CHAPTER 7
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CONCLUSION

The main conclusion which follows from our analysis is that it is impossible to derive a logically true proposition about pattern of trade independently of the concept of industry used for analytical purposes. Insofar as there is no unique way of defining industry, intra-industry trade may appear to be a logical possibility rather than a theoretically puzzling question. Its existence may make a particular theory irrelevant, but it can still be consistent with some other theory of trade. This is all that we have argued in the foregoing chapters.

Most trade models assume that industries are 'vertically integrated' which implies that factors of production are internationally immobile. Relaxing this assumption in chapter 3, we have demonstrated that the neo-classical methodological reasoning can be extended to examine the causes of trade between inputs and outputs. Further extensions of this analysis have been made through the incorporation of economies of scale and factor-proportion dissimilarities. It has been shown that economies of scale is sufficient to explain trade in inputs.
factor-proportions are dissimilar, vertical disintegration becomes inevitable; but the pattern of such disintegration would depend upon the transferability of inputs and outputs. The cause of intra-industry trade again turns out to be economics of scale.

In Chapter 4, we have retained the assumption of "vertical integration" to raise the altogether different question of how industries for final commodities can be defined. The concept industry and its correlative term "commodity" serves essentially two purposes in classical competitive analyses: (1) as a device for reducing the vast number of economic activities and competitive relationships to more manageable dimensions, and (2) to provide a first hand theory of profit. Consistent with such competitive analyses is a concept of industry which requires infinite cross-elasticity of demand as a necessary and sufficient condition to group commodities. The neo-classical theory of trade, on the contrary, assumes a purely technological definition of industry which may come into conflict with the former.

We have found in section 1 that intra-industry trade is logically inconsistent with the usual neo-classical concept of industry. However, it can even be explained within the neo-classical framework if there are economies of scale or differences in production functions as clearly seen from
our model with increasing returns to scale.

While considering the substitutability definition in section II, we argued that there may or may not be factor-intensity variations within an industry so defined. In case such variations exist, the neo-classical model is perfectly consistent with intra-industry trade. If differentiated products have identical costs functions - as in the Chamberlinian industry - the pattern of trade can be explained with the help of Lancaster's theory of consumer behaviour.

Following Court-Lancaster's suggestion, we assumed that product differentiation can be objectively determined and that the problem of consumer's choice or preference for a particular variety can be tackled in a way similar to the conventional utility maximization theory. In Lancaster's world, consumer is supposed to behave as if he is a producer who combines various goods in order to produce attributes or characteristics which directly appear as arguments in the utility function that he maximizes. Once products are classified in terms of attribute-intensity it becomes possible eventually to explain the pattern of trade in differentiated products. We can say that a country exports goods which are intensive in a particular set of attributes and imports goods which are
intensive in a different set of attributes in much the same way that the HOS model explains that a country exports that good which uses relatively intensively its relatively abundant factor. The only difference between the two approaches is that while demand is fundamental to the former, the latter exclusively emphasizes the supply side. The Lancasterian pattern of trade is then determined by economies of scale along with differences in income distributions or taste patterns and transfer costs. We believe that this is a more powerful approach to explain, for instance, why America tends to export large cars and import small ones.

In chapter 5, we have discussed a few factors which have contributed to the growth of intra-industry trade. It was shown how reductions in transfer costs coupled with the growing disparities in international factor costs have led to some broadening of firms' decision-making horizon. This has increased mobility of goods and factors. Similarly, growing divergences in technical changes between countries have had two implications for intra-industry trade: (i) production functions between countries become different, and (ii) analysis of trade pattern in terms of the conventional definition of industry becomes a meaningless exercise since technical changes are always associated with new products and new processes. As a consequence,
factor mobility becomes inevitable and the possibility of trade between new and old goods becomes important.

In chapter 6, we have tried to integrate various types of commodity and factor movements within a broader neo-classical framework with differences in production functions. The reason for this choice is that while other explanations are quite possible, intra-industry trade is not a challenge to the neo-classical trade theory. On the contrary, neo-classical theory acquires high predictive value once intra-industry trade possibilities are introduced.