for the sectors not yet properly studied, with base-year weights, product-specific estimates of value added per physical unit calculated for the "base" year alone.<sup>7</sup> Such accounts are mere temporary structures built with a still inadequate stock of materials: because they incorporate preliminary series as well as proper second-generation estimates they are subject to progressive revision as the latter component expands (until it is "completed," i.e., one throws in the towel); and because they are measures "at constant prices" that correspond implicitly to activity-specific deflation, they violate our fourth rule and distort the composition of the aggregate, increasingly so as one moves further from the "base year."<sup>8</sup>

But these last distortions are tied to changes in relative prices, themselves tied, in the main, to differential productivity growth; and about that, in the large, we have a fairly clear notion. We know therefore *how* our second-generation structure is distorted, at least *dans les grandes lignes*; and we can tentatively correct for that, producing conjectural third-generation subaggregates and summary national accounts not at base-year prices but at the base-year price *level*.<sup>9</sup>

<sup>7</sup> If our second-generation quantity estimates distinguish *n* elementary activities over *t* years, we have *n* elementary physical-product series and  $N = n \times t$  elementary year-specific estimates of physical product; in the case at hand we can expect, in round figures, n = 300, t = 50, and N = 15,000. The second-generation "constant price" aggregates combine these *N* quantity estimates using just *n* product-specific estimates of value added per unit ("at base year prices"). Third-generation aggregates would be obtained by the common deflation of *n* current-price value added series, themselves derived by attaching to the *N* quantity estimates another *N* (year- and product-specific) estimates of value added per unit. In practice, of course, year-specific input-output data are very rare, and the value-added-perunit series will be built up by interpolating and extrapolating far fewer than *N* independent estimates; but for all that much work remains to be done.

<sup>8</sup> The second-generation elementary "real value added" series are base-yearvalue added-weighted physical product series, in the above notation  $v_{rito} = (v_{io}/Q_{io}) Q_{it}$ . Expanding this last,  $v_{rito} = (p_{it}Q_{it} - z_{it}R_{it})/[(p_{it}Q_{it} - z_{it}R_{it})/((p_{io}Q_{io} - z_{io}R_{io}) (Q_{it}/Q_{io}))]$ : the implicit value-added deflator, in square brackets, is obviously activity-specific. The calculated "real" value-added relatives are therefore distorted – like the first-generation "double-deflated" relatives, albeit typically less so (Fenoaltea 1976).

<sup>9</sup> E.g., Fenoaltea (2011b). The second-generation aggregate is there accepted, but its *composition* is tentatively recalculated to allow for plausible trends in relative prices, whence in principle a constant price level but current relative prices.