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Comparison of Creditor and Debtor Data on Short-Term External Debt

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Introduction

The Asian crisis in 1997 revealed important deficiencies in the monitoring of short-term external debt, often the most important and also most volatile component of countries' external obligations. As underlined in the report prepared by the Working Group on Capital Flows of the Forum for Financial Stability, "short-term flows entail liquidity risk and, therefore, are of special concern from a financial stability perspective". As a result, "... special attention to the build-up of short-term debt is warranted".¹

The new Joint BIS-IMF-OECD-World Bank Statistics on External Debt collaboratively published by the four international organisations since March 1999 facilitate the monitoring of external debt. They bring together in one place and on a consistent basis creditor and market data disseminated by the individual agencies, and major components of short-term debt are identified separately. Conceptual and statistical discrepancies between creditor- and debtor-based statistics have however caused concern.

The purpose of this report is to explain the main conceptual and practical differences between creditor short-term external claims series, which are supplied mainly by the BIS, and the corresponding debtor series, and to provide possible options for adapting the joint statistics to reduce these discrepancies.

The report is divided into four chapters. Chapter I describes recent progress in eliminating substantive distortions in the creditor data and notes open issues on short-term external debt. In Chapter II, the main conceptual differences between official guidelines for the reporting of external debt and reporting conventions for the main source of creditor data, the BIS consolidated and locational banking statistics, are discussed.

On the basis of a questionnaire sent to 22 developing countries and follow-up visits to eight countries, Chapter III then compares creditor and debtor short-term data in practice. The chapter identifies both general and specific sources of discrepancies and describes the feasibility and limits of reconciliation. Finally, Chapter IV offers some options on how the presentation of creditor data in the joint statistics might be modified to minimise discrepancies between short-term creditor and debtor data.

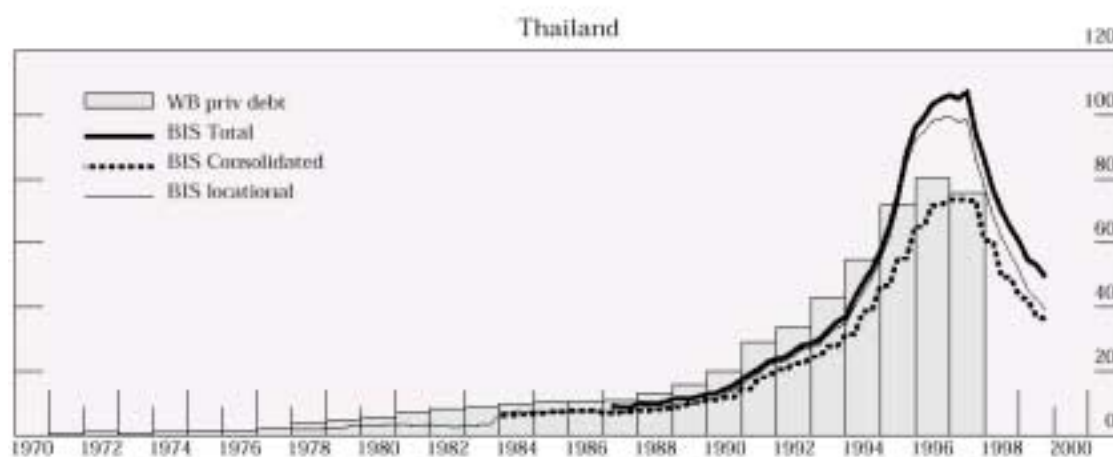
¹ See "Report of the Working Group on Capital Flows", Financial Stability Forum, April 2000, Basel, page 10.

Chapter I Implications of using creditor data in monitoring external debt

1. BIS international financial data as an indicator of external debt

The Asian 1997 financial crisis focussed attention on the usefulness of BIS financial data for monitoring external debt. Creditor data collected by the BIS provided information that complemented and in some cases exceeded that available from debtor country statistics. Graph 1 below is intended to provide an example of the data that were available to users during the Asian crisis. BIS data on external banking and securities debt of residents of Thailand matched national statistical data fairly closely in the years preceding the crisis. During the crisis, two additional advantages of the creditor data became clear: Firstly, BIS data were easily available to non-specialist users on a more *timely* basis than the data from the borrowing country itself. Secondly, BIS creditor data registered what appear to be *additional* capital flows during the surge in the end-phase of the run-up to the crisis that seem to have escaped measurement by the national statistical system.

Graph 1
Comparison of BIS data with external debt data reported to World Bank,
at end 1999, in billions of US dollars



Annotation: **WB priv debt**: short-term debt plus long-term debt to private creditors, reported to World Bank. **BIS Total**: locational banking and securities data. **BIS Consolidated**: consolidated international banking data. **BIS locational**: locational international banking data.

Source: Global Development Finance Country Tables 1999, p 532-533, World Bank, Washington; and BIS.

Still, good coverage of banking and securities debt was not sufficient for those countries which had substantial amounts of other types of international debt to private sector creditors not included in BIS data, such as Brady bonds or non-bank trade credit. These data were, however, available to some extent from other international financial agencies, such as the World Bank and the OECD. The idea therefore arose that it would be of benefit to users and compilers of debt data if these complementary sources of external debt data could be made available in one place and on a consistent basis,

together with data on official bilateral loans and unilateral loans from international organisations. The production of such statistics was collaboratively undertaken by four international agencies that participate in the Inter-Agency Task Force on Finance Statistics (TFFS).²

2. Joint BIS-IMF-OECD-World Bank Statistics on External Debt

The *Joint BIS-IMF-OECD-World Bank Statistics on External Debt* (joint statistics hereafter) were first released on 15 March 1999 on the OECD website³ with hyperlinks available from the websites of the BIS, the IMF and the World Bank. The purpose of the site is to facilitate timely and frequent access by a broad range of users to one data set that brings together external debt data currently compiled and published by the contributing international agencies.

The types of debt covered in the joint statistics comprise bank loans, debt securities issued abroad, Brady bonds, officially guaranteed non-bank export credits, multilateral claims,⁴ and official bilateral loans. The joint statistics are mostly from creditor and market sources, but also include some data provided by debtor countries. At the time of writing, data are available for more than 175 developing economies.⁵ Data are also shown on external financial assets in the form of claims on banks and holdings of international reserve assets, which are prepared by the BIS and the IMF, respectively.

The joint statistics show the stock of debt for each country, with a minimum two-month lag, for the last five quarters and the previous December and flow figures for the latest complete two years and two recent quarters. Data on short-term debt, based on the residual maturity concept, are also provided, for major components. Free access to an online database, which provides longer time series and permits manipulation of the figures, is also available. The data are published five months after the end of the quarter.⁶

These data do not provide a completely comprehensive and consistent measure of total external debt. For example, they do not currently cover:

² The TFFS is one of the interagency task forces endorsed by the UN Statistical Commission and the Administrative Committee on Coordination—Sub-Committee on Statistical Activities set up in 1992. It was reconvened in 1998 to coordinate work among the participating agencies to improve the quality, transparency, timeliness, and availability of data on external debt and international reserve assets. The IMF chairs the Task Force and it recently engaged in preparing a new Guide on External Debt statistics (External Debt Statistics: Guide for Compilers and Users; New Debt Guide thereafter). Representatives from the BIS, the Commonwealth Secretariat, the European Central Bank, Eurostat, the IMF, the OECD, the Paris Club Secretariat, the United Nations Conference on Trade and Development and the World Bank are involved.

³ See <http://www.oecd.org/dac/debt>.

⁴ At the time of writing, the multinational claims covered by the data in the joint statistics are loans from the African Development Bank, Asian Development Bank, and Inter-American Development Bank, use of IMF credit and loans and IDA credits from the World Bank.

⁵ Data on the external debt of developed countries are currently available only from the BIS statistics.

⁶ The lag refers to the BIS International Banking Statistics, which are the core series in the joint statistics. Lags in the reporting of BIS consolidated banking data have progressively improved over the years, from more than six months on average in the early 1980s to only four months currently. In the process, the publication procedure has been simplified, from paper publications with an extensive commentary to initial website releases with a shorter press summary. The majority of reporting countries now report within 12 weeks.

- (i) non-officially guaranteed suppliers' credit not channeled through banks
- (ii) direct investment: intercompany lending;
- (iii) domestically issued debt securities held by nonresident non-banks;
- (iv) deposits of nonresidents with domestic banks;
- (v) lending by governments that are not members of the OECD's Development Assistance Committee (DAC);

With a view to making users aware of the data limitations and promoting best practice in using the data, a set of metadata is provided along with the data, indicating how the data relate to internationally agreed concepts.

The user needs to be careful in comparing data series. For instance, overlaps exist between data sources and there can be inconsistencies. Creditor and market-based statistics are not a substitute for the setting-up of appropriate reporting systems by the debtor countries themselves. Nevertheless, the joint statistics do bring together the best international comparative data currently available on external debt that are compiled and published separately by the contributing institutions.

3. Implications for the BIS international financial statistics

Given the more intensive use being made of the BIS banking statistics in the analysis of external debt after 1999, users have become more aware and critical of existing practical and conceptual limitations of BIS data when used in the external debt context. Statisticians in borrowing countries, in particular, pointed out some problems with users relying on BIS data without taking due account of some of the known weaknesses and overlaps in the statistics. While it was acknowledged that the BIS banking statistics had not originally been designed to measure external debt but rather to monitor banking systems' international exposure and the role of financial centres, the need was seen to highlight and rectify these limitations where possible. The major concerns and follow-up action by the BIS can be summarized as follows:

Doublecounting: Locational banking data reported by Caribbean financial centres to the BIS did not identify separately holdings of securities. Because these securities were classified as loans in BIS data, there was substantial doublecounting in the case of some Latin American countries and thus an inflation of their external debt as measured by creditor data. As of end-1999, following discussions with the BIS, all major financial centres have started to report these securities separately. As can be seen from Table 1, this improvement has led to very substantial corrections in the cases of some major borrowers.

Table 1
Financial claims of Caribbean banks on selected countries in Latin America, end-2000
 In billions of US dollars

	Total claims	Holdings of international debt securities	Loans and deposits	Percentage of debt stocks previously double-counted
Total Latin America & Caribbean	78.9	19.5	56.6	25
Brazil	31.9	12.2	19.4	38
Mexico	16.7	2.9	12.2	18
Argentina	13.3	3.7	9.1	28

Source: BIS.

Locally funded foreign currency claims: When the BIS consolidated banking statistics were designed in 1982/83, with emphasis on the repayment risks lending banks might face, it was decided to include indistinguishably in the claims on residents of a borrowing country all amounts denominated in foreign currency. This led to the inclusion of locally funded foreign currency claims of local foreign bank offices which is conceptually inconsistent with the official definition of external debt,⁷ which requires that holders of financial claims must be resident outside the borrowing country if the claims are to count as external debt.

Despite the fact that this problem is expected to grow in importance as international banks expand their local networks worldwide, the consolidated banking statistics cannot be modified as they primarily serve the different purpose of measuring national banking systems' country risk exposures. However, the BIS suggested that debtor countries themselves supply data on locally funded foreign currency claims, which are then added as footnotes to the respective country tables, enabling analysts to make the appropriate adjustments. Two countries with substantial relevant positions, , are already providing this information on a regular basis (see Table 8 in Chapter II).

Coverage of BIS data: Foreign bank subsidiaries in countries not reporting to the BIS have increased their share of worldwide lending. Thus it was recently documented for Argentina and Brazil that BIS data, which provides only foreign lending exposures from reporting countries, will understate the increase in foreign bank penetration in these Latin American countries.⁸ According to this research, in Argentina, foreign bank subsidiaries from non-reporting BIS countries increased their share of total claims from 0.15 percent in December 1994 to 2.32 percent in December 1999. In Brazil, the share of

⁷ See "Grey Book" Guide on External Debt, jointly issued by the BIS, IMF, OECD and World Bank in 1988 and New Debt Guide in preparation (see footnote 1).

⁸ Joe Peek and Eric S. Rosengren: *The Role of Foreign Banks in Latin America*, Central Bank of Argentina, August 2000. This report also established that Mexico does not have foreign subsidiaries from countries not reporting to the BIS.

claims of foreign subsidiaries from non-reporting countries also increased, with the share rising from 0.55 percent to 2.33 percent, reaching a peak of 3.21 percent in December 1997.

The BIS has been aware of these developments and has therefore asked non-reporting countries with substantial external banking business to consider joining the BIS statistical system. At the time of writing, four and five countries respectively have been able to provide the necessary detailed data to be included in the BIS locational and consolidated statistics. A number of additional central banks worldwide and in Latin America in particular are working on collecting additional data to enable them to join the BIS statistical system. As is evident from Table 2, banks headquartered in new reporting countries have accounted for about half a percent to 3 percent of total consolidated claims outstanding to developing countries. The ongoing addition of reporting countries should therefore enable the BIS data to continue to cover 95% or more of foreign banks' lending to developing countries.

Another aspect of the coverage of BIS data is the exclusion of Brady bonds from the BIS database on international securities. Although these data are now provided in the joint statistics by the World Bank, analysts using the BIS data have asked that Brady bonds be integrated more closely into the securities data published by the BIS itself (see Table 3). The BIS may want to investigate whether a database of individual outstanding Brady bonds can be established. Ideally, the database would cover Brady repayments comprehensively, since these are expected to be substantial in the coming years.

Similar considerations apply to the restructuring of bank loans. Currently, when loans are restructured into bonds, the loans are removed from banks' balance sheets, and thus from the BIS banking statistics, but any ensuing new long-term securities are not taken into account in the BIS international securities statistics. The BIS may want to investigate whether data on such restructuring can be collected in a separate database, so that appropriate corrections could be made to the stock of outstanding international bonds.

Definition and coverage of short-term debt: One of the more common initial difficulties experienced in using BIS consolidated data on short-term debt during the Asian crisis was mainly due to conceptual issues. Official debt sources tend to publish the maturity distribution of external debt based on the

Table 2
Share of new reporting centres in total consolidated lending to developing economies
In billions of US dollars and percentages

	end-2000	%
Portugal	3.7	0.42
Turkey	4.6	0.52
Taiwan, China	8.2	0.94
Singapore	8.9	1.02
Hong Kong	26.0	2.96
All reporting countries	876.0	100.00

Source: BIS.

Table 3
Share of Brady bonds in total international securities outstanding in selected countries
 In billions of US dollars

	Argentina			Brazil			Mexico		
	International debt securities issued	Brady bonds	Total	International debt securities issued	Brady bonds	Total	International debt securities issued	Brady bonds	Total
end-1998	54.8	17.9	72.8	41.4	36.0	77.4	48.9	24.0	73.0
end-1999	63.4	16.7	80.0	44.2	31.9	76.2	55.7	23.5	79.2
end-2000	70.0	11.0	80.7	49.0	23.7	72.7	57.8	16.0	73.9

Source: Joint statistics.

original maturity of debt instruments.⁹ In contrast, BIS data is collected and published on the basis of residual maturity. This conceptual difference implies that in most cases, short-term debt according to the BIS definition will be higher than that published in official borrower country statistics.

For debt liabilities, the forthcoming issue of the New Debt Guide¹⁰ retains the traditional distinction, based on the formal criterion of original contractual maturity, between long- and short-term maturity¹¹. However, the New Debt Guide also provides an illustrative framework for the presentation of external debt on a remaining maturity basis.¹² The interest of users and borrowers in debt on the remaining maturity basis reflects that it enables them to judge better the liquidity position of a country, since the amounts due to be refinanced or repaid within a year are directly evident. This reasoning had originally led to collection of BIS data on a remaining maturity basis.

The BIS consolidated data were defined in such a way that for reconciliation purposes, original maturity data can be reconstructed from the BIS data. This is made possible by collecting data in the one to two year remaining maturity bracket. By relating these amounts one year ago to the current amounts of one-year maturity or less, it is possible to calculate the contribution of maturing debt of original long-term maturity to the current stock of short-term debt. As can be seen in Table 4, maturing long-term debt can account for 7% to 33% of the total amount of short-term debt due for refinancing.

Even when these conceptual issues have been clarified, there has remained considerable uncertainty in comparing BIS consolidated banking data on short-term claims with borrowing countries' statistics on short-term debt. Short-term external debt is often considered the most important and also most

⁹ The intention is to show the extent to which borrowers have access to long-term funds.

¹⁰ See New Debt Guide, p 42.

¹¹ Long-term is defined as debt with a maturity of more than one year or with no stated maturity. Short-term, which includes currency, is debt repayable on demand or with a maturity of one year or less.

¹² See New Debt Guide, p 99.

volatile component of countries' external obligations. The Working Group on Capital Flows of the Forum for Financial Stability noted that, "short-term flows entail liquidity risk and, therefore, are of special concern from a financial stability perspective". As a result, "... special attention to the build-up of short-term debt is warranted".¹³

The main purpose of this report is therefore to explain the conceptual and practical differences between creditor and debtor data on measures of three important components of short-term external debt, and to provide options on how to address these discrepancies in the joint statistics.

Table 4
Share of maturing long-term debt in remaining maturity short-term debt
In billions of US dollars and percentages

	end-1999	end-2000	
	Over one year up to two years	Up to and including one year	Percentage share of long-term maturing debt
Argentina	5.9	38.7	15
Brazil	4.1	33.6	12
South Korea	6.7	32.8	21
Mexico	2.7	22.3	12
Indonesia	3.0	20.1	15
China	4.3	19.3	22
Taiwan	0.9	12.2	7
Thailand	2.6	10.3	25
Chile	3.2	9.7	33
Peru	0.7	9.1	7
India	2.2	9.0	24
Malaysia	1.3	7.0	18
Philippines	1.5	6.6	23
Venezuela	0.9	4.7	20
Colombia	1.5	4.2	37

Source: BIS

¹³ See "Report of the Working Group on Capital Flows", Financial Stability Forum, April 2000, Basel, page 10.

Chapter II Main conceptual differences between creditor and debtor data

1. Introduction

Conceptual differences are important when comparing creditor and debtor data. Table 5 below compares six reporting conventions for the two major sets of BIS international banking statistics with those of the “Grey Book” Guide on External Debt, the current standard for the compilation of external debt.¹⁴ Only the BIS consolidated banking statistics provide a maturity breakdown, which can be compared with debtor country data on short-term external debt. Since these statistics differ conceptually in a number of ways from debtor data, however, comparisons with debtor statistics are subject to a fairly wide margin of uncertainty. Alternatively, one can envisage estimating a maturity breakdown for the locational statistics, which are based on balance of payments compilation principles and are thus conceptually more closely aligned to external debt data. This approach is subject to uncertainty introduced by the estimation procedure, however.¹⁵ The main conceptual differences between debtor reporting systems for short-term debt and creditor data (mainly the BIS consolidated and locational banking statistics) are discussed below.

Table 5
Comparison of reporting conventions between the “Grey Book” Guide on External Debt and the BIS reporting standards for the international banking statistics

	“Grey Book” Guide on External Debt	BIS consolidated banking statistics	BIS locational banking statistics
Coverage	External debt based on residence of debtor and creditor	Consolidated external and local foreign currency claims (debt and non-debt instruments) ¹	External debt based on residence of debtor and creditor ²
Valuation	Nominal value	Nominal, cost or market value	Nominal, cost or market value
Maturity breakdown	Short- and long-term according to <i>original</i> maturity	Short- and long-term according to <i>remaining</i> maturity	None
Type of debt instrument	Securities, trade credits and other loans	All financial claims indistinguishably included	Loans (including trade credits) and securities
Type of debtor	Banks, government, others	Banks, non-bank private sector, public sector	Banks, non-banks
Type of creditor	Sectoral breakdown of creditors not required	Commercial banks	Commercial banks

¹ Non-debt instruments are included in the unallocated category in the maturity composition of claims. ² Some non-debt instruments (e.g. equity participations) are reported as additional separate items

¹⁴ The “Grey Book” Guide on External Debt framework is largely consistent with SNA and balance of payments reporting standards. It does not yet reflect the development of new statistical standards, such as in the IMF Balance of Payments Manual (1993), the IMF Data Dissemination Standards and the forthcoming New Guide on External Debt.

¹⁵ Due to the reporting burden for respondents, the collection of a maturity breakdown for the locational statistics is not feasible.

2. The consolidated banking statistics

2.1 Coverage

The BIS consolidated banking statistics were introduced in the wake of the Latin American debt crisis in the early 1980s to assess the exposure of commercial banks lending to developing countries. Consolidation is by the nationality of reporting institutions, irrespective of their location or country of residence. The statistics therefore focus on the home country (or country of origin) of the creditor institution, as opposed to its host country.

Consolidation implies in practice that the country exposure of individual reporting institutions covers that of their affiliates in all countries, including in the debtor country itself. In the process of consolidation, reporting banks make two opposite adjustments. On the one hand, positions between related offices of the same banking group (intra-bank positions) are excluded, which eliminates a number of cross-border positions. On the other hand, all local claims of own affiliates in the debtor country denominated in foreign currencies are included (as part of the international positions), which is clearly a departure from balance of payments and existing external debt concepts. At the same time, local claims of own affiliates in domestic currency are not included in the exposure measure on the grounds that they do not represent international positions.

The chart on the next page illustrates the major channels through which international banking funds can flow to a debtor country:

- Case 1 covers direct lending from abroad to a local non-affiliated entity (case 1), including to the affiliates of other reporting banks (subcase 1a).
- Case 2 covers lending through a reporting bank's own local affiliate directly in foreign currency.
- Case 3 covers lending through a reporting bank's own local affiliate, in local currency.

In case 1, the funds are directly lent from abroad (either from the home country or from another foreign affiliate of the reporting bank) in domestic or foreign currency.¹⁶ Since it involves cross-border flows, this scenario appears consistent with the balance of payments reporting principles and "Grey Book" Guide on External Debt and therefore also with the BIS locational banking statistics. However, it gives rise to double-counting in the aggregated BIS consolidated banking data whenever foreign currency funds are channelled to the local affiliates of other reporting banks, whose local foreign currency claims are already covered in the BIS consolidated banking statistics (subcase 1a). It is precisely to allow exclusion of this possible double-counting that the BIS requests separate recording of this item as a memorandum item.¹⁷

¹⁶ The distinction between domestic and foreign currency is from the point of view of the debtor country, as opposed to the creditor country.

¹⁷ Albeit without singling out claims on banks with head offices in other BIS reporting countries, which would have been too burdensome for banks to report.

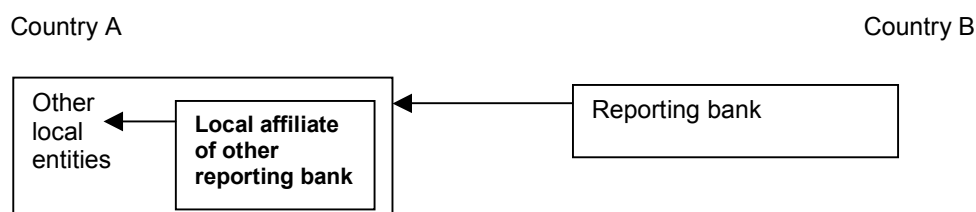
Table 6

Consolidated country exposure of a BIS reporting bank: main financing channels¹

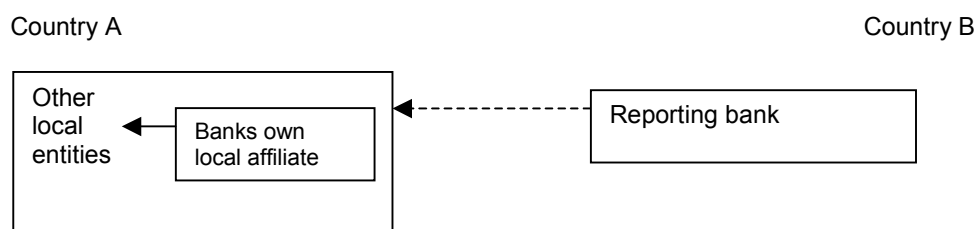
Case 1: Direct cross-border lending (in any currency) to non-affiliated entity



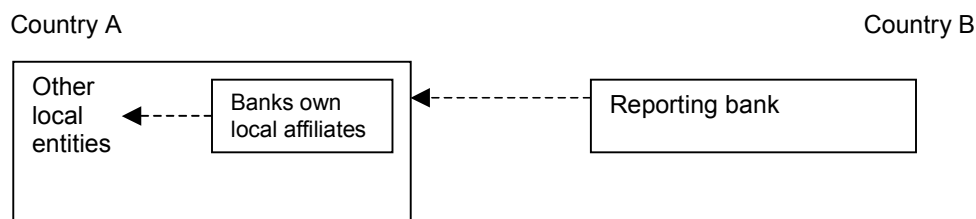
Subcase 1a: Direct cross-border lending to local affiliate of another reporting bank



Case 2: Foreign currency lending through own local affiliate



Case 3: Domestic currency lending through own local affiliate



¹ A solid arrow indicates that the lending flow is included in the consolidated data reported by the bank; a dotted one indicates that such lending is excluded from the exposure data.

In case 2, the country exposure of the creditor bank is in the form of local claims in foreign currency (through its local affiliate). Inclusion of such claims is fully justified when funding takes place from abroad through the creditor bank’s own network. It may also be appropriate when funding is from another reporting institution, provided the “claims on foreign-owned banks” can be deducted (case 1a). However, the inclusion of local claims in foreign currency is not appropriate if it represents the counterpart of local foreign currency deposits, which is quite substantial in some debtor countries.

In case 3, the country exposure of the creditor bank is in the form of local domestic currency claims through its local affiliate. Such claims are currently excluded from banks' exposure data on the grounds that they do not represent international positions. However, the BIS collects, as memorandum items, data on the local assets and liabilities in domestic currency of reporting banks. A net (positive) position resulting from subtracting the liabilities (or domestic funding) from the assets would provide an indication of the cross-border flows involved on the funding side. Although the reporting does not distinguish between short-term and long-term exposure, it can be assumed that most funding takes place in the short-term interbank market and therefore has a short-term character.

Thus, three adjustments could be made to the short-term component in the BIS consolidated banking data to provide an estimate that might be more consistent with the measure of external debt in the "Grey Book" Guide on External Debt:

- (1) Claims on local affiliates of foreign banks could be deducted from total short-term claims. This is an upper bound estimate of potential double-counting. Because there is no maturity breakdown for this item, one needs to assume that it reflects mostly interbank transactions, which are typically short-term. For both reasons, subtracting the item would result in an underestimation of short-term claims as compared with the current overestimation. The item amounts to about 6% of short-term claims on developing countries on average, but as can be seen from Table 7, there is some variation in this percentage. A constraint on adopting the adjustment is that a Group of Statistical Experts for the Consolidated Banking Statistics is considering to recommend that this item is no longer collected as of the year 2004 to limit the reporting burden on banks.
- (2) Short-term local liabilities in foreign currency of reporting banks' foreign affiliates could be deducted. As noted above, these data are not available within the framework of the consolidated banking statistics, but other borrowing countries could emulate Argentina and Chile and provide the information to the BIS on a regular basis.

Table 7
Upper bound estimate of double-counting of external debt to BIS reporting banks
In billions of dollars

end-1999	Claims of up to and including one year	Claims on banks with head offices outside the country of residence	Upper bound percentage of potential double-counting
Total developing countries	410.0	24.1	6
Europe	67.0	4.3	6
Latin America & Caribbean	134.0	5.6	4
Africa & Middle East	69.5	3.4	5
Asia & Pacific	139.8	10.8	8
of which			
Malaysia	7.7	1.1	14
China	18.9	2.6	13
Philippines	7.6	0.9	11
Taiwan	15.3	1.2	8
South Korea	35.1	2.6	8

Table 8
Short-term liabilities to foreign banks financed locally in foreign currency

	end-1999
Argentina	
a) short-term liabilities to banks	34,607
b) o/w financed locally in foreign currency	19,688
c) o/w non-US banks	6,488
d) previous overstatement of external debt (c/a)	19%
Chile	
a) short-term liabilities to banks	6,780
b) o/w financed locally in foreign currency	2,532
c) o/w non-US banks	829
d) previous overstatement of external debt (c/a)	12%

Source: Joint statistics and Annex Table 4.

A further complication, however, is that the deduction should exclude the local foreign currency liabilities of foreign affiliates of US banks. In a departure from BIS reporting requirements, US banks do not include the local foreign currency lending by their reporting banks' foreign affiliates in reported international claims. They include these indistinguishably with local domestic currency lending by reporting banks' foreign affiliates since mid-1998. Thus only the amount due to non-US banks should be subtracted from the BIS data to avoid replacing the current overestimate with a substantial underestimate of external debt (see Table 8 and Annex Table 4).

(3) Net local assets (assets minus liabilities, if positive) of reporting banks' foreign affiliates in domestic currency could be added to the total outstanding. These data represent international funding of domestic lending. Although they are not available with a maturity breakdown, it can be assumed that the foreign funding is mostly short-term. To the extent that this assumption is incorrect, the item would bias estimates of short-term debt to banks upward compared with the current downward bias.

2.2 Valuation

Valuation at nominal or face value is the recommended principle of valuation of external liabilities in the "Grey Book" Guide on External Debt as this reflects the amount contractually owed by debtors.¹⁸ In contrast, BIS creditor banks may use different valuation methods in reporting both the consolidated and the locational statistics, ie valuation at nominal (or face) value, cost value (or purchase price) or market value (or market price). This depends mainly on whether the assets belong to the banking (investment) book or to the bank's trading book. Usual practices in the treatment of on-balance sheet assets among reporting countries are summarised in Table 9 below.

¹⁸ In order to bring the recording of external debt more in line with the SNA and IIP principles, reporting of debt valued at both market values will be recommended in the New Debt Guide.

Table 9
Valuation of claims of commercial banks in the BIS international banking statistics

	Banking book	Trading book
Loans	Nominal or cost value	Nominal, cost or market value
<i>Of which: purchased on the secondary market</i>	<i>Nominal or cost value</i>	<i>Nominal, cost or market value</i>
Securities	Nominal or cost value ¹	Market value

¹ Except for discounted bonds, such as zero coupon issues, which are periodically revalued to account for implicit interest payments.

In practice, discrepancies between creditor and debtor data on short-term external debt as a result of the application of different valuation rules are probably small for the following two reasons. First, traditional loans, which still account for the major part of banks' business with developing countries are mostly valued at nominal prices both in creditor and debtor reporting systems. Second, differences between nominal and other valuation methods should only marginally affect the short-term debt data. This is due to the fact that the shorter the maturity of the positions, the smaller the gap between face and market values (except for periods of debt crisis, when debt instruments could be quoted at deep discounts).

2.3 Maturity breakdown

As noted in Chapter I, the maturity breakdown of claims provided in the BIS consolidated international banking statistics is based on remaining maturities as opposed to original maturities which are the basis for many debtor reporting systems, which in this regard follow balance of payments reporting practices.¹⁹ BIS data on short-term claims on a remaining maturity basis cover claims with an original maturity of up to one-year plus claims with longer original maturities which fall due within the next year. The maturity breakdown of the consolidated banking statistics therefore allows a reconciliation with short-term debt data in debtor reporting systems that are based on original maturities.

2.4 Type of debt instrument

Four main sources of differences in terms of the type of debt instrument can be identified between creditor and debtor short-term external debt data:

- Concerning *loans and deposits*, official bilateral credits may overlap with BIS international banking data. Some official lending may be effected through institutions that are part of the BIS reporting system and thus runs the risk of being counted twice. This requires clarification whether official or

¹⁹ In the New Debt Guide, debtor countries will be encouraged to calculate short-term external debt also on a remaining maturity basis (or at least to provide a repayment schedule of long-term debt) because this gives a better measure of liquidity risk.

quasi-official institutions are covered in the creditor reporting system of the BIS consolidated international banking statistics.

- Creditor data is likely to under-record loans to the extent that not all countries report creditor data for the BIS banking statistics. However, as noted in chapter I, the ongoing extension of the number of BIS reporting countries should ensure that this remains a comparatively minor source of differences.
- Debtor data is likely to under-record external holdings of domestic debt *securities*. In practice it is difficult to collect information on holders of securities issued as bearer instruments and which are therefore not registered. On the creditor side, there are issues of both under- and over-recording. Incomplete coverage stems from the fact that foreign holdings of domestic and international securities are in practice only available for BIS reporting banks (but not reported separately in the consolidated statistics). Over-recording occurs to the extent that international securities have been purchased by BIS reporting banks and are indistinguishably included in the consolidated international banking data. It also occurs in so far as international securities have been purchased by residents of the issuing economy.
- With respect to *trade-related credits*, there are similar problems of incomplete coverage on the debtor side and incomplete coverage and over-recording on the creditor side. On the debtor side, there often seems to be no complete information available on total non-bank trade credit. On the creditor side, separate data are only available on official and officially guaranteed trade credits from OECD countries. In addition, there might be an issue of over-recording to the extent that the BIS banking statistics indistinguishably include some of the official and officially guaranteed trade credits reported by OECD countries.

2.5. Type of borrower

Concerning the sectoral breakdown of borrowers, the BIS consolidated banking statistics provide a classification of counterparties into three separate groups – banks, the public sector and the non-bank private sector. The sectoral grouping of borrowers in debtor reporting systems, which follows SNA and balance of payments standards, distinguishes between monetary authorities, general government, banks and other sectors. Whereas the BIS consolidated banking statistics include central bank counterparties under banks, monetary authorities are identified as a separate borrower sector in debtor reporting systems. Moreover, while BIS consolidated banking statistics include all entities (other than banks) which are owned or controlled by the government under the public sector, the corresponding “Government” sector in debtor reporting systems only covers government departments and not enterprises. The residual category of the non-bank private sector in creditor reporting systems and the category of “other sectors” in debtor reporting systems therefore differ from each other to the same extent. Due to these conceptual differences it is not feasible to reconcile creditor and debtor data by sector of the borrower.

2.6. Type of creditor

A reconciliation of creditor and debtor data by type of creditor is often not possible because most debtor reporting systems do not provide a breakdown of external debt by type of creditor. Nor is such a

breakdown requested in the “Grey Book” Guide on External Debt. On the creditor side, data on lending by the non-bank private sector are often incomplete, in particular with regard to holdings of securities and deposits by foreign non-bank entities.

3. The locational banking statistics

3.1 Coverage

The BIS locational banking statistics are collected in accordance with balance of payments principles and are therefore fully in accordance with principles on the collection of external debt in the “Grey Book” Guide on External Debt. None of the over- and under-recording issues discussed in the context of the consolidated statistics apply.

3.2 Valuation

Valuation issues are the same as for the consolidated statistics. Thus, in practice, discrepancies between creditor and debtor data on short-term external debt as a result of the application of different valuation rules are likely to be small for the reasons discussed previously.

3.3 Maturity breakdown

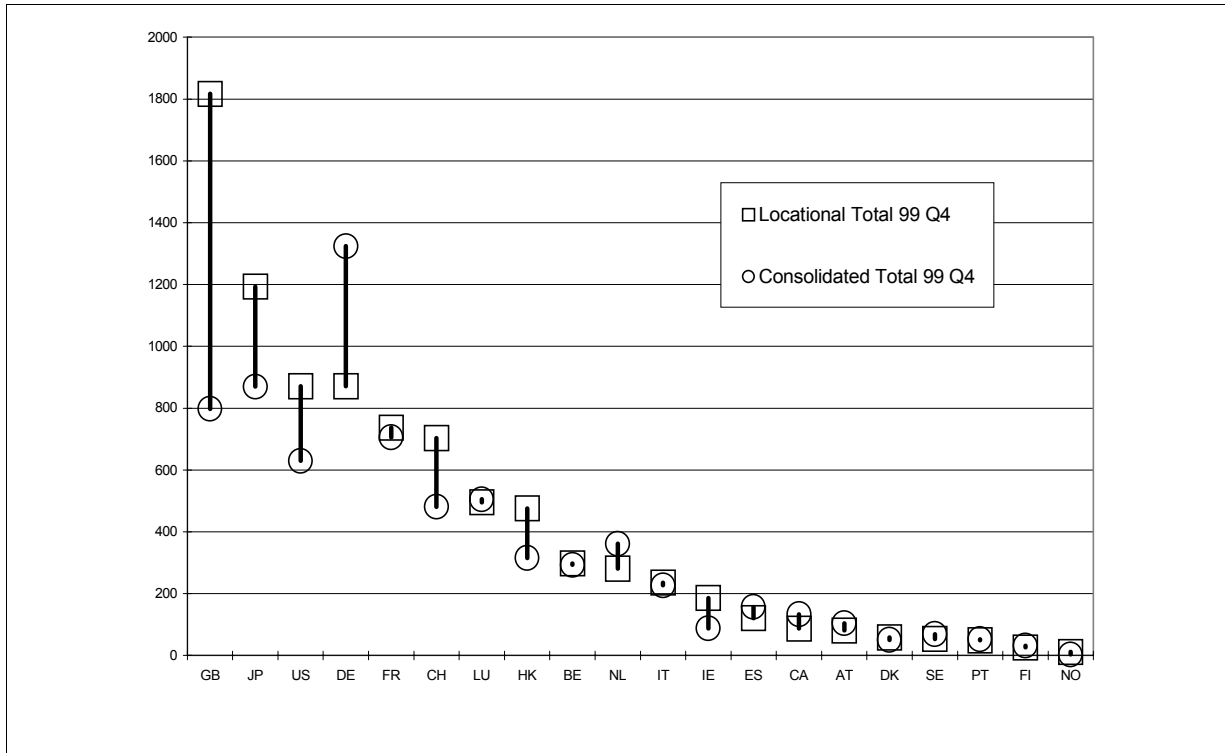
The major stumbling block in using the locational statistics for reconciling data on external debt is that there is no prospect of all reporting banks providing a maturity breakdown of the locational data. Although a number of central banks do collect the breakdowns, reliable aggregate data would depend on such data being available for most reporting countries.

The maturity breakdown of the locational data would thus have to be estimated on the basis of the maturity distribution of the consolidated data. It would not suffice, however, to obtain existing partial locational maturity data from some reporting countries and to provide estimates based on the consolidated statistics for the other countries. To see this, one should recall that the locational data records the assets of all banks located in a given reporting country, irrespective of the nationality of the head office of those banks. In contrast, the consolidated banking data is collected from the head offices of banks, so that all the offices of a given bank world-wide contribute to the data.

Using London as an example of an important financial centre may help clarify the difference between the two concepts. Banks resident in the United Kingdom (denoted as “GB” in Graph 2) account for about 20% of all banks’ total international lending on a locational basis. In contrast, UK domestic banks, ie those with headquarters in the United Kingdom, account for only 7% of total international lending on a consolidated basis.²⁰ For Germany (“DE” in Graph 2), the reverse is the case, with

²⁰ Worldwide locational data exceeds the consolidated data substantially in aggregate, because all interbank business between related offices is excluded from the latter by definition.

Graph 2
Total locational and consolidated international bank claims by reporting country
 In billions of US dollars, end-1999

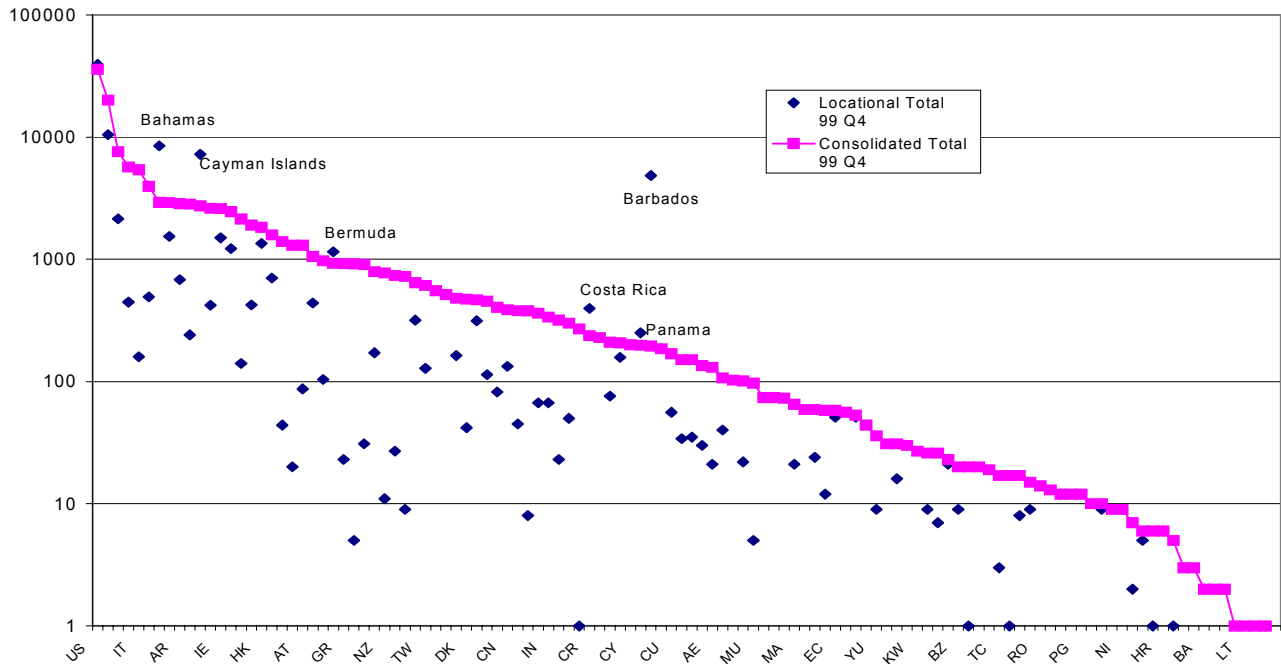


Source: BIS.

worldwide claims of German banks exceeding those of banks located in Germany. The absolute differences in amounts outstanding in the two statistics are only part of the story, however.

Consider the example of Canada ("CA" in Graph 2), a country that reports broadly equal amounts of locational and consolidated data. One might assume that the maturity distribution of the one set of statistics could be applied to the other with limited negative consequences for the accuracy of the estimated locational distribution. On reflection it is, however, clear that the geographical distribution of lending of banks resident in Canada (ie including all foreign bank offices in Canada) and the lending of all offices of Canadian banks worldwide will be quite different. Thus the geographical maturity distribution of the one set of statistics can give little insight into the distribution of the other. This conclusion can be substantiated for data from Canada, because the country collects a maturity breakdown by country for both sets of data. Graph 3 plots locational and consolidated lending to all reported vis-à-vis countries, demonstrating that there is little correlation between the two, as one would expect. It should be noted that for Canada the locational data exceed the consolidated data only vis-à-vis offshore centres (marked in the graph).

Graph 3
Locational and consolidated international bank claims
by vis-à-vis country reported by Canada
 Semi-logarithmic scale, in millions of US dollars, Q4 1999

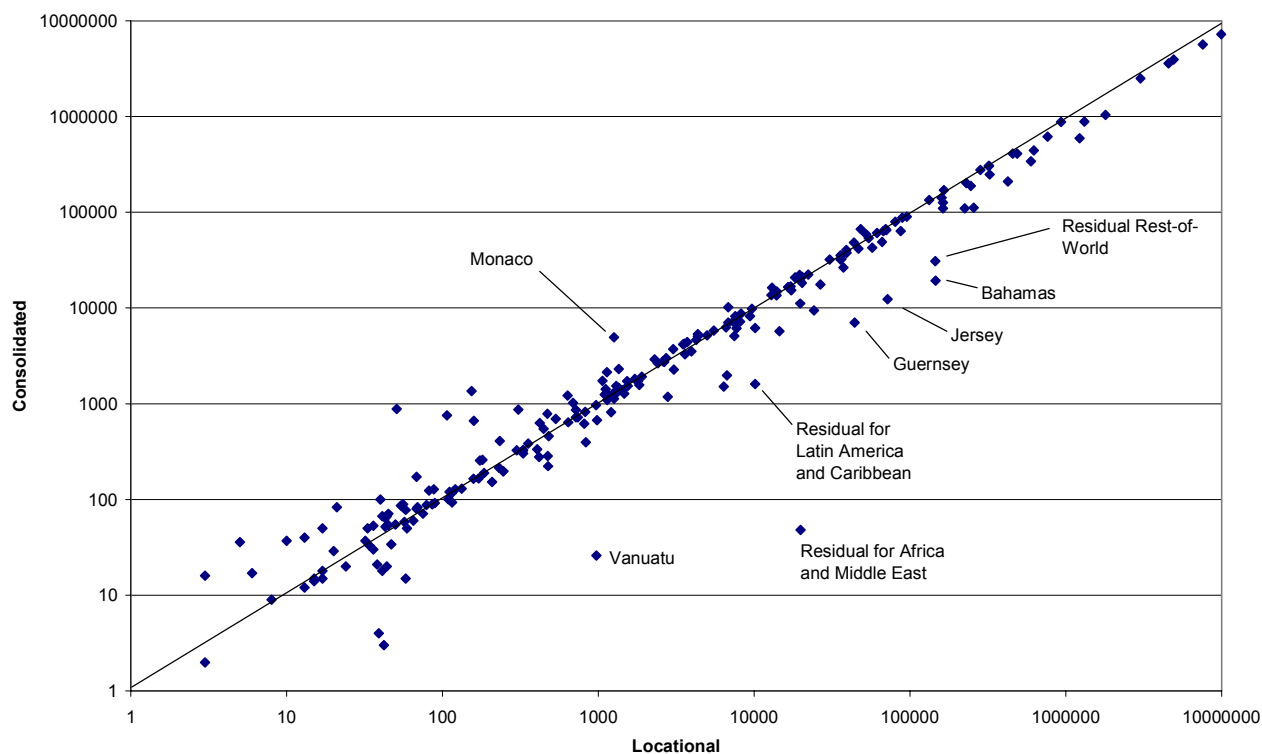


Source: BIS

In general, the locational data reported by Canada are substantially smaller than the consolidated Canadian data, reflecting the fact that the worldwide presence of Canadian banks in total is larger than the international claims of all (foreign and domestic) banks resident in Canada. Furthermore, the amounts for given vis-à-vis countries are also reported by different bank offices to a large extent (the only overlap is the international lending of Canadian bank offices resident in Canada). There can be little presumption that the maturity structure of both sets of data would be comparable and indeed, the correlation between both sets of data is close to zero in terms of the absolute and relative share of short-term claims in total lending.

Not all is lost, however. On a worldwide basis covering banks from all reporting countries, most credit positions should be contained in both sets of statistics, so that the aggregate consolidated lending to a given vis-à-vis country, say Brazil, tends to equal the aggregate locational lending to Brazil. The exception would be lending via offshore countries, since funds channelled through a banking office in say the Cayman Islands to Brazil would be reported twice in the locational statistics. They would be reported once as lending to the Cayman Islands and once as lending (by a bank resident in the Cayman Islands) to Brazil. In contrast, the consolidated statistics would show only the credit to Brazil. In these cases, a maturity transformation of funds could have taken place.

Graph 4
Total aggregate locational and consolidated international bank claims by vis-à-vis country
 Logarithmic scale, in millions of US dollars, end-1999



Source: BIS.

Graph 4 demonstrates that in aggregate the locational and consolidated data are, in fact, closely correlated. Outliers (marked in some of the more substantial cases in the graph) are due either to the offshore nature of the vis-à-vis country or to known statistical problems.²¹ Thus the expected error in using the maturity structure of the consolidated data to estimate that of the locational data ought to be limited, particularly for those countries without substantial external interbank business between related bank offices.

3.4 *Type of debt instrument*

The locational banking statistics data provide separate data on loans and deposits and on securities. Since this is a fundamental breakdown in national balance of payments statistics, external debt data often provide this breakdown as well.

²¹ For example, data for Monaco are often indistinguishably included in the amounts reported vis-à-vis France in the locational statistics but reported separately in the consolidated statistics. Similarly, the residuals for the locational statistics contain data for countries which are reported separately in the consolidated statistics.

3.5 Type of borrower

The locational data make a distinction only between lending to non-banks and the total. This distinction is in principle available in debtor statistics as well, in particular as debtor statistics are normally relatively successful in monitoring external bank borrowing. However, borrowing by non-banks is often largely unrecorded in the debtor statistics, especially if the country has liberalised its current account and there are no effective mechanisms to record external private sector non-bank borrowing.

3.6 Type of creditor

As noted above, national external debt statistics tend to provide limited information on the type of creditor which limits the possibility of reconciling creditor and debtor data in this area.

4. International securities

BIS data on international securities issues tend to overestimate foreign holdings of international securities issued by the debtor country because securities may be purchased partly by residents and partly by foreign banks with the latter already being covered by the BIS consolidated banking statistics. On the other hand, creditor data tend to underestimate foreign holdings of domestic securities as they are only covered in the BIS banking statistics to the extent that they have been purchased by foreign banks.

5. Non-bank trade credit

Regarding *non-bank trade credit*, only partial data on official and officially guaranteed trade credits are available from the OECD on the creditor side. However, even partial data tend to overestimate trade credits as they may partly already be covered in the BIS consolidated banking statistics to the extent that the relevant export bills have been discounted by BIS reporting banks.

6. Summary of main differences

The main conceptual differences between creditor and debtor reporting systems for short-term external debt can be summarised as follows:

Debtor reporting systems often do not adequately capture data on foreign holdings of debt securities issued by debtor countries in both the domestic and international markets and on non-bank trade credit. These difficulties seem to increase the more foreign exchange controls are abolished and external accounts are liberalised. Furthermore, there is a tendency to underestimate short-term debt in those debtor countries which calculate external debt only on the basis of the original and not the remaining maturity of outstanding liabilities.

In contrast, the *creditor reporting system* of the joint statistics tends to either overestimate or underestimate external debt as follows:

- Regarding *loans and deposits*, the BIS consolidated banking statistics tend to partly overestimate and partly underestimate short-term external debt of foreign banks in debtor countries. A number of adjustments might therefore be made to the BIS consolidated banking data. Alternatively, the maturity structure of the consolidated data might be applied to the locational data, which is conceptually much more closely aligned to external debt data. But this would come at the cost of some uncertainty concerning the extent to which both reporting systems covered the same claims.
- Regarding *securities issues*, exact data on external debt is difficult to obtain, because there are overlaps between the source used and non-bank holders are not identified.
- Regarding *trade credits*, creditor data tend to underestimate borrower data as they only cover official and officially guaranteed non-bank trade credits.

Chapter III Comparison of creditor and debtor short-term data in practice: feasibility and limits

1. Introduction

The aim of the present Chapter is threefold. First, to compare BIS consolidated data before and after the adjustments suggested in Chapter two. Second, to provide estimates of short-term bank lending based on the locational data. Third, to compare estimates of short-term banking, securities and trade credit based on creditor data with the respective short-term debtor data provided by 18 developing countries in response to a questionnaire and follow-up visits.²²

2. Alternative measures of short-term consolidated banking data

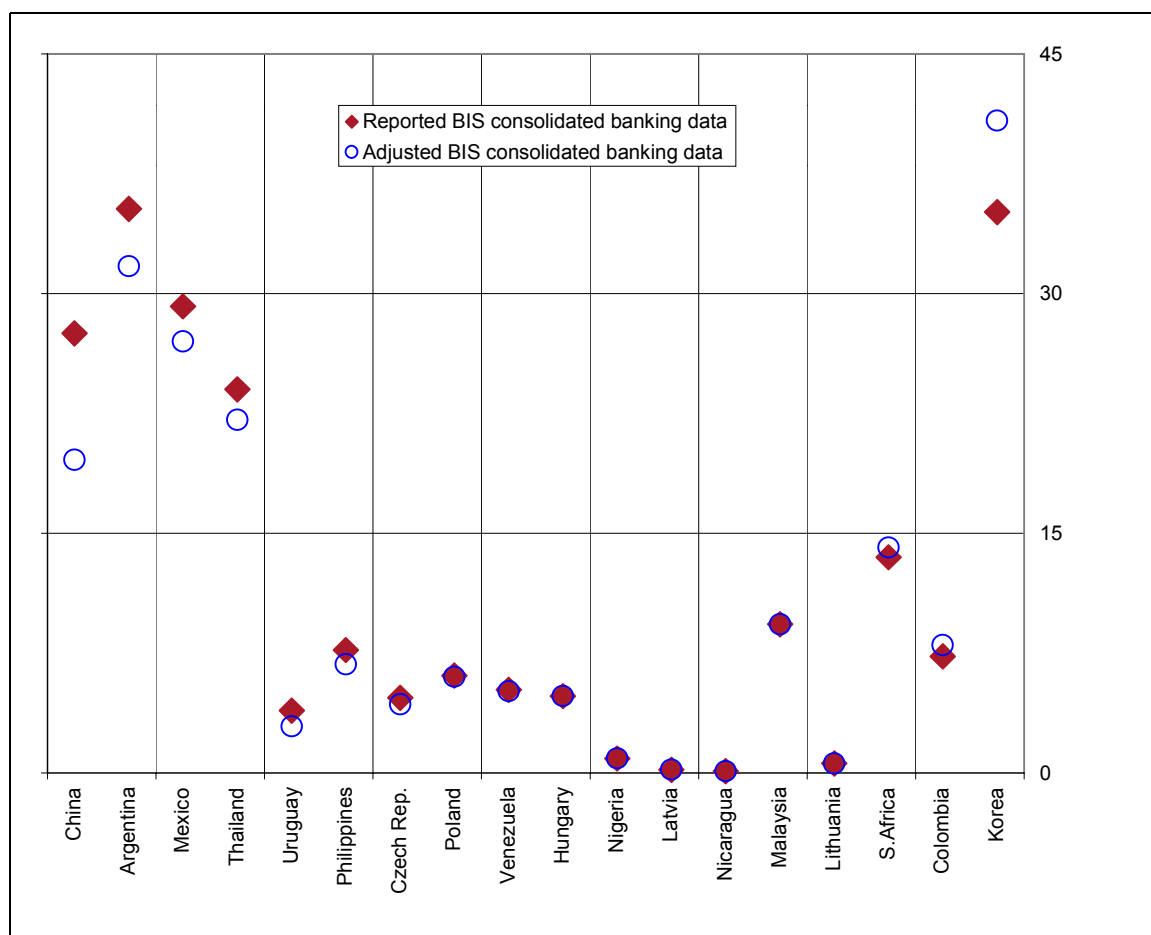
In Chapter II it was suggested that the consolidated BIS data could be adjusted to remove potential doublecounting of lending to foreign banks and/or local funding of local foreign currency claims of foreign banks. It was also suggested that foreign funding of foreign banks' local domestic currency credits should be added to the consolidated BIS data.

The impact of the suggested adjustments to short-term BIS consolidated banking data (including banks' holdings of securities) is given in Annex Table 4 and is summarised in Graph 5 below, in which countries are sorted in terms of the difference between the two measures. The proposed adjustments reduce the BIS consolidated banking data in seven countries, with the largest effects seen in China, Argentina, Mexico and Thailand. In China and Argentina, in particular, the use of unadjusted consolidated banking data may result in a 30% and 7% overestimate respectively of short-term external debt to banks, although – as discussed in Chapter II - this is an upper-bound estimate. The adjustments therefore also need to be examined critically in terms of their success in narrowing the gap between debtor and creditor data, since in ten countries the adjustments actually increase the gap.

In three countries - South Korea, Colombia, South Africa - the adjustments add to creditor banks' claims, but only vis-à-vis South Korea is there a substantial effect. Taking foreign funding of foreign banks' local domestic currency credits into account estimated short-term external debt to banks increases by 16%, increasing the gap with debtor data.

²² Data for some countries include estimates, see footnotes to Annex Table 1. Countries that were not in a position to provide separate data on short-term external loans and debt securities are excluded from this comparison.

Graph 5
Comparison of unadjusted and adjusted short-term consolidated banking data, at end-1999 or end-1998, in billions of US dollars



Source: Annex Table 1, including footnotes.

3. Estimated short-term locational banking claims

As noted in Chapter II, the locational statistics are conceptually more compatible with external debt data than the consolidated statistics, and they provide a breakdown by instrument. To add a maturity breakdown to the locational statistics, two possible approaches might be considered. On the one hand, short-term locational data for reporting countries that collect this type of data could be aggregated and then extrapolated to all reporting countries' data. On the other hand, the maturity breakdown of the consolidated statistics can be applied to the locational statistics.

3.1 Estimates based on extrapolating locational maturity data

Separate short-term locational data on bank loans and holdings of securities are available from six countries, Switzerland, Germany, Netherlands, Belgium, Italy and Canada (ordered by size of total short-term loans). The United States report only bank loans, as there is no regular information on

holdings of securities. Japan and France report short-term locational data without an instrument breakdown. Taking into account the data of all nine countries means that 51% of total loans and 54% of securities holdings are reported at least with aggregate maturity information. One might be tempted to assume that the maturity distribution of the subsample is representative of the total and then apply the short/long-term ratio found in the sample for each borrowing country to the total amount of bank lending outstanding. However, there is a further complication. Four countries (the US, Switzerland, Italy, and Canada) collect claims with residual short-term maturities; the rest collect original short-term maturities. This implies that the data for half of the group of countries needs to be converted to either original or residual estimated maturities to be compatible with the other half. This conversion could be made using the overall ratio of residual to original maturity data reported for every debtor country. However, estimates resulting from such a fairly schematic, two-stage estimation procedure turned out to be questionable, since they deviated considerably in some cases from debtor data and from those estimates relying on the application of the maturity ratio of the consolidated statistics to the full locational data. This approach was therefore discarded.

3.2 *Locational estimates based on the consolidated maturity ratio*

The application of the consolidated maturity ratio to locational data should provide fairly accurate estimates, given that the locational data and the consolidated data provide similar coverage. The advantages of the resulting estimates relative to the reported consolidated data are that they are based on standard balance of payments definitions and that they provide a breakdown between loans and deposits and securities.

Debtor data are also provided with an instrument breakdown (loans and securities), but do not distinguish between bank and non-bank creditors. If bank claims on the creditor side include large unidentified holdings of *short-term* securities, it would be difficult to compare both sets of data. A priori, short-term claims by original maturity are unlikely to contain a large amount of securities, simply because securities tend to be long-term instruments. This assumption is supported by the very small amount of outstanding securities in large emerging market borrowers' outstanding liabilities to banks, contained in the original maturity data provided by the Netherlands, Belgium and Germany (Table 10).

However, if a remaining maturity definition is applied, maturing long-term securities which are due to be repaid within a year also need to be taken into account. Switzerland, Italy and Canada provide the instrument composition of short-term locational bank claims by remaining maturity (Table 10). It is clear that holdings of short-term securities are negligible compared to outstanding loans also on the basis of remaining maturities. The countries reporting data shown in Table 10 also seem well spread across all reporting countries (Graph 6 below) in terms of the absolute size and in terms of the ratio of loans and securities holdings, which increases confidence that the sample is representative of the total.

It is therefore plausible to generalize this result; ie it can be assumed that the short-term component in banks' claims is comprised almost entirely of loans, not securities, even on a remaining maturity basis.

Table 10
Instrument breakdown of banks' short-term locational claims,
end-1999, in millions of US dollars

Short-term securities							
vis-à-vis	CH	IT	CA	NL*	BE*	DE*	Total by borrower
Mexico	1	0	0	6	0	0	7
Argentina	1	27	0	11	2	0	41
South Korea	6	6	0	5	1	67	85
China	0	27	0	15	0	0	42
Thailand	1	0	0	0	0	5	6
Total by lender	9	60	0	37	3	72	181

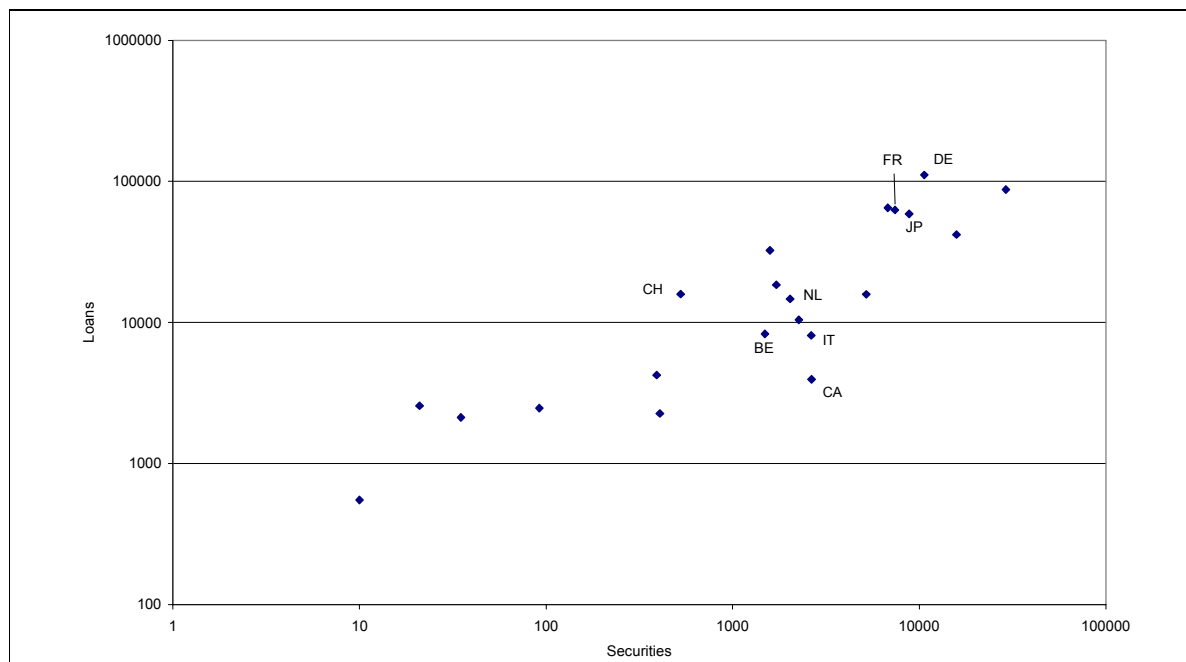
Short-term loans							
vis-à-vis	CH	IT	CA	NL*	BE*	DE*	Total by borrower
Mexico	250	28	292	387	52	417	1426
Argentina	225	644	52	592	589	1858	3960
South Korea	90	14	272	662	67	905	2010
China	24	109	61	315	223	242	974
Thailand	39	9	18	26	19	616	727
Total by lender	627	804	695	1982	950	4038	9096

Note: * signifies reporting based on original maturities.
Source: National locational statistics.

Such a conclusion is corroborated by the available aggregate data. Across all countries, at end-1999, securities accounted for 17% of banks' total external assets vis-à-vis developing countries (in the locational statistics). From the consolidated statistics, short-term debt to banks on a remaining maturity basis amounted to 47% of total debt outstanding, falling from 56% in 1996. It is about 15% higher than on an original maturity basis.²³ Taking into account the assumption that there are no securities with an *original* maturity of less than one year, one can calculate an upper bound for the proportion of short-term claims accounted for by maturing long-term securities, namely 7% (ie 0.15 x 0.47) of total amounts outstanding. This is under the extreme assumption that the maturing long-term component of short-term claims is composed entirely of securities. In reality, at least half can be expected to be due to maturing loans, so that short-term securities would be expected to account for about 3% or less of total claims outstanding. The estimated short-term securities can be subtracted from the BIS short-term data, providing a pure loans figure to compare with debtor countries' external loans data.

²³ Annex Table 5 suggests that remaining maturity data for *total* short-term debt is up to 50% higher than original maturity debt, using debtor countries' own data. However, this must be due mainly to non-banks, who probably hold most of the outstanding short-term international bonds.

Graph 6
Instrument composition of locational banks assets vis-à-vis developing countries,
at end-1999, logarithmic scales, in millions of US dollars



Source: BIS.

Note: The US are not shown in this graph because they do not report holdings of securities in the locational data.

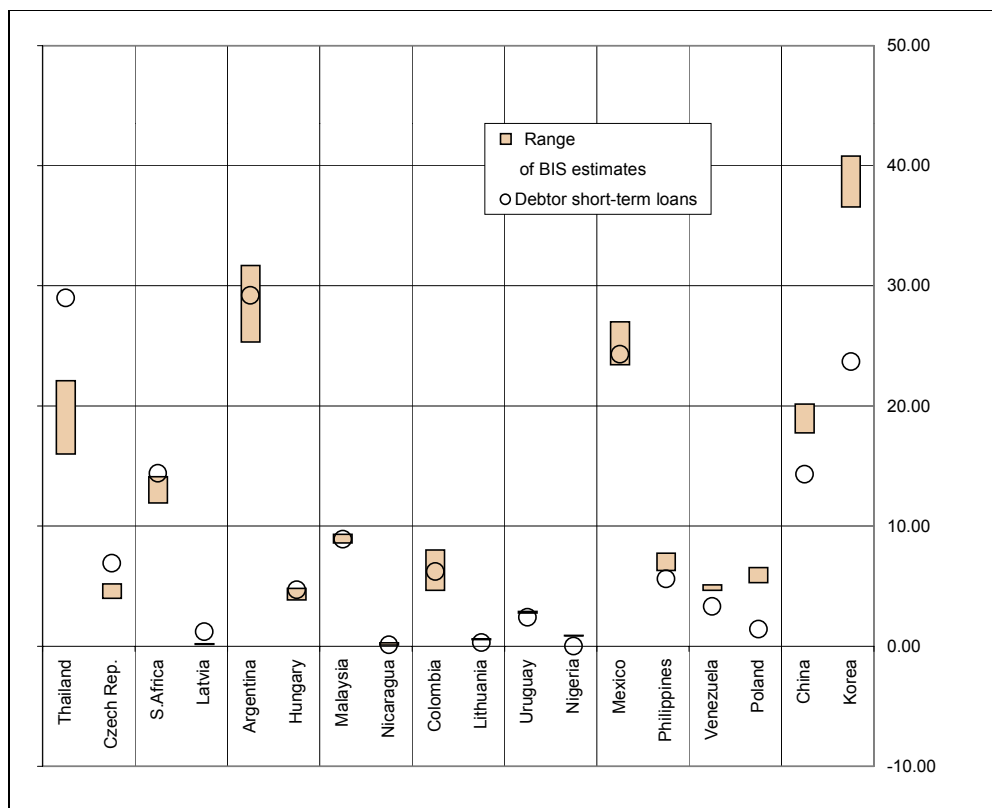
4. Comparison with short-term debt components reported by debtor countries

4.1 Short-term banking debt

In section 3 above, two BIS estimates for short-term *bank loans* were discussed: estimates of adjusted consolidated banking data and estimates of locational data based on the maturity ratios of the consolidated banking statistics. The range of these two estimates, which will both be subject to some inaccuracy, can be compared to debtor-country reported short-term loans from banks. This should enable a judgement whether discrepancies between creditor and debtor data are significant or not. In graph 7, the countries are sorted by the difference between debtor data and the midpoint of creditor data. Three groups of countries can be distinguished.

Firstly, in two countries, Thailand and the Czech Republic, short-term external debt to banks does not fall within the range of BIS estimates.²⁴ This may indicate substantive additional foreign funding in the form of bank loans from non-reporting banks, or in the case of the Czech Republic loans from official agencies. Alternatively, the data may include non-bank deposits, which are not included in BIS data.

Graph 7
Comparison of short-term bank loans,
at end-1999 or end-1998, in billions of US dollars



Source: Annex Table 1, including footnotes.

The big discrepancy for Thailand is a particular surprise, but it should be noted that the comparison is limited to short-term debt (compared with total debt discussed in Chapter I), so there may be a problem with the maturity classification. For the next twelve countries, BIS and debtor data seem to be roughly comparable.

Finally, in Poland, China and South Korea, the estimated BIS data range exceeds debtor data substantially. For all three countries, the relatively narrow range of BIS estimates compared to the discrepancy with debtor data suggests that in these countries there may be underreporting of short-term external banking debt. However, in Poland, the underreporting of debt to banks is largely compensated by higher data on trade credits, suggesting that these were partly discounted by banks. In the case of China, the suggested adjustments to the consolidated data reduce the discrepancy by a

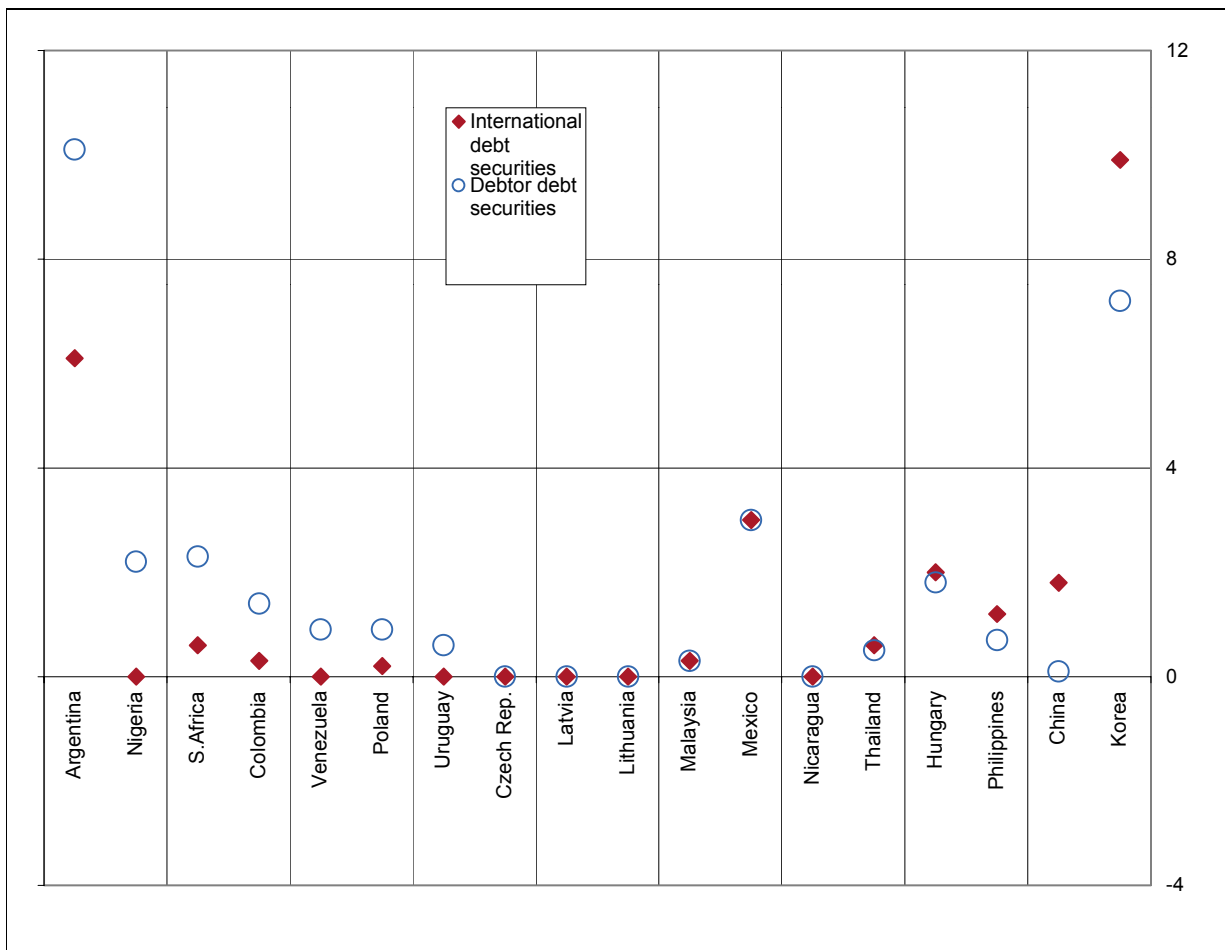
²⁴ For Argentina, the adjustments fully close the gap between BIS consolidated data and debtor short-term external loans data. The comparatively large discrepancy with the estimated locational data in graph 7 is due to the more comprehensive coverage (+ 40%) of BIS consolidated data in the case of Argentina.

substantial amount, but a large unexplained gap remains.²⁵ In South Korea, an initially closer correspondence is widened by the proposed adjustment, suggesting an over-correction in this case.²⁶

4.2 Short-term securities

In the first seven countries, short-term securities data from the debtor side exceed short-term international debt issues monitored by the BIS by \$1 to \$4 billion (Annex Table 1). As noted above, banks do not hold substantial amounts of short-term securities. Thus the assumption must be that non-bank holders play a significant role in external holdings of domestic securities.

Graph 8
Comparison of short-term securities issues,
at end-1999 or end-1998, in billions of US dollars



Source: BIS, Annex Table 1, including footnotes.

²⁵ Foreign banks operating in China are classified as non-resident institutions for the purpose of external debt. Debt in domestic currency is excluded, as is non-repatriable debt to Chinese non-residents. Finally, some debt is netted.

²⁶ Korea includes the borrowing of overseas branches of domestic financial institutions and subsidiaries in external debt, which makes the discrepancy in the data all the more puzzling. However, debt in domestic currency is excluded from external debt. Finally, underreporting of bank loans is largely compensated by over-reporting of securities – see graph 8.

In the next seven countries, BIS data and debtor data seem to be in close correspondence. Finally, in the Philippines, China and Korea there appears to be substantial underreporting of external securities liabilities.

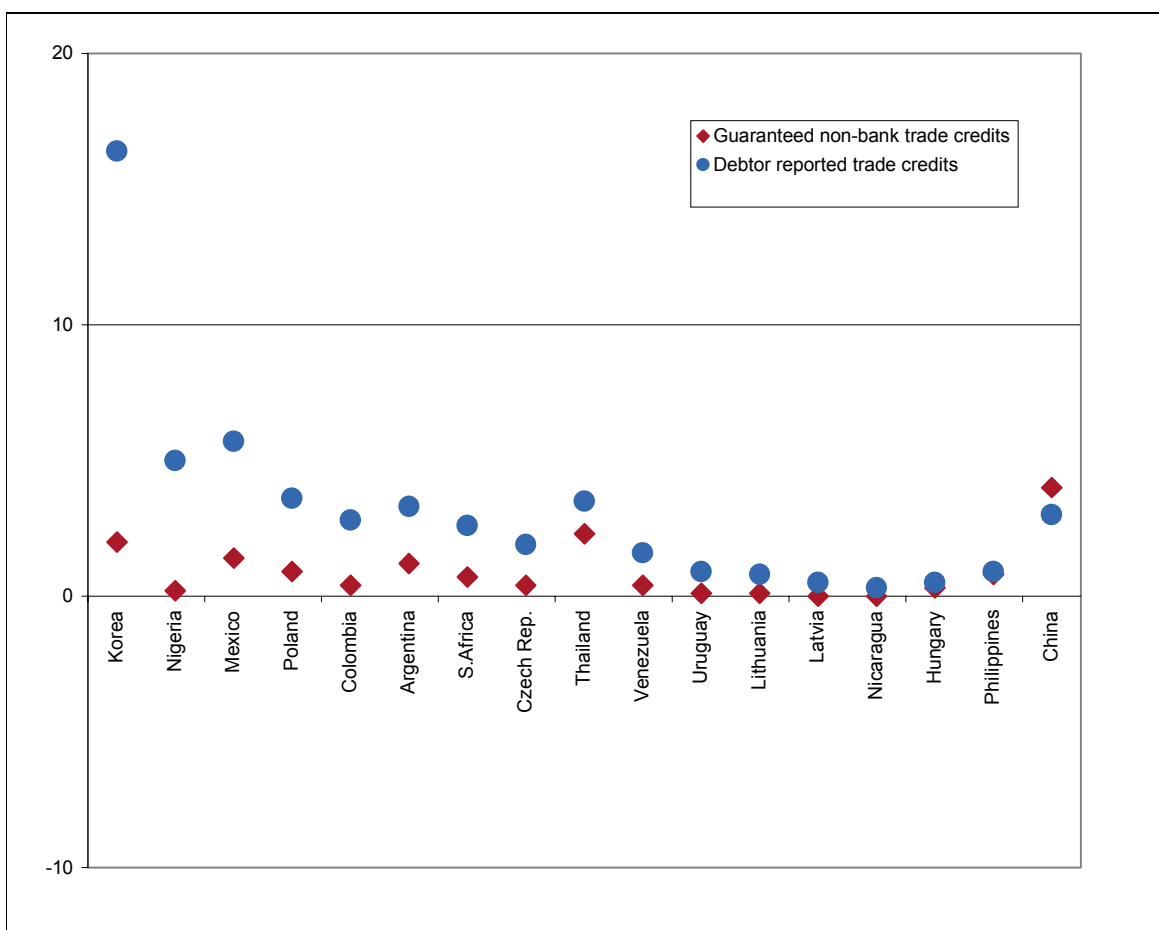
4.3 Trade credit

As is evident from Graph 9, debtor reported trade credit in most countries exceeds the guaranteed trade credits by a substantial margin, with South Korea the most extreme case. This is not a surprise, given that only partial data, namely those on officially guaranteed trade credits are available on the creditor side. The exception again seems to be China, suggesting underreporting.

4.4 Comparison of total short-term claims

Having compared the individual components of short-term debt reported in the joint Table, namely bank loans, securities and trade credit, with debtor country data, it is instructive to also compare the aggregates of these three instruments. As can be seen from Graph 10 below, for most countries the short-term liabilities reported in the joint statistics are less than those reported by the country itself.

Graph 9
Comparison of trade credit,
at end-1999 or end-1998, in billions of US dollars

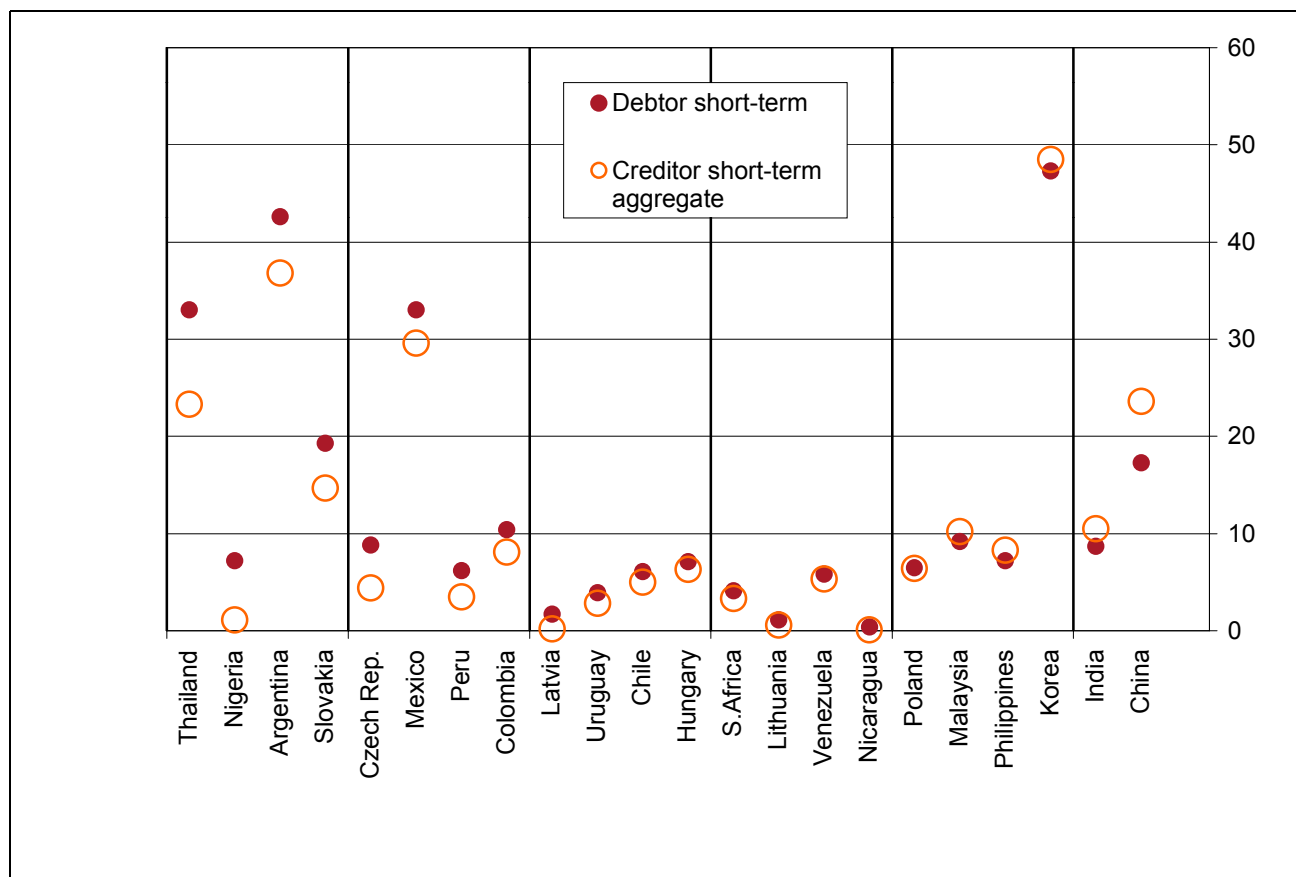


Source: BIS, Annex Table 1, including footnotes.

This is as one would expect, since the joint statistics do not cover non-guaranteed non-bank trade credit or non-bank holdings of domestic debt securities. Even the coverage of external banks' positions, though very high, is a few percentage points short of 100%. In these cases, the current creditor data serves as a valuable crosscheck, assuring users that debtor country monitoring systems are likely to provide full coverage of the country's short-term external debt.

On the other hand, there is a group of five countries, where creditor-reported short-term external debt exceeds that reported by the debtor country by \$1 billion or more: Poland, Malaysia, Peru, Philippines and China (by size of the discrepancy). Much of these discrepancies can be explained by gaps in the reporting systems of the countries concerned, as detailed below in section 4.5. Here the creditor data serves as a useful benchmark to the debtor country authorities, which may want to examine the coverage of their own external debt data and may then decide to spend the resources necessary to

Graph 10
Comparison of aggregate short-term loans, securities and trade credit,
at end-1999 or end-1998, in billions of US dollars



Source: BIS, Annex Table 1, including footnotes.

obtain the fullest coverage possible. On the other hand, where costs of collection of data appear prohibitive (possibly for the external transactions of non-banks), selective use of creditor data could be made instead.

In some cases, the aggregates of short-term debt agree more closely than the components individually. A possible explanation may be the statistical treatment of repurchase agreements, which may be reported as collateralized lending by the one side and as a securities transaction by the other.

4.5 Main gaps in coverage in debtor reporting systems

As noted above, debtor reporting systems may encounter difficulties in covering all short-term debt. Based on the questionnaire sent to twenty-two selected debtor countries, the main gaps in coverage of short-term external debt statistics can be summarised as follows:

First, not all countries are yet in a position to provide information on *long-term maturing debt* (i.e. long-term debt falling due within the following 12 months). While complete lack of coverage in this respect is limited to five countries within the sample group (China, the Czech Republic, Latvia, Lithuania and Nicaragua) three other countries (Mexico, Poland and South Africa) are not in a position to provide this information for all debt instruments. Annex Table 5 highlights the importance of data on long-term debt maturing within twelve months, which exceed 20% in all the selected countries for which the information is available, and even 50% in a few instances. Banks' holdings of securities are, however, small, so that this effect does not have a large impact in the comparison with BIS consolidated banking statistics. Second, while it seems to be generally acknowledged that borrowing from foreign banks should at the very least include both *loans and deposits*, data on deposits are not recorded as part of external debt at least in three countries (Chile, Korea and Mexico). Debtor reporting systems were originally designed to meet the request of the World Bank with respect to medium and long-term debt. Not all countries have broadened coverage to include deposits (including working balances), which are predominantly of short-term nature.

Third, both under- and overrecording of foreign *holdings of debt securities* is evident among debtor countries. Coverage of debt securities is limited to international securities in six countries. At the same time, data on international debt securities, when included, do not distinguish between those held by non-residents and residents in all but four countries. This means that in the majority of countries residents' holdings of international debt securities are not deducted from external short-term debt, which results in potential overrecording.

Fourth, although the coverage of *trade credits* in debtor reporting systems follows in principle IMF guidelines for balance of payments reporting,²⁷ at least six countries do not provide a comprehensive coverage. Thus, whereas long-term maturing credits are not covered in Korea and South Africa, all or

²⁷ See fifth Edition of the IMF Balance of Payments Manual (1993), page 95.

part of short-term credits are excluded in Chile (all), Hungary (less than 90 days credits) and India (less than 180 days suppliers credits).

To sum up, there are often not only significant gaps in coverage of external debt statistics based on debtor data, but debtor reporting systems also seem to lack sufficient homogeneity for cross-country comparisons of short-term external debt. This has two implications. The first one is that any assessment of the external short-term debt situation of a country cannot be solely based on either creditor or debtor sources, but should preferably use information from both reporting systems. The second one is that creditor data will, for the time being, need to be consulted for cross-country comparisons of short-term external debt data.

5. Summary of feasibility and limits of comparison

This brief survey illustrates the difficulty of undertaking a comparison between short-term creditor and debtor data on the one hand and the limits of a cross-country comparison of debtor data on the other hand. Nevertheless, the following conclusions can be drawn from the exercise:

- BIS creditor data on short-term international bank loans may have to be adjusted or estimated in some cases in order to bring them more in line with external debt concepts and thus with the respective debtor data. While fairly plausible estimates can be provided, users need to be aware that these estimates define a range of likely values rather than a point estimate for short-term loans received from foreign banks. In Poland, China and South Korea, the estimated BIS data range appears to exceed debtor data on short-term external borrowing from banks by a substantial margin, suggesting underreporting. In general, some difficulties are attached to the adjustment intended to correct for potential doublecounting of bank loans. Firstly, the adjustment is an upper-bound estimate of doublecounting, so a full adjustment leads to an underestimate. Secondly, taking into account the limited size of the adjustment and the reporting burden associated with it, central bank statisticians are considering suggesting not reporting this item in future, which would render the merits of the adjustment a moot point.
- BIS data on short-term international debt securities issues can be used to assess the coverage of debtor data on foreign holdings of securities. Indeed, these data may point to possible underestimation of short-term debt securities on the debtor side as in the case of China and Korea.
- Similarly, OECD data on guaranteed non-bank trade credits may signal underreporting on the debtor side, whenever the numbers are larger than debtor data, such as in the case of China.

Chapter IV Summary and options for change

Following the Asian crisis, BIS data were made more widely available together with other external debt data in the Joint BIS-IMF-OECD-World Bank Statistics on External Debt. Existing practical and conceptual limitations of BIS data in the context of measuring short-term external debt have caused concern however.

The purpose of this report is to explain the conceptual and practical differences between creditor external claims data supplied in the joint table and the corresponding debtor data. The focus is largely on short-term debt, since this is often the most volatile component of external debt and warrants special attention according to the Forum for Financial Stability. Possible options for adapting the presentation of creditor data in the joint statistics to reduce discrepancies are provided.

Chapter I outlines various measures that have been implemented to improve the BIS banking statistics as a measure of external debt:

Double counting of securities holdings: As of end-1999, all major Caribbean offshore centres report their banks' holdings of securities separately. This eliminates substantial (around 25%) double counting of banks' outstanding claims on developing countries in Latin America.

Locally funded foreign currency claims: The BIS consolidated banking statistics include some items that are excluded from the official definition of external debt. The resulting (12% - 19%) overstatement of short-term external debt for some Latin American countries was resolved by adding additional data (supplied by debtor countries) to the respective country pages in the joint statistics²⁸.

Coverage of BIS data: By 1999, foreign bank subsidiaries from countries not reporting to the BIS had increased their share of total foreign bank lending to some Latin American countries to around 2%-3%. The BIS has invited a number of non-reporting countries with substantial external banking business to join the BIS statistical system. This increase in the reporting population should enable the BIS data to continue to cover 95% or more of foreign banks' lending to developing countries.

In *chapter II*, official guidelines for the reporting of external debt and reporting conventions for the BIS consolidated and the locational banking statistics are compared in terms of coverage, valuation, maturity measurement, types of debt instruments, types of borrower and type of creditor. While numerous differences exist, in practice in many cases these appear either not to compromise the comparability of creditor and debtor data in substantive ways or else are likely to result in creditor data that is lower than debtor data. For example, discrepancies in short-term external debt data due to different valuation rules are probably limited. Firstly, traditional loans, which still account for the major part of banks' business with developing countries are mostly valued at nominal prices both in creditor

²⁸ As discussed in chapters I and II, users should not subtract the full amount of liabilities to foreign banks financed locally in foreign currency (line b in text table 2) from the BIS total, because this would underestimate external debt substantially.

and debtor reporting systems. Secondly, the shorter the maturity of the positions, the smaller the gap between face and market values (except for periods of debt crisis, when the market value of debt instruments could – temporarily - drop sharply).

Regarding *loans and deposits*, the BIS consolidated banking statistics tend to partly overestimate and partly underestimate short-term external debt to foreign banks in debtor countries. The following adjustments might therefore be made to the consolidated data.

Option: *Claims on affiliates of foreign banks.*

The separately reported claims on affiliates of foreign banks could be subtracted from the presentation of consolidated banking data in the joint statistics. The item is, however, an upper bound estimate of potential double counting. Because there is no maturity breakdown for the item, one needs to assume that it fully due to short-term interbank transactions. For both reasons, subtracting the item would result in an underestimation of short-term claims compared with the current overestimation. Another constraint is that the Group of Statistical Experts for the Consolidated Banking Statistics is considering recommending to stop collecting this item as of the year 2004 to limit the reporting burden on banks.

Option: *Locally funded foreign currency claims*

Locally funded local liabilities in foreign currency of banks' foreign affiliates are not part of the official definition of external debt. Other borrowing countries could emulate Argentina and Chile and provide the information to the BIS on a regular basis. This information could be published as a footnote in the joint statistics for every debtor country providing the information.

There are two arguments against subtracting these amounts directly from the published positions. Firstly, the adjustment would result in a mix of creditor and debtor data, thus undermining the use of creditor data as a crosscheck for debtor data. Secondly, unless positions of US banks can be excluded, the adjustment would lead to an underestimate of external debt larger than the current overestimate.

Option: *Locally funded domestic currency claims*

Net local assets (assets minus liabilities, if positive) of reporting banks' foreign affiliates in domestic currency could be added to the total amounts outstanding. These data represent international funding of domestic lending. Although they are not available with a maturity breakdown, it could be assumed that the foreign funding is mostly short-term. Adding this item would tend to bias estimates of short-term debt to banks upward compared with the current downward bias.

Chapter III provides practical comparisons between short-term creditor and debtor data. In the majority of cases, aggregates of short-term bank loans, securities and trade credit reported in the joint statistics are less than those reported by the debtor countries themselves. This is as one would expect, since

the joint statistics do not cover non-guaranteed non-bank trade credit or non-bank holdings of domestic debt securities, and the coverage of external banks' positions is short of 100%. For debtor countries in this group, the creditor data can serve as a valuable crosscheck, assuring external analysts that debtor country monitoring systems are likely to provide fairly full coverage of the country's short-term external debt.

In the group of countries where creditor-reported short-term external debt exceeds that reported by the debtor countries themselves, discrepancies can be explained at least partly by gaps in the reporting systems of the countries concerned. Here the creditor data serves as an indicator to users and to debtor country statistical authorities, that the coverage of debtor data needs to be re-examined.

Option: *Other potential sources of doublecounting*

The BIS could explore through a questionnaire to what extent there is an overlap between the BIS consolidated banking data and the OECD data on *official and officially guaranteed trade credits*. The questionnaire could also enquire to what extent official lending agencies are included in BIS banking statistics as reporting institutions, since there is a potential overlap with the data on *official bilateral and multilateral loans* provided for the joint statistics by the OECD and the World Bank (see Annex 6).

Major progress that has been made recently to correct substantial problems in the reporting of the BIS banking statistics, which have also improved the reporting of short-term debt. The remaining discrepancies between debtor and creditor data appear relatively small and due mostly to limitations in identifying short-term debt specifically owed to banks. Some of the options discussed for adjusting the presentation of the BIS statistics may be useful, but the potential gains in accuracy become progressively smaller and even ambiguous²⁹.

Option: *Estimating short-term loans*

Two estimates for short-term *bank loans* were provided: a) estimates of adjusted consolidated banking data and b) estimates of locational data based on the maturity ratios of the consolidated banking statistics. In many cases, the two estimates were close to each other and also fairly close to debtor-country reported short-term loans from banks. The differences in the estimates are related to the different coverage of both sets of statistics, and the consolidated statistics appear to provide more comprehensive coverage for some countries. On the other hand, the locational banking data are more consistent with current compilation practices for the international investment position and external debt. Consideration could therefore be given to providing BIS estimates of short-term loans (based on

²⁹ It is assumed that the potential gains in accuracy are not large enough to justify additional reporting burdens for the reporting banks.

loans from the locational statistics and estimating the short-term component on the basis of the consolidated statistics) for the use of balance of payments compilers.

Option: *Workshop on comparing debtor and creditor statistics*

A workshop could be organised with representatives from the IMF, OECD, World Bank and some of the countries that supplied data for the project. Those countries where there remain relatively large differences between creditor and debtor data would seem to be able to gain most from such a workshop. The purpose would be to discuss the finding of this report, the implications of the findings and a way forward (ie endorsement by the CGFS and the IMF Balance of Payment Committee, and possible publication).

Annex Table 1: Short-term external debt: a comparison of debtor and creditor data

(at end-1999, unless otherwise stated; in billions US dollars)

	Creditor and market data					Debtor data				
	Reported BIS consolidated banking data ¹	Adjusted BIS consolidated banking data ²	Of which: estimated holdings of securities ³	International debt securities	Guaranteed non-bank trade credits	Total	Loans and deposits ⁴	Of which: loans from official multilateral and bilateral agencies	Debt securities	Trade credits
	A	B	C	D	E	F	G	H	I	J
Argentina	35.3	31.7	2.2	6.1	1.2	44.9	31.5	2.3	10.1	3.3
Chile ⁵	6.8	5.4	0.8	—	0.4	6.9	...	0.8	...	...
China ^{6, 7}	27.5	19.6	1.8	1.8	4.0	17.3	14.3	...	0.1	3.0
Colombia ⁶	7.3	8.0	0.6	0.3	0.4	10.4	6.2	...	1.4	2.8
Czech Rep ⁷	4.7	4.3	0.3	—	0.4	8.8	6.9	...	—	1.9
Hungary	4.8	4.8	0.8	2.0	0.3	7.6	5.2	0.5	1.8	0.5
India	8.7	9.9	0.7	0.2	1.1	10.7	...	2.0	...	...
Korea ⁸	35.1	40.8	4.2	9.9	2.0	53.3	29.7	6.0	7.2	16.4
Latvia ^{6, 7}	0.2	0.2	—	—	—	1.7	1.2	...	—	0.5
Lithuania ^{6, 7}	0.6	0.6	0.1	—	0.1	1.1	0.3	...	—	0.8
Malaysia ⁶	9.3	9.3	0.5	0.3	1.1	9.2	8.9	...	0.3	n.a.
Mexico ^{8, 9}	29.2	27.0	1.8	3.0	1.4	33.0	24.3	...	3.0	5.7
Nicaragua ^{6, 7}	0.1	0.1	—	—	—	0.4	0.1	...	—	0.3
Nigeria ³	0.9	0.9	—	—	0.2	7.2	—	...	2.2	5.0
Peru ⁶	7.5	3.5 ¹⁰	0.2	—	0.2	6.2	...	...	...	...
Philippines	7.7	6.8	0.5	1.2	0.8	7.2	5.6	...	0.7	0.9
Poland ⁶	6.1	6.0	0.7	0.2	0.9	6.5	1.4	...	0.9	3.6
Slovakia	1.9	3.2	0.2	0.1	0.2	4.1	...	...	...	...
S Africa	13.5	14.1	0.7	0.6	0.7	19.3	14.4	...	2.3	2.6
Thailand ⁶	24.0	22.1	1.7	0.6	2.3	37.0	33.0	4.0	0.5	3.5
Uruguay ⁶	3.9	2.9	0.2	—	0.1	3.9	2.4	...	0.6	0.9
Venezuela ⁶	5.2	5.1 ¹¹	0.2	—	0.4	5.8	3.3	...	0.9	1.6

¹ Short-term consolidated claims of BIS reporting banks. ² Column A adjusted to exclude total claims on foreign banks and total domestic funding of local foreign currency credits of foreign banks, and to include total international funding of domestic lending by foreign banks. All claims and funding assumed to be short-term. For details, see Annex Table 4. ³ Estimated as 50% of maturing long-term consolidated claims, as described in Chapter II. ⁴ Includes lending by official multilateral and bilateral agencies. ⁵ Debtor data for Chile adjusted to include country estimates of short-term trade credits and borrowing earmarked for foreign investment. ⁶ End-1998 data. ⁷ Debtor data for China, the Czech Republic, Latvia, Lithuania and Nicaragua includes estimates for long-term maturing debt. ⁸ Debtor data for Korea adjusted to include borrowing for investment abroad and foreign deposits. ⁹ In the case of debtor data for Mexico, all interbank loans and deposits, not available with a maturity breakdown, have been allocated to the short-term category. ¹⁰ Allowance for local foreign currency funding of foreign banks partly based on estimates from both short- and long-term positions. ¹¹ No allowance made for local foreign currency funding due to lack of appropriate information.

Annex Table 2: Coverage of external short-term debt statistics in selected debtor countries

	Includes long-term maturing debt (Y = yes, N = no)	Loans (L) and deposits (D)	Domestic (D) and international (I) debt securities	Supplier and buyer trade credits (Y = yes)	Other limitations in recording
Argentina	Y	L+D	D+I	Y	
Chile	Y	L	I	Y	Excludes working balances and intrafirm credits. Short-term trade credits and borrowing earmarked for foreign investment provided separately.
China	N	?	?	?	Inter-office accounts are netted out.
Colombia	Y	L+D	D+I ¹	Y	
Czech Republic	N	L+D	D+I ¹	Y	Securities valued at market price.
Hungary	Y	L+D	D+I	Y (except if < 90-day)	
India	Y	L+D	D+I ¹	Y (except for < 180-day supplier credits)	
Korea	Y ²	L+D	I ¹	Y (except long-term credits)	External borrowing for foreign investment and non-resident deposits provided separately.
Latvia	?	?	?	?	?
Lithuania	N	L+D	I ¹	Y	
Malaysia	Y	L+D	D+I	?	Excludes repos.
Mexico	Y ³	L	I ^{1,3}	Y	Excludes working balances and some supplier credits. Interbank loans and deposits assumed to be short-term.
Nicaragua	N	?	?		?
Nigeria	Y	?	?	?	?
Peru	Y	L+D	?	Y	
Philippines	Y	L+D	D+I	Y	Excludes foreign currency liabilities of offshore banks located in the country
Poland	Y ⁴	L+D	I ⁴	Y	
Slovakia	Y	L+D	D+I ¹	Y	
South Africa	Y ⁵	L+D	I ^{1,6}	Y (except long-term credits)	
Thailand	Y	L+D	D+I	Y	
Uruguay	Y	?	?	?	
Venezuela	Y	L+D	D+I	Y	

¹ Includes, in addition, residents' holdings of international debt securities, owing to lack of appropriate breakdown. ² Excludes long-term maturing debt securities issued by non-bank entities. ³ Securities issued by non-banks only. ⁴ Debt securities only include short-term issues. ⁵ Except for trade credits. ⁶ Excluding international rand issues.

Annex Table 3: Frequency and time lag of debtor reporting systems (in months)

	Frequency			Time lag		
	Bank loans	Securities	Trade credits	Bank loans	Securities	Trade credits
Argentina	3	3	3	3	3	3
Chile	1	1	1	1	1	1
China	1	1	1	1	1	1
Colombia	3	3	3	0.5-2	0.5-2	0.5-2
Czech Republic	1 ¹	3	3	2	2	2
Hungary	1	1	1	1.75	1.75	1.75
India	3	3	3	5	5	5
Korea	1	1	1	1.5	1.5	1.5
Latvia	1 ¹	1 ¹	3	0.25-3	0.25-3	3
Lithuania	1 ¹	1 ¹	3	0.5-3	0.5-3	3
Malaysia	1 ¹	1	...	1-2	1	...
Mexico	3 ²	1 ³	...	1.3-2	1-1.3	1.3-2
Nicaragua	1	...	1	0.25	...	0.25
Nigeria	n.a	... ⁴	... ⁴	n.a	6	...
Peru	3	3	3	3	3	3
Philippines	3	3	3	3	3	3
Poland	3	3	3	3	3	3
Slovakia	1	1	1	2	2	2
South Africa	1-6	1-6	1-6	1-6	1-6	1-6
Thailand	3 ⁵	3 ⁵	3	2-6	2-6	2
Uruguay	3	3	3	3	3	3
Venezuela	1-6	1-6	1-6	1-6	1-6	1-6

... = not available. ¹ Three months for non-banks. ² One month for banks. ³ Three months for government. ⁴ Except for the central bank (six months). ⁵ One year for non-banks. ⁵ One month for banks, six months for others.

Annex Table 4: Adjustments to short-term BIS consolidated international banking data

(end-1999 data, unless otherwise stated; in billions of US dollars)

	Reported claims	<i>minus claims on foreign banks¹</i>	<i>minus local funding of local foreign currency claims²</i>	<i>plus foreign funding of local domestic currency claims¹</i>	Adjusted claims	<i>Memorandum item: details of data for column D</i>	
						<i>Local foreign currency liabilities of foreign banks</i>	<i>Local foreign currency liabilities of US banks</i>
						A	B	C	D	E	F	G
Argentina	33.9	1.0	6.5	3.9	31.7	19.7	13.2
Chile	6.8	0.1	1.8	0.8	5.7	5.5	3.7
China ²	27.5	2.8	5.6	0.5	19.6	6.3	0.7
Colombia ⁴	7.3	0.1	0	0.8	8.0	0.2	1.4
Czech Republic ²	4.7	1.0	1.6	–	2.1	n.r.	n.r.
Hungary	4.8	0.6	0.1	0.7	4.8	0.8	0.7
India	8.7	0.4	–	1.6	9.9	...	4.0
Korea	35.1	2.6	–	8.3	40.8	1.4	5.5
Latvia	0.2	–	–	–	0.2	–	–
Lithuania	0.6	–	–	–	0.6	–	–
Malaysia ⁴	9.3	1.7	–	1.7	9.3	2.5	4.4
Mexico ⁴	29.2	1.2	2.0	1.0	27.0	10.1	8.1
Nicaragua	0.1	–	–	–	0.1	–	–
Nigeria	0.9	–	–	–	0.9	–	–
Peru ⁴	7.5	0.1	4.0	0.1	3.5	6.6 ³	0.6
Philippines	7.7	0.9	–	–	6.8	0	3.2
Poland ⁴	6.1	0.7	–	0.6	6.0	...	1.6
Slovakia	1.9	–	–	1.3	3.2	...	0.3
South Africa ⁴	13.5	0.4	–	1.0	14.1	0.3	2.2
Thailand ⁴	24.0	4.4	–	2.5	22.1	2.0	2.2
Uruguay ⁴	3.9	0.2	1.3	0.5	2.9	2.2	0.9
Venezuela ⁴	5.2	0.1	–	–	5.1	...	0.6

... = not available; n.r. = not relevant. ¹ All claims assumed to be short-term. ² Non-US banks only, since US banks do not include local foreign currency claims in their reported international claims. Data are equal to the positive difference between columns F and G. ³ Includes both short- and long-term liabilities; short-term component assumed to account for 60% of total. ⁴ Data relate to end-1998.

Annex Table 5: Debtor data on short-term debt according to original and remaining maturity

(end-1999 data; in billions of US dollars)

	Original maturity	Remaining maturity	% of A to B	<i>Memorandum item: % of original to remaining short-term debt according to the BIS consolidated banking statistics</i>
	A	B	C	
Argentina	26.1	44.9	58	88
Chile	4.1	6.9	59	76
China ¹	17.3	...	...	86
Colombia ¹	4.7	10.4	45	86
Czech Republic	8.8	...	...	77
Hungary	4.1	7.6	54	77
India	4.7	10.7	44	85
Korea	42.3	53.3	79	76
Latvia ¹	1.7	...	...	88
Lithuania	0.9	...	...	92
Malaysia ¹	6.4	9.2	69	98
Mexico ¹	...	33.0	...	91
Nicaragua	0.4	...	...	50
Nigeria	...	7.2	...	81
Peru ¹	...	6.2	...	96
Philippines	5.7	7.2	79	87
Poland ¹	4.4	6.5	68	92
Slovakia	2.7	4.1	66	79
South Africa	14.1	19.3	73	89
Thailand ¹	28.4	37.0	77	83
Uruguay ¹	2.9	3.9	74	98
Venezuela ¹	2.3	5.8	40	90

¹ Data relate to end-1998.

**Annex 6: Proposed questionnaire to central banks participating in the
BIS international consolidated banking statistics**

1. Do your reporting banks include the positions of their non-bank financial subsidiaries in their reported consolidated international claims (please specify if different treatment for pension fund, insurance or money market fund subsidiaries)?
2. Do reported consolidated international claims include any export bills discounted by reporting banks? Can you quantify the amounts involved?
3. How do your reporting banks cover positions of affiliates in their reported consolidated claims if the participation level is less than 50% (no consolidation, pro rata consolidation or full consolidation)?
4. Do you include any official lending agency in your reporting population and any other official lending in your consolidated banking statistics? Please provide the names of the institutions. Can you quantify the relevant amounts?

Annex 7: Case studies for eight countries

In the autumn of 2000, eight countries were visited to discuss how to narrow the gap between creditor and debtor data and to explain remaining differences. Two central European countries (Hungary and Slovakia), three Latin American countries (Argentina, Chile and Mexico) and three Asian countries (India, Korea and Thailand) were visited.

(i) Argentina

The BIS consolidated banking data show, at the end of 1999, short-term claims on Argentina of \$35 billion on an unadjusted basis and of nearly \$32 billion on an adjusted basis (Annex Table 1). Following further adjustments for estimated holdings of short-term securities on the creditor side and for official multilateral and bilateral loans on the debtor side, the gap between BIS consolidated data and debtor short-term external loans data can be fully closed. The comparatively large discrepancy between adjusted consolidated and estimated locational data in Graph 7 is due to the more comprehensive coverage of BIS consolidated data in the case of Argentina.

(ii) Chile

The unadjusted banking data on short-term claims on Chile are almost identical to the debtor data on total external short-term debt (including estimates for short-term trade credits and borrowing for foreign investment) (Annex Table 1). However, adjusted consolidated banking data excluding estimated holdings of securities are by \$0.7 billion higher than the corresponding loans data exclusive of multilateral and bilateral loans on the debtor side. During the country visit it has been suggested that higher creditor data may be the result of the inclusion of some official bilateral lending in BIS banking data and double-counting of non-bank trade credits when trade bills are discounted with BIS reporting banks. On the debtor side, the lack of data on short-term correspondent bank balances, inter-company trade credits and foreign non-bank deposits were mentioned as possible but limited causes of debtor underestimation.

(iii) Hungary

The creditor aggregate short-term loans, securities and trade credit data fall short of debtor short-term estimates by \$0.5 billion (Annex Table 1). In addition, external short-term debt reported by the Hungarian authorities excludes less than 90-day trade credits. The gap may be partly due to over-correction of BIS data on claims on foreign banks (up to \$0.6 billion, Annex Table 4) and partly due to loans and non-bank deposits which are not covered in the BIS consolidated banking data.

(iv) India

In the case of India, the creditor aggregate short-term loans, securities and trade credit data exceed the debtor short-term estimates by about \$2 billion (Annex Table 1). No detailed data is available for the short-term components on the debtor side. Apart from an over-adjustment of the BIS data, the difference is likely due to the following two factors. First, debtor data exclude rupee deposits held by

expatriates with the local offices of foreign banks. Such foreign funding, whether short- or long-term in nature, is indirectly covered by the adjusted BIS consolidated banking data through the inclusion of the net local rupee claims of foreign affiliates of BIS reporting banks in India³⁰. Second, debtor data exclude a large fraction of trade credits, ie those with maturities of up to 180 days. To the extent that these trade bills have been discounted by BIS reporting banks, they are, however, also included in the creditor data.

(v) Korea

Aggregate short-term loans, securities and trade credit for South Korea are roughly similar for creditor and debtor statistics, namely \$48.5 billion against \$47.3 billion (including borrowing for foreign investments and foreign deposits), a small difference of \$1.2 billion or 3% of the total (Annex Table 1). The gap is probably due to two factors. First, partial double-counting of the large volume of trade credits on the creditor side; some of these trade credits will be included in the BIS consolidated banking data to the extent that the relevant trade bills have been discounted by BIS reporting banks. This presumably explains why BIS loans at \$36.6 billion (excluding estimated holdings of securities) taken alone are so much higher than the external loans and deposits (\$23.7 billion, excluding multilateral and bilateral loans) reported by South Korea. Second, possibly underreporting of foreign holdings of debt securities in the Korean debtor reporting system. BIS data on Korean international securities issues (\$9.9 billion) are larger than Korean data on foreign holdings of international debt securities (\$7.2 billion). (Korean external debt data exclude domestic securities purchased by foreigners).

(vi) Mexico

Aggregate short-term loans, securities and trade credit for Mexico amount to \$29.6 billion, \$3.4 billion or 10% less than debtor data (Annex Table 1). There is a possible over-adjustment of BIS data (up to \$1.2 billion, Annex Table 4). However, the debtor data also include short-term official multilateral and bilateral lending, on which the Mexican authorities could not provide separate details.

(vii) Slovakia

Before adjustment, the consolidated short-term claims of BIS reporting banks on Slovakia amount to \$1.9 billion at end-1999, with the adjustment raising the figure to \$3.2 billion. This increase is the result of a significant amount of foreign funding of local domestic currency lending by foreign banks in Slovakia, possibly in the form of deposits from expatriates (Annex Table 1). The lack of information in the debtor country on individual debt instruments does not allow assessment of the volume of foreign debt owed to creditors other than BIS reporting banks. Nevertheless, the positive \$0.8 billion difference between debtor data and total adjusted creditor data (Annex Table 4) suggests some

³⁰ NRI (non-resident Indian) deposits amounted to \$12.3 billion in 1999. The short-term component is not known, but interest payments alone amounted to about \$1.7 billion in 1999. See "India's external debt", Ministry of Finance and Department of Economic affairs, New Delhi, May 2000.

underrecording of loans and deposits, foreign holdings of securities and trade credits on the creditor side.

(viii) Thailand

End-1998 data (more recent debtor figures are not available) show, on the creditor side, unadjusted and adjusted claims of banks on Thailand of \$24 billion and \$22 billion respectively (Annex Table 1),. Since the adjustment is based on a very large downward adjustment for claims on foreign banks (\$4.4 billion, Annex Table 4), it is likely that this is an overestimate. The creditor figure is much less than the \$29 billion short-term loans and deposits provided by Thailand (excluding multilateral and bilateral loans, Annex Table 1). \$2 billion of the difference is possibly accounted for by unrecorded inter-company loans on the creditor side. This leaves an unexplained gap of \$3 billion, which can be explained by loans channelled through non-BIS reporting banking institutions located in the region. At end-2000, banks in Singapore and Taiwan had positions on Thailand of \$1.3 billion. Neither country was a reporting country in 1998, but taking into consideration that lending from Hong Kong to Thailand halved from 1998 to 2000, it is plausible to assume that these two centres largely accounted for the missing \$3 billion.