

4. Collection Methods

A considerable degree of complexity is involved in organizing a portfolio investment survey to ensure good-quality data. Therefore, compilers should carefully consider all possibilities before deciding on the collection system. To ensure both consistency and quality of reporting across the participating countries in the CPIS, this chapter covers certain practical issues that go beyond those covered in the IMF's Balance of Payments Compilation Guide (Washington, 1995).

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.

I. Data Considerations

4.1 Although it is essential that CPIS data are comparable across countries—for the data exchange as much as for international comparability—it is **not** necessary that all countries use the same data collection systems. Instead, national compilers should tailor their collection systems to meet their own circumstances.

4.2 Experience in conducting the 1997 CPIS indicated that the national survey can target primarily any of a number of groups: (i) end-investors; (ii) custodians (financial institutions 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 complicated nature of surveying investment managers, targeting this group is not recommended for countries that have not conducted a portfolio investment survey before. A discussion of the advantages and disadvantages in conducting a survey using investment managers is included later in this chapter.

4.3 Data can be collected either on a **security-by-security** or on an **aggregated** basis. So, to guide national compilers, this chapter specifies considerations to take into account when deciding which type of collection system to use for the CPIS. It also discusses the difficulties inherent in covering investment by the household sector.

II. Choosing a Collection System

4.4 Choosing the appropriate collection system is central to the success of the CPIS. It is probably the single most important decision that national compilers will need to make. Difficult technical issues, such as the possibility of under- or double counting, have to be resolved regardless of which system is chosen. Consequently, before deciding on the type of collection system to use, national compilers should undertake some preliminary investigations, particularly among financial institutions, taking into account both the objectives for the CPIS and their own information requirements.

A. Preliminary Investigations

(i) General issues

4.5 As a starting point, issues that need to be explored both within the compiling agency and with market participants are as follows:

- What objectives are being established for the survey at the national level? For instance, what type of information is being sought? How important are timeliness of results and frequency of the survey?⁴¹

⁴¹The CPIS is likely to be repeated on a regular basis; therefore, it is important to advise respondents of this so they can set up their information systems to report regularly. If respondents are under the impression that the survey is to be conducted on one occasion only, they may not set in place systems that can be used in subsequent surveys, which may cause them additional expenses were the survey to be repeated.

- 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, which are the largest investors?
- 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?
- How are data currently collected on securities issued by nonresidents, for both transactions and position? Is it possible to adapt an existing survey, 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 security-by-security 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 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 timeliness of results and frequency of the survey?

4.7 The objectives of the survey may be circumscribed by the resources available to the compiler. In principle, the survey is aimed at collecting data on all resident holdings of securities issued by unrelated nonresidents (equities and long- and short-term debt), by country of issuer. However, it is not always practical to attempt to cover all holdings of all sectors, especially if the survey is being conducted for the first time. The decision of what to cover may well be based on two critical criteria: the budget available to the compiler and materiality. 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 of the expense, while minimizing the costs to the respondents? At the same time, the issue of timeliness and frequency of data collection must be addressed as part of this process. Data not available for more than a year after the reference date may be too late for CPIS purposes, while the frequency of

providing and processing the data needs to be considered if the survey is to be conducted on an ongoing basis (i.e., can the respondents and the compiling agency afford to collect the data 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. The legal authority should require 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 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 sanctions are missing, the authorities may wish to seek improvements to the law. Other countries may lack legal authority; in these cases the survey has to 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. To that end, it is valuable to employ the good offices of industry associations to facilitate the implementation of the survey and, possibly, act as a go-between for collection of the information from individual respondents or to process the returns. The association(s) could then forward the aggregated data to the compiling agency. This approach may result in lower-quality data (there is no means of adequately verifying the data), but it may provide information that might otherwise not be available. In any event, even when there is adequate legal authority to collect the data on a mandatory basis, involving industry associations is often a useful tactic and a valuable public 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 and/or own securities issued by nonresidents? In a broad sense, which are the largest investors?

4.10 A useful starting point may be to review the data sources for portfolio investment that are pro-

vided 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 provides 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.

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 a knowledge of local market conditions and investment conduits. See the discussion later in this chapter on the pros and cons of using an end-investor survey, a survey of custodians, or a combination.

How are data currently collected on securities issued by a nonresident, for both transactions and positions? Is it possible to adapt an existing survey, 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 very important).

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 a recognition of the materiality of the data. If holdings are small in some countries, an appropriate threshold may be established if by so doing a significant reduction in respondent burden results. 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 below).

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

4.14 Discussions with respondents about their internal record keeping is important in order to determine the best and easiest way to obtain the information on the bases required. In some countries, 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 on the basis of a number of variables, such as country of parent, currency, region, industry, credit rating, and country of issue (which may not necessarily be the country 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. (See the discussion on the security-by-security approach later in the chapter.)

Should the data be collected security-by-security 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 of market participants? What budget and resource constraints does the compiler face?

4.15 The best way to obtain the data is not something that can be decided in advance. Factors that should be taken into account include what resources are available to the compiler and what is the easiest and cheapest way for the respondents to provide the data. If the compiler's 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 reagggregating of their data that they might not otherwise have to do (depending on their internal management and accounting information systems). In addition, the data cannot usually be checked readily by the compiler. On the other hand, providing data on a security-by-security basis may reduce respondent workload (depending on the existing means through which data are collected) but increase the workload of the compiler. 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 is able to determine the best coverage while minimizing overlap. Clear instructions and discussions with respondents will result in better data. See the discussion later in this chapter on the merits and disadvantages of an aggregate versus a security-by-security approach.

(ii) Sectors to consider in the survey

4.17 In undertaking the above process, compilers may wish to bear in mind the sectoral dimension, not only for analytical purposes but also to ensure maximum coverage without double counting. A description of the sectors is given in Chapter 3, Section V.

4.18 National compilers are advised to examine domestic sources of information to establish, in a broad sense, the saving pattern of the four major sectors of their respective economy: **households, financial institutions, nonfinancial corporations, and general government**. This examination might provide some indication of which sectors are likely to be the largest owners of securities issued by nonresidents. In this regard, it is 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 institutions are usually major investors either on their own account or as agents on behalf of others (usually the household sector) through collective investment schemes, life insurance companies, or pension funds. Monetary authorities hold international reserve assets that should be kept separate from portfolio investment but reported through a separate collection vehicle, 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. (Holdings of international reserves are not recorded as being the holdings of the general government sector. These holdings are included with monetary authorities—see *Financial institutions*, above.)

4.21 It is uncommon for **nonfinancial corporations** to have large holdings of portfolio investment assets

(although, like governments, they may well have substantial portfolio liabilities). International investment by nonfinancial corporations is more likely to take the form of direct investment (see the discussion on separating direct investment from portfolio investment, in Chapter 3, and on experiences of various countries, in Chapter 6).

4.22 The **household** sector is generally a major source of saving in most economies, but it is 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 mutual trusts? Do custodians and fund managers manage securities issued by nonresidents directly for the household sector? Does the household sector transact and hold securities directly with nonresident financial entities, not least for tax minimization reasons?*

4.23 In the experience of the Task Force, national compilers may take various approaches to covering private household sector holdings of securities issued by nonresidents. One approach is to survey collective investment funds—for instance, 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, claims on the resident funds that hold nonresident security assets. A second approach is to survey financial entities, such as custodians who hold securities issued by nonresidents for households 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 financial entities. In some countries, 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 on the basis of 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 a significant problem. 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 assets.

4.26 Another approach would be to rely upon international cooperation and the exchange of information between countries. Through this approach, countries to which nonresident households directly entrust their portfolio savings would collect information on these so-called third-party holding and share that information with partner countries. The partner country would, in turn, be able to add this information to its portfolio assets. Given the lack of experience in collecting third-party holding data for this purpose, the complexity and potential for double counting,⁴² and the possible lack of legal authority to collect information that is unrelated directly to domestic policy needs, countries considering this approach are advised to make careful investigations and preparations. Some of the practical and methodological problems connected with undertaking a third-party holdings (TPH) survey are described in Section V of this chapter.⁴³

B. Coverage (End-Investors, Custodians, or Both)

4.27 The most suitable approach to ensuring comprehensive coverage of securities issued by nonresidents that are owned by residents varies according to a given country's circumstances. Countries 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 country to country. Nonetheless, experience suggests that most countries will 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.⁴⁴ Set out below are the advantages and disadvantages of these three approaches.

⁴²For 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.

⁴³The IMF has set up a Technical Group to explore the possibilities of collecting data from third-party holdings, but it will not be able to provide assistance in time for the 2001 CPIS.

⁴⁴Investment (or fund) managers may also sometimes be approached.

(i) An end-investor survey

4.28 An end-investor survey approaches directly the owner 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 and insurance funds. The quality of the data provided should also be good because end-investors are probably best 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 repos are reported as collateralized loans.

4.29 In addition, 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 existing returns as a method of quality control (see Chapter 5).

4.30 If, however, collecting portfolio investment data through an end-investor survey is a new approach for the national compiler, additional preparation will be required. Most important, the compiler will need to prepare a comprehensive register of potential survey respondents and engage in extensive discussions with the institutions most likely to hold securities issued by nonresidents. Otherwise, there is the possibility of undercoverage (see Chapter 5 on the issues related to establishing and maintaining a register). Creating and maintaining the register will require resources. National compilers must also avoid either double counting or overrecording 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 (overrecording). 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 and follow-up visits to potential respondents is a very worthwhile exercise that is often indispensable for a first, or even second or third, survey until respondents are comfortable with the survey's requirements. An end-investor approach also gives a

better means of determining the holdings by sector. Although an end-investor approach is likely to provide good coverage of large institutional investors, however, securities owned by households are not captured because it is usually too difficult and expensive to conduct a survey of households.

4.31 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 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.

(ii) A custodian survey

4.32 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 will be fewer than the number of end-investors, the difficulties inherent in identifying and maintaining the appropriate reporting population are much reduced compared with such difficulties for an end-investor survey.

4.33 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-versa⁴⁵), the possibility

⁴⁵A global custodian manages the custody of end-investors' securities via a global subcustodian network of subsidiaries and correspondent agent banks. A primary or local custodian may not have a global subcustodian network and, therefore, may subcontract the safekeeping of the client's securities to a domestic global custodian.

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 write very clear instructions on the survey form. National compilers may find flow charts useful.

4.34 Custodians 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. In other words, they may store information in a format that makes it difficult for them to extract the data required by the national compiler. **Hence, it is essential that those countries undertaking a custodian survey conduct presurvey consultations with 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 (see Chapter 5).

(iii) Combined custodian/end-investor survey

4.35 Surveys that included 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 a survey that included domestic custodians who hold securities issued by nonresidents owned by residents as well as end-investors who hold securities issued by nonresidents. Countries 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). These countries have found that the vast majority of securities issued by nonresidents owned by residents are entrusted to domestic custodians.

4.36 With this approach, there is a clear danger of double counting; domestic investors might erroneously report securities deposited with domestic as well as with nonresident custodians. Hence, compilers will need to take particular care in defining the respondent population⁴⁶ and in writing very clear

⁴⁶Chapter 6 provides guidance on compiling a register of potential survey respondents.

reporting instructions. In some countries, 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. In addition, the end-investor could be asked to report a breakdown of holdings of securities issued by nonresidents that are (i) held with domestic custodians, (ii) held with nonresident custodians, and (iii) held in own custody. This helps reduce under- or double counting. However, it should be recognized that custodians, in particular, may be very reluctant to provide such information, and quality-control checks are essential (see Chapters 5 and 6).

C. Advantages and Disadvantages of Surveying Investment (Fund) Managers

4.37 This chapter has explored various types of surveys: end-investor surveys, custodian surveys, and combined custodian/end-investor surveys. One can, however, collect data from still another source: investment managers.

4.38 Investment managers are individuals or groups providing investment advice and management for a fee. The funds that investment managers invest remain the assets of their clients and are not brought on to the balance sheet of the investment manager. 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.

4.39 The advantage of including investment managers is that more complete coverage might thereby be obtained. The disadvantage is that both the complexity of the survey and the possibility of double counting or undercounting are increased.

4.40 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 included in the survey because in many countries investment

managers must register with a government agency and disclose the amount of funds under their control.

4.41 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.

4.42 The following sections discuss the advantages and disadvantages of various approaches.

D. Advantages and Disadvantages of Surveying End-Investors Only

4.43 This type of survey typically collects data from the largest domestic sources of foreign portfolio investment, such as mutual funds, insurance companies, pension funds, government institutions, banks, and other large corporations. Survey respondents report their holdings regardless of whether their assets are held by domestic or foreign custodians. 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.

4.44 If investment managers are included in the survey, the coverage gap can be decreased. 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. They might 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. They may be required to indicate whether they are acting on behalf of private individuals and to disclose the amount invested for all private individuals combined without disclosing individual identities. In this way double counting can be avoided.

4.45 A complicating factor is that sometimes custodians pass on all or part of the assets under their management to other domestic custodians. In such cases, instructions must be given to specify which custodian is to report these foreign holdings to avoid either gaps or double counting. It might be preferable to have the custodian in direct contact with the investor report, because otherwise the second custodian may be

unaware whether the investor is a resident of the economy (or be unable to allocate to the appropriate institutional sector, if reporting encouraged items). In such cases, custodians should be instructed not to include those holdings that they receive from other custodians. On the other hand, it might be better to have the custodian that is providing the safekeeping services provide the information on holdings of securities issued by nonresidents, while advising the first custodian to report the name of the custodian to whom it has entrusted the securities. Whichever approach is chosen, it is important that the compiler discuss the reporting arrangements with the respondents and that the instructions be clear to avoid any misreporting.

E. Advantages and Disadvantages of Surveying Custodians Only

4.46 This type of survey collects data from major domestically based custodians. Holdings of all sectors of the economy—large and small institutions and corporations, government organizations, and the household sector—are captured to the extent that they entrust their securities issued by nonresidents to domestically based custodians. All securities entrusted directly to foreign-based custodians by 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 abroad that is managed by domestic investment managers would be captured.

4.47 As with an end-investor-only survey, care would need to be taken to avoid double counting 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. Instances of multiple domestic investment managers would need to be accounted for, as discussed in the section on end-investor surveys.

4.48 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 custody 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 no possible misallocation of residence. Whichever approach is chosen, the instructions should be clear to avoid misreporting.

F. Advantages and Disadvantages of Surveying Both Custodians and End-Investors

4.49 This type of survey has the most comprehensive coverage because it collects data from both custodians and end-investors. However, because it already collects data from two different data sources—which requires coordination to avoid double or undercounting—adding investment managers into the mix further complicates the situation.

4.50 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 custody 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 amount passed on. Alternatively, the custodian that is in direct contact with the investor might be asked to report because he or she 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 own reports.
- (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.

(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 also not entrusted to a domestic custodian.

4.51 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.

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

4.52 The degree of detail required for the CPIS can be met by collecting data either on a **security-by-security** 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.

(i) Security-by-security basis

4.53 Collecting data on a security-by-security, rather than on an aggregate, basis provides more information and allows greater possibility for data verification.⁴⁷ 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, yields on securities, and so

⁴⁷In an integrated end-investor survey system that collects aggregate data, some of the additional detail may be collected on other survey forms.

on. It could also help identify direct investment securities.⁴⁸ An additional side benefit of a security-by-security 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 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.⁴⁹ Before making a decision, the compiler needs to decide whether the extra information is required.

4.54 The decision whether to collect data security-by-security will also depend on the costs involved and whether respondents are prepared to provide the information on that basis. Such a survey is, however, usually cheaper and easier for respondents: the additional costs fall on the compiling agency. This, in turn, relates to how frequently the national survey will be repeated—if the survey is likely to be a continuing exercise,⁵⁰ the initial investment in setting up a securities database to be used in conjunction with the security-by-security approach may be amortized over several years, whereas a one-time security-by-security survey is almost certain to be more expensive and take longer to conduct. Given the considerable amount of information to be collected, this type of survey probably needs to be conducted by electronic means, which involves developing compatible software to receive and process the information from survey respondents and to provide a link between the reported data and the securities database.

(ii) Aggregate basis

4.55 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. (However, if the security-by-security survey is repeated on a periodic basis—for instance, once a year—experience suggests that the marginal costs fall while the benefits of extra detail are maintained.)

4.56 There is also the issue of data quality. An end-investor survey should produce good-quality data reported on an aggregate security basis, provided that

⁴⁸See Chapter 5.

⁴⁹See next section for more detail on securities databases.

⁵⁰It is probable that the CPIS will become a regular undertaking.

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 portfolios, and there is a direct link with their balance sheet data. Hence, end-investor surveys tend to be associated with an aggregated approach.

4.57 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. The U.S. experience is that initial reports from custodians contain frequent, serious inaccuracies. In the 1997 CPIS, the U.S. compilers estimated that relying on these initial data would have led to an overestimation of U.S. holdings of securities issued by nonresidents by a factor of two. Detailed security information helped the U.S. compilers identify possible sources of error and thus was necessary to ensure good-quality data.

4.58 Nonetheless, aggregate custodian surveys are conducted. 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.

III. Securities Databases

4.59 The Association of National Numbering Agencies (ANNA) has a database covering equities and debt securities for those of its 60 members that accept International Securities Identification Number (ISIN) codes. This database is available to central banks, though at a cost. (See Appendix VII for more details.) It contains information on securities provided on a voluntary basis by some of the country institutions that assign security identification codes. Coverage and completeness vary by country. Securities are identified by ISIN codes. Key information on each security is generally available, but there is no information on prices or on holders. At present, the database can only be accessed online one security at a time, but it may become possible in the future to obtain complete copies of the database.

4.60 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 the model survey form in Appendix I, survey respondents are given the option of reporting either an ISIN code or a code allocated by another of a number of coding systems. 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.

4.61 Some countries use ISIN codes as their only securities identification system. However, many countries—especially the industrial countries—developed their own national numbering systems prior to the introduction of ISIN codes, and these have remained in widespread use in many cases. As a result, 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), CUSIP (United States), or VALOR (Switzerland), 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.

4.62 Having a database that contains all of 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. (See Box 4.1.)

4.63 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

Box 4.1: Commercial Databases

Numerous commercial databases exist. Below is an alphabetical list of those commercial databases containing international securities that have been or are being used by at least one organization represented on the Task Force. However, the Task Force makes no recommendations, and the list is provided for information only. Compilers who approach a commercial database vendor will need to make their own judgments about whether the product being offered meets their needs.

- Bloomberg, 499 Park Avenue, New York, New York 10022, USA
- Euromoney Bondware, Nestor Avenue, Playhouse Yard, London EC4V 5EX, England
- Interactive Data, 96 Hayden Avenue, Lexington, Massachusetts 02173-9144, USA
- International Financing Review, 33 Aldate High Street, London EC3N 1DL, England
- International Securities Market Association, Seven Limeharbour, London E14 9NQ, England
- Muller Data, 90 Fifth Avenue, New York, New York 10011, USA
- Reuters, 85 Fleet Street, London EC4P 4AJ, England
- Icovam, 5 Rue du Centre, Noisy le Grand, 93167, France
- Telekurs, Postfach 8021, Zurich 8005, Switzerland
- Wertpapiersammelstelle Frankfurt, Dusseldorfer Strasse 167, Frankfurt am Main D-60329, Germany

dependencies and territories of the United Kingdom are likely to be assigned a United Kingdom ISIN code.

4.64 Table 4.1 provides an indication of the 10 countries in the 1997 CPIS that used a securities database (whether it was a commercial database or an in-house system), the use made of the Ufficio Italiano dei Cambi (UIC) database, and the extent of coverage it provided.

4.65 Box 4.2 provides information on the BIS securities database that is available to central banks on request and, depending on circumstances, to statistical agencies.

IV. Reporting Thresholds

4.66 To limit the amount of respondent burden, it may be appropriate to establish reporting thresholds. 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 manner in which a threshold is established and the way it may be used depend to a certain extent on the way in which the survey is conducted.

4.67 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) 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, without any 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.

4.68 To avoid collecting information from a great many units with very small holdings (which, therefore, add very little to the result), some countries 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) as the maximum that the compiler is able to process. (See Chapter 6 on experiences that three countries had in grossing up results in the 1997 CPIS.)

4.69 Another threshold is for geographical detail. This is especially important in small jurisdictions with limited statistical office capacity or where respondent burden is a major consideration. In such situations, it may be appropriate to determine, in conjunction with respondents, a certain limited geographical detail covering the countries where a high percentage of investments are made (e.g., 90 percent plus) and to have the balance be reported as a residual. For respondents who may require considerable manual input to extract the geographical detail, such a threshold could prove a very valuable means of reducing respondent burden and, coincidentally, possibly increasing data quality for the countries for which the detail is provided.

4.70 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, it may be useful for discussions to be held between and among countries in order to set thresholds that maximize the benefits to the countries setting thresholds while minimizing the disadvantages for countries using the results (as their counterpart liabilities).

Table 4.1: Countries in the 1997 CPIS Using a Securities Database, by Type of Database and Extent of Coverage

Countries	Type of Database				Percentage Coverage of Such Database, by Type of Securities			
	(I)	(II)	(III)	(IV)	Equity securities	Long-term debt securities	Short-term debt securities	Total
Austria	—	X	—	—	90	99	95	95
Canada	—	(1)	X	(2)	26	5	3	N/A
France	X	X	—	—	100	100	—	N/A
Israel	(Partial)	(Planned)	—	—	(Mostly)	—	—	N/A
Italy	—	X	X	—	N/A	N/A	—	99
Malaysia	—	—	X	—	N/A	N/A	N/A	N/A
Portugal (3,4)	—	—	X	—	82	58	—	70
Spain	—	—	X	—	N/A	N/A	N/A	N/A
United States	X	—	—	—	69	52	—	66
Venezuela	X	—	X	—	10	60	10	30

Type of database:

(I) A commercial financial instrument database

(II) An in-house financial instrument database

(III) The Ufficio Italiano dei Cambi (UIC) database

(IV) Other (please specify)

N/A: Not available.

Notes:

(1) The in-house database acts as a "dictionary" in which more than 90 percent of the issuer information is stored. Because ISINs were not always available, names are used to identify issuers. The database focuses on the different ways to identify an issuer name more than on listing the different issues. Attached to the issuer information are the country and standard industrial classification of the issuer. The UIC database was used extensively to identify the issuer. Therefore, although more than 90 percent of the issuers end up in the database, it is not possible yet to precisely quantify the percentage of issues covered. Statistics Canada estimates that the database covers between approximately 30 percent and 40 percent of the issues.

(2) Monthly security trading from a balance of payments survey.

(3) Coverage is expressed in number (not in value) of securities.

(4) The UIC database was updated with information available to Banco de Portugal.

V. Third-Party Holdings Survey

A. Background

4.71 Experience from the 1997 CPIS shows that nearly all countries are unable to survey directly domestic households regarding 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 the main reasons for this inability. Insofar as domestic households hold their portfolio investment directly with nonresident financial entities, there will be gaps in the coverage in the CPIS. Coverage of other investors (such as small companies and nonprofit organizations) may also be incomplete. These shortages in the coverage of assets in the CPIS often reflect deficiencies in other national statistics like balance of payments and national accounts. For such countries this would hamper the analysis of the level and composition of savings. It furthermore causes errors and omissions in the balance of payments and in the national accounts. The country's IIP would be understated as well.

4.72 A TPH (third-party holdings) survey is a way of obtaining information on holdings in securities issued by nonresident entities and held directly with nonresident financial entities in the countries where these investments are held or entrusted.⁵¹ This requires international collaboration and exchange of information in which the countries where these investments are held or entrusted conduct TPH surveys and share the results on a bilateral basis with the asset holding countries.

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

B. Preparatory Investigations

4.74 Because of the lack of experience with TPH surveys, thorough preparatory investigations are necessary. The following describes the preparations that should be undertaken by a compiler conducting a

⁵¹For a TPH survey to provide as much information to the third party as possible, securities issued by entities resident in the same jurisdictions as the custodian and held on behalf of nonresident investors should also be included.

Box 4.2: The BIS Securities Database

The Bank for International Settlements (BIS) maintains a security-by-security database covering international debt securities. Under the contractual terms negotiated with the BIS data providers, this database can be shared with the central bank community.

The BIS bases its security classification as international (as opposed to domestic) on three characteristics: the location of the transaction, the currency of issuance, and the residence status of the issuer. International issues comprise all foreign-currency issues by residents and nonresidents of a given country and all domestic-currency issues launched by nonresidents. Additionally, domestic securities specifically targeted at international investors are also considered to be international issues in the BIS database.

International securities comprise international bonds, notes, and money market instruments. New issues of international bonds are derived from market sources such as Dealogic Capital DATA (Bondware) and Thomson Financial Securities Data (Platinum). The Bank of England provided the bulk of the historical data before 1996. The OECD provided data on some issues for the 1970s. The information on the events occurring in the lifetime of international bonds (e.g., exercised call and put options, sinking funds, early redemption) is reported by the International Securities Market Association (ISMA). The data on international notes and money market instruments are derived from data files made available by Euroclear, which provides the BIS with new issues as well as with information regarding events that occur over the lifetime of the securities.

At the end of September 2001, the BIS international securities database covered 72,887 international bond issues (of which 32,553 were outstanding) and 339,227 international notes and money market instrument drawings (of which 45,113 were outstanding).

The following details are available for the securities stored in the BIS database: the International Securities Identification Number (ISIN) key; the name of the borrower; its country of residence; its country of nationality; the business sector of the immediate borrower (issuer), the business sector of the ultimate borrower (parent company of the borrower or guarantor); the issued amount expressed both in local currency and in U.S. dollars; the currency of issue; the announcement, completion, and maturity dates; the type of security; and the type of interest rate. In addition, the following information is available for international bonds only: rating and rating source; all features and options attached to the bond; call, put, and early repayment dates; and issue price and coupon.

The main activity of the BIS in the field of international debt securities consists of merging the information received from the different data sources, identifying and removing duplicates, correcting mistakes, ensuring a consistent classification of issuers across the different sources, and performing general quality control. The content of the BIS international debt securities database is aggregated as time series across eight dimensions and is published in various BIS reports, mainly in the *Quarterly Review: International Banking and Financial Market Developments*. The following dimensions are available: the measure (announced, completed and net issues, early and scheduled repayments, and amounts outstanding), the type of security, the business sector of the immediate borrower; the country of nationality, the country of residence, the market of issue, the rate of structure, and the currency of issue. These series are also disseminated to the member central banks via the BIS Data Bank.

TPH survey in which nonresident investors' holdings of securities entrusted directly with local custodians are to be covered.

4.75 A TPH survey has to 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. To cover these positions, the compiler conducting the TPH survey has to approach the local custodians.
- Alternatively, a nonresident investor could directly entrust asset management to an investment man-

ager 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.

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

4.77 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.

4.78 A TPH survey also has to be designed within the legal provisions of the country. Many countries have no legal provisions authorizing the collection of information on holdings by nonresidents. In these countries, the TPH survey will have to be conducted on a voluntary basis.

4.79 It is also necessary to initiate contacts with players in the market. In the first place, compilers need to gauge the availability of information regarding residence of nonresident customers and residence of the issuer of the securities owned by them. Another issue is whether the respondents are able to distinguish private persons among their nonresident customers, and whether they are able to distinguish in more detail different kinds of nonresident customers, such as institutional investors and nonfinancial companies. 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.

C. Scope

4.80 A TPH survey could also be designed to take into account the needs of the partner countries with whom the information from the survey is to be shared. In many of the countries that participated in the 1997 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*.

4.81 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 merely to the household sector. Gaps in coverage of portfolio assets can also be related to other noninstitutional investors, such as securities issued by trade unions, religious societies, and nonfinancial companies that are held abroad by nonresidents. 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*.

4.82 One issue connected with the scope of the TPH survey is how to define which sectors are to be covered. Another issue is how households should be

defined. The most reliable way for respondents to distinguish households from other entities would be to define them in terms of private persons. This would also be fully in line with the *1993 SNA*, where the household sector is defined as all resident households consisting of private persons and any unincorporated business owned by them that does not maintain a separate set of accounts, including a balance sheet.⁵² This is distinct from the sector of nonprofit institutions serving households (NPISHs). The NPISH sector includes such potentially important investors as trade unions, churches, and religious societies.

4.83 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 have to 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.

4.84 In considering whether to conduct a TPH survey, the national compiler has to take into account the complexity of the extended approach. First of all, the extended approach is very demanding for the respondent, requiring a breakdown of its nonresident customers into different subcategories.

4.85 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.

4.86 The household approach is less demanding for the respondents that merely have to 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 would not satisfy the information needs of the partner countries in all cases.

D. How to Avoid Double Counting

4.87 Another issue is how to make sure that the risk of double counting is minimized.

⁵²In other words, those unincorporated businesses that are not quasi-corporations.

4.88 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.

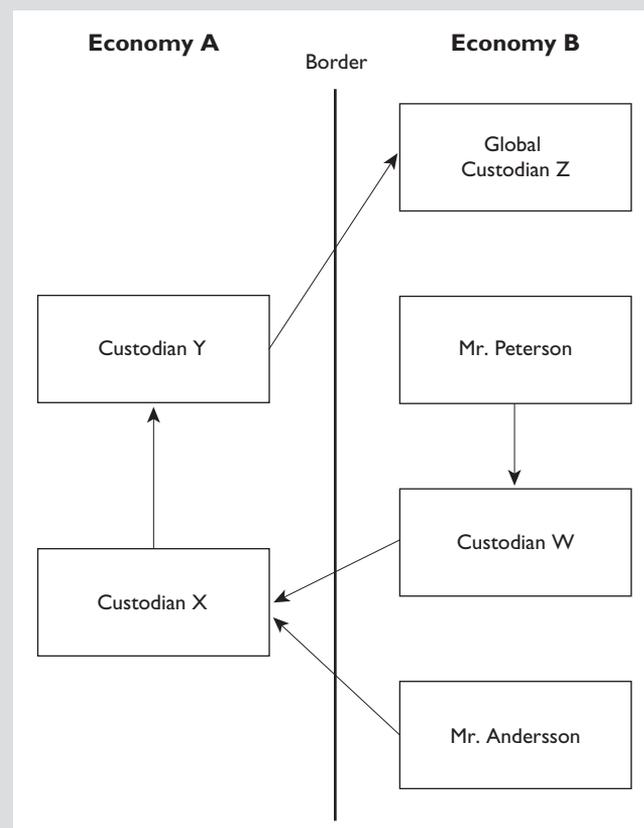
4.89 Mr. Peterson, a resident of economy B, has entrusted his securities to a subcustodian within his own economy (Custodian W), who in turn entrusts them to Global Custodian X, who is a resident of economy A. In this case the compiler in economy B will cover the assets of Mr. Peterson in the standard CPIS, provided that 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.

4.90 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 survey of households) and so is dependent on the information from the third-party holdings survey, if any, conducted by the compiler in economy A.

4.91 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 third-party holdings report by Custodian X to the compiler in economy A, double counting of third-party holdings 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.

4.92 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 securi-

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



Note: For explanation, see paragraphs 4.88 through 4.94.

ties 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.

4.93 The situation is further compounded in this example because Mr. Andersson’s securities were placed with Custodian Z, a resident of economy B. In this instance, if 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 of economy A (Mr.

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

4.94 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 have to be approached.

E. What Information to Collect

4.95 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.

4.96 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,⁵³ 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).

VI. Conclusions

4.97 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. As mentioned in Chapter 1, the IMF has established a network wherein compilers with considerable expertise in conducting portfolio investment surveys can provide advice, especially on the choice of collection system (the contact address can be found in Chapter 2).

4.98 In Appendices I through V of this *Survey Guide*, model survey forms cover (i) mixed custodian/end-investor surveys on a security-by-security and on an aggregate basis and (ii) an end-investor survey on an aggregate security basis (as well as specifically designed forms for small economies, such as SEIFiCs).

⁵³While observing confidentiality.