

## From Dependence to Autonomy: Judgments on Trade as an Engine of British Growth

From the perspective of earlier times the economic accomplishments of the United Kingdom in the nineteenth century are astonishing. Certainly it would have astonished Ricardo and Malthus, who agreed with each other on little but the dismal prospects for the years to come, to learn in 1820 that by 1913, in the face of a near doubling in the number of heads, real national income per head would more than triple.<sup>1</sup> Looking backwards over a century and a half of rapid economic growth spreading through Europe and its offshoots we are perhaps less inclined to be impressed with a growth rate in income per head of 1.3 percent per year, but this is because the successes of the United Kingdom then and the still greater successes of her imitators abroad now, for whom she prepared the way, have dulled our sense of wonder. This exceptional burst of economic growth requires explanation; that is, it requires the identification of a list of influences on the British economy in the nineteenth century that can distinguish it from the earlier and usual pattern of economic ebb and flow.

### I THE ISSUE AND ITS SIGNIFICANCE

A handful of candidates for inclusion in the list have found special favor with students of the nineteenth century. The accumulation of capital and the growth of technology have figured in it, at any rate as proximate causes, although in which of their many incarnations and with what weights they should figure in a true list is uncertain. Was the rise in the savings rate or the uses to which the savings were put the critical feature of capital accumulation? Was the accumulation of mills and machinery as important as the accumulation of skills embodied in human beings? Is the history of technology best viewed as the triumph of great inventions – the steam engine, the railway, cheap steel – or as the quiet spread of ingenuity? Was technology extended and applied with equal vigor throughout the century? Historians inherited from the nineteenth century itself a set of answers to these questions, and have lately intensified their efforts to find what in this heritage survives criticism.

Some of it has not, and requires revision. One influence on the economy, however, foreign trade, is included in the list with capital accumulation and the growth of technology in much the same form and with much the same emphasis as it was by economists and politicians in the nineteenth century. Wherever one looks in the recent summaries of the issue by economic historians the nineteenth century speaks. John Stuart Mill would have found little with which to disagree in the assertion by Phyllis Deane and W. A. Cole, in their pioneering quantitative study of British growth, that 'from the beginning to the end of this story . . . the British people have depended for their standard of living largely on their ability to sell their products in overseas markets'; nor would Alfred Marshall in their parallel assertion that 'by the end of the nineteenth century the British economy was heavily dependent on world markets, and the rate and pattern of British economic growth was largely conditioned by the responses of producers and consumers in the rest of the world'.<sup>2</sup> Cobden or Peel might have used William Ashworth's words in proposing free trade on the floor of the House of Commons - 'Britain's livelihood depended on international trade and the performance of international services' - as Gladstone or Asquith might have used W. H. B. Court's in defending it - 'In a century in which economic growth depended very much on international commerce, no country's development had benefited more from world trade.'<sup>3</sup>

The verdict of the men of the nineteenth century on the role of Britain's economic dealings with the rest of the world in accelerating and decelerating her growth is reflected still more vividly in the writings of modern economists. Mill had said that the gains from trade through greater efficiency, however great, were supplemented by 'indirect effects, which must be accounted as benefits of a higher order'.<sup>4</sup> In 1937 Dennis Robertson echoed this sentiment, and coined a phrase embodying it that has reechoed through the postwar debate on the role of foreign trade in economic development: 'The specializations of the nineteenth century were not simply a device for using to the greatest effect the labors of a given number of human beings; they were above all an engine of growth.'<sup>5</sup> Most modern economists would agree with this historical assertion, disagreeing only on whether it is relevant to the twentieth century. Yet even in their disagreement they follow closely the self-perceptions of the nineteenth century. Just as there is a line of intellectual descent from Friedrich List and Henry Carey, with the economic successes in the nineteenth century of a protectionist Germany or America buttressing their theories with historical fact, to the belief of Raul Prebisch, Gunnar Myrdal, and others, that the prescription for growth in countries now underdeveloped is protection, there is one from John Stuart Mill, with the economic success of Britain, to the belief of Gottfried Haberler and others that it is free

trade. Both sides believe that the medicine was strong historically and is strong now. Haberler has in mind the nineteenth century when he asserts that the 'international division of labor and international trade . . . have been and still are one of the basic factors . . . increasing the national income of every participating nation'.<sup>6</sup> A. K. Cairncross has in mind the British case in particular when he argues that 'in the nineteenth century foreign markets were growing faster than domestic markets and the external impulse to growth not only took causal priority over the domestic impulse, but was operating more powerfully'.<sup>7</sup> And Charles Kindleberger is explicit: 'There is no difficulty in illustrating the model of export-led growth. Great Britain furnishes the prime example, both in the way that exports of first textiles and then iron and coal stimulated the growth of income in Britain, and in the reflex action of British imports in spreading growth throughout the nineteenth century.'<sup>8</sup> So too are Gerald Meier and Robert Baldwin, who argue in their historically oriented summary of the postwar literature on economic development that 'its export sector was highly important in propelling the British economy forward'. They conclude by bringing together the promise and the threat of large dealings with the rest of the world (again, the medicine is strong, whether helpful or hurtful): 'the British case thus demonstrates how influential an expansion in exports may be in stimulating an economy's development, but at the same time it illustrates that . . . retardation in the growth of exports will have repercussions that slow down the rate of intensive development for the whole economy'.<sup>9</sup>

The orthodox position, then, has passed with little alteration from the writings of Victorian pamphleteers, journalists and scholars into the writings of modern economic historians and economists and thence into the minds of politicians and educated people generally. The British economy in the nineteenth century, it is said, depended on dealings with the rest of the world. As went the trade in commodities and the migration of factors, so went the nation. The move to free trade, therefore, was a great economic as well as political event, for it opened the throttle of the engine of growth in the middle of the nineteenth century, a lesson to be noted by currently developing countries with protectionist inclinations. And if the throttle could be opened, it could also be closed, as it was increasingly with the rise of foreign competition late in the century, another lesson for developing countries. This view of the reasons for British economic growth, in short, appears to be cogent, simple and relevant to the modern world.

A few have objected to the argument, but more to its generalization to Europe or the West as a whole than to its application to Britain by itself. In an important article reacting against the notion of trade as an engine of growth Irving Kravis, for example, argues that 'export expansion did not serve in the nineteenth century to differentiate successful from

unsuccessful countries. Growth where it occurred was mainly a consequence of favorable internal factors, and external demand represented an added stimulus which varied in importance from country to country and period to period.<sup>10</sup> He made the point by direct appeal to the facts: some economies grew when their exports increased, but others did not, and some grew with little foreign trade, the inference being that internal conditions, not exports, determined whether or not an economy would grow. This is reminiscent, again, of the point made by historically minded protectionists, a great comfort to them when free traders demolish their arguments on logical grounds: countries that restricted their trade (for example, Germany) or that both restricted it and had in proportion to national income little of it to begin with (for example, the United States or, latterly, the Soviet Union) nonetheless grew.

Although this line of reasoning undermines the argument for trade as a universal engine of growth, and might give pause to someone inclined to make flamboyant assertions about the power of the engine even in the British case, it leaves open the distinct possibility that Britain was an exception, that economic dealings with the rest of the world were crucial for her growth, if not for every country's growth. Britain was in the nineteenth century exceptionally open to the world economy. This openness is what leads economists and historians to believe that British growth was dominated by transactions with the rest of the world, and makes Britain a test case for the model of trade as an engine of growth: if the model fits anywhere it should fit the British economy in the nineteenth century.

## II DIMENSIONS OF BRITISH INVOLVEMENT IN THE INTERNATIONAL ECONOMY

The most obvious measure of the openness of the British economy in the nineteenth century is the exceptionally high ratio of trade in commodities and services to national income. A satisfactory index is the ratio of the value of imports to national income. Commodity imports were larger than commodity exports in every year after 1822, but taking one year with the next Britain's exports of services filled the gap (her imports of services were probably negligible for the purpose at hand) bringing the balance of trade close to zero.<sup>11</sup> The net balance on commodity and service account, positive or negative, was usually in the neighborhood of 1 percent of gross national product, except in the late 1870s and in the 1890s and early 1900s, when the net balance (imports greater than exports) was usually just under 3 percent of national product. For years other than these, then, imports of commodities were close enough to exports of commodities and services to make it unimportant which one is used as the numerator of the ratio. At its peak

in the early 1880s the ratio of net commodity imports to income was about 0.28, and persisted at nearly this level down to 1913.<sup>12</sup> This is very high for a country of Britain's size.

Among the twelve countries now developed for which Simon Kuznets was able to assemble historical statistics on imports as a percentage of income only four, Australia during the 1860s, Denmark, Norway and the Netherlands, ever have had higher ratios, and the largest of these in the nineteenth century, the Netherlands, had in 1900 a population only 13 percent as large as Britain's. The ratios in France and Germany, with comparable populations and land masses, were in the nineteenth century on the order of a fifth to a quarter lower.<sup>13</sup>

Furthermore, Britain bulked so large in the trade of the world that events in Britain affecting her trade, such as the move to free trade in the middle decades of the century, could be expected to react on the British economy for good or evil with special force. Britain was, of course, the pivot of international trade in the nineteenth century. Her pivotal position is apparent in the statistics of world trade in manufactures. In the decade 1876-85, the earliest dates for which usable statistics on the matter are available, Britain's exports of manufactured goods, her chief exports, were about 38 percent of the world's total, and in earlier years the share had no doubt been larger.<sup>14</sup> By 1899 her share had fallen, but according to Alfred Maizels' careful calculations was still about 33 percent of the exports of manufactured goods from the industrial countries (Western Europe, Canada, the United States and Japan) and India.<sup>15</sup> This position of dominance is unique in modern economic history, approached only by the United States, whose share in the manufactured exports of the industrial countries and India in the seven years of Maizels' statistics (1899, 1913, 1929, 1937, 1950, 1955 and 1957) reached its peak - only 27 percent - in 1950. Only after World War I did the United States exceed Britain in exports of all kinds (with American wheat and British coal included in the accounting) and only after World War II in total exports of manufactures.<sup>16</sup>

It was not only in the international movement of goods that Britain dominated and was dominated by the world economy in the nineteenth century: Britain participated to an unusual degree in the international movement of capital and men. During the years 1870-1913 Britain spent on average over 4 percent of her gross national product, a third of national savings, on foreign investment.<sup>17</sup> On the eve of World War I Britain was earning over 7 percent of her national income from foreign assets and these constituted a little under a third of the value of the nation's entire capital stock.<sup>18</sup>

Britain held two and a quarter times more foreign assets than did France, her nearest competitor, and three and a half times more than did Germany.<sup>19</sup> Once again, such deep involvement in the international

capital market, as in the international market in goods and services, is remarkable in modern economic history. France under Napoleon III may have reached a comparable position, particularly in the share of national income invested abroad, but no other country has done so before or since over so long a period. The United States has taken over Britain's position as the world's chief creditor. American foreign investment as a percentage of gross national product peaked in the 1920s, and even at that time was exceeded by British investors carrying on the traditions of the nineteenth century into the twentieth. In the 1950s American foreign investment was a mere 0.5 percent of national income, and at the height of the Marshall Plan, in 1947, the United States and its government strained to achieve a level of foreign investment as a share of national income (something over 3 percent) that private British investors surpassed by a factor of two as a matter of routine in the decade before World War I.<sup>20</sup>

Britain sent men abroad as well. In the century of the great migrations few were more mobile across international boundaries than Englishmen – or, more accurately, Irishmen and Scots, it being important in this context to emphasize the inadequacy of the standard designation for citizens of the United Kingdom. The matter is usually viewed from the perspective of the New Worlds abroad, that is to say, with the volume of *intercontinental* emigration in mind. British intercontinental emigration was very large, accounting for over 40 percent of the European total from 1846 to 1910 of 36 million emigrants. Until the Italians took their place in the late 1890s and early 1900s, citizens of the United Kingdom were the largest national group of emigrants leaving Europe.<sup>21</sup> And from 1861 to 1910 on average only Norway had a higher proportion of its population leaving Europe.<sup>22</sup> From the perspective of the nations sending emigrants the rate of total emigration, whether intercontinental or intereuropean, is the more relevant statistic, and in this too citizens of the United Kingdom exhibited their unusual sensitivity to opportunities, or at any rate livings, abroad. This is apparent in the statistics of birth and death rates and rates of population growth, which in combination imply a rate of emigration. Before 1870 the statistics are spotty, and are especially unreliable for Ireland. There is little doubt, however, that the United Kingdom in the years after the potato famine of the late 1840s sent an unusually large share of its population abroad. In the 1870s, when the Irish statistics improve, out of the thirteen European countries for which the data are available only Norway and the Austro-Hungarian Empire had higher rates of emigration: Norway's was 5.2 per thousand of population, the Empire's 3.4 and the United Kingdom's 3.2. In the 1880s the picture is similar: Norway's rate was an astonishing 9.7 per thousand, Sweden's was an almost as astonishing 7.7 (these two are the highest rates observed over any of the decades from 1870 to 1910 for any country in Europe, and

were probably matched only by Irish rates in the late 1840s and 1850s), and the United Kingdom's, the third highest among the fourteen countries for which the calculations are possible, was 3.6. In the 1890s British emigration fell off sharply, and all but the most stay-at-home nations of the fourteen (France, Belgium, Switzerland, Spain and Germany) had higher rates. In the early 1900s, however, only Norway, Sweden, Denmark and Italy had higher rates of emigration. During the nineteenth century, in short, the United Kingdom was closely tied to the international market in men as few other countries were then or have been since.<sup>23</sup>

### III THE VOLATILITY OF THE INTERNATIONAL SECTOR

Britain, then, was unusually deeply involved in the international economy. If the depth of involvement had been unchanging in the nineteenth century the trade in goods, capital and men would hold less fascination than it does for historians and economists attempting to explain the course of British growth. But it was in fact changing rapidly throughout the century, deepening with each decade, and the international economy to which Britain was increasingly committed was changing as well. Commodity imports as a proportion of national income rose from around 0.12 in the early 1830s to, as we have seen, 0.28 in the early 1880s.<sup>24</sup> In other words, to look at the other side of the account, down to the last quarter of the century exports were growing much faster than national income. Furthermore, the terms on which Britain traded her commodity exports for imports fluctuated widely, moving unfavorably from the 1820s to the 1850s (falling to 56 percent of its 1820 value by 1857), and favorably, though irregularly, to 1913 (rising to 74 percent of its 1820 value).<sup>25</sup> The upshot is that real exports of commodities per head grew 4.4 percent per year from 1821 to 1873 (almost three times faster than the rate of growth in income per head of 1.53 percent per year over the same period) and 0.93 percent per year from 1873 to 1913 (12 percent *slower* than the rate of growth in income per head of 1.06 percent).<sup>26</sup> Little wonder, then, that foreign trade has been cast in the role of a 'leading sector' in British growth: as exports accelerated or decelerated, so also did income.

The economic world that Britain faced was changing as well, for reasons both beyond and within her control. The steady decline in Britain's share of world exports of manufactured goods noted above was to a large extent inevitable, a reflex of the industrialization of the rest of the world, especially Germany and America. By 1913 the share had fallen to 30 percent – still large, but well below the levels of midcentury, when Britain had been truly the workshop of the world.<sup>27</sup> And earlier Britain had quite deliberately changed her economic position in the world by leading the way to free trade, abandoning in the

1840s, 1850s and 1860s the tariff that had protected her agriculture, nurtured the more feeble of her manufacturing industries and discriminated in favor of her colonies.

The export of capital and men changed, too. Before the Irish famine of the 1840s it is unlikely that the rate of emigration was as high as it was to become later in the century, although in view of the deficiencies of the statistics it is difficult to be certain. The statistics on the export of capital are better, and reveal a sharp rise in investment abroad during the late 1850s. From 1845 to 1854 net foreign investment averaged 0.9 percent of national income and 10 percent of national savings, with no trend in earlier decades. From 1855 to 1864 it averaged 2.6 percent of income and 28 percent of savings, with an upward trend in later decades.<sup>28</sup>

These changes in Britain's economic dealings with the rest of the world can be made more vivid by considering how the economy might have looked in 1913 in their absence. A simple – not to say simple-minded – route to this perspective is to project the characteristics of the British economy before the rise in the import ratio, the move to free trade and the great migrations of capital and labor onto the data for 1913, making the naïve but useful assumption that the effects of the hypothetical alterations in the economy of 1913 extend no further than the arithmetic implies. The arithmetic is at any rate suggestive, and a presumption about its results, a presumption that it would imply an economy of a dramatically different description than the one that actually existed in 1913, underlies the conviction that Britain's fortunes were governed by her dealings with the rest of the world. Its implications are in fact less dramatic than one might expect.

Consider, for example, the experiment of reducing the ratio of net imports of commodities to national income from 0.26, its actual level in 1913, to 0.12, the ratio typical of the 1830s. In the minds of historians of Britain's trade in the nineteenth century, no doubt, the most significant result of such an enormous contraction of trade would be the disruption of Britain's beneficial specialization in manufacturing. Of Britain's £526 million-worth of domestic commodity exports in 1913, 78 percent were, in the language of the Trade and Navigation Accounts, 'Articles Wholly or Mainly Manufactures'. Of her £659 million-worth of net commodity imports, 25 percent were manufactured articles that she did not make as well as her competitors, 33 percent were raw materials to make still more, and the rest, 42 percent, were foods.<sup>29</sup> By means of foreign trade, in other words, Britain produced far more manufactured goods than she consumed and consumed far more food than she produced. As Sir John Clapham put it, 'The countries which fed, or nearly fed, themselves all had a much more even balance of agriculture with manufactures and commerce. A balance – or lack of balance – such as that in Britain had not been

known before in the record of great nations.<sup>30</sup> How far the scales were out of balance can be seen by comparing consumption and production, distinguishing manufactures, food and other (mainly nontraded) goods and services. The statistics of domestic expenditures on these categories are fairly reliable, as are the statistics of foreign trade, and from the two can be inferred the composition of final production in 1913 (see Table 7.1). Assuming that all the effects of a change would have been absorbed on the production rather than on the consumption side of the economy, if trade had been reduced in the proportion of 0.12 (the earlier ratio of all imports net of reexports to national income) to 0.28 (the actual ratio in 1913), the share of manufacturing in domestic product would have fallen from 0.38 to 0.31, the share of food would have risen from 0.16 to 0.22, and the share of services and nontraded goods would have fallen from 0.54 to 0.51.<sup>31</sup> Agriculture would have been nearly a third larger than it actually was in 1913, a substantial

Table 7.1 *Consumption and production of manufactures, food and other goods and services in 1913, and their shares in gross domestic expenditure and product at factor cost*  
(£ million; shares of row sums given in brackets)

	Manufactures and coal	Food	Services and Imports (–) nontraded goods of raw materials	Row totals
(1) Expenditure (consumption at factor cost)	560.1 (24%)	603.4 (26%)	1,139.4 (50%)	2,302.9
(2) Net exports (+) or imports (–), f.o.b.	+328.4	–218.6	+121	–191.7
(3) Production at factor cost (column totals)	888.5 (38%)	384.8 (16%)	1,260.4 (54%)	2,342.0

Sources: The starting point is Feinstein's table of consumer expenditures (*National Income*, p. 285). Coal (that is, fuel and light, £76m.) was included in manufactures because of its close association with modern industry in the literature and its importance as an export. Alcoholic drink, it can be shown, was chiefly beer and beer was neither imported nor exported in any significant quantity. Therefore alcoholic drink (£175m.) was included in services and nontraded goods. Aside from these two items the allocation of consumer expenditures to the three categories was straightforward. All of government expenditure on goods and services (£203m., *National Income*, p. 232, col. 2) was added to services. The portion of gross domestic fixed capital formation that was ships, vehicles, plant and machinery (£88m.) was added to manufactures and the rest (£72m., chiefly dwellings) to services and nontraded goods (*National Income*, p. 308). Inventory investment (£45m., *National Income*, p. 232, col. 4) was allocated between manufactures and food (not services and nontraded goods, for most of which the notion of an inventory has no meaning) in proportion to their values of total realized (noninventory) expenditure at market prices. Taxes on expenditures (£175m., *National Income*, p. 232,

enough change, but manufacturing would have been less than a fifth smaller, no revolution in its size, or at any rate not a fall in size justifying without further inquiry a metaphor of British manufacturing's absolute 'dependence' on foreign markets.<sup>32</sup> And, to abandon the severely nonbehavioral method of the exercise for a moment, such reductions in trade would have produced or have been produced by rises in the domestic price of food relative to manufactures, throwing some of the burden of adjustment onto the consumption side of the economy and therefore reducing the extent of adjustment on the production side: in the absence of demand abroad, manufactures would have been cheaper at home and their consumption larger.

Table 7.1 can also be used to gauge the initial effects of another radical alteration of British trade in 1913, the absence of decline in Britain's share of world trade in manufactures. Had Britain's net exports of manufactures kept pace with, say, Germany's from the early 1880s down to 1913, they would have been almost three times higher in 1913 than they actually were.<sup>33</sup> Were the implied increase in the output of manufactured goods achievable, this hypothetical expansion would be relevant. Making the reasonable assumption that British exports of services (largely shipping and financial services tied to the volume of Britain's international trade) would, if anything, expand when exports of manufactures did, however, the expansion of exports would be limited by the resources available from eliminating the home production of food. That is to say, as a matter of arithmetic exports could expand no more than the complete specialization of Britain away from food production and towards manufacturing production implies.

Table 7.1 *Sources* contd:

col. 8) were subtracted from the values of total expenditure generated by the last step in proportion to each sector's share in total expenditure, yielding the first row of the table. The sum of this row is total domestic expenditure at factor cost.

The second row is derived from *Trade and Navigation Accounts of the U.K.*, as cited, adjusted in certain details to correspond with Feinstein's methods. The figures are net flows f.o.b. of the three sorts of goods and services out of (+) or into (-) the country. Gross imports (i.e. including goods for reexport) were converted to f.o.b. values by subtracting, as Feinstein does, 8 percent of the c.i.f. value. £12m. in diamond imports, implicit in Feinstein's procedure (see *National Income*, pp. 116-17, 262, col. 9), were added to raw material imports. The *Trade and Navigation Accounts* give all export, import and reexport statistics in three major categories, corresponding very well to food, manufacturing and raw materials as given here. The only exception is coal, which was transferred from raw materials to manufacturing in accord with the treatment of expenditure on fuel and light. There is a fourth, tiny 'Miscellaneous and unclassified' category of products which was distributed among the other three in proportion to their size. The estimate of exports minus imports of services is from *National Income*, p. 262, cols 2, 10.

The third row is the sum of the first and second. Its sum is gross domestic product at factor cost (equal, of course, to Feinstein's estimate, *National Income*, p. 234, col. 9). To this can be added £200m. net property income from abroad (*National Income*, p. 234, col. 6), yielding gross national product at factor cost (p. 232, col. 10).

The implied exports are 2.2, in contrast to almost three, times their actual level in 1913: the £384.8 million of resources used in British agriculture could be shifted to manufacturing and the increment to output exported (balanced by equal increase in imports of food), increasing exports by a factor of 2.2 and output of manufactures by 43 percent over its actual level in 1913.<sup>34</sup> This is a substantial change, although again not perhaps as large a one as might be expected from so massive a change in exports. And again the estimate is very much an upper bound on the resulting redistribution of national output, on two counts: the £384.8 million of resources in agriculture would be less valuable in manufacturing, probably considerably less so in view of the large component of economic rent on agricultural land in the total costs of agriculture; and the rising relative cost of manufactures as resources from agriculture were forced into less remunerative employment in manufacturing would lower consumption of manufactures, as above, and reduced the extent of adjustment on the production side of the economy.<sup>35</sup>

The arithmetic for the trade in capital and men is less involved. Had the £4 billion of investments abroad in 1913 not occurred, the British domestic capital stock in 1913 would have been, using the statistics on the domestic capital stock described above, some 48 percent higher than it was. Had population grown at the natural rate of growth experienced after 1870 (when the statistics become good enough to calculate it) from, say, 1850 onwards, population in 1913 would have been some 32 percent higher.<sup>36</sup> Once again, both figures can be shown to be over-estimates when the analysis is taken beyond arithmetic. If one views each flow, of capital and of men, as unconnected with the other, it follows that bringing capital or men home would reduce their economic rewards and, if anything, reduce their total supply to the economy, yielding less of an increment in resources than the arithmetic implies. If one views the flows as causally connected - British capital moving abroad to fertilize the lands settled by British emigrants - it follows that the effect on the economy would be a mere expansion of its size, leaving the men who remained at home no better endowed with machines and the machines no better staffed with men. That the expansion of the size of the economy would have resulted in little change in the balance of factors of production, indeed, is implied by the arithmetic: according to it, had the emigration of both capital and men been closed off before becoming substantial in the middle of the nineteenth century, by 1913 the capital-labor ratio would have been only slightly altered, 12 percent higher.<sup>37</sup>

These arithmetic exercises are not to be taken overly seriously. Arithmetic is no substitute for properly framed historical questions and for full economic reasoning in answering them. To ask what would have happened to the British economy in the unlikely circumstances



reflected in the exercises is not a burning historical question and in any case to make a serious attempt to answer it would push economic reasoning beyond its capacity. Still, it is useful to have them laid out in this bald manner. Exercises of this sort float half-consciously in the mind of anyone who contemplates Britain's unusual economic relations with the rest of the world in the nineteenth century and if not actually performed promise to support the belief that the relations were potent influences on the economy. It is useful to be told that they might not be as potent as one might suppose, even when replaced by utterly implausible alternatives, and it is also useful to know at the outset the crude outlines of a British economy without the influences of the trade in goods, capital and men. The economy would have been different, under some but not all circumstances quite different.

#### IV THE DIVIDE OF 1870: THE GOOD YEARS AND THE BAD

A different economy, however, is not necessarily a greatly richer or poorer one, and this is the question at issue: granted that with less involvement in the international economy and its vicissitudes Englishmen would have worked at different trades in different numbers, would their incomes have been greatly larger or smaller? What follows bears on this question.

The question has seldom been asked explicitly, but it has been answered implicitly in one or another of its forms many times. The character of the answer has depended on which part of the century is under discussion, for the narration of British foreign trade and economic growth in the nineteenth century breaks naturally into two parts around 1870. From 1820 to 1870 many historians have viewed British growth as depending on two unusually *favorable* events in Britain's economic dealings with the rest of the world, the spurt in exports as Britain's customers grew richer and more numerous and – the subject of the next chapter – Britain's removal of restrictions on trade. From 1870 to 1913 they have viewed it as depending on two unusually *unfavorable* events, the draining of labor and especially capital out of Britain (discussed briefly in Chapter 5 above) and – the subject of Chapter 9 below – the loss of monopoly in manufactured goods as the rest of the world industrialized. Whatever they feel about the emigration of factors of production from Britain that accompanied industrialization abroad, most observers have agreed that the resulting competition itself was hurtful to Britain, for it explains, they believe, the sluggish growth of exports and therefore of national income in the closing decades of the nineteenth century. In international monetary affairs alone – the subject of Chapter 10 below – it is believed that Britain retained the power to change the world economy. The belief appears to be false, and the lesson learned from close scrutiny of it is the same: domination of the world was not necessary for British prosperity.

The constraints on British growth were mostly internal matters, not matters of commercial policy, foreign competition, investment abroad or the rules of the gold standard game.

The distinction between a period in which Britain's involvement in the international economy was favorable to the growth of national income and a period in which it was unfavorable is traditional – the textbooks break the narrative at the 1870s, reflecting in large part the change in Britain's economic position in the world. Furthermore, it has the support of the crude characterization of the economy before and after 1870. Before, the United Kingdom had still an agricultural economy, although rapidly industrializing. Foreign trade was a small share of national income, although rising. Free trade was only gradually established, after a wrenching political debate. The export of capital and men, although accelerating around midcentury, was on the whole small in the period. The world at large, moving before 1870 in the direction of free trade along with Britain, was but slightly industrialized and offered little competition to British factories and forges. After 1870, in contrast, the economy was fully industrial, agriculture shrinking to the status of merely one major industry among others rather than the characteristic occupation of the people. Foreign trade was a large share of national income, with no trend in its share. Free trade was solidly established, so solidly that even the doubts expressed in the 'fair trade' movement could not shake it. The export of capital and men was enormous and routine. And the rest of the world, building up its own industries and reacting against its earlier flirtation with free trade, offered severe and growing competition to Britain's traditional exports.

The accuracy in detail of these two contrasting portraits of the British economy is not at issue. What is important is that in believing them historians have located what they consider to be the important historical issues. No one asks the question, Did free trade raise national income after 1870? Or, Would more foreign investment before 1870 have been desirable? One is free to ask these questions, but they are not the questions that have exercised historians of British trade and growth. Each of the two periods, in other words, has its characteristic set of historical questions, equivalent to a set of experiments in what might have been. To these we now turn.

#### NOTES

- 1 Income per head had increased in excess of 3.4 times its 1821 level by 1913. This estimate is constructed by splicing Charles H. Feinstein's estimate of gross domestic product per head in 1913 prices, 1855–1913 (in his *National Income Expenditure and Output of the United Kingdom, 1855–1965*, Cambridge: Cambridge University Press, 1971, Studies in the National Income and Expenditure of the U.K., # 6, p. 266) to Phyllis Deane's estimate of gross national product at factor cost in 1900 prices (in her 'New estimates of gross national product for the United Kingdom,

- 1830–1914', *Review of Income and Wealth*, Series 14, pp. 95–112, June 1968, p. 106) by their ratio in 1855 in order to estimate a figure for 1831 comparable with Feinstein's series. This figure was then extrapolated back to 1821 on the basis of the estimates by Phyllis Deane and W. A. Cole of *British national product per head* deflated by an index of wholesale prices in 1821 and 1831 (in their *British Economic Growth, 1688–1959*, Cambridge: Cambridge University Press, 1962, p. 282). Irish income per head was no doubt growing slower than British from 1821 to 1831 and Ireland had about a third of the population of the United Kingdom at the time. But the figures will not bear a heavy weight of manipulation, and it is better therefore to keep the necessary manipulations simple.
- 2 Phyllis Deane and W. A. Cole, *British Economic Growth, 1688–1959* (Cambridge: Cambridge University Press, 1964), pp. 39, 28.
  - 3 William Ashworth, *An Economic History of England, 1870–1939* (London: Methuen, 1960), p. 256; compare p. 138: 'foreign trade was throughout the nineteenth century one of the most powerful influences on the state of the British economy'. W. H. B. Court, *British Economic History, 1870–1914: Commentary and Documents* (Cambridge: Cambridge University Press, 1965), pp. 181–2.
  - 4 J. S. Mill, *Principles of Political Economy*, 5th edn (New York, 1864), Vol. II, p. 134 (bk III, ch. XVII, sec. 5).
  - 5 Dennis Robertson, in a lecture delivered to the Liverpool Economic and Statistical Society in 1937, published as 'The future of international trade', *Economic Journal*, 48 (March 1938), pp. 1–14, and reprinted as pp. 497–513 in *American Economic Association, Readings in the Theory of International Trade* (Homewood, Ill.: Irwin, 1950), from which the quotation is taken, p. 501 (italics in original).
  - 6 Gottfried Haberler, *International Trade and Economic Development* (Cairo: National Bank of Egypt, 1959), p. 6.
  - 7 A. K. Cairncross, 'International trade and economic development', *Economica*, N. S., 28 (August 1961), pp. 235–51, at p. 243. He asserts on p. 236 that 'no one doubts the propulsive rôle of foreign trade in the development of the countries that we now think of as advanced', giving the United Kingdom, the United States and Japan as cases in point.
  - 8 Charles P. Kindleberger, *Foreign Trade and the National Economy* (New Haven: Yale University Press, 1962), p. 196.
  - 9 Gerald M. Meier and Robert E. Baldwin, *Economic Development: Theory, History, Policy* (New York: Wiley, 1961), pp. 257, 228. Their Part 2 (of four parts), 'Historical outlines of economic development', is dominated by the case of the United Kingdom in the nineteenth century.
  - 10 Irving B. Kravis, 'Trade as a handmaiden of growth: similarities between the nineteenth and twentieth centuries', *Economic Journal*, 80 (December 1970), pp. 850–72, at p. 872.
  - 11 These assertions rest, as must any statistical assertion on the magnitudes of British trade in the nineteenth century, on Albert H. Imlah's seminal work, *Economic Elements in the Pax Britannica: Studies in British Foreign Trade in the Nineteenth Century* (Cambridge: Harvard University Press, 1958). Imlah gives figures for the balance of payments on pp. 70–5.
  - 12 This is the value of imports c.i.f. net of reexported imports f.o.b. 1881–5 (given in Brian Mitchell, *Abstract of British Historical Statistics* (Cambridge: Cambridge University Press, 1962), p. 283, from the *Annual Statement of Trade of the U.K.*) divided by Feinstein's 'compromise estimate' of gross domestic product at factor cost plus his estimate of net property income from abroad (Feinstein, *National Income*, as cited, pp. 234, 236).
  - 13 League of Nations, Economic, Financial and Transit Department (Folke Hilgerdt), *Industrialization and Foreign Trade* (League of Nations: no place of publication, 1945), pp. 157–8.
  - 14 Simon Kuznets, *Modern Economic Growth* (New Haven: Yale University Press, 1966), pp. 312–13 for trade ratios for eleven of the countries; his *Six Lectures on Economic Growth* (Glencoe, Ill.: Free Press, 1959), p. 101 for the Netherlands' ratio; and D. V. Glass and E. Grebenik, 'World population, 1800–1950', in H. J. Habakkuk and M. Postan (eds), *The Cambridge Economic History of Europe*, Vol. VI, pt I, p. 61 for the populations.
  - 15 Alfred Maizels, *Industrial Growth and World Trade* (Cambridge: Cambridge University Press, 1965), pp. 430–1.
  - 16 Maizels, place cited, for exports of manufactures; and pp. 10–11 in his 'Corrections to industrial growth and world trade' (Cambridge: Cambridge University Press, 1969) for exports of all kinds.
  - 17 These estimates are calculated from Feinstein's estimates of gross national product (*National Income . . . of U.K.*, as cited, p. 234), net foreign investment (p. 261), gross domestic fixed capital formation and net inventory investment (p. 232).
  - 18 The share of income earned abroad is from Feinstein, work cited, p. 234 and the estimate for 1913 of gross domestic reproducible capital stock at constant replacement cost of 1900 from Feinstein, p. 319 (the estimate is £8.32 billion). The estimate of foreign assets owned by Englishmen of about £4 billion in 1913 is derived with confirming evidence in Imlah, *Economic Elements*, as cited, p. 79.
  - 19 Based on Herbert Feis' estimates in his *Europe, The World's Banker 1870–1914* (New Haven: Yale University Press, 1930), pp. 47, 71, 74.
  - 20 Kuznets, *Modern Economic Growth*, as cited, pp. 236–9, gives estimates of net foreign investment as a percentage of gross national product for eleven countries (unfortunately he was unable to include France) from the 1860s on. His estimate for the United States in the 1950s may be confirmed by adding together government long- and short-term outflows of capital and private direct and other long-term outflows (series U185, U186 and U187 in US Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1957* (Washington, DC, 1960), p. 564, and expressing the sum as a percentage of gross national product (work cited, series F1). This is the procedure for the 1947 estimate. If foreign aid (unilateral governmental transfers abroad, series U184) are added to the accounting, the share is still only 1.7 percent of income in the 1950s and 4.2 percent in 1947.
  - 21 Imre Ferenczi and Walter F. Willcox, *International Migration* (New York: National Bureau of Economic Research, 1929), pp. 230–2.
  - 22 Richard A. Easterlin, 'Influences in European overseas emigration before World War I', *Economic Development and Cultural Change*, 9 (April 1961), pp. 331–51, at p. 335.
  - 23 The rates of births and deaths and rates of population growth for European nations are given in Glass and Grebenik, 'World population', as cited, pp. 61–2, 68–9. The birth and death rates relate to the second half of each of the four decades 1870–1910. Parallel statistics for the UK were calculated from Mitchell, *Abstract of British Historical Statistics*, as cited, pp. 8–9, 29–35.
  - 24 The estimate for the 1830s is Imlah's estimate of gross imports (*Economic Elements*, p. 282) minus reexports (place cited) divided by Deane's estimate of GNP ('New estimates', as cited, p. 104).
  - 25 This is Imlah's index of the net barter terms of trade, in Imlah, *Economic Elements*, as cited, pp. 94–8, column J.
  - 26 Real exports (at 1880 prices) are given by Imlah in *Economic Elements*, as cited, pp. 94–8; population is given in Mitchell, *Abstract of British Historical Statistics*, pp. 8–10. The income estimates are described in the first note to this chapter.
  - 27 Maizels, *Industrial Growth*, as cited, pp. 430–1.
  - 28 These statistics are from Deane, 'New estimates', as cited, p. 99 (she used Imlah's estimates of net foreign investment), with her suggested '1 or 2 percent' (I have used 1.5 percent) of national income as a rough estimate of stock-building (to produce an estimate of total savings from her figures on foreign investment and gross domestic fixed capital formation).



- 29 *Trade and Navigation Accounts of the U.K.*, December 1913 (SP 1913, Vol. 66), pp. 4-7.
- 30 Sir John Clapham, *An Economic History of Modern Britain*, Vol. III, *Machines and National Rivalries (1887-1914)* (Cambridge: Cambridge University Press, 1938), p. 2.
- 31 The ratios add to more than 1.00 because of imports of raw materials, which are a debit against gross domestic product. Since total exports were £39.1 million greater than total imports in 1913 (that is to say, in another vocabulary, the balance of payments on current account was positive), an equal proportional change in all items of trade will reduce the trade surplus (£39 million) and reduce domestic product. To avoid this anomaly, the calculations reported here reduced net imports of food and raw materials by the full amount ( $0.12/0.28=0.429$ ), but net exports of manufactures and services by an amount that yields a constant trade surplus (the proportion is 0.478). In fact this procedure yields results virtually identical with those from the procedure that shrinks all imports and exports in the same proportion (namely, 0.429).
- 32 These assertions use the £ figures implied by the experiment described in the previous note. The are: Manufactures and coal, £510 million; Food, £717 million; Services and nontraded goods, £1,197 million; and Imports of raw materials, £82 million. These sum to a domestic product of £2,342 million.
- 33 This estimate is achieved by subtracting imports of manufactures in Germany and Britain from exports, linking Maizels' estimates for 1899 and 1913 (*Industrial Growth*, as cited, pp. 430, 432 for exports in 1913 prices and pp. 431, 432, 446 and 452 for imports) with Hilgerdts' for 1881-5 and 1896-1900 (*Industrialization and Foreign Trade*, as cited, p. 160) by their ratio at 1899 and 1896-1900. Germany's real exports of manufactures net of exports increased on this basis by a factor of 3.73 from 1881-1885 to 1913, while Britain's increased by a factor of only 1.33. 3.73 divided by 1.33 is 2.8, or 'almost three'. There are some difficulties with Maizels' definition of 'imports', but for present purposes they can be neglected.
- 34 Shifting the £384.8 million from food production to manufactures and coal production in Table 7.1 increases output of manufactures and coal from £888.5 million to £1,273.3 million.
- 35 Some rough calculations will indicate the importance of these points. Rents of land in agriculture according to Feinstein (*National Income*, *op. cit.*, p. 284) were £43 million in 1913 (out of a factor income at the farm gate of £142 million: the rest of the £384.8 would be indirect use of resources to produce raw materials for agriculture - fertilizer, etc. - and to process and distribute agricultural outputs - bakeries, food retailing and transportation, etc.). If all this rent was economic rent, the real value of the transferred resources would be £43 million less, yielding an increase in output of manufactures of 38 rather than 43 percent. If the price of manufactures would have to have risen 50 percent relative to the price of food to achieve the redistribution of resources required and if the elasticity of demand for manufactures relative to food was as low as 0.5, consumption of manufactures would fall £140 million (i.e.  $(0.5) (0.5) (£560.1)=£140$ ), and output of manufactures after exports had expanded would increase by only 23 rather than 43 percent over its actual level in 1913 (combining the effects of the loss of rent with that of the substitution in consumption).
- 36 The average rate of natural increase of UK population from 1870 to 1913 was 1.172 percent per year. Applying this rate (continuously compounded) to the 1850 population, 27.5 million, yields a population in 1913 of 60.3 million, compared with an actual population of 45.6 million.
- 37 Assuming that the labor force would have been the same proportion of the population, the calculations are: £8.32 million/45.6 million people = 0.182, compared with the hypothetical ratio of £12.32 million/60.3 million people = 0.2043.

## Magnanimous Albion: Free Trade and British National Income, 1841-1881

### I FREE TRADE AND THE HISTORIANS

During the forty years from Peel's to Gladstone's second ministry, the commercial policy of the United Kingdom moved decisively from fettered to free trade. National income rose decisively as well, the income of labor with it. It was no surprise to free traders, of course, that the removal of a pernicious tax on enterprise, most particularly on the enterprise of industrial laborers and capitalists, brought with it greater wealth for all. They were even willing to concede that only a portion of the greater wealth, though a substantial portion, was attributable to free trade. After all, it was not the promise of material well-being alone that buoyed their spirits in the struggle against protection. Their spiritual leader, Cobden, saw far beyond cheaper corn and better markets for British cotton textiles; he saw, indeed, 'in the Free Trade principle that which shall act on the moral world as the principle of gravitation in the universe - drawing men together, thrusting aside the antagonism of race and creed, and language, and uniting us in the bonds of eternal peace'.<sup>1</sup> Such cosmopolitan visions dimmed in later controversy, for, unlike the material promise, they had all too plainly not been fulfilled. Later critics of free trade, such as the 'fair trade' historian, William Cunningham, could in the 1900s emphasize the more selfish motivation for free trade, namely, the fixing of Britain's monopoly of manufactures on the rest of the world for a few more decades than its natural term.<sup>2</sup> Free traders could (and did) respond, of course, that great benefit accrued to Britain's trading partners as well. And in their more pragmatic moods the free traders were willing to make the selfish

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