

SMALL COUNTRIES AND INTERNATIONAL TRADE

THE position of small countries in the international economy is an interesting one. Countries like Denmark, New Zealand, and Switzerland achieve high levels of real income based in large measure upon the opportunity for international trade and specialization. On the other hand, these small countries do find their economic fortunes very responsive to conditions in world markets. In the case of the countries mentioned more than twenty per cent of their national income is accounted for by export sales. A high ratio of export revenue to national income is important to the small country from the standpoint of the business cycle. For the sake of brevity we simply term this *cyclical dependence*.

Along with this sensitivity to external demand goes concentration upon a very few commodities for sale in world markets. For example, in New Zealand approximately ninety per cent of export revenue is regularly derived from the overseas sale of four commodities (butter, cheese, meat, and wool) and, for practical purposes, these exports are the product of just two industries. The New Zealand situation is not an unusual one; in fact, other small countries have carried their specialization to the point where overseas income is largely derived from sales of a *single* product. Such extreme degrees of specialization add an element of uncertainty to future prospects. If a new product or process slashes the demand for the small country's export specialty, a serious problem of readjustment can arise. In some instances a substitute export fills the gap, *e.g.*, the case of Chilean copper exports following the 1918 war and an abrupt fall in the demand for nitrates. However, the process of readjustment is not necessarily quick or easy.

It should be noted that the concentration upon a few commodities for sale in world markets is slightly different in its implications from cyclical dependence. Suppose that, in the future, wool-exporting nations will face a serious threat in the form of synthetic substitutes. This need bear no unique relationship to cyclical ups and downs but will be associated with technological change and an altered structure of world trade. Since forces which alter the basic structure of trade in this fashion should be isolated from the cyclical ebb and flow of business activity, the risk of catastrophic changes in the demand for export specialties will be said to involve the threat of *product dependence*.

There is another feature of the small economy's position that deserves emphasis. This third feature goes beyond the economic phenomena of a high ratio of export receipts to national income and a high degree of export specialization. Even if the international economy is not ruled by the law of the jungle, the exercise of national power across political boundaries is not unknown. Small countries have, at times, been at some disadvantage in dealing with their larger neighbors in situations where national power was an end and trading relationships a means to that end. Aggrandizement of power for the large country can involve drawing the small nation within the larger nation's economic orbit, thereby encouraging an integration of the small country with its more powerful neighbor. This integration is likely to leave the smaller country extremely dependent upon a continuance of the relationship, for the very integration of the small country's structure of production with the requirements of its larger trading partner leaves the small country with other alternatives reduced by the exclusive arrangement. In some instances the exclusive arrangements are very obviously instruments of economic warfare and indicative of an economic

penetration of a weaker nation, *e.g.*, Nazi Germany and the Balkan states. In other instances the predatory aspects of the process are absent and the integration of the smaller economy with the larger economy proceeds by mutual choice, *e.g.*, England of the late 19th and early 20th centuries and some members of the British Commonwealth. It is probable that results are a more objective guide than motives or techniques, and any integration of a small nation's economy with that of a larger nation should be considered evidence of *cultural dependence*. The extra-economic emphasis is deliberate, since the effects of this integration are pervasive and do tend to give rise to a measure of cultural penetration whether deliberate or unplanned.

Each of these three types of dependence (cyclical, product, and cultural) is important for the small economy—or is, at least, of potential importance for the small economy. It is probable, however, that no two small countries would be concerned with these types of dependence in the same degree. The category of small nations, including, as it does, countries at such diverse stages of economic development as Belgium and Guatemala, is a broad one. Considerable caution is indicated in applying any conclusions drawn from a general analysis of the small country situation to the position of an individual small nation.

Prior to a discussion of the three types of dependence, a digression of some length is desirable. It must be emphasized that in the digression to follow we shall proceed on the following assumptions:

- (a) that cyclical income fluctuations are absent or unimportant,
- (b) that risks of specialization are absent,
- (c) that the exercise of national power can be ignored since only the pursuit of economic gain by private traders is at issue.

These assumptions simply exclude factors that have previously been classified as involving cyclical, product, and cultural dependence and that are to be considered separately.

The classical and neo-classical theories of international trade paid direct, if fleeting, attention to the position of the small country. The conclusion reached was optimistic in the extreme, since it was held that the small nation trading with a larger partner could actually receive *all* the gain from trade. Such a conclusion might not seem to be compatible with the remarks made here on the dependent and vulnerable position of the small economy. However, the effort here will not be to discredit the conclusion that the small country *may* reap large gains from international trade, but rather to indicate that the theoretical analysis has often been based on restrictive assumptions. Our quarrel is not with the logic of the argument, given its assumptions, but with the universal relevance of the assumptions.

THE SMALL NATION AND GAIN FROM TRADE

In approaching the "small country case" as it was developed in economic writings of the last century, some historical perspective is essential. Theorists of the classical and neo-classical schools wrote during a period when 19th century liberalism was in the ascendancy. The era of mercantilism with its extensive state regulation of trade was drawing to a close. It was then possible to speak more realistically of foreign trade as involving exchange between very large numbers of private traders operating over, but relatively unhampered by, international boundaries. In this context the classical writers developed a theory of international values that looked to the rational pursuit of self-interest on the part of private traders as the motivating force. Principles of spe-

cialization early viewed as valid for the national economy were extended to the international economy. Specialization in accordance with the dictates of an impersonal market mechanism was viewed as insuring maximum world production. Although the fact is not always understood, the better 19th century writers did not assert that free trade would maximize economic welfare for each country. The correct neo-classical presumption was that non-interference with developing specialization tended to sponsor a world-wide economic allocation of resources.¹ It was never denied (by the more sophisticated) that an individual nation might gain by restrictive practices; but it was held that this gain was at the expense of the nations offended against and, of course, that retaliation could further restrict the benefits of international specialization.

In terms of trade and welfare the pure theory of international trade of the 19th century addressed itself to the related issues of a possible gain from international trade and the division of that gain or surplus among trading nations. The first issue—that of a gain from international trade—was clearly expressed by David Ricardo. It will be recalled that Ricardo's contribution to international value theory stressed the importance of comparative labor costs. The classic example of Portugal and England specializing in wine and cloth production involved gain for both nations, although (in Ricardo's example) Portugal's inputs of labor-time per unit of output were lower in both pursuits. The second issue—that of the division of gain from international trade—was not developed by Ricardo. In the illustration of Portugal and England trading in wine and cloth, Ricardo selected a possible ratio at which the products might be exchanged but did not explain the forces that determined the actual

post-trade barter ratio. Ricardo may have subdued the issue of a division of gain from trade because of the labor theory of value employed in his analysis. In the very first sentence of his chapter on foreign trade Ricardo stated his position in these terms:

No extension of foreign trade will immediately increase the amount of value in a country, although it will very powerfully contribute to increase the mass of commodities, and therefore the sum of enjoyments.⁷

The labor theory of value upon which Ricardo built was incompatible with a direct increase in value stemming from trade between countries. With labor (and capital) assumed to be mobile domestically and immobile internationally, foreign trade involved not an increase in value measured in terms of labor time but, as Ricardo put it, foreign trade involved an increase in "the mass of commodities and therefore the sum of enjoyments." Thus, for Ricardo, gain from foreign trade would have rested upon a different theory of value from that which he applied to domestic trade, and this, perhaps, explains his seeming lack of interest in the division of subjective gain among nations—or, more properly, division among individuals in the trading nations.

It was left for John Stuart Mill to indicate the factors that determined the actual barter ratio of exchange which would rule in international markets. Mill's contribution was one of explaining the terms upon which trade would be conducted between two countries, *i.e.*, the quantity of home goods that would exchange for foreign goods in an equilibrium situation. Armed with the concept of demand as a schedule of quantities which would be taken at various barter ratios, Mill suggested that the precise terms upon which trade would be conducted depended upon the character of each country's demand for the goods of the other. While it was

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left for Alfred Marshall to provide geometrical embellishments and stability conditions for an unique equilibrium,³ Mill's contribution was substantial.

The stress laid upon reciprocal demands in Mill's analysis represented a shift away from the Ricardian emphasis upon comparative labor costs. Modern treatments of the theory of international prices proceed in a general equilibrium framework and would not accord independent influence to either demand or cost factors. But so long as the analysis ran in terms of *constant* comparative costs and reciprocal demands, it was possible for 19th century theorists to subordinate the influence of cost factors. It could then be asserted that the influence of comparative costs was exhausted in setting the limits to profitable exchange and that forces of demand determined the barter ratio of exchange and the division of gain from trade. Such a treatment can reduce the problem of international values to an equivalent level with that of exchange between two individuals each of whom possesses beginning stocks of two commodities and barter so as to achieve a most desired consumption menu. The unsatisfactory nature of this treatment did not escape the notice of later 19th century theorists. The case of a small country trading with a larger country was adduced as a special case where the forces of reciprocal demand were ineffective in setting the barter ratio.⁴

With the opening of trade between two countries of similar productive capacity any difference in comparative costs would commence a shift of resources in each country into the line of comparative advantage. If this resource diversion were to continue until each of the nations was *completely* specialized, reciprocal demands would determine the barter ratio between the nations. Complete and simultaneous spe-

cialization would allow the problem to be reduced to one of pure exchange. But if one country were large and the other small, the small nation could become completely specialized while the larger nation produced some of both commodities (in a two-country model). This would involve the small nation trading *at* the cost limit of its larger neighbor and achieving *all* the gain from trade. In this special case the large nation achieves no gain since its consumption menu is the same before and after trade. The only changes in the large country occur on the side of production. More of one commodity and less of another will be produced at home. Consumption is unchanged.

A geometrical treatment may emphasize the failure of reciprocal demands to set the terms of trade in the special case of trade between a small country and a large one.⁵ Some preliminary steps are unavoidable. First the technique will be applied to the "normal" case of trade between countries of similar size. Adhering to Mill's assumptions of bilateral trade in only two commodities, it is assumed that two countries of similar size (A and B) produce two commodities (X and Y) at constant cost. Suppose that the relative costs of producing X and Y at home differ as between country A and country B. In such a case trade is possible and will encourage specialization in each country upon one of the commodities. It is further assumed that country A is relatively more efficient in the production of X while country B's advantage lies in the production of Y. Figure I pictures such a situation. Amounts of X goods that will be exported by country A at various barter ratios are measured along the horizontal axis. Amounts of Y goods that will be exported by country B at various barter ratios are measured along the vertical axis. The slopes of OCF and ODE represent the (constant) cost

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ratios of production for commodities X and Y in countries A and B respectively. The reciprocal demand schedules (ODG and OCH) for each country are linear to the amount of pre-trade production (and consumption) of commodity Y for country A and commodity X for country B. This construction allows for the possibility that the countries would be indifferent between home and foreign sources of supply (ignor-

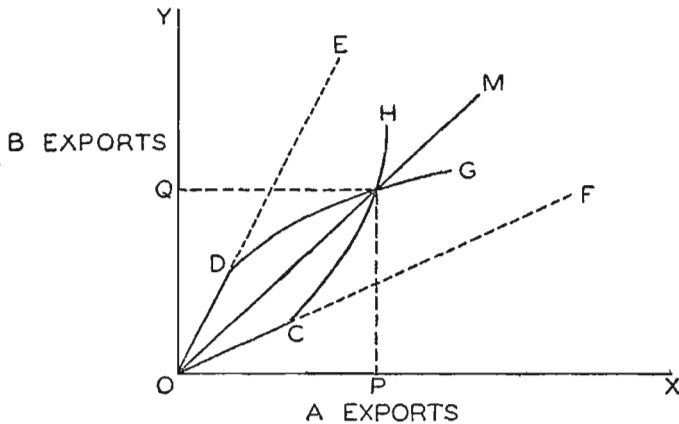


FIGURE I

ing costs of transport) at the pre-trade barter ratio.⁶ When this critical point is passed the reciprocal demand schedules are curvilinear.

As drawn, Figure I implies a unique equilibrium with OP of A goods exchanged for OQ of B goods. The one barter ratio which will clear the market is given by the slope of the line OM to the intersection of the reciprocal demand schedules ODG and OCH . In terms of Figure I the (constant) cost ratios for the countries (ODE and OCF) define a region within which possible barter ratios must lie; and the shape of the reciprocal demand schedules (ODG and OCH) determines the equilibrium terms of exchange. Ricardo would have

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suggested that trade would take place at *some* barter ratio between the cost limits. Mill suggested that *the* ratio would be determined by the forces of reciprocal demand.

The case of a small nation trading with a large nation may be handled in the same fashion. The only change is one of pre-trade productive capacity. In Figure II the linear segments of the reciprocal demand schedules (coincident with

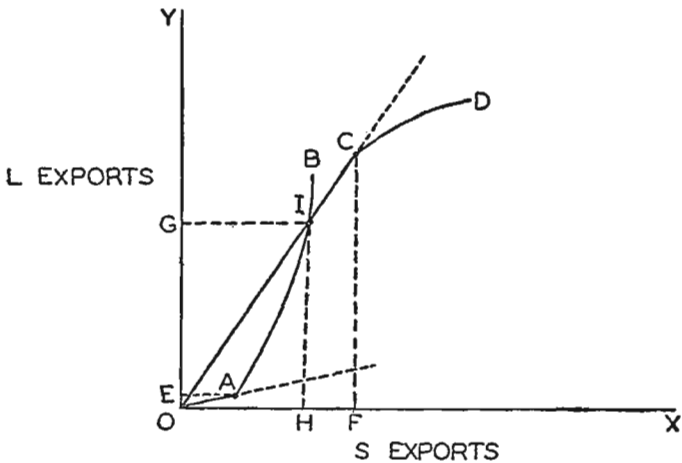


FIGURE II

the domestic cost ratios) have been constructed so as to be of unequal length. The large country (L) is equipped with a linear segment OC implying OF of X as pre-trade home production (and consumption) of that commodity. The small country (S) is equipped with a linear segment OA implying OE of Y as pre-trade home production (and consumption) of that commodity. The curvilinear segments AB and CD are once again based upon individual preferences in countries S and L respectively. As drawn, Figure II implies a unique equilibrium at point I with OG of L exports of commodity Y exchanging for OH of S exports of commodity X. In this

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special case the post-trade barter ratio and the pre-trade cost ratio in country L are identical in equilibrium. Experimentation with barter ratios drawn clockwise from OC will reveal that no other barter ratio will equate the offers of the two countries.

Now the alleged failure of reciprocal demands to determine the equilibrium barter ratio in the small country case

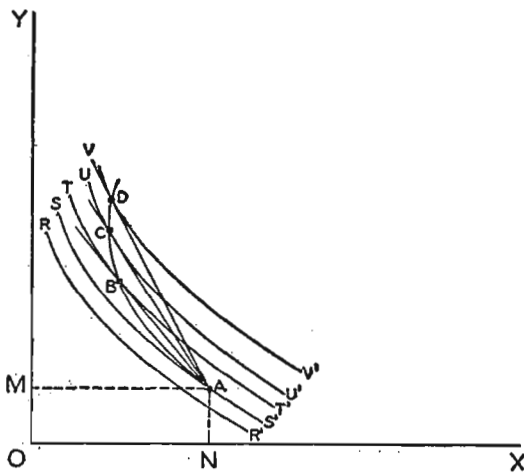


FIGURE III

may be examined. Superficially it appears that the treatment in Figure II differs in no very important respect from that of Figure I. However, in drawing the schedules with a linear segment, implicit account has been taken of changes on the side of production. In order to isolate the influence of demand, a case of pure exchange⁷ will be considered for trade between two countries of similar size and for the special case of trade between a large and a small nation.

The derivation of the reciprocal demand schedules or offer curves can be described briefly. In Figure III which applies to one of the countries, amounts of commodity X are

measured along the abscissa and amounts of commodity Y are measured along the ordinate. A family of contour lines is drawn in the XY plane. These contours are subject to the following interpretation. The community is said to be indifferent to any combination of commodities along a single contour line, say, RR'. A position upon any higher contour involves a movement to a more preferred position.⁸ The community possesses a beginning stock of commodities X and Y. In Figure III, point A on contour SS' is the community's original position—a stock composed of OM of Y and ON of X. With the opportunity for exchange the community is faced with different barter ratios of exchange. These different trading ratios are described by a family of lines pivoting on point A. As the exchange lines pivot in a clockwise direction (a relative fall in the price of Y) the community may move to a more preferred position. With a given price ratio, tangency of an exchange line with a contour insures that the most preferred position has been achieved. Successive barter ratios trace out a series of these points (A, B, C, and D of Figure III).⁹ The offer curve for the community is simply the locus of all possible points of tangency. A smooth curve has been drawn through points A, B, C, and D of Figure III implying successive tangencies with undrawn contours.

A similar interpretation may be given to the offer curve for the other country.¹⁰ Now with both offer curves derived, they can be plotted on a single set of coordinates. Figure IV sets out two conventionally-shaped offer curves for countries of similar size. The diagram only differs from that of Figure I in that offer curves for both countries (in Figure IV) are curvilinear from the origin.¹¹ Suppose that an attempt were made to parallel the treatment of Figure IV in the case where both countries are not of equal size. Instead of a diagram similar to

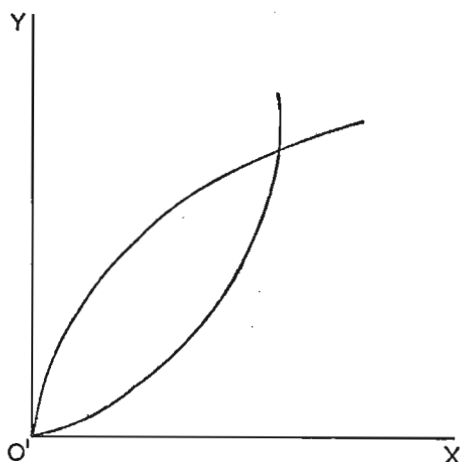


FIGURE IV

that of Figure IV, it is clear that only the small country's offer curve could be derived. The large country's offer curve degenerates to a single point—the origin—representing the consumption menu before and after trade in the large country. It is true that the *shape* of the small country's offer curve determines the degree of specialization in the large country; but *if* the small country case is involved the barter ratio of exchange is set independently of the influence of demand.

The "failure" of reciprocal demand analysis in the small country case was, of course, symptomatic of the inadequacy of any approach to international values more restrictive than one of general equilibrium. It is beyond the scope of the present discussion to indicate successive refinements in the neo-classical position, *e.g.*, the extension of the analysis to trade between many countries in many commodities and the abandonment of the unrealistic constant cost assumption.¹² Instead it is proposed that an effort be made to summarize briefly the conditions required for large gains by small nations.

Gains from trade stem from the opportunity for exchange in the face of relative price differences at home and abroad. Ignoring transport costs, trade establishes in equilibrium a new, common set of relative prices. Large gains for the small nation are contingent upon two factors. First, the small nation must find the post-trade equilibrium relative price set coincident with (or very close to) that which would rule if the small nation did not, in fact, trade with the rest of the world. If a large, previously isolated, nation were to open trade with the rest of the world, it would likely exert a substantial effect upon relative prices. But the small nation may be favorably situated because of its insignificance. The limiting case is simply one where the small nation's influence on relative prices is literally zero and where all gain accrues to the small nation.¹³ There is, however, a second factor upon which a large gain by the small nation is contingent. While a minor influence upon relative prices is necessary for a large gain, it is not sufficient. For example, the small nation might be as small as one likes, but if its set of relative prices in the absence of trade happened to coincide with the set ruling in the rest of the world, no trade would be possible and, of course, no gain from trade would result. A large gain requires a wide divergence between relative prices at home and abroad (without trade) in addition to the privilege of trading at world prices without disturbing them in appreciable fashion.

It is tempting to reduce the divergence of relative prices to one of differences in factor endowment and production possibilities. Then it could be said that the small country with very skewed resources is likely to achieve the most substantial gains. One difficulty is involved since this conclusion rests upon an implicit assumption as to a degree of similarity in tastes and preferences between countries. A small nation

might be prodigiously efficient in the cultivation of bananas, but capable of little else in the way of efficient production. Should the preferences of the community subscribe to a rather monotonous consumption menu, it is possible that no very profitable avenues for gain through international trade would exist. But should the community's tastes extend to washing machines and radios, it is likely that international trade would involve very substantial gains.

The conclusion that small countries are large gainers is, after all, most convincing when one reflects that the small nation tends to achieve through international trade what a more sizable nation would very largely achieve through inter-regional trade. Specialization upon a narrow range of products for exchange in world markets enables individuals in the small nation to enjoy a diversified consumption menu. It will now be contended here, however, that there are peculiarities in the small-country position that require some discounting of these *potential* gains.

CYCLICAL DEPENDENCE

This section will concentrate upon the small-country position in a world economy that experiences fluctuations in income and output. Fluctuations in income and output do occur and a very modest development of the small-country position will be sufficient to establish that these disturbances are of particular importance for the small nation. It has been suggested that a high ratio of export revenue to national income is indicative of cyclical dependence. At the very least cyclical dependence carries with it two undesirable effects. These are: first, a very high degree of sensitivity to income fluctuations external to the home economy; and, second, a very low degree of freedom with respect to domestic policy

measures designed to offset externally-induced income movements. The discussion to follow develops these propositions and indicates their relevance for the small country.

Some preliminary attention must be given to the international transmission of income fluctuations. The treatment will be perfunctory and no distinction will be drawn between real and money income. From the standpoint of income determination, an open economy differs from a closed one in that some part of expenditure upon home-produced goods and services, and hence some part of home income, does not arise domestically. In the open economy a stream of expenditures upon export goods comes from abroad. Consequently, home exports are a function of foreign income. The other link with the outside world is, of course, the stream of home expenditures that is directed upon foreign goods. Imports are a function of home income. Any open economy finds that home income depends upon foreign income through the channel of export sales, and correspondingly that some influence is exerted upon foreign income through the channel of import purchases. Suppose that home income has found a steady level and then that foreign incomes fall. Initially at home only export sales and exporters' incomes will suffer, but the income decline will filter through the domestic economy as expenditures and incomes are reduced. It can be shown that with a given fall in foreign income, and therefore in export sales, home income will usually find a new (but lower) level. In other words, the foreign-induced decline in home income does not continue forever, but is braked by factors that arrest the cumulative decline. These "braking factors" are induced reductions in savings and in import purchases.

Let us take the first undesirable feature of cyclical de-

pendence, *i.e.*, a high degree of sensitivity to income movements external to the home economy. A decline in foreign income is postulated. If countries were of similar size and foreign trade were of equivalent importance to each country, then *absolute* changes in income would be of interest. But in the more general case, it is obvious that relative changes in income must be used, *i.e.*, a ten per cent fall in home income rather than a fall of "x" million francs. The relative fall in home income for a given change in foreign income can be shown to depend upon these effects:

1. The percentage cut in home exports caused by a given percentage fall in foreign income.
2. The percentage fall in home income that results from the percentage fall in home exports.

If the small nation actually does tend to show a higher sensitivity of home income to changes in foreign income, the reason is to be found in one, or both, of these two effects. The reason is not to be found in the first effect. At constant prices, the percentage fall in home exports will simply depend upon the foreign income elasticity of demand for imports from the small country. It is quite true that *some* small countries are unfavorably situated because of the type of exports they sell in world markets. In times of depression, Ceylon may experience a more sizable decline in export revenue than will New Zealand; but cyclical sensitivity of exports is not the exclusive property of small nations. Small countries will differ among themselves in sensitivity to foreign income changes, but we are in search of a factor which explains greater sensitivity for small nations than for large nations.

The unique feature of the small-country position is to be found in the fact that, given a percentage fall in export receipts (not uniform for all small countries with a given change in world income), pressures are set up for a very sizable per-

centage fall in home income. The argument can be condensed somewhat if we introduce the following symbols:

Let Y = the beginning level of home income,
and E = the beginning level of home export sales.

Then $\frac{\Delta Y}{Y}$ and $\frac{\Delta E}{E}$ may stand for the percentage change in home income and exports. Whatever the quantitative relationship between these changes, it is possible to write $\frac{\Delta Y}{Y} = \alpha \frac{\Delta E}{E}$ where " α " simply insures the equality. In this form the equation is a truism. Any tendency for the small nation to experience a large percentage change in home income for a *given* percentage change in exports must occasion a large coefficient (α). This is not helpful unless α can be expressed in familiar terms. A rearrangement of the expression yields $\alpha = \frac{\Delta Y}{\Delta E} \cdot \frac{E}{Y}$. In this form α is seen to depend upon the multiplier for a foreign induced change in export receipts, and the beginning ratio of exports to home income.¹⁴

The second factor $\frac{E}{Y}$ is sure to be large for the small country.

In suggesting at the beginning of this paper that a high ratio of export proceeds to home income was indicative of cyclical dependence, no attention was given to the probable size of the multiplier term for the small country. Actually a moderately low multiplier might be expected on the grounds that the quantitative size of the multiplier depends inversely upon the marginal propensities to save and to import. The small country will typically increase or reduce its import outlay substantially with a given change in income, *i.e.*, the marginal propensity to import will be high. No dogmatic

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judgment can safely be expressed as to the probable size of the marginal propensity to save as between large countries and small. Probably the stage of economic development is a greater determining factor than the size of a country in this connection. It would seem, then, that the two terms (the multiplier and export-income ratio) work in opposite directions for the small country. We may be sure, however, that the range of variation for the multiplier will be fairly narrow. Consequently it is the large export-income ratio, in the case of the small country, that is conducive to the magnification of any fluctuation in external demand.

The second undesirable feature of cyclical dependence is simply that the small nation is severely handicapped in its efforts to avoid the full impact of changes in external demand. It is clear that world-wide income movements are not generated in the small country. The small country may experience the widest extremes of prosperity and depression without more than incidental disturbance to the rest of the world. Any income fluctuation in major trading countries, on the other hand, will exert a large effect upon the small nation. A reasonable proposal might be that the small nation should attempt to offset some of the deflationary (or inflationary) pressure from abroad through domestic policy measures. But notice that the small-country position is one in which any change in domestic expenditure is very quickly and sizably reflected into its external accounts. The small nation that undertakes an extensive program of public expenditure in a depression will find that a considerable amount of this expenditure leaks away in the form of increased imports from the rest of the world. As one writer has put the matter, "It is trying to heat the house in winter when one is unable to close the doors and windows."¹⁵ The analogy is

an entirely proper one, for the benefit derived by the rest of the world is insignificant. The appropriate remedy is quite apparent. The major trading nations that have suffered income declines and developed "favorable" balances of payments should take steps to increase the level of home expenditures. As home incomes increase, purchases from abroad increase, wiping out the trade deficits abroad and raising incomes abroad. The large nation may cast its bread upon the waters with some confidence since the repercussive effects will be beneficial as foreign incomes rise. The ability of the small nation to inflate the rest of the world is, of course, negligible. In a stable international economy these effects would be unimportant, and "the more sinned against" interpretation of the small country's lot would be improper. But in an international economy in which the transmission of depression and inflation is common, the small country may see merit in policies that reduce its degree of cyclical dependence, even though the policy measures involve some sacrifice of the undoubted gains of international specialization.

PRODUCT DEPENDENCE

International trade theory suggests that gains from trade may be greatest where a very few export commodities exchange for a much wider range of imported items. It will be recalled that the "small-country case" involved the small country *completely* specialized. With the extension of the analysis to the case of multilateral trade in many commodities, the likelihood is lessened that the small country will specialize to the extent of concentrating upon a single export, but the probability is not removed that where the small nation achieves large gains it does so by exporting a

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very narrow range of items, perhaps even a single product. In the theoretical literature, references to the gains from specialization are far more common than references to the risks and uncertainties involved. This is understandable but should not lead one to conclude that, in reality, the risks of specialization are non-existent. While the case for specialization to achieve high levels of real income is a strong one, it should not receive unquestioned application.

Specialization involves resource allocation in accordance with a set of relative prices. Where the relative prices are determined competitively, there is some justification for presuming that an economic allocation of resources has been achieved. For the small nation the allocation may be very largely determined by a *given* set of world prices. The question immediately arises as to whether the small nation might not become "artificially specialized" where it traded at a set of relative prices which, far from being determined impersonally, were set by a more powerful nation (or group of nations) for the express purpose of inducing in the small nation an allocation of resources that would contribute to the power potential of the larger entity, *e.g.*, fostering a dependent nation's specialization upon critical raw materials through the medium of very favorable terms of trade. The possibility is not too remote for consideration, but is more properly treated in the discussion of cultural dependence. For now it will be assumed that whatever specialization is induced in the small nation by international trade, that specialization results from economic forces.

Given a set of world relative prices external to the small economy, international trade will effect a certain distribution of small-country resources after trade. This resource allocation is likely to involve a much higher degree of export spe-

cialization in the small economy than would be involved in the case of a larger nation. From a purely static point of view this specialization need be of no particular concern since small-country concentration upon a very few export commodities is evidence of large gains from trade. It is worthy of note, however, that a high degree of specialization and large gains from trade can mean a large loss from the interruption or disturbance of trade. Along these lines it has been pointed out that gain from trade could even serve as a measure of the influence that might be exerted upon a small nation.¹⁶ This view is a useful one where considerations of national power are relevant. The view can also be applied where the exercise of national power is not at issue but where economic risk and uncertainty are involved. In such a case a large gain from trade implying a large loss from its interruption testifies to the vulnerability of the small nation to any changes in relative prices that affect its own export specialties in drastic fashion. Such a change might arise from the side of demand in the form of a shift in consumer preferences, or such a change might arise from the side of supply in the form of a new product or process competitive with the small country's exports. In any event the small nation is faced (as are other nations) with the probability that once a certain degree of export specialization is achieved at home under the direction of relative prices, some future change in the basic data that determined the equilibrium price set will compel a change in the allocation of domestic resources.

Now the prospect of adaptation to change can, under certain circumstances, be an unattractive one. It will be urged that the position of the small country is such that some attention must inevitably be given to possible future changes in demand or supply that would require either a sharp fall in

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real income, or a resource shift of large magnitude, or some combination of both. One point must be stressed. From the standpoint of comparative statics, *i.e.*, the comparison of two equilibrium positions, one before and the other after a change in the basic data, the adaptations on the part of the small nation are necessary and unavoidable if an economic allocation of resources is to be achieved and maintained. Our point is simply that the small country should be particularly interested in the probable course of adjustment and in the prospect for policy measures designed to ease transitional adjustments.

The threat to small-country real income is made acute by two factors. First, concentration upon a few exports means that a sharp decline in the price of an exported item will initially occasion a substantial fall in real income. For present purposes the argument will not depend upon the susceptibility of certain exports to competition,¹⁷ but will be made to rest upon a much simpler proposition. Fewness of exports coupled with a high ratio of export revenue to national income insures that decreased revenue from a single export commodity initially involves a substantial reduction in home income.¹⁸ For example, suppose that a small country exports only two commodities, perhaps copper and wheat, but that the ratio of export revenue to national income is high, say thirty per cent. Another larger country exports ten commodities (copper, wheat, and eight others), but the ratio of export revenue to national income is low, say ten per cent. A sharp fall in world demand for wheat (or copper) will face the small nation with a much more substantial fall in real income than it would for the large nation. The small nation's degree of external orientation renders it very susceptible to changes in world demand (or supply). On the other hand,

a larger (more diversified) economy can more easily tolerate a reduction in home income from displacement of a single export since the effect upon domestic standards of living will be of smaller proportions.

The second factor arising from a high degree of export specialization is not limited to the initial impact of a change in the conditions of world demand and supply, but refers to the possible resource shifts that follow the collapse of an external market and make possible the achievement of a new equilibrium position. The small-country problem is one of limited alternatives and a low degree of resource mobility.

For the sake of illustration, let us take the extreme case of a small nation which, when faced with a certain set of relative prices, has specialized to the extent of producing a single commodity for export and sale in world markets. Naturally some other commodities and services will still be produced at home since at any set of relative prices there are items that will not move at all readily in international commerce, *e.g.*, cement and haircuts. But, by and large, the small country's structure of production will reflect its export specialization with a considerable number of domestic industries ancillary to the export industry. Now, if one takes the gloomiest view possible and presumes that world demand for the export specialty is completely wiped out, real income for the small country will not only suffer a very drastic cut but will stay at low levels for some length of time. The very degree of export specialization is likely to have encouraged the development of specialized skills, techniques, and equipment.¹⁹ Where factors of production are quite specific, it may be expected that sharp falls in their return will leave them stranded. The point is that the single-product economy will in complete specialization have reduced its

own alternatives. Faced with the necessity of shifting resources to alternative pursuits, the small country may find that feasible alternatives are not immediately available.

The net effect of the fact that small-nation income is bound up with the fortunes of a few exports and that the domestic possibilities of shifting resources to new pursuits may be limited by that concentration in a few lines, is that the small country's real income is liable to wide fluctuations.²⁰ It is essential to note that the static gains from trade concept implies small-country achievement of a high level of real income through foreign trade. The substance of our qualifying remarks is that a high degree of product dependence implies the possibility of a high but widely fluctuating real income. Let us dispose of one point in summary fashion. If one small-country alternative is non-interference with specialization, another is the cessation of trade and the complete "insulation" of the home economy. It is presumed that the latter alternative is not a practical or desirable one. But, there are no grounds for assuming that the community will desire the maximum level of real income available through specialization *regardless* of possible fluctuations around that level.

If it is granted that the small-country choice may be for future incomes that are liable to essentially unpredictable fluctuation, considerable light is thrown upon the role of policy measures in the small country. There is no possibility of an actuarial approach to the future for domestic authorities. Product dependence involves uncertainty as to future world demand and, at best, only educated guesses can be made as to the wisdom of, say, diversifying the home economy *now* in anticipation of a fall in world demand at some time in the future. It would seem that desirable policy meas-

ures should aim at increasing the mobility of domestic resources and encouraging the development of alternatives in anticipation of any severe change in the world demand for export specialties. Neither of these objectives is necessarily achieved through the impersonal operation of the price system.

The present discussion cannot include detailed evaluation of specific policy measures in small-country situations. It must be evident, however, that the conclusions of static analysis, *e.g.*, large gains for small countries, cannot be taken to apply without exception in a context of uncertainty. Consequently, the task for policy-framers in the small country is one of anticipating risk and uncertainty without renouncing the gains of specialization. The problem is not a simple one, nor is it insoluble.

CULTURAL DEPENDENCE

The discussion of cyclical and product dependence referred to economic effects. In turning to the concept of cultural dependence, it is not possible or desirable to confine the discussion within such narrow bounds, although it will be advisable to concentrate upon economic aspects of the problem. Even so it is not possible here to do more than to indicate the importance of cultural dependence for the small nation, since an adequate development of the phenomenon would require lengthy and detailed analysis.

At an earlier stage it was suggested that cultural dependence was evidenced by the "integration" of one nation's economy with that of another. International trade always gives rise to a mutual adaptation of productive structures.²¹ With the introduction of trade a re-allocation of resources is sponsored at home and abroad. Little reflection is necessary

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to convince one that, historically, trade has also had an impact upon individual preferences. There are advantages in considering *any* trade between countries as involving a measure of cultural dependence. All that is implied is that with trade, economic activity in separate countries becomes to some degree interdependent, and that this economic interdependence will almost inevitably involve the nations in an interdependence extending to non-economic relationships.

Cultural dependence may be viewed as a thoroughly desirable by-product of international trade. No doubt a considerable part of the appeal of free trade arguments rested upon the debatable presumption that the prosecution of individual interest would necessarily lead to a cosmopolitan atmosphere conducive to the relaxation of international tensions. This view may be, and has been, presented in such uncompromising style as to leave one suspicious that only an over-simplified view of the world economy could yield such a conclusion. Still it would not be defensible to urge that cultural dependence is undesirable *per se*, for such a position would imply that international trade is either undesirable itself, or else that its advantages are subject to reduction to the extent that any cultural dependence is involved. The fact of the matter is that cultural dependence may or may not be desirable depending upon the particular type of trading relationship which is associated with it. The distinction may seem pedantic and non-operational in that cultural dependence apparently can be one thing at one time and place and another thing at a different time and place. That, however, is precisely what we mean to contend. Any alternative view forces one to conclude either (a) trade always can yield desirable results, or (b) trade never (rarely) yields desirable results. Unless one feels that the followers

of the Manchester School or the followers of Rosa Luxemburg have presented a well-rounded appraisal, some position between the extremes is necessary.

Let us return to the position of the small economy, bearing in mind the view that while cultural dependence (or interdependence) is associated with trade, cultural dependence may or may not be viewed as desirable according to specific circumstances. Upon several occasions it has been emphasized that the small country trading internationally achieves a very high degree of specialization. This economic effect will, we now urge, typically involve a substantial degree of cultural dependence. There can be no argument but that a high degree of specialization involves dependence; this should be amply clear from the earlier discussion of cyclical and product dependence. But is it inevitable that the small country's *cultural dependence* will be of a higher degree than that of a larger nation? It is not inevitable that such should be the case, but there is a strong presumption that it may be.

Let us take the case, once again, of a hypothetical small country that has specialized to the extent of concentrating upon a single export for sale in world markets. It is conceivable that this very specialization may operate *against* the development of cultural dependence. It could do so where the specialization of production gives rise to economic, political, and social institutions peculiarly adapted to conditions of production. This possibility is lessened to the extent that the wide range of small-country imports tends to break down specialized institutional arrangements and to establish in their place arrangements modeled after those of larger and more diversified nations. The problem is often one of economic development. While extreme degrees of domestic specialization may work to establish certain cultural patterns,

forces are set up which in turn tend to break down these patterns. Historically it is possible to observe the co-existence of the new with the old, *e.g.*, Japan of the late 19th and early 20th centuries and many nations presently in the process of rapid development. The hypothesis is one which cannot be elaborated at this time. It will be noticed that it would move away from the concept of size and substitute in its stead a concept of stages in economic development.

Let us return once more to the "pure" small-country situation. The feature of the small-country position to which we wish to direct attention is that of the small nation trading in a world economy in which the exercise of national power is important. While we would not deny that cultural dependence would exist in the absence of the maximization of power positions, it is felt that cultural dependence is of somewhat more interest in the case where nations trade for non-economic as well as economic motives. It is taken for granted that, upon occasion, political units do conduct their trade on other than economic grounds. Whether or not they *should* do so is a question upon which no judgment will be expressed.

The implications for the small country trading in situations where national power is involved are quite clear. In such a case the large gains of small nations are symptomatic of a weak position from a power standpoint.²² This is apparent when it is appreciated that the large (powerful) nation evaluates trade not only upon its economic merits but also upon its non-economic merits. The larger nation has, broadly speaking, two courses of action open to it. In the first place, the large nation may increase the gains to the small country by offering the small country better terms than an impersonal market mechanism would offer. In this case it might be ob-

served that the large country pays for value received. In the second place, the large country may threaten the small country with an interruption of trade. In this case the large country may not have to pay for value received. The weakness of the small-country situation is emphasized when it is realized that the large country may pursue *both* courses of action although not simultaneously with respect to a single small country. That is to say, the large country may first, if necessary, encourage the small country's dependence, and subsequently, with small-country alternatives reduced, proceed to exact a much harsher bargain. Where the large nation is fortunate enough (from a Machiavellian standpoint) to be able to face a number of small countries with "all or none" offers, the situation is akin to that of a single, discriminating purchaser in an imperfect market. It is hardly necessary to add that the stakes are rather higher than in a purely economic setting.

It may be questioned whether or not the small-country lot is quite so unfavorable. Is it not possible that the small country will be strategically located from a power standpoint by virtue of the importance of its specialty? This could, perhaps, allow the small nation some latitude in avoiding a very subservient role. Three comments may be made. First, the critical product must be one not available from alternative suppliers so the small-country advantage is unique. Second, the product must not be so critical as to expose the small country to direct rather than devious pressure. Third, the small country must not be caught between a few more powerful nations. Such an equilibrium would be precarious and likely to force the small nation to "throw in" eventually with one or another of the power blocs.

Particular interest is attached to the small-country situa-

tion where national power is at stake. In such an event, the exercise of national power by the large nation is capable of sponsoring cultural dependence of an extreme sort. This cultural dependence amounts to a calculated penetration of a weaker nation by a stronger one and, perhaps, is at one and the same time more readily evident than the more subtle process by which cultural dependence arises in the absence of the power struggle and more destructive of the existence of the small nation as an independent entity. Cyclical and product dependence may actually be of minor importance in such a setting in which individuals in the small country might look back nostalgically to a time when only economic risk was to be feared.

CONCLUSION

The perfectly proper emphasis given in economic theory to the *possibility* of large gains by small nations requires careful interpretation in realistic situations. Some doubt has even been raised in our analysis as to the usefulness of a concept of size. Attention has been directed here to the small-country situation because of the special treatment accorded to trade between a large country and a small one in the 19th century version of international trade theory.

Actually the concepts of cyclical, product, and cultural dependence are of service in other situations. The concepts of dependence can be applied in the international economy where nations differ not in "size" but in stage of economic development. Nor is the application limited to the international economy. With some modification these same types of dependence are faced by separate regional economies within a single nation.

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NOTES

1. Whether or not the resource allocation with unimpeded specialization would achieve an optimal distribution of real income among countries depends upon: (a) the "beginning" distribution of income, and (b) the non-economic criterion of an optimum distribution that is selected.
2. David Ricardo, *The Principles of Political Economy and Taxation*, Sraffa Edition (Cambridge, 1951), Vol. I, p. 128.
3. Mill attempted a consideration of stability conditions. See his *Principles of Political Economy*, Peoples Edition (London, 1886), pp. 360-365. The effort was prompted by Thornton's criticism that more than one exchange ratio might clear the market. Mill's treatment of this minor issue was faulty.
4. For a view as to the origins and significance of the small-country case see Jacob Viner's *Studies in the Theory of International Trade* (New York, 1937), especially pp. 448-450. A rather less charitable interpretation of neo-classical understanding of the implications of partial specialization is expressed in F. D. Graham's *The Theory of International Values* (Princeton, 1948), especially Chapters II and XI.
5. The reader who is prepared to accept the failure of reciprocal demand in the small-country case may prefer to proceed directly to the second paragraph on p. 13. The intervening discussion is not vital to the conclusions of this section.
6. On this point, see Viner, *Studies*, p. 547, and T. M. Whiten, "Classical Theory, Graham's Theory, and Linear Programming in International Trade," *Quarterly Journal of Economics*, Vol. LXVII (November, 1953), p. 528.
7. Pure exchange refers to a situation in which production is not involved.
8. This particular interpretation is a proper one only for the case of a single individual, *e.g.*, an "average Englishman." When contours of indifference as between commodities are constructed for a community composed of many valuing individuals, important difficulties are obscured. Any point in the XY plane will involve some distribution of the commodity stock among community members. Conceptually one should allow for the fact that there is not one but an infinite number of contours passing through this point in order to take account of all conceivable distributions of the commodity stock. The difficulty may be expressed in a slightly different fashion. Suppose that the community commences trade and moves from its original position to one on a higher indifference contour. Is the community better off? It would be (almost) inconceivable that every individual regarded himself as being better off. Typically, trade will involve a different distribution of income than no-trade

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with some individuals gaining and others losing. Ways can be found out of this impasse but will not be detailed here. The interested reader is referred to: T. deScitovszky, "A Reconsideration of the Theory of Tariffs," *Review of Economic Studies*, Vol. IX, 1942, pp. 89-110; P. A. Samuelson, "The Gains from International Trade," *Canadian Journal of Economics and Political Science*, Vol. V, pp. 195-205; I. M. D. Little, *A Critique of Welfare Economics* (Oxford, 1950), Ch. XIII. The deScitovszky and Samuelson articles are reprinted (without significant change) in *Readings in the Theory of International Trade* (Philadelphia, 1949).

9. Rotation in a counter-clockwise direction traces out another branch of the offer curve. Only the branch drawn is needed for present purposes.
10. The geometry will be subdued. The relevant branch of the offer curve would extend down and to the right rather than up and to the left as in Figure III.
11. In the case of Figure IV the origin is taken as the beginning commodity stocks in each country. Each country could have possessed an initial stock of only one commodity without affecting our conclusions.
12. The reader interested in the historical development of international trade theory is referred to Viner, *Studies*. A valuable summary of the current status of international trade theory is contained in Lloyd Metzler's "The Theory of International Trade," in *A Survey of Contemporary Economics*, H. Ellis (editor), (Philadelphia, 1949), pp. 210-254.
13. Interestingly enough this is the one case where the impossibility of deriving a thoroughly satisfactory index of gain from trade is of no particular concern.
14. The reader not familiar with the multiplier concept for an open economy will find a lucid treatment in C. P. Kindleberger, *International Economics* (Homewood, Illinois: Irwin, 1953), Ch. 9.
15. Kindleberger, *op. cit.*, p. 169.
16. A. O. Hirschman, *National Power and the Structure of Foreign Trade* (Berkeley, 1945), p. 18.
17. A peculiar type of "competition" to which certain exports are likely to be susceptible does deserve mention. The small country that specializes in exports having a low income elasticity of demand (*e.g.*, staple foodstuffs) may expect to lose relatively as world real incomes rise. In this case competition comes from goods and services of higher income elasticity as foreign consumers achieve higher standards of living. For the small country, the advisability of hastening resource transfer out of low income elasticity lines (certain agricultural pursuits) can be modified if the *short run* terms of trade are expected to be very favorable.

18. The statement assumes that revenues from each export commodity represent a substantial portion of total export revenue.
19. This effect will vary according to the type of export. It would not change the argument if export specialization prevented (hindered) the domestic development of a trained labor force and more than the rudiments of a capital market.
20. The discussion here has run in terms of cuts in real income. It could be modified to allow for inflationary impacts from abroad.
21. This is even true in the theoretical case of trade between two nations with equal relative (but variable) costs of production where trade occurs on the basis of differences in tastes. See W. W. Leontief, "The Use of Indifference Curves in the Analysis of Foreign Trade," *Readings in the Theory of International Trade* (Philadelphia, 1949), pp. 234-235.
22. See Hirschman, *loc. cit.* and pp. 23-33.