

Comments on

A Five-Year Projection for a Restructured Cuba by Ernest H. Preeg, and

A First Approximation Model of the Balance of Payments, Output, Employment and Foreign Aid Requirements of a Democratic Cuba, by José F. Alonso and Armando M. Lago.

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Both of these papers make numerical projections for specific sectors in a transitional Cuba. Alonso and Lago also forecast various macroeconomic variables. I will discuss the projections for specific sectors first, since these are common to both papers. I conclude with a discussion of Alonso and Lago's macroeconomic forecasts.

Projections for Specific Sectors

A methodological criticism of both papers is that neither one uses an economic framework in developing their sectoral forecasts. Small countries such as Cuba usually have little control over the prices of traded goods. They must take prices as given. Sectoral projections, therefore, are simply statements of what is the shape of the supply curve --its level and its elasticity-- in each sector (or market) in a future market oriented Cuba. It may be impossible to estimate supply curves in a future Cuba with any sort of reliability, but nothing is gained by not being explicit that this is what is being done. I would like to see a more explicit economic framework used.

In the absence of such a framework, it is not at all clear how the authors of both papers arrive at their sectoral projections. Preeg's projections appear to be based in part on the experiences of other countries in the region. He supports, for example, his projection of a very rapid increase in foreign exchange receipts from \$100 million to \$900 million in the first five years, by the experiences of the Dominican Republic, Jamaica, and Costa Rica. Such comparisons are inappropriate for several reasons.

First of all, the elasticity of supply for those countries in any one sector may be much greater than in Cuba, because they already had a domestic industry working within the context of a market economy. In other words, they may have been able respond more readily to a decline in trade barriers than one would expect from firms not used to operating under competitive market conditions. Secondly, the Cuban experiment is not simply a movement along a country's supply curve. It involves a drastic regime change which will make it difficult to maintain output in the short run, much less increase it, while a system of property rights, commercial law, and ownership are established. Thirdly, Cuba's changes are economy wide. Preeg projects large expansions for almost all sectors, which I doubt is what happened elsewhere in the region where he noted rapid increases in exports. Both papers, in fact, appear to ignore the interrelationships across markets.

Projections sometimes seem to be based on existing capacity. But high capacity that can only be put to use at uncompetitive high costs, will not be utilized. Again, what is needed is some idea of the shape of sectoral supply curves.

In general the Preeg projections are much more optimistic than those of Alonso and Lago. For some sectors Preeg forecasts foreign exchange receipts in five years that are two or three times as large as the full privatization scenario in Alonso and Lago. Given the experience of Eastern Europe even Alonso and Lago's more conservative estimates appear too optimistic to me.

Macroeconomic Forecasts

I have one general methodological comment concerning the estimation of macroeconomic relationships in the Alonso and Lago paper. Statistical relationships between macro aggregates are unlikely to remain invariant in the face of significant regime changes. The authors used data for the period under communist rule to project for a future market economy. Such a regime change could be called the "mother of all regime changes", so it is unlikely that the estimated relationships will remain unchanged. The authors should at least defend their position on this matter.

Below I list some specific comments:

1) *On the production function.* The authors assume that the production function exhibits constant returns to scale in capital, labor and the subsidy. This implies that there are decreasing returns to scale in capital and labor, something which is unlikely to be the case. It would be better to assume constant returns to scale in capital and labor.

The subsidy (SUB) enters the production function in an implausible way. If the subsidy is zero (SUB=0), output is zero! Probably the best solution is to subtract the subsidy from GDP1. Alternatively, a different specification, such as

$$GDP1 = A_0(K1)^{[\alpha]}(L1)^{\beta}(1+SUB1)^{[\gamma]},$$

must be used.

2) *The re-export subsidy and the price of oil.* Adding the value of oil re-exports to the subsidy seems to be double counting. The world price of oil should appear in the oil import regression.

3) *Statistical and estimation questions.* Serial correlation is sometimes corrected for, and other times it is not. Why? The authors should check that their many time series are stationary. What happened to ΔGDP in the investment demand equation? I also don't like using imports as a variable in the investment demand equation.

4) *The value of expropriated wealth.* While I do not doubt that exiles owned a disproportionate amount of Cuba's material wealth at the time of the revolution, the assumption that they and the Americans owned all the capital stock appears to be extreme.

5) *Compensation and growth.* As currently formulated, compensation for confiscated assets is simply a transfer abroad of wealth. The only effect compensation is allowed to have is to lower growth. This would appear simplistic. To the extent that compensation demonstrates the new regime's commitment to private property and free enterprise, compensation can actually increase foreign investment in Cuba, including from exiles. There is no mechanism in the model for such an effect from compensation. But even if we ignore the potential benefits of compensation, will not a significant part of it simply be a redistribution of assets among Cubans, and therefore have ambiguous effects on growth?

7) Why would admission to the CBI mean no trade barriers to Cuban sugar? I believe sugar is not included in the CBI.