

## *ANNEXURE I*

### **A NOTE ON THE ADJUSTMENT OF MONETARY ASSETS/LIABILITIES FOR INFLATION**

Monetary assets or liabilities, by their very nature, should not and cannot be adjusted with specific price indices. All adjustments for inflation must be carried out using a general price index which reflects movements in the general price level for the monetary assets/liabilities.

Monetary assets include, among other things, loans and other receivables, investments, advances, deposits and cash. Monetary liabilities, on the other hand, include debts, deferred payments, other current liabilities and equity capital. Out of these, both the theory and practice of adjusting equity capital is very unclear yet. Adjustments in monetary assets/liabilities ultimately boil down to two parts: adjusting net current assets/liabilities, and adjusting the long-term debt. Depending on the information available and the inclination of the person carrying out the adjustments, they can be done at different levels of complexity.

The easiest method would be to apply the formula we have used to find out COSA, net monetary liabilities (not considering equity capital) substituting figures for inventory.

The most complicated method, requiring detailed information, will be to use that formula only on net current liabilities. Then, assuming that the years in which each investment was made as well as those in which each long-term loan was taken are known, each investment and loan will have to be inflated using the ratio of price index in the current years and the price index in the relevant years. To express it as a formula, the adjustment for the long-term gain on monetary assets and liabilities would be

$$\sum_{i=1}^n \frac{P}{p_i} L_i - \sum_{j=1}^n \frac{P}{p_j} A_j - \left[ \sum_{i=1}^n L_i - \sum_{j=1}^n A_j \right]$$

where  $i$  and  $j$  refer to each financial liability and asset,  $p_i$  and  $p_j$  refer to the price index in the year the  $i$ th liability was incurred or the  $j$ th asset was formed,  $P$  refers to the current price index,  $L$  refers to long-term financial liabilities and  $A$  refers to long-term monetary assets, *i.e.*, investments. The gain calculated in the above way will have to be added to the gain on net current liabilities and the total will yield the gain due to inflation on net monetary liabilities.

This, obviously, is a complex method, particularly for an analysis like the present one where a group of companies are being considered. However, it may not be very difficult for individual companies themselves.

A middle way would be to do the calculations for net current liabilities as above, while simplifying the calculations for long-term assets and liabilities. A particular year could be adopted as the year (on whatever basis) in which most of the investments were made, and the current value of the investments can be found out by multiplying the nominal value with the ratio of the general price index in the current year and in that particular year. A similar procedure would yield the current value of the longer-term liabilities (excluding equity capital). The adjusted net long-term liabilities minus the nominal net long-term liabilities can be said to be the gain due to inflation. To this the gain on net current liabilities should be added to find out the total gain due to inflation, as far as financial liabilities and assets are concerned.

The above discussion refers to the changing values of the assets and liabilities themselves. Whether the gain/loss computed in the way(s) mentioned above can really be included as income/expenditure, and if so, when, is another tricky question.

Two items in the income statement also may require adjustments for inflation—interest received and interest paid. The rationale for this adjustment is that the interest rate agreed upon at the time of concluding a loan agreement is in nominal terms and during inflation the real interest rate is lower.

the year in which the loan is taken. Thus, a net borrower profits and a net lender loses. These gains/losses, as it is argued, should be included in the income and expenditure statement. However, in this case also there is a complication. It can be argued (Jenkins, 1977) that during periods of continuous inflation, an expected rate of inflation is built into the interest rates, and therefore, as long as the actual inflation rate is the same as the expected rate of inflation, any adjustment is unnecessary. If and only if the actual differs from the expected, that any adjustment in the interests paid/received is called for. This seems to be a valid argument, but an attempt to take this into account will land one into the calculation of expected inflation rate which is far from simple.

There is another aspect to this. Assuming that all economic units within the economy adjust their accounts for inflation, the total inflation adjustment on this cancel out because if some body gains as a net borrower, someone else will lose as a net lender. However, for taxation purposes, the adjustments for inflation would probably be important, because the rates of tax on the gainers and losers may be different, and therefore the aggregate tax revenue may differ from a situation where no adjustment for inflation is allowed. Taking the corporate sector, broadly speaking, the manufacturing companies gain during inflation because they are net borrowers and financial companies lose because they are net lenders.

Table A-II.1

*Specific Wholesale Price Indices used in calculating COSA  
of the Industry Groups (Finished Goods)*

<i>Industry group (present study)</i>	<i>Price indices used (weights within parentheses in case of composite index)</i>
1.	Other Food Articles (1.60) Iron Ore (0.16)
2.	Fuel, Power, Light and Lubricants
3.	Dairy Products (0.39), Grain Mill Products (0.46), Sugar (2.19), Beer (0.05)
4.	Textiles
5.	Chemicals and Chemical Products
6.	Ceramic Tiles (0.06), Glass and Glass Products (0.2), Cement, Lime & Plaster (0.7), Asbestos Brake Lining (0.03)
7.	Basic Metals and Alloys
8.	Non-electrical Machinery
9.	Electrical Machinery
10.	Transport Equipment

**Table A-II.2**

*Specific Wholesale Price Indices used in calculating COSA  
of the Industry Groups (Raw Materials and Work-in-  
Progress)*

<i>Industry group (present study)</i>	<i>Price indices used (weight within parentheses in case of composite index)</i>
1.	Other Food Articles (1.60) Iron Ore (0.16)
2.	Petroleum Crude (0.6) Coal (1.04)
3.	Wheat (3.43), Milk and Milk Products (6.15), Other Food Articles (1.6), Sugarcane (1.64)
4.	Cotton Raw (2.25) Jute Raw (0.43)
5.	Chemicals and Chemical Products
6.	Other Minerals
7.	Metallic Minerals (0.2 <sup>9</sup> ) Basic Metals & Alloys (4.65)
8.	Basic Metals & Alloys
9.	Basic Metals & Alloys (4.65) Chemicals & Chemical Products (5.55) Glass & Glass Products (0.2)
10.	Basic Metals & Alloys