident** of [**name of economy**] is any individual, enterprise, or other organization domiciled in a country other than [**name of economy**]. Branches and subsidiaries of [**name of economy**] enterprises domiciled in other jurisdictions are regarded as nonresidents of [**name of economy**].

The securities are classified by the jurisdiction of **residence of the issuer of the securities**. The residence of an enterprise can be taken to be where it is legally incorporated or, in the absence of legal incorporation, where it is legally domiciled. The country of residence of the issuer may differ from the currency of issue, the place of issue, or the economy of the guarantor of the security. (Some securities are guaranteed by another party (such as the parent company or a government), and the guarantee may be either explicit or implicit. Even where the funds raised are for use by the guarantor, the residence of the **issuer** of the security should be used, **not** the residence of the guarantor.) Securities issued by international organizations should be shown under the separate code for international organizations (XX), not included under the economy in which the organization is located.

[If one or more international organization(s) is/are located in your economy: [**Specify the name(s) of these international organizations**] should **not** be considered to be resident(s) in [**name of economy**] and their holdings should not be reported in this return. However, **pension funds** for employees of these international organizations are considered to resident in [**name of country**]. ***(If not relevant, delete this paragraph.)***]

Note 4. Definition of Equities and Debt Securities

Refer to Annex IV for details on definition and description of equity and debt securities. If you have any questions about how to classify an instrument, please contact the survey staff member indicated on the first page of this form at [**name of compiling agency**].

Note 5. Valuation

Market value should be used to report all holdings of securities. Do not report the face value of the security as the market value.

Equity securities should be reported at market prices converted to [**domestic currency**] using the exchange rate prevailing at June 30/December 31, [Year].

For enterprises listed on a stock exchange, the market value of your holding of their equity securities should be calculated using the market price on their main stock exchange prevailing at June 30/December 31, [Year].

For unlisted enterprises, if a market value is not available at June 30/December 31, [Year], estimate the market value of your holding of equity securities by using one of the six alternatives methods (see Box 3.1).

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Debt securities should be recorded at market prices converted to [**domestic currency**], using the exchange rate prevailing at the close of business on June 30/December 31, [Year]. For listed debt securities, a quoted traded market price at the close of business on June 30/December 31, [Year], should be used. When market prices are unavailable (e.g., in the case of unlisted debt securities), the use of following methods for estimating fair value (which is an approximation of the market value of such instruments) are recommended:

- discounting future cash flows to the present value using a market rate of interest[14] and
- using market prices of financial assets and liabilities that are similar.

Refer to Box 10.3 of *BPM6 Compilation Guide* for further details.

Note 6. Exclusion of Securities Issued by Related Enterprises

Securities (whether equities or debt) issued by a nonresident enterprise that is related to the resident owner of those securities **should be excluded** from this survey. Related nonresident enterprises are enterprises in which an enterprise **group** has an equity interest of 10 percent or more, or where a nonresident has more than 10 percent or more holdings in your group. Ownership is measured in terms of ordinary shares or voting stock of incorporated enterprises or equivalent beneficial interest in unincorporated enterprises. Where such a relationship exists, exclude all securities (debt and equities) from the scope of Coordinated Portfolio Investment Survey.

The only exception is if the nonresident entity that issued the security and the resident owner of the security are affiliated financial intermediaries (e.g., banks). In these circumstances, securities issued by related enterprises, other than equity or permanent debt, should be reported in this survey.

Note 7. Treatment of Securities Involved in Repurchase and Securities Lending Arrangements

A repurchase agreement is an arrangement involving the provision of securities in exchange for cash with a commitment to repurchase the same or similar securities at a fixed price. A reverse repo is the same transaction seen from the other side: that is, an agreement whereby a security is purchased at a specified price with a commitment to resell the same or similar securities at a fixed price on a specified future date. **Securities (or stock or bond) lending** is an arrangement whereby the ownership of a security is transferred in return for collateral, usually another security, under the condition that the security or similar securities will revert to its original owner at a specified future date.

- Securities acquired under reverse repos or securities borrowing arrangements are to be *excluded* from the survey.
- Securities sold under repos or "lent" under securities lending arrangements are to be *included* in the survey.
- Securities acquired under reverse repo or securities borrowing arrangements and subsequently sold to a third party should be reported as a *negative* holding—namely, a short position (see Form 2, Item 10).
- Valuations of securities under repurchase or securities lending arrangements should be at *market value* as at June 30/December 31, [Year].

Note 8. Treatment of Depository Receipts

Depository receipts (DRs), which denote ownership of equity or debt securities issued by nonresidents (for instance, American DRs and global DRs), should be attributed to the country of residence of the issuer of the security underlying the DR. Financial intermediaries should not report holdings of any securities against which DRs have been issued and sold; however, if a DR has been issued before the financial institution

[14] Refer to the *2013 External Debt Statistics: Guide for Compilers and Users* (appendix, Chapter 2) for examples on the calculation of present value and accrual of interest costs.

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arranging the issue has acquired the underlying securities, that financial institution should report a negative holding in the underlying security.

Note 9. Treatment of Stripped Securities

Stripped securities (strips) are securities that have been transformed from a principal amount with periodic interest coupons into a series of zero-coupon securities, with the range of maturities matching the coupon payment dates and the redemption date of the principal amount.

- If strips remain the direct obligation of the original issuer, then the residence of the issuer of the strips remains the same as for the original security. Dealers who request that a settlement house or clearing house create strips from an existing security issued by a nonresident should not report ownership of the underlying security after the strips have been created.
- If strips have been created and issued by an entity in its own name, then the security should be classified according to the residence of the issuer of the strips. In turn, such an issuer of strips should report its ownership of the underlying securities if they were issued by a nonresident.

Strips with an original maturity of less than one year are classified as money market instruments and thus, if identifiable, should be reported as short-term debt securities.

Refer to paragraphs 3.49–3.80 in Chapter 3 of this *Guide* for additional details on notes 7–9.

Note 10. Asset-Backed Securities

In reporting the market value of holdings of asset-backed securities, the respondent must be aware of the possibility of early partial redemption of principal. The market value of the principal amount outstanding at June 30/December 31, [Year], should be reported; if principal has been repaid, this market value will **not** be the same as the original face value revalued at end-period market prices.

If there are any questions regarding these instructions, please contact the survey staff member at [name of compiling agency] indicated on the front of this form.

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Survey of Portfolio Investment—June 30/December 31, [Year]

FORM 1: RESPONDENT IDENTIFICATION

To be returned within 30 days

1. Identification no.: Enter the identification number from the mailing label/e-mail on this survey. ☐
2. Company name:
3. Street address:
4. City: 5. State: 6. Postal code:
7. Reporting status ☐ Holding securities issued by nonresidents ☐ Exempt
   Respondents with **no holdings of securities** issued by unrelated nonresidents **should check "exempt."**
8. In the event of a query, the national compiler may contact:
9. Tel. no.: 10. Fax no.: 11. E-mail address:

By signing the certification line, the Certifier acknowledges that

- he/she has read and understood the reporting requirements of this survey,
- he/she is aware of any penalties that may be imposed for filing an inaccurate report, ***[Delete if voluntary]*** and
- he/she certifies that he/she is sufficiently knowledgeable about the activities of the reporting organization that he/she can knowingly and with reasonable confidence certify that the information provided in this report is both accurate and complete.

Certifier's signature:

12. Certifier's name and title:
13. Certifier's telephone no.: 14. Date signed:

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Survey of Portfolio Investment—June 30/December 31, [Year]

FORM 2a: HOLDINGS OF END-INVESTOR OF EQUITY SECURITIES ISSUED BY UNRELATED NONRESIDENTS

[Delete own jurisdiction if it is included on this list]
[Add appropriate currency and units]

		Market Value of Equity Securities as at June 30/ December 31, [Year] (Currency in millions)		
Jurisdiction of Issuer[a]	**Code**	**Held in Own Custody**	**Held with Nonresident Custodian**	**Office Use Only**
		(1)	**(2)**	
Afghanistan, Islamic State of	AF			
Zimbabwe	ZW			
Other (please specify)				
International organizations	XX			
Total value of equity securities reported				

Notes: For presentation, only the first and last countries on the list are shown here. The complete list of countries is shown in Annex B of Appendix IA.

[a]In general, for small economies with an international financial center (SEIFiC), the jurisdiction of issuers is concentrated in a small set of economies and mostly known to the national compilers. Hence, jurisdiction of issuers be listed in the first column for SEIFiC.

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FORM 2b: HOLDINGS OF END-INVESTOR LONG-TERM DEBT SECURITIES ISSUED BY UNRELATED NONRESIDENTS

[Delete own jurisdiction if it is included on this list]
[Add appropriate currency and units]

		Market Value of Long-Term Debt Securities as at June 30/December 31, [Year] (Currency in millions)		
Jurisdiction of Issuer[a]	Code	Held in Own Custody	Held with Nonresident Custodian	Office Use Only
		(1)	(2)	
Afghanistan, Islamic State of	AF			
Zimbabwe	ZW			
Other (please specify)				
International organizations	XX			
Total value of long-term debt securities reported				

Notes: For presentation, only the first and last countries on the list are shown here. The complete list of countries is shown in Annex B of Appendix IA.

[a]In general, for small economies with an international financial center (SEIFiC), the jurisdiction of issuers is concentrated in a small set of economies and mostly known to the national compilers. Hence, jurisdiction of issuers be listed in the first column for SEIFiC.

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FORM 2c: HOLDINGS OF END-INVESTOR OF SHORT-TERM DEBT SECURITIES ISSUED BY UNRELATED NONRESIDENTS

[Delete own jurisdiction if it is included on this list]
[Add appropriate currency and units]

		Market Value of Short-Term Debt Securities as at June 30/December 31, [Year] (Currency in millions)		
Jurisdiction of Issuer[a]	Code	Held in Own Custody	Held with Nonresident Custodian	Office Use Only
		(1)	(2)	
Afghanistan, Islamic State of	AF			
Zimbabwe	ZW			
Other (please specify)				
International organizations	XX			
Total value of short-term debt securities reported				

Notes: For presentation, only the first and last countries on the list are shown here. The complete list of countries is shown in Annex B of Appendix IA.

[a]In general, for small economies with an international financial center (SEIFiC), the jurisdiction of issuers is concentrated in a small set of economies and mostly known to the national compilers. Hence, jurisdiction of issuers be listed in the first column for SEIFiC.

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FORM 2d: HOLDINGS OF CUSTODIAN ON BEHALF OF RESIDENTS OF [NAME OF COUNTRY] OF SECURITIES ISSUED BY NONRESIDENTS

[Delete own jurisdiction if it is included on this list]
[Add appropriate currency and units]

		Market Value of Securities as at June 30/December 31, [Year] (Currency in millions)			
Jurisdiction of Issuer[a]	Code	Equities	Long-Term Debt Securities	Short-Term Debt Securities	Office Use Only
		(1)	(2)	(3)	
Afghanistan, Islamic State of	AF				
Zimbabwe	ZW				
Other (please specify)					
International organizations	XX				
Total value of securities reported					

Notes: For presentation, only the first and last countries on the list are shown here. The complete list of countries is shown in Annex B of Appendix IA.

[a]In general, for small economies with an international financial center (SEIFiC), the jurisdiction of issuers is concentrated in a small set of economies and mostly known to the national compilers. Hence, jurisdiction of issuers be listed in the first column for SEIFiC.

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APPENDIX

2 Web Links of Survey Forms and Instructions of Some CPIS Participants

This appendix provides weblinks to portfolio investment survey forms/instructions in selected countries reporting the Coordinated Portfolio Investment Survey. These links would be helpful for countries that intend to develop portfolio investment data collection system or improve the existing systems. The following list will be updated with links to latest forms/instructions of the following countries and survey questions/forms of other countries that could be of use from time to time:

1. **Australia: International Investment Survey**

   Explanatory Notes and Forms

   http://www.abs.gov.au/websitedbs/D3310114.nsf/Home/Survey+Participant+Information+-+Survey+of+International+Investment?opendocument

2. **Canada: Survey of Portfolio Investment (BP-54)**

   Questionnaire and Survey Guide

   http://www23.statcan.gc.ca/imdb-bmdi/pub/document/1537_D3_T1_V2-eng.htm

3. **Mauritius: Coordinated Portfolio Investment Survey**

   Survey Form and Explanatory Notes

   https://www.bom.mu/publications-and-statistics/statistics/external-sector-statistics/coordinated-portfolio-investment-survey

4. **New Zealand: International Investment Survey—Annual and Quarterly**

   Survey Questionnaires and Instructions

   https://cdm20045.contentdm.oclc.org/digital/collection/p20045coll2/search/searchterm/international%20investment/order/title

5. **Singapore: Investment Abroad Survey Part I—Portfolio Investment and Other Foreign Assets**

   Survey Questionnaire and Explanatory Notes

   https://www.singstat.gov.sg/-/media/files/survey-forms/pib.pdf

6. **United States: Treasury International Capital System—Survey of U.S. Ownership of Foreign Securities**

   Survey Forms and Instructions

   https://www.treasury.gov/resource-center/data-chart-center/tic/Pages/index.aspx

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APPENDIX

3 Web Links of Reporting Forms for CPIS, SEFER, and SSIO Data Submission to IMF

Beginning with the reporting of end-June 2013 data, IMF Statistics Department (STA) introduced semiannual collection of both the Coordinated Portfolio Investment Survey (CPIS) and Securities Held as Foreign Exchange Reserves (SEFER) data for the reference periods end-June and end-December each year. As highlighted in Chapter 1, CPIS semiannual data should be reported to STA no later than 6.5 months after the end of the reference period as per the following reporting schedule:

- Report End-June Year *t* data: No later than January 14, Year *t* + 1
- Report End-December Year *t* data: No later than July 15, Year *t* + 1

SEFER semiannual data should be reported to STA no later than six months after the end of the reference period as per the following reporting schedule:

- Report End-June Year *t* data: No later than December 31, Year *t*
- Report End-December Year *t* data: No later than June 30, Year *t* + 1

The economies that continue to report only annual CPIS and/or annual SEFER data should use the above deadlines for end-December.

Regarding Securities Held by International Organizations (SSIO), annual data should be reported to STA according to the same timeline as for the end-December CPIS and end-December SEFER, for inclusion with the published results from these surveys.

The reporting economies should use the following data templates posted on the CPIS portal for reporting the seven CPIS tables and metadata questionnaire, two SEFER tables, and SSIO data

- CPIS Data Template,
- CPIS Metadata Questionnaire,
- SEFER Data Template, and
- SSIO Data Template.

(See http://data.imf.org/?sk=B981B4E3-4E58-467E-9B90-9DE0C3367363&sId=1481574691948)

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APPENDIX

4 Definition and Description of Securities

Equity and Investment Fund Shares

Equity consists of all instruments and records that acknowledge claims on the residual value of a corporation or quasi-corporation, after the claims of all creditors have been met. Equity may be split into listed shares, unlisted shares, and other equity. Both listed and unlisted shares are equity securities. Equity securities are commonly called shares or stocks. Other equity is equity that is not in the form of securities (Appendix 1 of 2013 *External Debt Statistics: Guide for Compilers and Users* (2013 *EDS Guide*) and Chapter 3 of *Handbook on Securities Statistics* (*HSS*)).

Ordinary Shares

Ordinary shares (or "common" shares) usually give holders the right to participate in the corporation's general policymaking and have the right to attend, speak, and vote (in the case of voting shares) at general meetings; holders are usually entitled to a preferential subscription in the event of a capital increase and generally have the right to a share in the corporation's profits (*HSS*, Chapter 3).

Preference Shares

Preference shares (or "preferred" shares or stocks) typically rank higher than ordinary shares. Part of the share capital of a company ranks after secured creditors but before ordinary shareholders in the event of liquidation. Preference rights are defined in the articles of association of the relevant company but may relate to dividend, voting rights, or distribution of surplus assets. Like ordinary shares, preferred shares represent partial ownership of a corporation. Unlike ordinary shares, however, preferred shares often pay a fixed dividend. In general, preferred shares comprise the following (Table 3.1 of *HSS* describes the different types or preferred shares):

- **cumulative or noncumulative preferred shares**, depending on whether dividends payable are accumulated or not;
- **participating or nonparticipating preferred shares**, depending on whether they confer the right to a share in the residual value of the corporation on dissolution (with participating preferred shares treated as equity securities, regardless of whether the income is fixed or determined according to a formula, while nonparticipating preferred shares are classified as debt securities);
- **convertible or exchangeable preferred shares**, depending on whether they can be converted into a specified amount of ordinary shares or bonds;
- **redeemable or retractable preferred shares**, which are redeemed or retracted at a fixed price on a specified date or during a specified period of time at the request of either the corporation or the holder;
- **straight perpetual preferred shares**, which have no maturity date and pay fixed dividends for as long as they remain outstanding; **rate reset preferred shares or fixed floating rate preferred shares**, which pay fixed dividends until the reset date (which is typically also the call date); and **floating rate preferred shares**, which pay dividends on a quarterly (or in some cases monthly) basis—dividends fluctuate in relation to a reference rate, usually a prime rate, although some may have a "floor" or a minimum dividend, all of which have different dividend payment patterns; and
- **split and structured preferred shares**, which are based on an underlying portfolio of ordinary shares or other financial instruments.

Depository Receipts

Depository receipts (DRs) are securities that represent ownership of securities in other economies. DRs listed on one exchange represent ownership of securities listed on another exchange, and ownership

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of the DRs is treated as if it represents direct ownership of the underlying securities (a depository is an entity to whom securities are entrusted for safekeeping). They facilitate transactions in securities in economies other than their home listing. They allow a nonresident institutional unit to introduce its debt or equity securities on another market in a form more readily acceptable to the investors in that market. Although the underlying securities may be equity or debt securities, the large majority are equities. American depository receipts (ADRs) and global depository receipts (GDRs) are the most common types of DRs. ADRs and GDRs are normally denominated in U.S. dollars and euros. ADRs are mostly traded on U.S. exchanges and GDRs on European stock exchanges. In general, each DR represents a single or more than one share of an underlying equity.

Investment Fund Shares or Units

Investment funds are collective investment undertakings through which investors pool funds for investment in financial or nonfinancial assets or both. These are sometimes known as mutual funds. These funds issue shares (if a corporate structure is used) or units (if a trust structure is used). The shares in the fund purchased by individual investors represent an ownership interest in the pool of underlying assets (i.e., the investors have an equity stake). Because professional fund managers make the selection of assets, investment funds provide individual investors with an opportunity to invest in a diversified and professionally managed portfolio of securities without the need of detailed knowledge of the individual companies issuing the stocks and bonds.

Investment funds include money market funds (MMF) and non-MMF investment funds. MMFs are investment funds that invest only or primarily in short-term debt securities such as treasury bills, certificates of deposit (CD), and commercial paper (CP). Non-MMF investment funds mainly invest in a range of assets, long-term in nature, also including commodity-linked investments, real estate, shares in other investment funds, and structured assets (*BPM6*, paragraphs 5.28–5.30). Open-ended funds or open funds are those whose shares or units are, at the request of the holders, repurchased or redeemed directly or indirectly out of the undertaking's assets. Closed-ended, closed, or exchange-traded funds are those with a fixed share capital, where investors entering or leaving the fund must buy or sell existing shares.

Debt Securities

Due to the increasing internationalization of debt instruments, they are defined by market, interest, maturity, currency, borrower, amount issued, collateral, convertibility, and subordination.

Defined by the Market

According to the "location of issue" approach, debt securities issued by a resident of the same economy in which the security is issued are classified as domestically issued, regardless of the currency of issue. All other issues are classified as internationally issued. As financial markets become more open to foreign issuers and investors, the boundaries between domestic and international securities markets become less clear. The matrix below helps to classify a debt instrument by market, taking into account the other main elements of the instrument. Many (domestic) sovereign bonds are now traded intensively on international markets. Nevertheless, they still remain domestic instruments; their form, tax, and custody aspects are fixed under specific rules, which all are different, depending on the market.

Market	Currency	Issuer	Investor Base
Domestic	Domestic	Domestic	Domestic
Foreign	Domestic	Foreign	Domestic
International	Domestic and basket	Any	International and domestic
Euro	Eurocurrency	Any	International
Global	Eurocurrency	Any	International and domestic

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International Bond

International bond is a bond issued by a borrower in a foreign country. They include foreign bonds, parallel bonds, global bonds, and Eurobonds.

Global Bond

Global bond is an international issue placed at the same time in the Euro and one or more domestic markets with securities fungible between the markets.

Eurobond

Eurobond is a bond issued by a borrower in a foreign country, denominated in a Eurocurrency (e.g., U.S. dollar, Canadian dollar, yen, euro, etc.), underwritten, and sold by an international syndicate of financial institutions.

Foreign Bond

Foreign bond is a security issued by a nonresident borrower in a domestic capital market other than its own, usually denominated in the currency of that market. Issues are placed publicly or privately. These bonds generally adopt the characteristics of the domestic market of the country in which they are issued, such as in terms of registration (bearer or registered form), settlement, and coupon payment arrangements. Common foreign bonds are Yankee bonds (U.S. market), Samurai bonds (Japan market), and Bulldog bonds (U.K. market).

Defined by Interest

Fixed-Rate Bond

Fixed-rate bond is a fixed-rate, interest-bearing debt security.

Bull and Bear Bond

Bull and bear bond is a fixed-interest bond whose value at maturity is dependent on the performance of a stock market index. The issue is divided into two parts: a bull bond and a bear bond. The bull bond's redemption value rises if the market index increases and declines if the index decreases. Conversely, the bear bond has a higher redemption value if the stock market weakens and a lower value if stock prices rise.

Step-Up or Step-Down Bond (or Note)

Rate will go up or down as indicated in the terms and conditions of the notes.

Zero-Coupon Bond

Zero-coupon bond is a bond without a coupon providing interest payments. It has an issue price well below 100 percent, with repayment on maturity at face value or par. The investor's return is the difference between the issue price and redemption value. Variants of zero-coupon bonds include the following:

Capital growth bond: Issue price of par (100 percent) with redemption at a multiple of that amount.

Deep-discount bond: A bond with issue price significantly below maturity price because of a lack of coupon or a coupon below market rate.

Liquid yield option note (LYON): A LYON combines the features of a zero-coupon bond with those of a convertible bond. The zero-coupon bond pays no interest until it is redeemed at or before maturity; the difference between the issue price and the redemption price represents the accrued interest. In addition, the LYON bond may be converted by the holder into equity of the issuing corporation within a specified period and at a specified conversion price.

Floating-Rate Notes

Floating-rate notes (FRNs) are medium- to long-term debt securities with variable interest rates that are adjusted periodically (typically every one, three, or six months). The interest rate is usually fixed at a specified spread over one of the following specified deposit rates:

- London interbank offered rate (LIBOR),
- London interbank bid rate (LIBID), or
- London interbank mean rate (LIMEAN)—average of LIBOR and LIBID

FRNs may also use short-term obligations of the U.S. government (Treasury bills) to establish their interest rate. Interest is payable at the end of each interest period.

Variants of FRN are the following:

Drop-lock bond: The drop-lock bond combines the features of both floating- and fixed-rate securities. It is issued with a floating interest rate that is reset semiannually at a specified margin above a base rate, such as six months LIBOR. This continues until the base rate is at or below a specified trigger rate on an interest fixing date or, in some cases, on

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two consecutive interest fixing dates. At that time, the interest rate becomes fixed at a specified rate for the remaining lifetime of the bond.

Mismatch FRN: FRN with a coupon structure that is refixed more often and for different maturities than the interest periods (e.g., the interest rate is based on six months LIBOR but adjusted every month).

Mini-max (or collared) FRN: FRN with a minimum and a maximum interest rate.

Capped FRN: FRN with a maximum interest rate.

Flip-flop FRN: FRN that combines an FRN with a very long final maturity, or even a perpetual issue, and an investor option to convert after a specified period into a short-dated FRN that typically pays a lower margin over LIBOR than the original issue. The investor further has the option at a later date to convert back into the initial issue before redemption of the short-dated note.

Convertible rate FRN: Issue that carries the option to convert either from an initial floating-rate note into a fixed-rate bond or from a fixed-rate bond into a floating-rate note. This provides ways in which investors and borrowers can speculate or hedge against the future course of interest rates.

Variable-rate note: FRN where the margin over the reference rate is fixed by the issuer and the remarketing agent several days before the following interest period. The holders, during a predetermined period of time, have the right to either bid for the new applicable margin over the reference rate or (under certain conditions) put the notes to the arranger (but not the issuer) on the following interest payment date (2013 *EDS Guide*, appendix 1).

Sukuk

Sukuk are Islamic instruments that are issued by Islamic financial institutions. A distinguishing feature of Sukuk is that they are structured to be consistent with Islamic law, which does not allow the charging of interest. The holders are entitled to a share (rent) from the return on the underlying assets. Sukuk can be classified by type of underlying contract, such as Murābahah, Ijārah, Salam, Istisnā, Mushārakah, Mudārabah, and Wakalah. They should be classified as debt securities, unless the owner of the security has a claim on the residual value of the issuing entity (*HSS*, annex 3 and 2013 *EDS Guide*, appendix 1).

Index-Linked Securities

Index-linked securities are debt instruments with coupon and principal payments linked to commodity prices, interest rates, stock exchange, or other price indices. The benefits to the issuer of indexing include a reduction in interest costs if the deal is targeted at a particular group of investors' requirements and an ability to hedge an exposed position in a particular market. The benefit to investors is in the ability to gain exposure to a wide range of markets (e.g., foreign exchange or property markets) without the same degree of risk that may be involved in investing in the markets directly. Issues linked to a consumer price index also provide investors with protection against inflation (2013 *EDS Guide*, appendix 1).

Defined by Maturity

Bond with Call Option

The issuer has the right to redeem the bond at a specified earlier date than the one originally fixed as the final maturity.

Bond with Put Option

The investor has the right to require redemption of the principal at a specified date earlier than the one originally fixed as the final maturity.

Retractable Bond

Retractable bond is an issue carrying the option (for both the issuer and the investor) for early redemption at one or several fixed dates.

Extendable Bond

The investor has the option at one or several fixed dates to extend the maturity.

Perpetual Bond

Perpetual bond is due for redemption only in the case of the borrower's liquidation. Usually the terms and conditions provide a call option at a premium. The interest rate can be fixed for the whole maturity or only for an initial period (e.g., 10 years). For each subsequent period, the interest is reset as provided in the terms and conditions.

Bullet Bond

Bullet bond is an issue with no call and no prepayments until maturity.

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Sinking Fund

Sinking fund is a payment made by the borrower on a regular basis to a special account to set aside the necessary funds for the redemption of its long-term debt. In the Euromarket, borrowers can meet their requirements through purchases in the open market or through drawings by lot.

Defined by Currency

Dual-Currency Bond

A dual-currency bond is a hybrid debt instrument with payment obligations over the life of the issue in two different currencies. The borrower makes coupon payments in one currency, but redeems the principal at maturity in another currency in an amount fixed at the time of the issue of the bonds. The price of the bonds in the secondary market is indicated as a percentage of the redemption amount.

The following are variants of dual-currency bonds:

Foreign interest payment security (FIPS): FIPS is an instrument in the Swiss capital market. Its features are similar to a reverse dual-currency bond that offers interest payments in a foreign currency but keeps the principal in Swiss francs.

Adjustable long-term puttable security: The currency conditions are similar to a FIPS; however, the bonds have a floating interest rate and a put option.

Yen-linked bond: The yen-linked bond is expressed in U.S. dollars or Swiss francs, whose face value is also indicated in yen (parity fixed at issuance). Issuance and redemption are in yen, which are converted into the original currency at the parity of the payment date.

Multiple currency clause bond: The multiple currency clause bond is an issue with an investor's option to choose the currency for redemption and sometimes also for interest payments.

Special Drawing Right (SDR) bond: The SDR bond is issued in the currency of the IMF. The SDR is a composite currency unit based on a standard basket system of valuation. SDR bonds are traded only in U.S. dollars.

Shogun or geisha bond: The shogun bond is a non-yen-denominated issue in the Japanese domestic market by a non-Japanese borrower.

Defined by Borrower

Brady Bonds

Brady bonds, named after U.S. Treasury Secretary Nicholas Brady, arose from the Brady Plan. This plan was a voluntary market-based approach, developed in the late 1980s, to reduce debt and debt service owed to commercial banks by a number of emerging market countries. Brady bonds were issued by the debtor country in exchange for commercial bank loans (and in some cases unpaid interest). In essence, they provided a mechanism by which debtor countries could repackage existing debt. They are dollar denominated, "issued" in the international markets. The principal amount is usually (but not always) collateralized by specially issued U.S. Treasury 30-year zero-coupon bonds purchased by the debtor country. Interest payments on Brady bonds, in some cases, are guaranteed by securities of at least double-A-rated credit quality held with the New York Federal Reserve Bank. Brady bonds are more negotiable than the original bank loans but come in different forms. The main types are par bonds, discount bonds, debt-conversion bonds, and front-loaded interest reduction bonds (2013 *EDS Guide*, appendix 1).

Guaranteed Bond

Guaranteed bonds have their interest, principal, or both guaranteed by another corporation. It is common for a parent company to guarantee bonds issued by subsidiaries.

Defined by Amount Issued

Deferred or Partial-Payment Issues

Deferred or partial-payment issues are instruments that consist of debt obligations where the investor pays only a portion of the issue price on the initial payment date and the balance several months later. The structure allows the borrower to achieve a lower all-in cost compared with straight issues by offering the investor a potential gain from a decline in rates and protection against depreciation of the currency between the time of the initial payment and that of the final payment. The appeal of these securities is a function of the interest rate and currency outlook at any given time.

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Defined by Collateral

Mortgage-Backed Security

Mortgage-backed security is a generic term that refers to securities backed by mortgages, including pass-through securities, mortgage-backed bonds, mortgage pay-through securities, and collateralized mortgage obligations (see below).

Pass-Through Mortgage-Backed Security

Pass-through mortgage-backed security is a security representing an ownership interest in an underlying pool of mortgages. The cash flow from the underlying mortgages is "passed through" to the security holder as monthly payments of principal, interest, and prepayments. Pass-through securities have been guaranteed and issued by the Government National Mortgage Association (GNMA), the Federal National Mortgage Association (FNMA or "Fannie Mae"), and the Federal Home Loan Mortgage Corporation (FHLMC or "Freddie Mac"), as well as private institutions.

Private Pay-Through Security

These securities are secured by mortgage collateral and are issued by private financial entities (sometimes called "private conduits") with no guarantees by any government or government-sponsored agency. Some securities are issued by public offering (registered with the Securities and Exchange Commission), and others are marketed through private placement.

Collateralized Mortgage Obligation

Collateralized mortgage obligations are debt obligations of an entity established by a financial institution or other sponsor. They are collateralized by whole mortgage loans or by mortgage-backed pass-through securities guaranteed by the GNMA, the FNMA, or the FHLMC. They are sold in multimaturity classes called tranches.

Asset-Backed Security

Asset-backed security is a security collateralized by loans, leases, unsecured receivables, or installment contracts on personal property, automobiles, or credit cards. The cash flows generated by the underlying obligations are used to pay principal and interest to the asset-backed security holders.

Collateralized Debt Obligations

Collateralized debt obligations (CDOs) are bonds whose income payments and principal repayments are dependent on a pool of instruments. Typically, they are backed by a diversified pool of loan and bond instruments either purchased in the secondary market or from the balance sheet of a commercial bank. The diversified nature of the instruments differentiates a CDO from an asset-backed security, which is backed by a homogeneous pool of instruments, such as mortgages and credit card loans. Issuers are often provided with different tranches of the security, so that if there are prepayments the first tier will be repaid first, the second tier next, etc. This allows investors to take different levels of credit risk. The pricing of each tranche reflects the probability of repayment (2013 *EDS Guide*, appendix 1).

Covered Bonds

Covered bonds are dual-recourse bonds with a claim on the issuer and, if the issuer defaults, a cover pool of high-quality collateral (which the issuer is required to maintain). They are issued under specific legislation (or contracts that emulate this). The recourse to the pool of collateral and consequent reduction in credit risk transfer distinguishes covered bonds from asset-backed securities (2013 *EDS Guide*, appendix 1).

Defined by Convertibility/Exchangeability

Convertible Issue

Convertible issue is a bond or note that can be converted for newly issued shares or bonds at predetermined prices during specified periods of time.

Exchangeable Issue

Exchangeable issue is a bond or note that can be exchanged for existing shares or bonds of a third party at predetermined prices during specified periods of time.

Straight Bond

Straight bond is a bond without clauses granting conversion or warrant privileges.

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Reverse Convertible Bond Obligation

Reverse convertible bond obligation is a convertible bond that may be redeemed at the issuer's discretion against existing shares of an underlying company that has no economic relation with the issuer or the guarantor of the bonds.

Catastrophe bonds

Catastrophe bonds (also known as cat bonds) are bonds whose principal and interest is forgiven in the event of a catastrophe. They are typically issued by insurers as an alternative to selling traditional catastrophe reinsurance. If no catastrophe occurred, the insurance company pays a coupon (usually at a high rate given the risk inherent in the bond) to the investors. If a catastrophe occurs, the forgiveness of the bond supports the insurance company as it makes payments to its claim holders (2013 *EDS Guide*, appendix 1).

Defined by Subordination

Subordinated debt (sometimes called mezzanine finance) has many of the characteristics of both debt and equity. A subordinated creditor agrees to rank after senior creditors but before ordinary shareholders in a liquidation. For regulatory purposes, certain forms of subordinated debt issued by financial institutions may be treated, like equity, as "primary capital."

Short-Term Debt Securities

Euronote

Euronote is a short-term, negotiable bearer promissory note usually issued at a discount with maturities of less than one year.

Certificate of Deposit

CD is a certificate issued by a deposit-taking corporation acknowledging a deposit in that corporation for a specified period of time at a specified rate of interest. It is essentially a form of negotiable time deposit (evidenced by the certificate). Nevertheless, a small minority of CDs are known to be nonnegotiable—not negotiable. CDs are widely issued in the domestic and international markets, and are typically bearer instruments, issued at face value with original maturities of one to six months, although there have been maturities of up to seven years. Typically, interest costs are payable at maturity for issues of one year or less, and semiannually on longer issues (2013 *EDS Guide*, appendix 1).

Note Issuance Facility/Revolving Underwriting Facility

A note issued under a note issuance facility (NIF)/revolving underwriting facility (RUF) is a short-term instrument issued under a legally binding medium-term facility—a form of revolving credit. Banks underwrite, for a fee, the issuance of this three- or six-month paper and may be called upon to purchase any unsold paper at each rollover date, or to provide standby credit facilities. The basic difference between an NIF and an RUF is in the underwriting guarantee: under an RUF, the underwriting banks agree to provide loans should the issue fail; but under an NIF, they could either lend or purchase the outstanding notes. First developed in the early 1980s, the market for NIFs grew substantially for a short period in the mid-1980s. It was a potentially profitable market for international banks at a time when the syndicated credits market was depressed, following the debt crisis of the early 1980s. By the early 1990s, euro CP and euro medium-term notes had become more popular forms of finance (2013 *EDS Guide*, appendix 1).

Transferable Revolving Underwriting Facility

Transferable revolving underwriting facility is similar to an RUF, but the underwriting banks' contingent liability (backup line) to purchase notes in the event of nonplacement by the borrower is fully transferable.

Grantor Underwriting Note

Grantor underwriting note is a floating-rate note facility and is similar to an RUF, in that a group of banks (grantors) undertake to purchase any notes put back to them by investors on any FRN interest rate fixing date. Put notes are then auctioned out to the market by the grantors.

Banker's Acceptance

Banker's acceptance is a negotiable order (a draft or a bill of exchange) to pay a specified amount of money on a future date, drawn on and guaranteed by a financial corporation. These drafts are usually drawn for international trade finance purposes as an order to pay an exporter a stated sum on a specific

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future date for goods received. The act of a financial corporation stamping the word "accepted" on the draft creates a banker's acceptance. The acceptance represents an unconditional claim on the part of the owner and an unconditional liability on the part of the accepting financial corporation; the financial corporation's counterpart asset is a claim on its customer. Bankers' acceptances are treated as financial assets from the time of acceptance, even though funds may not be exchanged until a later stage. By writing the word "accepted" on the face of the draft, the bank carries primary obligation, guaranteeing payment to the owner of the acceptance. Bankers' acceptances can be discounted in the secondary market, the discount reflecting the time to maturity and credit quality of the guaranteeing bank. Since the banker's acceptance carries a financial corporation's obligation to pay (in effect "two-name paper") and is negotiable, it becomes an attractive asset. Bankers' acceptances are always sold at a discount and usually have maturities of up to 270 days (2013 *EDS Guide*, appendix 1).

Commercial Paper

CP is an unsecured promise to pay a certain amount on a stated maturity date, issued in bearer form. It enables corporations to raise short-term funds directly from end-investors through their own in-house CP sales team or via arranged placing through bank dealers. Short-term in nature, with maturities ranging from overnight to one year, CP is usually sold at a discount. A coupon is paid in a few markets. Typically, issue size ranges from $100,000 up to about $1 billion. In bypassing financial intermediaries in the short-term money markets, CP can offer a cheaper form of financing to corporations. But because of its unsecured nature, the credit quality of the issuer is important for the investor. Companies with a poor credit rating can obtain a higher rating for the issue by approaching their bank or insurance company for a third-party guarantee, or perhaps issue CP under a multiple option facility, which provides a backup line of credit should the issue be unsuccessful (2013 *EDS Guide*, appendix 1).

Treasury Bill

Treasury bills are government obligations, issued for periods of three to 12 months. They are traded on a discount basis. They are the most liquid form of short-term investment.

Municipal Note

Municipal notes are interest-bearing securities issued by state and local governments as interim financing for a period usually less than one year.

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