

### Trade

Lilliput! We saw in Chapter 6 (*Production*) how, for example, the usefulness of one extra man on a farm of given size will be less when there are already twenty men on the farm than when there are only three. If wages are low enough and farm produce is dear enough, it may still pay to employ a twenty-first man; but at any given prices of farm labour and farm produce, there will be some size of the farm's labour force beyond which it will not pay the farmer to go. If a still larger number of men, all equally capable, wish to find employment on the farm, they will all have to accept a lower wage. In Blefuscu there are few workers on a great area of cultivable land. One man fewer on a farm would reduce that farm's output severely, by a yearly amount of relatively high value. That value will be the *marginal product*, in value terms, of labour on that farm, and the wage in equilibrium will be equal to it. In Lilliput, by contrast, there are very many people crowded on little land, and one man fewer on a farm would make much less difference than in Blefuscu, so the marginal product of labour, and hence the wage, in Lilliput is lower. In short, we have the following situation: in Lilliput, land scarce, rents high; labour plentiful, wages low; in Blefuscu, labour scarce, wages high; land plentiful, rents low. The words scarce and plentiful, high and low, are of course all used here in the sense of *comparison*: labour is scarcer in relation to land in Blefuscu than in Lilliput.

The reader will be well aware that in the foregoing we have done no more than sketch in merest outline the *qualitative* explanation of how specialisation and exchange can be fruitful between countries just as it is between people. Deliberately, for the sake of simplicity, we have left many things unsaid. For example, we named just two pairs of quantities of labour and land which, we assumed, could each produce a ton of food. These must evidently be regarded as selections from a 'production possibility schedule', a long list of different pairs of quantities all able to yield just one annual ton of food. If we had brought this entire schedule into

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our picture, we should have gone on to assume that in Lilliput the cheaper of the two named pairs of factor-quantities for producing food was the *cheapest* of all possible such pairs for producing one annual ton of food; and similarly in Blefuscu, we would have assumed that the cheaper of the two pairs of quantities for producing fuel was in fact the cheapest of all ways of producing an annual ten tons of fuel. Again, we have said nothing about how the precise exchange-ratio between Lilliputian food and Blefuscan fuel will be settled; we have only shown the limits of a 'contract zone', the range of prices of one good in terms of the other within which any actual exchange-ratio must lie if it is to be acceptable to both parties. In speaking of 'both' parties, however, we are tending to mislead ourselves. Within each country there will be, we may suppose, a great number of mutually competing buyers and sellers of the two goods, and thus there will be a genuine competitive market on which an exact price can be supposed to establish itself. This explanation still leaves us to examine how it comes about that the price of fuel in terms of food, or vice versa, and the quantities of the two goods exchanged, reach levels at which the annual sum of *money* owed by Lilliput to Blefuscu for fuel is equal to the annual sum owed by Blefuscu to Lilliput for food, so that there is a 'balance of payments'; or of how this balance is achieved should the annual exchanged values of the two (or more) commodities traded by the two countries fail to be equal. This is the subject of the next two chapters.

### Chapter 39. Payments

LET us retain for the time being the supposition that Lilliput and Blefuscu use a common money-unit, and let us call this unit the crown. In a particular year, Blefuscu buys from Lilliput so-and-so many tons of food at so-and-so many crowns per ton, and Lilliput

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buys from Blefuscu so-and-so many tons of fuel at so-and-so many crowns per ton. If the number of crowns' worth of this food is greater than the number of crowns' worth of this fuel, the mere interchange of these two quantities of the commodities will leave a loose end in the transaction; a gap, the manner of filling which must be the subject of an agreed and explicit procedure on the part of the two countries or their citizens.

In one such procedure, the citizens of Blefuscu would simply fill up the gap by handing to the citizens of Lilliput the appropriate number of crowns. Thus Blefuscu would receive, say, fifteen thousand crowns' worth of food while Lilliput would receive ten thousand crowns' worth of fuel plus five thousand crowns. These crowns could be received by Lilliput in the form of actual metal coins or in the form of deposits in Blefuscu banks. In the latter case the Blefuscu banks would simply record in their ledgers that they owed a certain number of crowns to this Lilliputian citizen or that. To do so would not involve these banks in any loss, for they would have received from any such Lilliputian citizen a cheque of the appropriate amount drawn in his favour by some Blefuscu citizen who had received food from Lilliput in excess of the value of fuel he had despatched to Lilliput. The Lilliputian owners of these deposits in Blefuscu banks would be free to spend them on Blefuscu fuel whenever they liked, and if, in some later year, they exercised this right, the effect would be to make, in that later year, the value of fuel imported into Lilliput greater than the value of food imported into Blefuscu, if those values would otherwise have been equal.

Instead of deposits standing to the credit of Lilliputian citizens in Blefuscu banks, the acknowledgment of debt could take the form of securities. Blefuscu citizens or firms or institutions of some kind could 'float a loan' in Lilliput. They could offer for sale, that is to say, pieces of paper each acknowledging a debt of so-and-so many crowns and promising to pay interest of so-and-so many crowns per year until the security was redeemed, that is, the principal of the debt paid off. The money which the Blefuscu issuers of these documents received for them from Lilliputian

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But when we are thinking, not of a closed, self-contained economy, but of an 'open' economy such as Lilliput represents within the economic world consisting of Lilliput and Blefuscu, we have to mean by 'investment' the production of goods *not for consumption in Lilliput*. The citizens of Lilliput produce each year goods worth, let us say, fifty thousand crowns. If out of this they only wish to consume forty-five thousand crowns' worth, they must produce five thousand crowns' worth of goods (within their annual total output of fifty thousand crowns' worth) which they will not themselves consume. Now this five thousand crowns' worth of goods annually produced, but not consumed, in Lilliput can either be allowed to pile up inside Lilliput in the form of buildings, machines and stockpiles of materials, or it can be sent to Blefuscu without the Blefuscuans sending anything in return. In so far as the Blefuscuans do send anything in return, the export of goods from Lilliput will not serve the citizens of Lilliput as a process of investment, for though they will not be consuming their own production they will be consuming something got in exchange for it.

Now in so far as the citizens of Lilliput wish to accumulate wealth by producing goods over and above what they consume, and in so far as they find that this wealth can most conveniently and profitably be accumulated in the form of goods owned by themselves but situated in Blefuscu, the fact that Lilliput sends to Blefuscu in each year a greater value of goods than Blefuscu sends to Lilliput will give rise to no difficulties. Lilliput's 'export surplus' will serve, either directly by consisting of goods suitable for accumulation, or indirectly by being consumed by Blefuscuans who give durable goods in exchange, to build up in Blefuscu a stock of wealth belonging to Lilliputians. In this process, Lilliputians will be 'exporting capital' to Blefuscu; that is to say, they will be exercising in Blefuscu rather than in Lilliput the power conferred on them, by their willingness to consume less than the equivalent of what they produce, to create specialised equipment in the form of machines and buildings. Thus a persisting export surplus is tolerable so long as one country is willing to become the owner of a steadily growing pile of assets situated in the other country,

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citizens could be spent by the Blefuscuans on food for which no equivalent *quid pro quo* in the form of fuel was available.

The essential idea in all of these arrangements is that, within any period, the total value of everything transferred by Lilliputian citizens to Blefuscu citizens must (if our accounting is to make sense) be regarded as exactly equalled by the total value of everything transferred by Blefuscu citizens to Lilliputian citizens: total payments in each direction in every week, month or year must in principle exactly balance. If Blefuscu receives fifteen thousand crowns' worth of food she must pay fifteen thousand crowns; if in the same period Lilliput receives ten thousand crowns' worth of fuel she must pay ten thousand crowns; when the fifteen thousand crowns owed by Blefuscu are confronted with the ten thousand owed by Lilliput, all that need actually happen to balance the accounts is the handing over of five thousand crowns by Blefuscu to Lilliput, or the handing over by Blefuscu to Lilliput of documents acknowledging a debt of five thousand crowns. This is all that is meant by the mysterious assertion that 'the balance of payments must always balance'. What does the slippery word 'must' mean here? Simply that our accounting would be disrupted if we did not regard payments in the two directions in any period as equal to each other.

Now this is all very well, but the formal balancing of payments by means of transfers of money or of acknowledgments of debt does nothing, in itself, to ensure any appropriate relationship between the quantity of food imported, and the quantity of fuel exported, by Blefuscu, given Blefuscu's and Lilliput's respective factor endowments. How is such an appropriate relationship brought about or preserved?

And first, what sort of relationship will be appropriate? Suppose the citizens of Lilliput are rich, having large incomes out of which they find it easy to leave a part unspent on consumption. We have seen that, corresponding to this flow of saving, there will have to be an equal flow of investment, that is, of production of goods over and above those which merely match simultaneous consumption; for only thus will the saved part of income be generated.

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and the other country is willing to become increasingly a debtor to the first country or the site of the first country's directly owned equipment.

But now, what would happen if Lilliput had a persisting export surplus but Lilliputian citizens were *not* willing to become owners of 'long term' assets, whether debts due to them or equipment belonging to them, situated in Blefuscu? In this case, Blefuscu citizens would find themselves parting with more and more of their money to Lilliputians. Since we are assuming that the two countries have a common currency, coins themselves could be sent from Blefuscu to Lilliput; and if Blefuscu had no banking system but only a metallic currency, that is what would have to happen. But what would be the consequences of this progressive draining away of coins from Blefuscu, and the flooding in of these coins to Lilliput? Soon it would become tiresomely difficult for Blefuscu employers to arrange to have enough coins in hand on pay-day to pay their workpeople. Shopkeepers would cease to give credit to their customers, and would insist on all goods being paid for in cash. Income-earners would find it desirable to postpone purchases of things not essential to immediate needs, in order to have coins available in case of emergency. In short, everyone would be trying to accumulate coins by parting with as few as possible of those that came into their possession; and many would seek to borrow coins from lenders who would share everyone's reluctance to let coins go. Thus the interest-rate in Blefuscu would go up at the same time as goods began to be less readily saleable to Blefuscuans. The rise in the interest-rate and the decline in the profitability of enterprise in Blefuscu would have a chain of successive consequences. Investment, that is the construction of equipment, would be discouraged in Blefuscu, employment would be reduced and so, therefore, would incomes, and Blefuscuans would thus be further discouraged from buying goods, both goods of Blefuscu and of Lilliputian origin. Blefuscu businessmen, finding it harder to sell their goods, would be strongly inclined to reduce their price, and this would encourage Lilliputians to buy more of them per month or year than they had been doing.

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Meanwhile, what would have been happening in Lilliput? There the inflow of coins would have caused all the opposite kinds of reactions to those which the drain of coins had caused in Blefuscu. Many exporters of goods to Blefuscu would find more coins in their possession than they needed for convenience and safety. They would be more ready to lend, the interest-rate would go down, construction of buildings would be encouraged, employment would be increased and extra incomes would be paid out, the Kahn-Keynes multiplier would work and the general demand for goods both of Lilliputian and of Blefuscan origin would increase. So gradually forces would arise from several sides tending to eliminate the Lilliputian export surplus.

Let us enumerate these forces. The decline of employment in Blefuscu, arising from the difficulty Blefuscan enterprisers would encounter in selling as large an output as before at the old prices, would tend to induce Blefuscan income-earners to accept lower wages. Less employment at lower pay would mean smaller incomes, and if out of these smaller incomes the same proportion as before was spent on imports from Lilliput, the absolute amount spent on imports would be lower. Meanwhile the lower prices, by which Blefuscan enterprisers would try to restore demand for Blefuscan products, would tempt Lilliputians, so far as their incomes were still unchanged, to buy larger quantities than heretofore of Blefuscan products, and if the price-elasticity of Lilliputian demand for imports were greater than unity, the absolute amount spent by Lilliputians on Blefuscu's exports would increase. But would Lilliputian incomes in fact be unchanged? Would not the decline in Blefuscan demand for Lilliputian goods perhaps reduce them? This tendency would be countered and perhaps more than offset by the inflow of money into Lilliput, which would lower interest-rates and increase investment, employment and incomes in Lilliput. The relatively high interest-rates offered in Blefuscu would also tempt Lilliputians to lend money to Blefuscan enterprisers, and thus to fill what remained of the export-import gap by an export of capital.

The course of events would be essentially similar if Blefuscu

had a banking system. Instead of sending coins to Lilliput, the Blefuscans who were buying goods from Lilliput over and above the value of their own goods concurrently sold to Lilliput would give the Lilliputians cheques drawn on Blefuscan banks. Whether the Lilliputian owners of the resulting deposits in Blefuscan banks elected to retain them, or to cash cheques and carry away coins to Lilliput, the result would still be that Blefuscans would become more and more short of their medium of payment, and would be willing to offer higher interest-rates to borrow it. Lilliputians might be willing to lend their accumulating bank deposits back to Blefuscans, but we are assuming that they are not willing to do this as part of a process of export of long-term capital; we are supposing that they would need some special inducement, and this would have to take the form of the higher interest-rates, which would discourage Blefuscan investment, output and employment, lower Blefuscan incomes, wages and prices, and virtually compel Blefuscans to spend less on Lilliputian goods while inducing Lilliputians to buy in each unit of time larger quantities and possibly a larger total value of Blefuscan goods.

Has not the line of thought we have been pursuing in this chapter a strange air of familiarity? We have been seeking an explanation of how outputs and prices would be pushed towards an equilibrium, and for the purpose of this explanation we have invoked the idea of demand as a function of incomes and of prices, the idea of the size of the flow of lending as a function of interest-rates, and the idea of interest-rates themselves as functions of the size of the stock of money. And this is just the sort of thing we did when we were discussing, in Books I (*Value*) and II (*Production*), the central theory of value in a self-contained economy, and when we were discussing, in Books V (*Employment*) and VI (*Finance*), the theory of employment and the theory of interest in a self-contained economy. Indeed, it is plain that international trade is merely a special case. It stands in the same relation to the proceedings in a

self-contained economy as an obstacle race does to an ordinary race. In international trade there are barriers against the movement and free combination of productive factors, barriers which exist to some extent even within one nation's frontiers, but are dramatised when the frontier itself intervenes. The same principles and ideas which give us insight into the working of a self-contained economy are applicable to the case of relations between two or more 'open' economies, the case which is so overwhelmingly important for Britain; the only difference is that these principles have to be seen operating under special constraints.

In the two first chapters of this Book VIII we have greatly simplified our view of international trade by assuming that the two countries use one and the same money-unit. In this way we avoided all problems arising from the existence of a price of one currency in terms of the other. In the next chapter we have to take this added complication into account.

## Chapter 40. Currencies

If each of the two countries has a currency, that is, a named money-unit, of its own, then each of these currencies or money-units can have a price in terms of the other, and this price by its variation sometimes provides an extra means of adjusting to each other the prices and quantities of goods exchanged in each time-unit between the two countries.

Suppose, then, that Lilliput uses crowns while Blefuscu uses florins, and that there is a market on which crowns can be exchanged for florins at a ratio of exchange which emerges freely from the play of supply and demand. The Lilliputian export surplus will now have an additional effect, besides those we considered in the last chapter. For now the Blefuscans who desire to buy goods from Lilliput will have to acquire, on the 'exchange-

market' where florins are sold against crowns and crowns bought for florins, enough crowns to pay for the Lilliputian goods which they are buying. Whence will come the supply of crowns to this market? From the sale of goods by Blefuscans to Lilliputians. But we are assuming that at the prevailing crown-prices of Lilliputian products, and the prevailing florin-prices of Blefuscan goods, and at the prevailing florin-price of crowns, not enough Blefuscan goods are being sold to Lilliput in each time-unit to equal in total value the Lilliputian goods which are being sold in each time-unit to Blefuscu. So on the exchange-market the supply of crowns will be less than the demand. The most central proposition in the whole of economics tells us what will be the consequence: the florin-price of crowns will rise. But what will be the consequence of that? It will make the florin-prices of Lilliputian goods higher than before. If the elasticity of Blefuscan demand (refresh the memory in Chapter 10, pp. 58-61) for Lilliputian goods is numerically greater than unity, a price rise of one per cent will depress the yearly quantity bought by more than one per cent, and thus will reduce the total value of Lilliputian goods bought per time-unit (e.g. per year) by Blefuscans. Moreover, this weakening (i.e. reduction of quantity demanded at each crown-price) of the demand for Lilliputian products may induce the Lilliputians to reduce the crown-price of their products, and it will do so to a larger extent, the smaller the numerical elasticity of supply of Lilliputian exported products. Any such reduction of the crown-price of Lilliputian products will, in itself, be a help to Blefuscu in restraining its tendency to spend too much on Lilliputian goods. But there is more. The rise in the florin-price of crowns will mean that each Lilliputian crown will now buy a larger quantity than before of Blefuscan goods, and this will tend to raise the yearly quantity of Blefuscan exports. If the Lilliputian crown-price-elasticity of demand for Blefuscan goods is numerically greater than unity, the flow of crowns into the exchange-market will be increased. And this will be the more likely to happen, the smaller the florin-price-elasticity of supply of Blefuscan goods. So the exchange-market will introduce into the problem a whole set of reactions of its own,