

Export Instability: a Rejoinder

Professor Leslie Stein's recent article in this Review left some doubt as to our contribution to the debate on the issue of export instability. Professor Stein called us:

"... the odd men out in claiming to observe an absolute rise in LDC instability, but since their paper is distinguished by the total absence of any instability measurements and devoid of any explanation as to how they calculated their indices, their results cannot be given much credence."¹

We find such a comment somewhat lacking from someone who writes a definitive survey article on the subject. Our main purpose is to clear up any misunderstanding and thus make Professor Stein's contribution more complete.

Our basic interest in our modest article was to test the stability of various categories of exports.² Specifically, we examined a division of total exports into both major/minor and manufactured/non-manufactured goods. Major exports were defined as the sum of commodity exports which accounted for at least 10 percent of total exports, while minor exports were defined as total exports minus major exports. Manufactured exports were defined as SITC categories 5-9,³ while non-manufactured exports included all other commodities.

The basic question raised by Stein may have to do with the divergence of our procedure from Cooper and Brainard.⁴ In their article, Cooper and Brainard computed the variance of a time series for export *prices*. However, as they noted in this same paper, instability in export earnings may also be attributable to the supply side. *It was in recognition of this problem that we employed data on export values rather than simply export prices.*

Secondly, Cooper and Brainard calculated their variances *without* the removal of any trend factor. However, since international trade is a growing phenomenon, one may want to account for this growth in an attempt to derive

¹ STEIN, LESLIE, "Export Instability and Development: A Review of Some Recent Findings", in this *Review*, No. 122, September 1977, p. 279.

² ASKARI, H. and WEIL, G., 1974, "Stability of Export Earnings of Developing Nations", *Journal of Development Studies*, Vol. 11, No. 1.

³ As Professor Stein could object, one could clearly question any such definition of manufactured exports. There is no doubt that one can find many inconsistencies in some categories.

⁴ COOPER, R. N. and BRAINARD, W. C., 1968, "Uncertainty and Diversification in International Trade", Stanford Food Research Institute Studies in Agricultural Economics, Trade and Development, Vol. 8, No. 3.

a more meaningful measure of instability. More specifically, consider a time series that has a continuing growth rate of exactly 4 percent. In this case a calculation of the variance in the growth rates would yield a zero value. On the other hand, a calculation of the variance of the absolute values of this same series would yield a positive number. The point being that given an expanding economy, and expanding export earnings, the variance of growth rates gives a different insight into export instability than a mere calculation of the variance in the original data. Furthermore, the calculation of the variance in growth rates makes more sense than calculating the variance around a linear trend, which implicitly assumes a declining growth rate in export earnings.

Professor Stein could possibly question the "normalization" of our calculated variances. Cooper and Brainard "normalized" their variances of export prices in order to compare the instability of several series. The basic purpose of such "normalization" is to account for scale differences; thus, it is an essential step in comparing the variances of time series for export earnings. However, in our case, since we have calculated the variances of growth rates, this scale factor has largely been removed. Even so, a "normalization" in the case of growth rates would still give additional information and thus may be desirable. Nevertheless it would not replace our measure.⁵

Our methodology was simple and to the point. We hope that the above will add in a minor way to Professor Stein's survey. We should add that our major finding, with a new approach, was that of larger instability for manufacturing exports. This we believe needs more analysis. If our methodology was incorrect, we would welcome correction. However, Professor Stein's footnote *did not* mention our methodology or major findings and was also incomplete and in error in quoting "an absolute rise in LDC instability...". We have said "our calculations also revealed that the instability of export earnings of all countries *taken together* have increased somewhat from Period I to II."⁶ We must point out that such a statement does NOT imply "an absolute rise in LDC instability" but it could arise, for instance, from an increase in DC instability and a decrease in LDC instability. We could have started out by stating this basic misrepresentation but we would like to join in the search to resolve this issue and have thus clarified our methodology and restated our major findings which should be the only subject of debate.

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⁵ Clearly, to calculate an overall index of instability for a country, one should weigh each category of exports by its relative share in total exports.

⁶ ASKARI and WEIL, *op. cit.*, p. 90, emphasis added.

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