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A METHODOLOGICAL NOTE ON CUSTOMS-UNIONS WELFARE EFFECTS

Introduction

An issue of profound interest that continually recurs in the examination of a customs union** (or common market) concerns the equitability of the arrangement in terms of the benefits conferred on the members. The elucidation of such a concern requires both a model that explains or accounts for the pertinent facts of union as well as a set of assumptions regarding the standards that enable appraisals of these facts.

It is easily remarked that any explanatory model must be suited to the actual circumstances and the analytic purposes that are to be served. Much less often is it noticed that procedures governing the use of standards of appraisal are not immutable but depend on the mode of the situation examined even though the standards, themselves, are invariant. In the case of providing a welfare assessment for a customs union the procedural use of such standards would appear to diverge markedly when the situation concerns the establishment of the union from that where its existence as an on-going institution is in question. Although on closer examination this is not borne out a number of distinctions need to be observed. In order to facilitate comparisons between these two situations we shall label the former the "once-and-for-all" case and the latter the "continuing" one.

In the welfare analysis of customs union it is the once-and-for-all case that has attracted the greatest attention. The theories developed by Viner and subsequent authors were for the purpose of answering questions about the desirability of establishing a union where one did not exist. As such they were of use in determining, say, whether the European Common Market

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*As the author is a civil servant he would like to state that the views expressed in this paper are his own personal views and not to be taken as those representing either the Ministry of Planning and Economic Development or the Uganda Government.

** "customs unions" or "common markets" are used synonymously.

or any other, should be instituted, and enabled the construction of welfare calculi that could be invoked to provide an unequivocal answer. The question of whether a member should remain in a customs union merited much less attention presumably because of the historical circumstancesthat dictated the focus of interest of customs union theory. Such questions are however increasingly coming to the forefront as the successful institution of customs unions gives rise to stresses and strains between members over the putative distribution of benefits as well as other aspects of union.

The remainder of this paper after a brief review of existing customs union theory is devoted to a consideration of the procedures that would appear to be appropriate for the welfare assessment of a customs union in a continuing context. A critical appraisal of recent studies purporting to demonstrate the distribution of gains and losses between members of the East African Common Market is then attempted drawing on the methodological stand point set out. It will be argued that while no historical assessments can be provided in the continuing case, properly formulated policy questions can be raised.

In a classic study on the formation of customs unions Viner[1] distinguished between what he called the "trade-creating" and "trade-diverting" forces of customs unions; the former effect arising from the entry of a commodity in inter-member trade involving the replacement of inefficient production of that commodity in one member by more efficient production in another member; the latter effect arising when the customs unions tariff enables a member to displace the imports of another member from cheaper external sources. In Viner's analysis, and under the assumptions he made, trade-creating and trade-diverting forces are unambiguously welfare-adding and welfare-reducing, although which effect predominated was a matter of empirical analysis. A major reason for the result was of course his assumption of zero elasticities of demand which by ensuring fixed proportions in consumption assumed away the substitution-effects consequent to relative price-changes, the whole analysis therefore concerning the income-effects of different tariff policies.

This was realised by Meade,[2] Lipsey[3] and others who demonstrated that such unambiguous welfare effects did not exist, that trade-creation could be welfare-reducing and trade-diversion welfare-adding since the subject belonged to the realm of the "second best" where all the optimum conditions are not met so that any extensions of geographically discriminatory tariffs would involve both a fulfillment of certain optimum conditions and a new violation of others.[4] Therefore not only would an empirical analysis be needed to identify the trade-creating and trade-diverting forces which would have sufficed for Viner but further empirical work would be needed to determine their exact contribution to welfare.

There does not appear to have been any major subsequent modifications to the theoretical framework described above. However, Cooper[5] and Massell in an interesting article have made important contributions of a clarificatory and analytical nature. Posing themselves the question from the economists vantage point as to why a customs union should ever be preferred when it would prima-facie appear to be more logical to move to a free-trade position, they are enabled to consider extraneous economic factors that may be of importance. As they pertinently point out previous models did not provide any explanation as to why a customs union should be chosen in preference to say, a position of free trade. The benefits such models indicate arise solely by reference to the situation that prevailed prior to the union so that the more autarkic a country is the greater it's gains from "trade-creation" and the more of a free-trader the greater its losses from "trade-diversion." In raising such questions the problem of members' gains or losses becomes a much wider one since it now no longer suffices to demonstrate that a member has gained vis-a-vis the prior situation to justify its membership of the union but that its choice of such a form of tariff policy was the best of all the possible tariff policies open to it. In other words the opportunity costs of becoming, and in the continuing case of remaining, a member should also be considered in providing any assessment and therefore a policy directive. This aspect cannot be overly emphasized since the traditional approach and the empirical studies based thereon are almost exclusively concerned with whether a member gains or loses from the customs union by reference to a prior situation that actually prevailed or if the approach is extended to the continuing case by reference to a situation "that would have prevailed" and thus provide only partial if not erroneous estimates. In a static context little modification would be needed to the standard theoretical framework as long as additional bases for comparison are allowed for.

It is possible to provide examples where the choice of a customs union type of protectionist policy is the best tariff policy to pursue e.g. in the case of under-developed countries with a powerful desire for industrialization. One can then argue that as far as the region as a

whole

is concerned the long-run gains to be derived from the union are unambiguous. This does not, however, preclude differences in the relative degrees of development of different members resulting in losses for certain members. As Myrdal,[6] Hirschman[7] and Brown[8] have pointed out, an agrarian underdeveloped country uniting with a country that has a modern sector may not only sustain unambiguous trade-diversion losses but may also suffer further impoverishment from the outflow of productive factors to the more rapidly developing members of the union[9] (the so-called polarization effect).

The formation of a customs union can thus result in different welfare positions for members and the region that is so united. If we may refer to social welfare functions of members then such functions taken in conjunction with the pre-union patterns of trade, production and consumption would provide the major ingredients whereby the welfare effects of changes in the latter variables brought about by the union can be assessed. The focus of such analyses being once-and-for all results in the relatively simple procedure of comparisons between the pre- and post-union positions sufficing for the demonstration of welfare effects consequential to union.

Such an analysis can be provided both in the ex-ante sense when the policy question of joining a customs-union is mooted as well as ex-post in answer to the question of what the actual welfare effects of the policy changes are. In the former case, the effects of the policy move on patterns of trade, production and consumption are estimated, possibly by use of the well-known device of setting up a policy model. The estimated position post-union would then be contrasted with the pre-union position to establish how much welfare-adding or-reducing there would be

a number of considerations in mind. The alternative to the customs union in the sense of the position members would have been in historically, if there had not been a customs-union, is unknowable. We may only speculate as to these alternative positions and any welfare assessments provided in answer to the historical question of actual benefits or losses must therefore be arbitrary. Likewise, any decision to remain or opt out of a union based in part on such a procedure would tend to be erroneous. The decision whether to remain in a customs-union can however be legitimately raised if the procedure is appropriately modified so that the answer is given in policy rather than historical terms.

A puzzling feature apt to mislead in the continuing case is that any member may, on examination of her trade patterns with the other partners, conclude that she would have been better off outside the union should she have been suffering a substantial and persistent deficit and there appeared limited prospects of reversing that trend. Two aspects in particular would be of great concern - the possibility of obtaining cheaper imports from the world outside the union as well as the possibility of increasing domestic production through internal substitution for these imports. By comparing an assumed position of free trade with that under the customs union, it is possible to compute hypothetical tariff revenue losses and similarly by comparing an autarkic position with the customs-union one, an assessment as to value added production lost can be provided. The hypothetical nature of these calculations cannot however be over-emphasised. They can in no way be used as substitutes for the assessment of actual benefits or losses deriving from the customs-union which we cannot provide or as an appropriate answer to properly formulated policy questions.

Consider first the hypothetical benefits that may be shown for a member from an assessment based on the two aspects previously mentioned. Now such benefits do not concern the union as a whole for which they sum to zero. To take the case of a two-member customs union the import surplus on the customs union trade of one member is paralleled by the export surplus on such trade of another member. The associated tariff revenue losses are similarly paralleled by associated tariff revenue subsidies for if at a particular point of time a member was to incur her import surplus by trading on the world markets rather than with the other member and thereby gain tariff revenues, the other member would sustain an equivalent loss since she would no longer obtain the world market price upgraded by the degree of tariff protection afforded to her exports but only the world market price. Analogously the relocation of production in response to, say, the erection of national tariff barriers, would if it led to an increment in [illegible] product of one member be offset by a similar decline in production in the other member.

Any assessment that is based on either of these two hypothetical aspects could show losses for that member and yet that member may well be enjoying a net benefit from the customs union.

The union could have been advantageous all along the line and some members would enjoy benefits over and above those set off by other members. Ignoring the political element in the establishment of customs unions the economic arguments have usually been couched in terms of the greater market size that is provided and the beneficial consequences that flow therefrom e.g., the various types of scale and efficiency gains in production, the rational re-allocation of production (Viner's "production-effect"), the harmonization of divergent prices and the consequent gains in the form of consumer surpluses (the Meade, Lipsey, Gehrels "consumption-effect"), the capital inflows induced from outside, monopolistically induced improvements in the unions' terms of trade and so forth. Such factors may result in a positive benefit for the union as a whole which neither of the calculation schemes so far considered would allow.

Where the policy question proper of remaining in the customs union is considered, such calculation schemes may be equally misleading since there would be a tendency to apply them to the relevant data of customs-union without allowing for the changes that would be brought about by a move towards free trade or autarky. It is very attractive in its simplicity but misleading to merely look at a member country's intra-union deficit, and to calculate the tariff revenue s lost by not having undertaken the same volume and pattern of trade on the world markets.

We may illustrate some of these remarks by examining two recent studies on the performance of the East African Common Market. (E.A.C.M.).

Ghai[10] in assessing the East African Common Market's members' gains or losses simply adopts the procedure of taking each member's imports from the other members as representing an element of loss to the extent of the tariff protection enjoyed by these imports. Members' exports to each other he takes as involving an element of gain to the exporting member, once again to the extent of the tariff protection enjoyed. The calculation is performed for each member in turn with the netting out of the losses and gains providing a measure of the net benefits enjoyed by each member as a consequence of the E.A.C.M. from which he concludes that Kenya gains the most, Uganda is a marginal case and Tanganyika a heavy loser - all of which are widely held beliefs.

While the standard of comparison on which his procedure is based is not made explicit it is possible to identify one. He is in effect assuming as an alternative to current trading within the E.A.C.M. trading on the world markets in exactly the same goods and of the same volume. Exclusive emphasis on this procedure is obviously unwarranted both because it assumes as a matter of logic that the union as a whole neither gained nor lost, which is a question of fact, as well as, that all intra-union imports are "trade-diverting" and all intra-union exports "trade-creating" which again are not necessary truths but matters for empirical verification.

Newlyn[11] concentrates on the second facet mentioned earlier. His approach is to consider those industries enjoying customs union protection that are "shiftable" in the sense that their exports to each of the other members exceeds a certain "threshold" level so that if these other members were to impose national protective barriers they would attract these industries. He also arrives at an assessment similar to that of Ghai's though he shows greater awareness of the limitations of his method and specifically asserts that he is concerned with tracing out the quantitative implications of what politicians are likely to believe.[12] He does however assume that to that limited extent the procedure is a valid one which on the contrary is much to be doubted; it assumed that the "shift" would have taken place which is not necessarily true as the industries concerned could have relocated through the re-allocation of a given stock of national productive factors and the stock itself could have undergone changes in response to national protective barriers. The further assumption that productive factors are equally productive in each of the members would also appear to be unwarranted.[13]

While the counter-examples raised above cast doubt on some of the assumptions made by the two studies they also bring into question their peculiar feature of implying zero gains or losses for the customs union as a whole. This feature arises because the fact of the customs union is assumed to be entirely neutral. In other words the questions asked by the studies as to members' gains or losses are not about the gains or losses attributable to the fact of customs union but of some imaginary situations. They only ask what the results would have been if the data on the customs union e.g., trade, were to be present unchanged in such situations.

Conclusion

The multiplicity of bases of comparison in deciding a move towards a customs union or away from it arises, as was stated earlier, from the variety of possible tariff positions that could be chosen. The treatment of the once-and-for-all case and the continuing case are analagous in that both call into play these various bases. Wheras however, the actual effects of a customs-union on its members shortly after its formation can be estimated, it may be too severe to assert that such estimates would not appear feasible when it has been in existence for a considerable time.

The comparison between the pre-union and post-union positions becomes increasingly tenous as time elapses. This is because in the short-run the fact of customs-union will be of major moment and its impact can therefore be more or less fairly assessed. In the long-run other factors will contribute to the disturbance affecting patterns of production, trade and consumption and it would be very difficult to identify the elements to be attributed to the formation of the customs union. Furthermore any attempt at circumventing this problem by constructing a world parallel to that of the customs-union must involve a high degree of speculation and cannot (in any case) be used to compute "actual" benefits or losses. In the continuing case, there is a grave danger of ignoring such considerations as is apparent in the two studies mentioned.

In conclusion, we may state that however attractive certain calculation schemes may seem to be the only questions that may properly be asked about the continuing case are those that are formulated in policy terms and involve a set of policy calculations. Such an analysis may be repeated at every stage of a customs-union life and only then would any quantifiable indications of actual benefits and losses be provided over its life but such indications would still be hypothetical.

FOOTNOTES:

(1) J. Viner: The Customs Union Issue. 1950

(2) J. Meade. The Theory of Customs Unions. 1956

(3) R. Lipsey: "The Theory of Customs Unions: A General Survey" Economic Journal, September 1960.

(4) While the logic underlying the general theorem of Second-Best theory is incontrovertible, in my opinion neither Lipsey in his survey article nor Johnson in his article on Customs Union theory in "Money, Trade and Growth" have provided satisfactory illustrations of that theorem. It appears that Johnson requires the assumption of imperfect knowledge on the part of consumers in order to sustain his demonstration that the replacement of a tax on one good, given taxes on other goods, by a lump-sum tax would result in increased consumption of that good and therefore either reduced government expenditure or reduced consumption expenditure of other goods (i.e., if Government offsets the revenue-reduction effect of the tax replacement by further lump-sum taxes.) If these latter expenditure effects have greater utility at the margin than the first expenditure effect, the gain in consumers surplus following the tax replacement would be reduced and it is conceivable that an overall deterioration in society's welfare could result. This possibility must, however, rest on consumers acting under conditions of imperfect knowledge which if admitted would then render that analysis indeterminate since it would not know be possible to define the optimum conditions. In order to properly demonstrate the general theorem, it is necessary to show that given the necessary conditions for an optimum (e.g., rationality, perfect knowledge, etc) the removal of one distortion can lead to additional distortions.

(5) R. Cooper and B. Massel: A new look at Customs Union Theory. Economic Journal, December 1965.

(6) G. Myrdal: Economic Theory and Underdeveloped Regions.

(7) A. Hirschman: The Strategy of Economic Development

(8) A. Brown: "Economic Separation Versus a Common Market in Developing Countries." Yorkshire Bulletin of Economic and Social Research (May and November 1961).

(9) The acute polarization effect may be mitigated by "trickling-down" (Hirschman) "spread" (Myrdal) or "spill-over" (Brown) effects which all concern the beneficial workings of the income effect on the losing member as a consequence of greater exports induced by the increasing income levels in the gaining members. However, the treatment of this mitigating effect has been generally unsatisfactory especially Browns. There has been a tendency to neglect the necessity of the standard on which comparisons can be made so that only gross increases in the spread effects are taken into account. This procedure would have been valid only if it could safely be assumed

that in the absence of a customs union the gaining members would not have enjoyed any growth at all with the associated spread effects being negligible. This is hardly a tenable proposition; see the Authors "Welfare and the East African Common Market: some observations," 1966 Proceedings of the East African Institute of Social Research Conference.

(10) D. Ghai "Territorial Distribution of Benefits and Costs of the East African Common Market." The East African Economics Review, June, 1964.

(11) W. Newlyn: "Gains and Losses in the East African Common Market." Yorkshire Bulletin of Economic and Social Research, 1966

(12) The general conclusions with respect to the welfare position of members reached by Ghai and Newlyn have been the target of criticism in A. Hazlewood: "The East African Common Market: Importance and Effects" and his "The 'Shiftability' of Industry and the Measurement of Gains and Losses in the East African Common Market," both in the Bulletin, Oxford University Institute of Economics and Statistics, February 1966 and May, 1966 issues respectively. Hazlewoods criticisms are on the whole directed at certain statistical deficiencies in the Ghai and Newlyn papers which he considers biased and responsible for their conclusions. Such strictures and rebuttals are however misplaced for however accurate the statistical underpinnings of the analyses, they would continue to mislead for the reasons advanced in this paper.

(13) S. Chand: ibid.