

Mr. FROMM. The specification of the equation is analogous to one derived from quarterly data by George L. Perry, and the coefficient estimates do not differ significantly from his.<sup>1</sup>

Considering this equation in isolation without any feedback effects of wages on prices and prices on wages, its implications are as follows:

(1) A 1-percent increase in the CPI produces a 0.4-percent increase in average hourly earnings.

(2) A steady 5-percent rate of unemployment produces a 3.4-percent continuing annual increase in AHE; at 4- and 3-percent unemployment, the increases in AHE are 4.3 and 5.7 percent, respectively. When I say here "produces," of course, I mean through the interaction of labor and management in the collective bargaining process.

(3) A 1-percent increase in the return to stockholders' equity produces a 0.9-percent increase in AHE.

(4) The guideposts directly decreased the increases in AHE by an average of approximately 1 percent per year during 1962-66. That is a direct effect without any feedback. We will get to the feedbacks presently.

The second equation relates unit labor costs to average hourly earnings and productivity.<sup>2</sup> The latter is represented by a time trend (to reflect technological change) and the rate of capacity utilization (to reflect cyclical influences). The equation is estimated in logarithmic form. It implies that a 1-percent increase in AHE produces a 1.75-percent increase in unit labor costs. This change is greater than unity because it must also reflect changes in fringe benefits increases in compensation rates of nonproduction workers, variations in the proportion of production to nonproduction workers, and shifts in the interindustry mix of output. The coefficient of the time trend, a 4.7-percent reduction in ULC per year, reflects increases in output per man-hour and other savings in labor costs. The coefficient on capacity utilization implies that a 10-percent increase in utilization rates produces a 3.4-percent decline in ULC.

The last equation relates the percentage change in the manufacturing wholesale price index to percentage changes in current and lagged *normal* unit labor costs, the rate of capacity utilization, and percentage changes in materials input prices and the unfilled orders to sales ratio. A dummy variable to reflect the guideposts was also introduced into the equation. Its coefficient was never significant even when variants of the specification of the equation were examined. This would imply that, for manufacturing as a whole, but not for specific industries, the guideposts had no independent effect on prices but acted on prices through the medium of influencing wage rates and unit labor costs.

Taking the equation by itself, the coefficient of percentage changes in normal unit labor costs (these are unit labor costs from which cyclical utilization rate effects have been removed) implies that a 1-percent increase in this variable generates a 0.9-percent increase in prices. The coefficient of the utilization rate together with the constant term (neglecting interactions with the other equations) implies that prices rise when the utilization rate exceeds 84.5 percent.

<sup>1</sup> Unemployment, Money Wage Rates and Inflation, M.I.T. Press, 1966.

<sup>2</sup> This equation and the following one is derived in O. Eckstein and G. Fromm, "The Price Equation," paper presented at the annual meetings of the Econometric Society, Washington, D.C., December 1967.