Export Tourism: Rejoinder to Palmer

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EXPORT TOURISM: REJOINDER TO PALMER

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There appear to be three central points in Noel Palmer's comments. These pertain to:

    I: The treatment of the government sector — should it be regarded as exogenous (as in Norton, 1982) or endogenous?

    II: An assumtion of the input-output model used by me, namely, its failure to distinguish between average and marginal values of parameters.

    III: The relative capital intensity of export tourism.

Point One

(i) Contrary to what might be inferred from Palmer, Byrne and Palmer (1981) — henceforth referred to as BP — did *not* distinguish between a range of multipliers based on any stated assumptions in regard to the exogeneity or endogeneity of government expenditure on goods and services. Their multipliers — on page 90 of their study — are all drawn from page 67 of Deane's (1980) report on tourism policy and suffer from the same deficiencies as those in Deane, mentioned on pages 34 and 35 of my study.

(ii) Palmer provides no basis for his assertion that "if tax revenue is treated as being recycled" (i.e., if government were endogenous) "Norton's calculations would provide a multiplier of 2.0 in respect of tourism expenditure within the state". Any calculated multiplier for a model with government expenditure on goods and services taken as endogenous would depend on the assumptions made (but unstated by Palmer) in regard to the *structure* of marginal changes in such expenditure.

(iii) In my own study (pages 35 and 36), in order to make sense of BP's comparison of export tourism multipliers with fiscal multipliers, I inferred that BP's within-the-state export tourism multiplier of 1.8 pertained to a model in which government expenditure on goods and services are exogenous. Palmer now tells us that it pertained to a mdoel in which government expenditure was endogenous. It follows that there is no government expenditure multiplier in BP's model; the effects of increased government expenditure are embodied in the export tourism multiplier. From this, it further follows that BP's comparison of high export tourism multipliers with relatively low government expenditure multipliers is misleading. If Palmer wishes to compare export tourism multipliers with fiscal multipliers he must make government expenditure on goods and services exogenous.

Point Two

One of the main objectives of the study under criticism by Palmer was to obtain safe *upper bound* estimates of export tourism multipliers. Palmer

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correctly criticises the input-output model used by me because it fails to distinguish between average and marginal values of parameters. In fact, I raised the same point on page 37 of my study. However, I also added that this shortcoming of the input-output model used could generate *overestimates* of national income multipliers pertaining to various kinds of exogenous demand: it would seem plausible to argue that in Ireland the marginal propensities to save and to import both exceed the average propensities. However, an implication from Palmer is that the input-output model used leads to underestimates of export tourism multipliers. For the reasons just indicated (and also because of my assumption of a low marginal propensity to save on page 44 of my study), I am confident that this is not the case, and that my multiplier of 1.03 for total export tourism is indeed a safe upper bound estimate.

Point Three

Under the heading of capital/labour ratios, Palmer claims that my procedures lead to overestimation of the relative capital intensity of export tourism. He also questions the accuracy of various data used by me as the basis for my estimates.

(i) My estimated of £10,651 for the economy-wide capital/employment ratio was derived directly from Table 1 in Henry (1980). My estimate of the capital/employment ratio for total export tourism was £11,263; however, I pointed out on page 49 of my study that this was an understatement because of identifiable rounding errors.

The figure of £11,263 reflects an estimated capital/employment ratio of £10,450 for export tourism spending in Ireland and an estimated capital/employment ratio of £18,370 for export tourism carrier receipts. Consider the estimate of £10,450 for within-the-state export tourism. Rounding errors occurred in measuring the gross capital stocks induced by within-the-state export tourism in the various sectors: the estimated figures for the gross outputs of each sector (referred to in the top line of page 43 of my study), in units of £ million, were multiplied by the capital coefficients in Henry's Table 2[1]. The resulting products were set to two decimal places only, thereby losing the third and fourth decimals of units measured in £ million. It appears that in consequence, the sum of the capital stocks across all sectors, entailed by within-the-state export tourism, was understated. A further rounding error to the same effect was made in dividing the summed capital stock figure (fairly small in absolute terms, but in units of £ million) by the total employment figure (large in absolute terms and in standard units). In fact, as Palmer must be aware, Henry (page 24), on the basis of calculations more precise than mine, estimated that the capital/employment ratio for within-the-state export tourism was "about £11,000". The extent to which the rounding errors led to understatments in my calculation of capital intensity can be seen by comparing my figure of £10,450 with Henry's £11,000.

I admit that I was sloppy in tolerating significant rounding errors. But correcting for them only increases the estimated capital intensity of export tourism. Thus, instead of my procedure biasing upwards the overall capital

[1]Note that the entry .1546 in this table is a misprint; it should read 2.1546, the figure used by me.

intensity of export tourism, as asserted by Palmer, it does the contrary, yielding an understatement.

(ii) Palmer asserts that in my calculations of capital intensity the weighting in respect of the electricity capital stock for tourism was 3 per cent, and that this figure is too high, thereby generating "an upward bias" implied by my figure of £242.18 million for the capital stock requirement of the within-the-state export tourism sector. Actually, the weighting for electricity *plus towngas* in my calculations was just less than 2.7 per cent of the capital stock requirement of the within-the-state export tourism sector. Thus, the weighting of electricity alone would have been lower than the latter figure.

(iii) Palmer's statement that "if one were to include the appropriate figures in respect of domestic tourism Norton's calculation in respect of the capital intensiveness of the tourism sector would be reduced" is entirely unsubstantiated. Whether or not domestic tourism has a lower capital intensity than within-the-state export tourism depends on the spending patterns of the two categories of tourist. In any case, domestic tourism was beyond my terms of reference.

(iv) Towards the end of his comments Palmer notes that in my study "in respect of carrier receipts, transport has a weighting of 78 per cent, which is greater than the weighting of 3 per cent which applies to transport in the economy as a whole". The implication seems to be that those weightings are inconsistent. However, that is not the case.

The figures of 78 per cent was derived as follows: as is clear from page 47 of my study, the gross capital stock entailed by export tourism carrier receipts was £48.56 million. This reflects the direct and indirect effects of the £35.47 million of final demand for carrier services. Of the £48.56 million in capital, the work-sheets which I made available to Palmer indicated that £37.94 million pertained to the transport sector itself; the difference between the latter two figures reflects the *indirect* capital stock requirements in sectors other than transport, prior to the calculation of induced Keynesian multiplier effects. There is nothing surprising about the figure of 37.94/48.56 = .78 cited by Palmer. Each of the above figures pertains to the first round effects of export tourism expenditure on carriers.

From Henry's Table 1, we find that the total gross outputs from all sectors of the economy summed to £9,236 million in 1976, while the gross output of the transport sector came to £271.17 million. Thus, the weighting of transport in the gross output of the economy as a whole was 271.17/9,236 = .029, or approximately .03. The figures .78 and .03 are in no way inconsistent, as seems to be implied by Palmer.

Other Issues

(i) BP accept Deane's preferred multiplier estimates to evaluate the economic importance of *total* export tourism — not of marginal changes in export tourism as might be inferred from Palmer's comments. (Compare paragraphs 2.32, 2.33 and 2.38 of Deane with page 88 of BP.)

(ii) At the beginning of his comments, Palmer states that the BP multipliers were based on *assumptions in regard to the effects* of marginal changes in tourist numbers. That is wholly meaningless, for the whole purpose of calculating multipliers is to *assess the effects* of changes in tourist numbers.

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(iii) I cannot determine where in their study BP distinguished, as claimed by Palmer, between "differences in multipliers pertaining to tourism spending by out-of-state and within-the-state tourists". Furthermore, to the extent that tourism expenditure in Ireland by Irish residents is an *endogenous* consumption variable (being a function of income) rather than an exogenous variable, its multiplier is not definable.

(iv) Just before turning to the question of capital intensity, Palmer suggests that the multiplier effect of tourism (social benefits) as compared to the net Exchequer cost of promoting tourism (social costs) might form the basis of a cost-benefit analysis of tourism. By social cost in public project appraisal economists mean social opportunity cost. Thus, if benefit/cost ratios were sensibly to form the criteria for promotion of tourism, benefit/cost ratios would also have to be estimated for *all* potentially relevant public sector projects other than tourism.

(v) Palmer criticises me for ignoring the earnings of Irish carriers in respect of import tourism. I paid no explicit attention to such earnings simply because they were beyond my terms of reference.

(vi) Palmer's claim, towards the end of his comments, that tourism has "no" (sic) input of scarce capital in electricity generation is irrelevant to the question of comparing the capital intensity of toursism to that of other sectors: If, due to excess capacity, and taking into account both direct and indirect effects, tourism had no input of scarce capital in electricity generation, then neither would any other sector have had such an input.

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