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**Improving the Tracking of Cross-Border Financial Exposures
Using Aggregate and Bilateral Data – A Template**

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Statistics Department
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IMPROVING THE TRACKING OF CROSS-BORDER FINANCIAL EXPOSURES
USING AGGREGATE AND BILATERAL DATA—A TEMPLATE[1]

I. BACKGROUND

1.   The recent financial crisis has highlighted the need for external sector position data, particularly bilateral—*i.e., from-whom to-whom*—position data to track cross-border financial exposures. The purpose of the paper is to update the Committee on recent developments, including the views expressed in the recent *Users Conference on International Data Gaps* regarding the importance of tracking cross-border exposures and the need for improvements in bilateral datasets. The paper will also discuss work being undertaken at the IMF to facilitate the use of existing datasets as well as next steps for enhancing the availability of bilateral data.

II. MOTIVATION

2.   **Improving the tracking of aggregate and bilateral (i.e., country-to-country) cross-border financial exposures is key to enhancing macroeconomic surveillance**. The current crisis illustrates how global financial interlinkages can play a major role in the international transmission of shocks. These interlinkages have been the result of direct cross-border exposures (i.e., residents of a country exposed to risks from residents of another country), but also of indirect exposures (e.g., developments in one country impacting global financial markets, which creates funding problems in other countries).

3.   **The importance of tracking cross-border financial exposures was recently highlighted at the <u>Users Conference on International Data Gaps</u>**. In particular,

- The need for data on external positions and for improved flow of funds data was noted. The *from-whom to-whom* cross border data (such as the Bank for International Settlements International Banking Statistics (BIS IBS) and the IMF's Coordinated Portfolio Investment Survey (CPIS)) were considered important both to monitor who is investing in the domestic economy and to help track activities of domestic entities in foreign markets.

- Further improvement of BIS IBS data was suggested, including: a further sectoral breakdown for non-bank financials, e.g., hedge funds and insurance corporations, and an improvement in country coverage to include at least all G-20 economies, including the largest emerging market countries.

- The need for information on the ultimate risk (from creditors' perspective) of external debt was also raised.

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[1] This paper was drafted by Pedro Rodriguez and Colleen Cardillo.

4.   **The IMF, the Financial Stability Board (FSB), and other agencies are working on a strategy to address these and other data gaps**. As a response to calls from the G-20 and the IMF's International Monetary and Financial Committee (IMFC), the IMF and the FSB are working with other international agencies and groups (BIS, European Central Bank (ECB), Eurostat, Organization for Economic Cooperation and Development, Task Force on Finance Statistics, United Nations, and World Bank) to address the data gaps brought to light by the crisis. A draft report outlining a strategy for addressing data gaps is expected in late October 2009.

III. IMPROVING THE TRACKING OF CROSS-BORDER FINANCIAL EXPOSURES

5.   **The collection, dissemination, and quality of existing data have been improved in response to the crisis**. New websites, including STA's Data Link (for internal Fund use only) and the external Principal Global Indicators site (developed jointly with other international agencies), provide access to cross-country comparable indicators for the G-20, links to key country-specific public agencies, and economic and financial indicators from selected international agencies (a number of additional countries, agencies, and indicators are covered in STA's Data Link).

6.   **But addressing data gaps on cross-border financial exposures will take time**. Although important new initiatives are in the pipeline, progress will only materialize in the medium term. For instance, results from the IMF's 2009 Coordinated Direct Investment Survey (CDIS), which will show participating countries' bilateral foreign direct investment positions, are expected to be available at end-2010 or early 2011. The BIS initiative to measure regional counterparty breakdowns in credit default swaps (CDS) is expected to result in published data by 2011.[2] Other data initiatives are still being debated, and it is uncertain at this stage how soon they can be implemented.

7.   **Still, progress can be achieved by using existing datasets more widely**. While existing datasets, such as the BIS IBS, the CPIS, and the Standardized Report Forms (SRFs) for Monetary Statistics contain very useful data, their use as tools to address cross-border exposures remain constrained. The constraints are due to the lack of global coverage of these datasets, but also perhaps to the lack of knowledge about their potential usefulness (particularly an issue for the CPIS, and the SRFs, which are more recent datasets) and to a lack of easy accessibility to the data.

8.   **In this context, the IMF is implementing a "facility" to make existing data on cross-border exposures more easily available to IMF country teams**. This facility is part of an initiative to strengthen the coverage of data and the quality of the analysis in connection with bilateral surveillance. One advantage of the planned facility is that it would combine data on aggregate cross-border exposures with data on bilateral exposures using existing databases (International Investment Position (IIP) statistics, external debt statistics, SRFs,

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[2] See BIS report on Credit Risk Transfer Statistics (2009).

CPIS, and BIS IBS). Data on bilateral exposures would be particularly useful for the analysis of spillovers.

A. Cross-Border Financial Exposures—Sources and Data Available

9. **Two sources of cross-border financial exposures are key, namely: liability-side exposures and asset-side exposures**. Examples of the first type of exposure are roll-over risks and valuation changes (e.g., for debt denominated in a foreign currency). Examples of the second type of exposure are risks associated with the default of a debtor, or changes in asset values (e.g., due to exchange rate changes or price declines in portfolio equity assets).

10. **Some existing datasets provide valuable information on liability-side and asset-side cross-border financial exposures**, at least for some sectors of the economy. For instance, the BIS consolidated banking statistics data are helpful to identify cross-border asset-side risk for the banking system, particularly given the bilateral breakdowns. The CPIS data may have a similar usefulness, while also helping identify cross-border liability-side risk. IIP data in general, and external debt data in particular, may also help identify liability-side and asset-side risks, but at a more aggregate level (since they do not provide information on bilateral exposures but rather aggregate figures). At the 2008 Committee meeting, the Chair saw scope for developing bilateral breakdowns of IIP data in the longer term. [3]

B. Cross-Border Exposures—A Template

11. **In order to facilitate the use of existing data on aggregate and bilateral cross-border exposures, staff in the IMF, including STA, are developing a facility to retrieve key data**. The facility would allow staff to retrieve existing data for each individual country under a predetermined template (a sample short version of the form is attached for the United States). The template pulls data from different databases. More specifically: (i) data from the IIP, Standardized Report Forms (SRFs) for Monetary and Financial Statistics, and external debt data are used to identify *aggregate* liability-side and asset-side risks; (ii) while data from the BIS statistics (particularly Table 9.D of the Consolidated Banking Statistics), and the CPIS are used to identify *bilateral* liability-side and asset-side risks. In this example, the data in the template are publicly available information.

Bilateral Data—an illustration of the sources

12. **BIS consolidated banking statistics provide information on an ultimate risk basis.** The template for the United States shows US liabilities to foreign banks, based on a consolidated nationality basis, vis-à-vis its top partners in 2008 (United Kingdom and Japan). It also shows consolidated foreign claims of reporting banks with the top two again being the United Kingdom and Japan. Since these data reflect a worldwide consolidation, they do not concord with balance of payments and IIP data. In addition, other conceptual differences would need to be taken into account, for example, BIS-measured exposures and external

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[3] BOPCOM-08/30, paragraph 64.

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assets may differ. Currently, these data are not available for some countries, which limits their use in the bilateral surveillance of many countries.

13.   **BIS locational banking statistics are consistent with balance of payments principles and could be used for analyzing financing risks in bilateral surveillance.** However, the publicly available data are not on a bilateral country basis but rather on the basis of a specific country vis-à-vis all BIS reporting banks. This limits their usefulness for spillover analysis.

14.   **Countries reporting on the CPIS provide annual country-to-country data on external portfolio assets and some countries also report their external portfolio liabilities on a country-to-country basis.** The US template shows US portfolio assets reported for its top two partners in 2007 (United Kingdom and Canada), equity securities (United Kingdom and Japan), short-term debt securities (United Kingdom and Cayman Islands), and long-term debt securities (United Kingdom and Cayman Islands).

15.   **Countries can derive their portfolio liabilities from partner country creditor information provided by CPIS participating countries.** The US template shows the top two holders of US portfolio liabilities as reported by CPIS countries (United Kingdom and Japan), equity securities (United Kingdom and Canada), debt securities short-term (Ireland and Bermuda) and debt securities long-term (Japan and the United Kingdom). The US does not provide their portfolio liabilities data for the CPIS exercise.

IV.   NEXT STEPS

16.   **STA will continue its efforts to address bilateral data gaps.** In the short-term STA plans to expand BIS data in its data warehouse and conduct the CDIS (outlined below). In the longer term STA will continue efforts to expand coverage of the CPIS and consider any proposals for enhancement that might come from the G-20 following the IMF/FSB report on the financial crisis and information gaps. STA will also encourage countries to compile bilateral IIP data, where practical.

BIS Data

17.   STA has been consulting with the BIS to obtain permission to set up a more comprehensive repository of BIS data in STA's data warehouse (IMF.Stat) for use of Fund staff. For the consolidated banking statistics, a list of key existing time series will be prepared in order to determine which series are publicly available and which are confidential. For the locational banking statistics, STA will examine with the BIS the modalities of setting up data exchanges that could include restricted bilateral data, assuming access to these data is granted by the jurisdictions participating in the locational banking statistics data collection exercise.

Coordinated Direct Investment Survey

18.   Undertaking the CDIS is essential, as it will shed light on a source of cross-border exposures that is otherwise very difficult to measure. It is expected to provide comprehensive and harmonized foreign direct investment (FDI) positions data (both inward and outward)

with detail on immediate counterpart economy. As noted earlier, results of the IMF's 2009 CDIS will be available at end-2010 or early 2011.

V. QUESTIONS FOR COMMITTEE MEMBERS

1. Do Committee Members have views on the feasibility of countries reporting bilateral IIP data for their top partner countries?

2. Do Committee Members have any comments on the aggregate and bilateral data sets that are included in the template? Additional or different data sets could be considered, if relevant for surveillance purposes.

Template for Bilateral Surveillance Project (Short form)									
United States		Annual				Quarterly			
(Billions of U.S. dollars)	2006	2007	2008	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1	2009Q2
Date produced: October 8, 2009									
External Assets									
I. Aggregate data									
1.A IIP									
Total Assets	14428.1	18278.8	19888.2						
Direct Investment	2948.2	3451.5	3698.8						
Portfolio Investment	5988.4	7242.9	4600.2						
Financial Derivatives	1239.0	2559.3	6624.5						
Other Investment	4032.7	4747.9	4670.8						
Reserve Assets	219.9	277.2	293.7						
1.B Standardized Report Forms (SRFs)									
1.B (i) Central Banks									
Financial Assets- Nonresidents	45.4	72.1	625.4	71.8	113.9	329.7	625.4	381.5	201.2
1.B (ii) Other Depository Corporations									
Financial Assets (Foreign)	1,641.5	2,021.6	1,789.0	2,208.0	2,124.2	2,011.2	1,789.0	1,814.2	1,943.1
1.B (iii) Other Financial Corporations									
Financial Assets (Foreign)	3,932.1	4,527.7	3,056.6	4,272.8	4,210.0	3,581.2	3,056.6	2,869.5	3,173.0
II. Geographical Breakdowns									
II.A CPIS - *vis-à-vis top 2 partners*									
Portfolio Investment Assets	5972.4	7191.8							
United Kingdom	1075.6	1142.4							
Canada	477.9	586.5							
(i) Equity securities	4329.0	5248.0							
United Kingdom	674.0	714.9							
Japan	543.5	529.2							
(ii) Debt securities	1643.4	1943.8							
(ii-a) Debt securities short-term	367.9	356.7							
United Kingdom	156.2	141.0							
Cayman Islands	37.1	40.7							
(ii-b) Debt securities long-term	1275.5	1587.1							
United Kingdom	245.4	286.5							
Cayman Islands	177.9	271.3							
II.B BIS Banking Statistics									
II.B (i) *Consolidated* **Banking Statistics**									
Table 9D									
Consolidated foreign claims of reporting banks									
- ultimate risk basis									
All countries	1287.0	1666.5	1455.1						
Top 2 countries									
United Kingdom	219.4	311.5	268.2						
Japan	69.3	127.6	123.3						
II.B (ii) *Locational* **Banking Statistics**									
Memorandum Items									
Nominal GDP	13178.4	13807.6	14264.6	14150.8	14294.5	14412.8	14200.3	14097.2	
Exchange rate vis-à-vis the US dollar	na	na	na	na	na	na	na	na	

Template for Bilateral Surveillance Project (Short form)									
United States	Annual			Quarterly					
(Billions of U.S. dollars) Date produced: October 8, 2009	2006	2007	2008	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1	2009Q2
External Liabilities									
I. Aggregate data									
1.A IIP									
Total Liabilities	16612.4	20418.8	23357.4						
Direct investment	2154.1	2450.1	2646.8						
Portfolio investment	8843.5	10327.0	9522.1						
Financial derivatives	1179.2	2487.9	6465.0						
Other investment	4435.7	5153.8	4723.5						
1.B Standardized Report Forms (SRFs)									
1.B (i) Central Banks									
Financial Liabilities- Nonresidents	37.1	51.8	97.1	52.3	52.0	85.7	97.1	75.3	81.8
1.B (ii) Other Depository Corporations									
Financial Liabilities- Nonresidents	1,977.2	2,138.3	2,071.6	2,158.2	2,040.9	2,029.1	2,071.6	2,024.1	2,029.4
1.B (iii) Other Financial Corporations									
Financial Liabilities- Nonresidents	3,111.1	3,447.3	2,943.1	3,520.3	3,577.5	3,341.2	2,943.1	2,749.3	2,722.3
1.C External Debt Statistics (QEDS)									
General Government				2617.3	2748.8	2964.0	3100.0		
Monetary Authorities				374.4	271.5	277.2	316.0		
Banks				2683.9	2599.6	2519.0	2930.0		
Other Sectors				7107.2	6987.7	6771.7	6218.8		
Direct Investment: Intercompany Lending				990.4	1096.0	1095.5	1077.0		
Gross External Debt				13773.1	13703.6	13627.5	13641.8		
II. Geographical Breakdowns									
II.A CPIS									
Reported Portfolio Investment Liabilities	na	na							
Derived Portfolio Investment Liabilities	6386.5	7393.8							
vis-à-vis top 2 partners:									
United Kingdom	*834.5*	*895.8*							
Japan	*797.6*	*813.3*							
(i) Equity securities	2177.4	2436.2							
United Kingdom	*353.9*	*385.6*							
Canada	*241.9*	*286.8*							
(ii) Debt securities	4208.5	4957.7							
(ii-a) Debt securities short-term	529.3	612.4							
Ireland	*120.4*	*157.3*							
Bermuda	*38.5*	*39.3*							
(ii-b) Debt securities long-term	3677.8	4297.5							
Japan	*563.4*	*580.3*							
United Kingdom	*464.4*	*489.8*							
II.B BIS Banking Statistics									
II.B (i) *Consolidated* Banking Statistics									
Table 9D									
Country X - liabilities to foreign banks, based on a consolidated nationality basis - ultimate risk basis									
vis-à-vis top 2 partners:									
United Kingdom			1185.7						
Japan			912.1						
II.B (ii) *Locational* Banking Statistics									
Memorandum Items									
Nominal GDP	13178.4	13807.6	14264.6	14150.8	14294.5	14412.8	14200.3	14097.2	
Exchange rate vis-à-vis the US dollar	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	