Treatment of Interest on
Indexed-Linked Debt Instruments

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Index linked securities in the SNA

7.104. Index linked securities are financial instruments for which the amounts of the coupon payments (interest) and/or the principal outstanding are linked to a general price index, a specific price index or an exchange rate index.

When the coupon payments are index linked, the full amounts of such payments are treated as interest receivable or 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. In practice, the change in the value of the principal outstanding between the beginning and end of a particular accounting period due to the movement in the relevant index may be treated as interest accruing in that period, in addition to any interest due for payment in that period. ...

Four approaches raised, with some sub-approaches

Examples

- (1) Two-year bond for $1000 where coupon is 15% p.a. if oil price is above $40 a barrel, and zero otherwise. (Actual instrument used by oil-exporting country.)
  - Coupons index linked.
- (2) Two-year bond for $2000 where coupon is 15% p.a., but the principal is cut by 50% if the share index is below 8000 at the end of the bond. (Actual instrument used by life insurance companies.)
  - Principal index linked.

Simple bond at same time is offering a coupon of 8% p.a.

Example 1

Assume oil below $40 for Year 1, above for Year 2.
Coupon: Year 1=0; Year 2=150

	Interest		Revaluation	
	Year 1	Year 2	Year 1	Year 2
1(a) SNA	0	150	0	0
1(b) Debt Guide - initial	0			
- revised	0	150	0	0
1(c) Prevailing as approx - initial	80			
- revised	72	78	0	0
2 Yield to maturity at issuance	80	80	-80	70
3 Creditor approach	depends on current market rate			
4 Embedded derivative approach	80	80	-80	70

Example 2

Assume index above 8000 at end of Year 1, below at end of Year 2.
Coupon: Year 1 and Year 2=300; Principal at beginning 2000; at end 1000.

	Interest		Revaluation		
	Year 1	Year 2	Year 1	Year 2	
1(a) SNA	300	-700	0	0	In practice
1(b) Debt Guide - initial	300	Interest depends on Year 1 share prices			
- revised	-200	-200	0	0	
1(c) Prevailing as approx - initial	80				
- revised	-200	-200	0	0	
2 Yield to maturity at issuance	160	160	140	-860	
			Year 1 revaluation depends on Year 1 share prices		
3 Creditor approach	depends on current market rate				
4 Embedded derivative approach	160	160	140	-860	
			Year 1 revaluation depends on Year 1 share prices		

Background

- Positions are unaffected, but issue is about the allocation between:
  - Interest (income account); and
  - Revaluation / holding gains or losses (other changes in assets account).
- Approach 1 allocates all to interest.

Background

- Approaches 2 and 4 are approximations to each other, but focused on a different data source.
  - In Example 1, there is a debt instrument with an embedded derivative.
  - Its value should be approximately the same as an equivalent $1000 two-year bond debt instrument with no indexing and an equivalent financial derivative based on whether the oil price is above $40 per barrel or not.

Background

- Business accounting practice not helpful in making the distinction between interest and revaluation.

Issues

- Are negative values of interest payable/receivable acceptable or meaningful?

Issues

- Are backward revisions over the life of an instrument appropriate?

Issues

- Are fluctuations up and down due to the value of the instrument INTEREST or HOLDING GAINS/LOSSES?
- Should an embedded derivative-type instrument give the same result as an equivalent, but separate, pair of debt and derivative instruments?

Process so far

IMF recommended Option 1(b)

- Constrained by AEG adopting debtor approach.

BOPTEG adopted Option 1(b) , but some members would have preferred 2-4, but felt constrained by debtor approach.

BOPCOM has not yet considered.

AEG supplied paper for information. The gave the view that Approaches 2 and 4 were compatible with the debtor approach and the IMF and BOPTEG should revise the paper.