CHAPTER XIV

OUTLINE OF SHIPPING

(i)

The Effects of Pearl Harbour

THE shipping position had been foremost among the anxieties that had beset the British Government in the months between Dunkirk and Pearl Harbour. By the autumn of 1941, however, the outlook had become much more hopeful. The turn-round of ships in the ports had markedly improved, while in August and again in October, November and December gains of dry cargo shipping exceeded losses. Furthermore, there were high hopes of the aid Britain would receive when the big United States' shipbuilding programme for 1942 was well under way. In October 1941, the Import Executive considered it reasonable to aim at a 33 million tons import programme for 1942.

By December, the demands of the Middle East and the Russian convoys were already making such a programme unlikely. Pearl Harbour made it quite impossible. In shipping, as in everything else, the Japanese attack shifted the war to a completely new plane. Almost all the major countries were now involved in the war and every continent was engulfed in, or directly threatened by, hostilities. The joint Anglo-American responsibility for strategic planning and for maintaining the war effort of Allies in all corners of the earth, depended upon the availability of ships to carry the soldiers, war weapons and essential civilian supplies.

The history of shipping after Pearl Harbour really becomes a central strand in the history of the United Nations' war effort. From this point of view, its main significance is the combined use of shipping for military purposes and for the supply of all Allied needs. The materials for this history, should it be written, are to be found both in Washington and London. The present shipping chapter, however, has a narrower purpose and is based predominantly upon documents in London: not shipping in the service of the combined war effort but shipping in support of the British war economy—particularly British imports from overseas—is our theme. Even in this restricted area, what we write will be in a special degree provisional. A definitive British Shipping History for the period from Pearl Harbour to

Normandy will require further exacting research. We regard our present chapter as a preliminary sketch.[1]

Although we are writing primarily of British shipping problems, we must try to set them in their United Nations context. American participation in the war promised great things. As part of their arrangements for the co-ordination of the Allied war effort, the President and the Prime Minister agreed that the shipping resources of the two countries would be 'deemed to be pooled'. The Ministry of War Transport would still direct the shipping under British control and the appropriate United States authority would direct the shipping under American control; but two Shipping Adjustment Boards —one in Washington and one in London[2]—would combine the two national managements in 'one harmonious policy'.

Under this arrangement, there were in effect to be two pools of shipping and two centres of control. The bulk of British needs would be met by ships under British control, of American needs by ships under American control. The function of the two Boards would be to secure such interchange and combined use as would result in economy and the allocation of shipping to different services of either country in proportion to their relative importance.[3] We shall discuss later how far these hopes of pooling Allied shipping resources were realised.

However high the hopes, they were swiftly overshadowed by an alarming increase in shipping losses. In March 1942 the Prime Minister wrote to President Roosevelt:

> When I reflect how I have longed and prayed for the entry of the United States into the war, I find it difficult to realise how gravely our British affairs have deteriorated by what has happened since the 7th December.

Nowhere was the deterioration more alarming than in the United Kingdom's immediate shipping prospects. The declaration of war against the United States immensely simplified the problems of the German U-boat command. For one thing, the Allied escort forces were severely strained by the demands of the Pacific war and the Russian convoys. While eight or twelve escorting vessels had accompanied convoys in the latter half of 1941, the number in 1942 had to be reduced to four or six. Moreover, the ban on U-boat operations on the American side of the Atlantic was lifted. Although very few U-boats were

[1] The chapter is confined almost entirely to non-tanker tonnage. The history of tankers is impressive, especially in its Anglo-American aspects; it will be told in the Oil volume of this series.

[2] *Agreements between the Prime Minister and the President of the United States of America.* January 1942. Cmd. 6332.

[3] Assent to the allocation of American ships to a British service would be given on the Washington Board by the American member. Assent to the allocation of British ships to non-British service would be given on the London Board by the British member. Washington became inevitably the main centre of negotiation for such interchange because the United States had the spare ships.

equipped for operations in American waters (the number in December 1941 was only six) their successes were immediate and outstanding.

The campaign opened with the sinking of two Allied ships off the eastern seaboard of the United States on 12th January 1942, and before the month was out another thirty-three ships were sunk. The U-boat commanders were experienced; the American defences were inadequate and unready. There were no coastal convoys and no black-out of lights along the coast. Between the beginning of December 1941 and the end of June 1942, over 4½ million gross tons of ocean-going shipping available to the United Nations were lost[1]—over three million gross tons of non-tankers and nearly 1½ million gross tons of tankers. For a time, tankers were being sunk at the rate of one 15,000 ton ship every day. Over seventy per cent. of the total losses were caused by submarines.[2] Of the tonnage lost by enemy action, fifty-six per cent. was sunk in the western Atlantic. From the middle of 1942 the dangers in that area declined. Helped by the loan by the British of twenty-four large anti-submarine trawlers, the Americans had strengthened their defences. By opening out the cycle of their Atlantic convoys—at a cost of some 30,000 tons of imports a month—and by other squeezes, the British also managed to provide the escort reinforcements that made possible the institution of United States coastal convoys. The first convoys on the American seaboard and between Trinidad and Aruba set off in the middle of May, but it was July before convoys began across the Caribbean.

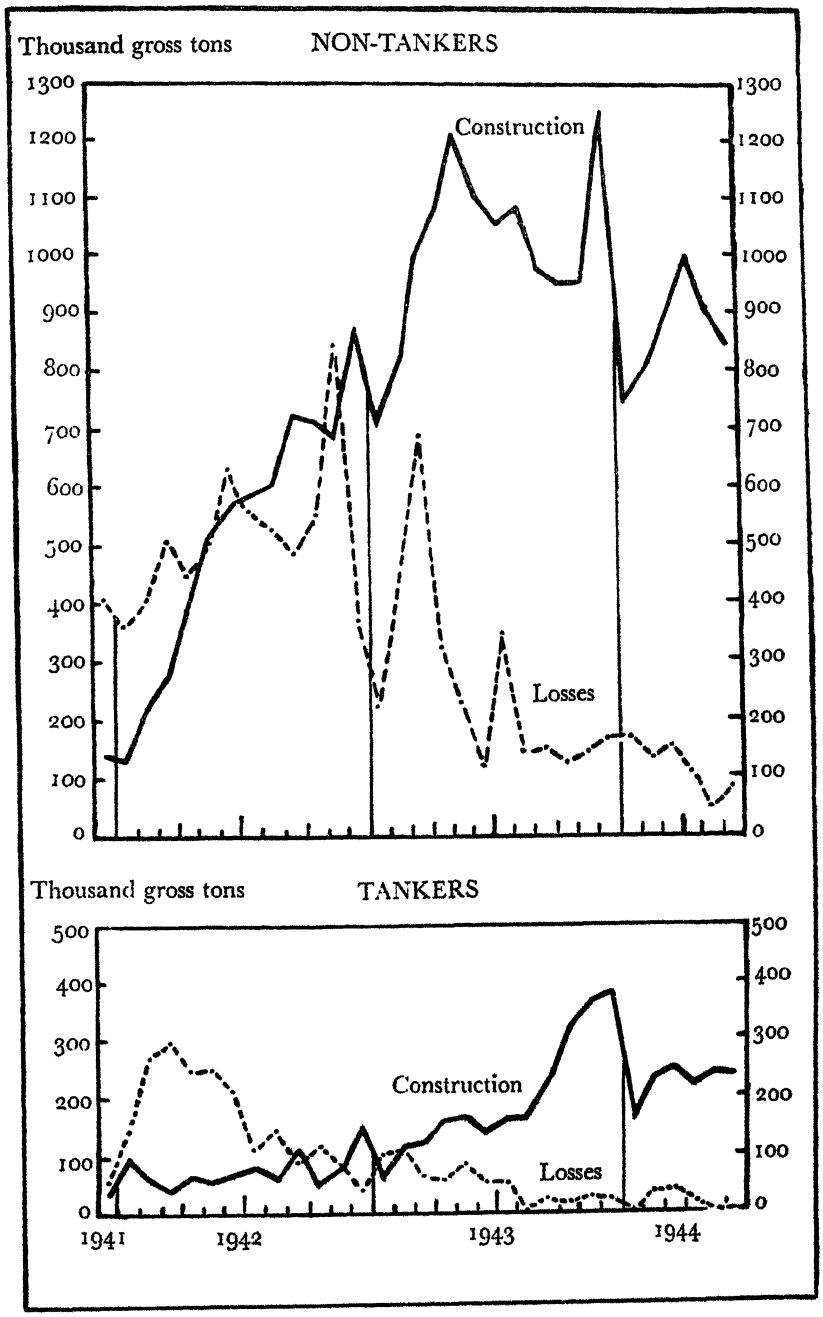
The U-boats, however, did not slink home; they sought other hunting grounds. As sinkings in the western Atlantic fell, losses on the ocean trade routes—particularly in the North-West Approaches, in West African waters and in the South Atlantic—rose. Tanker losses fell sharply but in the last six months of 1942 the average monthly losses of ocean-going dry cargo ships available to the United Nations were over half a million gross tons—even higher, that is, than in the first six months. In January and February of 1943, dry cargo losses were lighter, but heavy U-boat attacks in March brought the average monthly sinkings for the first quarter of the year to about 400,000 gross tons. Thereafter, losses never reached these heights again.

The position for the United Nations as a whole was not quite as black as the losses paint it. For after the middle of 1942, the immense shipbuilding power of the United States began to assert itself. The accompanying charts show that from about the end of July 1942 there was an almost uninterrupted excess of new construction of ocean dry cargo shipping over losses, while before the end of the year tanker replacements were also greater than losses.

[1] Losses from enemy action and marine causes; this refers to ships of 1,600 gross tons and over.

[2] This figure refers to merchant ships of all tonnages and to losses in January–June 1942.

UNITED NATIONS LOSSES
AND NEW CONSTRUCTION OF MERCHANT SHIPS



The United Kingdom, however, did not share in this gradual increase of tonnage from August 1942. British merchant fleets were concentrated in all the most dangerous waters and they bore losses which were high out of all proportion. At the end of June 1942, British-controlled dry cargo ocean shipping comprised about sixty-two per cent. of the total world tonnage outside enemy control; in the last half of 1942 more than seventy-two per cent. of the shipping lost was British controlled. The monthly rate of British losses was not, indeed, as high as it had been in the first six months of 1941, but it was still a very high, and this time a long-continuing, rate. The United Kingdom could not possibly replace such grievously heavy losses out of its own resources. And so the British merchant fleet[1] steadily shrank. The non-tanker ocean fleet fell from 16,200,000 gross tons at the end of November 1941 to just below 14 million gross tons at the end of April 1943; only then did it begin to show a slow increase. The tanker fleet[2] did not start to grow again until July 1943.

So much for the supply of shipping after Pearl Harbour. What was happening to demands upon it? In 1941, the merchant shipping of what were, later, the United Nations, had been employed upon four main services—imports to the United Kingdom, imports to other parts of the world (the British Commonwealth, the Far East, etc.[3]), support of the Middle East compaigns, the movements of troops and military stores to other areas. Arrangements were also made in the latter part of the year to send substantial supplies to Russia, though the quantities actually delivered up to the end of 1941 were small. In 1942 most of these demands continued. While a few claims were almost eliminated—for example, Far Eastern imports—others, such as military demands in the Middle East, increased. And new demands crowded in. Supplies to Russia became important. War in the Far East meant that troops and supplies had to be rushed across immense distances of ocean to reinforce India and Australia and the Pacific islands. Moreover, America's belligerency meant that the time had come to plan the series of offensive operations which were to combine with the war in Russia in defeating Germany. At the centre of these schemes was the 'Bolero' movement of great numbers of American soldiers, airmen and equipment to the British Isles. Meanwhile, by the late summer of 1942 plans were also being made for the landings in North Africa. The demands seemed almost limitless.

[1] This includes vessels on time charter to the United Kingdom.

[2] This applies to tankers on the British register, Allied and neutral tankers on time charter to the United Kingdom and other Allied tankers under the control of the European Allied Governments.

[3] Imports to the United States are not included as they were not an additional demand on shipping; ships would have had to carry ballast if they had not carried these imports.

(ii)

The Months of Crisis

Against this background of intense strain we must consider the shipping problems of the British Government. First was the need to conquer the U-boat and save losses. For some time the U-boats went from strength to strength. Production of them rose steadily and the number operating in the Atlantic progressively increased in spite of diversions to the Mediterranean and to the Arctic route to Russia. The system of controlling the U-boats from shore headquarters was perfected. The use of supply submarines extended the range of action of the raiders. Great strides were made in the development of torpedoes. The fortified 'pens' or shelters immunised U-boats in the Biscay ports from bombing attacks.

As late as March 1943, the U-boats made some of their most successful attacks of the war. But from then onwards, in spite of important technical development, their success waned. By May the Allied air strength in the Atlantic was very powerful. Moreover, U-boats could now be located at a great distance by Allied radar without their being warned. U-boat losses, which had previously been some thirteen per cent. of all the boats at sea, rose rapidly up to fifty per cent. The U-boats never regained their ascendancy.

But the losses they inflicted on British shipping during the period of their ascendancy were far too heavy for the British shipbuilding industry to make good.[1] In the fifteen months of shipping crisis from January 1942 to the end of March 1943, not much more than a quarter of the losses of British flag and British controlled ocean non-tankers were replaced from the British shipbuilding yards. Faced with this shrinkage of tonnage and the increasing demands, the Government had three main tasks. First it had to strive for economies and improvements in management that would increase the carrying capacity of British and Allied tonnage. Secondly, it had to tackle its perpetual problem of allocating the limited tonnage available and of balancing needs one against the other. Thirdly, since the British merchant fleet could not meet, unaided, Britain's minimum requirements and commitments, the Government had to seek assistance from the United States.

The British and the combined shipping authorities were continuously seeking economies in shipping space and improvements in management. One of the most promising opportunities for economy was in the transport overseas of Service men and their equipment.

[1] Merchant shipbuilding will be examined in one of the volumes on War Production.

In the early months of 1942, the worst shortage of all was in troopships. By various steps, including the reduction to a minimum of facilities for exercise and other amenities, the capacity of existing troopships was increased by nearly one third. The journey round the Cape, however, was so long that it was not possible to reduce British standards of accommodation to the level of the troopships carrying American soldiers across the Atlantic.

Still bigger economies were possible in the Services' use of cargo shipping. Much modern war equipment is, in its assembled form, very wasteful of shipping space; this is especially true of wheeled vehicles. Shipping space could be saved by dismantling the vehicles and packing them in crates. Throughout 1942, experiments were made to find the best type of pack and to extend it to as many vehicles as possible. There were a good many difficulties. For example, the greater the number of packages per vehicle the easier it was to stow them, but the risk of losing important components was higher. And the more completely vehicles were broken down, the more elaborate were the assembly plants needed at the destinations. Special vehicles such as those with electrical apparatus or complicated bodywork could not be dismantled very thoroughly. Sometimes, too, there were difficulties at the receiving end; inland transport was often gravely deficient and in some theatres of war additional vehicles were needed so badly that time could not be spared for their assembly.

Nevertheless, boxing made great progress during 1942. The percentage of all War Office vehicles shipped in crates rose from almost nothing at the beginning of the year to about sixty per cent. in October; for trucks, the percentage rose to over ninety per cent. Much shipping space was saved. For example, a certain type of 3-ton truck absorbed 1,000 cubic feet if it were shipped on wheels, 726 cubic feet if it were boxed in one of the early kinds of pack and only 503 cubic feet in the improved pack used at the end of 1942. In July, the Prime Minister reminded the War Cabinet that ships set free by improved packing would be able to bring the country about three cargoes on the North Atlantic route instead of one cargo on their way back from the East. He asserted that the vehicles shipped in crates during May had increased potential imports by about 80,000 tons, or as much as the monthly saving achieved by raising the milling ratio, the rationing of clothes and soap and the abolition of the basic petrol ration all put together. These calculations were shaky but they do give some idea of the magnitudes involved. By the end of 1942 there were also substantial savings through improved packing of other equipment such as guns and projectors.

In many other directions there was scope for economy in the transport of the Services and their equipment. The supply of equipment could be organised more efficiently. While immense demands on

shipping were being made to carry motor transport overseas, it seemed that large numbers of vehicles abroad were immobilised for lack of spare parts. Following pressure from the Combined Shipping Adjustment Board and the Combined Chiefs of Staff, the Munitions Assignment Board set to work to improve the procurement, distribution and shipment of these spare parts. Moreover, they did their best to reduce the types and numbers of vehicles used by the United Nations in all theatres of war. The source of supply of equipment was also important. It was wasteful of shipping if the United Kingdom imported supplies from North America and exported identical articles to the East. Arrangements were therefore made for units sailing from the United Kingdom to take their specialised vehicles with them but to receive general vehicles from pools in the East supplied mainly from North America. There was also pressure on the Allied Services to draw as many supplies as possible—especially food—from local production overseas. The United Kingdom, for example, undertook to provide the American troops in the British Isles with a great deal of equipment.

It was equally important that civilian import programmes should draw supplies from the nearest source. There were strict limits to the possibilities. For example, the United Kingdom had to take imports from areas to which ships carried military stores. Economies that looked valuable in terms of distance often did not fit conveniently into the existing pattern of ship-routeing. The Combined Boards which allocated food and materials were very helpful, but attempts at rearrangement of supplies increasingly came up against supply difficulties. In 1942 these were not as yet frequent; but even then the case of the United Kingdom's meat supplies was notorious. In order to release fast refrigerator ships for other services it was agreed that the United Kingdom should draw much less meat from Australasia and much more from the United States; appropriate arrangements were made with the American Department of Agriculture. But in the early months of 1943 the plan broke down, not because the shipping was not there but because the meat was not available.[1] Meat was a particularly unfortunate example of the attempts to concentrate on the nearest sources of supply; most attempts were much more successful.

A long further list could be given of devices to increase shipping capacity. Some foods—in particular, eggs—were dehydrated. Beef was shipped without its bones. Anglo-American co-operation ensured that equipment for United States troops in Britain and United

[1] The Ministry of War Transport was berthing tonnage against what it assumed to be the programme; since the programme was repeatedly reduced this always resulted in over-tonnaging. Between the beginning of November 1942 and the end of February 1943 over 5½ million cubic feet of valuable refrigerator space in British ships alone had to be diverted or filled with non-refrigerated cargo.

Kingdom imports were shipped together in order to get a good proportion between cargo heavy in relation to its bulk and cargo bulky in relation to its weight. There were, too, ambitious schemes such as the development of an overland route from West Africa to the Middle East and East Africa.[1]

Other problems of increasing the carrying capacity of shipping were old ones familiar from the months after France fell. The rate of turn-round in the ports still caused anxiety even in British ports where there had already been such great improvements. In ports abroad, improved turn-round was a matter of great urgency. For example, in the spring of 1942 Freetown had an average monthly traffic of 30,000 tons of imports; its peace-time trade had been 2,000 to 3,000 tons a month. Ports in North America, South Africa, the Middle East, the Persian Gulf, India, Ceylon, all had troubles, varying in severity, which the Anglo-American shipping authorities had to try to overcome. Again: there remained a large mass of shipping immobilised under repair, most of it in ports abroad. Convoy arrangements and the balance of risk in allowing more ships to go unescorted were, too, as perplexing as ever.[2]

There were, then, many ways in which improved results could be obtained from existing shipping resources. In this chapter there has been space for only a few of these ways, and even they have been scarcely more than listed. The full history of shipping problems after Pearl Harbour, when it comes to be written, will no doubt discuss all these measures in some detail and assess their cumulative importance which was, undoubtedly, very great. But however large the economies so achieved, there still remained other fundamental questions of British shipping policy. How was British-controlled shipping to be employed? How should demands be pruned to fit the supply? What help would the United Kingdom obtain from the United States?

These questions are for the most part indivisible and must be considered together. However, the emphasis on each of them shifted from time to time. In the first half of 1942, there was little emphasis on increased American aid; the British realised that they were fortunate in being able to keep the help they were already receiving. Admittedly it was some months before the American War Shipping Administration secured proper control over the cargoes American ships carried and eliminated luxury cargoes. But the salient fact was that the United States merchant fleet was still small. American current building did not offset American current losses until May 1942; moreover, many ships were immobilised while they were being armed

[1] In 1942 the capacity of the route was very small. Then the successes in North Africa made the development of the route less important.

[2] See above, Chapter X, Section (ii).

and degaussed against magnetic mines. Meanwhile, the demands of the United States Army and Navy had increased enormously. Early in 1942, Sir Arthur Salter sent a warning from Washington that he could hardly overstate the present and impending difficulties of the tonnage position on that side of the Atlantic. For the present, therefore, the United Kingdom had to do the best it could without any American additions to its resources.

In retrospect, the shipping position in 1941 must have seemed nostalgically easy. Even in the worst quarter of that year, non-tanker imports had been almost seven million tons. But in January 1942, the Ministry of War Transport doubted whether imports for the current quarter would exceed $5\frac{3}{4}$ million tons.[1] This fall was due partly to shipping losses and partly to the claims of the Services, which included supplies to Russia. Between the end of November 1941 and the end of March 1942 the tonnage allocated to the Services rose by nearly a million deadweight tons.[2] Although much of the cargo shipping diverted to military service in Middle Eastern and Eastern waters brought imports on the homeward voyage, its employment so far away meant that fewer round voyages could be accomplished in a year. It was impossible to concentrate shipping on the near sources of supply; the proportion of United Kingdom imports drawn from North America dropped from fifty-two per cent. in the last quarter of 1941 to forty-one per cent. in the first quarter of 1942.

In these circumstances, it was no longer safe to regard the United Kingdom import programme as the residuary legatee of shipping space after the essential demands of the Services and the cross trades had been met. The Government had to know the point below which the import programme must not be allowed to fall even in an extreme military emergency. Early in 1942, the Lord President's Committee concluded that $22\frac{1}{2}$ million tons was the bedrock minimum for imports in 1942; this figure would, it was said, bring stocks down to the danger level so that imports in 1943 would have to keep pace with consumption. In the event, further urgent additional military demands for shipping did not arise until the North African landings were being planned; it was the shortage of troopships rather than the shortage of cargo shipping that limited military plans. In April 1942, the Minister of War Transport, after surveying the troop movements in view and the likely rate of loss, considered that, with existing American assistance and provided no more adverse factors intervened, 1942 imports would be about 25 million tons.

[1] A close guess; they were actually 5·82 million tons.

[2] The figures are taken from the Central Statistical Office war-time digest of shipping statistics. In them, the figure for the shipping allocated to the fighting services at the end of each month does not include ships so allocated on their outward journey but which were at the time of calculation homeward bound and carrying imports to the United Kingdom.

This figure was well above the bare minimum and imports during the first half of 1942 were actually at an annual rate of nearly 24½ million tons. But, even so, consumption could still be maintained only by drawing upon stocks. It was therefore urgent to prune demands and make every possible economy in the use of shipping space both by the Services and by civilian consumption.[1]

One of the principal objects of shipping policy was to avoid cutting essential military demands. The Services could not however be permitted extravagant standards of equipment, reserves and overseas maintenance. The Prime Minister in particular felt that the heavy military demands on cargo shipping arose partly from the inflated requirements of British divisions for transport and equipment. He felt that the fighting in Malaya had underlined the disadvantages of cumbersome equipment and insisted that the Army should learn to travel light. The War Office was continuously instructed to strive for economies in transport and to comb out its rearward formations.[2]

In the field of civilian consumption, the most fruitful source of shipping economies was in food imports. Savings were possible either by belt-tightening or by various forms of substitution. There was not much scope for belt-tightening. After Pearl Harbour the increases in rations granted the previous October were withdrawn; the Minister of Food then insisted that any further reduction maintained over a long time would impair the nation's health. Substitution economies were more promising; one in particular—a higher milling ratio—was long overdue.

In August 1941 stocks of wheat and flour had stood so high that in the next two months considerable imports of feeding-stuffs had been allowed at the expense of wheat. When, therefore, prospective wheat shipments dropped alarmingly after Pearl Harbour, wheat stocks threatened to fall below the accepted danger level at the end of February 1942 and even lower in March and April. The Ministry of Food claimed that either 200,000 extra tons of wheat must be imported between January and April, or else bread must be drastically rationed, or else the wheat extraction rate must be raised to eighty-five per cent. as soon as possible.[3] It was hardly conceivable that large allocations of shipping would be made simply to retain white bread. Nevertheless, the Ministry of Food still did not want to begin compelling people to eat unaccustomed food and the agricultural departments painted a gloomy picture of the effects of a loss of

[1] The term 'civilian consumption' is applied very loosely. It includes, for example, food supplied not only to civilians but to the Forces.

[2] See also Chapter XV.

[3] The claim was partly based on an under-estimate of the supplies yet to come forward from the home crop. See *Food*, Vol. I, Chapter XX.

wheat offal upon home-produced meat, milk and eggs. But the increased milling ratio was by far the greatest single alleviation of the shipping position open to the United Kingdom; even if imports of maize or of eggs and bacon were increased to compensate in part for the loss of feeding-stuffs, the net economy in imported grain would be not less than 400,000 tons a year. The need for shipping economies was becoming extreme.[1] At length, therefore, the increased milling ratio was accepted; it came into force at the end of March 1942.

This increase in the milling ratio was the major economy made during the first half of 1942. The other important step of this period was one that did not affect the immediate shipping outlook. The ploughing-up campaign was to be intensified for the 1942–43 harvest; between 300,000 and 400,000 extra acres were to be sown with wheat.

As 1942 drew on, something more was needed than a succession of specific economies. The Government felt in need of a comprehensive review of shipping prospects and policies. The country had not as yet been forced to cut its military commitments or its war production to save itself from hunger; but it was living on its stocks. Clearly, it could not do this indefinitely. Moreover, it might, before long, have to cope with a sharper shipping stringency. Up to the present, the Allies had not undertaken any seaborne offensive.

In May 1942, a new Shipping Committee of the War Cabinet was established. The Import Executive had by then outworn its usefulness. It was a high level committee which took short-term decisions necessitated by inadequate inter-departmental planning. Some of the Import Executive's functions had died when the Ministry of Transport and the Ministry of Shipping were fused, and as better co-operation developed between departments. Moreover, the allocation of importing capacity was no longer the central problem; in 1942, British shipping prospects depended far more upon the allocation of carrying capacity between civil and military uses and upon pooling arrangements with the United States. Neither of these subjects could be settled below the level of the War Cabinet itself. There was, however, need for continuous study of the shipping position and its manifold implications. This task was entrusted to the Shipping Committee, an inter-departmental body of officials meeting regularly under the chairmanship of a junior minister. The usefulness of the new committee was to some extent limited by the fact that none of its members had the necessary knowledge to check the importing departments' figures of minimum stocks and consumption.

The Shipping Committee produced the first of its periodic shipping reviews in June 1942. The central theme of the report was a comparison of probable imports with estimated consumption of them.

[1] The Minister of Health also had medical arguments in favour of a higher extraction rate, but the change was made for shipping, not nutritional, reasons.

After allowing for shipbuilding output, probable losses, increased military requirements, the demands of the cross trades and American assistance at the current rate, the Shipping Committee calculated that total imports of food and raw materials in 1942 and the first half of 1943 would be about 33 million tons. Net consumption of imported food and materials—that is, total consumption less home production and imports from Eire—was estimated at 41·4 million tons for the same eighteen months' period. These figures left a gap of about 8·4 million tons between imports and net consumption.

There seemed five possible ways of closing this gap—economy in other countries' import programmes, economy in the Services' use of shipping, de-stocking, reduced consumption of imports by the United Kingdom, and, finally, greater assistance from the United States. The first possibility proved barren; the civil requirements of the Dominions, the Middle East, India, West Africa—whether or not they had been cut to the bare minimum—could not in practice be subjected to further compression. It also seemed prudent to set aside the second possibility and to regard any economies by the Services as an offset against unforeseen military demands. This left de-stocking, economies in the United Kingdom import programme and American help.

At first it seemed as if de-stocking and economies between them might just close the gap. The Shipping Committee thought that, between January 1942 and June 1943, stocks could be reduced by six million tons before they reached the level estimated for indispensable working stocks. In the same period import requirements might possibly be reduced by nearly 2½ million tons. This figure was the total of various proposals. Miscellaneous economies in the use of materials might save a million tons, while food might be economised in a number of ways: it might be possible to obtain more cereals for human consumption from the 1942 harvest; the milling ratio could be increased to ninety per cent. or even perhaps to ninety-five per cent.; bread might be diluted with rye, barley or oats; and an emergency slaughter of livestock might yield more home-produced meat.

Reductions in stocks and economies in imports together would, it seemed, just about fill the 8·4 million tons gap. This neat arithmetical balance, however, inspired a good deal of uneasiness. Shipping estimates for so long ahead were wrapped in doubt. Admittedly, the home harvest might exceed expectations, the ships bringing American troops and their equipment to Britain might bring in additional imports and there might be further economies in the military use of shipping. But suppose on the other hand, that sinkings were ten per cent. higher than the estimates, and imports in consequence about two million tons lower? Suppose stocks were extensively destroyed or immobilised by air attack? Or what if the military demands did not

behave according to the estimates, which assumed that some of the new demands would be for limited periods only, that some might not materialise at all and that certain existing demands might diminish?

The strongest fear of all was about the stocks position. The United Kingdom dared not deplete its stocks below the danger level unless it was assured beyond doubt of sufficient American assistance thereafter. Otherwise it would be faced with an inescapable choice between dangerous alternatives; either to curtail military operations or war industry or else to let food rations sink below the amount necessary for health and strength. Unless stocks were rebuilt beyond the agreed danger level, the Government would have no elbow room for strategic operations to take advantage of any sudden weakening of the enemy.

Everyone in Government circles was agreed about the high importance of safety in stocks, but opinions diverged about the right method to attain it. At one extreme it was urged that British consumers could still make economies, particularly in their food, and that British producers could make a bigger contribution towards economising imports; labour could be directed into import saving industries and the farmers, at the expense of their fodder crops, could produce in the next year's harvest still more food for direct human consumption. At the other extreme it was urged that the burdens imposed on the civilian population were already at the limit of prudence: imports therefore should be fixed at a level that would ensure a reasonable margin of stocks and dispense with the most drastic cuts in civilian consumption. The Services could then have whatever shipping was left, including any windfall gains or losses.

The War Cabinet accepted neither of these extreme views; it finally concluded that the United Kingdom could not hope to close the gap between probable imports and import requirements by its own unaided efforts. The War Cabinet felt in the first place that it could not allow stocks to be run down by the full six million tons contemplated by the Shipping Committee, for it was highly improbable that imports in the second half of 1943 could be increased sufficiently to replenish them. Four million tons seemed about the maximum safe reduction in stocks. Secondly, the War Cabinet could not approve all the drastic consumption economies listed by the Shipping Committee.

> At the cost of much internal friction and disturbance [wrote the Prime Minister] we may by 'tightening the belt' save perhaps a million tons. Whether this should be done as a moral exercise should be carefully weighed. It can, however, have no appreciable effect upon the problem of maintaining our war effort at home and abroad.

Economies totalling under 1½ million tons in the eighteen months' period were approved. But it was decided that the savings to be

expected did not at the moment justify a further increase in the milling ratio or the halving of beer supplies in order to dilute bread with barley. Nor did the Government feel able to mortgage the future by initiating compulsory slaughter of livestock and a reduction in fertiliser imports. Bread rationing was seriously considered; but the War Cabinet felt that such a fundamental change in food policy, fraught with so many administrative and nutritional dangers, would not be worth while unless it saved about half a million tons of wheat imports. The Minister of Food saw no prospect of such a saving and in the absence of evidence to confute him the proposal to ration bread was abandoned in August 1942.

How then did the Government propose to close the remaining gap between probable imports and import requirements? It looked to the rising tide of American shipbuilding. American shipping losses might remain high for some time and the shipping demands of the American Services would be immense. The United States Government should, nevertheless, be asked for a firm assurance that it would reinforce British shipping sufficiently to guarantee imports of 25 million tons in 1942 and 27 million tons in 1943. These import programmes should be regarded as irreducible minima entitled to the first call on the shipping available. The United Kingdom must come to a 'solemn compact, almost a treaty' with the United States to this end.

At this point it is necessary to turn back and see how Anglo-American shipping collaboration had been developing. After the establishment of the Combined Shipping Adjustment Boards in January 1942, there was much fruitful co-operation between the shipping authorities of the two countries. A system of United Nations shipping statistics was gradually developed. There were all the economies in shipping management already listed. There were, too, all kinds of problems over types of ships where the two countries gave mutual help. For example, the United Kingdom helped to relieve the Americans' acute shortage of troopships while the Americans lent to the British ships suitable for tropical seas in exchange for more British shipping in the Atlantic. Another major achievement was the system for meeting the import requirements of all the areas under Allied control. The world was divided geographically. The Ministry of War Transport co-ordinated the import programmes of India, the Red Sea and Persian Gulf, South and East Africa, West Africa and the Anzac area; the United States shipping authorities co-ordinated the import programmes of the western hemisphere. The responsibility for finding the shipping to fulfil these programmes rested with the co-ordinating national authority which, if necessary, could ask for assistance from its opposite number.

All these steps were important. But they were overshadowed by the chief issue in Anglo-American shipping relations. How much net

assistance was to be given from the United States' shipping pool, which rose continuously after May 1942, to the British pool, whose level fell until well into 1943? The original idea had been that there should be two pools of shipping, each under its own management but with the two managements jointly regulating the flow between them. This aim was not fully realised. The Combined Shipping Adjustment Boards did not become an international authority examining all the shipping available to the United Nations and allocating it according to the needs of the Allied war effort. Control over shipping remained a national affair with the United Kingdom making its requests for shipping help to the United States.

It was inevitable that difficulties should beset these negotiations for shipping help. The last chapter emphasised that the United Kingdom and United States Governments had reached very different stages in government control and co-ordination; the difference was particularly marked in the shipping administrations. After Pearl Harbour the Americans had to build up a shipping administration almost from scratch. The existing Maritime Commission was rather similar to Britain's pre-war Mercantile Marine Department. It had no experience of planning and programming supplies to meet a serious deficiency of tonnage; it possessed no proper information or statistical service. When war came, therefore, every United States department affected by the shipping shortage began to construct its own balance sheet of requirements and available tonnage. Moreover, the Service departments requisitioned ships on their own initiative. Early in February 1942 the War Shipping Administration was established; it was responsible to the President and had sole requisitioning powers over ships not already in the unyielding hands of the Army and Navy. Even then the troubles were not over, because the Services were apt to regard their shipping requirements not as requests or applications but as orders. Unfortunately, there was no authority short of the President to decide major priorities and no machinery for presenting to him the issues for decision in a balanced and objective way.

In the United Kingdom, the Ministry of War Transport was secure in its control over merchant shipping long before Pearl Harbour. The Minister had all the necessary authority to execute the decisions of the War Cabinet on broad issues of shipping policy. But although their control over shipping was almost irreproachable, the British, too, had their defects. The Government showed some lack of balance in its preoccupation with the British import programme and, in its efforts to get minimum import figures accepted as a first charge on Allied shipping resources, it paid scant regard to all the other urgent demands for shipping that were piling up in Washington.

It was, then, very difficult to inculcate a real 'pooling' mentality on either side of the Atlantic. This makes even more remarkable the

ultimate success of the shipping collaboration between the two countries. The Combined Shipping Adjustment Boards were only the formal and institutional recognition of an extremely close personal collaboration between the American and British shipping administrators—in particular between Sir Arthur Salter, in his days as head of the British Merchant Shipping Mission, and Mr. Lewis Douglas, of the War Shipping Administration. The constant contact between those engaged in day-to-day administration built up friendships that stood the test of sharp differences of opinion and resolved them.

Sometimes in retrospect these differences seem very prominent. At first, indeed, affairs went smoothly. The British in Washington had their eyes on the large numbers of new ships coming off American slips. They hoped that the Americans would accept the principle that the first charge on American shipbuilding should be the replacement of any net losses of the United Nations. This would mean that the United States and the United Kingdom would be on an equal footing in reviews of shipping needs, and that allocations would be made on a basis of undisputed fact. In the autumn of 1942, these principles seemed well on the way to acceptance. A statement by the War Shipping Administration in October recognised that United States building should be available for all services without any superior call on it by the United States Services; it implied that the first call on new building was to maintain existing services (United Kingdom or United States), the remaining net gain being available for the expansion of the war effort.

It seemed that Allied shipping really was to be pooled. Be this as it may, the course of negotiations in Washington was interrupted because of growing anxiety in London about the United Kingdom import programme. Early in November 1942, the Minister of Production arrived in Washington bearing a letter in which the Prime Minister urged upon the President the extreme importance of a 27 million ton import programme for the United Kingdom in 1943. In order to fulfil this programme, the Minister of Production asked the President to transfer shipping to the United Kingdom at a level sustained at 2½ million deadweight tons of shipping throughout the year.[1]

This high level approach strongly emphasised Britain's great need for ships. But unfortunately it also drove the negotiations for shipping aid away from the pooling principle and back to a much narrower basis. At first, the outcome of the Minister of Production's visit seemed very hopeful. The President, in his reply of 20th November to the Prime Minister's letter, was not ready to contemplate any transfer of flag but he was generous and reassuring. If possible, the United States

[1] This meant that losses within the 2½ million tons would be replaced and any deficiencies early in the year would be made up by extra tonnage later.

merchant shipbuilding programme for 1943 was to be pushed up to 20 million deadweight tons. The British claims to a moderate share of the benefits from this vast mass of tonnage were recognised as just; in particular, the United Kingdom's 27 million ton import programme seemed to the President substantially correct and of primary importance. He, the President, would instruct his Shipping Administration to allocate enough dry cargo tonnage out of the United States shipbuilding to meet British import requirements and to ensure the maintenance of British armed forces and other services which, though they were essential to the war effort of the British Commonwealth, could not be transported by the fleet under British control. The President mentioned a specific figure for the additional monthly allocation of shipping necessary for these purposes.

The British accepted this figure as firm; but they were, it seemed, mistaken. In January 1943 the War Shipping Administration insisted that the President's figure of assistance must be regarded not as a commitment to allocate a precise amount of tonnage but as an estimate of requirements: if a review indicated that United Kingdom imports could be reduced, if United States shipping losses were higher than the estimates, if United States shipbuilding did not come up to expectations, if military urgency demanded, then the allocation of United States tonnage might be reduced. That same January, at the Casablanca conference, the United Kingdom import programme was in constant danger. Finally, however, it was accepted that the President's commitment must be met.

This was a relief to the British, but it could not do much to increase aid in the crucial early months of 1943. The President had given warning that owing to the North African operations the allocations of shipping in that period would be much lower than the average for the year as a whole. In fact, dry cargo imports brought by United States shipping in the first quarter of 1943 added up to only 366,000 tons. These months were a time of acute anxiety for the British. 'Torch'—the North African operation—had been much more expensive in shipping than had been expected: shipping losses in the last quarter of 1942 had been highly disquieting. Total non-tanker imports in that quarter were at an annual rate of only 18 million tons.

In the first half of 1943, failing additional United States assistance, imports were only expected to be 8½ million tons. This was four million tons less than probable consumption even though planned consumption of raw material imports in the period had already been further reduced by over a million tons. During 1942, stocks of food and raw materials had fallen by nearly 2½ million tons. The Government was now no longer disposed to see them fall by the full four million tons it had

contemplated before the outlook had grown so sombre. The familiar reasons for maintaining adequate stocks seemed strengthened; in addition, it was now essential to avoid the obligation to import during the second half of 1943 at a rate that was higher than the capacity of the escort forces. Possible economies in food were again examined, but again it was concluded that, with one or two exceptions, the savings were not large enough to justify the dislocation and the nutritional disadvantages. Neither American aid, nor de-stocking, nor economies in consumption were, it seemed, going to close the gap between the supply of shipping and the import programme. Some drastic measure was necessary. The Prime Minister provided it in January 1943 by directing that in the next six months shipments to the Middle East and India from the United Kingdom and America should be reduced from about ninety ships a month to a maximum of forty; this was expected to yield enough shipping to raise British imports by two million tons in the first half year.

In the event, imports in the first quarter of 1943 were rather lower than in the previous quarter. The weather was exceptionally bad, 'Torch' made still further demands and the British could not draw so high a proportion of imports as they had expected from North America. There were strong fears not only for the present but also for the remainder of 1943; how much American help would really be forthcoming?

> Our tonnage constantly dwindles, the American increases [ran a War Cabinet paper]. We have undertaken arduous and essential operations encouraged by the belief that we could rely on American shipbuilding to see us through. But we must know where we stand. We cannot live from hand to mouth on promises limited by provisos. This not only prevents planning and makes the use of ships less economical; it may in the long run even imperil good relations. Unless we can get a satisfactory long-term settlement, British ships will have to be withdrawn from their present military service even though our agreed operations are crippled or prejudiced.

The Foreign Secretary addressed himself to obtaining this long-term settlement during a visit to Washington in March 1943. This time, the President made a firm and unambiguous offer that United States ships would carry seven million tons of imports to the United Kingdom during 1943. Two months later, at the 'Trident' conference in Washington, the President made a new offer which put American shipping aid upon the basis that Britain had always wished. The President suggested the transfer of United States ships to the British flag.

On 7th June, just after the conference, the President wrote to the Prime Minister a letter which placed the long negotiations and the final decision in their true perspective. It recalled the division of

labour adopted by the two countries in their joint interest—that the United States should be the predominant cargo shipbuilding area for both countries, while the United Kingdom devoted its facilities and resources principally to the construction of combat vessels.

> You in your country reduced your merchant shipbuilding program and directed your resources more particularly to other fields in which you were more favorably situated, while we became the merchant shipbuilder for the two of us and have built, and are continuing to build, a vast tonnage of cargo vessels.

The United States, the President added, were finding difficulties in manning their merchant fleet while the United Kingdom had a pool of trained seamen. Therefore—

> in order that the general understanding that we reached during the early days of our engagement together in this war may be more perfectly carried out, and in order, as a practical matter, to avoid the prodigal use of manpower and shipping that would result from pursuing any other course, I am directing the War Shipping Administration, under appropriate bareboat arrangements, to transfer to your flag for temporary war-time duty during each of the suggested next ten months a minimum of 15 ships. I have, furthermore, suggested to them that this be increased to 20.[1]

This partial substitution[2] of bareboat charter for the allocation of all shipping help on a voyage to voyage basis ended at last the worst of the British struggles and fulfilled the principle of mutual assistance.

When this letter was written, the shipping crisis was over. May had been the great month of victory over the U-boats. Sinkings fell rapidly and at the same time the flood of American shipbuilding was rapidly swelling. Many pressing difficulties still remained throughout the war, but the time of acute danger had passed. In the second quarter of 1943, British non-tanker imports were at an annual rate of over 28½ million tons.

This sudden change in Britain's shipping fortunes may make the Government's anxiety seem in retrospect unreal. After all, the Government knew that by mid-1943 ships would be leaving the American yards in prodigious numbers. But it did not know what benefit American building would bring to Britain; its experience of negotiations with the Americans up to that time had taught it not to expect too much. Meanwhile, it foresaw that by mid-1943 its stocks of food and raw materials would be down to what it thought were the danger levels. Its anxieties—not for the immediate present but for the impending future—were genuine. Indeed, it would be difficult to over-state them.

[1] For full text of letter see H. of C. Deb., Vol. 391, Cols 2088–2089.

[2] The bareboat ships were not by themselves sufficient to fulfil the earlier commitment of the President to send seven million tons of imports to the United Kingdom.

But were they well founded? How near did the United Kingdom really come to the point of danger, where supplies of food and raw materials would have been inadequate to feed the population and keep the war factories working, unless shipping had been quickly diverted from military operations? It will not be possible to give a convincing answer to this question until more research has been done; but some evidence which is already available suggests that the country was not quite so close to the margin of danger as the War Cabinet at that time believed. The estimates of minimum import requirements on which the War Cabinet based its policy were themselves based on calculations of minimum stock levels and the rate of consumption of imported commodities. On looking back, it would seem that the calculations under both heads were too sombre. For example, in the first report of the Shipping Committee, the net consumption in 1942 of importable food was put at 12·4 million tons and of raw materials at 15·1 million tons;[1] but in fact, the actual realised figures were 11·4 million tons for food and 13·3 million tons for materials. Similar discrepancies occurred between the forecasts and the statistical facts for the later war years. In the estimates for food there was perhaps considerable justification for a fair margin of error, since the Ministry of Food had always to allow for the vagaries of the weather and the possibility of a bad home harvest. There was less justification for the erroneous estimates of raw material consumption; indeed, the inaccuracies of the Ministry of Production's forecasts serve as a reminder of the limitations of war-time planning even in its later stages.

These over-estimates of consumption meant that the United Kingdom managed quite well in 1942 and the early months of 1943 with a volume of imports lower than the stipulated minimum. If it should also be proved that the estimates of minimum stock levels were in some degree inflated, the conclusion would be that the British could in this period have maintained an unimpaired war effort at an even lower level of imports: alternatively, that they could have gone on longer than the Government believed at the low rate of imports actually achieved. To some extent, the estimates of consumption and of stock levels hang together; if the former were inflated, then it followed that minimum stock levels, calculated on the basis of so many weeks' supply, were also over-estimated. There is another consideration of more general importance: during the months of crisis, the importing departments' estimates of minimum working stocks did not receive the critical analysis they deserved. In the Ministry of Food, responsibility for maintaining supplies of each food had been specifically charged to the individual commodity directors.

[1] Total consumption less home production.

These directors maintained that they could not fulfil their responsibility unless the Minister were willing to rely on their advice of what the danger level for stocks really was. Each commodity, therefore, had its own danger level, irrespective of the fact that if supplies fell below it a stock surplus of some other commodity might provide some compensation. Moreover, many of the individual figures for minimum working stocks were inflated by assuming that stocks in the earlier stages of distribution did not constitute cover for the final stage, and that the specification of purposes for which stocks might be held was in itself justification for holding a separate stock for each purpose. Sometimes, too, a figure that had originally been fixed to safeguard working stocks and to insure against high sinkings, air raid damage, etc., came to stand for minimum working stocks alone.[1] In the case of wheat, there was too little allowance for the bigger margin of safety provided by the increases in home production and in the extraction rate. It is not possible yet to reach any conclusions about raw materials stocks; at a first glance it seems probable that the margin of safety was much narrower than for food.

There is not much doubt, then, that the possibilities of stock reduction, at any rate in food, were higher than anyone at the time cared to admit—just how much higher it is impossible to say until more detailed research has been done. Nor, as this chapter has shown, did Britain adopt every conceivable sacrifice in the consumption of imports. If the country's stocks had in the event been driven below the real minimum working level, there still remained some additional economies the Government could impose.

But, until that time, the effects of the economies seemed drastic out of all proportion to the savings to be achieved. Moreover, some of the most important economies could not become effective until the worst of the shipping crisis was expected to be over. There was, for example, an undertone of agitation about domestic agricultural policy. Among the economies suggested and from time to time rejected was the reduction of 'the reserves on the hoof', partly in order to increase meat supplies but chiefly in order to substitute human food for fodder crops. Whether or not the gain to the nation's supplies of meat and other food would have been as great as some economists expected, whether or not the damage to British agriculture would have been as large as the agricultural departments forecast, are questions that cannot be discussed here.[2] For present purposes what matters most is the time factor. Whatever decisions were taken about cropping programmes in the spring of 1942, their effects would not

[1] Since these stocks were sacrosanct, every ton of food allocated to them unnecessarily was, in the words of Mr. R. J. Hammond, the historian of Food Policy, 'condemned to uselessness only less surely than if it had been destroyed'. See *Food*, Vol. I, Chapter XXI.

[2] They will be discussed in the histories of food and agriculture.

materialise until the 1943 harvest had been gathered in and threshed; consequently, any relief they might bring to the import strain would hardly be felt before 1944, when by all reasonable expectations the shipping position should be easier.

A more valid criticism of the policy towards economies is that, once it had been decided to adopt them, they were not always followed through with the sense of urgency the shipping difficulties demanded. Dilution of bread was the outstanding example. In the summer of 1942 it was decided to dilute bread with potato flour; but, since the decision was taken under a complete misunderstanding about the technical difficulties and the availability of surplus potatoes, the proposal had to be abandoned. It was then agreed that oats and barley should be used as diluents. But reluctance to sacrifice the quality and uniformity of the loaf or to interfere unduly with the requirements of other users of oats and barley meant that five per cent. dilution of bread did not begin until mid-January. Ten per cent. dilution was not achieved until July 1943, and indeed most of the saving in imported wheat occurred after the shipping crisis was over.

It is arguable, then, that the United Kingdom might have managed during the months of severe U-boat attack with an even smaller volume of imports. But it is easier to pare margins of safety in retrospect than at the time of acute uncertainty and danger when caution seemed eminently necessary. Even if the United Kingdom did not cut imports to the bedrock minimum, it cut them very low; in 1942 they were less than forty-two per cent. of the pre-war average. 'We should not start,' wrote the Prime Minister, 'on the basis that the British should make a greater sacrifice of their pre-war standard of living than the American people.' But when the Prime Minister wrote this, the British people had been, long since, on that very basis.

Assuming that Britain might possibly have managed with an even lower level of imports, what were the military consequences of her actual demands? Preliminary research suggests that these demands did not in any way impede the United Nations' war effort. There is no evidence that major strategic planning was governed by the shipping shortage. The shipping implications of the plans needed the most careful thought and certainly caused much anxiety; but the necessary shipping for the big operations was always found. Shipping, after all, was only one of many problems and not necessarily the most difficult. Strategy had its political and tactical implications: quite apart from this, scarcities of escort vessels, of landing craft and of troops trained in amphibious warfare constricted immediate military plans. But might it not perhaps be argued that the assembly of resources for the great operations of future years might in some degree have been expedited if British civilian imports had been cut, say, by an additional million tons? Only the military historian is

competent to say whether the curtailment of sailings to the Far East, imposed early in 1943 for the sake of the British import programme, really retarded the growth of British striking power in that area. At the time, the Prime Minister argued strongly that the curtailment was a stimulus to efficiency rather than a drain upon it. What of the movement of American troops to Britain? Undoubtedly, the build-up of American troops and their equipment in the United Kingdom might in some small measure have been expedited if some additional tonnage had been freed by slicing something extra from British civilian imports. But here the Prime Minister's observations about the double standard—one standard for British, the other for American sacrifices—again becomes relevant. British civilians had already made sacrifices much greater in degree and in kind than those imposed on American civilians; British soldiers by American standards were austerely equipped and fed.

It is as well not to pursue these reflections too far. The United Kingdom had its own very rigorous standards of sacrifice. Although, judged by those standards, some of the minor items of import policy may be open to debate, there can be no doubt that the policy was in its main emphasis and direction both efficient and austere.

(iii)

Towards D-Day

In the period of twelve months between the end of the shipping crisis and the Normandy landings, the chief preoccupation in shipping circles was the planning of shipping movements for the big military operations.[1] The period is a most important one; but here it must be treated with the brevity of a postscript.

From the point of view of Britain's own internal problems and, in particular, her import programme, shipping caused few real difficulties from the middle of 1943 to the end of the war. The swift decline in sinkings and the increase of American allocations of tonnage for United Kingdom services, together with growing shortages at the sources of supply, made ships for the import programme more plentiful than cargoes. In the event, nearly 26½ million tons of dry cargo imports arrived in the United Kingdom in 1943. Net consumption of imports was so much less than the estimates—partly because of a bumper home harvest—that by the end

[1] The Minister of War Transport was an important member of the parties that accompanied the Prime Minister to the 1943 conferences with President Roosevelt where Allied strategy was planned—Casablanca in January 1943, Washington in May, Quebec in August and Cairo in November and December.

of the year stocks of imported food and raw materials were 2½ million tons higher than at the end of 1942 and slightly higher than at the end of 1941. Indeed, the importing departments were hard pressed to find sufficient storage space; raw sugar and oil-seeds had to be left in the open under tarpaulins. The nightmares of the winter of 1942–43 had been dispelled; at the time when the great military offensive of the war was impending, the United Kingdom had no need to fear the consequences of an interruption of overseas supplies.

More real in this period was the fear that the United Kingdom's port and inland transport system might not be able to cope with all the invasion preparations on top of the normal import traffic. In the first half of 1944, the ports and inland transport were indeed strained to their limits; but they worked at such a high pitch of efficiency that the limits were wider than had been expected.

Despite these changes in the basic facts, the old anxieties about shipping persisted on both sides of the Atlantic. For this there was some justification. The growth of the United Nations' pool of shipping was matched by a great increase in military demands. Plans for building and speeding the great offensive across the immense distances of the Pacific were added to the shipping movements for 'Overlord'. The expansion of the eastern fleets brought increased demands for merchant auxiliaries. Moreover, many of the ships being built had to be converted into special Service types. Such demands added up to big totals and made the supply of shipping seem more stringent than had been expected. But the stringency was not always as real as it seemed. On the American side, requirements were considerably inflated; on the British side, anxiety about stocks seemed sometimes to be mere habit. Though it was deeply rooted in a hard experience, it needed criticism.

In this chapter we must limit our criticism to the British case as illustrated by the problem of food stocks.[1] In 1944, there were still very good reasons for maintaining high stocks in the United Kingdom. New forms of air attack might have devastating results. Moreover, from the point of view of the Allies as a whole, the United Kingdom was the only country with controls strong enough to ensure that stocks were safe from dissipation. Nevertheless, a main purpose of building high stocks had been to make it possible to contemplate with equanimity a reduction in imports during military operations. As the time for the decisive operations drew near, this purpose slipped out of view. The Government showed itself reluctant to countenance import programmes which would mean big drafts on stocks. Were stocks becoming almost an end in themselves? There is no suggestion that the Government's caution adversely affected the

[1] Food stocks will be fully discussed in Mr. Hammond's history of Food Policy. Further research is necessary into raw materials stocks.

invasion of Europe. It may however have done damage elsewhere. For example, at the beginning of 1944, when the crisis in India's food supplies was at its worst, the War Cabinet would not contemplate any further inroad into the British import programme. Indian wheat requirements had to be met at the cost of Indian military maintenance.

The Americans and the British both had their weak points. As each probed the other's, a certain amount of friction was generated in the combined planning machinery. British suspicions that the Americans' demands were inflated were intensified because the demands were not analysed. The British, on the other hand, analysed their own demands fully; but the Americans had not the necessary knowledge to check those items, such as minimum stock levels, of which they were suspicious.

These difficulties should not be magnified. They should not conceal the central fact about shipping in this culminating period of the war. The defensive phase of the war at sea was over at last. While that phase lasted, maintenance of the war-making power of the United Kingdom had been the first objective of British shipping policy. Through long years, the Merchant Navy and those responsible for the management of British shipping had done their jobs well. By the middle of 1943, the American shipbuilding yards were fulfilling all the high hopes placed upon them. The combined shipping authorities had gone far towards sharing out available supplies of shipping. At last, the United Kingdom import programme could be relegated to the background. The theme was now the mobilisation of shipping for attack.