Foreign direct investment—how much is it worth?

A reply by Sydney J. Gray and Alan M. Rugman

Christian Bellak and John Cantwell's comment on our earlier paper on United States-Japanese foreign direct investment (FDI) is a useful contribution to the debate on the difficult measurement issues involved with FDI and, in particular, the question of revaluation. However, there are a number of points we would like to make, not only to defend our position, but also to clarify and focus the discussion.

As Bellak and Cantwell point out, there are two separate but related issues concerning any revaluation of FDI:

- Are stock-market values to be preferred to replacement values?
- Once this decision has been taken, what kind of methodology is to be applied?

The most important question by far, however, concerns the measurement principle to be used—both in terms of relevance and in respect of the significantly different numbers that are likely to result, irrespective of the subsequent methodological refinements that may be applied. As Bellak and Cantwell suggest, the answer to this depends on the issue to be addressed; indeed it would seem that we have different concerns in mind.

What we are interested in is the ''value'' of DFI in the sense of understanding something about the magnitude of the investment involved, which is significant in strategic and competitive terms internationally. Accordingly, we need a measure that reflects the value of both tangible and intangible assets, including managerial skills, technological know-how and so on. It is the value of the business as a whole that is our prime concern. Stock-market values are arrived at through an overall assessment of the variety of factors impacting on business value and are thus superior in principle to the replacement values, preferred by Bellak and Cantwell, which provide us merely with an aggregate amount of the prices of the individual assets deployed. Moreover, the assessment of replacement values is usually restricted to tangible assets. While replacement values may be useful in assessing productive capacity in some restricted sense, and whether or not such capacity is being maintained, they do not seem to us to be at all useful

in providing a value of the combination of assets making up the investment. After all, what we are concerned with here are issues relating to international competitiveness and corporate strategy in the context of Japanese-United States political and economic relationships, and as such it is "value" in the broadest economic sense that is surely of prime importance.

Having parted company with Bellak and Cantwell on the focus of the debate on FDI and the relevance of the measurement principles involved, we can now turn to the relatively minor questions of methodology.

First, there is the question of the initial capital stock. Bellak and Cantwell criticize our study for commencing the analysis from 1960. The reason for this, as stated in our article, is that data on Japanese FDI in the United States are only available starting in 1959. Therefore, 1960 is the first that it is possible to calculate a change in FDI stocks, as done in our tables 3 and 4. For some peculiar reason, Bellak and Cantwell argue that our study should start in 1950 and that non-existent data should be used. It must be obvious that actual data are superior to Bellak and Cantwell's calculations based on arbitrary and imaginary assumptions.

Second, there is the question of the way in which the FDI stock is calculated. Bellak and Cantwell state that we recalculate "the annual FDI flows" in our table 3. This is factually an error: the focus of our article is on FDI stock data, not FDI flows. Our table 3 is a recalculation of table 2 on "Bilateral FDI stocks". This is clearly stated in our article on page 128. Moreover, our table 4 is also a recalculation of FDI stock data. Bellak and Cantwell also state that "depreciation, gross investments, gross stocks and retirements" are totally excluded from our analysis. Again, this is factually an error, since the recalculated data in tables 3 and 4 are based on FDI stock data which already include these elements. Accordingly, the entire thrust of Bellak and Cantwell's criticisms is this regard is wrong and misdirected.

Following their criticisms of our methodology, Bellak and Cantwell report their alternative calculations of bilateral FDI "stocks" in table 2, using their preferred "perpetual inventory model". However, as the appendix to their comment indicates, these calculations are fraught with difficulties. The perpetual inventory model methodology is based upon arbitrary and questionable assumptions, i.e., linear depreciation, the simultaneous exit of assets after their assumed service life is ended, and an average service life of assets of 20 years. There is no scientific reason or evidence to believe that

the results generated under the perpetual inventory model methodology are in any way superior or more reliable to the actual FDI stocks data used by us as a basis for our revaluations.

There are also a number of other errors and misunderstandings in Bellak and Cantwell's comment which need to be pointed out:

- Footnote 1 is irrelevant, since our study is clearly defined as being restricted to bilateral (Japanese-United States) FDI and trade issues. We are not writing about "the recent literature on revaluation of FDI which has emerged in the United States and United Kingdom". While this broader topic appears to be the focus of Bellak and Cantwell's comments on our article, it is not relevant to our study of Japanese-United States FDI. Thus, tables 1 and 1a listing earlier studies of United Kingdom and United States FDI are irrelevant.

- Footnote 2 introduces extraneous information. It does not refute any statement in our article but instead discusses issues relating to production and distribution.

- In footnote 3 and the text, Bellak and Cantwell state that the FDI data in John H. Dunning and Rajneesh Narula have been checked. But this is totally irrelevant to our article where we use the original United States Department of Commerce data.

- Bellak and Cantwell argue that United States FDI in Japan is of relatively recent origin, with the comment that it "roughly doubled by 1986 and more than doubled again by 1992". However, this conclusion is based on unadjusted historical cost data which introduces a bias towards more recent FDI reported at relatively up-to-date values. If we look at the adjusted data in our tables 3 and 5, it can be seen that the bulk of United States FDI in Japan was made prior to the early 1980s. In contrast, our tables 4 and 5 show that Japanese FDI in the United States became significant only from the late 1970s.

In conclusion, we reiterate the relevance of stock-market values to the key issues concerning comparative Japanese-United States FDI and suggest that our adjustment method for the revaluation of FDI stocks remains robust, if relatively simple. At the same time, we recognize the scope for more sophisticated methodologies and welcome Bellak and Cantwell's efforts in this regard while remaining sceptical about their approach and results. ■