BOPCOM-05/31

Eighteenth Meeting of the
IMF Committee on Balance of Payments Statistics
Washington, D.C., June 27–July 1, 2005

Debt Instruments Indexed to a Foreign Currency

BALANCE OF PAYMENTS TECHNICAL EXPERT GROUP (BOPTEG)

OUTCOME PAPER (BOPTEG) # 25

DECEMBER 2004

(1) Topic: **Debt Instruments Indexed to a Foreign Currency**

(2) Issues – see BOPTEG Issues Paper # 25

(3) Recommendations:

(i) Most BOPTEG members felt that debt instruments indexed to a foreign currency are different to debt instruments denominated in a foreign currency, and should not be treated as if they are the same. To emphasise this, the group proposed that the distinction between **currency of account** and **currency of settlement** and their implications be clarified in the forthcoming updates of statistical manuals.

(ii) The **currency of account** is determined by the currency in which the value of flows and positions is fixed. The currency unit of account is important for distinguishing transactions and holding gains and losses. With the clarification on the currency of account, the group agreed that debt instruments with both principal and coupons indexed to a foreign currency should be classified and treated in the national accounts and balance of payments as being denominated in that foreign currency.

(iii) The **currency of settlement** may be different from the currency unit of account. Using a currency in settlement that is different from the currency unit of account simply means that a currency conversion is involved each time a settlement occurs. The currency of settlement is important for international liquidity and measurement of potential foreign exchange drains. The currency of settlement also has implications for reserve assets. The importance of the currency of settlement should also be taken into account in future editions of *International Reserves and Foreign Currency Liquidity* (*Reserves Template*).The group emphasized the importance of clarifying implications for foreign exchange and liquidity data.

(4) Rejected Alternatives:

None.

(5) Questions for the Committee:

(i) Does the Committee agree that currency of account is defined by the unit of account agreed by the parties, and that the flows and positions are measured by reference to that currency? See 3(ii) above.

(ii) Does the Committee agree that currency of account should be contrasted with currency of settlement, which should be explained as relevant for some purposes such as liquidity measurement? See 3(i and iii) above.

IMF COMMITTEE ON BALANCE OF PAYMENTS STATISTICS

BALANCE OF PAYMENTS TECHNICAL EXPERT GROUP (BOPTEG)

ISSUES PAPER (BOPTEG) # 25

DEBT INSTRUMENTS INDEXED TO A FOREIGN CURRENCY

Prepared by Manik Shrestha, IMF Statistics Department

October 2004

BALANCE OF PAYMENTS TECHNICAL EXPERT GROUP

ISSUES PAPER (BOPTEG) # 25

DEBT INSTRUMENTS INDEXED TO A FOREIGN CURRENCY

At issue is whether there are sufficient differences between a debt denominated in foreign currency and a debt with both principal and coupons linked to a foreign currency to warrant a difference in treatment. If not, the question arises as to what treatment to adopt for the debt instruments with both principal and coupons linked to a foreign currency: that of foreign-currency-denominated or that of indexed-linked instruments. This has consequences for determining interest and other flows.

An internal working group of the IMF Statistics Department had reviewed the treatment of debt instruments with both principal and coupons indexed to a foreign currency within the existing *1993 SNA* (the STA position paper is attached). A summary is presented below.

I. Current international standards for the statistical treatment of the issue

In the case of debt instruments denominated in a foreign currency, the current recommendation is to classify changes in the value of the principal in domestic currency terms that arise from exchange rate variations as holding gains (non-transactions). In the case of debt instruments indexed to a foreign currency, such changes are treated as interest (transactions). This is because the existing statistical standards treat all index-linked instruments in the same way.

II. Concerns/shortcomings of the current treatment

The current treatment creates an obvious anomaly by treating differently debt instruments with both principal and coupons indexed to a foreign currency from those denominated directly in foreign currency. Both types of instruments have economically equivalent characteristics. In particular, for both instruments (i) all payables can be determined in foreign currency units at inception, (ii) the same unit of account, the foreign currency, is used to determine all cash flows (though the settlement unit may differ), (iii) the amounts in domestic currency are calculated using the relevant exchange rates, and (iv) they are often used as alternatives.

III. Possible alternative treatments

The IMF Statistics Department's position is that the debt instruments with both principal and coupons indexed to a foreign currency should be classified and treated in the national accounts as though they are denominated in that foreign currency. This has specific consequences for the recording of interest and other economic flows. In determining any currency composition of positions, foreign-currency-linked debt should be classified with

foreign-currency-denominated debt. The *Annotated Outline* (para. 10.20) also proposed the same recommendation.

The alternative of treating debt instruments denominated in foreign currencies in the same way as index-linked instruments denominated in domestic currency (i.e., as though they were denominated in the domestic currency), was considered and rejected by the IMF Statistics Department, because it is inconsistent with the general accounting principles for flows and stocks denominated in foreign currency (as described in the *1993 SNA* paragraph 3.76).

IV. Points for discussion

Do the BOPTEG members agree that debt instruments with both principal and coupons indexed to a foreign currency should be classified and treated in the national accounts as though they are denominated in that foreign currency.

References

Annotated Outline for the Revision of BPM5, IMF, April 2004 (Chapter 10).

Please see the attached paper for other references.

Attachment

STA POSITION PAPER ON DEBT INSTRUMENTS INDEXED TO A FOREIGN CURRENCY

July 2004

Prepared by the Working Group on Indexed and Foreign Currency Debt

I. BACKGROUND

1. The IMF Statistics Department (STA) Task Force on the Coordination of Methodological Issues (Task Force) at its meeting of May 28, 2003 created the Working Group on Indexed and Foreign Currency Debt (WGIFCD). The main task of the WGIFCD was to (i) examine the existing international statistical standards for the recording of indexed domestic-currency debts and foreign-currency debts, and if any inconsistencies were found, (ii) prepare a proposal for an improved treatment.

2. The basic problem can be summarized as follows. In the case of debt instruments denominated in a foreign currency, the current recommendation is to classify changes in the value of the principal in domestic currency terms that arise from exchange rate variations as holding gains (non-transactions). However, in the case of debt instruments indexed to a foreign currency, such changes are treated as interest (transactions). This is because the existing statistical standards treat all index-linked instruments in the same way. At issue is whether there are sufficient differences between a debt denominated in foreign currency and a debt with both principal and coupons linked to a foreign currency to warrant a difference in treatment. If not, the question arises as to what treatment to adopt for the debt instruments with both principal and coupons linked to a foreign currency: that of foreign-currency-denominated or that of indexed-linked instruments.

3. This paper synthesizes the research conducted on these two types of instruments and presents the STA position on this issue. It makes recommendations on the treatment of debt instruments with both principal and coupons indexed to a foreign currency (i.e., to an exchange rate). The proposal is to treat debt instruments with both principal and coupons indexed to a foreign currency as though they are denominated in that foreign currency. The proposal of this paper thus removes an obvious anomaly by treating identically instruments that have economically equivalent characteristics.

4. The results of research on other types of index-linked instruments will be the topic for a separate report that will offer a clarification on the calculation of interest in view of the inadequate guidance given in the existing statistical manuals.

II. A CLASSIFICATION OF INTEREST-BEARING INSTRUMENTS

5. For the purpose of defining and measuring interest, it is useful to distinguish between the following three categories of arrangements:

- **Domestic-currency-denominated fixed-rate instruments**. At inception, the contracting parties determine all future cash flows that the debtor must make in domestic currency. Following the approach for defining interest as recommended in the *System of National Accounts 1993* (*1993 SNA*), interest for these instruments is the difference between the sum of all debtor's payments and the principal the creditor makes available to the debtor. The information needed to calculate all interest flows is known at inception.

- **Foreign-currency-denominated fixed-rate instruments**. At inception, future cash flows are determined in the relevant foreign currency. The recording of interest on foreign currency fixed-rate instruments is also straightforward, following the *1993 SNA*. Interest is defined according to the formula described above, with the only difference being that, in the first instance, a foreign currency is used as the unit of account. Interest expressed in foreign currency is to be converted into the domestic currency units at the mid-point market exchange rate for the periods in which the interest accrues. The information needed to calculate all interest flows in that foreign currency is known at inception.

- **Indexed-linked instruments**. The indexation mechanism links the coupon and/or principal payments to indicators agreed by the parties, and the values of the indicators are not known in advance. As a result, the amount of interest cannot be known at the time of issue. For some instruments, it can only be determined at the time of redemption. Indexed instruments include those indexed to an interest rate, the consumer price index, a stock exchange index, a commodity price, an exchange rate, etc. The current treatment in the various statistical manuals is the following: "When the coupon payments are index linked, the full amounts of such payments are treated as interest receivable and payable, in the same way as the interest receivable and payable on any other security paying a contractually agreed variable income. When the value of the principal is index linked, the difference between the eventual redemption price and the issue price is treated as interest accruing over the life of the asset in the same way as for a security whose redemption price is fixed in advance." (*1993 SNA*, paragraph 7.104)

III. Debt Instruments Indexed to a Foreign Currency

6. Debt instruments with both principal and coupons indexed to a foreign currency have characteristics of both indexed instruments and foreign-currency-denominated instruments. The *1993 SNA*; the *Balance of Payments Manual*, fifth edition (*BPM5*); *European System of Accounts, 1995* (*ESA95)*; *Manual on Monetary and Financial Statistics, 2000* (*MFSM 2000*); and *Government Finance Statistics Manual, 2001* (*GFSM 2001*) all mention exchange rates as possible indicators for the indexation. However, these manuals do not explicitly deal with debt instruments with both principal and coupons indexed to a foreign currency. An exception is the *External Debt Statistics: Guide for Compilers and Users* (*External Debt*

Guide), which, for analytical purposes, classifies both foreign currency and foreign-currency-linked debt as foreign currency debt.[1]

7. **STA recommends that debt instruments with both principal and coupons indexed to a foreign currency should be classified and treated in the national accounts as though they are denominated in that foreign currency. This has specific consequences for the recording of interest and other economic flows. In determining any currency composition of positions, foreign-currency-linked debt should be classified with foreign-currency-denominated debt.** This conclusion is based on the following arguments:

- As in the case of foreign-currency-denominated instruments, all payables for debt with both principal and coupons indexed to a foreign currency can be determined *in foreign currency units* at the inception of the contracts.

- The underlying economic reality for the issuer and the holder is the same for both types of debt instruments. The same unit of account, the foreign currency, is used to determine the values of the cash flows. Parties to such contracts view both principal and coupons as expressed in the relevant foreign currency, thereby preserving the values of all cash flows in that foreign currency.

- Whereas the unit of account is the same for both types of instruments, the unit of settlement may differ. The amounts receivable and payable for debt with both principal and coupons indexed to a foreign currency are converted to domestic or other currency using relevant exchange rates (see, second bullet of paragraph 5). Although the settlement currency is important when measuring potential foreign currency drains from the economy, for the underlying recording of interest and other economic flows, it is appropriate to determine the currency denomination using the currency that is the unit of account (the currency in which the debt instrument is effectively denominated).

- From the issuer perspective, bonds with both principal and coupons indexed to a foreign currency are an alternative to issuing foreign-currency-denominated bonds (for instance, as in Indonesia in 1998-2000 and Nicaragua in 2000-2001). This avoids the need to use foreign currency in paying coupons and redeeming bonds, while still providing holders with an asset that effectively matches a foreign-currency-denominated instrument. For economies with high interest rates and potentially depreciating exchange rates, the difference of treatment for these two types of

[1] The *External Debt Guide*, paragraph 7.19, mentions that "foreign-currency-linked-debt is included with foreign currency debt, because a depreciation of exchange rate can increase the burden of foreign-currency-linked-debt liabilities in domestic currency terms for the resident debtor."

instruments, as found in the current statistical guidance, may create an incentive to borrow in foreign-currency-denominated instruments (rather than foreign-currency-indexed instruments) to show a stronger fiscal balance (such as net operating balance or net lending/borrowing), given that interest expense, but not the valuation changes, are included in the compilation of the fiscal balance.[2]

8. In line with the recommendation in paragraph (7) for determining the currency denomination of debt instruments with both principal and coupons indexed to a foreign currency, interest should accrue throughout the period using the foreign currency as the unit of account and converted into the domestic currency using the mid-point market exchange rate. Similarly, the principal amount outstanding should be valued using the foreign currency as the unit of account with the end of period exchange rate used to determine the domestic currency value of the entire debt instrument (including any accrued interest) in the closing balance sheet. Changes in market values of debt securities due to exchange rate movements and/or interest rate changes are treated as revaluations.

9. The alternative of treating debt instruments denominated in foreign currencies in the same way as index-linked instruments denominated in domestic currency was considered and rejected by the WGIFCD, because it is inconsistent with the general accounting principles for flows and stocks denominated in foreign currency (as described in the *1993 SNA* paragraph 3.76).

10. Although the *International Accounting Standards (IAS)* do not specifically address the issue of the debt instruments with both principal and coupons indexed to a foreign currency, the proposal of this paper is in line with the IAS. In particular, IAS 21 (The Effects of Changes in Foreign Exchange Rates) defines a foreign currency transaction as a "transaction which is denominated in or requires settlement in a foreign currency". Obviously, the currency of denomination does not require also settlement in the same currency.[3] In IAS 39 (Financial Instruments: Recognition and Measurement), all financial assets that provide streams of principal or interest payments that are denominated in foreign currency are accounted for in accordance with IAS 21 rules for the treatment of foreign currency gains and losses.

11. The recommendations in this paper do not extend to debt instruments that are only partially linked to exchange rates— for example, those for which only principal or only

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[2] The same argument applies to the issuance of domestic currency instruments versus foreign currency instruments. However, this argument loses its relevance if policy attention focuses on changes in net worth, rather than on a fiscal balance based solely on transactions.

[3] *Wiley IAS 1999* (page 736) states, with reference to IAS 21, that "denominated means that the amount to be received or paid is fixed in terms of the number of units of a particular foreign currency, regardless of the changes in exchange rate".

coupons is linked to an exchange rate. In these cases, foreign-currency-denominated instruments and exchange-rate indexed instruments are not equivalent. These other forms of indexation will be discussed in a separate paper.

References

System of National Accounts 1993 (paras. 3.76, 7.104, 11.78).

Balance of Payments Manual, fifth edition (para. 397).

Government Finance Statistics Manual 2001 (paras. 6.42, 6.47, 6.49, 9.30, 10.10, 10.15).

Monetary and Financial Statistics Manual 2000 (paras. 215, 216).

European System of Accounts 1995 (paras. 4.46c, 5.62f, 5.138e).

External Debt Statistics: Guide for Compilers and Users (paras. 2.84-2.87, 6.13, 7.19).

International Accounting Standards, IAS 21, *The Effects of Changes in Foreign Exchange Rates* (para. 8).

International Accounting Standards, IAS 39, *Financial Instruments: Recognition and Measurement* (para. AG33c).

Barry Epstein and Abbas Mirza, *Wiley IAS 1999: Interpretation and Application of International Accounting Standards*, New York, John Wiley & Sons, Inc., 1999 (page 736).

Michael Andrews, *Issuing Government Bonds to Finance Bank Recapitalization and Restructuring: Design Factors that Affect Banks' Financial Performance*, IMF Policy Discussion Paper, PDP/03/4 (page 14).

Cornelis Gorter, *Accrual Accounting of Interest Electronic Discussion Group: Report of the Moderator*, 2002.

Lucie Laliberté, *Income from Bonds: Treatment in the System of National Accounts 1993*, IMF Working Paper, WP/02/221.

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