

*Portuguese Economic Growth 1833-1985:
Some Comments on Pedro Lains'
and Jaime Reis' Doubts*

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In their text, Pedro Lains and Jaime Reis raise some doubts about the progress made by our 1989 estimates of Portuguese gross domestic product, finding it hard to agree that they are more accurate than previous estimates. They argue that the methodology we used is shaky and that important parts of the picture we drew about Portuguese economic growth are unpalatable.

In our 1989 paper, it was acknowledged that our estimates are fully meaningful only in the long run, and that to use them in formal counter-factual analysis together with foreign trade and public finance data leads to circularity. Furthermore, we stated as one of our main conclusions that additional work (such as "A evolução da agricultura e da indústria em Portugal 1850-1913. Interpretação quantitativa" by Pedro Lains - Banco de Portugal, 1990; hereafter *Lains, 1990*) was needed. This obviously means we share many of the doubts expressed by Pedro Lains and Jaime Reis.

However, we do not believe previous estimates to be better than ours, because we have designed a methodology tested to produce good estimates for the period for which we have reliable official data about gross domestic product; and we think our description of Portuguese economic evolution is quite palatable, because it agrees with a lot of other qualitative and quantitative evidence.

As far as methodological questions are concerned, let us only add two remarks.

First, gross domestic product was not "estimated by means of a weighted average of proxy variables", implying some stability in the ratios of these proxy variables to gross domestic product. As a matter of fact, our approach allows for increasing weights of foreign relations and of public finance in economic life (for instance, the export/GDP ratio implicit in our figures varies between 3% and 26%, and the import/GDP, fiscal receipts/GDP and public expenditure/GDP ratios show even higher increases in the long run). Accord-

ding to Pedro Lains and Jaime Reis, international comparisons suggest our method "systematically overestimates GDP", prior to the First World War. Of course, they may be right, and a downward revision of absolute figures of gross domestic product for the XIXth and early XXth centuries may be needed, but it should be stressed that such a revision would lead to higher values for foreign relations and government finance weights in economic life for these years, and to lower increases of these weights in the long run.

Second, we decided not to use money supply as a proxy variable for gross domestic product because we were convinced from qualitative evidence that sight deposits were not generally used as means of payments until the early XXth century, and gradually became usual means of payments during the first half of the XXth century. This means money supply should be equated with currency for the XIXth century, with currency plus a gradually rising proportion of sight deposits during the first half of the XXth century, and with currency plus sight deposits for the second half of the XXth century, for the purpose of gross domestic product estimation. We thought we had better avoid such a complex computation. No problem of this kind arises with the other proxy variables.

Let us now turn to the description of Portuguese economic evolution. Pedro Lains and Jaime Reis think we exaggerated the contrast between a period of important growth in the 1870s and 1880s and a period of slowdown between 1890 and the First World War, find our picture of the breakdown of the Portuguese economy during the First World War too catastrophic, doubt there was such a good economic performance in the interwar years, and come back to the traditional view of the Second World War as a "period of global prosperity for Portuguese economy". Such opinions are based on quantitative evidence presented mainly in *Lains, 1990* and in their text, and on qualitative informations of various kinds.

It is impossible to present here a critical review of *Lains, 1990* and of the data presented in Pedro Lains' and Jaime Reis' text, because it would take too much space. Anyway, let us point out that those estimates of output indexes are mainly based on proxy variables and seem to be as volatile as our estimates of gross domestic product. This means they are the best available information about physical production, and that we agree they may cast some doubts about our estimates. However, we think they cannot be accepted as decisive tests against our figures.

With regard to the pre-First World War period, the contrast between the perspective of Pedro Lains' and Jaime Reis' and ours is mainly a consequence of Pedro Lains' estimate of the growth of agricultural output during the 1890's. As a matter of fact, for the period of the 1870s and 1880s, we find the 1.3% increase per year in agricultural output and the 2.7% increase per year in industrial output depicted in *Lains, 1990* quite compatible with the 2.1% increase per year in gross domestic product depicted in our estimate, because

the increase in the service sector must have been important in a period of intensive railway building in the country; and figures for the early XXth century (before the First World War) years are not contradictory in either estimate (a decrease of 0.5% per year in agricultural output and an increase of 2.5% per year in industrial output according to *Lains' 1990*, and an increase of 0.4% per year in gross domestic product according to our estimate).

The 2.0% increase per year in agricultural output between 1890 and 1900 is one of the most puzzling elements of *Lains, 1990*, specially when it is compared with the drop between 1900 and 1913. These ups and down are difficult to reconcile with the statement that "the protectionist measures of 1889 and 1899 fostered (agricultural) growth as they were intended to do". As a matter of fact, protectionist backgrounds for agriculture, as prior to 1865 and after 1889, seem to be detrimental to agricultural (and overall) growth (though beneficial to the growth of the cereals subsector studied by Jaime Reis in "A Lei da Fome: as origens do proteccionismo cerealifero (1889-1914)" - Instituto Gulbenkian de Ciéncia, 1979); while free-trade backgrounds for agriculture, as between 1865 and 1889, seem to be benefecial to agricultural (and overall) growth (though detrimental to the growth of the cereals subsector, as the indexes, *Lains, 1990* also show). This should not be a surprise, given the relative inefficiency of cereal production in Portugal as against the rest of Portuguese agriculture, and as against foreign cereal production.

This leads us to think a less spectacular boom of agricultural output is much more likely for the 1890s. Such a downward revision of the figure for agriculture would bring the overall rate of growth more in line with our 1.6% increase per year in the gross domestic product estimate. This also allows us to avoid the task of finding an explanation for the stimulating effects of the 1891 financial crisis and of its consequences (depreciated currency, state bankruptcy, and increased protectionism) in a small economy.

With regard to the First World War period, it is only fair to acknowledge that the sharp decline in the standards of living depicted by our estimates is most likely exaggerated, because the rural world must have fared better than statistics reveal. However, it is hard to believe in the stagnation of output suggested by Pedro Lains and Jaime Reis in a country whose industry was heavily dependent on foreign supplies and markets as the very methodology of Pedro Lains' and Jaime Reis' industrial output index shows. Of course, the relevant comparison should not be made with the industrialized European belligerents, but with European belligerents with a level of development similar to Portugal. Furthermore, we do not accept the argument that "the fabric of society and the institutional framework [...] survived", because we find eight revolutions, one period of civil war, two general strikes, and some minor agitation, quite a lot for the years 1915 to 1921, even if the final result was neither socialism, nor dictatorship, but a liberal republican regime similar to the prewar one. Anyway, this is, of course, quite subjective.

The evaluation of the interwar period depends crucially on the evaluation of the First World War years. As a matter of fact, the 2.4% increase per year in agricultural output in the 1919-1938 period, and the 5.1% increase per year in industrial output in the same period assumed in Pedro Lains' and Jaime Reis' text combined with the stagnation they suggest for the First World War years, would almost certainly lead to a 1913-1938 growth even higher than the 2.2% increase per year in gross domestic product in the period 1913-1938 of our estimate. In these circumstances, there is no need of further elaboration about these years.

With regard to the Second World War years, Pedro Lains' and Jaime Reis' traditional view rests mainly on the official estimates of gross domestic product for the years 1938 and 1947 in the continental part of the country. We rejected 1938 figures as inaccurate, and we replaced the 2.7% increase per year shown in official figures by a mere 1.2% increase per year. However, the crucial point is not if there was growth between 1938 and 1947 (there certainly was), but if the growth was concentrated in the years 1938-1941 and 1945-1947 (as we believe), or evenly spread throughout the decade (as Pedro Lains and Jaime Reis believe). This must remain an unsettled question, because the quantitative evidence does not allow accurate year-to-year estimates, but we think that the view of the Second World War as a period of brilliant prosperity is too influenced by the performance of tungsten exports and of remittances to refugees, and does not pay enough attention to the bad weather conditions of some years or to the effects of supply shortages.

Let us conclude by expressing our satisfaction with the contribution Pedro Lains and Jaime Reis provided for the debate on Portuguese economic growth and our hope that this debate will widen and improve in accuracy during the next years.