

Let us follow the recommendation and see what the resulting INE will be like.

First, let us produce, following Allen, the INE which would correspond to our INE (6):

$$\frac{\sum q_{h0}P_{ht}}{\sum q_{h0}P_{h0}} \times \left( \frac{\sum q_{ht}P_{ht}}{\sum q_{h0}P_{h0}} / \frac{\sum q_{h0}P_{ht}}{\sum q_{h0}P_{h0}} \right) = \frac{\sum q_{ht}P_{ht}}{\sum q_{h0}P_{h0}}$$

and, after simplifying, obtain CINT's INE:

$$\frac{\sum q_{h0}P_{ht}}{\sum q_{h0}P_{h0}} \times \frac{\sum q_{ht}P_{ht}}{\sum q_{h0}P_{ht}} = \frac{\sum q_{ht}P_{ht}}{\sum q_{h0}P_{h0}}. \quad (8)$$

Next, let us produce the INE which would correspond to our INE (7):

$$\left( \frac{\sum q_{ht}P_{ht}}{\sum q_{h0}P_{h0}} / \frac{\sum q_{ht}P_{h0}}{\sum q_{h0}P_{h0}} \right) \times \frac{\sum q_{ht}P_{h0}}{\sum q_{h0}P_{h0}} = \frac{\sum q_{ht}P_{ht}}{\sum q_{h0}P_{h0}}$$

and, after simplifying, obtain:

$$\frac{\sum q_{ht}P_{ht}}{\sum q_{ht}P_{h0}} \times \frac{\sum q_{ht}P_{h0}}{\sum q_{h0}P_{h0}} = \frac{\sum q_{ht}P_{ht}}{\sum q_{h0}P_{h0}}. \quad (9)$$

Yet comparing (8) with (6), we immediately find out that INE (8) has not reproduced the denominator of the quantity index in (6), which is 1 (c.u.). Similarly, (9) has not reproduced the 1 (\$) in the price index of equation (7). Thus both Paasche indices have appeared deformed and fail to produce the *bold* product property.

Remember: In order to compile a well-formed special form of index number equation in the statistical practice, never try to obtain the missing link (formula) in an index number equation by way of **implication** from accompanying members in the equation. The obtained formula will always appear as a truncated one if, as usually, the parameters  $a$  and  $b$  have been set to coincide. Retain that the only safe approach to the goal remains that followed by ELINT: first to write down the general form  $F_2$  or  $F_3$ , respectively, and then to impose the restrictions in mind to the parameters  $\theta$ ,  $a$ , and  $b$  of  $F_2$  and  $F_3$ . Otherwise, we are going to experience grave misunderstandings and misstatements, particularly in issues of national accounting as we will now see.