9th Meeting of the Advisory Expert Group on National Accounts,
8-10 September 2014, Washington DC

Agenda item: 6.1

Treatment of output international financial institutions

Introduction

International financial institutions (IFIs) such as the IMF, World Bank, and regional development banks are public financial corporations (and, by implication, institutional units) that are, as a rule, non-residents vis-a-vis countries, residing in the "international economic territory". Like other financial corporations, they use inputs to produce financial intermediation output, which has a directly measured (fee) and an indirectly measured FISIM component. They are jointly owned by the governments of their member countries under cooperative arrangements, such as the IMF Articles of Agreement. The characterization and compilation of their output, and the use of that output by their member countries require elaboration under the current SNA guidelines, but also may have implications for the scope of the financial instruments associated with the production of FISIM as well as the financial instruments associated with the use of FISIM. This subject falls under the 2008 SNA Research Agenda items for FISIM (2008 SNA, paragraph A4.33), Income arising from assets (2008 SNA, paragraph A4.36), and Definition of income (2008 SNA, paragraphs A4.23 and A4.27).

Documentation

A paper on: Treatment of output international financial institutions

Main issues to be discussed

The AEG is requested to express their views on the issues raised in part V of the paper

Discussion Paper
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International Financial Institutions

IMF Statistics Department

I. EXECUTIVE SUMMARY

International financial institutions (IFIs) such as the IMF, World Bank, BIS, and regional development banks are public financial corporations that reside in "international economic territory." In principle, like other financial corporations, they use inputs to produce financial intermediation output, which has a directly measured (fee) component, a financial intermediation services indirectly measured (FISIM) component, and nonmarket services such as overseeing the international monetary system (SNA paragraph 4.173). The characterization and compilation of IFIs' output, and the use of that output by their member countries, is not elaborated under the current SNA guidelines. The question for the AEG is whether it should and if so, should this item be placed on the Research Agenda.

This subject lies in the intersection of the 2008 SNA production account and the BPM6 trade in services account. Both the Inter Secretariat Working Group on National Accounts (ISWGNA) and the IMF Committee on Balance of Payments Statistics (BOPCOM) thus have an interest in the guidance provided to compilers. ISWGNA has an additional interest because IFIs have an analogue in cooperative financial institutions.

This note characterizes the classification of accounts of IFIs under existing 2008 SNA guidance, using International Monetary Fund (IMF) accounts as an example. The note focuses on the measurement of the FISIM component and concludes that it is potentially feasible to measure FISIM output for the IMF. The note concludes with recommendations and questions for the AEG.

II. SHOULD THE OUTPUT OF IFIS BE CALCULATED AND ATTRIBUTED TO USES?

1.   In the wake of the 2008-2009 financial and economic crisis, the loan indebtedness of some countries to IFIs increased steeply and remains above historical levels. The question has arisen how and whether to measure the output of IFIs (including indirectly measured credit services) and their member countries' uses of that output. IFIs generally have either a Financial corporation (generally a central bank—S121) or General government—S13

counterparty in their member countries. If the counterparty is General government, the services they provide are a service input to their members but also a General government consumption, and the two cancel out in the calculation of GDP. If the counterparty is a central bank, the service import from the IFI is an intermediate consumption and lowers GDP by the amount of the import. So measurement IFI output and its and uses is consequential to the balance of payments and may be consequential to GDP.

2.   We begin by taking note of language in the 2008 SNA that bears on whether IFI output should be calculated at all. The 2008 SNA deals with inter-financial institution flows of services in the context of "inter bank" positions and transactions:

> 6.166 The reference rate to be used in the calculation of SNA interest is a rate between bank interest rates on deposits and loans. However, because there is no necessary equality between the level of loans and deposits, it cannot be calculated as a simple average of the rates on loans or deposits. The reference rate should contain no service element and reflect the risk and maturity structure of deposits and loans. The rate prevailing for inter-bank borrowing and lending may be a suitable choice as a reference rate. However, different reference rates may be needed for each currency in which loans and deposits are denominated, especially when a non-resident financial institution is involved. For banks within the same economy, there is often little if any service provided in association with banks lending to and borrowing from other banks.

> 11.56 Though not strictly accurate, the term bank is frequently used as a synonym for the central bank and other deposit taking corporations. Banks take deposits from and make loans to all other sectors. There may also be substantial borrowing and lending within the banking subsector, but this is of different economic significance from their intermediation activities involving other sectors. Chapter 27 describes how a full analysis of the debtor and creditor sector for each instrument can be portrayed. Such an analysis is known as a detailed flow of funds table. However, not all countries are able to provide these tables on a timely basis. Inter-bank positions can usually be identified and are usefully recorded as a separate instrument category. This is one reason to consider separating inter-bank loans and deposits from other loans and deposits. A second reason concerns the calculation of the charge for financial intermediation services indirectly measured (FISIM). This calculation depends on knowing the level of loans and deposits extended by banks to nonbank customers and calculating the difference between the interest the banks receive or pay and the interest when a reference rate is applied to the same levels of loans and deposits. However, there is normally little if any FISIM payable between banks as banks usually borrow from and lend to each other at a risk-free rate. For both these reasons, inter-bank loans and deposits should be separated from other loans and deposits.

11.57 There may be cases where the instrument classification of inter-bank positions is unclear, for example because the parties are uncertain, or one party considers it as a loan and the other a deposit. Therefore, as a convention to assure symmetry, all inter-bank positions other than securities and accounts receivable or payable and changes in the positions are classified under deposits. Chapter 27 describes the detailed flow of funds table which removes the need for identifying inter-bank deposits as a separate category.

17.252 It is not always simple to determine whether positions between banks should be classified as deposits or loans. In a complete flow of funds presentation, this should be resolved but in the absence of a flow of funds analysis, inter-bank positions may be shown under currency and deposits. By convention they are shown under deposits. It is assumed that the inter-bank rate at which banks borrow and lend to one another is usually such as to meet the criteria for a reference rate. (In some cases it may be appropriate to use the inter-bank rate as the reference rate.) For this reason, it may often be appropriate to assume that there is no FISIM associated with inter-bank lending and borrowing within the national economy.

3.   These paragraphs provide hedged permission to exclude FISIM from inter-bank lending and borrowing, under the assumption it may be de minimus, predicated on the assumption that the reference rate is the inter-bank rate, which is *one* option mentioned in 2008 SNA, paragraph 6.166. The SNA's most recently added guidance in the same paragraph, however, is that the reference rate "reflect the risk and maturity structure of deposits and loans." As part of the long-term research agenda, determination of the reference rate at another, likely higher level reflecting institutional cost of funding is one option the AEG approved in its last meeting.

With regard to IFIs, their deposit and lending activity is by definition cross-border and so they are not "domestic banks." The issue arises as to whether the guidance on FISM applies to the transactions of IFIs with residents of their member countries. If there is merit in investigating FISIM output produced and sold between IFIs and the residents of member countries an additional issue is whether it is de minimus.

4.   While it is clear that member countries would record explicit fees provided by IFIs in their national accounts and balance of payments, there are arguments both for and against recording implicit services of IFIs.

5.   The argument for is that IFIs such as the IMF, World Bank, BIS and regional development banks are public financial corporations that reside in "international economic territory." In principle, like other financial corporations, they use inputs to produce financial intermediation output, which has a directly measured (fee), a financial intermediation services indirectly measured (FISIM) component, and nonmarket services. Further the intent of the SNA is to record financial intermediation services even if implicitly provided.

6.   On the other hand, it could be argued that IFI lending and deposit activity undertaken with other financial intermediaries falls under the same conditional exemption in the current statistical standards as domestic inter-bank lending. Also, the de minimus argument could arise under current standards depending on how the institution is funded (i.e., if there is no deposit funding). This would obviate the need to estimate IFI output and the use of that output by member countries in national and balance of payments accounts. As noted above, whether there is an effect on GDP depends on the counterparty sector in the member country. Further, should the output and its allocation be measured for the provision of nonmarket services by IFIs, such as supporting the international monetary system, how would it be measured and would it be allocated similar to the treatment of non-market central bank output (SNA paragraph 6.155).

7.   This subject lies in the intersection of the 2008 SNA production account and the BPM6 trade in services account. Both the Inter Secretariat Working Group on National Accounts (ISWGNA) and the IMF Committee on Balance of Payments Statistics (BOPCOM) thus have an interest in the guidance provided to compilers. ISWGNA has broader interest because IFIs have an analogue in cooperative financial institutions that may or may not have nonresident counterparties.

8.   This note uses periodic references to the IMF to characterize applying 2008 SNA guidance to classify and estimate IFI production accounts and determining the uses of IFI outputs. The IMF accounts have some interesting features and highlight the issues well. Notably,

- The IMF holds an array of financial assets, including monetary gold (2008 SNA AF1), deposits (AF2), debt securities (AF3), and loans (AF4).

- The IMF is an Other financial intermediary (S125) within 2008 SNA institutional sector—Financial corporations (S12), whose "Reserve position in the IMF" liability is classified as AF29 – Other deposits (2008 SNA, paragraph 11.59; BPM6, paragraph 5.43).

- IMF financial statements comply with the International Financial Reporting Standards (IFRS), but its balance sheet contains some financial positions the 2008 SNA considers contingent and thus not within the SNA asset boundary; in addition, valuations do not necessarily comply with 2008 SNA standards (historical valuation of gold and fixed [nonfinancial] assets).

- The IMF is a cooperative financial institution, whose owners vote on the basis their quota that is determined jointly by its member countries in periodic (quota) review

exercises;[1] like other cooperative deposit taking corporations (credit unions), IMF members have both an AF29 – Other deposits (2008 SNA, paragraph 11.59) and AF519 – Other equity (2008 SNA, paragraph 11.88) interest in the institution (see IMF paper on Other equity, this meeting).

- The IMF undertakes a substantial amount of loan monitoring and financial surveillance activity.[2]

- The information with which IMF current price output and the uses of that output by its member countries might be calculated is, for the most part, already published on its website (http://www.imf.org/external/fin.htm).

III. POSSIBLE METHOD OF CALCULATING FISIM FOR THE IMF

A. Background

9.   Although the 2008 SNA has fairly broad criteria for determining the reference rate used in FISIM calculations, the AEG decided in its last meeting that the cost of funds approach to determining the reference rate taken in this note is a Research Agenda item.[3]An

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[1] The quota comprises paid in (Reserve tranche) and pledged (Subscription payments) financial capital. The 2008 SNA and related standards such as the BPM6 consider the subscription component of the IMF quota a contingent liability that is consequently outside the SNA asset boundary, and thus would exclude it from the IMF balance sheet with a corresponding adjustment to Currencies on asset side. See the IMF paper on Other equity, this Meeting.

[2] The IMF manages trust funds that undertake concessional lending at rates (as low as zero) that may be below the trust funds' cost of funding. This is not as important for the IMF as for other IFIs, which may be managing relatively larger concessional lending under similar or different consolidation arrangements. In IMF's case, its trust fund operations as well as its support of the SDR Department are reported independently from its core General Department accounts. Both of the former, along with the staff retirement plans, are reported as free standing entities from the General Department.

[3] The ISWGNA's Advisory Expert Group (AEG) decided the following concerning the reference rate at its meeting in Luxembourg of 28-31 May 2013:

2. [The AEG] Considered the report of the FISIM task force and agreed on the following:

…

(e) The calculation (definition) of the reference rate should be determined according to national circumstances, using preferably any of the following approaches:

(i) a reference rate based on a single observable exogenous rate for a specific instrument, such as interbank lending rates;

(ii) a reference rate based on a weighted average of observable exogenous rates of maturities with different terms (weighted by the stock of loans and deposits in each maturity); or

(continued)

"internal" reference rate based on the institution's cost of funds, is calculated as the average return across all of the institution's liabilities, including Equity (AF5). Preliminary calculations suggest that this is a feasible and robust choice of reference rate for the IMF and produces plausible results. If the internal cost of funds is feasible but still considered nonstandard, then one implementation of the "weighted average of endogenous interest rates" method (item 2.(e)(iii) of http://unstats.un.org/unsd/nationalaccount/aeg/2013/M8-5.PDF) would be to check it against a cost of funds calculation, adjusting the weights of the loan assets and deposit liabilities interest rates to improve the fit.

10.   These calculations based on the internal reference rate approach may have Research Agenda implications for the scope of the financial instruments associated with the production of FISIM as well as the financial instruments associated with the use of FISIM. These implications fall under the Research Agenda items for: FISIM (2008 SNA, paragraph A4.33), Income arising from assets (2008 SNA, paragraph A4.36), and Definition of income (2008 SNA, paragraphs A4.23 and A4.27).

B. Notation and Preliminaries

11.   It will be helpful to set up some simple algebra to lay out the basic accounting identities for an IFI. Notation is in Table 1, based on Annex 1 of the 2008 SNA. Using that notation, the "receipts equals expenses" or "cash flow" identity is

$$p'y + r'_{AFA}AFA \equiv \overline{P2} + D1 + D29 - P51c + r'_{AFL}AFL \tag{1}$$

(iii) a weighted average of the endogenous interest rates on loans and deposits.

(f). Considerable care should be taken in determining FISIM estimates during periods of volatile movements in reference rates and when liquidity markets begin to dysfunction. These periods may be characterized by negative FISIM estimates, particularly for depositors, but also for borrowers. In this respect, encouraged countries to review the applicability of the underlying reference rate for that period to calculate FISIM when such incidences occur.

4. Agreed on the following topics for further research in FISIM:
…
(d). further develop the 'costs of funds' approach to determine the reference rate, and further develop possible alternative approaches (vintage reference rate);

(e). consider the financial instruments and units scope of FISIM; and

(f). the connection between the recommendations on implementing FISIM and the definition of income.

noting that *AFL* is the entire vector of liabilities, including owners' equity *AF5CL*, that r_{AFL} thus includes the residually determined return on equity liabilities, and that the *2008 SNA* negative sign convention on consumption of fixed capital (CFC, a.k.a. depreciation) *P51c* means that subtracting *P51c adds* CFC to other production costs. In words, equation (1) says that directly measured output *p'y* plus interest income on financial assets $r'_{AFA}AFA$, equals directly measured intermediate consumption $\overline{P2}$, plus compensation of employees *D1*, plus

Table 1. Notation

Concept	Flow	Asset	Liability
Output (total, in current prices)	*P1*		
Directly priced output prices (*m* vector)	*p*		
Directly priced output quantities (*m* vector)	*y*		
Intermediate consumption	$\overline{P2}$ [4]		
Compensation of employees	*D1*		
Other taxes on production	*D29*[5]		
Consumption of fixed capital	$-P51c$[6]		
Nonfinancial assets		*AN*	
Financial instruments[7]		*AFA*[8]	*AFL*[9]
Monetary gold and SDRs		*AF1A*	*AF1L*
Monetary gold		*AF11A*	
SDRs		*AF12A*	*AF12L*
Non-equity debt instruments		$\overline{AFA}$[10]	$\overline{AFL}$[11]
Deposits[12]		*AF2DA*	*AF2DL*

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[4] The 2008 SNA code for intermediate consumption is *P2*—the overbar notation denotes *P2 excluding* the FISIM services provided by other FISIM producers.

[5] Other than Taxes on products, D21.

[6] The *2008 SNA* convention is that this variable carries a negative sign (paragraph A1.17). Thus, to *add* depreciation as a component of cost, it will have to be *subtracted*.

[7] For simplicity, we limit the range of financial instruments here to deposits, debt securities, loans, and equity. The analysis straightforwardly extends to including the other SNA financial instruments on the balance sheet.

[8] *AFA* will designate the vector [*AF2A*, *AF3A*, *AF4A*, *AF51A*]'. We are not considering here the case of the central bank. Were we to do so, we also would bring in *AF1*—monetary gold and Special Drawing Rights (SDRs). We also ignore currency—*AF21*—here.

[9] *AFL* denotes the vector [*AF2DL*, *AF3L*, *AF4L*, *AF5CL*]' whose elements are defined in the subsequent lines of the table.

[10] $\overline{AFA}$ denotes the vector [*AF2DA*, *AF3A*, *AF4A*]'. By implication, $AFA = [\overline{AFA}, AF51A]'$.

[11] $\overline{AFL}$ denotes the vector [*AF2DL*, *AF3L*, *AF4L*]'. By implication, $AFL = [\overline{AFL}, AF5CL]'$.

Table 1. Notation

Concept	Flow	Asset	Liability
Debt securities		AF3A	AF3L
Loans		AF4A	AF4L
Equity capital		AF51A[13]	AF5CL[14]

taxes on production $D29$, plus consumption of produced nonfinancial assets $-P51c$, plus interest and other financial expense on liabilities $r'_{AFL}AFL$, *the latter including the residually determined return to owners*. Finally, observe for future reference that the return on equity capital $AF5CL$ is defined by a rearrangement of equation (1) as

$$r_{AF5CL}AF5CL \equiv p'y + r'_{AFA}AFA - \overline{P2} - D1 - D29 + P51c - r'_{AFL}\overline{AFL} \tag{2}$$

where, by implication, we define the rate of return on equity as

$$r_{AF5CL} \equiv \frac{p'y + r'_{AFA}AFA - \overline{P2} - D1 - D29 + P51c - r'_{AFL}\overline{AFL}}{AF5CL} \tag{3}$$

and where the "bar" notation for AFL refers to the vector of liability instruments *other than* owners' equity.

12.   In addition to the cash flow identity equating income and expense, there is an "assets equals liabilities" identity

$$\iota'AFA + AN \equiv \iota'AFL \tag{4}$$

where the notation $\iota'x = \sum_i x_i$ with ι a vector of ones commensurate with the dimension of vector x. Owners' equity is the balancing item of the balance sheet. The SNA decomposes it into Equity and investment fund shares ($AF5$) and Net worth, with Net worth residually determined.[15]

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[12] In the *2008 SNA*, deposits comprise transferrable deposits ($AF22$) and other deposits ($AF29$). Currency and deposits $AF2$ is appended with the letter 'D' for 'deposits' and 'L' for liabilities or 'A' for assets, so $AF2DL = AF22L + AF29L$ and $AF2DA = AF22A + AF29A$.

[13] Our definition of equity capital carries over to equity interests in other enterprises, including their net worth.

[14] We define equity capital as equity (*2008 SNA AF*51) plus net worth (*2008 SNA B*90).

[15] The 2008 SNA recognizes several types of nonfinancial assets whose market values are difficult to determine. Among produced assets (AN1), certain Intellectual property products (AN117), and a part of nonproduced assets

C. The Reference Rate

13.   Each funding instrument position on the liability side of the balance sheet has an effective cost or rate paid to the funder that, for some instruments, can differ from the observed rate. The reason for the difference is that some funding contracts involve account services provided without monetary charges either to the funder (deposit liabilities) or to the borrowing institution (loan liabilities).

14.   Each debt liability instrument's security equivalent return is the rate of return on a debt security ($AF3L$) having the same risk and maturity as the debt liability. Each equity liability's instrument's equivalent return is the rate of return on an equity security ($AF511L$ – Listed shares, AF512L – Unlisted shares) with equivalent risk characteristics to the equity liability. By implication, all liabilities that are themselves debt securities or equity shares have security equivalent rates of return equal to the observed rate of return. This leaves deposit and loan funding instruments. For deposit liabilities, the security equivalent return is greater than or equal to the monetary interest paid on the deposit, because depositors placing funds for a given period may receive account services (statements, transaction processing, etc) for which they do not make a monetary payment, but instead accept less than the security equivalent return on their funds as effective payment to the financial institution. For loan liabilities, the security equivalent return is less than the monetary interest paid on the loan, because the borrowing institution is paying for loan account servicing as a premium over what would have been paid by issuing the equivalent debt security.

15.   The cost of funds reference rate is the security-equivalent cost of the funding portfolio:

$$\bar{r} \equiv \frac{\hat{r}'_{AFL} AFL}{\iota' AFL} \tag{5}$$

which is just the liability portfolio weighted average rate of return paid to funders at security equivalent instrument rates of return.

16.   For the IMF, the evaluation of the average security equivalent return on funding is simplified because its deposit liabilities are non-transferrable Other deposits that have

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($AN2$)—Natural resources ($AN21$), Contracts, leases, and licenses ($AN22$), and Purchases less sales of goodwill and marketing assets ($AN23$)—are examples of difficult to value items. An alternative approach to direct valuation of these items, where possible, is to value equity shares at market and determine the value of nonfinancial assets residually as the difference between total liabilities and financial assets. The latter stratagem would not apply to IFIs, however.

minimal account servicing associated with them. Further, the borrowing IFIs undertake is in the form of security or loan liabilities having minimal associated account servicing from the (typically government) lenders. Thus, the security equivalent rate is equal to or very close to the monetary rate paid, and their funding cost is essentially what they pay explicitly in monetary terms to their funders, as booked in their income statements.[16]

D. Output

17.   The output of FISIM follows the 2008 SNA formula:

$$p'y + (\overline{r} - r_{AF2DL}) AF2DL + (r_{AF4A} - \overline{r})' AF4A, \tag{6}$$

the sum of direct service charges plus FISIM on deposit liabilities plus FISIM on loan assets.

18.   Given the cash flow (3) and balance sheet (4) identities, the comprehensive FISIM calculation implied by the language of the 1993 SNA, as well as its implications for the cost side, would be

$$\begin{aligned} &p'y + (\overline{r} \cdot \iota - r_{\overline{AFL}})' \overline{AFL} + (r_{AFA} - \overline{r} \cdot \iota)' AFA \\ &= \overline{P2} + D1 + D29 - P51c + \overline{r} \cdot AN + (r_{AF5CL} - \overline{r}) AF5CL. \end{aligned} \tag{7}$$

Deriving the 2008 SNA standard (6) from the broader FISIM calculation (7) involves subtracting the FISIM margin terms from both sides for all instruments except deposit liabilities and loan assets. A broader FISIM treatment would subtract only the *negative* FISIM margin terms from both sides of (7).[17] Empirically, this would almost always leave deposit liabilities and loan assets on the left hand side (in output), but also could include other instruments among other non-deposit debt liability items and certain equity and debt security assets.

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[16] Note that this is not the case for the retail deposit liabilities of commercial banks (S122 –Other deposit taking corporations); however, the implicit loan servicing margin on loan liabilities is likely to be very small (perhaps negligible) for them as well, as a percentage of the value of the loan. Significant account servicing is more likely on the loan liabilities of other sectors, such as households and nonfinancial corporations.

[17] Among these negative terms are, for example, those for deposit assets *AF2DA*, which are mostly an intermediate consumption. For the IMF the key item in this regard is monetary gold (*AF11A*), which appears as a pure capital input (unless holding gains are considered as part of the value of the user cost calculation of their services).

19.   By implication, the 2008 SNA deposit-liabilities-and-loan-assets-only approach will produce smaller output results for FISIM than implied by a more comprehensive approach. However, for deposit taking credit institutions such as some IFIs, this difference may not be large.

E.   Uses of output

20.   The uses of output are given by FISIM at the supply value of the producer, not the demand value of the user.[18] Thus the IFI accounts can be used to determine the uses of IFI output by their member countries. For a given IFI member i, uses will be given by

$$P2 = p'y_i + \left(\overline{r} \cdot \iota - r_{AF2DL,i} \right)' AF2DL_i + \left(r_{AF4A,i} - \overline{r} \cdot \iota \right)' AF4A_i$$
$$= \overline{P2_i} + \left(\overline{r} \cdot \iota - r_{AF2DL,i} \right)' AF2DL_i + \left(r_{AF4A,i} - \overline{r} \cdot \iota \right)' AF4A_i. \tag{8}$$

The direct charges $\overline{P2_i}$, deposit terms $r_{AF2DL,i}$, deposit positions $AF2DL_i$, financing terms $r_{AF4A,i}$, and loan positions $AF4A_i$, all come from IFI accounts. A broader, full portfolio approach to FISIM would add terms to (8) for financial instruments whose FISIM margins in (7) are positive. According to the 2008 SNA, each IFI is in an economic territory unto itself. IFIs are nonresidents of all other economic territories, and their positions and flows with other units are necessarily cross-border and will enter into countries' balance of payments and international investment position data (2008 SNA, paragraphs 4.172-4.176, 8.128, 10.170, 11.88, 22.66, 22.99, 22.100, 26.26).

21.   Some of the flows will be payments for services (primarily imported services—P72— used as intermediate consumption—P2) and some (provision of technical assistance, for example) fall under the Current international cooperation (D74) component of Current transfers (D7). The IFI research would focus on production and distribution of IFI's principally service output and its effect on the service trade accounts of IFI's member countries, as well as the impact (or lack thereof, depending on the counterparty sector) of these service imports on GDP, but also could take account of the primary income flows (retained earnings, for example) associated with IFIs as cooperatively owned international financial enterprises. In connection with technical assistance, the research could consider whether this is not a current transfer, but a service output provided to member countries, and whether it is non-market or already included within the market output of IFIs.

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[18] The reason for a difference is that the user's reference rate (cost of funds) will differ from the supplier's. If the user is an enterprise, any difference goes into its operating surplus.

IV. RECOMMENDATIONS

(1) Based on the example of the IMF, research on the determining the FISIM output of IFIs and the uses of that output by their member countries is potentially feasible. However, measuring the output of other IFIs has not been attempted and is likely to raise additional issues. Among these would be measurement of the nonmarket services of the IMF, if any. Thus further research could examine these additional issues – including reconsideration of the nature of technical assistance as a service rather than a current transfer - and test the de minimus argument. The research could also shed light on the performance of, e.g., alternative internal reference rate calculations for these institutions, among which would be a cost of funds calculation.

(2) The conceptual implications of measuring IFI output for member countries' national accounts, balance of payments and perhaps government finance statistics would need to be carefully considered and whether they are de minimus.

(3) This work may have Research Agenda implications for the scope of the financial instruments associated with the production of FISIM.

V. QUESTIONS FOR AEG DISCUSSION

(1) What experience do AEG members have with measuring the explicit and implicit services of IFIs?

(2) What are the AEG's views on initiating research to determine the output of IFIs, including FISIM and nonmarket services provided, and the conceptual implications for member countries national accounts, balance of payments and perhaps government finance statistics?

(3) If the AEG agrees research should be undertaken, does it agree with the proposed scope of that research?

(4) Should any research be undertaken with the purpose of updating the SNA before or at the next update of the SNA?