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The IMF Coordinated Portfolio Investment Survey: Where do we Stand?

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## I. INTRODUCTION

1. The Coordinated Portfolio Investment Survey (CPIS) is a top priority project of the IMF Committee on Balance of Payments Statistics. The present paper aims to provide the Committee members with an update on progress made by national compilers in implementing the CPIS. A proposal is also discussed for the creation of a metadata base to describe steps taken by countries to implement the Survey and provide an assessment of whether the goals of the Survey Guide have been achieved (the *proforma*). The Committee's views are sought as to which direction the Fund should be pursuing in the next stage of the work.
2. **The Coordinated Survey appears to be on track and well under way.** The current status of the CPIS project is summarized in Table 1. Some 32 countries are now participating in the CPIS exercise as of end-December 1997. In most countries, "mandatory" data on nonresident equity and long-term debt securities will be finalized by the end of this year; and in others provisional data will be available. Non-mandatory data are also being compiled by a dozen countries. With some exceptions, no data on financial derivatives positions are being compiled.
3. The greatest part of the CPIS returns will be available on time for the **third meeting of the national compilers**, which is being scheduled for February 1999. In preparation for this meeting it will be important to agree on: (a) the documentation of CPIS metadata (the *proforma*); (b) the modalities for data exchange and review by countries; and (c) what kind of assessment of the data should be attempted by the Fund. Advice is sought from the Committee members as to how to organize the work for the coming months.
4. Committee members may wish to comment on the need for a follow-up CPIS and, if so, how its scope might be changed to take account of the lessons of the 1997 Survey. The Committee is asked to consider whether a task force should be set up with a mandate to recommend actions by which countries can address discrepancies in portfolio investment.

**Table 1. The Current Status of CPIS Progress (As of September 24, 1998) <sup>1</sup>**

| Countries                     | CPIS forms |          |   |   |                    |             |          |   |   |   | Sent / will be sent by <sup>2</sup>          |
|-------------------------------|------------|----------|---|---|--------------------|-------------|----------|---|---|---|--|
|                               | Assets     |          |   |   |                    | Liabilities |          |   |   |   |  |
|                               | 1          | 2        | 3 | 4 | Sefer <sup>3</sup> | 5           | 6        | 7 | 8 |   |  |
| 1. Argentina .....            | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Sep 98 <sup>(F)</sup>                        |
| 2. Australia .....            | ●          | ●        | ○ | - | (s)                | -           | -        | - | - | - | 8/28/98 <sup>(F)</sup> Sep 98 <sup>(F)</sup> |
| 3. Austria .....              | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Oct 98                                       |
| 4. Belgium .....              | ○          | ○        | ○ | - | (i)                | -           | -        | - | - | - | Sep 98 <sup>(F)</sup>                        |
| 5. Bermuda .....              | ○          | ○        | - | - | (-)                | -           | -        | - | - | - | Sep 98 <sup>(F)</sup>                        |
| 6. Brazil .....               | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Oct 98 <sup>(F)</sup>                        |
| 7. Canada .....               | ●          | ●        | ● | - | (s)                | -           | -        | - | - | - | 8/25/98 <sup>(F)</sup>                       |
| 8. Chile .....                | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Oct 98 <sup>(F)</sup>                        |
| 9. Denmark .....              | ○          | ○        | - | - | (i)                | -           | -        | - | - | - | Sep 98 <sup>(F)</sup>                        |
| 10. Finland .....             | ●          | ●        | ● | - | (s)                | -           | -        | - | - | - | 9/1/98 <sup>(F)</sup>                        |
| 11. France .....              | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Sep 98 <sup>(P)</sup>                        |
| 12. Greece .....              | ○          | ○        | - | - | (s)                | -           | -        | - | - | - |  |
| 13. Iceland .....             | ○          | ○        | - | - | (-)                | -           | -        | - | - | - | Sep 98 <sup>(F)</sup>                        |
| 14. Indonesia .....           | ●          | ●        | ● | - | (-)                | ●           | ●        | ● | - | - | 8/3/98 <sup>(F)</sup>                        |
| 15. Ireland .....             | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Dec 98 <sup>(F)</sup>                        |
| 16. Israel <sup>4</sup> ..... | ○          | (---○--- | ) | - | (s)                | ○           | (---○--- | ) | ○ | - | Sep 98 <sup>(F)</sup>                        |
| 17. Italy .....               | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Nov 98 <sup>(F)</sup>                        |
| 18. Japan .....               | ○          | ○        | ○ | ○ | (s)                | ○           | ○        | ○ | ○ | - | Dec 98 <sup>(F)</sup>                        |
| 19. Korea .....               | ●          | ●        | ● | - | (i)                | -           | -        | - | - | - | 9/7/98 <sup>(F)</sup>                        |
| 20. Malaysia .....            | ○          | ○        | - | - | (-)                | -           | -        | - | - | - | Sep 98 <sup>(P)</sup>                        |
| 21. Netherlands .....         | ○          | ○        | - | - | (s)                | ○           | ○        | - | - | - | Nov 98 <sup>(F)</sup>                        |
| 22. New Zealand .....         | ●          | ●        | - | - | (s)                | -           | -        | - | - | - | 8/18/98 <sup>(F)</sup>                       |
| 23. Norway .....              | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Feb 99 <sup>(P)</sup>                        |
| 24. Portugal .....            | ○          | ○        | ○ | - | (s)                | ○           | ○        | ○ | - | - | Sep 98 <sup>(P)</sup>                        |
| 25. Singapore .....           | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Sep 98 <sup>(F)</sup>                        |
| 26. Spain .....               | ○          | ○        | ○ | - | (s)                | ○           | ○        | ○ | - | - | Nov 98 <sup>(F)</sup>                        |
| 27. South Africa .....        | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | n.a.   |
| 28. Sweden .....              | ○          | ○        | ○ | - | (s)                | -           | -        | - | - | - | Sep 98 <sup>(F)</sup>                        |
| 29. Thailand .....            | ●          | ●        | - | - | (s)                | -           | -        | - | - | - | 6/2/98 <sup>(F)</sup>                        |
| 30. U.K. ....                 | ○          | ○        | - | - | (s)                | -           | -        | - | - | - | Jan 99                                       |
| 31. U.S.A. ....               | ○          | ○        | - | - | (i)                | -           | -        | - | - | - | Dec 98 <sup>(P)</sup>                        |
| 32. Venezuela                 | ●          | ●        | ● | - | (i)                | -           | -        | - | - | - | 8/14/98 <sup>(P)</sup> Jun 99 <sup>(F)</sup> |

<sup>1</sup> (●) = completed; (○) = not yet completed; (-) = not available.

<sup>2</sup> (F) = final; (P) = provisional.

<sup>3</sup> The SEFER survey aims to augment the coverage of the CPIS; it is designed to collect information on long-term securities held as reserve assets, broken down by country of debtor. (s) = data on reserves are (or will be) available separately from CPIS data; (i) = data on reserves are (or will be) included in CPIS data; (-) = data are not available.

<sup>4</sup> Israel is unable at this time to break down non-equity securities into short- and long-term.

## II. PROGRESS WITH IMPLEMENTING THE CPIS

5. As of information available on September 24, 1998, 32 countries are participating in the IMF Coordinated Portfolio Investment Survey.<sup>5</sup>
6. As noted in Table 1, all participating countries have started collecting the “mandatory” data (CPIS forms 1 and 2, related to assets in equity and long-term debt securities). Eight countries have finalized the compilation process and sent the data to the IMF. By the end of this year, mandatory returns will have been submitted by nearly all countries, although some will only be on a provisional basis.
7. Some non-mandatory data are also being compiled by 12 countries. These relate to assets in money market instruments (CPIS form 3), and to liabilities in equities, long-term debt and money market instruments (CPIS forms 5, 6, and 7). Only Japan and Israel plan to report data on financial derivatives positions (CPIS forms 4 and 8).
8. On the whole, the Coordinated Portfolio Investment Survey has received a favorable assessment from the national compilers. In some cases, the implementation of the CPIS paved the way for building an entirely new IIP data collection system (Italy, Ireland); while in others, where only limited refinements were introduced in existing systems, the CPIS has led to a substantial increase in the data quality (Canada, New Zealand).
9. Countries were asked to report briefly on their experience during the implementation of the survey. Among the problems more frequently mentioned, there were the following: (i) the coverage of resident households’ investment in nonresident securities held directly abroad<sup>6</sup>; (ii) the allocation of portfolio liabilities by country of creditor; and (iii) selecting and establishing contacts with potential respondents. A summary implementation report by country is attached in Annex I; this material will be included in an update of the *CPIS Country Implementation Report*, to be provided separately to facilitate discussion at the Committee meeting.
10. Reflecting a positive assessment of the CPIS exercise at a national level, many compilers are now contemplating conducting portfolio investment surveys for the compilation of national BOP and IIP data on a regular basis.

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<sup>5</sup> Some countries already covered in the *CPIS Preliminary Country Implementation Report* of October 1997 (Cayman Islands, Germany, Kuwait, and Saudi Arabia) declared that they would not be able to participate in the CPIS for reference year 1997. On the other hand, four new countries (Brazil, Greece, Korea and South Africa) have joined the CPIS group.

<sup>6</sup> This issue was mentioned by Argentina, Belgium (who set up a special econometrics estimation), Korea, Singapore, Thailand, and Venezuela.

### III. PREPARATIONS FOR THE THIRD MEETING OF NATIONAL COMPILERS

11. As the greatest part of the CPIS returns will be available on time for the third meeting of national compilers (February 1999), the following addresses preparatory work that will have to be undertaken in advance of this meeting

#### **The data**

12. The IMF will provide the participating countries with data on their portfolio *liabilities* broken down by country of investor, as derived from their partners' mandatory data (and, if available, from non-mandatory data as well). As described in *Modalities of Data Exchange for the Coordinated Portfolio Investment Survey and the Survey of Securities Held as Reserve Assets* (BOPCOM97/1/13), the data received will be stored by the IMF in two master sets of matrices (one for assets, the other for liabilities). Each matrix relates to a participating country, and contains its assets (liabilities) data broken down by instrument and partner country, as shown in Table 2.

13. The master set of assets matrices will be complemented with information collected through the SEFER Survey, relating to outward investment in the form of reserve assets. A single vector of data will be added, showing, for each partner country, the total amount of reserve assets held by the countries participating in the CPIS exercise. In this way, the portfolio liabilities for each partner country will be as complete as possible. No single country's bilateral foreign exchange positions will be identified. A few countries have indicated that they will supply data on securities held as reserve assets indistinguishably with their CPIS results. For this reason, not all data reported on securities held as reserve assets will appear in the reserve assets column.<sup>7</sup>

14. Two disseminations of data are planned: one shortly before the third meeting of national compilers and a second when final data are available.

#### **The metadata**

15. In order to facilitate the national compilers' understanding of their partners' data, the IMF will collect metadata on the implementation of the Survey at the national level, and disseminate this information for review among participants to the third meeting of national compilers. To this end, an annotated framework of questions to be addressed was prepared and submitted to national compilers at the beginning of July. The draft framework (*proforma*) was divided into three parts: background, implementation, future work. The first two sections aimed at collecting national metadata and providing the IMF with inputs relevant to its final

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<sup>7</sup> The absence of geographical details on reserve assets is not expected to produce a significant bias in the allocation of portfolio liabilities by country, since central banks account for only a small fraction of a country's total financial assets.

report; the third section mainly addressed some strategy-oriented issues, such as those related to countries' commitments to reiterate the Survey on a more extended coverage basis.

16. Compilers were asked to express their views on the appropriateness of such a framework. On the whole, the *proforma* was found to be comprehensive and well designed; however, a preference was expressed to have more information on the implementation of the Survey at the national level, as well as an explicit assessment of the quality and coverage of the data collected. A reordering of some questions was also suggested (see Annex II). In the light of these comments, and with a view to gathering material useful for the compilers' meeting, the first two sections of the *proforma* have been rearranged and expanded (see Annex III). The IMF is planning to send the revised *proforma* to national compilers by the end of November. Based on the detailed *proforma* reports, a summary table could be circulated at the third meeting of national compilers highlighting the essential features of each country's survey results. **Advice is sought from the Committee members on the new draft. Does the Committee think that it is sufficiently focussed, or should more questions be addressed?**

#### **Preliminary analysis of CPIS results**

17. Other issues relate to how countries should make the best use of the partner country data they receive as agreed in the paper on Modalities for Data Exchange.

18. As noted in Table 1, some compilers have collected information on their portfolio liabilities broken down geographically. *Bilateral comparisons* will be feasible only for this group of countries: in particular, their CPIS liabilities could be compared with their partners' assets on a country-by-country basis. Knowledge of associated metadata as described in the *proforma* will be helpful in identifying possible sources of discrepancies. The IMF is planning to produce a set of analytical tables relating to these countries for the compilers' meeting.

19. Participating countries that already compile an IIP could be asked to provide the IMF with their end-1997 stock data, to be used as a means of making comparisons with the counterpart information collected in the CPIS, to the extent that bilateral details are available, or as the data sources permit. This comparison could also be made for countries that do not compile the CPIS forms 5 through 8. In conducting *aggregate* comparisons, it should be recalled that a possible undercoverage of portfolio liabilities might have resulted as a consequence of some major investor countries not participating in the CPIS. Notwithstanding this possible shortcoming, partner country data represent an important benchmark for national compilers. The IMF is therefore planning to produce a second set of tables related to these aggregate comparisons for the compilers' meeting.

20. A third set of tables could be related to CPIS countries who do not compile an IIP, and other countries not participating in the CPIS, who either lack IIP data or do not collect geographical detail.

21. Committee members are asked to comment on the following questions. **Do Committee members have—at this stage—any other suggestions on how to analyze the CPIS returns? Should countries be asked to provide reports for discussion at compilers’ meeting explaining the bilateral and/or aggregate comparisons of CPIS and other available data on portfolio investment liabilities? What kind of commentary on the data should be produced by the IMF to supplement that provided by countries?**

22. At the last meeting of the Committee it was agreed that an attempt should be made to address coverage gaps in the CPIS. This could include (i) the use of international banking statistics on banks’ holding of long-term securities to improve coverage for those countries not participating in the CPIS, (ii) available data on holdings of institutional investors. The IMF is investigating possible sources of information to fill these gaps, including drawing on the BIS international banking statistics, and a report will be made to the compilers’ meeting.

#### IV. PUBLICATION OF THE RESULTS OF THE CPIS

23. During the last meeting, the Fund expressed its preference to publish a final report including the master set of matrices, covering both “mandatory” and “non-mandatory” data, as well as a commentary. It was agreed that the report was to be sent to all IMF member countries, and released to the general public. This was felt appropriate, since by the time the Fund published its report most participating countries would have published their own national results.

24. The report should include, at a minimum, a description of : the structural features of the collection strategies pursued by the national CPIS compilers; their impact on IIP measurement; and the CPIS partner country data, converted into a single unit of account. The additional value of such a report would be to bring together all the country data and metadata and provide a comprehensive commentary on the data produced.

25. More substantial issues could also be addressed in the report. In the light of the findings of the compilers’ meeting, the report could discuss where the major discrepancies lie and what might be causing them (in which instrument, between which countries).

26. **Committee members are asked to comment on the scope of the final report and what additional specific issues should be addressed in it.**

#### V. FURTHER STEPS

27. Advice on future plans is also sought from the Committee. Reflecting a positive assessment of the CPIS exercise at a national level, many compilers are now contemplating conducting portfolio investment surveys on a regular basis, for the compilation of national



BOP and IIP data. What are the Committee's views on whether such surveys should be conducted in an *internationally coordinated* way, and when?

28. Should such a coordinated survey be extended to any areas of particular interest not covered by the 1997 CPIS? A preliminary list of such areas is presented in the last section of the *proforma* (see Annex II), such as short-term assets, liabilities, terms to maturity, holdings by custodians for third party country residents, repos, securities lending, financial derivatives. Suggestions are also sought on how the IMF can ensure that information sharing is maintained and made part of continuing data exchange and comparison exercises with other countries.

29. The Committee is asked to consider steps that can be taken in support of this proposal, including a follow-up CPIS and whether a task force should be set up with a mandate to recommend actions by which countries can address discrepancies in portfolio investment. The task force could suggest avenues for further work, either bilaterally, or with the Fund as facilitator. Further work could address the need to review country data collection and compilation systems to ensure better data for transactions and positions in portfolio investment, the latter targeted within country objectives to produce improved IIP data.

**Table 2. CPIS DATA MATRICES <sup>8</sup>**

| Partner countries<br>(debtors)      |     | CPIS countries<br>(creditors)        |     |     |     |                         |     |     |     |   |                         |     |     | Reserve<br>assets | Total<br>inward<br>invest-<br>ment |     |
|-------------------------------------|-----|--------------------------------------|-----|-----|-----|-------------------------|-----|-----|-----|---|-------------------------|-----|-----|-------------------|------------------------------------|-----|
|                                     |     | 1                                    |     |     |     | 2                       |     |     |     | . | K                       |     |     |                   |                                    |     |
|                                     |     | Financial<br>instrument <sup>9</sup> |     |     |     | Financial<br>instrument |     |     |     | . | Financial<br>instrument |     |     |                   |                                    |     |
|                                     |     | (a)                                  | (b) | (c) | (d) | (a)                     | (b) | (c) | (d) | . | (a)                     | (b) | (c) |                   |                                    | (d) |
| CPIS<br>partners                    | 1   |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
|                                     | 2   |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
|                                     | ..  |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
|                                     | K   |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
| Non<br>CPIS<br>partners             | K+1 |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
|                                     | K+2 |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
|                                     | .   |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
|                                     | N   |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
| Not allocated                       |     |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |
| <b>Total outward<br/>investment</b> |     |                                      |     |     |     |                         |     |     | .   |   |                         |     |     |                   |                                    |     |

<sup>8</sup> In the table above it is assumed that there are K countries participating in the Coordinated Survey (the CPIS countries), and N-K other countries (the non-CPIS countries; international organizations are included in this group).

<sup>9</sup> (a) Equity securities; (b) Long-term debt securities; (c) Money market instruments; (d) Financial derivatives.

## **AN OVERVIEW OF CPIS COUNTRY PROGRESS**

### **1. ARGENTINA**

The “mandatory” CPIS data (forms 1 and 2) have been collected from banks, pension funds, investment funds, and insurance companies; they are currently under review. Problems were encountered in the coverage of resident households’ investment in foreign securities held directly abroad.

### **2. AUSTRALIA**

The “mandatory” CPIS data (forms 1 and 2) have been collected and sent to the IMF. Much of the relevant information was already collected through the quarterly Survey of International Investment (SII); the existing sample was enlarged to encompass other resident enterprises, known to have relevant portfolio investment activity. Respondents to the 97/Q4 SII were asked to break down their investments in foreign securities according to the residence of the issuer rather than that of the foreign transactor. CPIS data also differ from traditional SII data as to the treatment of securities lending and repurchase agreements: while securities exchanged under these agreements are treated by the SII as having changed ownership, this is not the case in the CPIS. For this reason, three supplementary questions were added to the 97/Q4 SII, to separately identify the impact of securities lending and repos. Few responses were obtained, involving relatively small values.

### **3. AUSTRIA**

The “mandatory” CPIS data (forms 1 and 2) have been collected, mainly from domestic primary custodian banks. They are currently under review; special effort is devoted to checking the direct/portfolio distinction, and the valuation of bond and equities at market prices. Final data are expected to be transmitted by the end of October 1998.

### **4. BELGIUM**

The CPIS data (forms 1, 2, and 3) have been collected and are under review. The survey could not cover portfolio investments of the domestic household sector; in order to estimate this component, an interdepartmental workshop was settled at the National Bank of Belgium, and a methodology was envisaged with the help of econometricians.<sup>10</sup>

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<sup>10</sup> Belgium has been asked to produce a short note for the next meeting of the CPIS compilers, describing the nature of the work done, the methods and assumptions used, the total amounts involved by security, by major counterpart country.

## **5. BERMUDA**

The “mandatory” CPIS data (forms 1, and 2) have been collected and are under review. The support of the business community to the CPIS is viewed as satisfactory. The final data will be available by the end of September 1998. In certain cases it has been necessary to modify the basis for the expansion factors, to assure the quality of the data.

**6. BRAZIL** - No update at time of report.

## **7. CANADA**

CPIS data have been compiled and analyzed for the period ending at December 31, 1997. Information was collected on stocks, bonds, short-term instruments, real estate, mortgages, some derivative instruments and cash; data were collected for both domestic and foreign securities. An updated questionnaire was sent by fax: the coverage was extended to more than 250 end investors and custodians, representing over 2,000 funds; sectors covered include mutual funds, pension funds, insurance companies, segregated funds of insurance companies, banks, and trust companies; brokerage firms and non-financial corporations have not been included in the data sent to the IMF.

The quality of data received is high. A specific record layout has been set up with all the major custodians and providers of computer services. Data standardization allowed such layouts to be received and processed rapidly (more than 72 per cent of the respondents supplied their data through the internet). The survey frame has been linked to security value for more than one period, to facilitate the fax follow-up. The survey also benefitted from the UIC securities database. Sampling techniques have been used for the pension and mutual funds sectors.

Problems arose in the following areas: (a) the coverage of Profit sharing funds and Trust companies’ private and endowment funds; (b) the coverage of personal accounts with brokers (for securities other than units of mutual funds); (c) getting respondents’ authorization to send the data via custodians and/or providers of computer services (due to the fees incurred; to avoid duplications, more investigation must be done on the origin of the units of funds held by the pension funds); (d) a low response rate on repos; (e) the design of a standardized database of issuers; (f) the country allocation of Asian securities; (g) the collection of good data on derivatives.

## **8. CHILE**

The “mandatory” CPIS data (forms 1 and 2) have been collected from the institutional investors. They are currently under review; a preliminary output will be sent to the IMF by the end of November.

## **9. DENMARK**

The CPIS “mandatory” data (forms 1 and 2) will be sent to the IMF no later than the beginning of October 1998.

## **10. FINLAND**

The CPIS data (forms 1, 2, and 3) have been collected and sent to the IMF. The small number of relevant respondents gave rise to a problem of confidentiality: respondents were asked for permission to publish their data; all but one agreed.

## **11. FRANCE**

The “mandatory” CPIS data (forms 1 and 2) have been collected, on a security-by-security basis. Final statistics are not yet available; provisional data will be shortly sent to the IMF. France benefitted from previous experience in collecting portfolio investment data; equities and long-term debt instruments are easily identified in the database, and did not raise particular problems. Problems were encountered in the following areas: (a) the distinction between resident and nonresident customers of foreign custodians who have a securities account with a resident bank; (b) an extensive checking of stock variations against flows (that was only possible when the reporting bank is the same for flows and position data). Data on instruments related to CPIS forms from 3 to 8 have also been collected, but they could not be allocated by country of creditor. In particular, data on portfolio liabilities are based on securities accounts opened with resident banks on behalf of either non-resident customers or foreign banks or brokers; geographical detail is available only for flows, and on a transactor basis. France started collecting data on derivatives positions (option premiums) only two years ago; however, no geographical detail was available for the data collected in the first year.

**12. GREECE** - No update at time of report.

## **13. ICELAND**

The questionnaires needed to collect the “mandatory” CPIS data (forms 1 and 2) have been sent out to the respondents (custodians and major end-investors); we are now waiting for their answers. It is hoped that the data will be finalized and sent to the IMF in September 1998.

## **14. INDONESIA**

CPIS data (forms 1, 2, 3, 5, 6, and 7) have been collected and sent to the IMF. Securities were classified according to their type, not by original maturity; MTM and bonds were included in long-term securities; CP, CD, PN and FRN in short-term securities. The country

breakdown showed some data relating to Channel Islands, for which no country code was envisaged in the original country list.

## **15. IRELAND**

The CPIS project has been undertaken as a part of the new statistical system for the compilation of Ireland's BOP and IIP. The new system was introduced over a period around end-1997/beginning-1998; it has involved a reshaping of existing surveys, as well as the development of new surveys. The latter focussed on the financial services sector: in particular, on enterprises operating from the International Financial Services Centre (IFSC) in Dublin. Special interim arrangements were made with non-IFSC credit institutions to obtain the data they already provide to the Central Bank of Ireland on a regular basis, as well as some additional information. The data collection arrangements with Government departments and agencies have also been updated. The entire collection system was designed to obtain position and transactions data, based on the BPM5 standards and with the relevant geographical detail. Although responses have been slower than normal, there appears to have been an overall improvement in data quality because the forms are now more respondent-friendly.

A number of IFSC and other financial service enterprises (not surveyed previously) had practical difficulties, centered on data extraction and the development of the necessary computer systems. This caused delays in obtaining the initial information.

## **16. ISRAEL**

Israel will be able to compile the following CPIS forms: 1, 2+3, 4, 6+7, and 8. No distinction by maturity term is available. Geographical details are based on the transactors' residence. Data relate only to traded securities, held with a custodian (commercial banks and brokers).

## **17. ITALY**

The "mandatory" CPIS data (forms 1 and 2) have been collected and are currently under review. External assets of resident investment funds were measured on a security-by-security basis, through their monthly prudential reports to the Bank of Italy. Resident custodians were asked to provide a breakdown of their foreign securities by instrument (security-by-security) and by sector of the resident owner (general government, banks, insurance companies, investment funds, other financial intermediaries, non financial corporations, and households). Data checking and processing is taking longer than expected.

## **18. JAPAN**

In May 1998, Japan published end-1997 IIP data following a report to Cabinet. In July, regional data relating to Direct Investment and Portfolio Investment Positions were published for the first time. The latter data covered equities, long-term debt, money market instruments, and derivatives (only warrants and options, partly estimated). Assets and liabilities were

attributed to the major 30 partner countries, based on the residence of the debtor and the transactor, respectively. Japan is now preparing a new regional allocation of portfolio investment assets, for all partner countries. Data will be submitted by the end of this year at latest.

## **19. KOREA**

The CPIS data (forms 1, 2, and 3) have been collected and sent to the IMF. The survey was based on an aggregate approach, and covered both custodians and end-investors (under the current foreign exchange legislation in Korea, residents can invest abroad only through designated intermediaries). The quality of the data is viewed as relatively high; some underestimation of portfolio assets might have occurred as a result of the currency crisis in late 1997. The Bank of Korea is now planning to compile an IIP in the near future, and to carry out a portfolio investment survey on a regular basis, with a view to compiling BOP statistics by country.

## **20. MALAYSIA**

The CPIS data (forms 1,2, and 3) have been collected and are currently under review. The survey was based on a security-by-security and end-investor/custodian approach. On May 2, 1998, a questionnaire was sent to 808 companies, selected by using BOP records and official lists of asset management companies, unit trusts, and stock brokering firms from the Kuala Lumpur Stock Exchange (KLSE). 80 per cent (609) of those enterprises responded within the extended deadline of June 30, 1998. The survey database is stored under the SAS system; work is underway to conduct quality checks. A preliminary output based on 207 respondents is expected to be completed by September 1998. Problems were encountered in the following areas: (a) tracing firms that changed their address; (b) sectorization of foreign securities; (c) security ID code; (d) reporting of equities of foreign subsidiaries and pledged shares— i.e., shares that are generated through margin financing processes.

## **21. NETHERLANDS**

The CPIS data (forms 1,2, 5, and 6) have been collected and are currently under review. The structure of end-1997 CPIS does not differ substantially from that of previous annual surveys among Dutch custodian banks. On April 24, the CPIS was sent to 34 custodian banks; 16 banks responded by August 24. Contacts have also been established with institutional investors and enterprises with regard to securities held directly abroad. Due to the adjustment to new procedures, longer reporting and processing lags temporarily obtained.

## **22. NEW ZEALAND**

The “mandatory” CPIS data (forms 1 and 2) have been collected and sent to the IMF. The undertaking of this survey produced a number of benefits, including: (a) the development of a comprehensive register of resident portfolio investors overseas; (b) a new system of data

collection and compilation; (c) closer contacts with respondents. The CPIS was based on a mixed end-investor and custodian approach. Data on equity and long-term debt securities held overseas were collected, using a special register developed for this survey from the following residents: fund managers, companies who manage their own portfolio assets, registered pension funds who manage their own investment or use an overseas fund manager. In compliance with BPM5, a 10 per cent threshold was used to discriminate between portfolio and direct investment. The majority of respondents were able to provide the data on a market value basis. A reconciliation exercise between stock and flows produced satisfactory results.

Various meetings and discussions were conducted with major respondents, focussed on the following problems: (a) *the identification of potential respondents* (it was not possible to identify those resident households who invest directly abroad or use the services of an overseas intermediary; also, the survey population did not cover any recent migrants to New Zealand); (b) *the avoidance of double-counting*; (c) *getting respondents to provide data broken down by country*.

### **23. NORWAY**

The “mandatory” CPIS data (forms 1 and 2) have been collected, and are currently under review. External assets of the household sector will be estimated on the basis of tax statistics (available in January 1999). Respondents needed special guidance on the treatment of holdings in Norwegian mutual funds operating in international markets. Preliminary estimates will be sent to the IMF before February 1999

### **24. PORTUGAL**

The CPIS data have been collected, for both assets and liabilities, on equity, long-term debt and money market instruments (forms 1, 2, 3, 5, 6, and 7); preliminary statistics will be available by the end of September. 77 reporters were contacted (55% banks, 15% financial intermediaries, 30% other nonfinancial enterprises); the response rate reached almost 95%. To improve the quality of the data, permanent contacts were established with the respondents. Two major problems were encountered: insufficient codification of securities, and non-harmonized reporting of market prices.

### **25. SINGAPORE**

As part of the CPIS, the traditional survey on overseas investment for reference year 1996 was expanded to cover details on partner countries and money market instruments; most respondents were able to identify the country of the issuer. After further refining the forms to meet the CPIS requirements, Singapore started to conduct the survey for reference year 1997. In particular, repos and security lendings are now collected separately. In order to cover the household sector, the annual survey will be supplemented by special surveys on fund managers and nominees, for which a pilot round was conducted in 1997. Small companies investing on a



short-term basis were unable to identify the country of the issuer. Respondents were also unable to evaluate securities not traded in an exchange at their market price.

**26. SPAIN**

Spain will complete the mandatory requirements of the Survey, as well as the CPIS forms 5, 6, and 7; information regarding stocks of financial derivatives is not available.

**27. SOUTH AFRICA** - No update at time of report.

**28. SWEDEN**

The “mandatory” CPIS data (forms 1 and 2) have been collected and are under review; late responses are not expected to generate substantial revisions. Final data are expected to be available well before November.

**29. THAILAND**

The “mandatory” CPIS data (forms 1 and 2) have been collected and sent to the IMF. Respondents of the survey include: 15 commercial banks, 35 active financial intermediaries, 56 financial intermediaries under operational suspension, plus all non-bank enterprises that under the current foreign exchange laws may invest in foreign equity and debt instruments. Non-bank investment financed with accounts held abroad is not included.

**30. UNITED KINGDOM**

The Office for National Statistics (ONS) and the Bank of England (BOE) are responsible for conducting the survey of portfolio investment by non bank financial institutions and the banking sector, respectively.

ONS despatched approximately 700 company groups at the end of March; the forms were issued as an Annex to the annual balance sheet inquiry forms which go out to a panel of reporting institutions. Response rate is currently 60% which is lower than envisaged at this stage so a response chasing exercise is being conducted. It is proving more difficult for companies to provide the information than indicated in the pilot study conducted last year. Those forms returned are being validated and entered onto a specially created database. The system for grossing up the returned data to cover the population of institutions is currently being developed and will be tested with an initial run of results in October. It is still planned to produce final results in January for transmission to the IMF.

The existing quarterly survey of UK banks is being adapted to collect the data required for the Coordinated Survey. The changes made to the returns were part of a comprehensive review of UK banking statistics, the objective of which included implementation of the Fifth Edition of

the “IMF Balance of Payments Manual” and compliance with the BIS “Guide to the International Banking Statistics”. The relevant return is completed by some 330 internationally active banks located in the UK. The usual criterion for completion of this return is £100mn of total external business in all currencies (mainly deposits and/or lending) or £20mn of external sterling business. Non-response is not a problem. There are no plans at this stage to gross up the results for institutions excused reporting on de minimis grounds. The Bank did not complete a pilot survey as such but the new return was introduced at end-September 1997 thus giving both respondents and compilers valuable experience before the operative date of the Coordinated Survey.

### **31. UNITED STATES**

The U.S. Survey is going very well. Though initial data quality from many survey reporters is again of extremely low quality, lessons learned from the previous survey have enabled errors to be detected and corrected much more rapidly than in the past. As a result, it is expected that preliminary data will be available by December 1998, and final data no later than June 1999. This is much faster than results were available in the past U.S. asset survey, and shows the advantage of experience in conducting such undertakings.

### **32. VENEZUELA**

The CPIS data (forms 1, 2, and 3) have been collected; since a number of potential sources did not respond to the survey, the deadline for respondents was extended to October 1998. However, a preliminary output of the survey was sent to the IMF. The main obstacles encountered were represented by a weak legal backing and the fact that resident investors transact and keep non-resident investment abroad.

## COMPILERS' COMMENTS ON THE DRAFT PROFORMA FOR THE COORDINATED PORTFOLIO INVESTMENT SURVEY

### A. THE PROPOSED FRAMEWORK

#### 1. Background to the survey

- (i) Was this the first national portfolio investment survey? If not, when was (were) the previous survey(s) conducted? If the survey was a repeat, was it the same type of survey? If not, how did it differ?
- (ii) What kind of survey was run —security by security, aggregate, end investor, custodian, mixed etc.? why was this approach chosen?
- (iii) Does your country presently construct an IIP? If yes, what (if any) is the difference in estimation method from that used in the CPIS?

#### 2. Implementation of the survey

**Part one** covers the problems in implementing the agreed methodology as set out in Chapter 3 of the *Survey Guide*. In other words, was the survey able to implement the agreed methodology, and, if not, where were the problems and why?

- (iv) *Market price evaluation* - Were valuations reported readily at market prices as at December 31, 1997? If not, what approach was adopted to adjust to market prices, especially in cases where the securities were held by custodians or not traded actively or were denominated in foreign currencies?
- (v) *Accrued interest* - For debt instruments, was accrued interest included in the prices? If not, has any adjustment been made?
- (vi) *Stock and flows reconciliation* - Has any attempt been made to reconcile flows and levels, and if so, has there been any adjustment made to either?
- (vii) *Distinction between direct and portfolio investment* - How has excluding direct investment (for both equity and debt) been addressed?
- (viii) *Treatment of financial transactions that may lead to under- or double counting* - How have the issues of repos, securities lending, depositary receipt and stripped securities been treated, especially with regard to double counting?

**Part two** covers the implementation of the survey from a practical viewpoint, that is the issues set out in Chapter 4 of the *Survey Guide*:

- (ix) *Sector coverage* - What coverage was aimed for? Which institutional units/sectors were surveyed? Was an attempt made to cover the non-financial private sectors' (especially households') holdings other than through custodians? How many units, by type, were surveyed and what were the response rates? What coverage was achieved (as this cannot be done quantitatively perhaps a qualitative assessment is possible)?
- (x) *Impact of methodological deviations* - What is the (qualitative) significance of any deviation from the desired methodology ?
- (xi) *Register* - Has a register been used? If so, how is it kept current? Were there any problems encountered in developing/using a register? Has any sample survey been conducted for small holders? If so, what techniques were used?
- (xii) *Checks on the data* - What edit checks have been used to verify data quality? What adjustments, if any, have been made? How were data checked to minimize double- or under-counting ?
- (xiii) *Software used* - What computer package was used and why?
- (xiv) *UIC database* - What use, if any, was made of the UIC database? Were there too many securities on the UIC database to handle adequately?
- (xv) *Nominees accounts* - How have nominee and similar accounts been handled where the beneficial owners are non-residents of the reporting country?
- (xvi) *Geographical breakdown* - Has identifying country of issue posed many/any problems?
- (xvii) *Holdings of mutual funds* - How were holdings of mutual funds handled?
- (xviii) *Household direct holdings abroad* - How, if at all, were household direct holdings abroad handled? Are these considered to be significant?
- (xix) *Special estimation procedures* - Have any econometrical or modeling methods been employed? If so, what was their nature? What were the assumption employed? What methods were used?

**Part three** covers information on how, if at all, information was obtained on a sector breakdown.

### 3. Future work

(xx) *Repetitions of the survey at a national level* - Are countries intending to continue to conduct national portfolio investment surveys and, if so, when and how often?

(xxi) *Repetitions of the survey at an internationally coordinated level* - Do they have any comments on whether the CPIS should be repeated and, if so, when and how often?

(xxii) *Information sharing and data exchange* - Suggestions are sought on how the CPIS could be built on to ensure that sharing of information is maintained and made part of continuing data exchange and comparison exercises with other countries as well as between countries' stocks and flow data.

(xxiii) Compilers are also asked to comment on developments that have arisen (or might arise) as a consequence of implementing the survey, such as the sharing of positive experiences, that is ideas that went well, and ideas on possible changes in approach in the light of experience.

(xxiv) *Extensions of the survey* - What are countries' thoughts on how work might be extended into areas which were not fully covered in this survey (such as short-term assets and liabilities) as well as other issues that relate to official reserve holdings (if these have not been adequately provided by the central banks) and any other problem areas such as repos, securities lending, financial derivatives, household sector activity, more generally?

(xxv) *Terms to maturity* - Would residual term to maturity be a more useful way of distinguishing between long-term and short-term assets and liabilities, especially in countries where this is the basis for classification and market trading?

(xxvi) *Holdings by custodians for third party country residents* - One area of particular interest is the development of estimates of holdings by custodians for third party country residents<sup>11</sup>. Have countries any plans, ideas, comments on how this issue may be addressed ?

#### **B. COMPILERS' REMARKS ON SUGGESTED PROFORMA**

The draft *proforma* was found to be very comprehensive and well designed by a large majority of compilers. A number of suggestions were made by some other countries; they are reviewed in this section.

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<sup>11</sup> This expression was found unclear by Ireland.

### *General comments*

**Argentina** asked to include a brief summary highlighting the main achievements and shortcomings of the survey. **Singapore** suggested giving more emphasis to some operational issues, in particular the difficulties experienced by the respondents in understanding and providing the relevant data, and the steps undertaken by the compilers to overcome such difficulties. **Finland** asked to include more details on the way in which the survey was implemented, as well as some information on practical difficulties encountered by the compilers.

**Canada** suggested that the country results be presented in a standardized graphic form, in order to identify easily the different orientation of the participants. The following layout was proposed. *Type of survey*: A = security by security; B = aggregate survey; C = first survey?; D = previous experience? *Survey approach*: E = end-investor; F = custodian; G = end-investor and custodian; H = IIP available; I = different method of estimation than the one used for the IIP. *Type of security*: J = shares; K = bonds; M = derivatives; N = others. In a similar vein, **Ireland** thinks it would be useful if the *proforma* were made available in electronic form with a suitable structuring of the main questions and the related follow-on questions in each section: this would allow flexibility for extended text where required.

Finally, **Japan** posed a general question on whether these metadata would be published and, if so, in which way: in particular, on whether individual country data should be published.

**Austria** recommended to publish such metadata, to have an idea on the quality of the data reported by the compilers. A similar question was addressed by **Ireland**, with reference to the 3rd section of the *proforma* (see below).

### *Background to the survey*

According to **Canada**, the background section should contain some information on the type of instruments covered; also, it should be specified whether some of the portfolio investment information was already available. **France** suggested adding the following questions: (a) Is the compiler of portfolio investment data also the compiler of Balance of Payments portfolio flows data?; (b) If not, are there data exchanges taking place between them?

### *Implementation (part 1)*

**Israel** suggested rephrasing (vi) as: “According to available data, is it possible to break down the changes in position to those due to transactions, price changes, exchange rate changes, or other adjustments?” Israel also suggested expanding (vii) with two additional questions: “are custodians able to distinguish between direct and portfolio investments?”; “when referring to traded shares, is the definition for direct investment identical for all reporters?”.

### *Implementation (part 2)*

With reference to (xiv), **Israel** suggested quantifying the empirical relevance of the UIC securities database. **Ireland** proposed a reordering of some questions, so that those relating to a particular issue could follow consecutively (sectoral coverage, register usage, nominee accounts, mutual funds and households direct holdings abroad). According to some countries, questions (x), (xii), (xv) were not sufficiently clear, or difficult to answer.

**Canada** suggested expanding this section with the following. (a) Method of collection used: electronic; fixed or flexible record layout; other; (b) was it necessary to make special arrangements with the respondents? Has any feedback been provided to the respondents? (c) what is the percentage of missing country allocation ? <sup>12</sup> (d) availability of a commercial financial instrument database for the control of the data. (e) availability of a in-house financial instrument database for the control of the data

**France** proposed adding two new questions: (i) for inward investment, how is the country of the end-investor identified (whenever this information is available)? (ii) is it difficult to distinguish non-resident investors from resident investors when domestic securities are held through a foreign custodian (whenever this question is relevant)?

**United States** suggested adding questions pertaining to how accurate compilers believe their results to be, the major possible error sources, a best guess as to whether their survey results are biased high or low, and if any sampling techniques were employed.

### ***Future work***

Reflecting a positive assessment of the CPIS exercise at a national level, countries' responses focussed mainly on question (xx). A general consensus emerged as to the conduction of new surveys on a regular basis, for compiling national BOP and IIP data. In some cases, the practical implementation of the CPIS has paved the way for building an IIP data collection system from scratch (Italy, Ireland); in most cases, several refinements in existing systems were introduced, leading to a substantially higher data quality (Canada, New Zealand). Ireland, Italy, and Korea are now planning to conduct new surveys on an annual basis; in Italy, preparations are being made for the end-1998 survey. New Zealand is contemplating conducting the survey on a quarterly basis.

On more general grounds, **Ireland** addressed the question of whether the individual country responses to this section of the *proforma* should be published in the IMF's final report. Reflecting a concern that the disclosure of individual positions could result in more cautious responses to important issues, Ireland suggested that only a summary of the views be presented in the report, rather than the individual country metadata.

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<sup>12</sup> In the CPIS returns reported by Canada, a distinction is made between data that respondents were unable to allocate— included in 'Other countries'— and "confidentialized" data, whose total is shown separately.

**United States** noted that it could be useful to go beyond soliciting countries' views and future plans, and in addition express the IMF's views on the usefulness of these data and specify what an ideal future regime might be. According to the United States, the Fund is the proper organization to take the lead in this area.



## A REVISED DRAFT PROFORMA

### 1. Background to the Survey

#### *General*

- Was this the first national portfolio investment survey? if not, when was (were) the previous survey(s) conducted? if the survey was a repeat, was it the same type of survey? if not, how did it differ?
- Does your country presently construct an IIP? if yes, what (if any) is the difference in estimation method from that used in the CPIS?
- What institutions were responsible for data collection and compilation ? *Is the CPIS compiler also the compiler of balance of payments data? If not, are there data exchanges taking place between them ?*

#### *Survey strategy*

- What kind of survey was run?
  - end-investor + security by security
  - end-investor + aggregate basis
  - custodian-based + security by security
  - custodian-based + aggregate basis
  - mixed custodian / end-investor + security by security
  - mixed custodian / end-investor + aggregate basis
- Why was this approach chosen ?
- *Was the CPIS conducted on a compulsory or on a voluntary basis?*

#### *Instruments covered*

- Equity securities
  - Shares (excluding preference shares)
  - Stocks
  - Participations
  - Depositary receipts
  - Shares in mutual funds and investment trusts
  - Other (specify)
- Long-term debt securities
  - Non-participating preferred stocks or shares
  - Convertible bonds and bonds with optional maturity dates, the latest of which is more than one year after issue
  - Negotiable certificates of deposit with maturities of more than one year
  - Dual currency bonds
  - Zero coupon bonds and other deep discount bonds

- Floating rate bonds
- Indexed bonds
- Asset-backed securities, such as collateralized mortgage obligations (CMOs) and participation certificates
- Other (specify)
- Money market instruments
  - Treasury bills
  - Commercial and finance paper
  - Bankers' acceptances
  - Negotiable certificates of deposit with original maturity of one year or less
  - Short-term notes issued under note issuance facilities (NIFs)
  - Other (specify)
- Financial derivatives

## **2. Practical Implementation of the Survey**

### ***Selection of respondents (registers)***

- Institutional units covered, by sector (number of units surveyed + response rate)
  - Monetary authorities
  - Banks
  - Other financial institutions
  - General Government
  - Nonfinancial sectors, of which:
    - Enterprises
    - Households
- Treatment of units with low-value investments
  - Has any exemption threshold been adopted? (in value, if any. e.g., <\$10,000)
  - Has any sample survey been conducted for small holders? If YES, what techniques were used?
- Sources used to build the register, or to maintain it over time (M=main; S=secondary; O=occasional)
  - Existing registers of business maintained by the statistical agency or other government agencies
  - Government administrative sources:
    - taxation records, files, or lists
    - information held by foreign investment approval or monitoring boards
    - Central bank records, such as prudential information and lists of entities coming under the Central bank's supervision (e.g., lists of registered banks and other deposit-accepting institutions)

- information held by other regulatory authorities, such as lists of entities coming under their supervision (e.g., lists of securities brokers, investment managers, investment advisors, and authorized pension or mutual funds)
- statutory company reports and company registration details
- records held in foreign exchange controls or international transaction reporting systems (e.g., records identifying the originators or recipients of large portfolio investment flows)
- Publicly available databases:
  - the stock exchange register
  - commercial equity registers' information services
  - international credit rating agencies' publications (e.g., Moodys, Standard and Poors)
  - market research reports or services, such as reviews by accounting or brokerage firms
- Media reports (newspapers and periodicals)
- Trade associations and their associated reports and releases
- Details stored in the register (see SG, para. 127-134):
  - Information relating to respondents
  - Response log details
  - Other (specify)

***Selection of individual securities (securities databases)***<sup>13</sup>

- Has a financial securities database been used to conduct the survey? (YES / NO)
- If YES, which of the following ?
  - a commercial financial instrument database
  - an in-house financial instrument database
  - the UIC securities database
  - other (please specify)
- Percentage coverage of such database, by type of securities
  - Equity securities
  - Long-term debt securities
  - Money market instruments
  - Total

***Computer package used to process the Survey results***

- Commercial spreadsheets
- Relational database management systems

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<sup>13</sup> Only for security-by-security or mixed surveys.

- personal database management system
- large relational database management system
- Time series (temporal) database management systems
- Why this choice was made ?

### ***Quality control***

- What edit checks have been used to verify data quality?
  - through the survey forms
    - security-by-security forms (see SG, para. 149-150)
    - aggregate survey forms (see SG, para. 151-153)
  - through other reported data (see SG, para. 155-161)
    - Monetary authorities
    - Banks
    - Insurance companies and pension funds
    - Investment companies
    - Nonfinancial economic sectors
  - through analytical checks (see SG, para. 162-164)
- What adjustments, if any, have been made?
- How were data checked to minimize double- or under-counting?

### **3. SELECTED METHODOLOGICAL ISSUES**

- *Direct vs portfolio investment*
  - How has excluding direct investment (for both equity and debt) been addressed?
- *Market price evaluation*
  - Were valuations reported readily at market prices as at December 31, 1997?
  - If not, what approach was adopted to adjust to market prices, especially in cases where the securities were held by custodians or not traded actively or were denominated in foreign currencies?
- *Treatment of accrued interest*
  - For debt instruments, was accrued interest included in the prices?
  - If not, has any adjustment been made?
- *Reconciliation between flows and stocks*
  - Has any attempt been made to reconcile flows and levels, and if so, has there been any adjustment made to either?

- *Treatment of financial transactions that may lead to under- or double counting*
  - How have the issues of repos, securities lending, depositary receipts and stripped securities been treated, especially with regard to double counting?
- *Treatment of nominee accounts*
  - How have nominee and similar accounts been handled where the beneficial owners are non-residents of the reporting country?
- *Mutual funds*
  - How were holdings of mutual funds handled?
- *Direct holdings abroad*
  - What is the significance of direct holdings abroad (i.e., through non-resident custodians) of nonfinancial sectors (especially households)? How, if at all, were they handled?
- *Special estimation procedures*
  - Have any econometrical or modeling methods been employed?
  - If so, what was their nature? what were the assumptions employed? what methods were used?
- *Sectoral breakdown*
  - How was, if at all, information obtained on a sector breakdown?

#### **4. Preliminary Assessment of the Cpis Output at a National Level**

- How accurate compilers believe their results to be? What are the major possible error sources? Is it possible to provide a best guess as to whether the survey results are biased, and in which direction?
- What coverage was achieved (as this cannot be done quantitatively perhaps a qualitative assessment is possible)?
- What is the (qualitative) significance of any deviation from the desired methodology?
- Has identifying country of issue posed many/any problems?
- Was it difficult to distinguish non-resident investors from resident investors when domestic securities are held through a foreign custodian?
- If data on inward investment have been collected, how is the country of the end-investor identified?

- Countries are also asked to comment on developments that have arisen (or might arise) as a consequence of implementing the survey, such as the sharing of positive experiences, that is ideas that went well, and ideas on possible changes in approach in the light of experience.

## **5. Future Work** (*unchanged*)

### *Repetitions of the survey at a national level*

- Are countries intending to continue to conduct national portfolio investment surveys and, if so, when and how often?

### *Repetitions of the survey at an internationally coordinated level*

- Do they have any comments on whether the CPIS should be repeated and, if so, when and how often?

### *Modalities of sharing information and data exchange*

- Suggestions are sought on how the CPIS could be built on to ensure that sharing of information is maintained and made part of continuing data exchange and comparison exercises with other countries as well as between countries' stocks and flow data.

### *Extensions of the survey.*

- What are countries' thoughts on how work might be extended into areas which were not fully covered in this survey (such as short-term assets and liabilities) as well as other issues that relate to official reserve holdings (if these have not been adequately provided by the central banks) and any other problem areas such as repos, securities lending, financial derivatives, household sector activity, more generally?
- *Terms to maturity.* Would residual term to maturity be a more useful way of distinguishing between long-term and short-term assets and liabilities, especially in countries where this is the basis for classification and market trading?
- *Holdings by custodians for third party country residents.* One area of particular interest is the development of estimates of holdings by custodians for third party country residents. Have countries any plans, ideas, comments on how this issue may be addressed?