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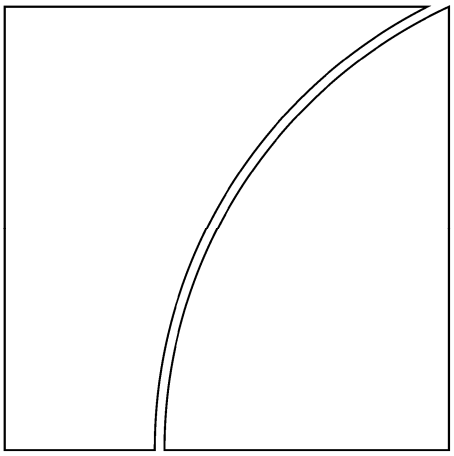

IFC Working Papers

No 8

Residency/Local and Nationality/Global Views of Financial Positions

Papers prepared for a workshop organised in cooperation with the Inter-Agency Group on Economic and Financial Statistics on 17–18 January 2011, edited by Paul Van den Bergh

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Foreword

In 2009 the International Monetary Fund and the Financial Stability Board submitted a report to the G20 titled "The Financial Crisis and Information Gaps". The Report contained 20 recommendations, which Finance Ministers and Central Bank Governors of the G20 formally endorsed. Follow-up reports were submitted by the IMF and FSB to the G20 in June 2010 and June 2011.

One of the G20 recommendations (#13) asks that the Interagency Group on Economic and Financial Statistics (IAG)[1] investigate the issue of monitoring and measuring cross-border exposures, including foreign exchange and derivatives exposures, of financial and non-financial corporations with the intention of promoting reporting guidance and the dissemination of data. Work in this area needs to address the methodological and practical issues of handling the concept of consolidation and the definition of corporate groups.

In order to start the reflection on these issues the Irving Fisher Committee on Central Bank Statistics (IFC)[2] agreed to sponsor a workshop, together with the IAG, on "Residential/Local and Nationality/Global Views of Financial Positions". The workshop was held in Basel on 18 and 19 January 2011 and was attended by over 40 experts from central banks, national statistical agencies, supervisory authorities and international organisations.

This working paper brings together the discussion paper and a number of other background documents prepared for the workshop. It also provides a summary of the discussions that took place in the different sessions. A copy of specific presentations for which no paper was submitted is available from the ifc.secretariat@bis.org.

On the basis of the discussions at the workshop and further internal discussions the IAG will be producing an Issue Paper on "Perspective on Global Consolidation Concepts". The intention is to share this paper with the various international statistical and data collection groups that are working on developing methodological guidelines with respect to consolidation. The objective is to ensure that a clear and consistent set of concepts, terms and definitions can be developed that can be used by all relevant groups as well as by compilers and analysts and the national level.

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[1] The IAG is composed of senior officials of the statistical functions of the BIS, IMF, ECB, Eurostat, OECD, World Bank and UN. See http://www.principalglobalindicators.org/about_iag.aspx. A Task Force of the IAG, chaired by the BIS, is taking forward the implementation of G20 recommendation 13 (and 14). Contact paul.van-den-bergh@bis.org for more information.

[2] For information on the IFC see www.bis.org/ifc

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Paul Van den Bergh, Head of Statistics and Research Support, BIS; IFC Secretariat; Member of the Inter Agency Group on Economic and Financial Statistics (IAG)

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From Where? to Who? and How? Residency/Local and Nationality/Global Views of Financial Positions.[3]

Discussion paper for the workshop

Introduction

The report "The Financial Crisis and Information Gaps" prepared by Financial Stability Board (FSB) Secretariat and International Monetary Fund (IMF), which was endorsed by the G-20 finance ministers and central bank governors in November 2009[4], seeks to address data gaps with respect to cross-border exposures of non-financial and financial corporations. Specifically, recommendation 13 states that the Inter-Agency Group on Economic and Financial Statistics (IAG) is "to investigate the issue of monitoring and measuring cross-border, including foreign exchange derivative, exposures of non-financial, and financial, corporations with the intention of promoting standardised reporting guidance and the dissemination of data." The related recommendation 14 suggests "to examine the feasibility of developing a standardised template covering the international exposures of large non-bank financial institutions, drawing on the experience with the BIS international banking statistics, other existing and prospective sources, and consulting with relevant stakeholders".

Some statistical guidance exists to identify cross-border exposures of financial and non-financial corporations, including from the BIS International Banking Statistics and the IMF Financial Soundness Indicators. However, a more comprehensive approach may be needed, in particular with respect to consolidated views of financial positions and exposures. The measurement of financial exposures on a consolidated basis is not well developed. One major outcome of the work on recommendation 13 and 14 is to prepare a paper outlining a framework for consolidated data on a nationality basis, their compatibility with data compiled on a residency basis, links to accounting and supervisory data, and issues that will need to be addressed in the existing statistical standards.[5]

This paper is a first attempt to identify key issues related to the residency and consolidated approaches to cross-border financial positions. It is intended to serve as background paper for a workshop which the IAG is sponsoring in cooperation with the Irving Fisher Committee on Central Bank Statistics (the workshop is to be held at the BIS on 18-19 January 2011). The paper will be updated with the findings from the workshop and will serve as the basis for any further analytical and conceptual work in this area, including the possible development of a Handbook on Nationality, Corporate Group and Consolidation Concepts.

This discussion paper first describes the evolving user requirements for measuring financial positions, in particular how the residency approach in the national and financial accounts may

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[3] This discussion paper has been prepared by Paul Van den Bergh (main author, BIS) with contributions from Karsten Von Kleist (BIS); Anna Maria Agresti, Henning Ahnert, Björn Fischer, Reimund Mink and Patrick Sandars (ECB); Manik Shrestha (IMF); and Jean-Marc Salou (OECD). The views expressed herein are those of the contributors and should not be attributed to the BIS, ECB, IMF, and OECD.

[4] See http://www.imf.org/external/np/g20/pdf/102909.pdf

[5] Recommendations 8&9 of the FSB/IMF Report on Data Gaps involve the development of a common template for systemically important global financial institutions for the purpose of better understanding the exposures of these institutions to different financial sectors and national markets. While these recommendations focus on micro data from individual institutions, there is an overlap with the conceptual work on macro measurements of cross-border exposures of financial and non-financial corporations.

need to supplemented or complemented. This requires a new conceptual framework as well as a set of clear definitions and categorisations. Some key ones are identified and discussed in the paper, including nationality, group, control and consolidation. Reference is made to existing definitions and concepts from accounting, supervisory and statistical standards and practices. The paper goes on to show the relationship – and complementarity – of the residency based approach and the nationality/group consolidated approach to financial statistics. It also discusses how aggregate exposures, including those related to cross-border positions and transactions in derivatives can be measured through appropriate breakdowns in balance sheets. Finally, it points to possible further work on developing a conceptual framework for a consolidated approach to financial positions.

1. Evolving requirements for measuring financial positions

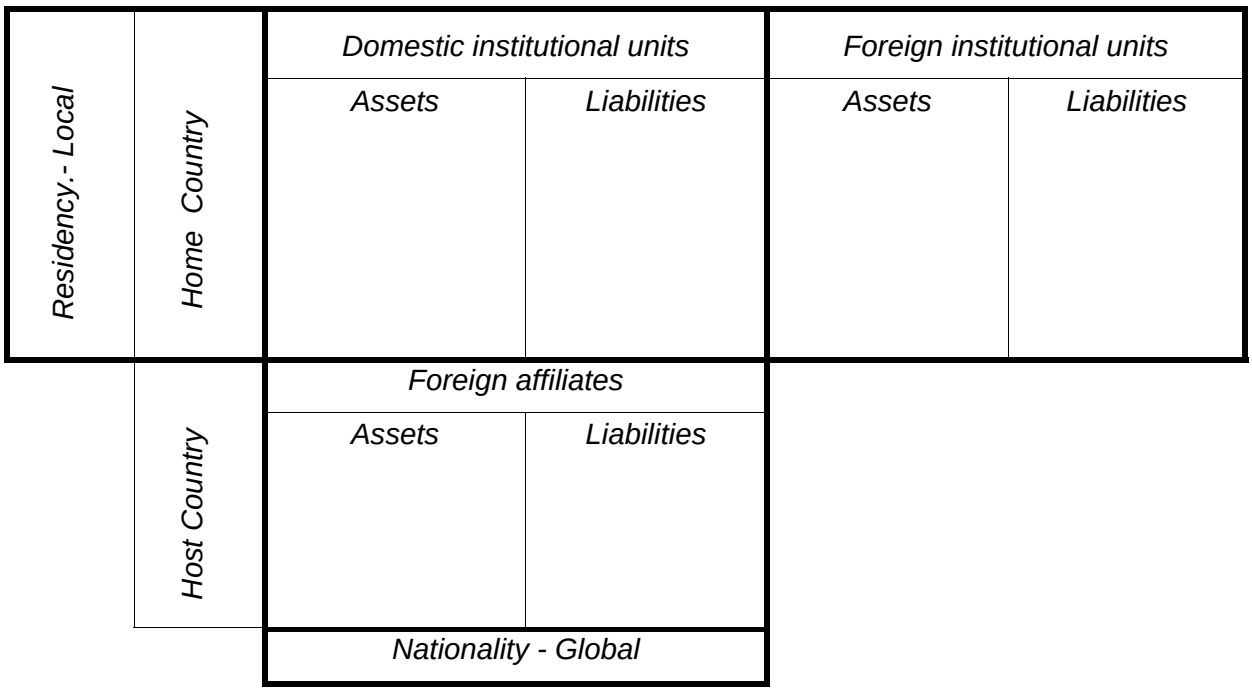
The framework of the SNA (2008), BPM6, GFSM (2001) and MFSM (2000) has been developed and implemented over the last 50 years and has served policy makers and analysts very well in their evaluation of economic, monetary and financial conditions. The framework covers amounts outstanding and flows of financial assets and liabilities and non-financial assets of institutional units resident in a single economic territory. For most of this period this territory coincided with the respective monetary area as well as the financial system. The monetary and financial stability of the overall system could therefore be analysed adequately from this statistical perspective. In particular, the framework allowed a reconciliation of the financial positions and "flow of funds" with the underlying saving and investment flows within and across different institutional sectors of the economy.

The need to look beyond the residency-based approach has become apparent in particular as a result of the internationalisation and globalisation of the real economy and the financial system. In the real sector, the growing importance of multinational companies presents special challenges for national and balance of payment accounts. "They allocate resources, price intra-company transactions, and bill transactions in a manner that is designed to maximise global net profits and their accounting of activities and transactions may not align well with the underlying economic behaviour that ideally should be captured in the national accounts of each of the countries where they operate".[6]

A similar impact of globalisation has been seen in the financial system, in particular with respect to cross-border banking. Originally banks operated mostly out of their home country to provide cross-border international financial intermediation (loans, deposits and securities purchases and own issues). The resulting positions and exposures were well captured in the residency-based money and banking, financial account and balance-of-payments statistics of lending and borrowing countries and sectors. Following the experience with the Latin American debt crisis in the 1980s and the Asian crisis in the 1990s, internationally active banks shifted to a multinational model through the establishment or acquisition of local banks, first in major financial centres or offshore markets, then more generally in all regions of the world. The activities of these foreign branches and subsidiaries are not captured in the

[6] From the summary of a note by the US Bureau of Economic Analysis "The Impact of Multi-National Companies on Balance of Payments and National Accounts", presented at the meeting of the Group of Experts on the Impact of Globalisation on National Accounts (UN Economic and Social Council, Conference of European Statisticians), Geneva 11-13 May 2009.

Chart 1
Stylised presentation of the residency and nationality views of financial positions for an individual institutional (sub) sector



residency-based statistics of the "home" country but included in those of their respective "host" countries. However, for accounting, risk management and supervisory purposes the claims and liabilities of these affiliates form part of the global consolidated positions and exposures of international banks.[7]

Chart 1 is a stylised picture that contrasts the new requirements of a nationality/global approach with the residency/locational approach to financial positions. The residency approach groups together the balance sheets of all resident institutional units, irrespective of their nationality. All resident institutional units are seen to be engaged in the real and financial activities in and of the respective economic territory, which are reflected in the various residency-based macro statistics. The financial positions are therefore "sliced" horizontally, ie delineated by the border of the economic and financial territory. That is also why the approach is sometimes referred to as locational.[8] The nationality approach slices financial positions vertically, across different jurisdictions. First it separates domestic from foreign institutional units. Subsequently it not only looks at the financial positions of the domestic units in their "home" country but adds to that the positions of their foreign branches or subsidiaries. The latter are operating in "host" countries but their positions form an integral part of the global positions and exposures of the respective national economic units. This is the reason why the approach may be called "global".

The financial crisis has taught policy makers and market analysts a number of lessons regarding the limitations of the existing framework for financial positions and flows. Indeed, in recent decades the nature of banking and financial crises has evolved. Traditionally such

[7] The global crisis has reinforced the trend towards multinational banking. Though the international banking business model differs across national banking systems, the share of so-called local currency claims in banks' total foreign claims on emerging markets is close to 50%.

[8] The term locational is used in the BIS international banking statistics.

crises were largely associated with the correction to fundamental economic and monetary imbalances as reflected in balance-of-payments or exchange rate crises or anti-inflationary monetary policies. The statistical tools based on residency criteria were largely appropriate to monitor the build-up of pressures and the eventual adjustments back to more sound fundamentals. There were contagion effects across countries and regions but these were linked to common economic developments or exposures to external shocks such as rapid reversals in capital flows.

The crisis has shown[9] that financial shocks can emanate from within the financial system itself and that stresses in financial institutions, particularly banks, build up across their globally consolidated balance sheet. This can take the form of poor asset quality in their respective home countries as well as in the host countries in which they operate. It also arises because of currency, maturity or interest rate mismatches between assets and liabilities. Inability to "see" the globally consolidated balance sheet, either at the individual institution level or at the national level, means that the build-up of stresses at the systemic level cannot be monitored.

At the level of individual institutions, some information on globally consolidated balance sheets, including derivative positions, is available in regular financial reports disclosed by financial institutions, particularly under the new international financial reporting and accounting standards. A global consolidated approach has also been developed in recent decades by bank supervisors: it now forms the basis of the regular reporting of key supervisory information they request from their supervised entities. However, these disclosures and reports may lack the essential breakdowns with which to measure balance sheet stresses, at the level of individual institutions as well as for the banking system as a whole: that is, information on the currency, remaining maturity and counterparty type, for both asset and liability positions, along with off-balance sheet exposures such as commitments and guarantees. In short, the publicly available and supervisory information on individual banks' global positions may fall far short of what is needed for monitoring financial stability.[10]

Another lesson of the crisis is that, even if a globally consolidated approach is taken, liabilities matter as much as assets.[11] It was uncertainty about the scale of losses on banks' assets that was the proximate cause of the crisis. However, the dislocation in banks' funding markets contributed to make this a global crisis. Funding in the interbank market, and from non-bank money market funds, became impossible for all but the shortest terms; funding in the repo market became available only against high-quality collateral; and funding in the swap market became much more expensive. In short, major dislocations occurred in every important short-term funding market.

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[9] The lessons learned from the financial crisis are largely drawn from the opening remarks made by Hervé Hannoun, Deputy General Manager, Bank for International Settlements, at the Conference for senior officials to help develop a concrete plan of action to implement the recommendations in the IMF-FSB report "The financial crisis and information gaps", prepared for the G20 Finance Ministers and central bank Governors (Basel, 8–9 April 2010).

[10] Statistics compiled by national authorities, the IMF, the OECD and the BIS do not provide a complete picture either. For example, the flow of funds statistics, the balance of payments statistics, the IMF's Coordinated Portfolio Investment Survey and the BIS locational banking statistics all rely on residency-based data. Such data are insufficient for identifying vulnerabilities in any particular consolidated national banking system. Currently, the BIS consolidated banking statistics come closest to providing the needed comprehensive picture of banks' international positions (for 20 or so national banking systems), albeit not at the level of individual banks.

[11] The current BIS global consolidated banking statistics only pertain to consolidated claims. Fortunately it has been possible to construct estimated global assets and liabilities positions on the basis of the residency/locational banking data that are available by nationality of reporting banks.

The financial turmoil brought home the message that currency and maturity mismatches – separately and combined - matter also for major financial centres. The funding crisis was really a crisis of short-term dollar funding. The flaw in the funding models of many banks was that they failed to appreciate the hidden vulnerabilities in the excessive maturity mismatch in their funding of US dollar assets. The borrowing of dollars through FX swaps that they relied on covered the exchange rate risk. But the short-term tenor of these instruments left them vulnerable to rollover risk, and liquidity in uncollaterised and collateralised markets was simply taken for granted. No measure of effective maturity mismatch is possible if cross-currency funding positions are not taken into account.

Finally, non-bank financial institutions proved to matter much more than had been anticipated. The development of entities such as structured investment vehicles (SIVs) used to facilitate, amongst others, securitisation schemes, obscured the build-up of stresses in the financial system, and they exacerbated the problems when their funding and risk management in effect had to be moved back onto banks' balance sheets. Part of these resulted from explicit or implicit commitments or guarantees that banks had provided. Moreover, other non-bank financial corporations – in particular pension funds, insurance companies and investment funds – were revealed to be important for systemic monitoring exercises. Here too the focus should be on their global operations and exposures. And even non-financial corporations were affected by their increasingly global financial operations, including the use of derivative transactions through foreign subsidiaries, on which little information was available.

To summarise: residency-based financial statistics are useful to know **where** financial claims and liabilities are created and held. But in order to know **who** makes the underlying decisions, **who** takes on the risk and **who** needs to hold sufficient capital to cover potential losses, data are needed on a globally consolidated basis. Moreover, in order to understand **how** financial risks arise and are managed, it would be useful to complement this information with some measures of maturity and currency mismatches as well as with data on instruments and counterparty exposures by sector and residence/nationality of the borrower.

Issues for discussion at the workshop

1. *The need to expand the national accounts framework to facilitate the analysis of economic, monetary and financial developments is recognised in different parts of the 2008 SNA Manual. Which areas are of particular importance from a financial stability perspective?*

2. *Are there other lessons that the financial crisis has taught us with respect to the lack of transparency of the financial positions of financial and non-financial corporations?*

3. What *other implications do the concepts of residency, as defined by the SNA framework, have for the measurement of financial activity in a globalised world? What expansions are needed to the residency-based framework from a financial stability perspectiv*e?

2. Elements of a new conceptual framework for measuring financial positions

The challenge in developing a new conceptual framework for measuring financial positions, in particular from a financial stability perspective, is to marry elements from the existing accounting, supervisory and statistical standards and practices. These are all being adapted on an ongoing basis, which complicates the task at hand. For instance, some countries and regions have adopted, or will adopt, the International Financial Reporting System and International Accounting Standards. Other countries intend to continue with their national version of accounting standards. Supervisory approaches have been built on distinguishing "home" and "host" country responsibilities for supervision but are now evolving towards sharing information and jointly assessing the financial positions of individual institutions through supervisory colleges. Finally, some statistical standards, such as those for the BIS international banking statistics and the IMF Financial Soundness Indicators have extended the traditional residence/local approach towards one based on nationality/global principles. Moreover, the BIS statistics have breakdowns that are of particular interest to financial stability analysts, including data on counterparties on an immediate and ultimate risk basis.

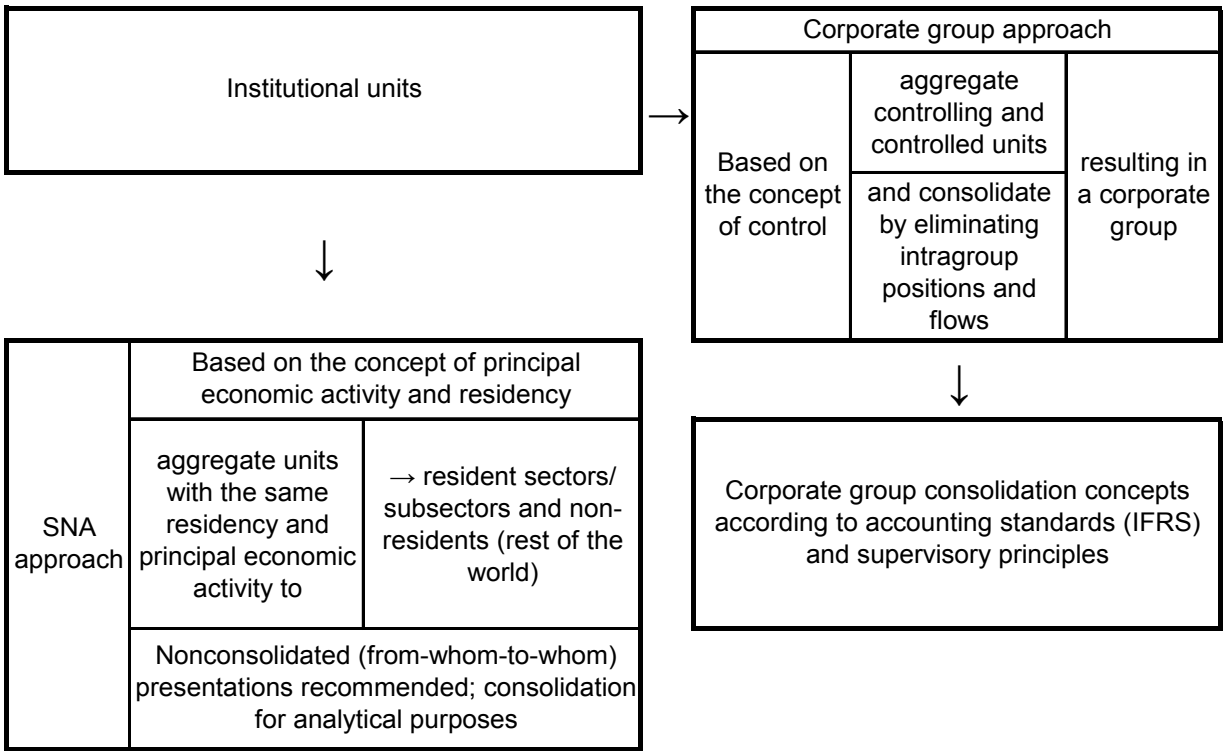
The G20 recommendations 13 and 14 refer to cross-border/international exposures of financial and non-financial corporations. This discussion paper proposes that the focus of the new underlying conceptual framework is *cross-border/international exposures of corporate groups on a globally consolidated basis aggregated by nationality*. The main task is therefore to develop a statistical approach which is based on the following elements: institutional units by nationality (as controlling and controlled units), control, corporate group (as an aggregation of controlling and controlled units), and group consolidation (eliminating intra-group positions and flows). The existing SNA approach is also based on the concept of institutional units but these are aggregated in sectors/subsectors according to their main principal economic activity. In principle the SNA data are non-consolidated though consolidation by national economy/sector/sub-sector is applied in various cases for analytical purposes. Chart 2 sketches the SNA and the new nationality/corporate group approach. The common element for both approaches is the institutional unit.

As already mentioned above, the framework of the System of National Accounts (including the BOP/IIP) is a good starting point for thinking about the new user requirements with respect to financial positions of financial and non-financial corporations. The basic element for both approaches is the institutional unit. Moreover, the existing sectoral classifications are certainly useful not only from a monetary/economic stability perspective but also from a financial stability perspective. At the same time, they need to be augmented with a breakdown between domestic and foreign institutional units from the perspective of the national territory in which the controlling head offices of the institutional units are resident, ie on the basis of *nationality.* This implies a corporate group approach, in which group consolidation concepts according to accounting standards (IFRS) and supervisory principles are applied.

The next terms that need clarification are those of corporate group, control and consolidation. These concepts are very closely related. In this paper the concept of group is discussed first in order to understand how the financial position of related institutional units in different countries could be presented. Though accounting standards take a very broad view on group definitions, it is suggested that the functional view of supervisors might be more meaningful for the purpose of financial stability analysis. Furthermore, the concept of control is of crucial importance to delineate what should be included in a corporate group and this is discussed

Chart 2

The SNA approach and the corporate group approach



separately. Finally, in order to understand how the positions of institutional units should be consolidated, the consolidation principle is explained and illustrated with examples from the residency-based approach as well as from nationality-based statistical exercises.

Elements of the accounting as well as the supervisory and statistical standards can be used for analysing the concepts of group, control and consolidation. The accounting and supervisory standards are also useful in thinking about micro risks and exposures, ie those at the level of individual corporations. They are not, however, always relevant for describing and defining the concept of *exposures* at the macro level. Luckily, some of the new thinking among financial accountants as well as those responsible for macroprudential analysis may help. Expertise from the latter areas may also be useful to analyse the extent to which the new nationality/global view of financial positions can be reconciled with the residency/local view.

This discussion paper looks at various concepts and definitions and tentatively describes how they might be clarified. Any analysis is preliminary. The intention is to raise issues and questions, not to provide a definite answer or to propose final definitions, let alone new data compilation exercises. Discussion with users and compilers in international organisations, national statistical agencies, supervisory authorities, private sector institutions and academia will hopefully help to identify the areas in which further work in terms of harmonising concepts and definitions might be helpful. Readers are requested to share their expertise and views and to provide feedback to the author and other contributors to the paper.[12]

[12] Work in other areas will be helpful, including on the Recommendations 8&9 of the FSB/IMF report to the G20. As mentioned in the introduction and section 10, the Inter Agency Group will reflect on the appropriate way to improve clarity in this area, possibly through the development of a Handbook on Nationality, Corporate Group and Consolidation Concepts.

Issues for discussion at the workshop

1. *The concepts of nationality, corporate group, control and consolidation are closely related. Do readers find the sequence of describing them appropriate?*

2. *Are there other concepts related to the nationality view of financial positions that would merit in-depth discussion (eg valuation rules)?*

3. The concepts of (sub)sectors, residency and nationality

The delineation of sectors and subsectors for macroeconomic statistics based on institutional units is well established and consistent across macroeconomic statistics manuals. The sector and instrument categorisations and definitions are also useful as a starting point for a nationality/global view of financial positions and are briefly described below.

Institutional units are economic entities that are capable, in their own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities. There are two main types of institutional units, namely households (persons or groups of persons), and legal or social entities, with the latter further broken down into corporations, non-profit institutions serving households and government units.

A legal or social entity is one whose existence is recognised by law or society independently of the persons, or other entities, that may own or control them. A legally constituted corporation is a legal entity, created for the purpose of producing goods or services for the market, that may be a source of profit or other financial gain to its owner(s); it is collectively owned by shareholders who have the authority to appoint directors responsible for its general management.

The institutional sectors in the SNA group together similar kinds of institutional units on the basis of their principal economic activity: in that sense corporations, non-profit institutions, government units and households are intrinsically different from each other. The attention of this paper is on corporations as the other types of legal or social units seldom operate through foreign affiliates.

Corporations include cooperatives, limited liability partnerships, notional resident units and quasi-corporations. Legally constituted corporations may be described by different names: corporations, incorporated enterprises, public limited companies, public corporations, private companies, joint-stock companies, limited liability companies, and limited liability partnerships. Corporations are divided between those mainly providing financial services and those mainly producing goods and other services. Accordingly, corporations are either financial corporations or non-financial corporations.

Non-financial corporations are institutional units that are market producers, whose principal economic activity is the production of goods and non-financial services while financial corporations as market producers are institutional units whose principal activity is the production of financial services.

The division of sectors into subsectors depends also on the principle of main economic activity. With respect to financial corporations, the 2008 SNA provides nine subsectors on the basis of economic criteria (see Table 1). One of the important subsectors is deposit-taking corporations except the central bank, often referred to as “(commercial) banks”. Apart from the central bank, other non-bank financial institutions cover investment funds (money market and other collective investment schemes), other financial intermediaries, financial auxiliaries, captive financial institutions and money lenders, insurance corporations and pension funds.

The key challenge for financial stability analysis is also to differentiate and aggregate institutional units, not only in terms of residency, sector and subsector, but also by nationality. In other words, institutional units need to be “associated” with, or “assigned to” a particular home country where the final risks and rewards of these institutional units could be

designated.[13] Each sector and subsector in the national economy would thus be split between domestic and foreign units (the latter would also need to be broken down by individual country or territory).

Table 1: Corporate sectors and subsectors in the 2008 SNA

Sectors and subsectors	SNA code
Non-financial corporations	S.11
Financial corporations	S.12
The central bank	S.121
Deposit-taking corporations except the central bank	S.122
Money market funds (MMF)	S.123
Non-MMF investment funds	S.124
Other financial intermediaries, except insurance corporations and pension funds	S.125
Financial auxiliaries	S.126
Captive financial institutions and money lenders	S.127
Insurance corporations (IC)	S.128
Pension funds (PF)	S.129

There are different ways to identify domestic units in their "home" country. One approach would be to use ownership as a criterion. Corporations that have a majority *ownership* of residents would then be domestic institutions, while those that are majority owned by non-residents would be foreign institutions. In practice this criterion is very difficult, if not impossible, to apply. Indeed, most globally operating corporations have a very diversified and international shareholder base. Moreover, ownership can change rapidly over time and is difficult to trace, even for corporations that register their shareholders.

A second, probably more workable, criterion is where the corporation is *headquartered*, ie where its "parent" is located. The SNA refers to head offices as "the overseeing and managing of other units of the company or enterprise; undertaking the strategic or organisational planning and decision-making role of the company or enterprise; exercising operational control and managing the day-to-day operations or their related units" (SNA 2008 4.32). The headquarters of a corporation is typically the same jurisdiction or economic territory where the corporation has its incorporation and has obtained its operating license according to specific regulations (eg for financial services, telecommunication, energy). For listed companies it could also be the country where its initial stock-market listing took place. Finally, this would also be the jurisdiction under which the corporation files its global financial accounts and where its global corporate taxes are paid.[14]

A third criterion, particularly for financial corporations could be to look at the jurisdiction where its *home country supervisor* is located and under which jurisdiction its global operations are regulated and supervised (eg capital requirements). This might be different from the country in which the financial corporation has its headquarters. For instance, the parent financial holding company could be a simple entity that holds the investments in one

[13] Note that the concept applies mostly to financial and non-financial corporations since, as mentioned in the text, households and governments do not normally operate with foreign branches and subsidiaries.

[14] Section 5 discusses the concept of ultimate controlling unit. This could also be a criterion.

country but the management of the main business could be in another country. Under supervisory practices the financial authorities of the latter country would be entitled to exercise consolidated supervision.

A combination of different criteria could also be used to determine the nationality of domestic units in their home country. Even so, in reality there may be various complications to determine exactly where a corporation is headquartered and therefore how corporations in a particular jurisdiction can be separated between domestically - and foreign-controlled entities. For financial institutions it has not always been evident to identify the home country: BCCI was one example of a situation in which it was unclear who the home supervisor of the bank effectively was; the case of Nordea may be illustrating the initial difficulty of identifying the precise home country of a bank which incorporates itself in different countries.

With respect to foreign entities, these could be defined simply to be all those that are not domestic. However, the determination of their precise nationality will also depend on the definition of group and control as set out in sections 4 and 5 below.

In order to ensure international consistency in the categorisation of institutional units by sector, residency and nationality, it may be necessary to carry out a reconciliation exercise amongst various home and host countries. In the case of the BIS banking statistics, for instance, reporting central banks provide a list of institutions in their country that report the BIS residency-based statistics with an indication of their nationality. Using this list, the BIS prepares a list of banks by nationality (grouping their head office and foreign affiliates) which are then validated by central banks reporting globally consolidated banking statistics for their respective national banks. For other financial and non-financial corporations business registers could be shared by supervisors and statisticians to carry out such reconciliations.

Issues for discussion at the workshop

1. *Is the general sectoral classification of the SNA also useful for financial stability analysis? Is the classification appropriate to identify creditors as well as their counterparties by sector?*
2. *How straightforward is it to distinguish domestic from foreign institutional units in a particular country? Can the nationality of a particular entity be determined up to the level of the individual "home" country (or territory)?*
3. *For which subsectors of the financial corporations would it be useful to develop statistics on financial positions by nationality? Do subsectors such as pension funds and investment funds actually operate with foreign affiliates?*

4. The concept of corporate group

Having determined the "nationality" of a particular institutional unit, in particular for financial or non-financial corporations, the question arises as to which units form part of the same global entity or corporate group. Three different approaches exist, based on accounting, supervisory and statistical standards respectively.

Group financial positions according to accounting standards

Accounting standards require the presentation of consolidated financial statements of a group as those of a single entity. This includes parents and subsidiaries as defined by the principle of control, namely the power to govern the financial and operating policies of an

entity so as to obtain benefits from its activities (IAS27). Financial institutions establishing money market funds and other investment funds are typically not required to include the assets the funds have to manage.[15] Financial statements and market data rely on this form of information and grouping as requested by the International Accounting Standards Board, the European Union[16] and the Financial Accounting Standards Board. The concept of control is further defined in section 5 below.

This accounting definition is very broad. In the context of the new framework for financial positions it would cover all subsidiaries and joint ventures controlled by a parent disregarding the location of its business and the sector of its activities.[17] At the same time, accounting standards hold out the possibility to present separate (non-consolidated or solo) financial statements if required by (local) regulations.

Prudential view of group financial positions

Supervisors take a truncated or functional approach to group financial positions. Under the requirements of the Basel Committee on Banking Supervision, for instance, insurance corporations and pension funds and non-financial corporations may be treated separately from banks for banking supervisory purposes even if they are subsidiaries of a bank.[18] Furthermore, money market funds and other investment funds are also not included in the regulated and supervised financial positions of the respective banking group.

Using the supervisory approach, three types of groups of corporations could thus be considered:

- A banking group would consist of a parent bank, its bank branches and subsidiaries, its other banking-related financial institution subsidiaries and its banking joint ventures.[19]
- Non-bank financial groups (predominantly non-bank financial corporations) would consist of a non-bank parent, non-bank subsidiaries and other subsidiaries. The concept could be applied to all sub-sectors of non-bank financial corporations. In practice, mainly insurance corporations may be expected to form a non-bank financial group.[20]

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[15] As these assets represent a segregate balance and they are not consolidated for regulatory or accounting purposes (with the exception of the company being the largest investor in the fund, i.e. it holds the majority of the liabilities/quotes issued).

[16] See Commission Regulation (EC) No 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council.

[17] Subsidiaries are defined according to the applicable accounting legislation (IAS 27 plus SIC-12 and Seventh Council Directive in EU and SFAS 140 and FIN 46 (R) in US).

[18] One question is whether a distinction should be made between commercial and investment banking groups.

[19] For European purposes, the definition of a *banking group* should be based on the Capital Requirements Directive (CRD), in particular Directive 2006/48 on the taking up and pursuit of the business of credit institutions. In broad terms, a banking group *shall mean a euro area resident parent credit institution and all its subsidiaries, joint ventures and branches (as said the CRD does not mention branches specifically as they are always part of a company for supervisory purpose) or a euro area resident parent financial holding company and all its subsidiaries, joint ventures and branches provided that in both cases the parent is a head of the banking group*.

[20] The definition of an *insurance group* may be based on the regulatory legislation for insurance undertakings, namely on Directive 98/78/EC (as amended), which is in force until 1 November 2012, and subsequently, on Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance ("Solvency II") which shall be implemented by the Members States by 30 October 2012. The structure of the definition based on these Directives resembles the definition of the banking group to the extent possible. In broad terms, an insurance group would mean a euro area resident parent insurance (or reinsurance, or holding, or captive (re)insurance undertaking) and all its subsidiaries and branches, provided that the parent is not a subsidiary undertaking of another euro area resident parent insurance (or reinsurance/holding/captive) undertaking.

- Non-financial groups (predominantly non-financial corporations as subsidiaries).

Statistical view of corporate groups

In principle the 2008 SNA requires institutional units to be classified according to their main economic activity. However, for some purposes it also suggests to arrange institutional units into groups of corporations according to the concept of control, irrespective of their principle functions, behaviour and objectives. Indeed, according to 2008 SNA 4.51 "Large groups of corporation, or conglomerates, may be created whereby a parent corporation controls several subsidiaries, some of which may control subsidiaries of their own, and so on. For certain purposes, it may be desirable to have information relating to a group of corporations as a whole." This approach would be in line with accounting practices.

Having said that, the broad approach is not recommended in practice for the following reasons (2008 SNA 4.51-4.52):

- although the management of a subsidiary corporation may be subject to control of another corporation, the subsidiary remains responsible and accountable for the conduct of its own;
- groups are not always well defined, stable or easily identified in practice;
- it may be difficult to obtain data for groups whose activities are not closely integrated;
- many conglomerates are much too large and heterogeneous to be treated as single units and their size and composition may be continually shifting over time as a result of mergers and takeovers.

As a result each individual corporation might be treated as a separate institutional unit, whether or not it forms part of a group. Applying this reasoning to the measurement of statistics on financial positions of financial and non-financial corporations on a nationality/global basis would argue in favour of using the truncated/functional approach of supervisors.

The functional approach is used by the BIS for its globally consolidated banking statistics. An individual reporting bank with nationality of a given country has to consolidate all positions of the bank independently of the residency of the institutional units that are part of the respective banking group. In a second step such consolidated bank data have to be aggregated at the country level by the reporting central bank and sent to the BIS, which aggregates the positions to world totals. Thereby cross-border/international exposures are shown of national banking groups.

Though the principle of truncation or functional delineation for defining groups may be analytically appealing, many special cases and exceptions may exist. For instance, the guidelines for the BIS banking statistics provide a solution to the situation in which a bank (or banking group) is controlled by a non-financial corporation[21], and to the situation in which non-bank subsidiaries are controlled by a parent bank.

Conglomerates, holding companies and large complex financial services companies

The remaining question is whether it makes sense, not only for accounting purposes but also for financial stability and statistical purposes, to construct broader aggregate and consolidated

[21] In this case the nationality of the bank is that of the highest-level controlling entity which is a bank. As a result, the BIS consolidated statistics by nationality may include a number of banks which are controlled by non-financial corporations located outside the respective country. In some cases the central bank has published a set of consolidated statistics only for "pure" domestic banks that does not include the financial positions of such foreign banks.

statistics for financial conglomerates, holding companies and large complex financial services companies. Indeed, as mentioned above, financial groups can comprise different types of financial corporation, and perhaps even also some non-financial corporations and non-profit institutions, both at home and abroad. In addition large financial groups, or conglomerates, may have a parent that controls several subsidiaries, some of which may control subsidiaries of their own. Annex 6 illustrates the complexity that might arise.

According to the definition of the Joint Forum[22] a financial conglomerate is an organisation whose primary business is financial and whose regulated entities engage to a significant extent in at least two of the activities of banking, insurance and securities. The definition allows different combinations of such activities. Of particular interest from the European perspective, are so called banc assurance groups which are financial conglomerates that combine bank services and insurance activities.

Finally, holding companies are in some cases non-operating companies that are (passive) holders of assets of subsidiary corporations. Insofar as they do not undertake any management activities, their principal activity is owning the group. The holding company may provide back-office support or IT services, but may otherwise not provide any other service to the businesses in which the equity is held. The financial positions of such holding companies therefore do not normally contain the full balance sheet of the controlled entities, only the value of the share capital that is held.[23]

Some financial stability analysts are interested in information on large complex financial institutions, financial conglomerates or holding companies usually to complement information provided along functional lines. This would definitely be of use for micro-prudential analysis (ie at the level of individual complex institutions). Some might argue that aggregate information for such corporations may allow the capturing of some elements of the so-called "shadow banking system", which includes interconnections within and amongst financial and non-financial corporations. It needs to be clarified, however, to what extent aggregate information on financial positions of entities involved in many different kinds of financial and non-financial activities (such as banking and insurance) is meaningful from a macro-prudential or financial stability perspective.

Issues for discussion at the workshop

1. *The supervisory and statistical standards seem to suggest a truncated or functional view and definition of "group, ie banking group, non-bank financial groups, non-financial groups. This would be in contrast to the principle of accounting standards. Is this correct?*
2. *Would it be useful from a financial stability perspective, to also have aggregated macro statistical information for large complex financial institutions, financial conglomerates or holding companies? How would such a "group" be called in order to distinguish it from the functional definition of "group"?*
3. *What other issues are there with respect to the concept and definition of group that users and compilers of "group consolidated financial positions" need to be aware of?*

[22] Precise source to be provided.

[23] Holding companies might be non-operating companies, and thus passive, in some juridictions, but theyr are not necessarily so in others. The CEO of the group may, in fact, sit on the board of the holding company, which could exercise management control over (some) entities in the group.

5. The concept of control

As already mentioned, the corporate group is identified through the links of control between institutional units (parent and subsidiaries). Hence, the concept of control is the basic concept to be used for the delineation of a corporate group.[24]

International accounting standards (IFRS/IAS) presume control when the parent acquires more than half of the voting rights of an entity. Even when more than one half of the voting rights is not acquired, control may be evidenced by power (IAS 17.13)

- over more than one half of the voting rights by virtue of an agreement with other investors, or
- to govern the financial and operating policies of the entity under a statute or an agreement, or
- to appoint or remove the majority of the members of the board of directors, or
- to cast the majority of votes at the meeting of the board of directors.

As mentioned above, the SNA defines a parent or head office as an institutional unit that oversees and manages other units of the company or enterprise; undertakes the strategic or organisational planning and decision-making role of the company, exercises operational control and manages the day-to-day operation of their related subsidiaries. A parent-subsidiary relationship is usually defined by the fact that the parent holds a controlling interest in the subsidiary by

- determining the composition of the board of directors of the subsidiary; or
- owning more than half of the voting power or holding more than half of the equity of the subsidiary.[25]

The criteria for determining the control may not always be straightforward. A single unit owning more than half of the voting shares is generally sufficient to establish the control-relationship. However, the ability to determine general corporate policy may also be achieved in some cases with the ownership of less than half of the voting shares. The first example is that of an *associate*. This is a corporation over which the investor has a significant degree of influence but which is not a subsidiary or a joint venture. Significant influence is usually assumed to arise when the investor owns from 10 to 20 percent (depending on national practice) and 50 percent of the equity/voting power of the entity. Such a situation often applies to corporations controlled by government units. Although some corporations may be able to exert considerable influence over their associates, this cannot be guaranteed. The relationship between associates is weaker than that between parent and subsidiary corporations, and associates may not be well defined.[26] Associates would normally not be included in a corporate group.

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[24] The control-relationship is transitive, ie control can be passed down the chain of ownership as long as control exists at each stage. A parent company therefore controls a subsidiary of its subsidiary.

[25] In the case of the EU Capital Requirements Directive, control is defined as the ability to determine the general (corporate) policy or programme of an institutional unit by appointing appropriate directors or managers" or "to determine corporate policy or to appoint the directors. Article 4, comma 9, of Directive 2006/48/EC defines control as: "the relationship between a parent undertaking and a subsidiary, as defined in article 1 of Directive 83/349/EC, or similar relationship between any natural or legal person and an undertaking". Article 1 of Directive 83/349/EC (Seventh Council Directive on consolidated accounts) is included in annex 3. In annex 4 the accounting provisions stemming from the IFRS legislation are reported.

[26] In the case of a joint venture each of two investors may own half of the equity of the corporation or each of three investors one third of the equity of the corporation.

Two other examples where less than half of ownership may give control are (i) when ownership of shares is widely diffused among a large number of shareholders, and (ii) when a small organised group of shareholders with more than half of combined ownership of shares can establish control by acting in concert. The 2008 SNA does not clarify whether the organised group should be a part of the consolidated group (i.e. units in the organised group themselves are in the control-relationship with each other). [27]

The BPM6, in the context of establishing a direct investment relationship, states that for two or more units to be considered a combination, and thus be regarded as a single investor, they must be in a direct investment relationship (BPM6, paragraph 6.21). The BPM6 distinguishes between control (owning more than 50 percent of voting power) and significant degree of influence (owning between 10 to 50 percent of voting power), and both relationships are defined as direct investment relationship. The Coordinated Direct Investment Survey proposes compiling, as an additional item, foreign direct investment data (inward positions) on an ultimate investor basis. The ultimate investor is the direct investor in the chain of the control-relationship (more than half of voting power) that is not controlled by another entity (OECD Benchmark Definition of Foreign Direct Investment, 4th Edition, Annex 10).

To summarise, control may also be established with ownership of less than half the voting shares. The following indicators are the main factors to consider in deciding whether one institutional unit is controlled by another institutional unit:

- Ownership of the majority of the voting interest;
- Control of the board or governing body;
- Control of the appointment and removal of key personnel;
- Control of key committees in the entity;
- Unit's possession of a golden share;
- Special legislation, regulation or decree;
- Unit as a dominant customer; and
- Borrowing from the unit.

A single indicator may be sufficient to establish control in some cases, but in other cases, a number of separate indicators may collectively indicate control. A decision based on the totality of all indicators will necessarily be judgemental in nature.[28]

From a financial stability perspective, the ultimate question is whether the existing concept of control is sufficient for identifying and correctly attributing risk exposures. Does the ability to determine corporate policy always imply also assuming the risks, particularly when less than half of ownership right establishes the control-relationship? What implications do minority interests have on risk exposures higher up in the control chain? The complexity of the chain of ownership, control or power may in itself create financial stability concerns. Can accountants, supervisors and statisticians always identify and "look through" the next level of control? This question is of particular importance when different jurisdictions are involved.

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[27] The MFSM 2000 states that control is always deemed to exist when a corporation owns more than half of the voting rights or can appoint more than half of the directors of another corporation. Exceptions are permitted on the basis of additional evidence as elaborated in the SNA, when effective control may also be exercised with less than 50 percent ownership. The GFSM 2001 refers only to the notion of control without defining it in delineating public sector.

[28] For non-profit institutions similar indicators are considered.

Clarity in definitions and reporting is needed so as to avoid duplication and gaps in globally consolidated financial positions.

Issues for discussion at the workshop

1. *How clear are the definitions of control, from a statistical, supervisory and accounting perspective? Can these concepts and definitions form the basis for delineating institutional units to be included in a corporate group?*

2. *How can statisticians look through the various levels of control, in particular when various jurisdictions are involved? What are the major stumbling blocks to do so?*

3. *Is the concept of control sufficient, from a financial stability perspective, to identify and correctly attribute risk exposures? If not, where are the main potential flaws?*

6. The concept of consolidation

Consolidation is a term used by company and financial accountants to describe the method for combining monetary and financial transactions and positions of individual entities that form part of a corporate group into an integral whole. This basic principle is also reflected in the 2008 SNA, BPM6, GFSM 2001 and MFSM 2000 manuals, which all define consolidation in the same way: consolidation involves the elimination of those transactions, or debtor or creditor relationships, that occur between two institutional units belonging to the same institutional sector or subsector (2008 SNA, paragraph 3.197). In other words, consolidation is a method of presenting statistics for a set of units as if they constituted a single unit (2008 SNA, paragraph 22.79).

The financial flows and positions of institutional units may be amalgated and consolidated at a sub-sector, sector or national economy level by eliminating intra-sub-sectoral, sectoral or national economy positions and flows. Accounting entries are offset for the same stock or flow both the asset and liability sides of the balance sheets of institutional units belonging to the same subsector, sector or an economy.[29] In analytical terms, this type of consolidation could be called sectoral consolidation.

The other type of consolidation of increasing interest to users of financial statistics is geographical consolidation. Such consolidation can be done at a regional level, such as in the case of the euro area, or at a global level. In this case transactions and positions between units are offset across different economic territories. Many of the euro area statistics are consolidated across euro area countries, eliminating, for instance, intra euro area "external" transactions and positions in the BOP.

It could be argued that consolidated presentations entail a reduction in statistical information in that the intra- and/or inter-institutional unit positions are offset against one another. In other words, "net" rather than "gross" positions are shown. However, in some cases it may be useful for analytical purposes to present consolidated data. One example is the consolidation of inter-bank positions and flows. When these are consolidated, financial assets and liabilities held by each deposit-taking financial corporation (other than the central bank) vis-à-vis other such corporations are removed from the aggregate sectoral balance sheet: this is done since these positions do not reflect financial positions (both in terms of

[29] Consolidation has to be distinguished from netting. Netting is the process whereby entries on alternate sides of the account for the same position or flow and the same institutional unit are offset against one another.

stocks and flows) vis-à-vis the rest of the economy and the rest of the world. Sectorally consolidated positions may be of specific interest to monetary and economic stability analysis. In terms of geographical consolidation, the globally consolidated positions of banking groups are a much better reflection of their overall risks and exposures and therefore their underlying solvency. As mentioned in Section 1, this is of interest to banks' internal risk managers, their supervisors as well as to financial stability analysts.

2008 SNA and BPM6

The 2008 SNA does not recommend the consolidation of entries in the national accounts statistics. National accounts aggregates can, therefore, be regarded conceptually as a simple summation of entries of all resident institutional units belonging to a sector (sectoral aggregates) or to the economic territory (economy-wide aggregates). However, the SNA, recognises the importance of consolidated data, proposes a way forward in the form of supplementary tables on consolidated data, and mentions "consolidation of enterprise groups" as one of the topics for future research agenda (2008 SNA, paragraphs A4.12 and A4.13). BPM6 presents flows and positions of residents with non-residents, and therefore, consolidation is not relevant for balance of payments and international investment position of an individual economy (BPM6, paragraph 3.120). The IMF's Coordinated Portfolio Investment Surveys (CPIS) and Coordinated Direct Investment Surveys (CDIS) present data on an aggregated basis between residents and non-residents. The concepts and principles underlying both these surveys are those contained in the BPM5 (CPIS) and BPM6 (CDIS), and collect data by immediate counterpart economy.

MFSM 2000 and GFSM 2001

MFSM 2000 includes monetary surveys and sectoral balance sheets. Surveys are compiled for financial corporations' subsectors (see section 3 above) and for the entire financial corporations sector. Sectoral balance sheets follow an aggregation basis rather than a consolidation basis and provide inputs for compiling monetary surveys. Monetary surveys present data on a consolidated sectoral basis. Consolidation applies to all units falling within a subsector or the whole financial sector that are resident in the economy (MFSM 2000, paragraphs 242-244). One important exception to the consolidation in the MFSM 2000 is that liabilities in the form of shares and other equity are not consolidated.

GFSM 2001 calls for the compilation of consolidated statistics for the general government sector as well as the public sector. The fiscal data for general government have always been compiled on a consolidated basis. For public corporations, the GFSM 2001 recommends that the data on them are presented as a separate subsector and as consolidated with general government. It suggests that in both cases, statistics should be presented on a consolidated basis within each subsector (GFSM 2001, paragraph 3.91).

The BIS international consolidated banking statistics

The BIS international consolidated banking statistics[30] present cross-border financial claims of banking groups by nationality for each reporting country on a world-wide consolidated basis. The domestic banks of the respective country consolidate and report all the cross-border claims of all their offices worldwide as well as local claims of their foreign affiliates (branches and subsidiaries) in local and non-local currencies. The respective central bank

[30] The BIS international consolidated banking statistics were developed and introduced by the Committee on the Global Financial System in the early 1980s as a complement to the residency-based locational international banking statistics. The initiative was supported by the Basel Committee on Banking Supervision, which had been promoting global consolidated supervision for some time.

aggregates the consolidated claims and transmits them to the BIS which then compiles and publishes global aggregates.

Two sets of consolidated statistics are compiled. The first consists of data on an immediate borrower basis, i.e. claims are attributed to the country where the original risk lies. The second provides data on an ultimate risk basis, i.e. claims are attributed to the country where the final counterparty resides, taking account of risk transfer mechanism such as guarantees.

FSI Guide

The FSI Guide[31] elaborates consolidation concepts and describes consolidation rules for financial soundness indicators (FSIs). Countries can decide which consolidation bases to use in compiling FSIs for their economies. Furthermore, the methodology (both in terms of determining the reporting population and consolidation rules) for compiling FSIs, primarily for deposit takers, is geared towards meeting specific needs of countries in financial soundness analysis.

- The FSI Guide recommends compiling FSIs using data on a consolidated basis for deposit takers and other corporate sectors.[32] The FSI Guide's recommendation on consolidation explicitly recognises the specific practices of countries compiling indicators for financial stability analysis, which can vary depending on country circumstances. The FSI Guide discusses several consolidation bases. Even though it makes specific recommendations for consolidation bases (usually more than one basis), with the aim of maintaining cross-country comparability, it leaves the option for countries to decide the suitable consolidation basis/bases.[33]

[31] The FSI Guide also includes the Amendments to the FSI Guide.

[32] However, the *FSI Guide* recommends an aggregate resident-based approach for compiling financial soundness indicators for the household sector. Also, the *FSI Guide* recognizes that in many countries there is a relative lack of consolidated data for other corporate sectors so national accounts based data could be used in the first instance. [see paragraph 5.39 of the *FSI Guide*]

[33] A comparison of FSI and BIS data using different consolidation bases for a few countries shows that the implication of using different consolidation bases can be significant and that similar methodologies in the BIS and IMF guidelines are interpreted differently by individual countries (see Annex 3).

Table 2. Comparison of sectoral and global consolidation

Sectoral consolidation of financial positions	Global consolidation of financial positions
SNA approach for economic, monetary, fiscal and financial analysis	Accounting, supervisory, micro and macro risk management framework
Aggregated balance sheets of institutional sectors (subsectors) • Assets • Liabilities	Individual and aggregated balance sheets of corporate groups on a functional basis • Assets • Liabilities • Off-balance sheet items • Profit and Loss
All resident sectors, no distinction of nationality	Domestic entities only
Breakdowns by • Financial instrument categories and sub-categories (loans, debt securities, financial derivatives) • Counterparties (resident institutional (sub)sector, vis-à-vis country) • Currency and maturity envisaged in Balance Sheet Approach	Breakdowns by • Instrument (loans, securities, derivatives) • Counterparties (institutional sectors, private/public, vis-à-vis country • Currency • Maturity • immediate and ultimate counterparties
In principle, non-consolidated presentation (incl from whom-to-whom view) Consolidation by economy, sector, subsector possible for analytical purposes	Global consolidation of positions/exposures within individual corporate groups No intra-sector or inter-sector consolidation (gross positions and exposures) Identification of inter-office (intra-group) positions

Four key consolidation concepts can be distinguished:

1. *Intra-group consolidation involves the elimination of all flows as well as all positions among members of an enterprise group. An enterprise group consists of the parent, its branches, and subsidiaries. All institutional units controlled by the parent are consolidated as if they represent a single institutional unit.*

2. *Inter-group consolidation is applicable for data at the sector level and involves the elimination of flows and positions among the enterprise groups belonging to the same sector. All enterprise groups within the same sector are consolidated as if they represent a single institutional unit. Sector consolidated data eliminate flows and positions among units that are not in a control-relationship.*

3. *Cross-border consolidation involves a parent and units (residents and non-residents) under its control that are classified in the same sector.*

4. *Cross-sector consolidation involves a parent and units under its control that are classified in more than one sector.*

Different consolidation practices can be developed on the basis of these key concepts, combining them in different ways as needed. For example, for deposit taking institutions the FSI Guide recommends the following two consolidation bases: (i) cross-border and cross-

sector consolidation basis for all domestically incorporated entities (CBCSDI), and/or (ii) domestically controlled, cross-border and cross-sector (DCCBS) consolidation basis.[34]

Issues for discussion at the workshop:

1. *What is the practice in individual countries with respect to consolidation/aggregation at the sectoral level according to SNA principles? Are both unconsolidated and consolidate data made available, in particular for financial stability purposes (ie gross positions vs consolidated positions)?*

2. *What is the practice in individual countries with respect to global group consolidation for domestic institutions according to accounting and supervisory standards? For which sectors is such data available?*

3. *How clear are the concepts of global consolidation, as utilised, for instance in the BIS consolidated banking statistics and the IMF Financial Soundness Indicators? What explains the differences noted in Annex 2 of this paper?*

7. Measuring exposures through appropriate breakdowns of consolidated financial positions

Exposures refer to the fact that an institutional unit, a (sub) sector or a group of corporations is exposed to certain risks. An exposure could be described as the expected loss that would be incurred by them if a certain risk were to materialise.[35] According to the Basel Committee's capital regulations, the expected loss is equal to the probability of default/loss times loss given default. The probability of default refers to various counterparties of institutional units: in the case of banks this would include other banks, other (sub) sectors of the economy and non-residents.

There are various types of exposures related to individual on-balance sheet holdings of assets and incurrences of liabilities (in the form of loans, securities and derivatives) as well as to off-balance sheet positions such as guarantees and commitments. Moreover, exposures can occur across the balance sheet of the unit at the globally consolidated level.

From a microprudential perspective, risks are typically defined and distinguished as (counterparty) credit risk, market risks, and other types of risks such as liquidity/funding risk, interest rate risk and operational risk. Credit risk is by far the largest component of financial risk for banks. It is associated with the possibility that debtors will default on their obligations (eg repayment of loans, non honouring of other financial commitments). It is less important for insurance companies where underwriting risk is the most significant, ie whether the companies' calculations of technical provisions are accurate. Pension funds also may have less credit risk. Finally for securities firms credit risk may be less important than liquidity and market risk.

Market risk has become increasingly important in financial systems where assets are marked to market and financial asset prices can fluctuate significantly: negative valuation changes

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[34] More than half of the countries report FSI data using either one or both consolidation bases. Annex 1 lists the differenent consolidation basis. Annex 2 compares the data for deposit taking institutions from the IMF Financial Soundness Indicators and the BIS banking statistics.

[35] The FSB working group on data gaps and systemic linkages has not yet identified a definition of exposure. According to the EU's Capital Requirements Directive (which derives from Basel 2), the definition of an exposure refers to Article 77 which says that an 'exposure for the purposes of this Section means an asset or off-balance sheet item.'

can then occur when prices change as a result of adjustments in general market conditions or when the creditworthiness of debtors is reassessed. Other types of financial risks can occur across the balance sheet of financial and non-financial corporations at the globally consolidated level, including liquidity and funding risks and operational risks. For financial corporations, and in particular banks, interest rate risk is significant as it relates to the difference in maturity of their assets and liabilities (some of which is unavoidable as it is part of the economic function of banks to engage in maturity transformation).

In terms of macroprudential definitions, system-wide risks and exposures are typically described along two - interdependent – dimensions:

(i) The time series dimension, which materialises in the pro-cyclicality of the financial system in the form of credit, liquidity and asset price cycles.

(ii) The cross-sectional dimension materialises in the form common exposures and inter-connections between institutions.

Some of the micro and macro risks can be captured directly or approximated indirectly in respective micro and macro data on financial positions. However, not all micro risks can easily be aggregated to the macro level. This is the case, for instance with market risk, some elements of liquidity risk, and interest rate risks.

The statistical measurement of exposures may be carried out by looking at aggregate balance-sheets of financial and non-financial corporations on a globally consolidated basis by nationality with appropriate breakdowns.[36] Some of the breakdowns provided in residency-based financial statistics might be a good starting point: they would include different instruments, in particular loans, securities and derivatives and counterparty sector (including a grouping between private and public sector). These breakdowns should be provided for resident as well as non-resident counterparts. For both categories there may be interest in more granular data on positions vis-à-vis other global corporate groups (along functional lines) in order to identify interconnections between systemically important financial institutions as well as information on common exposures to specific groups. The information can be augmented with breakdowns by currency and maturity (as proposed in the Balance Sheet Approach – see recommendation 15 in the FSB/IMF report to the G20). Moreover, as in Money and Banking Statistics, breakdowns could also be provided by loan quality (eg non-performing loans).

For macro risk-analysis purposes, the focus should be on liabilities as well as on assets, with similar breakdowns. Moreover, in terms of equity, it would be interesting to know its components including along the definition of the various tiers of capital defined by the Basel Committee on Banking Supervision (specific elements such as provisioning, write-downs, recapitalisation). In addition to the on-balance sheet information, macro data on financial positions should also include data on off-balance sheet exposures such as those related to guarantees and commitments. Moreover, it is often forgotten that profit and loss information is of much analytical interest. This should also be included in macro financial statistics for corporate groups by nationality.

The question can be asked whether financial positions should include amounts outstanding as well as flows. The residence approach covers both and provides a methodological framework to take account of valuation changes (holding gains or losses) and other adjustments. Reflecting the risk-based focus behind it, the nationality/global view of financial positions is primarily interested in balance sheet positions, ie stocks.

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[36] Note that in this way exposures are measured in a broad sense. Indeed, the full (market) value of asset and liability positions are included, without taking account of the probability of default and loss given default of its various components.

Cross-border/international exposures of corporations

Recommendations 13 and 14 of the FSB/IMF report on data gaps refer to cross-border and international exposures of financial and non-financial corporations. Reference is made to the BIS banking statistics, in particular those by nationality on a globally consolidated basis. Some carefully chosen terminology is required to indicate precisely the type of exposure and the basis for risk allocation in these statistics. Table 3 should assist in understanding the terms (note that the BIS consolidated data focus only on the asset side of the balance sheet, ie claims, as well as other exposures). Foreign claims consist of cross-border claims and local claims. The former are the same as for the cross-border claims of residence-based financial positions, ie they are those between the respective institutional unit(s) in the banking group and non-residents. They include cross-border claims by the head office as well as those from the foreign affiliates (claims on residents of the home country by the foreign affiliates are excluded). Local claims are the claims of the respective banks' foreign affiliates on residents in the countries where the affiliates are located; these claims can be in foreign and local currency. International claims are a subset of the foreign claims, ie they combine cross-border claims and local claims in foreign currency.

It is the inclusion of local claims of bank's foreign affiliates that is the major difference between residence/local views and nationality/global view of financial positions. As mentioned in section 1 these claims are fully part of a banking group's global exposures. They are included in bank's global risk management systems. Bank supervisors of the home country require capital to be held against the global asset portfolio (though individual components are risk-weighted). From a financial stability perspective also, the focus is on the global consolidated positions of banks headquartered in an individual country rather than banks resident in that country.

An important breakdown for cross-border, international and foreign exposures is that of the country of residency of the borrower. This allows the capturing of so-called country risk, ie the risk that changes in the economic, financial and political environment in a particularly country could adversely affect the value of claims on residents of that country (eg imposition of capital controls, changes in regulatory and supervisory practices, political instability).

In line with the principles of global consolidation among related entities in the same banking group, the BIS consolidated statistics exclude interoffice positions. Claims on other entities in the same banking group (head office, branches and subsidiaries in foreign countries) are offset by the individual reporting banks. There are, however, a number of reasons why it may be interesting, from a financial stability perspective, to have data on interoffice positions. Offsetting of positions across offices using group consolidated data effectively assumes that financial resources in one office can be immediately used elsewhere. Reasons for frictions in banks' internal funds transfer may include capital and liquidity regulations in host countries as well as the relative strength of control of foreign affiliates (see section 5 above).[37]

[37] See Bank structure, funding risk and international shock transmission: concepts and measurement, I Fender and P McGuire, BIS Quarterly Review, September 2010.

Table 3

Consolidated foreign exposures of BIS reporting banks[1]

Positions outstanding at end-June 2010, in billions of US dollars

	Basis for risk allocation		
	Immediate borrower	**Net risk transfers[3]**	**Ultimate risk**
By type of exposure			
Claims (loans and securities)[2]			
Foreign claims	24,779	–226	24,553
Cross-border claims	International claims[4]: 14,634		13,176
Local claims – in foreign currency			11,377
– in local currency	10,145		
Derivative contracts			4,430
Contingent facilities			
Guarantees extended			6,886
Credit commitments			3,573
Other breakdowns[5]			
Claims by sector	14,634		24,553
Public sector	2,431		4,681
Banks	4,444		5,884
Non-bank private sector	7,654		13,759
Unallocated	104		229
Claims by maturity	14,634		
Up to and including 1 year	6,702		
Over 1 year up to and including 2 years	700		
Over 2 years	4,735		
Unallocated	2,498		
Memorandum: Starting date of time series	December 1983	June 1999	March 2005

[1] Sum of positions reported by banks headquartered in Australia, Austria, Belgium, Canada, Chile, Chinese Taipei, Finland, France, Germany, Greece, India, Italy, Ireland, Japan, the Netherlands, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. [2] Outstanding loans and deposits, plus holdings of debt and equity securities; historically referred to as on-balance sheet claims. [3] Total net risk transfers do not equal exactly the sum of outward risk transfers ($1,431 billion) and inward risk transfers ($1,467 billion) because some countries report only a single net risk transfer number. [4] Cross-border claims denominated in all currencies plus local claims of foreign offices denominated in foreign currencies. [5] For claims on an immediate borrower basis, the breakdowns refer to international claims; for claims on an ultimate risk basis, the breakdowns refer to foreign claims.

Exposures on an ultimate risk basis

Table 3 also helps to explain the concept of immediate borrower and ultimate risk. The BIS consolidated statistics distinguish between the residence of the immediate borrower and the residence of the ultimate obligor.[38] The latter is the counterparty that is ultimately responsible for servicing the outstanding obligations in the event of the default by the immediate borrower. The residence of the ultimate obligor is defined as the country in which the guarantor of a financial claim resides or in which the head office of a legally dependent branch is located.[39] If the head office or foreign affiliates of a globally-operating bank purchase protection against default in the credit derivatives market, the country of ultimate risk is that in which the counterparty of the contract resides.

Claims on an ultimate risk basis equal the sum of claims on an immediate borrower basis and net risk transfers. These, in turn, equal the difference between inward transfers of risk to the country of the ultimate obligor and outward transfers of risk from the country of the immediate borrower. For a comprehensive view of risk transfers, separate data on outward and inward risk transfers is desirable, since in the case of a solvency problem, gross exposures to borrowers and lenders resident in the same country cannot be offset. Risk reallocation should also cover risk transfers between different economic sectors (banks, non-bank public sector and non-bank private sector) in the same country, as in the BIS ultimate risk-based consolidated statistics.

If all outward and inward risk transfers were to be reported, they would add up to the same total. However, in the BIS statistics, for risk reallocations from or to a reporting bank's home (parent) country, only the leg relating to the foreign counterparty country is reported (an exposure to the lender's home country is considered as free from country risk). As a result, inward and outward risk transfers will not balance in practice. For quality control reasons, complete reporting of all risk reallocations is, however, desirable.

As noted before the BIS consolidated statistics only cover claims and related exposures. There is no reason not to include liabilities in globally consolidated data by nationality, on an immediate and ultimate counterparty basis.[40] Having data on the ultimate counterparty of individual liabilities, eg deposits and holders of debt securities issued would extend the nationality view of financial positions to a who-to-whom framework, similar to that of the residency-based financial accounts.[41]

To summarise, for financial stability purposes breakdowns in macro data for globally consolidated financial positions by nationality, for financial and non-financial corporations, may need to include:

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[38] This approach is consistent with the risk reallocation principle for measuring country risk exposures recommended by the Basel Committee on Banking Supervision.

[39] Take a loan from a US bank (head office in the US or affiliate in another country) to the subsidiary of a German car manufacturer incorporated in Mexico. The loan is guaranteed by the parent company. On an immediate borrower basis the loan would be included in the US bank's claims on a non-financial corporate borrower in Mexico. On an ultimate risk basis the US Bank would include it in its claims on a (non-financial corporate) borrower in Germany. There would be an outward risk transfer from Mexican banks and an inward risk transfer to Germany.

[40] The External Debt Statistics: Guide for Compilers and Users describes the concept and applicability of ultimate risk for external debt (par 9.25-9.29).

[41] If a subsidiary of a German-headquartered bank in Korea deposited funds with a UK bank(ing group), the immediate counterparty would be a Korean bank whereas the ultimate counterparty would be the German bank(ing group). See Annex 5 for a description of some of the national accounting principles that might be applied to the nationality view of financial positions.

- assets and liabilities broken down by domestic and cross-border positions,
- profit and loss data,
- counterparty type (institutional (sub)sectors, own affiliates),
- counterparty location,
- maturity breakdowns (original maturity and remaining maturity at short and long term),
- currency breakdowns (at least major currencies),
- instrument breakdowns (loans, debt securities and equity, derivatives),
- credit risk indicators for instruments (non-performing loans, securities by rating category, rating of counterparties to derivative contracts),
- off-balance sheet items (commitments, guarantees),
- data on inward and outward risk transfers,
- exposures on an immediate and ultimate borrower/counterparty basis.

Ideally the breakdowns would not only be available for the total global positions of banking and other financial groups but also separately for head offices of domestic institutions and their foreign affiliates in different jurisdictions. Though the information would still be at an aggregate, macro, level, this might provide a major step towards a global risk map. It would also facilitate the reconciliation of financial positions on a residency/local basis with those compiled on a nationality/global basis (see section 9 below).

Issues for discussion at the workshop

1. *What are the risks that globally consolidated data should try to capture at the macro level?*

2. *What are the appropriate breakdowns that would allow financial stability analysts to capture macro exposures of corporate groups by nationality and on functional lines, including common exposures and interconnections at a globally consolidated basis?*

3. *Accounting information may not provide all the breakdowns needed for macro analysis. Likewise supervisory data may use other breakdowns (eg risk buckets, trading vs banking book) to analyse the financial position of an individual financial firm. How can additional breakdowns be obtained from individual reporting entities to facilitate macroprudential or financial stability analysis?*

8. Specific challenges in applying the nationality framework to non-bank financial corporation and non-financial corporations

As illustrated in this paper, the BIS and its member central banks have a relatively long experience in using a residency-based as well as nationality-based framework for measuring banks' international positions. The framework has developed over time. In the early eighties, financial crises highlighted the need for supervisors, central banks and market analysts to gain a full overview of the exposures of the banking institutions they were supervising. Initially, consolidated reporting was limited to exposures to counterparties resident in emerging countries, because lending to developed economies was perceived as risk-free. During the nineties, country risk was seen materialising in developed economies as well, and BIS reporting template was expanded accordingly. As globalisation took hold and banks argued that their risk exposures were in many cases limited by guarantees and collateral of safer third parties, the reporting was further expanded to take account of such risk transfers

to arrive at a concept of "ultimate risk". Current BIS work is focussed on expanding the granularity of reporting of banks' exposures to non-bank financial and non-financial corporations (currently only the total of the non-bank private sector is compiled).

Apart from developing a sound analytical and methodological basis for the BIS banking statistics, efforts have also been made to strengthen the processing capacity for handling a relatively complex dataset. Moreover, a three-level hierarchy of confidentiality settings has been introduced for the data reported by central banks, up to the level of individual observations. This has helped central banks participating in the BIS exercise to maximise the reporting detail to the BIS without infringing national confidentiality rules.

The experience with the evolution of the BIS reporting framework may be instructive in three ways. Firstly, there is a clear advantage in elaborating reporting concepts such as nationality, group and control in close cooperation with users and compilers of the data. Secondly, the support of the respective supervisory authorities is important and the coordination between home and host supervisors is crucial in achieving comprehensive and comparable reporting on the basis of consistent definitions of exposures. Thirdly, a balance has to be found between concentrating initially on areas of greatest perceived risk (to keep the reporting burden manageable), and the experience that weaknesses and stresses would tend to develop primarily in the less stringently supervised and reported areas. An agile statistical framework is thus needed that can be adapted when newly accumulated risks and exposures become substantial.

In terms of actual data collection, supervisory reports would be used by statistical agencies to the extent available, enhanced by other regulatory and commercial data. Issues arising from the integration of different data sources would need to be solved, as well as the priority accorded to larger institutions or crucial non-bank sectors. Links between related financial and non-financial corporations would need to be identified. As far as possible, home and host country supervisors (where relevant, eg for insurance companies and pension funds) and statisticians should work in close cooperation. Legal instructions for consolidated reporting would need to be formulated and enacted where needed.

Like in the case of banks, the collection and compilation of global consolidated group asset and liability positions of non-bank financial corporate sector and for non-financial corporations should

- provide a comprehensive and accurate picture of the global health and soundness of the respective corporate groups along functional lines, since financial risks and economic activity impact the current and future health of groups as a whole and cannot be limited to the economy where they originate;
- show accurately the amounts of income, liquid assets and capital the respective groups have available to support its global activities;
- avoid double counting and undercounting of both the exposures of the relevant groups, in particular those undertaken vis-à-vis the rest of the world.

A number of methodological frameworks and data collection exercises already cover non-bank financial institutions. For instance, the OECD data on institutional investors cover investments funds and sub-sectors, insurance corporations and sub-sectors, pension funds, and other forms of institutional savings. The focus is on these (sub)sectors' asset positions. A breakdown for securities, and shares issued by residents and by non-residents as well as a breakdown for loans to residents and to non-residents are requested in the questionnaire. Even if the coverage (sectors, assets, period) varies from country to country, a large number of data are reported. However, data on cross-border claims (ie on non-residents) are reported by 27/26 OECD countries for shares (respectively for Investment funds and Insurance companies), by 26 OECD countries for securities (Investment funds and Insurance companies), and by 22 countries for loans for Insurance companies and only 7 countries for

loans for Investment funds. Also for Russia, the breakdown is available for Insurance companies and Pension Funds for the three instruments.

The OECD compiles additional statistics through the "Global Pension Statistics" (GPS) and "Global Insurance Statistics" (GIS) exercises. The OECD Working Party on Private Pensions and its Task Force on Pension Statistics launched the GPS project in 2002 while, in 2009, the OECD Insurance and Private Pensions Committee decided to launch, with the support of its task force on insurance statistics, a Global Insurance Statistics (GIS) project to enhance the existing OECD's insurance statistics framework and expand its global reach. The GIS project is an extension of the OECD insurance statistics exercise, which has been in existence for several decades.

The GPS permit cross-country comparisons of current statistics and indicators on key aspects of retirement systems across OECD and non-OECD countries. The GPS database includes assets, liabilities, income, expenditure and membership. The GIS project involves the compilation of a range of statistics and appropriate indicators, permitting an improved assessment of the insurance sector's financial strength, stability, profitability and solvency, both for direct insurers and reinsurers. Data collected in the GIS exercise include: direct premiums and reinsurance accepted, with premiums broken down by categories of life and non-life business and by risks written domestically and risks written abroad; claims payments, operating expenses, and commissions; outstanding investments of insurers and reinsurers, including a breakdown of investments by asset class and by domestic versus foreign assets, and investment income; and direct insurer and reinsurer assets, technical provisions, net income, and available/required capital.

Both frameworks, which collect aggregate sectoral statistics, are based on the residency approach. In line with Chart 1, the GIS exercise collects data on foreign insurance branches and foreign-controlled insurers at an aggregated level, following national definitions of foreign ownership. This information is available for written premiums and reinsurance accepted (including a breakdown by business written domestically versus business written abroad), operating expenses, claims, and outstanding investments. Consideration could be given to the development of a complementary, nationality based approach. Granularity could also be further improved in order to capture information relevant for financial stability purposes; however, any significant increase in granularity would change the nature of the GIS and would require a significant investment and appropriate confidentiality controls.

The OECD GPS datasets also involves the collection of aggregated data pertaining to assets of entities located abroad but would require more granular data for the compilation of counterparty exposure by instruments. Moving forward, the existing collection of micro data from largest pension funds could help in this respect. In the OECD database on institutional investors' assets (investments funds and sub-sectors, insurance corporations and sub-sectors, pension funds, and other forms of institutional savings) a breakdown for securities, loans and shares issued by residents and non-residents is requested and even if the coverage (sectors, assets, period) varies from country to country, a large number of data are reported.

With respect to the euro area and the EU, the ECB templates for collecting information on non-bank financial corporations (insurance corporations, pension funds, money market and investment funds, financial vehicle corporations, other financial intermediaries) are currently based on the residency approach. Since accounting standards provide rules for consolidated reporting of non-financials corporations and multinational groups publish consolidated accounts, conceptual and practical frameworks need to be set up to collect, aggregate and publish these data.

The potential *additional* data requirements for non-bank financial institutions depend to a large extend on the concept adopted for the definition of a group and the resulting consolidation practice (see also sections 4-6). Non-bank financial/non-insurance financial corporations often may be structured in a way that two or several entities may be involved in

a financial transaction (e.g. “funds of funds”, or asset holding & debt issuing vehicles). Therefore, the consolidation of positions inside the sub-sector, including cross-border positions, may be advisable in order to derive meaningful statistics. Alternatively, if no consolidation at sub-sector level is performed, it is important to identify in the aggregated sub-sector balance sheet the positions with other sub-sector counterparts.[42]]

For non-bank corporations, developing a comprehensive register of globally active financial and non-financial institutions would be an ambitious intermediate step towards collecting globally consolidated information on exposures. It is not clear whether statistical agencies can cooperate with one or more authorities to promote the collection of group consolidated financial position data for non-financial corporations. Perhaps balance sheet offices could be of assistance. It is unclear whether the information they collect is useful for obtaining insights in globally consolidated balance sheet data of non-financial corporations on a nationality basis. Moreover there might be confidentiality issues that limit the use of consolidated data.[43]

Issues for discussion at the workshop:

1. *Are global corporate financial groups a relevant phenomenon beyond the area of banking and insurance? In which area/subsectors is this most relevant?*

2. *If the relevant entities are, according to accounting and supervisory concepts, not consolidated for their group, could their group structure be identified otherwise (eg similar to the BIS banking list)?*

3. *What sources would be available for the compilation of global group consolidated data on the financial positions of the non-financial sector? Is there a natural authority to assist in obtaining (better) data? Will emerging accounting standards encourage the consolidation of balance sheet information of non-financial group, including breakdowns relevant for financial stability analysis (eg claims and liabilities resulting from derivative transactions)?*

9. Reconciling the residency and nationality view of financial positions

This discussion paper has demonstrated on a number of occasions that the nationality view of financial positions can be built on some of the concepts, definitions and classifications of the residence framework available in existing international standards. Some concepts might, however, need to be elaborated and some new ones introduced. These were discussed in this paper. Other methodological approaches not discussed in this paper would probably also be the same for the two views (eg valuation). In fact, the residency and nationality approaches can probably be reconciled, at least in principle.

Chart 3 illustrates this by extending the simple stylised framework from section 1 to a two country world (countries A and B). In each country institutional units in a particular financial and non-financial (sub)sector consist of domestic and foreign units (see section 3). Since

[42] The statistical treatment of Special Purpose Entities and Captive financial institutions in SNA/residency based statistics, and their impact on the cross-border positions of certain countries may need further analysis.

[43] Eurostat has recently implemented a register for multinationals, the so-called “Eurogroup Register”. This register provides comprehensive information on corporate groups in Europe. However, much of the information it contains is confidential and for internal use only. Regarding financial institutions, the ESCB is currently enhancing its register of financial institutions to include more detailed information identifying large financial groups.

there are only two countries, the foreign institutions in country A correspond to the foreign affiliates of the banks headquartered in country B and vice versa.

For each sector (or sub-sector) the financial positions consist of claims and liabilities, which in turn would provide breakdowns by counterparty, instrument, currency, maturity and other dimensions (see section 7). These are not shown in order to keep the chart simple.

As can now be seen, each financial claim and liability of any institutional units in any of the countries would somehow be captured in both the residence/local approach and the nationality/global approach. The residence approach would slice financial positions horizontally and show separately the financial positions by residency for country A and B respectively. Likewise, the nationality approach would slice financial positions vertically and provide separate data by nationality of country A and B. The same consistency would apply in case more (sub)sectors and countries were added: the world as a whole would be covered appropriately as long as all countries provided their residence-based and nationality-based data in a consistent way.

Given the various common elements in the two approaches for presenting financial positions, it should be possible to establish links between them as long as some breakdowns are applied in a consistent way (eg correctly taking account of the nationality of incorporation, treatment of inter office positions). Ideally the different building blocks in the table would be identified separately with all the appropriate breakdowns so that the financial accounts can be sliced horizontally or vertically in line with users' needs. Moreover the individual segments could be analysed to shed light on risk exposures within different sectors or groups.

Recent work with the residence/local and nationality/global banking statistics of the BIS has illustrated that ideally both residence and nationality data sets should be compiled and utilised for financial stability analysis. That would mean that each segment in Table 2 would

Chart 3:
Residency/local and nationality/global financial positions in a two-country world

	Domestic institutional units country A		*Foreign institutional units country A*	
Residency A	*Assets* o/w interoffice	*Liabilities* o/w interoffice	*Assets* o/w interoffice	*Liabilities* o/w interoffice
Residency B	o/w interoffice *Assets*	o/w interoffice *Liabilities*	o/w interoffice *Assets*	o/w interoffice *Liabilities*
	Foreign institutional units B		*Domestic institutional units country B*	
	Nationality A		***Nationality B***	

be available, from residence and/or nationality-based data. One advantage would be that, in case particular elements (a whole segment of a particular breakdown in a segment) were missing, these could be estimated on the basis of the other available components. For instance, consolidated data on financial positions of particular national banking groups could be constructed from the residence-based data of their head offices and the residence-based data by nationality of their affiliates in different host countries.

In the other direction, if consolidated financial positions were available for each national banking system, then the residence based data could provide a picture of the financial positions of the underlying entities by office location. If interoffice positions were available then even patterns in banks' internal fund transfer could be monitored.

Of course, significant problems of inconsistency could arise when not all countries provide the necessary breakdowns by (sub) sector residence and nationality. In that case, direct consolidated data by nationality may contain information that is not captured in residence-based data of foreign-headquartered banks in missing countries. One solution would be to allow for a category of "other" in the various residence- and nationality-based reporting templates; another would be to have a category errors and omissions in a global reconciliation table. As more and more countries would provide fully consistent and detailed data on financial positions, on a residence/local as well as on a nationality/global basis, gaps and inconsistencies would gradually disappear.

Issues for discussion at the workshop

1. *Is the nationality/global view of financial positions complementary to, and consistent with, the residency/local view?*

2. *Would it possible in theory and in practice to derive consolidated financial positions on the basis of residency data split by individual nationality?*

3. *How useful and practical would it be to identify inter-office positions in both the residency and nationality view of financial positions? Could this help to make the two views complementary and consistent?*

10. Possible further work on developing a conceptual framework for a nationality/global approach to financial accounts (BIS, IMF)

This discussion paper aims to initiate an open discussion on a number of key issues related to the development of a framework for the compilation of statistics on financial positions of financial and non-financial corporations statistics on a nationality/global basis. It has argued that this can be based on, and be made compatible with, concepts and definitions from the residence/local framework of the SNA and BOP manuals. At the same time new concepts may need to be introduced and some existing ones adapted or clarified in order to make them useful for the newly proposed view of financial positions. The latter is aimed at supporting financial stability analysis rather than economic and monetary analysis.

Without being comprehensive, this discussion paper has illustrated the need for a better understanding of the basic concepts or principles related to nationality, corporate group, control, consolidation and exposures. Other concepts and terms may be relevant. Moreover, the various concepts are strongly interrelated so further analytical and methodological work needs to ensure that various definitions and categorisations are logically consistent.

This paper has illustrated on various occasions the challenge of drawing consistently on existing (and emerging) accounting, supervisory and statistical standards in order to develop a nationality/global framework for data on financial positions. It would be useful if the expertise from accountants, supervisors and statisticians could be combined to further elaborate on the issues discussed. Though the concepts and definitions across these domains may never fully be the same, efforts should be made to identify, clarify and explain them to users and compilers of macro data on financial positions. These users and compilers may also want to understand better the relationship and consistency/discrepancy between

micro data and macro data. As in other domains a consistent set of concepts and definitions would improve international comparability of data and the transparency of existing or potentially new data collection exercises.[44]

One possibility would be to develop a Handbook on Nationality and Related Consolidation Concepts. Similar to what was done for the Handbook on Securities Statistics, a core group of international organisations could take the lead in developing a draft, with the input from selected experts from national statistical organisations. A broader consultation process could involve more organisations from around the world. A final draft would then be issued jointly by the sponsoring international organisations.

A number of international data collections might profit from the clarifications that such a Handbook could provide, including

- the template and data collection being envisaged on financial positions of Significantly Important Financial Institutions (a report by the FSB is expected in early 2011);
- various micro databases from commercial sources (eg Bankscope or Bloomberg); financial accounts published by individual financial and non-financial corporations; and balance sheet information collected by supervisors;
- the IMF Financial Soundness Indicators, Monetary and Financial Statistics, the Coordinated Portfolio Investment Survey and the Coordinated Direct Investment Survey;
- the External Debt statistics;
- the BIS banking, derivatives and securities statistics;
- extensions of the data collected by the ECB and OECD for various non-bank financial corporations.

Similarly, national supervisors, financial accountants, macroprudential and financial stability analyst might benefit from having a reference guide to some key new concepts, definitions and clarifications.

Issues for discussion at the workshop

1. *Which statistical areas (and the related international statistical standards) would benefit from better definitions and conceptual frameworks regarding nationality, corporate group, control, consolidation and macro exposures?*
2. *What are the key terms and concepts that require improved clarifications and definitions? Are there others than those that have been listed in this background discussion paper?*
3. *Would it make sense to envisage a Handbook on Nationality and Consolidation Concepts? How could such a Handbook be made consistent with other statistical standards? How could it help compilers at the national and international level in their respective data collection initiatives?*

[44] An initiative to reconcile and, where possible, integrate statistical and supervisory reporting standards relating to banks' financial positions has been launched in Europe under the auspices of the ECB and the Committee of European Banking Supervisors (CEBS). See "MFI balance sheet and interest rate statistics and CEBS's Guidelines on FINREP and COREP – bridging reporting requirements – methodological manual", February 2010.

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ESCB Statistics Committee (STC/2010/29): *Proposal for a definition of large banking and insurance groups*

Annex 1. Consolidation concepts following the IMF FSI Compilation Guide

The FSI Guide discusses the following consolidation bases for the actual compilation of financial soundness indicators

- The *domestically controlled, cross-border (DCCB) consolidation* basis includes the data of domestically controlled and incorporated entities with their branches (domestic and foreign) and all their subsidiaries (domestic and foreign) that are classified in the same sector.
- The domestically controlled, cross-border and cross-sector (DCCBS) consolidation basis has a broader coverage than DCCB in that the data also include those of subsidiaries in other sectors.
- The cross-border consolidation basis for all domestically incorporated entities (CBDI) covers both domestically controlled entities and the local subsidiaries of foreign entities within a single sector, along with their branches and subsidiaries in the same sector, which can be either domestic or foreign residents.
- The cross-border and cross-sector consolidation basis for all domestically incorporated entities (CBCSDI) has a broader coverage than CBDI as the data also include branches and subsidiaries of the reporting groups in other sectors.
- The domestic consolidation (DC) basis includes the data of resident entities along with those of their branches and subsidiaries (if any) in the same sector and that are resident in the domestic economy.

Annex 2. IMF Financial Soundness Indicators and BIS banking statistics

Most recommended IMF Financial Soundness Indicators (FSIs) are derived from the aggregated consolidated balance sheet of depository institutions. A number of indicators refer to cross-border positions of these institutions, similar to the BIS international banking statistics.

Table 3

End-December 2005

USD millions

	IMF FSI	BIS Table 9B	IMF FSI	BIS Table 3A
	Domestically controlled, cross-border & cross-sector consolidation	Cross-border consolidation, immediate borrower	Domestic consolidation	Locational
Australia	261,658	262,141	37,642	40,891
Austria	--	297,326	171,541	165,597
Belgium	1,070,146	900,174	--	477,396
Brazil	3	29,398	--	15,515
Canada	187,245	467,417	--	156,146
Chile	--	2,930	3,054	2,360
Denmark	--	149,661	107,832	107,277
Finland	4,363	73,109	na	59,154
France	588,945	1,778,624	--	991,754
Germany	--	2,795,110	1,471,570	1,471,525
Greece	--	38,181	39,519	37,231
Hong Kong	na	30,238	na	364,995
India	na	22,320	14,582	16,492
Ireland	376,283	496,795	--	304,757
Italy	360,280	360,922	--	276,396
Japan	na	1,652,897	na	637,955
Korea	11,278	na	11,581	48,930
Luxembourg	na	35,147	523,422	523,392
Mexico	--	5,122	1,540	14,402
Netherlands	1,657,723	1,660,061	--	475,932
Norway	na	29,107	10,900	18,353
Portugal	69,830	91,121	--	65,598
Singapore	84,145	130,245	417,841	516,425
Spain	820,850	851,759	186,487	185,452
Sweden	343,269	504,805	na	104,537
Switzerland	--	1,931,491	907,660	907,164
Turkey	--	15,367	2,362	18,822
United Kingdom	2,402,374	2,461,696	--	3,189,229
United States	1,098,300	1,501,461	--	1,913,173

In principle the reporting populations in the FSIs and the BIS banking statistics are the same: deposit taking institutions in IMF terms. Other conventions, for instance with respect to

valuations and currency conversions, should also be similar. With respect to aggregation and consolidation, the compilation guidelines for the FSIs describe the issues in a detailed way. Two major approaches are presented. The first is called "domestically controlled, cross-border consolidation" and is basically the same as that used for the BIS consolidated data. In fact, the guide notes that for countries that compile the BIS consolidated banking data, their FSI data set should be as consistent as possible in coverage with that of the BIS data (presumably they include local claims in foreign currency as well as local currency, ie foreign claims using BIS definitions). The second is "domestic consolidated data" and corresponds to the definition in the BIS locational banking statistics. The first approach was recommended for countries participating in the Coordinated Compilation Exercise of the FSIs but countries were given the options of using the second approach if the authorities believed it would contribute materially to their financial stability analysis.

Table 3 shows the data reported by countries participating in the Coordinated Compilation Exercise of the FSIs that also report cross-border banking statistics to the BIS (for end 2005; foreign claims for the consolidated statistics). Many countries report data under both approaches spelled out for the FSIs, as they do for the BIS banking statistics. However, full consistency between FSIs and BIS data is achieved only in a few cases. They are practically the same only for the consolidated data in the case of Australia, Italy and the Netherlands and for the locational data in the case of Denmark, Germany, Luxembourg, Spain and Switzerland. In some cases the differences are relatively small but in others they are significant, particularly for the consolidated data. It would therefore be useful to understand the differences in order to understand where the description of the methodologies for the BIS banking data and the FSIs could be improved.

It should be noted that the data from the initial Coordinated Compilation Exercise for 2005 differ in certain respects from those recommended for the current regular reporting of FSIs, which are described in the Amendments to the FSI Guide. As a result, the conclusions drawn from the comparisons of the BIS banking statistics and the IMF FSI data for 2005 may be different if more current data were used.

Annex 3. Conditions for the preparation of consolidated accounts under EU regulations

Art. 1, Directive 83/349/EC

1. A Member State shall require any undertaking governed by its national law to draw up consolidated accounts and a consolidated annual report if that undertaking (a parent undertaking):

(a) has a majority of the shareholders' or members' voting rights in another undertaking (a subsidiary undertaking); or

(b) has the right to appoint or remove a majority of the members of the administrative, management or supervisory body of another undertaking (a subsidiary undertaking) and is at the same time a shareholder in or member of that undertaking; or

(c) has the right to exercise a dominant influence over an undertaking (a subsidiary undertaking) of which it is a shareholder or member, pursuant to a contract entered into with that undertaking or to a provision in its memorandum or articles of association, where the law governing that subsidiary undertaking permits its being subject to such contracts or provisions. A Member State need not prescribe that a parent undertaking must be a shareholder in or member of its subsidiary undertaking. Those Member States the laws of which do not provide for each contracts or clauses shall not be required to apply this provision; or

(d) is a shareholder in or member of an undertaking, and:

> (aa) a majority of the members of the administrative, management or supervisory bodies of that undertaking (a subsidiary undertaking) who have held office during the financial year, during the preceding financial year and up to the time when the consolidated accounts are drawn up, have been appointed solely as a result of the exercise of its voting rights; or
>
> (bb) controls alone, pursuant to an agreement with other shareholders in or members of that undertaking (a subsidiary under-taking), a majority of shareholders' or members' voting rights in that undertaking. The Member States may introduce more detailed provisions concerning the form and contents of such agreements.

The Member States shall prescribe at least the arrangements referred to in (bb) above.

They may make the application of (aa) above dependent upon the holding's representing 20 % or more of the shareholders' or members' voting rights.

However, (aa) above shall not apply where another undertaking has the rights referred to in subparagraphs (a), (b) or (c) above with regard to that subsidiary undertaking.

Annex 4. Consolidation and International Accounting Standard 27

Consolidated and Separate Financial Statements

1 This Standard shall be applied in the preparation and presentation of consolidated financial statements for a group of entities under the control of a parent.

….

4 The following terms are used in this Standard with the meanings specified:

Consolidated financial statements are the financial statements of a group presented as those of a single economic entity.

Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

A *group* is a parent and all its subsidiaries.

Non-controlling interest is the equity in a subsidiary not attributable, directly or indirectly, to a parent.

A *parent* is an entity that has one or more subsidiaries.

Separate financial statements are those presented by a parent, an investor in an associate or a venturer in a jointly controlled entity, in which the investments are accounted for on the basis of the direct equity interest rather than on the basis of the reported results and net assets of the investees.

A *subsidiary* is an entity, including an unincorporated entity such as a partnership that is controlled by another entity (known as the parent).

….

12 Consolidated financial statements shall include all subsidiaries of the parent.

….

13 Control is presumed to exist when the parent owns, directly or indirectly through subsidiaries, more than half of the voting power of an entity unless, in exceptional circumstances, it can be clearly demonstrated that such ownership does not constitute control. Control also exists when the parent owns half or less of the voting power of an entity when there is[45]:

- power over more than half of the voting rights by virtue of an agreement with other investors;
- power to govern the financial and operating policies of the entity under a statute or an agreement;

[45] See also SIC – 12 *Consolidation—Special Purpose Entities*. In few words the interpretation requires the consolidation of a special purpose entity (SPE) when the substance of the relationship between an entity and the SPE indicates that the SPE is controlled by that entity. Control may arise through the predetermination of the activities of the SPE (operating on 'autopilot') or otherwise. Control may exist even in cases where an entity owns little or none of the SPE's equity. The application of the control concept requires, in each case, judgement in the context of all relevant factors. The following circumstances, for example, may indicate a relationship in which an entity controls an SPE and consequently should consolidate the SPE: the activities of the SPE are being conducted on behalf of the entity according to its specific business needs so that the entity obtains benefits ; the entity has the decision-making powers to obtain the majority of the benefits of the activities of the SPE; the entity has rights to obtain the majority of the benefits of the SPE and therefore may be exposed to risks incident to the activities; the entity retains the majority of the residual or ownership risks related to the SPE or its assets in order to obtain benefits from its activities.

- power to appoint or remove the majority of the members of the board of directors or equivalent governing body and control of the entity is by that board or body; or
- power to cast the majority of votes at meetings of the board of directors or equivalent governing body and control of the entity is by that board or body.

14 An entity may own share warrants, share call options, debt or equity instruments that are convertible into ordinary shares, or other similar instruments that have the potential, if exercised or converted, to give the entity voting power or reduce another party's voting power over the financial and operating policies of another entity (potential voting rights). The existence and effect of potential voting rights that are currently exercisable or convertible, including potential voting rights held by another entity, are considered when assessing whether an entity has the power to govern the financial and operating policies of another entity. Potential voting rights are not currently exercisable or convertible when, for example, they cannot be exercised or converted until a future date or until the occurrence of a future event.

15 In assessing whether potential voting rights contribute to control, the entity examines all facts and circumstances (including the terms of exercise of the potential voting rights and any other contractual arrangements whether considered individually or in combination) that affect potential voting rights, except the intention of management and the financial ability to exercise or convert such rights.

16 A subsidiary is not excluded from consolidation simply because the investor is a venture capital organisation, mutual fund, unit trust or similar entity.

17 A subsidiary is not excluded from consolidation because its business activities are dissimilar from those of the other entities within the group. Relevant information is provided by consolidating such subsidiaries and disclosing additional information in the consolidated financial statements about the different business activities of subsidiaries. For example, the disclosures required by IFRS 8 *Operating Segments* help to explain the significance of different business activities within the group.

Annex 5. Principles from the national/financial accounts framework that might be of use for developing a nationality view of financial positions

The three-dimensional principle of presenting transactions, other flows and stocks refers to the principle of quadruple-entry accounting. Transactions, other flows and stocks across institutional units and (in aggregated form) across sectors and subsectors are recorded as four accounting entries: (i) two in the accounts of the creditor (first dimension); and (ii) two in the accounts of the debtor (second dimension). The third dimension refers to the type of the accounting entry (as a transaction, revaluation, other flow or stock).

For an institutional unit, each transaction is recorded twice, once as a resource (or as a change in liabilities) and once as a use (or as a change in assets) or twice as a change in assets or as a change in liabilities (an increase combined with a corresponding decrease). The sum of transactions recorded as resources or changes in liabilities must equal the sum of transactions recorded as uses or changes in assets, thus permitting a vertical check on the consistency of the transaction accounts. These accounting principles apply also to other flows and stocks.

Looking at two institutional units, transactions, other flows and stocks need to be recorded on the basis of a quadruple-entry accounting, since most transactions, other flows and stocks involve two institutional units. Each transaction of this type is recorded twice by the two transactors involved. For example, interest paid in cash by a financial corporation to a household is recorded in the accounts of financial corporations as a use under property income and a negative acquisition of assets under currency and deposits. In the household sector accounts, it is recorded as a resource under property income and an acquisition of assets under currency and deposits. On the other hand, transactions within a single unit (such as the consumption of output by the same unit that produces it) require only two entries, whose values have to be estimated.

The quadruple-entry accounting ensures symmetry of the reporting by the institutional units involved thus permitting complete consistency within the accounts in measuring variables across sectors and across accounts. It guarantees that the closing balance on the balance sheet of each sector also reflects the transfer of income from one sector to another, thereby imposing stock-flow consistency on the system as well. This is important for analysing and understanding the economic process. This feature is essential to ensuring that many of the types of analyses provide consistent results.

The from-whom-to-whom framework allows for a detailed presentation of financing and financial investment via financial instruments, which has a number of uses. In a broader context, it permits the analysis of relationships between institutional sectors and subsectors within an economy and also between these sectors and subsectors and non-residents (broken down even further by country and sector). Such an analysis sheds light on sectoral compositions of assets and liabilities, and on potential strengths and vulnerabilities in portfolios.

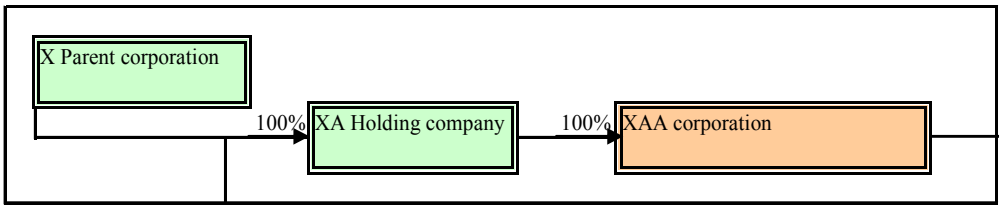
The framework allows questions to be answered like: who is financing whom, in what amount and with which type of financial instrument. It may also allow questions to be answered, such as: On which other resident sectors do the financial instruments held by, for instance, households represent claims? On which resident sectors do the financial instruments held by non-residents represent claims? Or, from the side of the issuer of securities, how important are issues of general government debt securities held by households or by financial corporations (and by which subsectors)? How significant are general government issues held by non-residents?

Following the from-whom-to-whom framework statistical standards focus on the unconsolidated presentation of transactions, other flows and stocks, which is recommended for monetary and macroeconomic analysis. Such a presentation sums up all transactions, revaluations, other changes in the volume of assets and stocks of institutional units belonging to a sector or sub-sector vis-à-vis all institutional units belonging to the same sector or sub-sector, to other sectors of the economy and to other economies.

Annex 6. An illustrative example of combining the concepts of nationality, group, control and consolidation

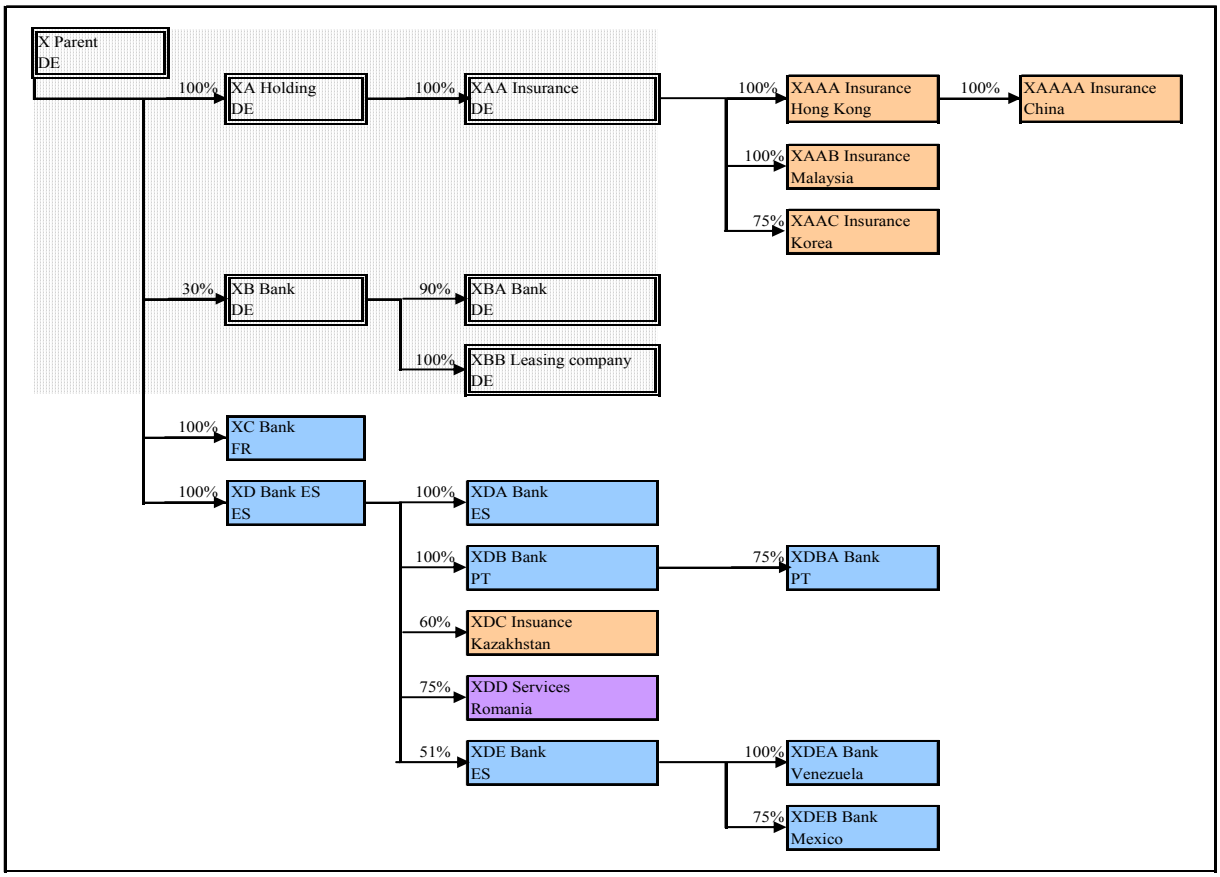
In the example (Chart 4), the parent corporation X controls the holding company XA (by owning 100% of the equity of XA); the holding company XA controls the corporation XAA (by holding 100% of equity of XAA); the parent corporation X therefore also controls corporation XAA indirectly via the holding company XA.

Chart 4: Examples of control relationships



The simplified example of a group of corporations described in Chart 5 covers a parent resident in DE controlling directly or indirectly various subsidiaries which are either deposit-taking corporations (credit institutions, banks), other financial institutions (insurance corporations or leasing companies) or non-financial corporations (services), resident in an euro area country (ES, FR, PT), an non-euro area EU country (Romania) or in a country outside the EU (Hong Kong, China, Malaysia, Korea, Kazakhstan, Venezuela or Mexico).

Chart 5: Group X as an example of a group of corporations*



* Cells in blue: deposit-taking corporations, in orange: insurance corporations, in green: other financial corporations, and in pink: non-financial corporations.

Looking at the example in Chart 5, a parent company (located in DE) controls (directly or indirectly) a couple of subsidiaries. These subsidiaries are partly located in DE (crosshatched area in the diagram) and in other countries (remaining area).

Various group consolidation concepts can be demonstrated by looking at the example in Chart 5. In a stepwise approach the various concepts of group consolidation are shown, including cross-border and cross-sector group consolidation as recommended by the FSI Compilation Guide.

Accounting consolidated data (group cross-border/cross-sector consolidated data)

In its widest form of group consolidation, consolidated data based on accounting standards, includes coverage of the parent and its subsidiaries, with any transactions, other flows and positions among these institutional units eliminated on consolidation.

The accounting approach consolidates the data of all resident and non-resident subsidiaries and joint ventures [46] controlled by a parent disregarding the location of the business and the sector. Financial institutions establishing money market funds and other investment funds are not required to consolidate the assets the funds have to manage separately.[47]

According to Chart 5 above, all the subsidiaries are included in the consolidated accounts. Subsidiaries are defined according to the applicable accounting legislation (IAS 27 plus SIC-12 and Seventh Council Directive in EU and SFAS 140 and FIN 46 (R) in US).

Financial statements and market data rely on this form of consolidation as requested by the International Accounting Standards Board, the European Union[48] and the Financial Accounting Standards Board.

In further steps, consolidation is carried out for subgroups (truncated groups) like for all banks including other financial intermediaries within a group, only for banks or only for resident banks. Beyond its widest form of consolidation as described above, further levels of consolidation are distinguished depending on which institutional units of the group are covered:

- Data may be consolidated cross-border or only domestically; and
- Within a domestic economy or cross-border, data may be consolidated across all or only certain sectors or only within a sector or sub-sector.

Looking at truncated groups, ‘parents’ could be defined within these subgroups which are either domestically controlled or foreign-controlled. Combining these features with the cases that data may be cross-border or cross-sector consolidated various forms of consolidated data may be distinguished.

Prudential consolidated data (banking or financial group cross-border consolidated data)

The prudential approach consolidates the flow and stock data of all resident and non-resident deposit-taking corporations and other financial intermediaries (leasing companies, factoring

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[46] Only if the proportionate method of consolidation is applied.

[47] As these assets represent a segregate balance and they are not consolidated for regulatory or accounting purposes (with the exception of the company being the largest investor in the fund, i.e. it holds the majority of the liabilities/quotes issued).

[48] See Commission Regulation (EC) No 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council.

companies, consumer credit companies, securities and derivatives dealers) subsidiaries and joint ventures controlled by a parent undertaking. Insurance corporations and pension funds and non-financial corporations are not consolidated for supervisory purposes even if they are subsidiaries.[49] Money market funds and other investment funds are not required to consolidate the assets they have to manage separately.

According to the Chart 5 above all subsidiaries with the exception of the insurance corporations and the non-financial corporations are included in the banking cross-border consolidated data.

Prudential data rely on this form of consolidation as provided by the Basel Capital Accord.

Cross-border consolidated sector or subsector data

The approach consolidates flow and position data of the resident unit (parent) with its resident and non-resident subsidiaries belonging to the same sector or subsector.

According to the example illustrated in Diagram 5 all banks (blue cells) may be consolidated with the parent. Only resident and non-resident banks are covered but not other financial intermediaries and other institutional units belonging to the group.

This consolidation method complies with the approach used by the BIS for its international banking statistics. Bank data are consolidated at a group level. As the parent X is located in DE the central bank in this country has to consolidate all bank data of group X independently of the residency of the institutional units (all blue cells). In a second step such consolidated bank data have to be aggregated. Cross-border/international exposures are shown between banks consolidated at group level.

Domestically consolidated sector or subsector data

The approach consolidates flow and position data of a resident corporation (parent of a truncated group) with its subsidiaries belonging to the same sector or subsector.

According to the example illustrated in Diagram 5 bank XB would be consolidated with bank XBA.

[49] This is also the case for financial conglomerates.

Annex 7. A possible global risk map

The following is an excerpt from the paper by Cecchetti, Stephen, Ingo Fender and Patrick McGuire (2010), "Toward a global risk map," BIS Working Papers No 309, May, p. 18–22.

"Broadly speaking, aggregate data should allow us to assess, at the sectoral and systemic levels, credit risk, country risk and market risk on the asset side; and currency risk and maturity transformation across the balance sheet. Getting a sense of these risks requires measurement of liquidity risk on the asset side, and rollover risk on the liability side. This, in turn, means having information on markets, counterparty, instrument, maturity and currency.

The question that faces us is what combination(s) of information in our aggregate statistics would allow us to see where these concentrations of risks are building? Table A.1 presents a somewhat stylised balance sheet with four breakdowns (indicated in the column headings), or classifications, for assets and liabilities. Our basic argument is that combinations of quantity data combined with some comparative static analysis can go a long way in allowing us to uncover where important risks are located. At the very least, such data should help to focus targeted discussions with regulatory authorities in various countries that have (or are able to obtain) the underlying firm-level information. In this context, several points are worth highlighting:

Reporting unit: The ideal underlying reporting unit must be a household or the office/branch/subsidiary of a bank, non-bank financial institution or corporate in a particular location (country). These are the reporter types. Ideally, the number of different reporting sectors is the same as the number of counterparty sectors, listed under counterparty types in Table A.1, column 2.

Aggregation: The balance sheet positions should be aggregated by location (country), reporter nationality and reporter type. For example, Table A.1 could be viewed as the (aggregated) positions of, say, the 10 offices of Belgian-headquartered non-bank corporates located in Italy. When all countries and all sectors report, the underlying data blocks can then be further added up to produce (i) total positions for all entities located in Italy (country-level totals on a residency basis), (ii) Belgian-headquartered non-bank corporates' worldwide positions (consolidated global totals for a particular national sector), and (iii) Belgian-headquartered entities' worldwide consolidated positions (country-level consolidated exposure totals).

Breakdowns: The breakdowns that we need to gauge things such as maturity-transformation risk, counterparty risk, and currency risk are illustrated by drilling down to a particular counterparty type. That is, for a reporting unit located in country X, the asset side of the balance sheet shows claims on corporate borrowers (Table A.1, column 2) located in country A (column 3), broken down by currency (column 5), remaining maturity (column 4), and instrument type (column 1). The liability side shows total liabilities to non-bank financials (column 10), with the same breakdowns.

Off-balance sheet positions: FX swaps, interest rate swaps and credit default swaps are all shown at the bottom of the table – they are off-balance sheet. Along with other derivatives, these add an additional layer of exposures (both on the asset and liabilities side of the balance sheet) that can magnify, neutralise or reverse the reported on-balance sheet positions. Ideally, we would require separate reporting of all items in Table A.1 before and after off-balance sheet activities. In other words, we would want to add a layer of ultimate risk reporting similar to what is already available for credit risks in the BIS banking statistics, but covering all risk categories. For example, for the maturity column we would have exposures after transformation through interest rate derivatives, for currency it would indicate all open

foreign exchange exposures after FX swaps, and for credit risk, reporting would be by country location and counterparty type on an ultimate risk basis.[50]

Table A.1 A stylised reporting template for aggregate (sectoral) statistics

Assets					Liabilities				
1	2	3	4	5	6	7	8	9	10
Instrument type	**Counterparty type**	**Counterparty location**	**Remaining maturity**	**Currency**	**Currency**	**Remaining maturity**	**Counterparty location**	**Counterparty type**	**Instrument type**
	Bank	Country A	Short term	**USD**	**USD**	Short term	Country A		
		Country B							
		Country C							
		Country D					Country B	Non-bank fin	Debt security
		Country E					Country C		
Loan	Corporate	Country A	Long term			Long term	Country A		
Debt security							Country B	Household	
Equity					**Euro**	Short term	Country A		
Other							Country B	Corporate	
	Household					Long term	Country A		
	Non-bank fin						Country B	Corporate	
	Bank							Household	
	Public sector							Non-bank fin	Deposit
	Central bank								Debt security
	Interoffice								Other
		Country B						Bank	
		Country C						Public sector	
Loan	Corporate	Country A	Short term	**Euro**				Central bank	
	Non bank fin							Interoffice	
		Country B			**Book equity**		Country A		
Debt security	Corporate	Country A	Long term					Non-bank fin	Equity
	Interoffice						Country B	Public sector	
		Country B						Corporate	
		Country C					Country C		
Exchange rate swaps			**Interest rate swaps**		**Credit default swaps**				

Filling in the balance sheet: Reporting entities will have difficulty filling in all of the cells in Table A1. In particular, if the reporting institution issues a bond that is traded on the secondary markets, it is unlikely to know the counterparty that holds the bond at any point in time. Thus, columns 8 and 9 on counterparty location and type might be empty. Note that debt securities liabilities are different from, say, banks' deposit liabilities, where both the location and the type of counterparty are typically known by the reporting bank.

[50] We realise that this is conceptually challenging and amounts to a very significant reporting burden, which implies that existing datasets (such as the BIS OTC derivatives statistics) might be enhanced to provide at least some of the detail mentioned above.

In a world where all entities in all countries are reporters, what's missing in one place, can, in principle, be recovered somewhere else. This would require one additional breakdown (not shown in Table A.1) on the asset side of the balance sheet: the nationality of the counterparty. For example, the owner of a long-term bond issued by the London subsidiary of a US-headquartered auto company may not be known to the UK issuer, but would be picked up if the Saudi pension fund that owns it reports it as a claim on a US-headquartered corporate located in the United Kingdom.[51] That is, if the asset holder reports both the location and nationality of the counterparty.

How would this help identify the important risks and vulnerabilities? With a perfect consolidated view of each sector's worldwide consolidated exposure, it would be possible to read off many of the risks we have discussed. For example, in the case described in the text, we would be able to see the institutions covered by Table A.1 that have a long on-balance sheet US dollar position financed by short-term dollar funding and long-term euro funding. We would know if the on-balance sheet exposures were large and growing. And, we would be able to see the maturity profile of the position, including that of the FX swaps. On the asset side, we would be able to identify concentrations of particular types of assets and risks, and tell if they are large relative to capital. And, on the liabilities side, we would be able to see the scale, timing and frequency of required rollovers."

[51] The IMF's CPIS statistics provide information on individual economy (ie country location) year-end holdings of portfolio investment securities (equity securities and debt securities), cross-classified by the country of issuer of the securities.

Excerpts from the OECD glossary of foreign direct investment terms and definitions

Ayse Bertrand

The OECD Benchmark Definition of Foreign Direct Investments sets the world standard for direct investment statistics, while remaining consistent with the IMF Balance of Payments Manual and the accounting framework of the System of National Accounts. Significant improvements have been achieved in the comparability of data collected on foreign direct investment (FDI) since the first publication of the OECD Benchmark Definition in 1983.

The removal of legal and regulatory restrictions on cross-border business operations in many countries has complicated the task of statistical systems that historically depended largely on data reported by national financial institutions and enterprises. As economic activities have become more global, investors have had continually increasing recourse to overseas financing. Investors may establish complex structures to obtain optimal benefits from their investments and for efficient management of the funds and related activities. These developments have had an adverse impact on the ability of statistics gathered through traditional methods to respond to user needs for adequate analytical information on FDI. They have also reinforced the need for adopting a harmonised analytical framework for constructing meaningful, comprehensive and internationally comparable statistics on cross-border investments. The Benchmark Definition of Foreign Direct Investment, 4th edition was endorsed by the OECD Council in 2008.

The Benchmark Definition serve several purposes: (i) as a single point of reference for foreign direct investment statistics taking into account the effects of globalization; (ii) as guidance for individual countries recording direct investment and for users interested in cross-country and industry analysis of FDI; and (iii) a basis for measuring methodological differences that may exist between national statistics. It also provides a useful glossary of FDI term some of which are reproduced in this document.

Acquisition	An acquisition is a business transaction between unrelated parties based on terms established by the market where each enterprise acts in its own interest. The acquiring enterprise purchases the assets and liabilities of the target enterprise. In some cases, the target enterprise becomes a subsidiary or part of a subsidiary of the acquiring enterprise.
Activity of Multinational Enterprises	In principle quantitative or qualitative information directly concerning multinational firms could be classified under activity of multinational enterprises. However, within the framework of the OECD *Handbook on Economic Globalisation Indicators,* data on the activity of multinationals covers all economic and industrial data which are not associated with FDI, portfolio or other financial transactions. Data collected by the OECD within the framework of the surveys on the economic activity of multinationals include 18 variables, notably gross output, turnover, value added, number of people in employment, employee compensation, gross operating surplus, gross fixed capital formation, R&D expenditures, number of researchers, total exports and

imports, intra-firm exports and imports, and technological payments and receipts.

Affiliated enterprises — Affiliated enterprises are enterprises in a direct investment relationship. Thus, a given direct investor, its direct investors, its *subsidiaries*, its *associates*, and its *branches*, including all *fellow enterprises*, are affiliated enterprises. It is possible for a given enterprise to be a member of two or more groups of affiliated enterprises.

All-inclusive concept — The application of the all-inclusive concept is one of the two main approaches to measuring earnings. The concept is explained in the *International Accounting Standard, "Unusual and Prior Period Items and Changes in Accounting Policy"*. When earnings are measured on the basis of this concept, income is considered to be the amount remaining after all items (including write-offs and capital gains and losses, and excluding dividends and any other transactions between the enterprise and its shareholders or investors) causing any increase or decrease in the shareholders' or investors' interests during the accounting period, are allowed for. *This concept is not recommended by the Benchmark Definition (see also entry on Current Operating Performance Concept)*.

Ancillary corporation — An *ancillary* corporation is a wholly-owned subsidiary whose productive activities are ancillary in nature: that is, confined to providing services to the parent corporation and/or other ancillary enterprises owned by the same parent corporation. The kinds of services which may be produced by an ancillary unit are transportation, purchasing, sales and marketing, various kinds of financial or business services, computing and communications, security, maintenance, and cleaning. In some cases, the ancillary unit is located in a different economy from the companies it serves. An ancillary corporation is recognized as a separate institutional unit when it is resident in a different economy from that of any of its owners, even if it is not, in practice, autonomous.

Assets, Direct Investment — *Direct investment assets* can be ascribed to the following three categories:

(i) investment by a resident direct investor in its non-resident direct investment enterprises

(ii) reverse investment by a resident direct investment enterprise in its non-resident direct investor(s)

(iii) investment by a resident fellow enterprise in non-resident fellow enterprises.

Asset/liability principle — The asset/liability principle records all FDI financial claims on and obligations to non-residents using the normal balance sheet data showing gross assets and liabilities for positions, and net transactions for each category. The data presented on this basis, while compiled distinguishing the nature of the relationship between the counterparts (according to Framework for Direct Investment Relationships), do not

incorporate any offsetting of reverse direct investment transactions or positions in equity or debt between a direct investment enterprise and its direct investor. Similarly, the asset/liability presentation does not incorporate any offsetting of any transactions or positions between fellow enterprises.

Associate, Direct Investment Enterprise

An associate is a direct investment enterprise

(i) in which an investor owns directly at least 10% of the voting power and no more than 50%;

(ii) where an investor and its subsidiaries combined own at least 10% of the voting power of an enterprise but no more than 50%, the enterprise is regarded as an associate of the investor for FDI purposes;

(iii) where an associate, either as an individual or in combination with its subsidiaries, own more than 50% of an enterprise, this enterprise is regarded for FDI purposes as an associate of the higher level investor.

Branch, Direct Investment Enterprise

A branch is any unincorporated direct investment enterprise in the host country fully owned by its direct investor. Thus, this term encompasses branches as commonly defined – i.e. formally organised business operations and activities conducted by an investor in its own name – as well as other types of unincorporated operations and activities.

All or most of the following features should be present for a branch to be recognised:

(i) undertaking or intending to undertake production on a significant scale based in the territory for one year or more in a territory other than that of its head office:

(a) if the production process involves physical presence, then the operations should be physically located in that territory. Some indicators of an intention to locate in the territory include purchasing or renting business premises, acquiring capital equipment, and recruiting local staff;

(b) if the production does not involve physical presence, such as in some cases of banking, insurance, or other financial services, the operations should be recognised as being in the territory by virtue of the registration or legal domicile of those operations in that territory;

(ii) the recognition of the operations as being subject to the income tax system, if any, of the economy in which it is located even if it may have a tax-exempt status.

Business Register

A business register is a list of enterprises or establishments maintained by countries to assist in the compilation of their business statistics generally and which can identify those enterprises involved in foreign direct investment and therefore help in the compilation of these statistics.

Centre of Predominant

An institutional unit has a *centre of predominant economic*

Economic Interest	*interest* in an economic territory when there exists, within the economic territory, some location, dwelling, place of production, or other premises on which or from which the unit engages and intends to continue engaging, either indefinitely or over a finite but long period of time, in economic activities and transactions on a significant scale. The location need not be fixed so long as it remains within the economic territory. In most cases, it is reasonable to assume that an institutional unit has a predominant centre of economic interest in the territory if the unit has already engaged in economic activities and transactions on a significant scale in the country for one year or more, or if the unit intends to do so.
Collective Investment Institutions	Collective investment institutions (CIIs) are incorporated investment companies and investment trusts, as well as unincorporated undertakings (mutual funds or unit trusts), that invest in financial assets (mainly marketable securities and bank deposits) and real estate using the funds collected from investors by means of issuing shares/units (other than equity). The CII can be open-ended, if there is no limit to the number of shares/units on issue, or closed-ended, where the number of shares/units on issue is fixed. The shares/units can be quoted or unquoted. The CII may pay periodic dividends, capitalise the income or a combination of those approaches, depending on the terms set out in its prospectus. Also referred to as *collective investment scheme, collective investment vehicle, investment fund.*
Conduit	A conduit is an enterprise that obtains or borrows funds, often from unaffiliated enterprises, and remits those funds to its direct investor or another affiliated enterprise. Some conduits and holding companies may have a substantial physical presence as evidenced by office building, equipment, employees, etc. Others may have (little) or no physical presence and may exist only as *shell companies*.
Debtor/creditor principle	A *debtor* is a person or an entity which has a financial obligation to another person or entity. Conversely, a *creditor* is a person or entity which has a financial claim on another person or entity. Therefore, a debtor has a financial liability to a creditor and a creditor has a financial claim (an asset) on a debtor. For FDI statistical purposes, under the debtor/creditor principle, the FDI assets (both transactions and positions) of the compiling economy are allocated to the economies of residence of the non-resident debtors; its FDI liabilities are allocated to the economies of residence of the non-resident creditors allocated on the basis of the debtor/creditor principle. This principle, recommended by the *Benchmark Definition* as the basis for geographical allocation, differs from the *transactor* principle.
Directional Principle	Presentation of the FDI data on a directional basis reflects the direction of influence by the direct investor underlying the direct investment: *inward or outward direct investment*. FDI according to directional principle relates to the treatment of

reverse investment and to the treatment of *fellow enterprises*.

(i) Reverse investment

(ii) Investment between fellow enterprises:

- If the ultimate controlling parent is a resident of the compiling economy, then the transactions and positions between the two fellow enterprises are categorised as *outward foreign direct investment*
- if the ultimate controlling parent is not a resident of the compiling economy, then the transactions and positions between the two fellow enterprises are categorised as *inward foreign direct investment.*

Economic territory

Economic territory is defined as including all the areas under the effective economic control of a single government. Economic territory has the dimensions of physical location as well as legal jurisdiction. With regard to its composition, an economic territory (or economy) consists of all the institutional units that are resident in that territory. The concepts of *economic territ*ory and *residence* are designed to ensure that each institutional unit is a resident of a single economic territory.

The economic territory includes the land area, airspace, territorial waters, including jurisdiction over fishing rights and rights to fuels or minerals. In a maritime territory, the economic territory includes islands that belong to the territory. The economic territory also includes territorial enclaves in the rest of the world. These are clearly demarcated land areas (such as embassies, consulates, military bases, scientific stations, information or immigration offices, aid agencies, central bank representative offices with diplomatic immunity, etc.) located in other territories and used by governments that own or rent them for diplomatic, military, scientific, or other purposes with the formal agreement of governments of the territories where the land areas are physically located.

Enterprise

An enterprise is an institutional unit engaged in production. An enterprise may be *a corporation*, *a non-profit institution*, or an *unincorporated enterprise*. Corporate enterprises and non-profit institutions are complete institutional units. An unincorporated enterprise, however, refers to an institutional unit—a household or government unit—only in its capacity as a producer of goods and services.

Enterprise group

An enterprise group consists of all the enterprises under the control of the same owner. When a group of owners has control of more than one enterprise, the enterprises may act in a concerted way and the transactions between them may not be driven by the same concerns as “arm’s length” transactions. The Framework for Direct Investment Relationships can be used to determine which enterprises are under control or influence of the same owner.

- A *multinational enterprise group* consists of all the enterprises located in different economies and under the control or influence of the same owner wherever located
- An *economy-specific enterprise group* consists of all the enterprises located in the same economy and under the control or the influence of the same owner also located in the same economy. Ownership links that are external to the economy are not recognised in the formation of *local enterprise* groups.

Equity capital

Equity capital comprises: (i) equity in branches; (ii) all shares in subsidiaries and associates (except non-participating, preferred shares that are treated as debt securities and included under direct investment, debt instruments); and (iii) other contributions of an equity nature. Ownership of equity is usually evidenced by shares, stocks, participations, depositary receipts or similar documents. Shares and stocks have the same meaning while depositary receipts are securities that represent ownership of securities by a depositary. This category includes proprietors' net equity in quasi-corporations, as well as shares and equity in corporations. It also includes preferred stocks or shares that provide for participation in the residual value on dissolution of an incorporated enterprise. Reinvestment of earnings comprises the claim of direct investors (in proportion to equity held) on the retained earnings of direct investment enterprises. Reinvestment of earnings represents financial account transactions that contribute to the equity position of a direct investor in a direct investment enterprise.

Establishment

An establishment is an enterprise, or part of an enterprise, that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

Fellow enterprises

An enterprise in one economy may be related through the *Framework of Direct Investment Relationships* – FDIR to another enterprise in the same economy, or in a different economy, without either being a direct investor in the other, but through both being directly or indirectly influenced by the same enterprise in the ownership hierarchy. This 'common parent' must be a direct investor in at least one of enterprises in question. Such enterprises can be considered to be related through a 'horizontal' linkage within the FDIR – not involving FDI voting power of 10% or more – and are called fellow enterprises. It should be noted, however, that for FDI statistics, only cross-border transactions and positions between FDI-related enterprises should be recorded.

Financial intermediary

Financial intermediaries consist of (i) central bank; (ii) deposit-taking corporations other than central bank (e.g. banks); (iii) money market funds; (iv) investment funds other than money market funds; (v) other financial intermediaries, except insurance companies and pension funds; (vi) insurance

corporations and (vii) pension funds. However, for the purposes of excluding debt between related financial intermediaries, insurance corporations and pension funds are not considered "financial intermediaries".

Financial Lease

A financial lease is a method of financing the purchase of a good by the lessee (as opposed to taking out a loan for the purchase). A financial lease arrangement is to be taken as presumptive evidence that a change of ownership is intended. A change of ownership is imputed because the lessee assumes all rights, risks, rewards, and responsibilities of ownership in practice and, from an economic point of view, can be regarded as the *de facto* owner. During the life of the financial lease, the lesser expects to recover most or all of the cost of the goods and carrying charges.

Foreign Direct Investment (FDI)

Foreign direct investment (FDI) is a category of investment that reflects the objective of establishing a lasting interest by a resident enterprise in one economy (*direct investor*) in an enterprise (*direct investment enterprise*) that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship. Some compilers may argue that in some cases an ownership of as little as 10% of the voting power may not lead to the exercise of any significant influence while on the other hand, an investor may own less than 10% but have an effective voice in the management. Nevertheless, the recommended methodology does <u>not</u> allow any qualification of the 10% threshold and recommends its strict application to ensure statistical consistency across countries.

Foreign Direct Investment Enterprise

A foreign direct investment enterprise is an enterprise resident in one economy and in which an investor resident in another economy owns, either directly or indirectly, 10% or more of its voting power if it is incorporated or the equivalent for an unincorporated enterprise.

The numerical threshold of ownership of 10% of the voting power determines the existence of a direct investment relationship between the direct investor and the direct investment enterprise. An ownership of at least 10% of the voting power of the enterprise is regarded as the necessary evidence that the investor has sufficient influence to have an effective voice in its management.

Foreign Direct Investor

A foreign direct investor is an entity (an institutional unit) resident in one economy that has acquired, either directly or indirectly, at least 10% of the voting power of a corporation (enterprise), or equivalent for an unincorporated enterprise,

resident in another economy. A direct investor could be classified to any sector of the economy and could be any of the following:

- an individual;
- a group of related individuals;
- an incorporated or unincorporated enterprise;
- a public or private enterprise;
- a group of related enterprises;
- a government body;
- an estate, trust or other societal organisation; or
- any combination of the above.

In the case where two enterprises each own 10% or more of each other's voting power, each is a direct investor in the other.

A direct investor has a direct investment enterprise operating in a country other than the economy of residence of the foreign direct investor

Framework for Direct Investment Relationships (FDIR)

The Framework for Direct Investment Relationships (FDIR) is a generalised methodology for identifying and determining the extent and type of direct investment relationships. The FDIR allows compilers to determine the population of direct investors and direct investment enterprises to be included in FDI statistics.

For a compiling economy, the FDIR identifies all enterprises related to a particular enterprise whether it is a direct investor or a direct investment enterprise or both. For example, within a group, it is possible that a direct investment enterprise itself owns 10% or more of the voting power of another non-resident enterprise, in which case the direct investment enterprise is itself a direct investor in a further direct investment enterprise. The question is therefore whether there is a direct investment relationship between the further enterprise and the original enterprise.

The residence of units is not a feature of the definition of subsidiaries and associates for FDI purposes. The FDIR may include within the relationship enterprises that are resident in the same economy. However, foreign direct investment is only recorded when there is a financial transaction or position between entities in different economies that are in a direct investment relationship (including fellow enterprises).

Holding Companies

A *holding company* is a company established to hold participation interests in other enterprises on behalf of its owner. Some *holding* companies may have a substantial physical presence as evidenced by, for example, office buildings, equipment, and employees. Others may have little or no physical presence and may exist only as shell companies.

Immediate host/investing

Immediate host/investing country is the basis for geographical

country	allocation with respect of the first counterparty.
Indirectly Owned Direct Investment Enterprises	As a matter of principle, foreign direct investment statistics cover all enterprises in which direct investors have, directly or indirectly, a direct investment interest. This group of enterprises is specified according to the Framework for Direct Investment Relationships (FDIR)
Institutional Unit	An institutional unit *is an economic entity that is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities*. (*Ref: SNA*)
Inward Direct Investment	Inward direct investment is investment by a non-resident direct investor in a direct investment enterprise resident in the host economy; the direction of the influence by the direct investor is "*inward"* for the reporting economy. Also referred to as direct investment in the reporting economy.
Joint venture	A joint venture is a contractual agreement between two or more parties for the purpose of executing a business undertaking in which the parties agree to share in the profits and losses of the enterprise as well as the capital formation and contribution of operating inputs or costs. It is similar to a *partnership*, but typically differs in that there is generally no intention of a continuing relationship beyond the original purpose. A joint venture may not involve the creation of a new legal entity. Whether a quasi-corporation is identified for the joint venture depends on the arrangements of the parties and legal requirements. The joint venture is a quasi-corporation if it meets the requirements for an institutional unit, particularly by having its own records. Otherwise, if each of the operations is effectively undertaken by the partners individually, then the joint venture is not an institutional unit and the operations would be seen as being undertaken by the individual partners to the joint venture. Because of the ambiguous status of joint ventures, there is a risk that they could be omitted or double-counted, so particular attention needs to be paid to them.
Liabilities, Direct Investment	*Direct investment liabilities* can be ascribed to the following three categories: 1. investment of non-resident direct investor in resident direct investment enterprises 2. reverse investment of non-resident direct investment enterprises in resident direct investors 3. investment of non-resident fellow enterprises in resident fellow enterprises.
Multi-territory enterprise	A multi-territory enterprise is an enterprise operating as a seamless operation over more than one economic territory. Such an enterprise, even though it has substantial activity in more than one economic territory, cannot be separated into a parent and branch(es) because it is run as a seamless operation and cannot supply separate accounts for each territory. Multi-territory enterprises are typically involved in

cross-border activities and include shipping lines, airlines, hydroelectric schemes on border rivers, pipelines, bridges, tunnels, and undersea cables. Some non-profit institutions serving households (NPISH) may also operate in this way.

Nominee

A nominee is a legal device for holding assets for confidentiality or convenience reasons. Assets held by a nominee are treated as being owned by the beneficial owner, rather than by the nominee or by a quasi-corporation. However, for issuers of securities, it may be difficult to identify whether nominees hold claims in their own right or as nominees, and if the latter, it may be difficult to identify the beneficial owner.

Notional unit

A notional unit is a kind of a quasi-corporation. It is identified for statistical purposes for direct non-resident ownership of immobile non-financial assets such as land and buildings. Land and buildings can only be used for production in the territory in which they are located. Therefore, the land and buildings and other structures owned by a non-resident are always treated as being owned by a resident notional institutional unit that is in turn owned by non-resident unit(s) holding the legal title.

Outward Direct Investment

Outward direct investment is investment by a resident direct investor in a non-resident direct investment enterprise; the direction of the influence by the direct investor is '*outward*' for the reporting economy. Also referred to as direct investment abroad.

Partnership

Household unincorporated market enterprises also include unincorporated partnerships that are engaged in producing goods or services for sale or barter on the market. The partners may belong to different households. When the liability of the partners for the debts of the businesses is unlimited, the partnerships must be treated as unincorporated enterprises and remain within the household sector since all the assets of the household, including the dwelling itself, are at risk if the enterprise goes bankrupt. However, unincorporated partnerships with many partners, such as some large legal, accounting or architectural firms, are likely to behave like corporations and should be treated as quasi-corporations assuming complete sets of accounts are available for the partnerships. Partnerships whose partners enjoy limited liability are effectively separate legal entities and, as already noted, are treated as corporations.

Quasi-corporation

A quasi-corporation is an unincorporated business that operates as if it was an entity separate from its owners. Examples are *branches*, *land ownership*, *partnerships (both of limited and unlimited liability), trusts*, and resident portions of *multi-territory enterprises.* These quasi-corporations are treated as if they were corporations, i.e. as separate institutional units from the units to which they legally belong. For example, quasi-corporations owned by households or

government units are grouped with corporations in the non-financial or financial corporate sectors. The purpose of this treatment is to separate from their owners those unincorporated enterprises which are sufficiently self-contained and independent that they behave in the same way as corporations.

Residence

The residence of an economic entity (or an institutional unit) is determined on the basis of the *economic territory* with which it has the strongest connection determined by its *predominant centre of economic interest*. While some units may have connections with more than one territory, for statistical consistency, there is a need to attribute a single economic territory based on objective and comprehensive criteria.

An institutional unit is resident in an economic territory when there exists, within the economic territory, some location, dwelling, place of production, or other premises on which or from which the unit engages and intends to continue engaging, either indefinitely or over a finite but long period of time, in economic activities and transactions on a significant scale. (BPM).

Reverse Investment

A direct investment enterprise may acquire financial claims in its direct investor. When such claims are not sufficient to establish a second, separate direct investment (i.e. do not qualify for the 10% ownership of voting power), the transactions/positions are referred to as reverse investment which are recorded as follows:

- for the economy in which the direct investment enterprise is resident: claims on direct investor
- for the economy in which the direct investor is resident: liabilities to affiliated enterprises

Within reverse investment, direct investment enterprises may raise loans which they on-lend to their direct investor, or may make loans to their direct investor from their own resources, which is also reverse investment. Such loans should be treated as direct investment debt and be included in the direct investment statistics.

Round-tripping

Round-tripping refers to the channelling abroad by direct investors of local funds and the subsequent return of these funds to the local economy in the form of direct investment.

Shell Company

A shell company is a company that is formally registered, incorporated, or otherwise legally organised in an economy but which does not conduct any operations in that economy other than in a pass-through capacity. Shells tend to be *conduits* or *holding companies* and are generally included in the description of Special Purpose Entities.

Special Purpose Entities (SPE)

Multinational enterprises (MNEs) often diversify their investments geographically through various organisational structures. These may include certain types of Special

Purpose Entities. Examples are *financing subsidiaries*, *conduits*, *holding companies*, *shell companies, shelf companies and brass-plate companies*. Although there is no universal definition of SPEs, they do share a number of features. They are all legal entities that have little or no employment, or operations, or physical presence in the jurisdiction in which they are created by their parent enterprises which are typically located in other jurisdictions (economies). They are often used as devices to raise capital or to hold assets and liabilities and usually do not undertake significant production.

An enterprise is usually considered as an SPE if it meets the following criteria:

- The enterprise is a legal entity,
  - Formally registered with a national authority; and
  - subject to fiscal and other legal obligations of the economy in which it is resident.
- The enterprise is ultimately controlled by a non-resident parent, directly or indirectly.
- The enterprise has no or few employees, little or no production in the host economy and little or no physical presence.
- Almost all the assets and liabilities of the enterprise represent investments in or from other countries.
- (v) The core business of the enterprise consists of group financing or holding activities, that is – viewed from the perspective of the compiler in a given country - the channelling of funds from non-residents to other non-residents. However, in its daily activities, managing and directing plays only a minor role.

Subsidiary, Direct Investment Enterprise

A subsidiary is a direct investment enterprise:

- in which an investor owns more than 50% of its voting power i.e. it is controlled by the investor;
- Where an investor and its subsidiaries combined own more than 50% of the voting power of another enterprise, this enterprise is also regarded as a subsidiary of the investor for FDI purposes.

Ultimate Investing Country

The ultimate investing country is a geographical allocation determining the location of the ultimate source of control of the stocks of inward FDI for a reporting economy. It is recommended to compile, on a supplemental basis, inward FDI positions according to the UIC.

Unlisted Shares

Unlisted shares are a form of equity that is not listed on an organised or public stock exchange. By their nature, a market valuation estimate is not regularly available for unlisted equity and an approximation to the market value is required to measure direct investment. Several methods for approximating market value are acceptable:

- Recent transaction price
- Own funds at book value
- Net asset value
  - Including goodwill and intangibles
  - Excluding goodwill and intangibles
- Market capitalization method
- Present value of expected earnings
- Apportioning market value of global enterprise group to local operation.

Voting Power

Generally, ordinary shares provide voting power. While voting power is generally obtained through the purchase of equity, it is possible to have voting power that is not in the same proportion as the equity ownership (for example, 'golden shares' have greater voting power than other shares). It is also possible to obtain voting power without purchasing equity (for example, through swaps and repurchase agreements).

A note on consolidated statistics of cross-border exposures

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This short note offers some input for the Interagency Group workshop with the sponsorship of the Irving Fisher Committee on the issues of financial and non-financial corporations' cross-border funding. The main focus is on two questions to be tabled during this workshop:

- What data do we need to capture any risks created by increasing activities in cross-border funding?
- What kind of conceptual and reporting challenges will arise in enhancing statistics on cross-border finance?

To stimulate discussion at the workshop, this note also refers a possibility of integrating the data on international funding of non-bank and non-financial corporations with the existing BIS's International Banking Statistics.

1. Challenges

The G-20 finance ministers and central bank governors requested the Interagency Group on Economic and Financial Statistics (IAG) to close the information gaps of monitoring and measuring cross-border exposures. The issues are addressed in recommendations 13 and 14 of the report "The Financial Crisis and Information Gaps" prepared by the Financial Stability Board (FSB) Secretariat and International Monetary Fund (IMF) staff in November 2009, followed by "Progress Report: Action Plans and Timetable" submitted in May 2010. Both reports highlighted a lack of information on the cross-border finance of large non-bank financial institutions. They also addressed the needs for data of both financial and non-financial corporations on a consolidated basis in addition to the usual residency-based perspective.

In order to meet the above request, statisticians face two challenges, namely;

- how to enlarge the reporting of cross-border funding other than banks; and
- how to avoid any duplications or conflicts in compiling traditional statistics such as the balance of payments.

Various issues have been already discussed in several fora. The expert meeting for considering risks of Systemically Important Financial Institutions (SIFIs), which are responsible for realizing recommendations 8 and 9 raised by the G-20 society, has shared the view of importance in collecting data on bank-to-bank profiles, but has yet reached the pragmatic approach for compilation acceptable for all authorities of the related countries.

This note outlines introductory arguments to the above questions in the following sessions. Section II identifies the detail activities and risks of cross-border finance. Section III shows the ideal datasets and argues the actual gaps. Section IV raises the jurisdiction issues on the reporting entities, including subsidiaries and affiliates. Since the core of argument lies in the accessibility of detailed supervisory information, the scope of information sharing is a key of implementing new worldwide statistics, discussed in section V. Even the conceptual incompatibility remains with the residency-based national account, a plausible and relatively costless compilation seems to be integration with the BIS's International Banking Statistics (IBS). The IBS has recorded the historical success of expanding its database and providing the enormous quantitative data to global financial analyses. A possibility of enlarging the IBS

into the field of cross-border exposures is shown in the last section, instead of addressing any decisive conclusions.

2. Scope of cross-border activities

Cross-border funding encompasses any transactions related to importing and exporting capital. The concerned information includes the types of “instruments”, “players or entities”, “location and residency”. It is also expected to contain the amount of risks in terms of “maturity” and “currency” mismatches. At midst of turmoil, “counterparty risks”, “one-way market positioning”, as well as “liquidity” matters.

Different from domestic activities using the home currency, intra-firm lending or borrowing between headquarter and foreign branches or subsidiaries involves funding risks generated by currency (and maturity) mismatches. Intra-firm transactions raise wide-range of questions in collecting the concerned data.

In addition, non-bank financial institutions such as insurance companies and hedge funds have increased their presence at these markets. Arguments go to what entities will have to be covered; the external activities of financial institutions other than banks, listed and non-listed corporations, and public organizations such as state-owned enterprises draw an important inference to a global perspective.

Another scope is the source of risks and disturbances; non-performing loans, funding profiles, credit conditions, concentrated exposures, holdings of securities and loans, channels of risk transmission. Consolidated cross-border banking exposures are ideally requested to be split into residence and nonresidence positions.

Derivatives and structured products involve difficulties in measurement. The BIS and the member central banks have strengthened to collect the data on credit default swaps (CDSs) but faced difficulties in defining synthetic CDSs. The FSB has advocated the collecting data on collateralized debt obligations. Non-financial corporations in emerging market economies also reported large losses to FX OTC derivatives, which may not be neglected.

Various channels will be taken account of. In addition to the authorities of home country, supervisors of the location of money center, offshore financial center, and global custodians are also responsible for monitoring the cross-border activities and expected to play a key role for providing essential data.

All scopes of information gaps listed above will be expected to close. Remind that selecting items is not of interest. Any tiny achievements in filling gaps are much wanted.

3. Data gaps in measuring cross-border exposures

If we live in such a world that we can introduce a comprehensive template spanning all the data needs listed in the previous session and we can obtain full response from all the concerned entities both in home and foreign countries, then no gaps remain. This imagination tells us what impediments are. If the data template is too large, its response rate will decrease. If the data template requires too difficult items to deduce or calculate, its reporting burden will increase. If the reporting entities locate in the different jurisdiction, they are reluctant to cooperate in reporting. If the response belongs to confidentiality, the entire dataset will not be disclosed to public or shared with other statistical office(r)s.

Although these difficulties are more or less common for any statistical compilation, they are critical in particular for introducing a new reporting from non-bank institutions.

At present, no country has succeeded to compile the full dataset related to funding activities between own territory and foreign markets. Some countries such as Japan have established

the concrete reporting system throughout their residents. Even those countries, however, have partial information on funding activities conducted outside of their territories.

In general, the entities who engage in cross-border funding are less cooperative in reporting their overseas activities. The concerned authorities of home country, in turn, will have to pay more attention for obtaining cooperation from private institutions. Instead of introducing a perfect compilation from the very early stage, one way is beginning with finding out a compact template, and adjusting the size and contents of template suitable for actual reporting entities is another way. The latter approach leads to introducing a new reporting just for some largest activities or institutions, say top ten or top fifty, at the initial round. In subsequent round, it is possible to increase the number of reporting entities to hundreds, and relatively smaller template will be applied.

To enhance the existing data on the interlinkages is also recommended. For instance, global systemically-important financial institutions (G-SIFIs) are the targets for compiling detailed information. If a part of data of G-SIFIs will be able to use for analyzing cross-border risk distribution, then the detailed picture of not only the banking sector but also the macro economy will be revealed. In this context, compiling relatively small sample statistics or survey may be appreciated as the frontrunners of closing the data gaps in cross-border finance.

Another possibility is implementing some experimental studies in order to build cooperation and reducing burden in reporting data. Both Australia and New Zealand have already launched to collect data from central depository and/or settlement organization; Austraclear settles cross-border capital movement between Australia/New Zealand and the rest of world and stores the detail data. However, it is still unpopular for many countries to use such a central registered or custodial database for compiling financial statistics.

There are further more gaps to be recognized. Among others third-currency liabilities may increase the currency mismatches. Historically, the Yen carry trade has faced abrupt repatriation. In recent crisis, not only FX traders but also multinational firms were said to take cross-currency funding risks and result in converting again to the US dollar. In order to illustrate such trading behaviours the authorities who are responsible for market monitoring will be expected to join the worldwide project of filling the gaps.

4. Consolidated data and the jurisdiction issues

The previous section suggested that various approach of collecting new data of cross-border finance may be pursued instead of collecting in the single template. In addition, the response of the concerned entities may differ from country to country, as well as from institution to institution. If a statistical office in some country could be able to collect data of subsidiaries and affiliates located in foreign country, then such data will be valuable for the authorities in both home- and host-countries. This is a primitive example showing the usefulness of the data on consolidated basis.

Compiling data on consolidated basis may involve conflicts with the SNA-family statistics including the balance of payments. The SNA-family statistics have adopted the series of residence principles. Statistical information on non-financial corporations compiled on a residency basis would not capture the financial exposures of non-resident affiliates. On the other hand, information on a consolidate basis is generally only available from the financial statements which would not necessarily provide the level of detail needed with respect to financial positions such as those related to derivatives.

The incompatibility between consolidated banking statistics and residence principles is not an issue specific to statisticians. In fact, the complicated allocation of assets and liabilities between headquarters and foreign branches can be fully captured in neither consolidated banking statistics nor the flow of funds account. Some argues that multinational firms have an intension of shifting funding and investing to the assets which none of the statistical investigation could be reached. Against the fact of existence of data gaps might accelerate

the magnitude of gaps, any newly introduced statistics will contribute to close the concerned gaps without levying heavy burden in reporting, even though they will interfere some parts of residence principles.

The issue of consolidation versus residency comes from the difference of jurisdiction. Collecting data requires legitimate enforcement of reporting. The related authority shall be required to keep quantitative figures and qualitative information as well as an identification of reporting entities confidential. The legal background and resident obedience attitude may differ across countries. The difference in accounting system also makes the issue much more complicated. From the stand point of individual reporting firms, their reporting burden seems to be doubled in cross-border transactions because of duplication in statistical reporting.

The consolidated issue cannot be avoided because counterparty information is in particular critical for measuring risks of cross-border transactions including intra-firm lending. From-whom-to-whom data is so naive that no authorities but only the home-country supervisor can access it. Subsequently, the existing collecting information system established by banking supervisors should be respected. In addition, a new reporting system covering non-bank financial institutions and non-financial corporations will have to be developed in a very practical manner so that the system is compatible with host-country regulation.

5. Issues in information sharing

Even if there is an efficient way of eliminating adverse effects of introducing consolidated manner into residency basis, some difficulties will remain in sharing supervisory information. For building a geographical map of risks, at least one person or organization has to intervene into the classified data on counterparty risks across the jurisdictions. Information sharing requires authorization from the original supervisor who collected such information of counterparties.

The FSB and the other responsible organizations are considering the systematic solution for information sharing. Their outcomes will be applied to the field of compiling cross-border statistics, too. Until then, the home-country authority will not be able to obtain the related information on counterparties but expect to receive aggregation data at less classified status from host-country authorities.

Information sharing with other governmental office of the same home-country includes another feature of issues. The terms of confidentiality may differ in different functions. For instance, there are Chinese wall of confidentiality between statistics department and banking supervision department in many central banks. To overcome those sharing issues, exchange of information may be applicable to some aggregated basis instead of individual figures.

6. Sub-aggregation and enhancing the BIS-IBS

In this short note, plausible approaches in terms of less reporting burden are argued for data on the finance. The comprehensive templates and spanning the reporting entities throughout all types of institutions are not excluded. Furthermore, there are possibilities of realizing consolidated statistics compatible with residency compilation as well as information sharing between different jurisdictions at step by step. Such a plausible or “a light touch” approach will have a feature of incompleteness of compiling statistics in short terms. However, any efforts of piling up good database will lead to close the data gaps. Even if the data are limited, they are valuable for capturing the cross-border exposures.

The key concept for realizing a plausible data collecting is to obtain wide recognition toward “sub-aggregation” of the concerned risk measures. Financial supervisors, for example, are eager to examine the sectoral aggregation of currency and maturity mismatches arisen in cross-border funding of non-banking sector. Aggregating in sub-group or appropriate

breakdown will enable supervisors to exchange such data with other authorities responsible for statistical compilation.

To explore the efficient compiling and calculating system for aggregating sub-grouping sets, we need the stock of experience in data warehousing and analyzing. Nobody denies that the BIS's International Banking Statistics (IBS) be a candidate. The IBS consists of four breakdowns by location of branches and counterparties and by currencies:

1. Residency data: locational banking statistics by residency,
2. Nationality data: locational banking statistics by nationality,
3. Consolidated (IB) data: consolidated banking statistics, immediate borrower basis,
4. Consolidated (UR) data: consolidated banking statistics, ultimate risk basis.

Although individual information on cross-border banking cannot be shared without authorization from the responsible central bank, there seems to be a way to calculate sub-aggregation specific to country counterparties. Such a challenge will be valuable for establishing the database of cross-border finance. Future works lie in integrating banking database, IBS, with non-bank data collecting (See Cecchetti et al (2010)).

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Compilation problems of flow of funds accounts on a consolidated or nationality basis: a case study of Japan

Satoru Hagino and Yoshiko Sato[52]

Introduction

The IFC-IAG workshop on "Residency and Consolidated Views of Financial Positions" aims at discussing the differences and possible reconciliation between financial position data on a residency basis and those on a consolidated or nationality basis, with the goal of using the financial positions for macro-prudence purposes. This paper discusses the potential compilation problems of converting position data of residency-based financial positions into consolidated or nationality-based positions, using flow-of-funds accounts (FFA) as the statistical framework.

There is a view that financial position data on a residency basis are useful for capturing where financial assets and liabilities were created and held, whereas those on a consolidated basis are useful for capturing who makes the decisions, assumes risks, and holds capital as a buffer for losses. As a supplement of such a view, this paper focuses on the purposes for macro-economic analysis of capturing the financial activities of foreign branches and subsidiaries, as well as resident entities, rather than the purposes for macro-prudential analysis of compiling consolidated position data. From this standpoint, this paper makes a clear distinction between consolidated financial positions and nationality-bases financial positions.

Regarding the consolidation concept, this paper mainly assumes cross-border consolidated data as position data on a consolidated/nationality basis. It discusses technical issues when applying cross-border consolidation, based on the recent development of global activities of Japan's financial institutions and nonfinancial corporations.

1. Relationship with the concept of the System of National Accounts

Position data of the residency-based FFA describes in detail financial assets and liabilities of Japanese resident financial institutions and nonfinancial corporations. Foreign branches and subsidiaries of these institutions and corporations are classified in the overseas sector, and thus, their financial assets and liabilities cannot be specified.

If positions of financial institutions and nonfinancial corporations of the same nationality are aggregated into FFA data, such data will represent an indicator of a nation's global financial activities. This perspective conforms with the concept of foreign affiliate trade statistics (FATS), which include activity data such as sales and employees of foreign subsidiaries. FATS has become one of the most important measures of the globalisation of enterprises.

It is to be noted that the System of National Accounts (SNA) has incorporated the nationality concept in property income such as interests, dividends and reinvested earnings. Therefore, expanding the nationality concept to financial assets and liabilities, which generate property income, would be consistent with the framework of the SNA.

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[52] The views expressed herein are those of the authors, and should not be attributed to the Bank of Japan.

2. Difference between the consolidated basis and the nationality basis

Although the "consolidated basis" and the "nationality basis" are often used as synonyms, they are different in concept from each other when underlining the viewpoint of 1. (1) above. In consolidated financial positions, financial assets and liabilities of foreign branches and subsidiaries are combined to those of resident units and cannot be separately identified and their positions with the resident units are netted out, as this is the purpose of the consolidation. In contrast, in nationality-based financial positions, financial assets and liabilities of foreign branches and subsidiaries and separately identified and their positions with the resident units could be shown, as long as the main purpose is measure the activities of foreign branches as subsidiaries.

The difference between consolidated and nationality-based positions becomes more evident when considering statistical treatments of financial derivatives. Statistics of financial derivatives have been developed from the consolidated approach. Specifically, Regular Derivatives Market Statistics represent data on consolidated outstanding derivatives positions, measured in notional amounts as well as on gross positive and negative market values. However, from the point of view of measuring derivative activities of foreign branches and subsidiaries, simply placing the derivative positions into the head quarters of a financial institution is not appropriate. Notional amounts as well as gross positive and negative market values of foreign branches and subsidiaries should be separately shown.[53]

In such a manner, nationality-based financial derivative positions could be compiled. Residency based derivative positions could be identified by deduction the positions of foreign branches and subsidiaries from the consolidated position data of Regular Derivatives Market Statistics.[54]

3. Scope of assets and liabilities

Although financial positions are of interest to the workshop, the inclusion of nonfinancial assets will increase the value of the nationality-based FFA. For example, Japanese trading firms hold a large amount of mining rights through their foreign subsidiaries and joint ventures. In the nationality-based FFA, such rights are aggregated to represent the total mining rights held by Japan as a nation.

For financial assets and liabilities, all types of products can be consolidated. In particular, loans, securities, and financial derivatives will be important items.

Japan's FFA distinguishes, to the extent possible, financial assets/liabilities issued or held by residents from those issued or held by nonresidents, so that issuing and holding sectors can be specified. More specifically, the items for deposits and those for securities only include those assumed/issued by residents. Items for loans by financial institutions only include loans held by resident financial institutions. In contrast, deposits and securities assumed/issued by nonresidents are included in the item of other external claims and debts, and in the item of outward investments in securities respectively. Loans held by nonresidents are included in the item of loans by the nonfinancial sector.

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[53] In the case of Japan's financial institutions, due to various reasons such as tax incentives, large foreign subsidiaries appear to have kept derivative positions as is, rather than transferring them to their head quarters, whereas branches of foreign financial institutions in Japan appear to have concentrated their positions elsewhere in conformity with the practices of global booking.

[54] Japan's FFA draws on various source data for financial derivatives but it still relies on assumptions due to the shortcomings of the source data. The most important one is related to the residency and consolidated approaches. For OTC-traded derivatives, data organized on a residency basis are not available. The only available source is Regular Derivatives Market Statistics in Japan, which are on a consolidated basis. In order to overcome such a shortcoming, the residents-nonresidents ratio is estimated from the Central Bank Survey of Foreign Exchange and Derivatives Market Activity and is used as a benchmark.

When converting the current residency-based FFA into the nationality-based FFA, compilers will be able to keep the distinction between resident holdings and nonresident holdings or abolish this distinction and include nonresident holdings in the items of deposits, securities, or loans. With respect to loans, the consolidation will require treating loans held by resident financial corporations and loans held by foreign branches and subsidiaries in the same item, and therefore, such distinction should be abolished. In the case where resident holdings and nonresident holdings are not distinguished from each other, the total of a certain item no longer represents the total amount assumed, issued, or extended.

4. Method of representing consolidated or nationality-based financial positions

(a) Compilation of consolidated sectoral balance sheets as annex table

Consolidated sectoral balance sheets could be compiled by combining foreign subsidiaries and branches and netting out intra-sector positions. Such statistical tables could be associated with IMF survey-type statistics, such as the depository corporation survey. In contrast, they could not be linked to the FFA because financial assets and liabilities of foreign branches and subsidiaries would not be separately shown. Accordingly, consolidated financial position data would be provided as annex table, rather than integral part of the FFA.

This representing method enables the compilation of consolidated sectoral balance sheets by using the information on foreign branches and subsidiaries contained in the consolidated financial reports of financial institutions and nonfinancial corporations. However, this is not necessarily feasible in practice as compilers need to collect undisclosed data for foreign branches and subsidiaries.

(b) Provision of building blocks in the overseas sector

Nationality-based financial positions could be represented as integral part of the FFA, by creating a sub-sector for foreign branches and subsidiaries of each category of financial institutions and nonfinancial corporations (e.g., the ODCs sector), as well as items for intra-group claims and branch accounts, Making use of such building blocks, users of statistics can convert residency-based financial positions to nationality based financial positions. The difficulty of collecting data for foreign subsidiaries and branches is described in 3.(1) above.

The creation of a sub-sector for special purpose companies (SPCs) enables the statistics users to trace the assets securitized through SPCs. However, foreign SPCs are not necessarily subsidiaries of resident financial institutions or nonfinancial corporations, and thus, source data of SPCs may not be derived from their consolidated financial statements. In such cases, originators of securitized assets may be the only source of information for SPCs.

Under the building-block-approach, the linkage with FFA cannot be kept unless the major financial asset items such as deposits, loans, and securities only include those assumed, extended, and issued respectively, as explained in 1.(2). Thus, the usefulness of consolidated financial position data might be partly lost.

(c) Extension of direct investment related data

For compiling reinvested earnings data in the balance of payments (BOP) and international investment positions (IIP) statistics, Japan's Ministry of Finance and the Bank of Japan have collected annually from direct investors the retained earnings data of their direct investment enterprises, based on Ministerial Ordinance concerning Reports on Foreign Exchange Transactions. In this report, direct investors have identified balances of major financial assets and liabilities of direct investment enterprises that were related to direct investors, such as borrowings of direct investment enterprises from direct investors. One possibility would be to

extend this report to cover the total financial assets and liabilities of direct investment enterprises.

With respect to the treatment of direct investments, nationality-based financial positions or extended direct investment data would be analytically more useful than consolidated financial positions, where the assets of direct investors and liabilities of direct investment companies in direct investments and reinvested earnings would be netted out. These assets and liabilities would be separately shown in a nationality-based financial positions or extended direct investment data.

Japan's Ministry of Economy, Trade and Industry has conducted a quarterly survey to resident corporations except financial institutions and real estate companies on their foreign subsidiaries and has quantified their sales and employees. One idea would be to extend this survey to cover financial assets and liabilities of foreign subsidiaries and expand it to include financial institutions and real estate companies as respondents.

5. Sector by sector issues of compiling consolidated financial positions

(a) Scope of sectors

The scope of sectors in consolidated or nationality-based financial positions could include the other depository corporations (ODCs, depository corporations other than the Bank of Japan) sector, the entire financial institutions sector including nonbank financial institutions, such as insurance companies and pension funds, investment funds, securities firms, and finance companies, and nonfinancial corporations.

When global consolidation is introduced, cross-border and cross-sector treatments become inconsistent with each other. In consolidated or nationality-based financial positions, financial position data include financial assets and liabilities of foreign branches and subsidiaries as well as resident units. In contrast, resident subsidiaries classified are not consolidated to their parent companies, unless the cross-sector consolidation is implemented.

In addition, the treatment of foreign joint ventures with foreign entities is an issue. Should foreign subsidiaries be consolidated or separately-shown if more than 50 % of shares are owned by national entities? The threshold of foreign direct investments is at 10% of shares, while that of the equity method of consolidated financial statement is 20% of shares. Should these values be taken into consideration? Should we think about consolidating or separately showing assets and liabilities of foreign joint ventures in proportion to the holdings of their shares?

(b) Other depository corporations

Japan's ODCs have owned foreign branches and subsidiaries for banking and securities businesses through bank holding companies and their resident subsidiaries. When applying global consolidation to Japan's ODCs, foreign subsidiaries would be consolidated to (in the case of compiling consolidated sectoral balance sheets as discussed in 3.(1)) or classified in the same sector as (in the case of providing building blocks as discussed in 3.(2)) holding companies, their resident subsidiaries, or ODCs themselves, depending on the capital relationship. Since bank holding companies are not classified as ODCs in Japan, the goal of consolidation, i.e., representing global financial positions of entire ODCs, might not be attained.

Foreign subsidiaries of Japanese financial institutions, engaging the securities business, have generally been established as subsidiaries of securities firms in the company group. Those foreign subsidiaries would be consolidated to or classified as securities firms. In contrast, their U.S. and European counterparts are investment banks and they would be

classified as ODCs. Thus, consolidation based on capital relationship may hinder international comparison of financial positions.[55]

Japan's ODCs have expanded their banking activities through foreign branches in many countries. Thus, consolidated or nationality-based financial positions might be approximated only by consolidating foreign branches.[56] Such a method would be more practical than consolidating all foreign subsidiaries and branches[57].

(c) Nonbank financial institutions and nonfinancial corporations

Japan's securities firms have owned subsidiary banks as well as subsidiary securities firms in foreign countries. In most cases, such foreign subsidiary banks have engaged in the securities business, and thus they would be consolidated to or classified as securities firms. However, in some cases, foreign subsidiary banks have engaged in private banking. The question is whether such private banking subsidiaries should be consolidated to or classified as securities firms.[58]

Japan's life insurance companies have been prudent in activities in foreign countries. Nevertheless, some have mortgage lending companies in the U.S. In contrast, Japan's non-life insurance companies have been very active in foreign countries. Although the majority of their activities are related to the insurance business, some have derivative subsidiaries in tax-haven countries. A further question is whether foreign mortgage or derivative subsidiaries should be consolidated to or classified as insurance companies. In addition, some of Japan's trading firms own foreign subsidiaries engaging in the reinsurance business. The consolidation of such foreign subsidiaries to nonfinancial corporations is also problematic.

With respect to finance companies, subsidiaries of Japanese banks and securities firms as well as independent houses have mainly engaged in domestic business, whereas subsidiaries of manufacturing and large trading firms have expanded to start consumer credit or corporate lending businesses abroad. One problem is that foreign branches or subsidiaries of trading firms should be consolidated to or classified as nonfinancial corporations while subsidiaries of financial companies owned by manufacturing companies should be consolidated to or classified as other financial intermediaries (OFIs).

Some of Japan's trading firms have even created joint venture investment funds in the U.S. Financial activities of Japan's trading firms, in particular the seven largest trading firms, in foreign countries are so distinct that creating an independent sector for trading firms might be analytically useful.

Other than the above-mentioned trading firms, financial activities of Japan's non-financial corporations have been limited. Although those of the automobile and electric appliance industries operate globally in terms of manufacturing activities, their financial activities have

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55 Mizuho Financial Group has engaged in international securities businesses through Mizuho Securities Corp. and its foreign subsidiaries. Mizuho Corporate Bank obtained the status of U.S. Bank holding companies and started to engage in international securities business subsidiaries of U.S. bank holding company. Such subsidiaries would be consolidated to the ODCs.

56 The Bank of Tokyo-Mitsubishi UFJ and Mizuho Corporate Bank have engaged in banking activities in foreign countries through branches, except for the U.S. and China. The Mitsui-Sumitomo Bank has done so except for the U.K. and France as well as the U.S. and China.

57 In Japan, domestically licensed banks report the principal assets and liabilities of their foreign branches to the Bank of Japan.

58 Mizuho Securities Corp. has owned Swiss Mizuho Bank, which has mainly engaged in private banking. Nomura Securities Corp. has owned subsidiary banks in France and Germany, whose focus on private banking activities have not been disclosed.

been mainly handled by their subsidiaries. Thus, global consolidation of financial assets and liabilities are not necessarily analytically useful for manufacturing firms. Nevertheless, if non-financial assets are covered, a nationality-based balance sheet might be useful. In such a balance sheet, total non-financial assets such as mining rights can be captured on a nationality basis as mentioned above.

The concepts of corporate group, control and consolidation

Reimund Mink

Session 3 and Session 4 of the Workshop deal with different methodological concepts like the definition of corporate groups, control and consolidation. The corporate group concept has to be distinguished from the methodology based on the System of National Accounts, 2008 (2008 SNA).

1. The 2008 SNA

The 2008 SNA distinguishes two main types of institutional units, persons or groups of persons in the form of households, and legal or social entities. Corporations as legal entities cover legally constituted corporations and also cooperatives, limited liability partnerships, notional resident units and quasi-corporations. Based on their residency and their principal economic activity, corporations, like other institutional units, are aggregated in two main sectors, non-financial corporations and financial corporations. Financial corporations are further split into sub-sectors.

The aggregated data are usually non-consolidated. However, consolidated presentations are occasionally applied to specific sectors or subsectors for analytical or policy purposes like for the general government and for money-issuing corporations. The first column of Chart 1 illustrates the approach following the SNA.

2. The corporate group concept

Instead of classifying institutional units in sectors, an alternative approach, also described in the 2008 SNA but not recommended in national accounts practice (where strict residence and sector boundaries must be observed) is to arrange institutional units in corporate groups according to ownership or control, rather than on the basis of principal functions, behaviour and objectives.

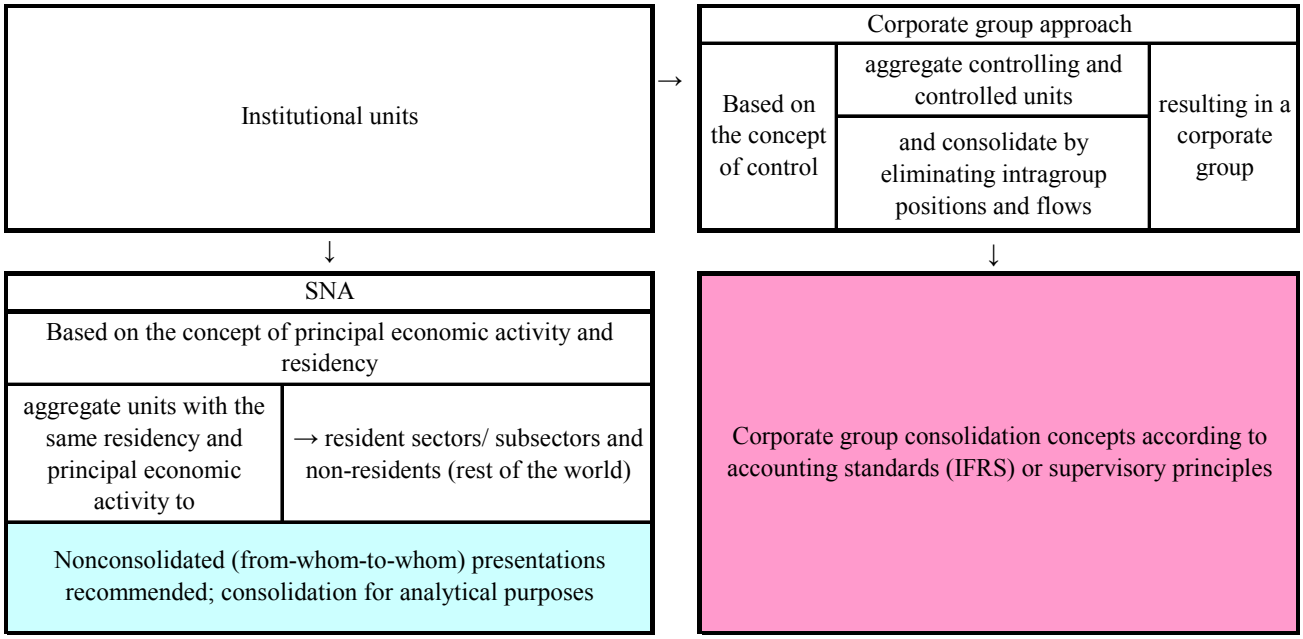
The concept of institutional units is also the starting point for explaining the corporate group approach. Based on the concept of control, controlling and controlled units are aggregated and also consolidated by eliminating intra-group positions and flows resulting in a corporate group.

Corporate groups may be financial or non-financial corporate groups, and include both resident and nonresident units. Financial corporate groups comprise mainly financial corporations, but perhaps also some non-financial corporations. Non-financial corporate groups consist predominantly of non-financial corporations (2008 SNA 4.51f.). Large and complex corporate groups are also known as multinational enterprises (MNEs) organising their business across national boundaries to maximise production efficiency and minimise their global tax burden.

The controlling and controlled units forming a corporate group belong usually (in terms of the 2008 SNA) to different economies and also sectors or subsectors. It is therefore very difficult to reconcile data collected according to the corporate group approach with the 2008 SNA aggregated data. One option, however, is to truncate a corporate group into different subgroups of units with different residencies and belonging to various resident sectors. Other modifications emerge from different consolidation concepts as they are applied according to

International Financial Reporting Standards (IFRS) or supervisory (Basel II/CRD III) principles.

Chart 1: The 2008 SNA and the corporate group concept



3. Control and consolidation

Large corporate groups may be created where a parent corporation controls several subsidiaries, some of which may control subsidiaries of their own, and so on. Each individual corporation in such a group remains a separate institutional unit. Even wholly owned subsidiaries are separate legal entities required by law and tax regulations to produce complete sets of accounts, including balance sheets.

For financial stability purposes, it is necessary to have risk-based information relating to a corporate group as a whole, predominantly focusing on financial corporate groups, with data for this purpose usually presented consolidated at a group level. When assessing risks and their possible spreading over institutions and markets, it is of key importance to know which unit is bearing risks wherever the relevant assets are held within the group. In case of failure of an institution or of a whole group, it is also important to be able to assess which other groups are exposed to the group in distress, either directly on-balance sheet or indirectly through contingencies like guarantees, and would therefore become liable for losses.

For corporate groups publicly available information may be provided only for the group as a whole, where relationships between corporations in different countries have been consolidated. In this case, other sources need to be explored for the required non-consolidated data.

Statistical data used for supervisory and financial stability purposes focus on the business of the whole supervised institution. For financial corporate groups, the data are accordingly consolidated across national boundaries to include also the business of foreign banking branches, and they may be consolidated across sector boundaries to include the business of financial subsidiaries which are not banks (or money-issuing corporations). The content of the information is also somewhat different. Although supervisors use the sectoral distinctions

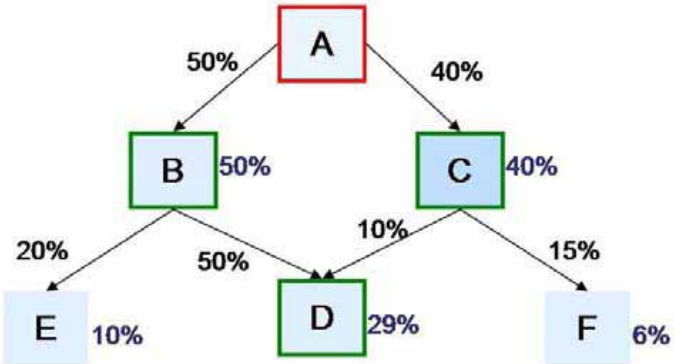
and the detailed financial instruments reported for statistical purposes, they are very much interested in measuring risks (such as counterparty credit or market risk).

4. Ownership structures of corporate groups

Ownership structures of corporate groups refer to the types and compositions of shareholders in corporations. Ownership structures are determined by using some observable measures of ownership concentration or of the extent of direct and indirect ownership. Ownership structures are usually illustrated in flow charts. Corporations are presented as squares and the holdings of equity as arrows (ownership).

An example, as presented in Chart 2, shows ownership and control by a corporation A vis-à-vis corporations B, C and D in a pyramid structure. In the example, corporation A holds 50% of the equity of corporation B and 40% of the equity of corporation C, but only (indirectly) 29% of the equity of corporation D. It controls this corporation through the control of corporation B. Corporation A is the ultimate shareholder as it is not owned by any other shareholder. Corporations B, C and D are not under the influence of other dominating shareholders.

Chart 2: Indirect control, direct control, indirect, direct and ultimate ownership of shareholders in a pyramid structure



Squares represent corporations, directed arrows holdings of shares (ownership). Numbers close to arrows represent direct shares ownership as a percentage of total shares. Numbers for E, D and F close to squares represent indirect ownership as a percentage of total shares.

Summary of discussions

Session 1: Evolving requirements for measuring financial positions and elements of a new conceptual framework (Manik Shrestha)

The Workshop considered the limitations of the residency based statistics to analyse cross-border financial exposures and agreed to explore the use of globally consolidated data (as opposed to local) by nationality. The workshop emphasised that the new conceptual framework for consolidated data on a nationality basis should be compatible with the existing residency-based statistical standards. It also stressed the need to fully exploit existing conceptual elements and definitions of residency-based statistical frameworks (such as the System of National Accounts, foreign direct investment, activities of multinational enterprises, etc.), in order to provide a complementary view of financial positions.

Some important issues were raised during the session related to the needs for data on a globally consolidated basis. They included:

- Policy demand for globally consolidated data should be further clarified from the perspectives of home and host economies. For example, where and how could data on a consolidated basis by nationality have provided more insights into the build-up and development of the recent financial crisis? Could such data have helped analysing the crisis and designing appropriate policy response?
- Establishing a clear conceptual and practical bridge between the residency and nationality approaches is important to ensure analytical complementarity. In this respect, both a top-down and bottom-up method of identifying a corporate group should be explored (see also below in summary of session 5, non-financial corporations). The framework for foreign direct investment relationship and related statistical concepts and definitions may provide a useful starting point in identifying the multinational enterprise group. Even though foreign direct investment data do not consolidate foreign subsidiaries, information collected for these statistics could be used to provide data globally consolidated by nationality in order to avoid additional reporting burden.
- More granular data on a from-whom-to-whom basis within the residency framework may provide some useful insights into financial linkages, in particular if breakdowns for the non-resident sector can be provided (eg by counterparty sector, country, currency and maturity). However, understanding global operations and exposures requires globally consolidated data. Both debtor and creditor perspectives matter in this respect, ie asset and liabilities of consolidated positions. Also, the concept needs to be applied to bank as well as non-bank financial institutions. A better understanding of the implications for data collection and policy analysis of the different models of global banking (for example, international vs. multinational models) would be useful.
- Linkages within a corporate group (intra-group positions) are also equally important to understand (see also summary of session 3).

Session 2: The concepts of (sub) sectors, residency and nationality (Manik Shrestha)

The session identified issues at two levels. At the conceptual level the question was how the concepts of institutional units, domestic vs. foreign controlled units, and sectors relate to the

nationality concept. At the implementation level it was how to apply these concepts, which are primarily defined in residency-based statistics, in a nationality-based framework.

Some specific issues were raised at the session.

- The institutional unit is a key concept in residency-based statistics and should also be the basis for developing globally consolidated data. Then the issue that arises is what is a group, and how to aggregate them to sectors, particularly when groups involve units belonging to different sectors. There seemed to be a convergence to the view that consolidation applies only at the group level and that beyond that groups are aggregated to (sub) sectors.
- It was noted that the sectoral classification of the System of National Accounts is sufficient to allow for the aggregation of globally consolidated datasets. However, a more detailed classification and breakdown of financial instruments would be desirable to capture globally consolidated exposures.
- Finally there seemed to be agreement that common guidance is needed to identify foreign controlled units and to determine their nationality. Bottom-up and top-down approaches were cited as possible alternatives. The experience of BIS's banking list exercise, Eurostat's EuroGroups Register, and ECB's "register of institutions and assets database" were useful starting points in this regard.

Session 3: The concepts of corporate group, control and consolidation (Reimund Mink)

The underlying measurement rules for recording positions (and transactions) on a nationality basis were discussed. It quickly became clear that the methodological basis of compilation requires careful consideration. A key question is the appropriate level of consolidation to identify the corporate group as reporting unit – for banks, for instance, should it be on the basis of the head banking unit in a group or the parent of the banking group or even of the top financial group in the case of financial conglomerates.

The issue of the appropriate reporting unit was further complicated by the different options for coverage - whether all group companies should be included as required by IFRS (where no boundaries exist on the extent of consolidation) or some degree of truncation is to be applied thereby identifying, for instance, only banking business – in line with supervisory standards. The broad approach adopted by IFRS would have the advantage that it would cover all sources of risk that might be faced by financial groups, including those arising from financial and non-financial subsidiaries. However, this would result in cross-sector and cross-border consolidation which in turn would have repercussions on how non-bank financial intermediaries are captured within the statistics, especially if consolidation would be on the basis of the ultimate parent of the financial group (as many NBFIs are not independent institutions in their own right but form part of large financial corporate groups).

Drawing the sectoral boundaries between banks and non-bank financial corporate groups can be particularly difficult in the case of complex financial groups. Depending on the consolidation approach chosen, inconsistencies can arise between the classification of subsidiaries in complex groups and their counterparties. For instance, should securities business undertaken by institutions called "investment banks" or "securities firms" be classified under the banking sector?

Important differences may arise in the approach taken by different countries due to regulatory and other country-specific considerations. The same could apply with the boundary with non-financial corporations: in the US for instance, domestically controlled bank holding companies do not have significant non-financial holdings, in contrast to Europe. Furthermore, the identification and measurement of Special Purpose Entities

(SPEs) established by banks was considered a relevant issue relating to the criteria for their recognition.

Concerning the concept of control, it was noted that there is a common approach to the definition of the control criterion based on IFRS. In general terms, the advantage of following accounting standards is that the accounts are audited and hence of a high quality. Another advantage is that listed companies are usually obliged to publish their accounts, at least on an annual basis. However, the application of this criterion is not straightforward and requires further investigation to check whether the accounting view is consistent across countries on what needs to be measured from a statistical viewpoint.

The issue of the practical approach to the consolidation of positions was not directly discussed. However, as in session 1, it was stressed that information on inter-office positions needed to be recorded on a gross basis as this is crucial to understanding the dynamics of cross-border financial flows.

The issues related to the definition of corporate group, control and consolidation were all considered to go the heart of the question of how to create appropriate sectoral classifications for statistics compiled according to nationality. The need for clear rules was demonstrated by the recent misunderstandings on the classification of the Irish DEPFA (owned by the German HRE holding) within BIS International Banking Statistics (IBS) which led to difficulties in measuring country exposures in the wake of the financial crisis.

In total, the IBS residency-based statistics aggregates the international business of 7900 banks (head offices, branches and subsidiaries) in 43 reporting countries (end-2009). 5400 of these entities are included in the IBS consolidated statistics. For the 2500 remaining reporting entities no consolidation is applied because

- the head office is in a non-reporting country,
- the parent is a non-bank,
- no information is available.

In recent years BIS analysts have combined information from the different IBS data sets, ie (i) total residency-based data, (ii) residency-based data split by nationality of reporting bank, (iii) and consolidated data. They have shown that data aggregated from the unconsolidated residency-based statistics by nationality match relatively well the data from the consolidated statistics (on an immediate borrower basis). This can be interpreted not only as a confirmation of the quality of the IBS, but also of the consistency and complementarily of the residency/local view of financial (banking) positions and that of the nationality/consolidated view.

Session 4: Measuring exposures (Paul Van den Bergh)

The discussion centred on the costs vs benefits of collecting specific breakdowns in data on financial positions of financial and non-financial corporations in order to capture relevant on and off-balance-sheet exposures. There is a wide range of risks and exposures that users are interested in quantifying. At the same time, collecting an ever-increasing number of breakdowns in the financial positions of reporting institutions has a clear cost. At some point, also, the complexity of datasets, for both users and compilers, may simply become too large. There was thus a need to prioritise which data would be most useful to have.

Obviously the first priority would always be the non-consolidated and consolidated data for banks. Second would come non-banking financial institutions, in particular insurance companies and investment funds. Third would be data for non-financial corporations.

Capturing data on financial positions, and related exposures, of non-bank financial corporations and non-financial corporations is a challenge. The new SNA provides some methodological guidelines but how to start in practice? One possibility is to derive data from banks. However, even if these have some counterparty information, it is incomplete, in particular in order to track developments in the shadow banking industry. Does that mean data collections have to be extended to institutions in the shadow industry themselves? Moreover, should detailed and complex information be collected from every financial and non-financial corporate entity (distinguishing, moreover, by nationality every head office, branch and subsidiary) or could some data collections be targeted to certain institutions who can answer specific questions?

For (NBFIs) the key priority might be to collect data on their lending behaviour in order to shed light on the so-called shadow banking system (non-bank financial intermediation). Data showing the funding risks of NBFIs would also be useful, as would be simple solvency data. It was noted that information on NBFIs was probably most relevant for major financial centres where such institutions play a significant role and where they are major components in the so-called shadow banking system. In many emerging market countries around 80% of credit is given by banks, so non-banking financial institutions are only giving 10% and others, like mutual funds, are less than 10%. Moreover, in many emerging markets NBFIs are prohibited to hold claims on non-residents so their cross-border exposures are negligible. Data collection priorities might thus differ considerably from country to country.

But compilers should be aware of the fact that changes in the financial sector could occur rapidly. An interesting example was provided in the case of Japan, where the flow-funds account, until 2000 did not identify an independent sector for non-banks. The most important non-bank financial corporations were finance companies, which borrowed money from banks, but otherwise did not have an independent intermediation function. Most lending activity of finance companies could be tracked by look at the financing of this sector by banks. However, in 2000 when the Japanese flow-funds accounts were revised, it was found that independent intermediation of finance companies had increased. Moreover, it was realised that in the United States, finance companies loaned money and issued commercial paper. This so-called disintermediation, now referred to as shadow banking, was becoming increasingly important. So independent sector was created for finance companies in the flow of funds. Admittedly, in terms of cross-border exposures, finance companies in Japan are still not very relevant. Foreign subsidiaries, in particular financial subsidiaries, of global manufacturing companies, such as Toyota Finance, are more relevant in terms of cross-border consolidated exposures. They have a lot of foreign subsidiaries in China, Europe, the United States, and whether they should actually be consolidated into finance companies in Japan is a relevant issue.

With respect to cross-border exposures, the G20 recommendations propose reporting guidance for financial and non-financial corporations on various types of such exposures, including those related to foreign exchange and derivatives. Here too, a significant amount of data already exists on the various exposures of banks. So the biggest return might thus be had from obtaining data on exposures of the non-bank sectors. It could be debated whether this data should be collected from non-bank financial and non-financial corporations directly or indirectly through banks which are, in most cases, key counterparties to these (sub)sectors. Indeed, information from banks could be useful in detecting concentrations with non-bank counterparties. Moreover, with respect to derivates, it was not clear to what extent useful data could be obtained from derivatives markets directly, eg from trade repositories, Central Counter Parties (CCPs) and clearing/settlement systems.

Regarding the instrument breakdown for financial positions of financial and non-financial corporations, it could be argued that this breakdown was costly to collect. Priority could thus be given to data on their total balance sheets and related exposures. At the same

time it should not be forgotten that insurance corporations, pension funds and investment funds are important financial intermediaries. They include not only loans and debt securities in their financial positions but also other instruments, in particular derivatives. If one is interested in key exposures and risks for financial stability analysis, it is important to take into account not only the whole balance sheet of these institutions, but also the breakdown by instruments.

With respect to debt securities, balance sheet information could be combined with security-by-security information on security issues and holdings (see also session 6). This could provide good answers to a lot of questions. It was important to build links – at least conceptually - between the different databases, for instance between the SBS such as the CSDB in Europe and the data from IMF's coordinated portfolio investment survey.

Finally, with respect to trade-off between costs and benefits of new or additional data collections, it was noted that data shedding light on financial stability issues should be seen as a public good. Clearly the financial crisis has changed the trade-off between costs and benefits of collecting and disseminating additional or better data.

Session 5: Challenges in applying the nationality/global view of financial positions to non-bank financial corporations (Stephen Lumpkin)

Discussion was directed at three related questions concerning the applicability of a nationality/global view of financial positions to non-bank financial institutions and non-financial corporations:

- Are global corporate financial groups a relevant phenomenon beyond the area of banking and insurance: in which area/subsectors is this most relevant?
- If the relevant entities are, according to accounting and supervisory concepts, not consolidated for their group, could their group structure be identified otherwise (e.g. similar to the BIS banking list)?
- What sources would be available for the compilation of global group consolidated data on the financial positions of the non-financial sector? Is there a natural authority to assist in obtaining (better) data? Will emerging accounting standards encourage the consolidation of balance sheet information of non-financial groups, including breakdowns relevant for financial stability analysis (e.g. claims and liabilities resulting from derivative transactions)?

Reference to non-bank financial institutions (NBFIs) is made both in the IMF-FSB recommendation 13 (cross-border exposures of non-financial and non-bank financial corporations) and 14 (international exposures of large NBFIs). However, most available statistics and conceptual work relate to measuring exposures of the banking sector (e.g. the BIS International Banking Statistics).

The NBFI sector is very heterogeneous, consisting of insurance undertakings, pension funds, mutual funds, hedge funds, and securities dealers, central counterparties, special purpose vehicles, other credit grantors, etc. The new System of National Accounts (SNA 2008) reflects the increased importance of the NBFI sector, through its more detailed breakdown of financial corporations into nine financial sub-sectors, of which seven refer to NBFIs.

According to available ECB statistics (covering sixteen countries in the Euro area in 2010), the NBFI sector accounts for about 40% of total assets of the financial sector, compared to a 60% share for the banking sector. The largest contributors to the market share of the NBFIs are Other Financial intermediaries, Insurance Corporations and Pension Funds, and Non-MMF Investment Funds. For the Euro area, the available (SNA residency-based) statistics indicate a considerable and uneven dispersion of the NBFIs across countries. In particular, investment funds, pension funds and financial vehicle corporations are concentrated in certain jurisdictions (e.g. Luxembourg for investment funds, Ireland for financial vehicle

corporations engaged in securitisation). As a result, significant cross-border positions can be observed in the available statistics, as these entities often invest in financial assets that are issued in other countries. Moreover, investment funds are very numerous (e.g. 47,500 funds in the Euro area), implying a relatively small average fund size.

The wide differences in business activities, time horizons and risks across institutional sectors mean that the regulatory framework, especially as it pertains to the application of prudential guidelines, is not fully harmonised across the universe of such entities. In particular, there is no common set of solvency regulations and hence, no common reporting framework. The legal provisions regarding accounting standards, public disclosure and statistical reporting also vary between the different NBFI sub-sectors, and across different jurisdictions. Thus, it is more difficult to develop internationally comparable and practicable statistical standards for such entities under the IMF-FSB framework than is the case for banking statistics.

While the need for a meaningful assessment of capital and risk for NBFIs that are parts of financial groups exists at both the entity and group-wide levels, the discussion in the session suggested that the applicability of cross-border consolidation is not uniform across the spectrum of non-bank financial companies.

In general, to facilitate comparisons the consolidation approach applied for banks determines the statistical requirements for NBFIs. IFRS (IAS27) requires consolidation when the parent company has control, which suggests that consolidation of a NBFI belonging to a bank or insurance group is, in principle, appropriate, with the international exposures of these entities included as part of the consolidated banking or insurance statistics.[59] It appears, however, that in practice most accounting, supervisory, and statistical (e.g. BIS international banking statistics) reporting uses a truncated consolidation concept, without cross-sector consolidation of NBFIs in the reporting by banks or insurance corporations. The IMF calls for full cross-border cross-sector consolidation in compiling its Financial Soundness Indicators, but most other data reports do not.

The discussion in the session on these various issues is summarised in the following sections, which cover the major categories of NBFIs.

Insurance undertakings

Among NBFIs, participants considered consolidation to be most relevant for insurance undertakings, owing in part to the strong international orientation of the insurance sector. There can be strong cross-border penetration in some sub-components of the insurance sector, whereby the market shares of foreign companies are quite high as a percentage of the domestic market, over ninety per cent in some cases.

A second feature of insurance that makes consolidation a relevant concept is the common use of group structures for conducting insurance business. To protect the interests of insured parties from risks associated with other business activities insurance undertakings are subject to the “specialisation” principle. Specifically, rules in most jurisdictions prohibit the combination of insurance with banking, securities or other commercial business in the same legal entity and also do not allow the same legal entity to conduct both life and non-life insurance business. Thus, by regulatory intent, alternative corporate structures have to be used.

Against an institutional backdrop of group structures and international activity, the need to monitor intra-group transactions and exposures for insurers is apparent. The fact that an

[59] For instance, there are no exemptions In IFRS for subsidiaries with different business than the parent. And there is no exemption for a subsidiary facing restrictions to transfer funds to its parent.

insurer is part of a group means that the operations of other group companies, including any holding companies if applicable, need to be taken into account in assessing the totality of the risk exposures of the entity in question and of its insurance group as a whole, including possible contagion effects and conflicts of interest.

Historically, however, given the emphasis on safeguarding the interests of the insured, supervision of insurance companies has typically been focused on the liability side of insurers' balance sheets and in the case of life insurance companies has tended to stress the financial soundness of individual insurers. But there is general agreement that the supervision of an insurance undertaking that is part of a wider insurance group or conglomerate, whether domestic or international, cannot be limited to the “solo” supervision of the particular insurance undertaking. At a minimum, some type of “solo-plus” approach is needed in which an extra measure of supervision is added to account for intra-group relationships.

Some jurisdictions have taken the extra step of adopting or considering a more complete group-wide consolidated approach (e.g. Solvency II), but such an approach is not yet in operation globally, in particular, not in a Pillar 1 sense of capital adequacy. There was some debate as to what degree of consolidation is appropriate. Consolidation results in intra-group transactions being cancelled out, which is considered to be acceptable for some statistical purposes, but is thought in some circumstances to conflict with safety and soundness considerations. In particular, bank and insurance supervisors avoid cross-sector consolidation between the two sectors precisely to enable such exposures to be monitored. Thus, for banks, a consolidated supervisory view pulls together bank branches and non-bank financial subsidiaries other than insurance undertakings, while a consolidated view of exposures for insurers would exclude affiliated banking entities.

Some jurisdictions also carve out insurance company information from consolidated financial statements when insurance companies are part of a financial conglomerate. More generally, consolidated reporting has not been used consistently in the insurance sector. Rather, reporting practices for the insurance sector have tended to vary at national level, sometimes considerably, in terms of scope, definitions, etc. In fact, the accounting treatment has long been sufficiently different across countries that insurance has been the only sector not to be under unified accounting standards (such as IFRS). Hence, apart from supervisory data, there is very little comparable statistical data collected from the insurance sector at present that has the necessary level of granularity (e.g., for the information pertaining to counterparty exposure by type of issuer, country, currency) or level of consolidation to facilitate direct mapping against the BIS International Banking Statistics.

More aggregated statistics do exist, however, at international level. For example, EU data in most cases is derived at country level from supervisory sources. Most of the data are reported on a home-country (nationality) basis in which the supervisor of the parent entity accounts for foreign branches, rather than on a residency basis. Elsewhere, the OECD maintains two databases that include coverage of the insurance sector, either directly (Global Insurance Statistics) or as part of broader work on Institutional Investors. The objective of the OECD institutional investor statistics is to provide comparable statistics on the financial assets of institutional investors in order to gain a better understanding of their importance and role in the financial system. For purposes of the report, insurers, investment funds, and pension funds are considered to be the main types of institutional investors. The data provide a breakdown of financial assets, consistent with the System of National Accounts (ie on a residency basis) and include securities and shares issued by residents and by non residents, as well as loans to residents and to non residents; proposed revisions would incorporate data on liabilities. Data are provided from 1980 onwards and include coverage of all OECD countries. Data on Insurance companies are broken down between life insurance and non life insurance companies.

The OECD also maintains a separate set of statistics for the insurance (and pensions) sectors. Recent changes in the statistical framework for insurance (2008) have resulted in the collection of key balance sheet and income statement items for the direct insurance and reinsurance sectors. Data include direct premiums and reinsurance accepted (in cooperation with the IAIS), with data on premiums broken down by category and also with risk written domestically and risk written abroad. Fairly detailed categories of investments are reported. Data for EU-based insurers generally exclude branches of foreign companies with EU-based parents. Information from individual large reinsurers is collected by the IAIS, based in part on supervisory reports. This information pertains notably to counterparty exposure. Given the nature of reinsurance, the information is based on globally consolidated data.

In most of these cases, the exception being the reinsurance statistics, the data are currently not broken down into counterpart sectors.

Pension funds

From the perspective of the plan member, private pensions are a form of long-term savings in which contributions are invested today in order to pay for benefits tomorrow. Private pension schemes in some countries are financed with vehicles that have characteristics in common with insurance companies; that is, the liabilities of both life insurers and many pension funding vehicles have long horizons and both the life insurance and pension business are often conducted via products employing mutual funds (or other collective investment schemes) as investment instruments.60 Research on bulk pension funds and insurance companies in the Netherlands, for instance, shows, in fact, that both tend to be stabilizing factors in many instances where there are very volatile financial market conditions, largely because of their very long investment horizons. Like other investors, insurers and pension funds do tend to rebalance their portfolios, but they rebalance them with a view towards a long-term investment return, rather than in response to short-term or temporary developments. Thus, it is necessary to think about pension funds a little differently when putting them in the context of financial stability. Their activities and the way they function are quite different from banking,

For participants in the session, the similarity in long-term investment behaviour for insurers and pension funds does not translate into a common recommendation for a consolidated view of financial positions. In particular, the discussion in the session generally concluded that group-wide consolidation concepts are considerably less applicable for pension funds. Various reasons are offered, related in many cases to the more limited international character of pension fund operations. As institutional investors, pension funds operate under the regulations and tax laws of a particular jurisdiction. They do not have branches or subsidiaries, so consolidation is not relevant in this sense.

Funded pensions, whether they cover private sector or public sector employees, do maintain sizable investment portfolios, however, which may include considerable equity holdings in both domestic and foreign-based companies. Funds in many jurisdictions are subject to prudential guidelines (commonly a five per cent ceiling on holdings in shares of any one company) that prohibit them from acquiring control, which would be a relevant criterion for purposes of consolidation. But not all jurisdictions impose such hard limits and control is technically possible in a few cases, even in a cross-border context. An important distinction can also be drawn between funded pensions versus national reserve funds, in the sense that the latter are also not subject to the same limitations as regards control and that activity

[60] For example, pension funds can transfer their assets to insurance companies, they can invest in (retail) mutual funds and they can delegate management of their assets to profession asset managers, which may be daughters of insurers or banks.

would likely show up in the FDI statistics of the relevant countries and could be relevant for tracking cross-border exposures of the sector.

A limited number of cross-border funds exist. But these arrangements are in almost all cases defined benefit (DB) plans or similar plans with guaranteed benefits, the membership in which is open to employees from different countries. In such arrangements, the plan sponsor bears the responsibility for the pension liability. For exchange-listed companies that sponsor such plans, comprehensive requirements for the reporting of pension obligations exist. In particular, for a company with DB plans in a number of countries around the world, the annual financial statements would show the aggregated pension plan liabilities for all such DB plans as one number and all the aggregated pension plan assets for DB plans as one number. So from the perspective of the accounts of the plan sponsor, the DB plan assets and liabilities are consolidated.

In contrast, pension plans that are (collective) defined contribution (DC) in nature or arrangements that are fully insured with an insurance company typically leave the sponsor with no associated defined-benefit obligation. Rather, in DC plans, the employer often has no financial obligation other than to make periodic payments into the plan; retirement income risks are borne entirely by employees. In such cases, the accounting treatment is quite simple: payments to a DC plan are treated as any other corporate expense. Otherwise, the pension liability is simply to pay out the accumulated assets and the reporting obligation rests with the entity that bears this responsibility.

As in the case of insurance undertakings, data availability for pension funds is in most cases linked to supervisory or accounting reporting requirements for the private pension sector. As noted previously, the OECD compiles SNA-related data on assets of pension funds as part of the Institutional Investors Statistics. A more detailed breakdown is available in statistics collected as part of the Global Pensions Statistics exercise in close cooperation with the International Organisation of Pension Supervisors, which includes over 60 member jurisdictions. For some countries, the asset total for the sector is the same under both exercises or insignificantly different. Where large differences exist, the great variety of pension plans in participating countries makes a step-wise approach necessary to understand the differences. Large differences in most cases stem from certain types of funds being included in one database and excluded from the other, such as, for example, industry funds being included in Institutional Investors, but treated as pension insurance contracts in the GPS and thus excluded from the pension fund category. The OECD has started to examine this issue.

A companion exercise under the auspices of the OECD Working Party on Private Pensions, underway since 2009, tracks micro-data for large pension funds. The exercise can be adapted to provide additional breakdowns for information such as counterparties at sector level, maturity breakdowns and notional value pertaining to derivatives in order to provide comparison with statistics from banks and other entities.

Investment funds

DC pension arrangements are similar in many respects to other types of investment funds. In fact, mutual funds and related collective investment schemes (CIS), both retail and institutional varieties, are often part of the investment options offered under many DC plans. In CIS, the owning share/unit holders are entitled to the accumulated benefits (minus fees) of the fund investments according to their pro rata shares. They also collectively bear the full investment risk of the fund.

As in the case of Insurance companies and of Pension funds, the OECD compiles SNA-related data on assets of Investment funds, broken down between Open-end companies (split between Money market funds and Other mutual funds), and Closed-end companies (of which Real estate funds), with the same detail regarding residents and non residents.

The consolidation applied for banks and insurers suggests the statistical requirements for NBFIs. But investment funds, in principle, are completely isolated assets and liabilities. The assets of the fund are managed for the sole benefit of the share/unit holders and thus are segregated from the assets of the sponsor. Due to the usual segregation of assets, there are typically no "groups" of funds and monitoring the development of single funds is the common practice. The segregation of assets also applies to the assets of different funds managed by one and the same fund management company. The need to avoid commingling of assets is a reason why investment funds and other similar financial intermediaries are typically not consolidated in supervisory reporting and under some accounting standards. For example, the IASB announced in 2010 that investment companies should be exempted from consolidation and should account for controlling interest in other entities at fair value.

The fact that investment funds are typically sold to several or many investors lessens the applicability of the consolidated concept. Even with umbrella funds, in which one legal entity has sub-funds, there typically are no transactions between sub-funds so consolidation again may not be applicable. But the same may not true of all arrangements. For example, with funds of funds and master-feeder funds, there are separate legal entities but the feeder fund may hold the shares of the master fund and consolidation can in principle be applied. When master and feeder funds are domiciled in different countries, how the structures are treated matters for measuring cross-border positions of the funds sector. Clarification would also be needed on the treatment of umbrella funds (which contain various sub-funds) as either separate funds or as one single fund for measurement purposes. Differences between jurisdictions may be significant.

Many of the management companies of investment funds are daughters of banks. And while there is no direct link between the fund and the bank, there is an indirect linkage which needs to be kept in mind, which can for example entail deposits by the fund in subsidiaries of the bank or other arrangements. Nonetheless, in practice, when a bank operates with an investment fund, it is typically not consolidated; it is not on the bank's balance sheet. But if an investment fund is combined with life insurance, that arrangement is reflected on the balance sheet of the insurer in many jurisdictions.

A third specific question to be addressed in the session concerned the impact of securitisation on the balance sheet and exposures of the financial sector. In a securitisation, the originator (in most cases a bank) sells a pool of assets to a bankruptcy remote vehicle. However, the application of IAS 39 means that the securitised portfolio, in most cases loans, are not derecognised from the balance sheet (in the Euro area this is the case for about 50% of the securitised assets held by the securitisation vehicles). For deriving comparable data on international claims, information on the recognition/derecognition practices in national statistics are needed. Furthermore, it is important to avoid a possible double counting of claims on both the originator's and on the securitisation vehicle's balance sheet when securitised assets are not derecognised by the originator. SPEs themselves are to be consolidated when controlled.

If the group and consolidation concepts (both cross-border or domestically) are typically not relevant for investment funds and securitisation vehicles, the residency-based statistics may provide useful information for monitoring international claims of this sub-sector, provided they are available at a sufficient level of detail (instrument, maturity and counterparty breakdown). Detailed data on the portfolio of funds is also a pre-condition for the "look-through" approach, which would allow identification of the ultimate counterpart sector and region for the holdings of fund shares by banks and insurers.

Non-financial corporations

Detailed data on assets and liabilities of foreign affiliates of non-financial corporations are not available. In a standard report of FDI (foreign direct investment) reinvested earnings, only the financial assets and liabilities related to the parent company are reported. It should be

possible, however, to expand this report to include all assets and liabilities of direct investment companies.

Indeed, work is just getting underway at the OECD on identifying total assets and liabilities of foreign affiliates. The exact framework has not yet been agreed. But it would be possible to incorporate variables that fit reasonably in the context of FDI and statistics on foreign affiliates of multinational enterprises. There are plans to conduct a harmonization exercise between these two sets of statistics and one can envisage including additional concepts over time should it prove necessary.

All told, there are three sets of data available on a residency basis. They include data sources based on counterpart data, such as banking statistics, government data, security holdings statistics (identification of the individual issuer based on a security by security data set; include security issuance statistics). Data sources based on direct information include balance of payments data including FDI, balance sheet data of corporations, and other sources, a prime example of which would be direct reporting of securities holdings.

Balance of payments data including FDI allows for identification of individual domestic entity and non-resident counterpart (including ultimate beneficiary owner in the case of inward FDI. This can be a source of whom-to-whom data for individual corporations and related stocks.

An alternative is to use balance sheet data of (limited liability) corporations, which can be derived from Company Register information on all enterprises, which would include nominal capital and structure of owners, and from commercial data bases providing information on individual capital components and other important items of the balance sheet. This also provides a whom-to-whom perspective for resident entities and related stocks.

One can arrive at a global consolidated basis using a top-down approach or a bottom-up approach. With the former, the idea is to use globally consolidated data of ultimate beneficiary owner companies. The question in this case relates to the selection and data availability of balance sheet data and their link to data on a residency basis. In a bottom-up approach, one would start from unconsolidated data of all companies within a group of companies, which can be combined to form enterprise group structures. The question in this case relates to data availability on a whom-to-whom basis. To facilitate the construction of enterprise group structures, ongoing projects at EU level entail use of EuroGroups Register in connection with the Register of Institutions and Assets and securities holdings statistics.

Session 6: Reconciling the residency and nationality view of financial positions (Paul Van den Bergh)

This was a short session based on the French experience with the compilation of debt securities issued by a large banking group. It also dealt with the comparison of data from accounting, supervisory and statistical sources.

The example was that of a French banking group for which consolidated financial reports were available, including with a breakdown for debt instruments (own issues and holdings). For the same group security-by-security (SBS) data were extracted from national and international sources for all its component entities. Some comparisons were then made from the various datasets. In so doing, various issues could be identified, including

- it was possible to make a comparison between the data from the different datasets;
- it is a challenge to identify correctly all the entities issuing securities within the group as well as all the individual debt securities issued by the group;
- it is also difficult to take account of holdings within the group of own (group) securities (the latter is consolidated in the financial reports);
- it is important to take account of valuation differences across datasets;

- it should be possible to use other data sources to reconcile the datasets (eg supervisory sources).

The exercise illustrated the usefulness of the SBS databases, in particular of the Centralized Securities Database (CSDB), which is populated and used by all the central banks in Europe. It also indicated that if a truly global and correct SBS database could be established it should, in principle, be possible to assign issuers and holders of every debt security issued either on a residency/local basis or on a nationality/globally consolidated basis. More generally, it supported the view that, in theory, the nationality/global view of the financial positions was complementary to the residency/local view of such positions.

Session 7: Panel discussion on possible further work to develop a conceptual framework for a nationality/consolidated approach to financial positions (Paul Van den Bergh)

The intention of the IFC and the IAG was to share the findings of the workshop with a broader group of experts, in particular through the various international groups interested in financial statistics on a nationality and global consolidated basis. The IAG is also considerating the preparation of a reference guide on consolidation concepts that could be used by international statistical bodies as well as national compilers. While the concepts of consolidation would need further discussion over the next few years, the latter could already influence the development of international standards and methodologies aiming to capture financial innovations and their risks. A reference guide might also contribute to introducing appropriate classifications in various micro databases (the latter, for instance, could for instance be set up to produce both residency-based and nationality-based aggregates).

Compiling complementary data on financial positions on the basis of nationality and global consolidation will require additional resources from national statistical compilers (central banks of national statistical institutes). While the cost should not be underestimated, there are clear benefits also. One is that the development of nationality/consolidated data would allow data gaps to be closed in traditional residency-based sectoral accounts. A second is that it would enhance the cooperation at the national level between various supervisory authorities in the financial system and statistical compilers. A third is that it would contribute to strengthening the international coordination between compilers, particularly between home and host countries of head offices, branches and subsidiaries (as illustrated by the coordination between central banks participating in the BIS IBS). A fourth benefit is that aggregate consolidated data could tell a macro-prudential story for supervisors of particular financial institutions such as banks as well as to overseers of the whole financial systemt. Supervisors could then drill down to the globally consolidated positions of individual institutions in order to identify the distribution of risks and exposures at the micro level within the national financial sector. Finally, the sharing of experience across countries and sectors in developing nationality-based and global consolidated data would be very important and would lead to better macroprudential data over time.

One particular challenge for the development of nationality-based consolidated financial data is for statistical compilers to be able to profile corporate groups and their component entities. At the national level this could show, for instance, the concentration of financial positions and related exposures in key financial groups. Moreover it could also indicate to what extent these groups are the major players at the cross-border or international level. In practice, however, there are often major gaps both within and across the SNA registers for financial and non-financial corporations and the databases of supervisory authorities for particular “sectors”. This results from the complexity of the business model and governance structure of financial groups with which both statistical compilers and supervisors need to deal.

The workshop discussed the importance to have/keep data on interoffice positions and flows within groups. In fact, there is some evidence that cross-border financial flows are sometimes driven by interoffice flows. Also, interoffice positions are a major element in the

interconnection of national banking systems. It would therefore be useful to identify interoffice positions and flows in nationality-based consolidated statistics. One complication is that the global financial business model often includes banks and non-banks as well as a mixed nationality structure (eg Dexia). Disentangling this is, and will remain, a major challenge.

Some participants noted that there is a somewhat surprising consensus on the need to complement residency-based financial statistics with financial data based on the concept of nationality and global consolidation. Discussion at the workshop also indicated that FDI data could be used as a building block to link the two views on cross-border financial positions. Moreover, there seemed to be a consensus that both the SNA and supervisory approaches were similar in terms of classification and identification of institutional units and sectors. What was not fully clear was whether nationality-based consolidation is a useful concept for all the subsectors of the financial sector.

Further with respect to the follow-up work, there is definitely a need to develop a common methodological and analytical framework on consolidation. A reference guide would need to spell out the requirement from the perspective of financial stability analysis for a complementary dataset to the residency-based statistics. It should also bring out more clearly the benefits from any additional statistical work needed to implement a supplementary view of financial accounts. Perhaps it could even identify the comparative advantage of each approach to answer specific analytical questions so that duplications and inconsistencies in user requests could be avoided. In this context it was noted that analysts and policy makers need time series for macroprudential variables in order to be able to conduct their analysis and that this requires a stable methodological framework and definitions - otherwise it would not be possible to obtain reliable comparable data over time (supervisory data often are adapted too often to capture information on specific developments).

The guide should show the integration between the new approach and the existing sectoral accounts based on residency criteria. And it should spell out the relationship between the statistical, regulatory/supervisory and accounting concepts related to nationality and consolidation. Finally, with respect to statistical concepts, there should be appropriate references to the SNA2008 and BPM6 as well as to the BIS IBS, the IMF MFSs and FSIs and the Handbook on Securities Statistics. In some cases these already include description of key concepts such as residency and nationality; the statistical (institutional) units and sectors; control and ultimate beneficial ownership.

Practical data collection issues should be addressed in the reference guide. For instance, should direct reporting be preferred to indirect data collection through banks or clearing houses or CCPs? What would be the type of coordination and cooperation needed among international agencies to implement data collections on a nationality/global consolidated basis? And what role do statistical institutes, central banks, ministeries of finance and regulatory/supervisory authorities play (for instance to develop a consistent register of multinational enterprises, FDI and financial institutions, work on legal entity identifiers). How could the additional response burden for reporters be minimised? To what extent, for instance, could existing data sources be leveraged (eg tax collection systems for FDI and Portfolio Investment, data collections on NBFIs)? Data quality issues would be important. Indeed, residency-based financial account data are relatively static in that the classifications of institutional units do not change fundamentally very often. Nationality-based data on the other hand are more dynamic given the importance and impact of M&A and financial restructurings in cross-border financial business. It could thus be expected that keeping track of such developments and cross-checking across home and host countries would be a challenge (in this context the confidentiality issues related to data sharing might need to be addressed). Finally, the reference guide could provide an indication of the prioritisation for actual data collections to implement the nationality-based consolidated framework.

In the end, the development of a methodological and analytical framework for nationality-based and global consolidated data on financial positions is part of a broader effort to

capture the effect of globalisation on economic and financial statistics. As such it is related to other initiatives at the international and national level to adapt statistical standards and compilation exercises to the increasing complexity of the world. Overall the workshop was seen to have provided a useful impetus to focus on the need to augment the existing framework of the SNA and sectoral accounts with a complementary view based on nationality and global consolidation. The issue is now on the agenda of many international groups and is becoming part of the ongoing discussions in the international network of economists, statisticians and supervisors at central banks, regulatory authorities and national statistical institutes. The IFC and IAG look forward to mobilise the expertise in this network for the further reflection on the many issues raised at the workshop and for the development of a reference guide on the concepts of global consolidation.