A reconsideration of the underlying structuralist explanation of price movements in Keynes's Treatise on Money

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"The methods of neoclassical theory might work well in a world in which economic goods were necessarily consumed within a short interval of their being produced. But it requires, I suggest, considerable amendment if it is to be applied to a world in which the accumulation of wealth for an indefinitely postponed future is an important factor and the greater the proportionate part played by such wealth-accumulation the more essential does such amendment become." (J.M. Keynes, 1937, p. 215).

1. Money and Capital Accumulation: The Importance of Endogenous Credit in the System of Production

Within the standard neo-Walrasian general-equilibrium theory, money can only enter the exchange system as an exogenous stream of Patinkin-Sinclair money that both defines and imposes on the 'ultimate wealth-owning units' a fundamental indeterminacy, the 'absolute price level' behind which are relative money prices must necessarily lie. Assuming the usual homogeneity properties, the individual's desired inventory or demand for money is postulated as a function of his exchange rate, the purchasing power of one's cash balances in 'carrying' and procuring real goods.

If, as hypothesized, the individual exchange's actual cash balances unexpectedly deviate from his desired 'real' money balances, maximizing behavior suggests that the public will collectively bid the prices of commodities up or down in such a way as to re-establish the money market. Inflation, therefore, merely reflects this process of adjustment of the stock of money and other financial assets to their desired state.

But what is this ubiquitous concept of the 'aggregate price level' that is so dear to the advocates of the quantity-theory tradition? It has been commonly defined as the exchange rates between the money and goods in general. In the abstract world of the early quantity theorists, an 'absolute price level' was a reasonable concept since, in a sense, except for their individual relative prices, goods were identical. In that world, which for consistency required a classical stationary state with zero net investment, output could be treated in terms of a composite good. The composition of net output would then, by definition, include the total of available goods directly entering the consumer's utility function. In this state, as often found in Marshall, with given tastes, given total income, and given relative prices, the heterogeneous flow of consumer goods could conceptually be reduced to a single commodity.

As soon as we abandon this unchanging repetitive world of consumer items, however, the 'aggregate price level' is no longer well defined. The turning point is in proceeding from this one-commodity fictional state of consumer goods to one with a positive net investment. In this latter case, there no longer exists a common unit of measurement. Hence, as I have shown elsewhere (1962, pp. 115-51), it becomes conceptually difficult to aggregate the various consumption and investment flows of output and solve for the 'general price level'.

Since all inflationary processes have long been known to be accompanied by important structural changes in the composition of net output, numerous economists outside of the mainstream tradition in economics have historically criticized the quantity theory exactly for being unable to handle the more relevant situations in which capital accumulation takes place. For instance, in his Monetary Equilibrium (1939), Myrdal affirmed:

"The expression 'price level' in the theory quantity cannot be defined in such a way as to give the multiplicative factors which the theory of relative prices needs in order to be determinate." (1939, p. 14).

Earlier, Aftalion (1929, pp. 108-9) was even more precise on the critical nature of the underlying problem. For him, the quantity theory was a mere construction applicable to an ideal exchange economy that completely dodges the issues of production and capital accumulation.

Instead of exchange relations, these authors, the central governing activity in the system was production. Pursuing with vigour an approach that began with the classical economists, they envisaged production as a circular process involving time.

In a hypothetical classical barter system of production, all the constituents of circulating capital and replacement portion of fixed capital must be advanced at the beginning of each production period. However, these can be advanced only if there was price saving. Yet, one cannot really set out the causal ordering in this context. This is because an act of investment is ex definitionis an act of saving, and vice versa. Investment and saving are the same thing. These two variables acquire a separate existence, as Hicks (1939) was to prove, only within an economy in which organized credit exists.

Writers such as Wickesell (1899) and Schumpeter (1934) were to adopt this 'circular' view not so much in virtue of any apparent sympathy for this fundamental classical 'circular' of production, but primarily because they recognized the existence of credit-money. The flow of credit-money as debt created by the banking system acquires significance, according to Wickesell, only in a system where production takes time. In a Hume-Patinkin 'mannequin' exchange economy (where everyone wakes up one morning with a multiple of their original cash holdings), credit is unimportant for this money will offer its 'services' only at a point in time -- at the moment of exchange between the existing stock of commodities and the stock of money. In a system of production in which productive inputs are tied up for a definite length of time, credit is advanced to firms to finance the flow of production. In contrast with Hume's 'mannequin' exchange economy, Wickesell argued:

"If, in reality, at least in the business world proper, all purchases are made against credit for a longer or shorter period, and every businessman, however solvent, repeatedly has occasion to seek monetary credit for his business." (1958, p. 75).
Consequently, credit-money is intimately linked with productive activity requiring capital and time and, more specifically, it is associated with the Robertsonian 'gestation period' of investment.

In a modern production economy characterized by the availability of bank credit, money is created ex nihilo for the purpose of financing capital spending that cannot be backed by price saving. Firms' capital expenditures may have, therefore, little to do with their previous retained earnings or with the community's personal savings. Rather, they are determined in the Keynesian sense on the basis of entrepreneurs' expectations.

As Schumpeter (1954, p. 107) put it, the granting of bank credit for the purpose of investment spending is like an 'order' on the system of production that pulls together monetary and real resources towards a given end. Once the investment decision is taken, this 'order' will then exercise its influence on the system by giving rise to a substantial shift of resources towards those sectors of economic activity having lengthier process of production.

A general restructuring of the time-profile of production, financed by an endogenous flow of credit-money, and unaccompanied by a voluntary increase in the saving propensities of households, could only come about by means of what Wicksell (1939, p. 14) described as an 'enforced general reduction of consumption'. Viewed in this context, inflation becomes the mechanism by which entrepreneurs compel the system to transfer resources from the production of consumers' goods to the production of producers' goods. This sort of 'inflation levy' imposed on the community results from the necessity for firms to realize at the end of the 'cycle' an actual change in the capital stock in proportion to the initial flow of credit. In Marxian terms, inflation thus becomes the principal device for the system's expanded reproduction.

This approach remained the analytical core of the neo-Wicksellian ideas, including those of Allais (1951), Robertson (1981, 1982) and Hayek (1991, 1993). The theory of aggregate price formation thus moved away from an analysis of a pure exchange system as depicted within the confines of the quantity theory. Movements in prices came to be associated with the system's need to finance lengthy processes of production and of capital accumulation. Indeed, it is in light of this neo-Wicksellian criticism of orthodox theory that one must understand Keynes' own statement on the need to construct a 'monetary theory of production'. Prices are not mere reflections of some Walrasian agents which depend on the stock of already-produced commodities. Instead, prices are viewed as the instruments of the economic system as a whole to redistribute production by means of investment spending financed primarily through the creation of bank credit not backed by savings.

II. INVESTMENT AND INFLATION: Keynes' Structural Hypothesis in the Treatise

Following the work of Robertson and, to a lesser extent, that of neo-Wicksellian writers, Keynes (1930) argued that, broadly speaking, inflation is a symptom of over-investment -- that is, a result of the recurrent imbalances in the overall structures of demand and output. In his own terms, 'general over-investment' takes place whenever the flow of income or 'buying power' (that firms transfer to households as income) during a given period exceeds the stream of available 'liquid' consumption goods (C, Coll. Writings, 1973, vol. 13, p. 55). This state of general over-investment, which should be distinguished from any specific form of redirected investment, can occur only because of the existence of credit. In effect, an elastic monetary system allows the value of the quantity of investment to exceed the money value of those 'liquid' goods that the community has dissipated from consuming.

Keynes' formulation of what he was to describe later as a 'monetary theory of production' depicted productive activity as taking place within two main branches -- the sector producing 'liquid' or 'available' output of consumption goods and that supplying the 'non-available' output or investment goods. The 'liquid' or 'available' output was composed of both the physical commodities flowing from the final stages of production during a given period and of the flow of services of any consumer durable goods, whilst the 'non-available' output was made up of the net increment of fixed and working capital.

The critical concept in Keynes' Treatise on Money (1930), which offers a direct link with, for instance, Robertson's ideas and which was widely debated before, during and after the publication of his book, is the definition of saving. Like some of the neo-Wicksellian writers, Robertson defined savings at the difference between the previous period's flow of money income and the current flow of expenditures on consumption items. Keynes (1930) deviated only slightly from this simple formulation. He defined it as the difference between the flow of income (which can be considered to be 'normal' for the factors of production) and the current period's consumption expenditures:

\[ S_t = Y_t - C_t \]

where \( Y_t \) is 'normal' income (it being the sum of factor earnings including the entrepreneur's 'normal remuneration') as against current income, \( Y_t \) (which is the ex post receipts accruing to all the factors of production), while \( C_t \) and \( S_t \) are the current-period money flows of consumption and saving out of 'normal' income.

As in the Marshallian tradition, the difference between the actual remuneration, \( Y_t \), and the 'normal' remuneration, \( Y_t \), is termed pure profit, \( \Pi_t \) (which arises when the 'equal-rent' is in excess of 'normal remuneration'). This value can be either positive or negative. Indeed, since by definition the sum of receipts must be equal to the gross expenditures for saving one gets, according to Keynes, that 'the value of the increment of the wealth of the community is measured by Savings plus Profits' (1930, Vol. 1, p. 126). That is,

\[ \Pi_t = S_t + E_t \]

in Robertson's (1929) terms, \( S_t \) is the 'spontaneous looking' and \( E_t \) is the 'imposed' or, still more precisely, the 'automatic looking'. Ex post, therefore, the value of investment will differ from desired saving in the Treatise unless the 'equal-rent' remunerations are realized by entrepreneurs during the period.

Defining the following set of simple identities:

\[ Y_t = Y_t - C_t = (\Pi_t + E_t) \]

\[ Y_t = Y_t + \Delta Y_t \]

\[ C_t = C_t + \Delta C_t \]

\[ S_t = S_t + \Delta S_t \]

\[ L_t = L_t + \Delta L_t \]

and,

\[ \Pi_t = \Pi_t + \Delta \Pi_t \]

where \( Y_t, C_t \) is wage income, \( Y_t \) is entrepreneurial and/or factor incomes, \( \Pi_t \) is Keynes' wage-units, \( L_t \) is total employment (which can be split up into employments in the investment-good sector, \( L_I \), and in the consumption-good sector, \( L_C \)), and \( \Pi_t \) is the price while \( Q_t \) is the quantity of consumption goods, one can derive the basic relationships:
\[ P_{0} = \frac{\beta + L/Lu}{1 + 4\delta} \]
\[ P_{0} = \frac{1 + L/Lu}{1 + 4\delta} \]

which is a mere reformulation of Keynes' first fundamental equation in the \textit{Treatise}.

As presented, however, the above fundamental equation is a mere identity. To go from a definition to a behavioral relation, we shall postulate the well-known classical or Kalecki-Kaldor 'widesaw crusoe' simplifying assumption that the propensity to save out of wage income is zero, while this same propensity to save is assumed to be one for non-wage income. Under this extreme assumption, equation (7) above is reduced to the following simple consumption function:

\[ P_{0} = \frac{1 + L/Lu}{1 + 4\delta} \]

Conversely, if we assume that the propensity to save out of non-wage income is also zero, then equation (7) becomes instead:

\[ P_{0} = \frac{\beta + L/Lu}{1 + 4\delta} \]

Any other values in between will, however, also contain a positive value for personal saving, \( S_{w} + \), as in equation (7). Indeed, with these assumptions on the nature of the saving propensities, our simple identity turns out to be the aggregate demand relationship facing the consumption-good sector. For instance, equation (7) says that, for a given wage level, the expected sales proceeds (in wage-units) in the consumption-good sector is directly proportional to the level of employment in that sector.

Re-organizing our equations on a per-unit basis, we arrive at the following fundamental equations quite familiar to post-Keynesian theorists:

\[ P_{w} = \frac{\beta + L/Lu}{1 + 4\delta} \]

or, from equation (7).

\[ P_{w} = \frac{\beta + L/Lu}{1 + 4\delta} \]

where \( \alpha_{w} = Q_{0}/L_{u} \), \( P_{w} \) is the 'demand price' for consumption goods when the saving propensity out of entrepreneurial and/or rental income is unity, and \( P_{w}^{*} \) is the 'demand price' when the same saving propensity is assumed to be zero. Hence, graphically, one can derive a simple relationship between \( P_{w} \) and \( L/Lu \) on the basis of constant parameter values for \( \omega \), \( \alpha_{w} \) and \( \delta \).

The difference between \( P_{w}^{*} \) and \( P_{w} \), which is equal to \( \rho(1 + L/Lu)/(\omega + \delta) \), shown by the shaded area in Fig. 1, gives us the maximum range of 'demand prices' that would be generated as the saving propensity out of non-wage 'normal' earnings varies from 0 to 1. Any demand relationship to be found below the \( P_{w} \) line would, however, suggest the existence of saving out of wage income. These relationships depict the hypothetical prices that consumers would pay at various levels of the distribution of employment between the investment- and consumption-goods sectors when all other parameter values remain constant.

However, changes in any of the parameter values will affect both the levels and the slopes of the price lines. For instance, changes in the value of \( \omega \) due to, say, a variation in firm's dividend-output policies, would modify only the slope of \( P_{w}^{*} \), while changes in the money-wage \( (w) \) or productivity \( \alpha_{w} \) in the consumption-good sector would affect both the levels and the slopes of the price lines. Hence, Fig. 1 depicts in a very simple way the fundamental underlying relationship of Keynesian Treatise that there exists a positive association between the level of investment (approximated by the employment level, \( L_{u} \)) and prices.

At the same time, we must also specify the pricing behavior on the side of firms. As Keynes shows in his famous Chapter 3 of the General Theory (1936), firms as a group hold expectations of what is a reasonable price for their products which ought to cover both the unit input costs and a 'normal' rate of return. In the strictly Marshallian sense, this can be described as the 'supply price' of output.

However, to simplify the analysis, assume an effective vertical integration of firms in each sector such that each firm owns and controls its sources of raw materials. Under this more restrictive assumption, our Marshallian unit prime costs are reduced simply to unit labor costs \( (w/L_{u}) \), since they remain the only available costs. Therefore, the 'supply price' becomes:

\[ P_{s} = \frac{(1 + \rho)w}{\omega} \]

where \( \rho \) would in the Robinsonian sense be a 'mark-up' on unit prime costs that guarantees a 'normal' return on their invested capital. This value of \( \rho \), for instance, may be fixed to cover both interest and dividends on borrowed financial capital, the salaries of the 'overhead' labor, and the repayment of the loan which entails partly equals the replacement costs of the capital equipment purchased from the investment-good sector. Generally speaking, \( \rho \) is set to cover all of what Marshall (1932, pp. 359-462) defined as supplementary costs. Moreover, in a classical competitive setting of, say, the special Sraffian circulating-capital type, \( \rho \) could be assumed to be given and uniform.

As in Figure 2 these demand and supply price relations can be integrated.
At the point $E_2$, for instance, we have the market-clearing condition that $P^*_2 = P^*_y$, from which one can conclude that

$$\frac{L}{L_y} = \gamma$$

which affirms that there exists a given structure of demand and employment in the productive system that will just generate a level of net savings, $\gamma$, considered to be 'normal' by entrepreneurs. Conversely, in the case where we have 'capitalist consumption', the point of equilibrium $E_2$ will be to the left of $E_1$. That is to say, at

$$\frac{L}{L_y} = \gamma + \phi + \alpha = \gamma'$$

whereby the equilibrium ratio $\frac{L}{L_y}$ will be lower than at $E_1$. This is because, with 'capitalist consumption', the system requires a lower ratio of employment in the investment-good sector relative to the consumption-good sector to generate the same flow of demand and thus the same net flow of entrepreneurial remunerations, approximated by $\gamma$.

Any ratio of employment outside of these equilibrium points would, however, generate values of $\gamma'$ either greater or less than $\gamma$. To put it differently, any point outside of, say, $E_1$, would be a point giving rise to either 'windfall' gains or losses in the Keynesian sense. For example, at a ratio of employment $\frac{L}{L_y}$ to the right of $E_1$ in Fig. 2, one finds that... and therefore that.

Essentially, we can describe points $E_1$ and $E_2$ as unstable positions of equilibrium. If investment spending depends in some measure on the realized values of $\gamma$, then as soon as the levels of investment and employment deviate exogenously from their steady-state values, the system will generate an unstable cumulative process of the usual neoclassical variety. Indeed, the actual sequence can be analyzed in the framework of a 'circuit' which has become quite familiar in the French literature on Keynesian specific monetary frameworks. The following is a diagram which is re-adapted from F.A. Hayek (1931), and which in its present form has been popularized by A. Paragon (1930), representing the Keynesian system in the 'Treasury' (1930):

Given their expectations, firms decide to invest by securing the necessary 'endogenous' funds at the beginning of the 'circuit'. This planned investment spending, $I$, can be financed in exactly three ways. The first way is by inducing speculators to reduce their stock of idle balances, $M_0$, which will be accompanied by an appreciation in the value of existing assets $(P\cdot C)$. Another way is by means of the current flow of 'saving' $(\Delta L_y)$, the desired saving out of netter income which is paid out at the end of the 'circuit', plus firms' retained earnings. Thirdly, this increased flow of spending can be financed by bank credit. This is then the initial phase affecting the upper left-hand corner of the diagram.

Once this original injection is made, the system will then come to follow a neo-Wicksellian cycle of the type discussed by such writers as Lindahl (1930) and Myrdal (1931). A profit, first appears in the investment-good sector, which then leads to an income, $Y_1$, and employment, $L_1$, in that sector. This is followed by an increase in consumption expenditures which gives rise to a further profit, in the latter sector. Finally, the 'circuit' will come to an end when firms repay their debts. To the extent that the realization of 'profit' in both sectors modifies, in some extrapolative manner, expectations of future profit, then investment will increase still further until diagram 3 comes to resemble an expanding cobweb pattern traced out by the interaction between investment and profit expectations. It is this 'circuit' two-sector view that is the essence of the 'Credit Cycle' developed by Keynes in the 'Treasury' (1930).

This 'circuit' is propelled forward unidirectionally by the one critical variable in Keynes' system, namely investment. Indeed, the sequence can be sketched out as follows.

However, this change in employment leads to a change in prices to an unexpected changes in 'profit'. That is to say,

In this context, inflation is seen as a symptom of the general restricting of production and employment occasioned by entrepreneurial decisions to expand productive capacity.

Empirically, one can conclude that, for given values of unit prime costs and $\gamma$, there should exist a close association between the distribution of employment between the investment- and consumption-goods sectors and changes in the prices of consumption goods. In fact, since

$$\Delta P_y = \gamma P^*_y - P^*_y$$

one can stipulate from this that

$$\Delta P_y = \phi \frac{L}{L_y} \Delta \gamma, \Delta w, \Delta a, \Delta m$$

where $\phi > 0$ and $\Delta \gamma < 0$ (on the Keynesian assumption discussed in his chapter on the 'Credit Cycle' in the 'Treasury' that prices should not rise or fall indefinitely, but rather that they should follow a constrained oscillatory time path). Moreover, since $\gamma$ is assumed to change only very slowly in relationship to the changes in prices and, at the same time, by removing our previous restrictive assumption of complete vertical integration within each sector, one obtains the following modified priocchage equation:

$$\Delta P_y = \phi \frac{L}{L_y} \Delta w, \Delta a, \Delta m$$
where 'm' represents unit material costs. This will thus be the empirical relationship to be tested.

III. A PRELIMINARY EMPIRICAL TEST USING POST-WAR CANADIAN DATA

The object of this last section is to test Keynes' 'structuralist' hypothesis using annual employment statistics obtained for the Canadian manufacturing sector for the period 1957-61. Besides the sheer magnitude of the empirical work involved, there are at least two other reasons why this preliminary empirical analysis has been limited to manufacturing activities. First, it is well known that the cyclical variations in economic activity have a very significant impact on manufacturing vis-à-vis other sectors. As a result, the cyclical movement in the structure of employment in manufacturing can be taken as a microcosm of changes in employment in general. Secondly, on account of the conceptual difficulties in allocating employment between the consumption- and the investment-goods sectors (as in the case of service employment), it was felt that things would be greatly simplified by avoiding the other sectors altogether. Therefore, generally, this analysis will be restricted to industrial activity.

In addition to this qualification, the author wishes to caution the reader on another important matter. The values of the arguments in equation (15) above will be assumed to be strictly exogenous. No effort will be made to test the hypothesis within the context of a large simultaneous system of equations. The author is aware of the single-equation bias. However, because of the extent of the empirical work already undertaken, statistical testing will be limited to single-equation estimation using ordinary least-squares. No attempt will be made in this short paper to specify empirically what may determine the values of the explanatory variables of $\Delta m$.

The most important single variable needed to test this 'structuralist' hypothesis on inflation is the employment ratio $L/P_w$. To obtain an appropriate statistical series, an intermediate classification of total employment in manufacturing was undertaken according to what were believed to be activities giving rise to the output of producers' and of consumers' goods. The 1960 S.I.C. of Canadian manufacturing covers about 300 sub-divisions of industrial activities at the three-digit level. Except for a few obvious cases where regrouping at this high level was both possible and necessary, the employment data for the major groupings published by the Labour Division of Statistics Canada (Ca., no. 72-660) often sufficed. The table below provides a brief summary of how the various manufacturing activities were classified.

<table>
<thead>
<tr>
<th>INVESTMENT-GOODS SECTOR (L)</th>
<th>CONSUMPTION-GOODS SECTOR (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubber Products</td>
<td>Food and Beverages</td>
</tr>
<tr>
<td>Wood Products (excluding Furniture and Fixtures)</td>
<td>Tobacco Processing and Products</td>
</tr>
<tr>
<td>Paper and Allied Products (excluding Paper Boxes and Bags)</td>
<td>Leather Products</td>
</tr>
<tr>
<td>Primary Metal Industries</td>
<td>Textile Products</td>
</tr>
<tr>
<td>Metall Fabricating Industries</td>
<td>Knitting Mills</td>
</tr>
<tr>
<td>Machinery, except Electrical</td>
<td>Clothing</td>
</tr>
<tr>
<td>Transportation Equipment (excluding Motor Vehicles)</td>
<td>Furniture and Fixtures</td>
</tr>
<tr>
<td>Electrical Products (excluding Household Radio and Televisions)</td>
<td>Paper Boxes and Paper Bags</td>
</tr>
<tr>
<td>Non-Metall Mineral Products</td>
<td>Printing, Published and Allied Industries</td>
</tr>
<tr>
<td>Petroleum and Coal Products</td>
<td>Motor Vehicles</td>
</tr>
<tr>
<td>Chemical and Chemical Products (excluding Pharmaceuticals &amp; Medicines and Soap &amp; Cleaning Compounds)</td>
<td>Household Radio and Televisions</td>
</tr>
<tr>
<td>Scientific &amp; Professional Equipment</td>
<td>Pharmaceuticals and Medicines</td>
</tr>
</tbody>
</table>

Another explanatory variable, which was introduced into the basic price-adjustment equation to be estimated in the hope that it would further enhance the explanatory power of the relationship, was a proxy for raw material prices. Yet, the problem was in trying to find an appropriate index of such prices. The only consistent and available series that covers almost the full period of the analysis was the 'wholesale price index of raw materials and partly manufactured goods'. In fact, this series is available for the period from 1926 to 1971. As the earlier Dominion Bureau of Statistics maintained, these data are summary statistics against which one can compare the movement in the prices of certain farm products, and industrial and building materials (see O.B.S., Cat. no. 62-001, Vol. 23). However, since in the index there is included a small portion of 'partly manufactured goods', one can argue that this can give rise to a certain degree of spurious correlation when $\Delta p$ is regressed against these data. Since 1971, Statistics Canada has discontinued this older series and has begun the publication of a more appropriate index whose weights were derived directly from the Canadian input-output tables. Unfortunately, since these data are only available for the period 1971-78, it was resolved to use the former index (to be described by the symbol '\(\Delta p\)' in our regression equation) for the 21-year period going from 1957 to 1977.

The econometric findings are displayed in Table 2 below (with $\Delta L/P_w$ as the dependent variable).

Throughout this analysis, the t-ratios are given in parenthesis below the estimated coefficients. Whenever the residuals appeared to be serially correlated, a Durbin-Watson statistic (D.W.) was calculated on the basis of the original transformed variables, the first-order autocorrelation coefficient (p), and the Durbin-Watson statistic (D.W.) was also reported below the estimated equation. The estimated relationships presented above
TABLE 2: REGRESSION RESULTS

<table>
<thead>
<tr>
<th>Estimated Equation (No.)</th>
<th>(14)</th>
<th>(17)</th>
<th>(18)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant Term</td>
<td>-1.3206</td>
<td>-1.628</td>
<td>-0.8159</td>
</tr>
<tr>
<td>ln(L / L_A)</td>
<td>-2.15</td>
<td>-1.69</td>
<td>-</td>
</tr>
<tr>
<td>ln(L / L_P)</td>
<td>0.3038</td>
<td>0.1802</td>
<td>0.173</td>
</tr>
<tr>
<td>ln(L / L_M)</td>
<td>2.35</td>
<td>1.26</td>
<td>4.30</td>
</tr>
<tr>
<td>ln(L / L_P)</td>
<td>0.4727</td>
<td>0.4101</td>
<td>5.23</td>
</tr>
<tr>
<td>ln(L / L_M)</td>
<td>0.05</td>
<td>0.0647</td>
<td>1.54</td>
</tr>
<tr>
<td>R²</td>
<td>0.8861</td>
<td>0.8073</td>
<td>0.9001</td>
</tr>
<tr>
<td>P</td>
<td>0.95</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>DW</td>
<td>1.38</td>
<td>1.25</td>
<td>1.54</td>
</tr>
</tbody>
</table>

readily confirm the importance of the employment ratio in explaining the variation in consumption-good prices. Indeed, except for equation (18) above in which the coefficient of the employment ratio just passed the significance test at the 95 percent confidence level, in all other cases the coefficients of our variables turned out to be very significant. According to the estimates, about 90 percent of the variation in consumption-good prices during this period was explained by these three variables alone. Thus, the empirical evidence for the period 1957-81 provides some support for the Keynesian "structuralist" hypothesis as to inflation.

While this empirical research is still in an embryonic stage, one can tentatively conclude that the Keynesian hypothesis about the causal role of investment in the inflationary process is generally consistent with the evidence presented above. Indeed, the association of inflation since 1981, with a drastic decline in investment spending further supports our claim of the importance of the structural variable L / L_M. Moreover, this Keynesian approach of the Treatise raises numerous questions on the effectiveness of the orthodox methods for controlling inflation. Keynes (1933) himself suggested the direct public control of private investment in strategic sectors as a radical alternative (Cf. Collected Writings, 1980, vol. 27, p. 322). However, this discussion remains outside of the main scope of this paper.

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