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The Price Revolution in Sixteenth-Century England. Edited with an introduction by PETER H. RAMSEY.
London: Methuen & Co., 1971. Pp. x+182. £1.00 (paper).

This is one of an admirable series published by Methuen reprinting the key articles on controversial questions in economic history. The question asked in this volume is, Can the quantity theory of money and prices explain the sextupling of prices in England between 1510 and 1620? Four of the six essays reprinted here and the editor's introduction answer, No. The remaining two essays merely provide the historiographic background for this answer: "Seven Centuries

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of the Prices of Consumables, Compared with Builders' Wage Rates," by E. H. Phelps-Brown and Sheila Hopkins, first published in 1956, is reprinted merely to establish the extent of the rise in prices in the sixteenth century; and "American Treasure and Andalusian Prices, 1503–1660: A Study in the Spanish Price Revolution," by Earl Hamilton, first published in 1928, is reprinted merely to give the devil of the quantity theory his due. In the opinion of other contributors —Ingrid Hammarström, Y. S. Brenner, J. D. Gould, C. E. Challis, and the editor—the devil is not due very much. It is argued in these texts of the new orthodoxy (rapidly supplanting the old one associated with Hamilton) that the quantity of money played a distinctly secondary role in the price revolution. In particular, it is argued that the explanation using the quantity theory has a number of empirical difficulties to contend with, chief among which is the rise in prices *before* the influx of American treasure on any large scale, and that there exists an alternative explanation for the rise in prices which better fits the facts, namely, the sharp rise in population beginning early in the sixteenth century.

As much as they may admire the iconoclastic vigor with which the quantity equation is attacked by these historians, economists will be startled—startled, that is, if they apply the same standards of logic to work on past as they apply to work on present economies—by the way in which the attack is mounted. It is this feature of the book that makes it of special interest to economists. Here are connected studies on a widespread and long inflation; studies rejecting the quantity theory and proposing a new one; and studies with elementary and serious logical flaws.

The central flaw in the revisionist argument is that it repeatedly uses the theory of relative prices as a theory of absolute prices. The source of this substitution appears to be the notion that the quantity theory stands or falls on the evidence depending on whether prices increase at identical or at varying rates with an increase in the quantity of money: "If the value of money alone had declined, all commodity prices, with only a few explicable exceptions, would have risen to the same relative extent" (Brenner, p. 77; compare Ramsey, p. 8, Hammarström, p. 59, and Gould, p. 95).

This is to construe the quantity theory (or any other theory of the general price level, for that matter) as saying not only that prices will double if the quantity of money (or whatever is considered to cause rises in prices) doubles, other things equal, but also that other things will in fact always remain equal. It is a short step from this misapprehension of the nature of the *ceteris paribus* clause to an insistence on the importance of supply and demand conditions of individual markets in determining the general price level. If the quantity theory tells us that all prices will rise in a 100-year period in strict proportion to the rise in the quantity of money—regardless of shifts in supply and demand conditions of individual markets—then plainly, the quantity theory is wrong. In the sixteenth century, prices did not all rise in the same proportion; most notably, agricultural prices rose much faster than others. Therefore, to discover the reasons for the rise in prices in general, we must inquire into the reasons for the rises in individual prices, particularly the prices of agricultural products. The prices of agricultural products rose because the population rose in relation to the fixed supply of land, and population started rising at about the same time as prices in general. The source of the inflation, then, was the increase in population and the consequent rise in the prices of agricultural products. We are left with a real, as opposed to a merely monetary, explanation of the price revolution, in accord with the most recent insights of economics: "At the moment it

seems plausible to attribute Tudor inflation mainly to pressure of population on resources" (Ramsey, p. 10; compare Hammarström, p. 68, Brenner, pp. 88–89, and Gould, p. 108, who is somewhat more cautious).

But, of course, the quantity theory does not predict a uniform rise in prices regardless of the conditions of supply and demand in individual markets. Indeed, it predicts that the rise in population introduced into the discussion by the revisionists would, if not offset by other factors, result in a *fall* in the level of prices in the long run (and the long run, of course, is what is relevant to the analysis of a historical episode stretching over a century). The prices of agricultural products may rise relative to others, but all prices together must fall if the number of transactions rises, as it must with a larger population and a fixed quantity and velocity of money. The distinction used here, and elsewhere in economics, between the general level of prices and individual relative prices appears to have eluded the revisionists. They do not perceive that, however much the price of one commodity may rise relative to others, its absolute rise—and it is the absolute rise that is at issue in the price revolution—is governed by whatever governs the general level of prices. It is not possible to transform the perfectly reasonable assertion that the pressure of population caused a rise in the prices of agricultural products relative to others into an explanation for the rise of prices in general.

One surely does not have to be what is known nowadays as a "monetarist" to agree with this point, or with the related point that the rise in population, other things equal, would yield a fall, not a rise, in the price level. This latter result is implied by any reasonable conception of what determines the general level of prices in the long run: for people to be satisfied with a fixed stock of money at the higher level of total income produced by an enlarged work force, the price level must eventually fall, for the services yielded by each unit of money must be increased to accommodate the higher income.

The frailties of the data concern the revisionists more than the logical cogency with which one set of data is attached to another. Brenner poses the historical issue as one of "whether prices rose because money had become relatively more abundant or [whether] commodities [had become] relatively scarce" (p. 69), whatever that distinction may precisely mean, and then goes on to remark that both the explanation based on the quantity equation and that based on a population increase "suffer primarily from lack of historical evidence" (p. 70). The editor, speaking of the population theory, makes a similar point: "If its main premise could be firmly substantiated it would command wide acceptance. The difficulty lies precisely in the substantiation. . . . It seems unlikely that we shall ever have enough details to establish a precise correlation between population increase and the graph of price rises" (p. 10–11). It is always desirable, to be sure, to have more facts. In view of the illogicalities of the population theory and of the associated criticisms of the quantity theory, however, it would seem that the first priority of research into the price revolution should be a rethinking of the economic arguments involved. It is conceivable that some chain of reasoning could be found to attach rising prices in the long run to rising population with the same degree of cogency as the standard models of economics attach rising prices in the long run to a rising quantity of money. But then it is surely incumbent upon historians to find it, not merely to assume that it exists in view of a correlation between population and prices (which breaks down, it might be noted, in the nineteenth century), the reasoning of economists notwithstanding.

The correlation suggested by the quantity theory between prices and money is in fact better in the sixteenth century than the revisionists imply. They are right to point out that the inflow of American treasure occurs too late to explain the early years of the price revolution, and to this extent the view associated with Hamilton stands corrected (although to be quite accurate, it should be pointed out that Hamilton himself applied the argument only to Spain, for which the timing is good). Other sources of an increased supply of money, however, could make up for this deficiency: the revisionists themselves concede that there was a spurt in the output of European silver mines at the onset of the price revolution and that in England there was a debasement of the currency shortly thereafter.

Whether or not the inflow of American treasure can by itself explain the whole of the price revolution, then, there remains a presumption on both empirical and theoretical grounds that the quantity theory, broadly defined, remains a fruitful working hypothesis. That careful scholars have convinced themselves that the arguments described above upset this presumption only illustrates to what a small extent economic reasoning has penetrated British economic history. To put the point more positively, it illustrates, too, how much remains to be done, how much the accumulated insights of economics can help historians find routes to historical insight and avoid dead ends.

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