

STRUCTURAL CHANGE AND PROFITABILITY TRENDS IN THE  
MEXICAN ECONOMY.

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**i) The Issues**

The trend on profitability occupies an important place in Classical and Marxian economics literature. Its importance is to be addressed to the key role the rate of profit has in the theory of prices and competition. But it also has an extraordinary importance in the long run analysis of cycles and crisis. It is within this last field that the paper is advanced.

Now it is possible to find an important literature on empirical assessments on the behaviour of the rate of surplus value and the rate of profit.<sup>2</sup> This paper is concerned with the particular problems that arise in the assessment of the long run behaviour of the rate of profit in the Mexican economy. In this case there is one particular difficulty with the data source on profits. The original data on profits, in NIPA-Mexico is confuse because it considers non wage income from small farm producers and non farm traders, as well as non wage income of independent professional activities. Consequently, the data of “gross operational surplus” (excedente bruto de operación), overestimates the actual magnitude of profits. On the other side, it is well known that enterprises tend to

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<sup>2</sup> See: Dumenil & Lévy (1996), ...

minimise their actual profits in order to skip fiscal charges. The purpose of this paper is to explore a different methodology that can give us a better look at the trend, rather than the level of profits.

Let us depart from a standard definition of profits, considering the definition that net real income is split in wages and profits. Consequently:  $Y = W + \Pi$ . If we estimate the product and wage per unit of labour, we get:  $y = w + \pi$ . This is nothing but an identity. Nevertheless, in the long run their rates of change show the direction of movement, which amounts to say that the difference in the rates of growth  $\pi = (y - w)$  provides the direction of the trend. Evidently in a real economy profits are somewhat more complex than that identity. Nevertheless it can be used to approach the trend rather than the level. The focus of interest is the way in which profitability performs as the main source of economic dynamism.

The approach suffers a limitation concerning propositions about the level of the rate of profit. Nevertheless performs positively about the economic cycle, and the form in which structural change has an important incidence on profitability and the stability conditions of the growth process. The premium over other type of studies is this can be done at a branch level, and we can inquire about the relationship with other variables such as the rate of interest and the exchange rate.

The questions that originated this work, are particularly related to the problems observed in the Mexican economy as it has evolved into a new pattern of integration to the world economy during the last fifteen years. The perception is that nowadays the main determinants of the rate of profit are the rate of interest and the rate of exchange, given the particular model of monetary policy that has served to that purpose. Consequently, although the wage rate still is an important determinant of the long run behaviour of profitability, in the short run the monetary policy has turned into the main determinant of the rate of accumulation. This might appear as a contradiction with the overall approach. Nevertheless it focus on the actual characteristics of a small open economy going through an important process of structural change. It also allows to inquire into the particular impacts that trade and financial liberalisation had in the process of structural reform, which by the way has been presented as the main objective for policies of structural change.

We expect to provide a consistent assessment of the trend of profitability, not of the level of rate of profit, which might allow us a better understanding of the cyclical trend and crisis which now appear endemic to the Mexican economy.

**ii) Profitability trends in the Mexican economy.**

Three sets of estimates on profitability have been produced at a branch level, for the 72 sectors of NIPA, from 1970 to 1997. All of them are built as differences in the rates of growth of net income per worker, subtracting, the rate of growth of the wage rate. For the second set of estimators we obtained the rate of growth of the real rate of exchange, weighted by its share of imports in the gross product. The third set includes the impact of the rate of interest either as a difference to the rate of growth of productivity and to gross profitability. The data source considers the 72 branches, but results here are presented in five aggregations: primary sector (1 –4) extractive (5 – 10), manufacturing (11 – 61), export manufacturing leaders (selection), and non-tradables (62 – 72).

**Wage rate and profitability.**

Overall graph No. 1 presents the profitability trend for the whole economy and the subsets considered.

The first graph presents the actual levels of the difference of product per man and wage rate. It is revealing of periods of convergence when competition has pushed for more homogeneous conditions on profitability, while opening the gap between sectors during crisis. This shows the actual role that crisis has played as a source of structural adjustment and its real nature. Nevertheless, it shows the difficulty earlier mentioned about the meaning of the difference and the change in NIPA accounts from 1988.

The following graph presents the same data base, but as a difference in the rates of growth of product per man and the wage rate. We stand on the idea that this difference is more revealing about the profitability trend. The long run effects of adjustment in response to profitability crisis, is shown to rest essentially on the adjustment of the wage rate. Two periods appear at the core of the trend, 1983-87 and 1995-96. The 1976 crisis is shown that made resource to another form of adjustment that didn't rest on adjustment on the wage rate.

It is remarkable the form in which appear the last three mayor crisis: 1976, 1987 and 1995. In the three cycles, the years that precede the collapse show a decrease in the profitability trend, therefore calling for an adjustment to recreate better conditions for accumulation. Crisis all over, has served the purpose to recompose the conditions of recovery, basically making resource to a reduction of the real wage rate, that only between 1983-1987 averaged 7.7 % per year in real terms.

#### **b) Profitability and the real rate of interest.**

The idea is to contrast the conditions of profitability considering the actual impact of financial profitability, on real profitability, consequently its impact on the economic cycle. Graph No. 3 presents the difference of the rate of growth of product per man minus the real rate of interest, i.e. the nominal rate of interest minus the rate of inflation. It is evident that up to 1993, there was a positive reaction to cycles, through the fall in the real rate of interest, in spite of very high nominal rates due to inflationary reactions to adjustments in the exchange rate.

Nevertheless, the reaction during the last crisis, in 1995 is indeed remarkable. It shows the considerable impact of the increase in real rates of interest instrumented as an attempt to avoid a massive capital flight. The paradox is that it is just in this condition that the financial sector collapsed altogether.

If we consider both effects, the adjustment on the wage rate and the rate of interest all together, we obtain an even clearer view of the cycle, as is shown in the following graph.

Three different forms of adjustment can be identified:

- a) The 1976 crisis rested on a fall in the rate of interest and not on a fall of the wage rate.
- b) The 1983 and 1987 crisis, once the economy was in the transition towards a more open economy, you could say globalised and more open to financial capital strikes, the adjustment rested fully on the wage rate.
- c) The 1995 crisis, in spite of the fall in the real wage rate, was unable to cope with the increase in the real rate of interest.

Now we have subtracted the real rate of interest to the rate of profitability. The impact is dramatic in each crisis: 1974-76, 1983 and 1987. But the last cycle is even more revelling. Precisely the 1995 crisis erupted as a financial crisis, leading the whole banking system to collapse.

If we consider both effects, the adjustment on the wage rate and the rate of interest we obtain the following path:

This graph shows the essence of adjustment between wages, rate of interest and profitability during the cycle.

### **Rate of exchange and profitability.**

The impact of the rate of exchange has not been studied properly. It is evident that sectors more dependent of imported inputs should be more vulnerable. Graph No. 3 presents the impact of the real rate of exchange on sectoral profitability. The share of imports on gross sectoral product has weighted the impact on every branch. The graph

is very clear in showing the impact of periods of overvaluation and undervaluation of the real rate of exchange all over.

It also shows that although the purpose of overvaluation has been to protect the export leader sectors, given their characteristics as “maquila” producers, eventually the main beneficiaries might turn to be the non-tradable sectors.

It is also clear the impact on non-tradables that enjoy the possibility of monopolistic conditions in the domestic market.

### **Profitability and real cycles in the Mexican economy.**

( In the oven )

The idea is to work out the significance using an econometric device, still in doubt.