Capital Exports, 1870-1914: Harmful or Beneficial?
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Source: *The Economic History Review*, New Series, Vol. 38, No. 4 (Nov., 1985), pp. 489-514
Published by: Blackwell Publishing on behalf of the Economic History Society
Stable URL: http://www.jstor.org/stable/2597185
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THE ECONOMIC HISTORY REVIEW

SECOND SERIES, VOLUME XXXVIII, No. 4, November 1985

SURVEYS AND SPECULATIONS

*Capital Exports, 1870-1914: Harmful or Beneficial?**

By SIDNEY POLLARD

In the debate on the relative decline of the British economy in the twentieth century, the period 1870-1914 is currently receiving a great deal of attention. There is a general consensus that it was somewhere in this period that the British economic lead, maintained for a century, was beginning to be eroded. Proofs are both quantitative and qualitative: the British growth rate declined markedly, while the growth of other advanced countries, even including France, remained high or even accelerated from the 1890s onward;[1] and for the first time since the mid-eighteenth century, several major industries had arisen in which Britain was no longer in the technical van.

Among the numerous explanations proffered for the slow-down and loss of ground, an excessive export of capital has always occupied a prominent position. Given that the rate of savings was similar in Great Britain, the USA and Germany, at around 11-15 per cent of GNP in 1871-1913; and that domestic investment ran at 12 per cent in the other two, while it averaged only 7 per cent of GNP in Britain, the rest of savings being exported;[2] many contemporaries feared that "too much" capital for the good of the British economy was being sent out of the country. Since then, the issue has erupted

* Thanks are due to Erasmus University Rotterdam which, by granting me tenure of the Tinbergen Chair for six months, provided me with contemplative and congenial surroundings in which to consider some of the issues discussed here.

[1] R. C. Floud, 'Britain, 1860-1914: A Survey' in Roderick Floud and Donald McCloskey, eds. *The Economic History of Britain Since 1700*, II (Cambridge, 1981), pp. 8-9; N. F. R. Crafts, 'Gross National Product in Europe, 1870-1910: Some New Estimates', *Explorations in Economic History*, 20 (1983), pp. 387-401; P. Bairoch, 'Europe's Gross National Product', *Journal of European Economic History*, 5 (1976), p. 286.

[2] Barry J. Eichengreen, 'The Proximate Determinants of Domestic Investment in Victorian Britain', *Journal of Economic History*, XLII (1982), p. 87; Simon Kuznets, 'Quantitative Aspects of the Economic Growth of Nations: VI. Long Term Trends in Capital Formation Proportions', *Economic Development and Cultural Change*, IX, No. 4, pt. II (1961), pp. 5, 38.

repeatedly into controversy, and in recent years it has taken on a new lease of life both on the theoretical level and in terms of fresh empirical evidence. This may be a good time to stand back and take a general view.

In the present essay several issues which have often formed part of the debate will be omitted, except insofar as they become directly relevant to our main theme. These include (a) international migration (b) the re-distribution of incomes caused by foreign investment (c) the relationship between capital exports and the (Juglar) trade cycle (d) short-term international credits and (e) the effects on the borrowing countries. These omissions, particularly the first three, are no doubt drastic, but space in the *Review* is not unlimited.[3]

I

There has, until recently, been a remarkable consensus on the order of magnitude involved: British capital holdings abroad, it has generally been accepted, increased from about £1,000–£1,200 million in 1875 to £4,000 million at the time of the outbreak of the First World War. Nor has there been much disagreement on the distribution of these sums among countries, and the early estimates of Feis have been broadly confirmed by Simon's more recent researches:[4] over the period, the share of the Empire rose slightly, to some 43 per cent in 1913, with the areas of recent settlement within it accounting for almost 35 per cent of the total; Europe's share was simultaneously falling rapidly to a mere 5.8 per cent in 1913, half of it in Russia; and while the USA had also been repatriating some capital before 1913, the share of Latin America had been rising, each of these two areas accounting for around 20 per cent of the total in 1913.

Table 1. *Percentage Distribution of New British Portfolio Investment Abroad.*[5]

	1865-72	1909-13
Agriculture	1·7	5·6
Mining	5·2	9·3
Manufacture	0·7	4·8
Transportation	47·6	46·6
Utilities	5·5	6·4
Public Works	17·8	17·3
Other, including Defence	21·5	10·0
	100	100

Railways represented about 40 per cent of foreign investment throughout

[3] Shortage of space must also take the blame for the occasional dogmatic formulation. It is hoped to publish a longer, better documented version as part of a larger study in the future.

[4] Herbert Feis, *Europe, the World's Banker, 1870-1914* (New York, 1965), p. 23; Matthew Simon, 'The Pattern of New British Portfolio Foreign Investment, 1865-1914', in A. R. Hall, ed. *The Export of Capital from Britain, 1870-1914* (1968), pp. 23-4; Sir George Paish, 'The Export of Capital and the Cost of Living', *Statist*, 14 Feb. 1914, Supplement pp. v-vi. Feinstein's slightly higher figure of £4,300 million seems to include net short term assets; without them, his total appears to be £4,180 million: C. H. Feinstein, *National Income, Expenditure and Output of the United Kingdom, 1855-1965* (Cambridge, 1972), p. 204, T.110; R. C. O. Matthews, C. H. Feinstein and J. C. Odling-Smee, *British Economic Growth, 1856-1973* (Oxford, 1982), p. 128.

[5] Matthew Simon, 'The Enterprise and Industrial Composition of New British Portfolio Foreign Investment, 1855-1914', *Journal of Development Studies*, 3 (1966-7), pp. 288-9 and Harvey H. Segal and Matthew Simon, 'British Foreign Capital Issues, 1865-1894', *Jnl. Econ. Hist.* XXI (1961), p. 575.

the period, though some of them had been financed indirectly, via loans to foreign governments. Other public works and utilities attracted a further large share of British capital, while the share of true government loans was falling. Agriculture, mining and manufacturing were increasing, but still formed only a minor proportion of the total even at the end (Table 1).

As a proportion of GDP, capital exports averaged around 5 per cent in our period, but since foreign investment occurred in ever higher waves, their proportion rose to 7 per cent in the last wave of 1905-13, and in 1911-13 almost to 9 per cent. It must forever remain unknown whether that last most remarkable spurt which was cut off by the war was exceptional, or whether it would have become just one phase of an ever-rising trend if world peace had continued. The income from foreign investment rose from around 5 per cent of GNP in the early 1870s to between 9-10 per cent in 1910-14, or to more than one-quarter of all property income.[6] The share in total British capital holdings represented by British capital abroad is more difficult to establish, since it depends on the uncertain definitions of capital. Various estimates, on different bases, have put it between one-quarter and two-fifths of the total, with one-third as the mode.[7]

Table 2. *Estimates of British Overseas Capital as a Percentage of Total British Capital Holdings*

Hobson (1914)/Feis (1930)	28·0
Cairncross (1953)	43·4
Kuznets (1961)	29·1
Edelstein (1982) incl. bullion	33·2
,, excl. bullion	30·9
,, outstanding securities	47·7
Matthews, Feinstein, Odling-Smee (1982)	34·0

Whether, as has frequently been claimed,[8] these were higher proportions than ever registered by any country before,[9] is less important than the sheer weight of British investment in the world economy in our period. Here the best estimates may be tabulated as follows:[10]

[6] Feinstein, *National Income*, T.37, T.38, based on Albert H. Imlah, *Economic Elements in the Pax Britannica* (Cambridge, Mass. 1958), pp. 70-5; A. K. Cairncross, *Home and Foreign Investment, 1870-1913* (Cambridge, 1953), p. 180; Segal and Simon, 'Capital Issues', pp. 578-9; C. P. Kindleberger, *A Financial History of Western Europe* (1984), p. 257.

[7] C. K. Hobson, *The Export of Capital* (1914), p. 207; Feis, *Europe*, p. 14; P. H. Douglas, 'An Estimate of the Growth of Capital in the U.K., 1865-1909', *Journal of Economic and Business History*, 2 (1929-30), pp. 674-5; Cairncross, *Home and Foreign*, p. 4; Kuznets, 'Quantitative Aspects', p. 62; Michael Edelstein, *Overseas Investment in the Age of High Imperialism: The United Kingdom, 1850-1914* (1982), pp. 27, 48, 164 ff.; Matthews, Feinstein and Odling-Smee, *Growth*, p. 129

[8] E.g. William Woodruff, *Impact of Western Man: A Study of Europe's Role in the World Economy, 1750-1960* (1966), p. 117; Edelstein, *Overseas Investment*, p. 3; Kuznets, 'Quantitative Aspects', pp. 5, 10-11; Hall, *Export of Capital*, p. 1; Joseph A. Schumpeter, *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process* (New York, 1939), i, p. 430.

[9] E.g. Paul Bairoch, *Commerce extérieur et développement économique de l'Europe au XIXe siècle* (Paris and Hague, 1976), p. 101; Francois Walter, 'La France et les emprunts de la Confédération Helvetique', *Revue Suisse d'Histoire*, 32 (1982), pp. 421-50; Julius Landmann, *Der schweizerische Kapitalexport* (Bern, 1916); Raymond W. Goldsmith, *Financial Structure and Development* (New Haven and London, 1969), p. 174; Angus Maddison, *Phases of Capitalist Development* (1982), p. 32; Sartorius v. Waltershausen, *Das volkswirtschaftliche System der Kapitalanlage im Auslande* (Berlin, 1907), p. 374; Violet Barbour, *Capitalism in Amsterdam in the Seventeenth Century* (Ann Arbor, 1976), ch. 6; James C. Riley, *International Government Finance and the Amsterdam Capital Market, 1740-1815* (Cambridge, 1980), pp. 8-16, 89-96, 224-40, 253-7; Alfred Neymarck, *Finances contemporaines* (Paris, 1911), VI, pp. ix-xi, VII, pp. 139, 410.

[10] Woodruff, *Impact*, pp. 150-5. The oft-quoted United Nations estimate gave the United Kingdom only $18,000 million out of a world total of $44,000 million, or 40·9%. United Nations, *International Capital Movements During the Inter-War Period* (Lake Success, 1949), p. 2.

Table 3. *Overseas Investments of the Main Lending Countries, 1870-1914*

($ million)

	c. 1870	*c. 1900*	*c. 1914*	% *c. 1914*
United Kingdom	4,900	12,000	20,000	44·0
France	2,500	5,800	9,050	19·9
Germany		4,800	5,800	12·8
United States	100	500	3,500	7·8
Netherlands	500	1,100 }		
Belgium		}	5,500	12·1
Switzerland		}		
Others			1,600	3·5
			45,450	100·1

The British share was, if anything, still rising in 1914.

The general agreement on these figures is all the more remarkable since they have been arrived at apparently quite independently, by three different routes which all yield similar results. The first, or indirect, method consists of deriving capital exports from the differences between all in- and out-payments on current account, including bullion movements: this was the method used by Hobson, Cairncross, Imlah, and Feinstein, among others.[11] The second method bases itself on inland revenue returns of income from capital held abroad, suitably grossed up, as adopted by Giffen and Paish.[12] The third method is to add up laboriously all the capital issues for abroad, listed in such publications as *The Economist* or *The Investor's Monthly Manual*. This has been the basis of the estimates by Paish, Hobson, Feis, Hall, Simon, and Segal.[13]

Now while all these came to broadly similar results, they ought not to have done: they ought to have differed, among others, by the sums of short-term credits, by the so-called "direct" investments (i.e. those not channelled through the capital market—see below), by capital imports, by sales of existing shares abroad and by capital accumulation abroad, by the sums raised for abroad but spent at once in Britain, and by "partial" foreign issues (i.e. floated simultaneously in Paris or other foreign centres), which would each affect in different ways some of the three methods of calculation but not all.[14] It may,

[11] Imlah, *Elements*, pp. 70-5, 180; and 'British Balance of Payments and Export of Capital', *Economic History Review*, 2nd ser. v (1952-3), pp. 208-9; Cairncross, *Home and Foreign*, p. 180; Feinstein, *National Income*, p. 205, T.110; Arthur I. Bloomfield, *Patterns of Fluctuation in International Investment Before 1914* (Princeton, N.J., 1968), pp. 5-6.

[12] J. A. Hobson, *Imperialism: A Study* (1902), pp. 61, 202-4; Robert Giffen, 'Recent Accumulations of Capital in the United Kingdom', *Journal of the Royal Statistical Society*, 41 (1878), pp. 4-7; J. H. Lenfant, 'Great Britain's Capital Formation, 1865-1914', *Economica*, N.S. 18 (1951), p. 160.

[13] George Paish, 'Great Britain's Capital Investments in Individual Colonial and Foreign Countries', *J.R.S.S.* 74 (1911), pp. 167-87; 'Great Britain's Capital Investment in Other Lands', ibid. 72 (1909), pp. 465-94; 'The Export of Capital', pp. 63-92; Feis, *Europe*, pp. 10-11, 23-7; A. R. Hall, 'A Note on the English Capital Market as a Source of Funds to Home Investment before 1914', *Economica*, N.S. 24 (1957), p. 62; Segal and Simon, 'Capital Issues' pp. 567-8; Matthew Simon, 'The Pattern'; 'The Enterprise'; 'New British Investment in Canada, 1865-1914', *Canadian Journal of Economics*, 3 (1970), p. 240; C. K. Hobson, 'British Overseas Investments: Their Growth and Importance', in Edwin Walter Kemmerer, ed. 'The Theory of Foreign Investment', *Annals of the American Academy of Political and Social Science*, 68 (1916), pp. 28-30.

[14] There is a large literature on this, e.g. Simon, 'New British Investment', p. 240; Jacob Viner, *Canada's Balance of Indebtedness, 1900-1913* (Cambridge, Mass. 1924), p. 123; Cairncross, *Home and Foreign*, p. 185; Hall, 'A Note', pp. 62-4; 'The English Capital Market Before 1914: A Reply', *Economica*, N.S. 25 (1958), pp. 341-2; J. M. Keynes, 'The British Balance of Trade, 1925-27', *Economic Journal*, 37 (1927), pp. 552-3, and in discussion on Paish, 'Investments in Individual Countries', p. 195; J. A. Hobson, *An*

of course, be that by some miracle all these divergences cancelled out, but suspicion must remain that there has been a certain amount of fudging to achieve the recorded overall agreement, especially since the values for the intermediate years differ widely. The whole basis of these calculations has recently been subjected to strong criticism by D. C. M. Platt who arrives at a total of only around two-thirds of the traditionally accepted figure for 1913 (with similar reductions for other countries) but a larger share of direct investment within this total.[15] Even at that level, however, the sums involved would still have exerted a substantial effect on the economy.

Whatever the size of the accumulated sum, it was the capital annually invested abroad which excited most comment. Yet by themselves, the yearly figures commonly referred to are highly misleading. It is a phenomenon well known to theory and often illustrated in tabular form[16] (as well as underlying the present-day mountain of third-world debt) that a regular capital stream flowing abroad will very rapidly, depending on yield and amortization rates, generate a counterflow of dividends or interest which will within a number of

Table 4. *Unrequited Foreign Payments, United Kingdom, 1855-1913*[17]
(£ million current and/or market prices)

	*Net Foreign Lending**	*Net Funds taken by Emigrants*	*Net Property Income from Abroad*	*Property Income from Abroad plus Taxes Paid by Non-residents*	*British Net Transfers Abroad***	
					A+B−C	*A+B−D*
	A	*B*	*C*	*D*	*E*	*F*
1855-9	135	7	77		65	
1860-4	106	6	104		8	
1865-9	232	8	143		97	
1870-4	392	10	227	243	175	159
1875-9	152	4	281	301	−125	−145
1880-4	273	10	311	334	− 28	− 51
1885-9	402	8	396	426	14	− 16
1890-4	349	5	471	506	−117	−152
1895-9	222	3	491	529	−266	−304
1900-4	172	5	544	592	−367	−415
1905-9	663	8	710	786	− 39	−115
1910-13	815	10	734	819	91	6

* Current balance minus net additions to bullion, from Imlah.
** A minus sign means a net inward payment.
Note: In 4 or 5-yearly totals, *not* annual averages.

Economic Interpretation of Investment (1911), p. 63; D. C. M. Platt, 'Britain's Investments Overseas at the end of 1913', Unpubl. paper, pp. 5-7, 18; Edith T. Penrose, 'Foreign Investment and the Growth of the Firm', *E.J*, 66 (1956), pp. 220-35; Peter Svedberg, 'The Portfolio—Direct Composition of Private Foreign Investment in 1914 Revisited', ibid. (1978), p. 766.

[15] Platt, 'Britain's Investment'; 'British Portfolio Investment Overseas before 1870: Some Doubts', *Econ. Hist. Rev.* 2nd ser. XXXIII (1980), pp. 4-7. *Foreign Finance in Continental Europe and the U.S.A., 1815-1870* (1984). Also, see Stanley Chapman, *The Rise of Merchant Banking* (1984), pp. 83-4, 155-61, 174.

[16] Hal B. Leary, 'The Domestic Effects of Foreign Investments', *American Economic Review, Papers and Proceedings*, 35 (1945), p. 686; Randall Hinshaw, 'Foreign Investment and American Employment', ibid. 35 (1945), pp. 666-7; Raymond F. Mikesell, *The Economics of Foreign Aid* (Chicago, 1968), pp. 108 ff.; Walter S. Salant, 'The Domestic Effects of Capital Export under the Point Four Programme', *A.E.R. P. and P.* 40 (1950), pp. 505-7; Evsey D. Domar, 'The Effect of Foreign Investment on the Balance of Payments', *A.E.R.* 40 (1950), pp. 806-8; C. P. Kindleberger, *Economic Development* (N.Y. 1958), pp. 265-7 and *International Economics* (Homewood, 1968), pp. 381-5, 395.

[17] Based on Imlah, *Elements*, pp. 72-5; Feinstein, *National Income*, T.10, 11, 37, 38; Edelstein, *Overseas Investment*, pp. 313-14.

years equal and thereafter exceed the outward stream. Britain had reached the turning-point by the early 1870s, as will be seen from Columns E and F of Table 4 which represent two alternative methods of calculating the net capital movements in arbitrarily chosen five-year periods. Up to then, there was still a net out-flow of capital in peak years of foreign investment, and a rough balance with the inflowing stream in troughs (e.g. 1860-4); thereafter, there was a rough balance only in peaks (1885-9 and 1905-13), while most of the time the inflow actually exceeded the outflow.

Much of the debate on British capital exports, like the very similar debate on German reparations after the First World War, has thus been conducted on a totally mistaken basis: just as the German economy never had a reparations burden to bear, American capital investments in Germany greatly exceeding the outward payments so Britain, looking at the economy as a whole rather than at individual investors, never had to "find" any net capital for abroad out of current production after *c.*1874; the burden was in principle on the borrowing countries, as the latter were only too well aware.[18] Of course, capital investment abroad in the final analysis occurred because of deliberate decisions by innumerable investors, and the alternative of simply consuming the inward flow might always have been available.

II

In those terms, were capital exports of that magnitude a "good" or a "bad" thing for British national income and its growth? Was "too much" capital exported? It should be noted that the answers to these questions might be given in relation to very short-term effects, for example, on the terms of trade; to medium term effects, say over five to ten years, or to long-term growth; and that these were occasionally confused or conflated.

Much practical, commonsense opinion was in no doubt. It considered it to be self-evident that it was better to use capital at home, employing British labour and developing the home economy, rather than do the same for our competitors, while capital exports, further, would also weaken the balance of payments. Such sentiments were expressed during a remarkable debate in the House of Lords in 1909 by, among others, Viscount Goschen and Lords Rothschild and Revelstoke,[19] as a stick with which to beat Lloyd George's budget—no doubt to the astonishment of at least some of their listeners who

[18] As was Britain when she was still a net borrower. G. S. L. Tucker, *Progress and Profits in British Economic Thought, 1650-1850* (Cambridge, 1960), p. 14; John Knapp, 'Capital Exports and Growth', *E.J.* 67 (1957), p. 433; A. G. Ford, *The Gold Standard, 1880-1914: Britain and Argentina* (Oxford, 1962), pp. 112-15; Richard E. Easterlin, 'Economic-Demographic Interaction and Long Swings in Economic Growth', *A.E.R.* 56 (1966), p. 1065; J. H. Dunning, *Studies in International Investment* (1970), p. 148; H. S. Ferns, 'Investment in Trade Between Britain and Argentina in the Nineteenth Century', *Econ. Hist. Rev.* 2nd ser. III (1950–1), p. 218; J. Viner, *Canada's Balance*, pp. 100-6; W. Rosenberg, 'Capital Imports and Growth—The Case of New Zealand', *E.J.* 71 (1961), pp. 94-5 passim; James W. Angell, *The Theory of International Prices: History, Criticism and Restatement* (Cambridge, Mass. 1926), p. 171; Sevket Pamuk, 'The Ottoman Empire in the "Great Depression" of 1873-1896', *Jnl. Econ. Hist.* XLIV (1984), pp. 112-15.

[19] *Hansard* (Lords), IV, 22 Nov. 1909, cols. 796-7, 29 Nov. 1909, col. 1155, 30 Nov. 1909, col. 1277. Also F. W. Hirst, 'Kapital und Kapitalanlagen Groß-Britanniens seit dem Krieg', in Walthur Lotz, ed. *Die Auslandskredite, in ihrer finanziellen, wirtschaftlichen und socialen Bedeutung*, pt. 3. (Munich/Leipzig, 1928), pp. 138-9; Avner Offer, 'Empire and Social Reform: British Overseas Investment and Domestic Politics, 1908-14', *Historical Journal*, 26 (1983), pp. 120-1.

were well aware that the families of these three peers had become millionaires precisely by exporting British capital.

An exactly opposite view is taken by neo-classical theory, which assumes, equally dogmatically, that capital exports must have been beneficial, since they would not have been undertaken had returns from abroad not been higher than expected returns from home investment; thus they served to raise total British national income. Moreover, according to the neo-classics, diverting the flow of capital from exports to home investment would have sharply reduced its returns: "By keeping savings at home," McCloskey mocked, "the British people could have had two Forth Bridges, two Bakerloo lines, two London housing stocks, two Port Sunlights", thus echoing Russell Rea in the House of Commons in 1909: "We have built a vast and profitable system of railways in Argentina. Would my hon. Friend have preferred to duplicate the Great Western System?"[20] It is not without irony that neo-classical theory, allegedly a science of relative scarcity, here implicitly assumes that the problem was that there was too much capital (while the pragmatists assumed that it was limited); and that it shares this belief in a capital surplus with those who hold to the Marxist or Hobson theories of imperialism.

It would be wrong, though not entirely unreasonable,[21] to see in this divergence of views a clash between more or less abstract thought, theoreticians favouring large capital exports, pragmatists deploring them. The fact is that there were also numerous practical men supporting foreign investment; moreover, as we shall see, there is a large body of refined theory coming to opposite conclusions. Indeed, anything beyond the most crude schematic thought very quickly comes to recognize that any cost-benefit analysis of foreign investment in this period has to be resolved into a number of separate issues, each of which yields divergent and frequently uncertain results. In the rest of the paper we shall address ourselves to the most important of these issues in turn, bearing in mind that the debate hitherto has mainly asked two questions: did investors follow their own interests rationally, and, much more important, did their own interests coincide with the national interest?

III

One of the key issues on which the debate over rationality has been carried on has been the complex relationship between risks and returns. These, together with marketability of assets, constituted the main factors in the choice between home and foreign investment from the point of view of the individual; and the neo-classical doctrine to the effect that capital exports must have been beneficial rested on the assumption that investors were rational and well-informed, and having taken into account risks and other relevant factors, found foreign yields to be higher than yields at home. There are numerous, if patchy, data available on yields of capital, the older series by Nash, Lehfeldt

[20] Donald N. McCloskey, 'No It Did Not: A Reply to Crafts', *Econ. Hist. Rev.* 2nd ser. XXXII (1979), p. 539, also his *Enterprise and Trade in Victorian Britain* (1981), p. 149; *Hansard* (Commons), 17 March 1909, col. 1164.

[21] T. Balogh and P. P. Streeten, 'Domestic Versus Foreign Investment', *Bulletin of the Oxford University Institute of Statistics*, 22 (1960), p. 213.

and Paish having recently been added to by the splendid work of Edelstein and of Davis and Huttenback.[22] It is their interpretation which has proved to be difficult.

A priori (leaving marketability to one side) one would expect a trade-off between risk and yields. Thus, for ordinary shares a higher return would be demanded (and reflected in asset prices) than for preference shares, and the latter would in turn carry a higher return than debentures or fixed-interest state loans. Since, as it happened, the composition of home and foreign investment differed, shares being more typical for home assets and fixed interest securities for foreign, great care has to be taken to make allowance for this in any comparison between these two groups. The most elaborate and sophisticated calculations to do this are those recently completed by Edelstein.

Having established the gaps which appeared in the same market between the returns of different types of asset and which could be put down to differences in risk, he modified the actual returns of broad groups of assets by this "risk premium" and compared the results with the overall average rate of return of 6·36 per cent. He then found that instead of neatly coinciding with this average, the modified yields still diverged widely from it, but in a systematic way. Thus the returns from home equities, at 6·61 per cent, modified because of their high risk as equities by −1·98 per cent, gave only 4·63 per cent, being a "deviation" of −1·73 per cent below the average of 6·36 per cent, and so on for each category.

Table 5. *Average Returns, British Securities, 1870-1913* (%)[23]

		Actual Returns	*Modified by "Risk Premium"*	*Deviation from Average of 6·36% Still Left*
A. Domestic:	1. Equity	6·61	1·98	−1·73
	2. Preference	4·23	−1·89	−0·24
	3. Debenture	3·35	−2·03	−0·98
	Total	4·52	−0·75	−1·09
B. Non-domestic:	1. Equity	8·66	2·06	0·24
	2. Debenture	4·94	−1·99	0·57
	Total	5·81	−1·04	0·49

This tabulation was intended to be a confirmation of the neo-classical theorem. With home securities in total yielding 1·09 per cent less than expected, and others 0·49 per cent more, the difference of 1·58 per cent was described as too large to be accidental.[24] It proved that British investors would invest overseas only when the risk-discounted yields were much higher than at home, and there can thus be no question of "too much" foreign investment.

[22] Edelstein, *Overseas Investment*; R. A. Lehfeldt, 'Rate of Interest on British and Foreign Investments', *J.R.S.S.* 77 (1914), pp. 432-5; 'The Rate of Interest on Business and Foreign Investments', ibid. 78 (1915), pp. 452-3; Feis, *Europe*, p. 4; Paish, 'Capital Investments'; Lance E. Davis and Robert A. Huttenback, 'The Political Economy of British Imperialism: Measures of Benefits and Support', *Jnl. Econ. Hist.* XLII (1982), pp. 119-30.

[23] Edelstein, *Overseas Investment*, p. 139.

[24] Ibid. p. 138; 'Realised Rates of Return on UK Home and Overseas Portfolio Investment in the Age of High Imperialism', *Expl. in Econ. Hist.* 13 (1976), pp. 283, 306; 'Foreign Investment and Empire', p. 278. Also P. L. Cottrell, *Industrial Finance, 1830-1914: The Finance and Organisation of English Manufacturing Industry* (1980), p. 182.

However, the table may, with equal justice, be taken to disprove the neo-classical assumptions, for with knowledgeable, rational investors postulated by them, the returns (leaving out of account marketability), should have been equal. The inequality points to ignorance or irrationality, or both.

These are not the only problems to arise from Table 5. To begin with, Edelstein took the market values of assets as his base; what should count in this case, however, are the actual sums originally spent on them, i.e. those which might have been employed elsewhere. Secondly, there is the problem of averaging. Consider the following typical series:

Table 6. *Realized Rates of Return, in Long Swing Highs and Lows. Sample of Equities.* (%)[25]

	1870-6	*1877-86*	*1887-96*	*1897-1909*	*1910-13*
Home Railways	11·19	5·19	6·87	−0·83	1·51
Home Electrical Equipment	−1·32	18·98	4·44	4·73	2·90
Latin American Railways	5·74	18·72	3·81	8·14	1·60
Indian Railways	5·46	8·22	6·46	1·48	3·94

Not only is the averaging over the whole period of such series (let alone of the much more widely fluctuating components of individual companies) a highly dubious procedure, but there is also a systematic bias in these returns. For, not unexpectedly, there was a tendency for home rates to exceed foreign in the home investment phase of the Kuznets swings, and for the converse to be true in the capital export phases. A study of the securities of 447 firms yielded the following results:

Table 7. *Excess of the Unweighted Average Rates of Return of Foreign/Empire Firms over United Kingdom Firms* (%)*[26]

	Foreign	*Empire†*
1860-4	3·8	(13·6)
1865-9	1·9	(2·0)
1870-4	−0·3	(10·5)
1875-9	−6·0	(7·0)
1880-4	−3·7	4·6
1885-9	1·3	−3·4
1890-4	−2·0	−4·1
1895-9	−1·9	−3·9
1900-4	0·1	−4·0
1905-9	2·3	0·1
1910-12	4·6	1·6

* A minus sign means that the home rate of return was higher. The percentages are calculated on the capital, not on the rates themselves; thus, the difference between 5% at home and 6% abroad would be 1%, *not* 20%.

† Returns from the Empire before 1880 are doubtful.

It is thus evident that by choosing the right period, one could show at will

[25] Edelstein, *Overseas Investment*, p. 153. For other samples of wide variations see W. P. Kennedy, 'Foreign Investment, Trade and Growth in the United Kingdom, 1870-1913', *Expl. in Econ. Hist.* 11 (1973-4), p. 432; Colin M. Lewis, *British Railways in Argentina, 1857-1914: A Case Study of Foreign Investment* (1983), p. 199; Marvin Frankel, 'Home Versus Foreign Investment: A Case Against Capital Exports', *Kyklos*, 18 (1965), p. 429; Paish, 'Investments in Individual Colonial and Foreign Countries', p. 168; Viner, *Canada's Balance*, p. 98; Donald G. Paterson, *British Direct Investment in Canada, 1890-1914: Estimates and Determinants* (Toronto, 1976), p. 89.

[26] Davis and Huttenback, 'Political Economy', p. 125.

that either home or foreign returns were higher, and one could vary the rate by which one exceeded the other. Further, as part of the Kondratieff long swings, foreign and colonial yields fluctuated more than home yields, so that the overall gap between them was highest in the early 1870s and in 1913, and narrowest in the 1890s.[27]

Thirdly, some doubts must arise over the risk factor incorporated in Table 5 which, in line with much current economic thinking, is measured simply by the rate of fluctuation of returns.[28] Even if this were a correct gauge, it is not clear whether investors were considering the uncertainties of a *type* of investment, American silver mines, for example, or the chances of fluctuations of return in any *given* mine. In the second place, as every football pool shows, high risks, far from requiring higher average returns, may be particularly attractive, and Victorian investors have struck at least some observers as being "foolhardy rather than over-cautious", while Clapham spoke of their gambling instinct;[29] certainly, some overseas investment can have no other explanation. It seems much more likely that the risk to be compensated for by higher returns was that of falling below a certain figure, or indeed to zero, rather than violent fluctuations as such. Thirdly, there is here a considerable difference between individual and social risk, and between *ex-ante* and *ex-post*. Thus, while a highly fluctuating asset may well look unattractive to the individual considering making an investment, it may be highly profitable to society *ex-post*, as long as it fluctuates about a high average return. The fluctuation as such is no drawback to society. Fourthly, investors before the First World War under-estimated the risk of total loss abroad, such as was to befall Russian investments, and the prospect of discrimination against foreigners. Lastly, Keynes added a further consideration in his review of foreign investment in 1924: in case of default, he argued, the loss abroad was total, whereas at home the real assets, such as houses, factories or the Underground system, would still benefit society though they might have bankrupted their owners.[30] Several, though not all, of these divergences, it will be noted, tend towards "too much" foreign investment, and it emerges that little confidence can be placed in the "risk" column of Table 5.

It has, in fact, proved to be extremely difficult to generalize about Victorian investors, of whom there were perhaps 300,000 at the end of our period. The

[27] A 'Stock Broker', 'The Depreciation of British Home Investments', *E.J.* 22 (1912), pp. 219-30; Edelstein, *Overseas Investment*, pp. 69, 327 n. 2; C. Knick Harley, 'The Interest Rate and Prices in Britain, 1873-1913: A Study of the Gibson Paradox', *Expl. in Econ. Hist.* 14 (1977), pp. 70-3; Davis and Huttenback, 'Political Economy', pp. 121-3; E. H. Phelps-Brown and Bernard Weber, 'Accumulation, Productivity and Distribution in the British Economy, 1870-1939', *E.J.* 63 (1953), p. 272; Lehfeldt, 'The Rate of Interest on British and Foreign Investments', *J.R.S.S.* 76 (1913), p. 201.

[28] John Lintner, 'The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets', *Review of Economics and Statistics*, 47 (1965), pp. 14-16; 'Security Prices, Risks and Maximal Gains from Diversification', *Journal of Finance*, 20 (1965), p. 588; William F. Sharpe, 'Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk', ibid. 19 (1964), p. 428; Edelstein, *Overseas Investments*, pp. 131 ff.; 'Realized Rates of Return', pp. 300-4.

[29] R. C. Michie, 'Options, Concessions, Syndicates, and the Provision of Venture Capital, 1880-1913', *Business History*, 23 (1981), p. 156 and *Money, Manias and Markets* (Edinburgh, 1981), pp. 249-50; J. H. Clapham, *An Economic History of Modern Britain* (Cambridge, repr. 1963), III, p. 53; Anon. 'Investments, Exports and Employment', *Bankers' Magazine*, 88 (1909), pp. 613-19; Richard A. Brealey, *Introduction to Risk and Return from Common Stocks* (Cambridge, Mass. 1969), pp. 48 passim.

[30] J. M. Keynes, 'Foreign Investment and National Advantage', (1924) in *Collected Works* (1981), XVIII, pp. 282-3.

middle classes and the females (or as the *Economist* had it, the "clergymen, widows, old maids, pensioners, clerks and small capitalists") might prefer home firms, but the probate registers showed that about one-half of the stock exchange securities held at death were found in fortunes over £50,000, and "élite" investors favoured foreign assets.[31] The highly marked "Kuznets" waves in foreign investment, bunching in great heaves, to Australia between 1877 and 1886, to Argentina in 1886-90 or to Canada after 1900,[32] point with their bandwagon effects to typical stock market irrationalities rather than to careful weighing of the evidence on the part of the investors. It is true that "direct" investment, as distinct from the portfolio investment considered hitherto, which has received comparatively little attention in the literature,[33] was likely to have been made more rationally. But since it obeyed different criteria, such as the strategic securing of markets or raw material sources, or the by-passing of tariff walls,[34] a calculation of how far this corresponded to the national interest is even more difficult.

A sensible Victorian investor would ask for professional advice. In Britain, he would go to his stockbroker or investment adviser, but it is at this point, according to some critics, that the bias of the capital market in favour of foreign investment and against British firms, especially in new or innovating industries, would be most powerfully exerted.

The literature on this debate is enormous and well-known, and has recently

[31] *Economist*, 1 Feb. 1868, p. 116, cited in Platt, *Foreign Finance*, p. 178; Davis and Huttenback, 'Political Economy', p. 129; A. R. Hall, *The London Capital Market and Australia* (Canberra, 1963), pp. 38-45; Cairncross, *Home and Foreign*, pp. 84-5; Woodruff, *Impact*, p. 114; Michie, 'Options', pp. 147, 157.

[32] N. G. Butlin, *Investment in Australian Development, 1861-1900* (Cambridge, 1964); Hall, *Capital Market*; Cairncross, *Home and Foreign*, ch. 3 and pp. 190-5; Carl Iversen, *Aspects of the Theory of International Capital Movements* (New York, repr. 1967), pp. 381-438; Viner, *Canada's Balance*; Nurul Islam, *Foreign Capital and Economic Development: Japan, India and Canada* (Portland and Tokyo, 1960), p. 44; G. M. Meier, 'Economic Development and the Transfer Mechanism: Canada, 1895-1913', *Canadian Journal of Economics and Political Science*, 19 (1953), pp. 1-19; Paterson, *Direct Investment*, pp. 26-7; H. S. Ferns, *Britain and Argentina in the Nineteenth Century* (Oxford, 1960); 'Investment and Trade'; A. G. Ford, 'Argentina and the Banking Crisis of 1890', *Oxford Economic Papers*, N.S. 8 (1956), pp. 127-50; 'British Investment in Argentina and Long Swings, 1880-1914', *Jnl. Econ. Hist.* XXXI (1971), p. 650; C. M. Lewis, *Railways*; H. F. Crohn, 'Argentinien im deutsch-englischen Wirtschaftskampf', *Schmollers Jahrbuch* 39 (1915), pp. 231-3, 249; James Foreman-Peck, *A History of the World Economy: International Economic Relations since 1850* (Brighton, 1983), pp. 175 ff.; J. Fred Rippy, *British Investments in Latin America, 1822-1949* (Minneapolis, 1959), pp. 159 ff.; L. S. Pressnell, 'Gold Reserves, Banking Reserves, and the Banking Crisis of 1890', in C. R. Whittlesey and J. S. G. Wilson, eds. *Essays in Money and Banking in Honour of R. S. Sayers* (Oxford, 1968); David Joslin, *A Century of Banking in Latin America* (1963), p. 100; Douglass C. North, 'International Capital Movements in Historical Perspective', in R. F. Mikesell, ed. *U.S. Private and Government Investment Abroad* (Eugene, 1962), p. 26.

[33] Felipe Pazos, 'The Role of International Movements of Private Capital in Promoting Development', in John H. Adler, ed. *Capital Movements and Economic Development* (1970), pp. 189-91; S. J. Nicholas, 'British Multinational Investment before 1939', *Jnl. Eur. Econ. Hist.* 11 (1982), pp. 605-6; Svedberg, 'The Portfolio', p. 769; Irving Stone, 'British Direct and Portfolio Investment in Latin America before 1914', *Jnl. Econ. Hist.* XXXVII (1977), pp. 696, 710ff., 720; Platt, 'Britain's Investment', pp. 32, 39-40.

[34] Tariff Commission, (1904) II, pt. 2, para. 1486-7; Michael Z. Brooke and H. Lee Remmers, *The Strategy of Multinational Enterprise: Organization and Finance* (1972), pp. 227-32; John M. Stopford, 'The Origins of British-Based Multinational Manufacturing Enterprises', *Bus. Hist. Rev.* 48 (1974), pp. 311, 314, 316-17; Nicholas, 'Multinational Investment', pp. 615-16; 'Agency Contracts, Institutional Modes and the Transition to Foreign Direct Investment by British Manufacturing Multinationals before 1938', *Jnl. Econ. Hist.* XLIII (1983), p. 676; P. J. Buckley and B. R. Roberts, *European Direct Investment in the U.S.A. before World War I* (1982), pp. 2, 5, 119; Katja Nehls, *Kapitalexport und Kapitalverflechtung* (Frankfurt M. 1970), p. 13; Dunning, *Studies*, p. 38; Peter Ady, *Private Foreign Investment and the Developing World* (New York, 1971), pp. 20-1.

been well summarized by Cottrell.[35] All of it agrees that the City of London had developed into a highly efficient and smooth mechanism for channelling capital abroad; "the main business of the London new issue market", according to F. W. Paish, "was foreign investment." In consequence, as the *Economist* wrote in 1911, London was often more concerned with the course of events in Mexico than with what happened in the midlands, and was more upset by a strike on the Canadian Pacific than by one in the Cambrian collieries.[36] Of some £200 million of new issues in 1911-13 studied by Lavington, only a paltry 17·9 per cent was for the United Kingdom and very little of that for industry; conversely, only 10 per cent of the capital needed for the expansion of manufacturing capacity, or £5 million a year, was raised through the London capital market at the time: this represented less than 3 per cent of what was sent abroad.[37] Such capital as British industry needed, beyond what could be raised among the owners out of own or ploughed-back savings,[38] had to come mainly from the limited regional resources of the provincial stock exchanges. The contrast with Germany, despite recent modifications of the picture,[39] where universal banks undertook most of the capital provisions for the country's growth industries, remains striking.[40]

[35] Cottrell, *Industrial Finance*, p. 184; *British Overseas Investment in the Nineteenth Century* (1975), pp. 55-6. See also Chapman, *Merchant Banking*, pp. 98-102.

[36] F. W. Paish, 'The London New Issue Market', *Economica*, N.S. 18 (1951), p. 2; *Economist*, 20 May 1911, p. 1059.

[37] F. Lavington, *The English Capital Market* (1921), pp. 194, 205; A. K. Cairncross, 'The English Capital Market Before 1914', *Economica*, N.S. 25 (1958), p. 145; *Home and Foreign*, p. 96; Hamish Macrae and Frances Cairncross, *Capital City: London as a Financial Centre* (London, 1973), p. 12; W. A. Thomas, *The Finances of British Industry, 1918-1976* (1978), p. 6; Peter Mathias, *The First Industrial Nation* (1983), p. 353.

[38] W. A. Thomas, *The Provincial Stock Exchanges* (1973), pp. 122, 137-9; Cottrell, *Industrial Finance*, pp. 149-53; Carl Wolfgang Frhr. von Wieser, *Der finanzielle Aufbau der englischen Industrie* (Jena, 1919), pp. 262 ff.; Michie, *Money*, pp. 202, 233; Clapham, *Economic History*, III, p. 297; J. A. Schumpeter, *Business Cycles*, I, p. 430; J. R. Killick and W. A. Thomas, 'The Provincial Stock Exchanges, 1830-1870', *Econ. Hist. Rev.* 2nd. ser. XXIII (1970), pp. 96-111; H. S. Foxwell, *Papers on Current Finance* (1919), p. 126; W. P. Kennedy, 'Institutional Response to Economic Growth, Capital Markets in Britain to 1914', in Leslie Hannah, ed. *Management Strategy and Business Development* (1976), p. 162; Lavington, *Capital Market*, p. 208; P. L. Payne, *The Early Scottish Limited Companies, 1856-1895* (Edinburgh, 1980), p. 51; Kindleberger, *Financial History*, p. 93; R. C. Michie, 'The London Stock Exchange and the British Securities Market, 1850-1914', *Econ. Hist. Rev.* 2nd ser. XXXVIII (1985), pp. 74, 78, 80.

[39] Hugh Neuburger and Houston H. Stokes, 'German Banks and German Growth, 1883-1913: An Empirical View', *Jnl. Econ. Hist.* XXXIV (1974), pp. 710-31; John Komlos, 'The Kreditbanken and German Growth: A Postscript', *Jnl. Econ. Hist.* XXXVIII (1978), p. 476; Hugh Neuburger and H. H. Stokes, 'German Banks and German Growth: Reply to Komlos', and Komlos, 'Rejoinder', ibid. p. 480-6; Rainer Fremdling and Richard Tilly, 'German Banks, German Growth and Econometric History', ibid. 36 (1976), pp. 416-44; Richard Sylla, 'Financial Intermediaries in Economic History: Quantitative Research on the Seminal Hypotheses of Lance Davis and Alexander Gerschenkron', in R. E. Gallman, ed. *Recent Developments in the Study of Business and Economic History* (Greenwich, Conn. 1977), pp. 55-80; K. E. Born, *International Banking in the Nineteenth and Twentieth Centuries* (Leamington Spa, 1983), p. 46; Frank B. Tipton Jr., *Regional Variations in the Economic Development of Germany during the Nineteenth Century* (Middletown, Conn. 1976), p. 68; Goldsmith, *Financial Structure*, p. 406; Richard Tilly, 'Zur Finanzierung des Wirtschaftswachstums in Deutschland und Großbritannien, 1880-1913', in Ernst Helmstädter, ed. *Die Bedindungen des Wirtschaftswachstums in Vergangenheit und Zukunft* (Tübingen, 1984), pp. 263-86.

[40] Richard H. Tilly, 'Banken und Industrialisierung in Deutschland: Quantifizierungsversuche' in F.-W. Henning, ed. *Entwicklung und Aufgaben von Versicherungen und Banken in der Industrialisierung* (Berlin, 1980), pp. 165-93; Alexander Gershenkron, *Economic Backwardness in Historical Perspective* (Cambridge, Mass. 1966), pp. 15, 21, 89, 139; A. L. Levine, *Industrial Retardation in Britain, 1880-1914* (New York, 1967), p. 121; Alfred Marshall, *Industry and Trade* (1923), pp. 347-9; Wilfried Feldenkirchen, 'The Banks and the Steel Industry in the Ruhr: Developments in Relations from 1873-1914', in Wolfgang Engels and Hans Pohl, ed. *German Yearbook in Business History 1981* (Berlin, Heidelberg, N.Y., 1981), pp. 27-51; J. Riessner, *Die deutschen Großbanken und ihre Konzentration* (Jena, 1910); P. B. Whale, *Joint*

Where disagreement arises is over the question whether British industry was harmed or not by this stance of the City. In other words, did home industry receive so little because it never asked for more (or, indeed, in the words of Hirst and the *Economist*, made sure that any good thing stayed with the canny northerners),[41] or did it, on the contrary, ask and was refused? Here, in some sense, lies the key to the answer to our main question. But while current research may clear the matter up in due course, and has found that public investment certainly suffered because of the high level of capital exports, at present we suffer from the fact that "potentially successful frustrated borrowers leave no trace",[42] and the existing evidence, for the key industries whose growth might have maintained the British industrial momentum, such as the motor industry,[43] steel[44] and electrical engineering and generating,[45] may be interpreted in different ways.

Occasionally a single flash may light up a whole scene. Such may be the case of Fred Hopper,[46] bicycle manufacturer of Barton in Lincolnshire. His was a highly successful firm founded in 1896, which kept technically up-to-date in its equipment as well as its product, employing 400 in 1905 and 800 in 1912, capturing important export markets and developing from pedal to motor cycles and, in 1912-13, to a cycle car. More remarkably still in such a volatile industry, it paid steady dividends of 7½ per cent a year or more. Here, if anywhere, was an object within a growth industry worthy of support by a capital market interested in British prosperity. Yet, once it had exhausted the partners' own and the company's ploughed-back savings, the firm was in constant financial difficulties for lack of capital for expansion; no financier was willing to provide it with funds. Successive attempts to obtain capital from the London capital market, from the bank, from insurance companies and building societies all failed, and by 1913 the firm had to go into liquidation. That anything (including the archives on which this account is based) was

Stock Banking in Germany (1930); Clapham, *Economy History*, III, pp. 390-5; Ekkehard Eistert, *Die Beeinflussung des Wirtschaftswachstums in Deutschland von 1883 bis 1913 durch das Bankensystem* (Berlin, 1970); David S. Landes, *The Unbound Prometheus* (Cambridge, 1969), pp. 208-10; S. von Waltershausen, *Kapitalanlage*, pp. 127 ff.

[41] *Economist*, 20 May 1911, p. 1060; F. W. Hirst, *The Stock Exchange* (1932), p. 175.

[42] C. P. Kindleberger, *Economic Growth in France and Britain, 1851-1950* (Cambridge, Mass. 1964), p. 38; Offer, 'Empire and Social Reform', p. 138.

[43] S. B. Saul, 'The Motor Industry to 1914', *Bus. Hist.* 5 (1963), pp. 22-44; 'The Engineering Industry', in D. H. Aldcroft, ed. *The Development of British Industry and Foreign Competition, 1875-1914* (1968), p. 235; R. J. Irving, 'New Industries for Old? Some Investment Decisions of Sir W. G. Armstrong, Whitworth & Co. Limited, 1900-1914', *Bus. Hist.* 17 (1975), pp. 150-75; Jonathan Zeitlin, 'The Labour Strategies of British Engineering Employers, 1890-1922', in H. F. Gospel and C. R. Littler, eds. *Managerial Strategies and Industrial Relations* (1983), p. 36; Roy Church, 'Markets and Marketing in the British Motor Industry before 1914, with some French Comparisons', *Journal of Transport History*, 3rd ser. 3 (1982), pp. 8-9; Michie, 'Options', p. 153; Edelstein, *Overseas Investment*, p. 64; Kennedy, 'Institutional Response', pp. 172-3; 'Foreign Investment', p. 439; H. W. Richardson, 'Over-Commitment in Britain before 1930', *Oxford Econ. P.* 17 (1965), pp. 265-6.

[44] D. L. Burn, *The Economic History of Steelmaking* (1940), pp. 250-4, 262; Payne, *Scottish Limited Companies*, p. 52.

[45] Wieser, *Finanzieller Aufbau*, pp. 439-42; Kindleberger, *Economic Growth*, p. 63; Cottrell, *Industrial Finance*, p. 236; R. A. S. Hennessey, *The Electrical Revolution* (Newcastle upon Tyne, 1972), pp. 26, 79, 82; Kennedy, 'Industrial Response', pp. 169-72; Edelstein, *Overseas Investment*, p. 64; Michie, 'Options', pp. 153-4; W. J. Reader, 'J. B. Braithwaite', in David Jeremy, ed. *Dictionary of Business Biography* (1984), I, p. 434.

[46] A. E. Harrison, 'F. Hopper & Co.—The Problems of Capital Supply in the Cycle Manufacturing Industry, 1891-1914', *Bus. Hist.* 24 (1982), pp. 3-23.

saved at all from the wreck we owe entirely to the fluke that the National Provincial Bank wanted to break into the territory and was willing to go to great lengths to capture the town's largest account.

How representative is the Hopper example? Was it unique, unusual, typical? We do not know. But until we do, it will be hazardous to maintain that the flood of foreign investment was not in any way at the expense of industrial growth at home.

IV

At a more theoretical level of debate on the role of capital in the economy, two issues have stood out: the alleged diminishing marginal product of capital, and the dynamic effects of capital investment.

The diminishing marginal product of capital is central to the "optimistic" neo-classical theorem (as is the even more unrealistic assumption that factors are actually paid their marginal product). As we have seen above, the argument is that a substantial diversion of funds from foreign projects to home investment would have lowered the returns on home capital. "Other things being equal", in Hicks' formulation, "the marginal efficiency of capital will be lower the greater the amount of capital goods already possessed."[47] However, in view of the fact that capital is the changing, the transforming, the dynamic element in the economy, and that it is neither homogeneous nor easily divisible, but usually lumpy and highly specific, it is by no means certain that adding to its quantity will necessarily lower its returns.

There is, first, what might be called the "Hayek effect".[48] Finishing a half-built railway, or undertaking repairs and maintenance, are well-known examples of capital expenditure that raises rather than lowers the returns on capital already in place. Capital as an improving extension to existing capital is, in fact, as Hayek showed, normal rather than exceptional: it is sometimes known as breaking a bottleneck, or as social overhead capital, or as increasing returns.[49]

Moreover, the doctrine of diminishing returns on capital assumes a constant technology, whereas capital investment is the main way in which new technology is installed in the modern world. It provides the "dynamic", the "engine of growth" or "momentum of growth", the "major motor for productivity

[47] J. R. Hicks, 'Mr Keynes' Theory of Employment', *E.J.* 46 (1936), p. 249.

[48] F. A. Hayek, 'Investment that Raises the Demand for Capital', *Review of Economic Statistics*, 19 (1937), p. 174.

[49] Dunning, *Studies*, pp. 124-31; L. M. Lachman, 'Complementarity and Substitution in the Theory of Capital', *Economica*, N.S. 14 (1947), pp. 116-18; 'Investment Repercussions', *Quarterly Journal of Economics*, 62 (1948), pp. 699, 704; G. D. A. MacDougall, 'The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach', *Bull. Oxford University Institute of Statistics*, 22 (1960), pp. 199-201; Paul Streeten, *Economic Integration: Aspects and Problems* (Leyden, 1961), p. 87; Balogh and Streeten, 'Domestic versus Foreign', p. 217; Stephen Nicholas, 'Total Factor Productivity Growth and the Revision of Post-1870 British Economic History', *Econ. Hist. Rev.* 2nd ser. XXXV (1982), pp. 90-2; Piero Sraffa, 'The Laws of Returns under Competitive Conditions', *E.J.* 36 (1926), especially pp. 540-3; Jeffrey B. Nugent, 'Exchange Rate Movements and Economic Development in the Late Nineteenth Century', *Journal of Political Economy*, 81 (1973), p. 1113.

gains and innovation".[50] As growth begets growth through the "Verdoorn effect", as industry gains "x-efficiency" through "learning by doing",[51] it has been possible to hold that, given a large enough heave, given a large enough investment drive in 1870-1914, the kind of technical innovation might have followed that would have lifted Britain over the hump into a growth path similar to that of Germany or the USA. According to one recent calculation, even on the basis of the available technology only and ignoring possible incentives to speed up innovation, a reasonable diversion of capital from abroad to home might, on certain assumptions, have raised British GNP by 38·8 per cent by the outbreak of World War I.[52]

It may be asked why, if these opportunities really existed, they were not taken up by British investors? One possible answer turns on the inability of the individual to benefit, unless large numbers acted simultaneously with him, and it was precisely that which the market discouraged. It is a variant of the "interrelatedness" argument, developed to show why it may have been a disadvantage for Britain to have been a pioneer and to have been saddled with much out-of-date equipment at a time when others could begin with a clean sheet.[53]

Further, diminishing returns on capital require the unrealistic assumption

[50] Franklin M. Fisher, 'The Existence of Aggregate Production Functions', *Econometrica*, 37 (1969), p. 575; J. Carter Murphy, 'International Investment and the National Interest', *Southern Economic Journal*, 22 (1960-1), p. 11; K. S. Lomax, 'Growth and Productivity in the United Kingdom', in D. H. Aldcroft and Peter Fearon, eds. *Economic Growth in Twentieth-Century Britain* (1959), p. 14; H. W. Singer, 'The Distribution of Gains between Investing and Borrowing Countries', *A.E.R. P. & P.* 40 (1950), p. 480; Frankel, 'Home versus Foreign', p. 412; Richardson, 'Over-Commitment', pp. 238-41; C. P. Kindleberger, 'Obsolescence and Technical Change', *Bull. Oxf. U. Inst. Statistics*, 23 (1951), pp. 282, 297; 'Germany's Overtaking of England, 1806-1914', in *Economic Response. Comparative Studies in Trade, Finance and Growth* (Cambridge, Mass. 1978), p. 224; William Lazonick, 'Industrial Organization and Technical Change: The Decline of the British Cotton Industry' (Unpubl. paper, 1981), p. 41; William P. Kennedy, 'Economic Growth and Structural Change in the United Kingdom, 1870-1914', *Jnl. Econ. Hist.* XLII (1982), pp. 112-14; William H. Phillips, 'The Economic Performance of Late Victorian Britain: Traditional Historians and Growth' (Unpubl. paper, 1981); W. A. Lewis, *Growth and Fluctuations, 1870-1913* (1978), pp. 142, 153-4, 177; 'International Competition in Manufactures', *A.E.R.*, 47 (1957), pp. 585-6; Alan E. Booth and Sean Glyn, 'Unemployment in the Inter-War Period: A Multiple Problem', *Journal of Contemporary History*, 10 (1975), p. 621; Ravi I. Gulhati, 'The Need for Foreign Resources, Absorptive Capacity and Debt Servicing Capacity', in Adler, ed. *Capital Movements*, pp. 251-6.

[51] Harvey Leibenstein, 'Allocative Efficiency vs. X-Efficiency', *A.E.R.* 56 (1966), p. 396; C. F. Pratten, 'The Reasons for the Slow Economic Progress of the British Economy', *Oxford Econ. P.* 24 (1972), p. 185; William J. Baumol, 'Entrepreneurship in Economic Theory', *A.E.R. P. & P.* 58 (1968), pp. 64-7; M. FG. Scott, 'What Should be Done About the Sterling Area?', *Bull. Oxf. U. Inst. Statistics*, 21 (1959), p. 238; Paul B. Simpson, 'Foreign Investment', p. 523; H. Peter Gray, *The Economics of Business Investment Abroad* (1972), pp. 197-8; Kenneth J. Arrow, 'The Economic Implications of Learning by Doing', *Review of Economic Studies*, 29 (1969), pp. 155-73.

[52] Kennedy, 'Foreign Investment', pp. 416-17, 436-7; 'Institutional Response', p. 176; 'Economic Growth and Structural Change in the U.K. 1870-1914' (Unpubl. paper, 1978).

[53] Marvin Frankel, 'Obsolescence and Technical Change in a Maturing Economy', *A.E.R.* 45 (1955), pp. 296-319 and Comments by D. F. Gordon, with reply, ibid. 46 (1956), pp. 646-56; Lomax, 'Growth and Productivity', p. 14; Thorstein Veblen, *Imperial Germany and the Industrial Revolution* (New York, 1964), pp. 129-32, 135; E. J. Hobsbawm, *Industry and Empire* (1977), pp. 157-61; Levine, *Industrial Retardation*, p. 24; Kindleberger, 'Obsolescence', pp. 181-2; Lazonick, 'Industrial Organization', pp. 40-1; Richardson, 'Over-Commitment', pp. 260-2; E. Dahmen, 'Technology, Innovation and International Industrial Transformation', in L. H. Dupriez, ed. *Economic Progress* (1963), pp. 297-8; D. N. McCloskey and Lars G. Sandberg, 'From Damnation to Redemption: Judgements on the Late Victorian Entrepreneur', *Expl. Econ. Hist.* 9 (1971-2), pp. 93-4; Edward Ames and Nathan Rosenberg, 'Changing Technical Leadership and Industrial Growth', in *Purdue Faculty Papers in Economic History, 1956-1966* (Homewood, Ill. 1967), pp. 363-82; F. R. J. Jervis, 'The Handicap of Britain's Early Start', *Manchester School*, 14 (1947), pp. 112-22; W. A. Lewis, *The Theory of Economic Growth* (1970), p. 345.

of full employment. In reality, trade-union unemployment fluctuated between 2 per cent and 10 per cent, averaging around 5 per cent: total unemployment was likely to have been somewhat higher, around 5-7 per cent. Moreover, while it may be true that there was by then little spare labour available in British agriculture, there was still a vast labour reservoir among the casuals, the Mayhew people, the porters, carriers and messengers with which the pre-motor car city abounded. G. H. Wood, for example, showed that much of the recorded rise in British wages at the time derived precisely from the switch from lower-paid to higher-paid employment, rather than from the wage rise in any given employment.[54] Unemployment was connected both with the powerful tariff reform movement and the capital export debate of the day: "Employment . . . has been the most important question of our time . . ." said Joseph Chamberlain in 1905, "it underlies everything". Hobson declared in 1911 that in view of the high level of capital exports, "we cannot wonder at the increase in unemployment and of distress among the working classes".[55] Had capital been diverted from foreign to home destinations, it might have absorbed this unemployed or underemployed labour without endangering the rate of its own return.

Interestingly enough, some economists have turned the diminishing returns on capital argument on its head, pointing out that where British investment in a foreign territory[56] was already high, further capital exports to it would have lowered the returns on the existing investment there, and the damage done to the existing British income streams might have exceeded the gains made by the new investors. Private and national interest would then have diverged, in the sense that "too much" capital would have been exported.

V

Possibly the most extensive literature in this field has concerned itself with the costs of transferring capital abroad, and in particular the disturbances which this might set up in the lending country. It can be reviewed here only most inadequately. The classical model of how capital is transmitted to another country, known as the "specie-flow mechanism", goes back to Mill and indeed to Hume. According to this theorem, an initial transfer of claims to capital would lead to at least some loss of gold by the lender (A) and its corresponding gain by the borrower (B), so that prices would fall in A and rise in B, improving the balance of trade of A and worsening that of B until equilibrium was restored. A reverse process would occur when interest or

[54] Sir William Beveridge, *Full Employment in a Free Society* (1944), pp. 72-3, 328-37; Booth and Glyn, 'Unemployment', p. 331; G. H. Wood, 'Real Wages and the Standard of Comfort Since 1850', *J.R.S.S.* 72 (1909), p. 98.

[55] J. A. Hobson, *Economic Interpretation*, p. 83; Donald Read, *The English Provinces, c. 1760-1960: A Study in Influence* (1964), p. 188. See, in general, José Harris, *Unemployment and Politics: A Study in English Social Policy, 1886-1914* (Oxford, 1972).

[56] Mikesell, *Foreign Aid*, p. 220; Michael Edelstein, 'Foreign Investment and Empire, 1860-1914', in Floud and McCloskey, *Economic History*, I, p. 86; Paul B. Simpson, 'Foreign Investment and the National Economic Advantage: A Theoretical Analysis', in Mikesell, ed. *U.S. Private and Government Investment*, p. 513; S. IU. Witte, 'Report of the Minister of Finance to His Majesty', *Journal of Modern History*, 26 (1954), p. 69.

amortization payments became due.[57] Thus there would ultimately be a change in the flow of goods to match the outward flow of claims generated by the loan.[58] A Goschen amendment to the theory assumed corresponding interest rate changes to close the gap temporarily and hold the fort until the long-term forces described here came into operation.[59] A Ricardo-Bastable variant envisaged that the gold would move only later in the adjustment cycle, *after* relative prices had begun to change.[60] It is worth noting that the process was by no means costless even in this primitive form.

This model reached its apogee in the first two decades of this century with its elaboration by F. W. Taussig. It was at this point that it was discovered that it did not conform to reality: several of Taussig's students, sent to find evidence from various countries including the United Kingdom, France, Canada and Argentina, reported that neither prices, nor interest rates, nor gold movements had behaved according to expectations and this judgement has been confirmed many times since.[61] In the 1920s a Scandinavian or "modern view" came into vogue, which envisaged the mechanism as a transfer of purchasing or spending power rather than as a change in relative prices; Keynes, in 1930, also assumed that relative incomes would have to change to effect the transfer.[62]

With the Keynesian revolution, employment entered the picture. Joan Robinson, in an early palaeo-Keynesian article,[63] had stressed mainly that, to achieve equilibrium, international capital movements would have to make up exactly the differences between savings and investments, pluses or minuses, arising within each country. Later thinking came to the conclusion that as soon as the assumption of unemployment was made, in either borrowing or lending country or in both, no determinate solution was possible[64] and that,

[57] John Stuart Mill, *Principles of Political Economy*, in *Collected Works* (Toronto and London), III, pp. 631-2; Viner, *Canada's Balance*, pp. 6, 146; F. W. Taussig, *International Trade* (New York, 1928), pp. 123-30.

[58] Angell, *International Prices*, pp. 169, 504; Gustav Cassel, 'The International Movements of Capital', in *Foreign Investments* (Chicago, 1928), p. 21.

[59] Viscount Goschen, *The Theory of the Foreign Exchanges* (1882), pp. 126-34; F. W. Fetter, *Development of British Monetary Orthodoxy, 1797-1875* (Cambridge, Mass. 1965), pp. 189-90; Iversen, *Capital Movements*, pp. 218ff.

[60] David Ricardo, *The High Prices of Bullion: A Proof of the Depreciation of Bank Notes*, in P. Sraffa, ed. *Works of David Ricardo* (Cambridge, 1951), III, pp. 59-61; *On the Principles of Political Economy and Taxation, Works*, I, pp. 146-7; Viner, *Canada's Balance*, pp. 191-3, 205; *Studies in the Theory of International Trade* (New York, 1937), pp. 302-3; Iversen, *Capital Movements*, pp. 206-11.

[61] W. W. Rostow, 'The Terms of Trade in Theory and Practice', *Econ. Hist. Rev.* 2nd ser. III (1950), p. 8; Viner, *Canada's Balance*; Harry D. White, *The French International Accounts, 1880-1913* (Cambridge, Mass. 1933); J. H. Williams, *Argentine International Trade under Inconvertible Paper Money, 1880-1900* (Cambridge, Mass. 1920).

[62] Iversen, *Capital Movements*; Angell, *International Prices*; Bertil Ohlin, 'International Capital Movements', *Nationaloekonomisk Tidsskrift*, 75 (1937), pp. 283-9; 'Debate with Keynes', *E.J.*, 39 (1929); J. M. Keynes, *A Treatise on Money* (1930), I, pp. 326-42.

[63] Joan Robinson, 'The Pure Theory of International Trade', *Review of Economic Studies*, 14 (1946-7), pp. 109-11; also *Essays in the Theory of Employment* (Oxford, 1947), pp. 136-7.

[64] A. G. Ford, 'Overseas Lending and Internal Fluctuations, 1870-1914', in Hall, *Export of Capital*, pp. 90-2, 96; 'Bank Rate, the British Balance of Payments and the Burden of Adjustment', *Oxford Econ. P.* 16 (1964), p. 29; 'The Transfer of British Foreign Lending, 1870-1913', *Econ. Hist. Rev.* 2nd ser. XI (1958-9), pp. 305-7; A. J. Brown, 'Britain in the World Economy, 1870-1914', *Yorkshire Bulletin of Economic and Social Studies*, 17 (1965), p. 51; Dunning, *Studies*, pp. 72, 107-8; Kindleberger, *International Economics*, p. 366; Gray, *Business Investment*, p. 54; Hall, *London Capital Market*, pp. 193-4; Meier, 'Economic Development', pp. 12-13; A. I. Bloomfield, *Capital Imports and the American Balance of Payments, 1934-39* (Chicago, 1950), pp. 257-60; Kurt Müller, *Der Kapitalimport: Studie zu Theorie der Internationalen Kapitalbewegungen* (St. Gall, 1947), pp. 133 ff.

indeed, there might be no equilibrium but an inevitable rake's progress to ultimate collapse[65]—a vision which observers in the 1980s may find uncomfortably realistic.

Out of the welter of subsequent refinement of theory two strands of thought deserve special mention. The first is that in seeking for the mechanism which allowed the transfer of capital to take place it may be inadequate to look at one country, such as the United Kingdom, in isolation. As Lindert observed, high interest rates in London were normally matched by simultaneous high rates also in Paris and Berlin; deflation in Britain would lead to deflation elsewhere, which would not only dissipate the intended effect, but might even lead to a net effect in the opposite direction.[66] This is in line with recent revisions which reduce the prominence of the Bank of England in the maintenance of the world's gold standard in that period owing to its diminutive gold reserve, and emphasize that it may in fact have been the Banque de France which acted as lender of last resort.[67] But it also leaves the world adjustment system to capital exports wholly indeterminate.[68]

The other strand of thought, first raised by Knapp,[69] is that the whole of this theoretical approach may be mistaken: capital exports may not be a "disturbance" of the system at all, but at least part of its adjustment, the completion, rather than the start of a process. To this we shall return below.

In the classical models, as we have seen, it was relative prices, or the terms of trade, which bore much of the weight of adjustment. Consequently the lender (and later, the repayer) had always a double burden to bear: first to find the funds, and then to see his own terms of trade deteriorate in the process of transferring them.[70] Later debate put this in question, and found that the movement of relative prices depended on elasticities and might go either way.

[65] W. Edwards Beach, *British International Gold Movements and Banking Policy, 1881-1913* (Cambridge, Mass. 1935), pp. 9-10; Rostow, 'Terms of Trade', p. 9; K. Martin, 'Capital Movements, the Terms of Trade and the Balance of Payments', *Bull. Oxf. Inst. Statistics*, 11 (1949), p. 363.

[66] Peter H. Lindert, *Key Currencies and Gold, 1900-1913* (Princeton, N.J. 1969), pp. 50-1; A. G. Silverman, 'Some International Trade Factors for Great Britain, 1880-1913', *Review of Economic Statistics*, 13 (1931), p. 124; Beach, *Gold Movements*, pp. 11, 173; Viner, *Canada's Balance*, p. 213; G. M. Meier, 'Long Period Determinants of Britain's Terms of Trade, 1880-1913', *Review of Economic Studies*, 20 (1952-3), pp. 119-20; White, *French Accounts*, pp. 302-10; W. B. Reddaway, *Effects of U.K. Direct Investment Overseas: An Interim Report* (Cambridge, 1967), p. 24.

[67] David William, 'The Evolution of the Sterling System', in Whittlesey and Wilson, *Essays*, p. 277; Lindert, *Key Currencies*, p. 37; Beach, *Gold Movements*, pp. 121, 145-6; A. I. Bloomfield, *Short Term Capital Movements under the Pre-1914 Gold Standard* (Princeton, N.J. 1963), p. 27; L. B. Yeager, *International Monetary Relations: Theory, History and Policy* (New York, 1976), p. 299; Brown, 'Britain', p. 57; Manfred Seeger, *Die Politik der Reichsbank von 1876-1914 im Lichte der Spielregeln der Goldwährung* (Berlin, 1968), pp. 26 ff., 37; G. von Schulze-Gaevernitz, *Britischer Imperialismus und englischer Freihandel* (Leipzig, 1906), p. 350; Lewis, *Growth and Fluctuations*, p. 179; Ford, 'Bank Rate', p. 35; Kindleberger, *Financial History*, pp. 264-8.

[68] Beach, *Gold Movements*, pp. 9-10; John Knapp, 'The Theory of International Capital Movements and its Verifications', *Review of Economic Studies*, 10 (1942-3), pp. 117-20.

[69] Knapp, 'Theory'; Jeffrey J. Williamson, *American Growth and the Balance of Payments, 1820-1913* (Chapel Hill, 1964); A. I. Bloomfield, *Capital Imports*, p. 264; J. E. Tanner and V. Bonomo, 'Gold, Capital Flows and Long Swings in American Business Activity', *J.P.E.* 76 (1968), p. 44; F. W. Taussig, *International Trade*, pp. 312-13; C. Iversen, *Capital Movements*, pp. 66-7, 93-4, 323.

[70] E.g., Taussig, *International Trade*, pp. 112-15, 127, 131, and 'International Trade Under Depreciated Paper: A Contribution to Theory', *Q.J.E.* 31 (1916-17), p. 395; Ragnar Nurkse, *Internationale Kapitalbewegungen* (Vienna, 1935), pp. 72-3; J. M. Keynes, 'Foreign Investment', p. 293; 'Some Tests for Loans to Foreign and Colonial Governments' (1925), *Works*, xv, p. 329; D. H. Robertson, *Essays and Addresses* (1931), pp. 170 ff.; Viner, *Canada's Balance*, pp. 215 ff., 295 ff.

In 1952, Samuelson could still argue in a classic article that in practice the terms of trade were at least highly likely to change as the classics predicted; but by 1958, H. G. Johnson saw no reason to assume they would go one way rather than the other, and this view seems now to have prevailed.[71] Theory therefore offers now no guide as to the kind of costs, in terms of price disturbances etc. the transfer of capital abroad might have entailed to a lending country like the United Kingdom in the period 1870-1914.

The long-term effects of British capital exports on reducing costs abroad, especially in areas of recent settlement, are not in dispute, though the transformation of lowered real costs of production into actual terms of trade depended on many other factors. The opening up of the overseas grain, meat, wool, and metal supplies by European capital remains one of the most significant developments of that phase of world history.

This type of investment was particularly effective, and probably yielded more in real gains, than investment at home would have done, because it was combined with idle or underemployed other factors abroad.[72] It might, of course, have been better still for Britain if others, for example, Germany, had denuded their own capital stock to achieve this development.[73] Nor should the costs to British agriculture be forgotten.[74]

VI

The effects of taxation, which have greatly exercised contributors to the recent literature on the costs and benefits of capital exports were of little significance before 1914. But other questions of differentiation within the flow of capital mattered indeed. Most significant here is the distinction between competing and complementary economies. Keynes, in 1910, was among those who denied that the British capital went

> either to the industries abroad which compete with ours, or to the countries which are our international rivals . . . . Our investments have been directed towards developing the purchasing power of our principal customers, or to opening up and supplying with credit and the means of transport our main sources of food and raw material.[75]

In analogy with international trade theory, capital exports which widen the ratios of productivity between countries, i.e. make them more unlike, will increase the gain from trade for both, and vice versa.[76] There is, however, as

[71] Paul A. Samuelson, 'The Transfer Problem and Transport Costs: The Terms of Trade When Impediments are Absent', *Econ. Jnl.* 62 (1952), pp. 278-304; Harry G. Johnson, *International Trade and Economic Growth* (1958), pp. 174-5.

[72] Hollis B. Chenery, 'Foreign Assistance and Economic Development', in Adler, *Capital Movements*, pp. 270-2; I. G. Patel, 'Foreign Capital and Domestic Planning', in ibid. p. 301; L. M. Lachman, 'Investment Repercussions', p. 708; Douglass C. North, 'International Capital Flows and the Development of the American West', *Jnl. Econ. Hist.* XVI (1956), pp. 493-4; Berkoff in Discussion in Ady, *Private Foreign Investment*, p. 76; Iversen, *Capital Movements*, pp. 99-100.

[73] Lewis, 'International Competition', p. 586; Keynes, 'Great Britain's Foreign Investments' (1910), in *Collected Works*, XV, p. 55.

[74] Matthews, Feinstein and Odling-Smee, *Economic Growth*, pp. 358, 454; Bairoch, *Commerce extérieur*, p. 110.

[75] Keynes, 'Great Britain's Foreign Investments', p. 57.

[76] Charles R. Whittlesey, 'Foreign Investment and Terms of Trade', *Q.J.E.* 46 (1936), esp. pp. 446, 453.

in all matters relating to capital, a strong dynamic element involved, and the division of the world into complementary and competing economies is too simple, for one has a habit of turning into the other. To follow Hicks, what goes out as "export-based" improvements beneficial for the leaders, returns as harmful "import-based" improvements when copied by the rest.[77] Similar considerations apply in capital exports, as in the question of whether advanced machinery should be exported.[78] Europe and north America in the early phases, India and Australia in the later phases were examples of that transformation from customers to rivals.

However, the latest thinking indicates that one cannot even be sure that sending capital to complementary economies is always beneficial, nor is it always harmful to supply competitors; it depends on what competing capital exporters do, on the terms of trade, and other factors.[79] Optimists will assume that income growth will lead to larger markets everywhere, or, in Sayers' terms, that the growth in total demand will outweigh any disadvantages of alternative supplies.[80]

The distinction between direct and portfolio investment has been noted above. Much of the recent literature agrees that one of the key elements in direct investment was the export of know-how and management skills: with these, the capital exporting firm might hope, for a time, for a "quasi-rent" as higher return.[81] By contrast, the formerly strongly held view that foreign loans should be "tied" to supplies from the lending country in order to benefit its exports directly, is given little weight in recent literature; an export of capital must in the end be reflected in enlarged exports of goods or services somewhere, and there is no particular advantage in channelling them to the borrowing country.[82] In fact, a declining proportion of the pre-1914 foreign investment was spent in the lending country,[83] and there was no strong correlation between markets for British capital and markets for British goods.[84]

[77] J. R. Hicks, 'An Inaugural Lecture', *Oxford Econ. P.* 5 (1953), pp. 127-30. Also, Eduard Kellenberger, *Kapitalexport und Zahlungsbilanz* (Bern, 1942), III, pp. 168-9; Streeten, *Integration*, pp. 122-3; R. J. A. Skidelsky, 'Retreat from Leadership: The Evolution of British Economic Foreign Policy, 1870-1939', in Benjamin M. Rowland, ed. *Balance of Power or Hegemony: The Inter-War Monetary System* (N.Y. 1976), p. 163; Matthews, Feinstein and Odling-Smee, *Economic Growth*, p. 451; Simpson, 'Foreign Investment', p. 526.

[78] Kellenberger, *Kapitalexport*, p. 32; A. J. Balfour, *Economic Notes on Insular Free Trade* (1903), p. 22; Matthews, Feinstein and Odling-Smee, *Economic Growth*, p. 353.

[79] Balogh and Streeten, 'Domestic versus Foreign', p. 219.

[80] R. S. Sayers, *The Vicissitudes of an Export Economy: Britain Since 1880* (Sydney, 1965), p. 5; Hobson, *Export of Capital*, p. 18; M. E. Kreinin, *International Economics: A Policy Approach* (New York, 1979), p. 388.

[81] Brooke and Remmers, 'Strategy', pp. 229, 234; Stopford, 'Origins', pp. 316-17; Nicholas, 'Multinational Investments', p. 616; 'Agency Contracts', pp. 675-6; Buckley and Roberts, *European Direct Investment*, p. 7; Andrew M. Kamarck, 'The Financial Experience of Lenders and Investors', in Adler, *Capital Movements*, pp. 72-3; P. N. Rosenstein-Rodan, 'Philosophy of International Investments in the Second Half of the Twentieth Century', in ibid, p. 177; Balogh & Streeten, 'Domestic versus Foreign', p. 218; R. F. Mikesell and others, *Foreign Investment in the Petroleum and Mineral Industries* (Baltimore, 1971), p. 256.

[82] Mikesell, *Economics of Foreign Aid*, p. 226.

[83] Angell, *International Prices*, pp. 513-14; Taussig, *International Trade*, p. 126; A. P. Winston, 'Does Trade "Follow the Dollar"?', *A.E.R.* 17 (1927), esp. pp. 460, 466, 474-5; S. B. Saul, *Studies in British Overseas Trade, 1870-1914* (Liverpool, 1960), p. 202.

[84] E.g. Ragnar Nurkse, *Equilibrium and Growth in the World Economy* (Cambridge, Mass. 1961), pp. 286-7.

Lastly, there is the political dimension. The influence of those investing abroad on the British Government, and vice versa, has never been very great,[85] but there may be an important distinction here between capital exports to Empire countries and to others. Indeed, one of the most popular theories of imperialism relates the quest for empires in our period directly to the need to find outlets for surplus capital.[86] There was, it is true, a slight shift in new issues going to Empire countries, from 35·5 per cent in 1870-8 to 43·5 per cent in 1890-1914, according to Simon.[87] Yet some capital exports to outside countries, e.g. Latin America and China, also expanded fast, and it is doubtful whether they would have received more, had they been within the Empire.[88] In any case, the flow of capital to the newly acquired colonies was negligible. However, once a territory became a colony it could borrow on more favourable terms in London, and for the colonial governments the costs may have been reduced by half.[89]

The financial burden of Empire on the British taxpayer was not insignificant. A recent study found that the costs of defence amounted to the equivalent of an annual return of 0·5-1·5 per cent on British investments in the Empire countries, and this would be doubled, to 1·5-3·0 per cent if all other governmental costs falling on the mother country were included. Even if we deduct the benefits of compensating assets built up—some 0·7 per cent—this burden wipes out the whole of the benefit to Britain derived from the addition to the income of investors which arose from achieving higher returns on capital in the colonies than at home.[90] It forms an interesting example of the divergence between private and social return, leading to "too much" capital export.

VII

Central to our question must be the locus of impetus or motivation: did capital go abroad because of push or because of pull, because of high expectations abroad, or low ones at home? Was it "autonomous" or "induced",[91] i.e.

[85] Wolfgang J. Mommsen, 'Europäischer Finanzimperialismus vor 1914: Ein Beitrag zu einer pluralistischen Theorie des Imperialismus', *Historische Zeitschrift*, 224 (1977), pp. 66-7, 70-3; Michael Barrett-Brown, *After Imperialism* (1973), p. 87; Joslin, *Century of Banking*, pp. 103-4; Ferns, *Britain and Argentina*, pp. 464-5; D. C. M. Platt, *Finance, Trade and Politics in British Foreign Policy, 1815-1914* (Oxford, 1968), pp. 54 ff., 75, 154 ff.; Bent Hansen, 'Interest Rates and Foreign Capital in Egypt under British Occupation', *Jnl. Econ. Hist.* XLIII (1983), pp. 868-73. But also see, Eugene Staley, *War and the Private Investor* (New York, 1935); Kindleberger, *Financial History*, p. 255.

[86] J. A. Hobson, *Imperialism* (1902); V. I. Lenin, *Imperialism: The Highest Stage of Capitalism* (1917).

[87] Marcello de Cecco, *Money and Empire: The International Gold Standard, 1890-1914* (Oxford, 1974), p. 36; also, Nurkse, *Equilibrium*, pp. 137-8; G. S. Graham, 'Imperial Finance, Trade and Communications, 1895-1914', *Cambridge History of the British Empire*, III, p. 488.

[88] Edelstein, in Floud and McCloskey, *Economic History*, p. 94.

[89] Edelstein, ibid, pp. 94-5; Wolfgang J. Mommsen, *Der Europäische Imperialismis: Aufsätze und Abhandlungen* (Göttingen, 1979), pp. 91-2; Hobson, *Export of Capital*, p. 23; Peter Svedberg, 'The Profitability of U.K. Foreign Direct Investment under Colonialism', *Journal of Development Economics*, 11 (1982), p. 277; Hansen, 'Interest Rates', pp. 868-73.

[90] Davis and Huttenback, 'Political Economy', p. 125.

[91] Franz Gutmann, 'Internationaler Kapitalverkehr', *Handwörterbuch der Sozialwissenschaften* (1956), V, p. 527; Bloomfield, *Capital Imports*, p. 34; A. E. Musson, 'The Great Depression in Britain, 1873-1896: a Reappraisal', *Jnl. Econ. Hist.* XIX (1959), pp. 221-2; Matthew, Feinstein and Odling-Smee, *Economic Growth*, p. 354.

arising out of a deliberate search for higher returns by capital owners, or merely to fill a payments surplus gap?

Since home and foreign investment, in their massive "Kuznets" waves, were substitutes for each other, in the sense that one was always high when the other was low,[92] one could maintain that investment abroad was "crowding out" investment at home.[93] But since the combined British investment was higher at foreign investment peaks than when home investment predominated, we might speak of "crowding in"—foreign opportunities bringing forth savings which would not have been made at all, had only home opportunities existed. In practice, most observers agree that sometimes one influence predominated, sometimes the other, though there is no agreement on timing.[94]

Let us begin with a decision to invest abroad. This must have been induced by some expectation of gain, however defined. Every spurt of capital exports in turn, as econometric tests confirm, was connected with an antecedent high level of fixed capital formation at home which had lowered home returns, and this is consistent with Hobson's oversaving causing the rate of interest at home to fall.[95] Increased investment abroad would be followed by increased exports leading to further attractive openings to investors, and so on—until harvest or market failures or failure to keep up interest payments reversed the process. We must then assume a multiplier at home such that in every capital export spurt, reduced investment and/or consumption at home exactly matched the gap in the balance of payments required by the transfer of capital.[96] Alternatively, we must find a mechanism to "ration" capital between home and foreign targets so as to co-ordinate with the current balance of payments.[97]

However, we might begin at the opposite end. We might, with Carl Iversen, see capital exports not as the first stage of a process, but as its last stage, "equating" or equilibrating an incipient balance of payments gap.[98] This last type of "induced" investment would really require a long-term process of

[92] E.g., Cairncross, *Home and Foreign*, pp. 9 ff., 187; Edelstein, *Overseas Investment*, pp. 30, 327; E. W. Cooney, 'Capital Exports and Investment in Building in Britain and the U.S.A., 1856-1914', *Economica*, N.S. 16 (1949), p. 350; P. J. O'Leary and W. A. Lewis, 'Secular Swings in Production and Trade, 1870-1913', *Manchester School*, 23 (1955), p. 118; Hall, *Export of Capital*, p. 7.

[93] Matthews, Feinstein and Odling-Smee, *Economic Growth*, p. 354.

[94] Brinley Thomas, *Migration and Economic Growth* (Cambridge, 1973), pp. 122, 260-5; 'Migration and International Investment', in Hall, *Export of Capital*, p. 51; *Liberal Industrial Enquiry* (1928), p. 44; W. W. Rostow, *British Economy of the Nineteenth Century* (Oxford, 1948), p. 205; Cooney, 'Capital Exports', pp. 350, 353; S. G. E. Lythe, 'Britain, the Financial Capital of the World', in C. J. Bartlett, ed. *Britain Pre-eminent: Studies in British World Influence in the Nineteenth Century* (1969), p. 48. But also see Arthur Feiler, 'International Movements of Capital', *A.E.R. P. & P.* 15 (1935), pp. 72-3; J. H. Dunning, *Studies*, p. 18; Dorothy R. Adler, *British Investment in American Railways, 1834-1898* (Charlottesville, 1970), p. 17; Brown, 'Britain', p. 51; Jeffrey J. Williamson, 'The Long Swing: Comparisons and Interactions between British and American Balance of Payments, 1820-1913', in Hall, *Export of Capital*; A. J. H. Latham, *The International Economy and the Underdeveloped World, 1865-1914* (1978), p. 147; Allan C. Kelly, 'International Migration and Economic Growth in Australia, 1865-1935', *Jnl. Econ. Hist.* xxv (1965), pp. 333-54.

[95] Edelstein, *Overseas Investment*, pp. 229-31; Gray, *Business Investment*, p. 21.

[96] Edelstein, *Overseas Investment*, pp. 7, 33-4, 148, and in Floud and McCloskey, *Economic History*, pp. 75, 80; Simon, 'New British Investment', p. 253; Konrad Zweig, 'Strukturwandlungen und Konjunkturschwingungen im englischen Aussenhandel der Vorkriegszeit', *Weltwirtschaftliches Archiv*, 30 (1929), pt. II, pp. 318, 334, 336; Rippy, *British Investments*, p. 197; Ford, *The Gold Standard*, p. 67 and 'Overseas Lending', p. 85.

[97] Edelstein, *Overseas Investment*, pp. 229-31.

[98] See n. 69 above.

adjusting habits, or propensities to import and to save, as sketched by Martin.[99] Of course, both these occurred simultaneously, together with other dynamic effects, including rising incomes and technical retardation. Let us recall the large and growing inward payments flow of interest and service on earlier debt, mostly contractual and not dependent on choice or prosperity (Table 4). Much of it, indeed, was a flow from countries with higher returns on capital, to a country with lower interest rates. This flow, which together with current rates of imports and exports had been arrived at by gradual adjustments to dynamic changes over the years, left a huge annual payments gap, the source of a potentially massive sterling shortage.[100] As Table 8 makes clear, Britain could deal with this looming "gap" or sterling shortage in one of two ways: she could increase imports/cut exports, or she could export capital; the history of those decades may, from one point of view, be seen in the light of the Kuznets cycle as a lurch between these two options. To cut exports/increase imports harmed British industrial growth and, by its multiplier effects, induced the kind of stagnation deplored by all the critics; but to export capital created further assets abroad, which made the problem of the incoming payments even worse the next time round.

Table 8. *United Kingdom Balance of Payments, 1911-13*[101]
(£ million, average of three years)

Imports	−731·2	Exports, incl. Re-exports	+596·9
Sundries (Ship sales, bullion, smuggling, emigrants, tourists, etc.), net	−27·5	Invisibles, net	+181·6
			+778·5
Gap (available for foreign investment)	−207·7	Inflow of dividends and interest, net	+187·9
	−966·4		+966·4

Thus, in one way Britain's industrial stagnation was a direct consequence of her earlier manufacturing export successes, which set going that fatal inexorable sequence of capital exports leading to inward payments later. Ideally, one could imagine the potential payments surpluses to have been absorbed by growing imports of things for which the outside world had a "natural" advantage, such as tea or wod pulp, while the British population, growing fat as the world's rentier, continued to specialize in shrinking advanced industrial sectors in which their technical lead made them unbeatable. But beside the nature of the consumption function, it was the inevitable structural rigidities, trade union power, unwillingness to change occupations too quickly, among others, which made this solution impossible, and to that extent, those often deplored rigidities bore part of the blame for industrial stagnation. In any case, the market, especially the high pound and the need

[99] Martin, 'Capital Movements', p. 364. Also Müller, *Kapitalimport*, pp. 23-4.

[100] Brinley Thomas, 'Migration', pp. 47-8; Mathias, *First Industrial Nation*, p. 302; Nurkse, *Equilibrium*, p. 149; Lewis, 'International Competition', p. 580; *Theory of Economic Growth*, pp. 345-7; S. B. Saul, 'Britain and World Trade, 1870-1914', *Econ. Hist. Rev.* 2nd ser. VII (1954-5), p. 58; Müller, *Kapitalimport*, pp. 156 ff.

[101] Imlah, 'British Balance of Payments', p. 239; B. R. Mitchell and Phyllis Deane, *Abstract of British Historical Statistics* (Cambridge, 1962), p. 284.

for others to grow fast in order to meet their obligations, made the export of capital more attractive to British capitalists than home investment.

Thus, the emphasis has shifted in a significant way. On this view, the high level of capital exports did damage not only, or not so much, because it simply withheld capital from Britain where it might have done some good, but because it created a growing mountain of inward obligations which not only disposed market signals to limit the growth of output at home, but did so in a most destructive way, by undermining enterprise. The explanation of Victorian "failure", has, once again, not so much to account for a little capital lacking here or there at the margin, but to show how the pressure for massive, long-term future-directed changes in economic structure and emphasis was fatally weakened.

VIII

It is time to draw conclusions. Our survey of the more recent work of historians, as well as of economists, on the effect of capital exports on the British economy in the period 1870-1914 has thrown considerable doubt both on the simplistic practical, gut-reaction view that it was harmful and on the equally simplistic neo-classical view that it must have been beneficial. Indeed, no extreme position will bear much examination. Many of the assumptions of all schools of thought turned out on closer scrutiny to be dubious as to the direction of their influence. Many effects depended on elasticities and other relationships that are and must remain unknown.

Recent research has cleared up some areas of uncertainty, particularly as regards the quantity of overseas issues and their yields. Research along these lines is labour-intensive, but in the end indispensable. Where serious gaps remain is in follow-up studies, possibly only for the larger issues, to find out how much of the nominal sum in each case was taken up by British investors, and how much of that, in turn, actually found its way abroad; and to what extent therefore the traditional figures have to be modified.

The greater accessibility of bank archives, including those of the Bank of England, has also made it possible to envisage more detailed research on lending policy. Was home lending encouraged? Were reasonable propositions from home manufacturers unnecessarily rejected? Can bankruptcy proceedings yield any evidence on whether promising British ventures were starved of capital? The search for counterfactuals implies a search for causes why things did not happen, why the dog did not bark in the night. Even the known archives of firms in key industries might be combed through again for decisions *not* to proceed with certain ventures.

The theoretical tool kit has become highly sophisticated, perhaps too much so for the order of magnitudes involved. It does, however, largely concern itself with the decisions of the major economic units. The psychology of the individual investor has received less than its due attention. At the same time, the promising current research on individual investment portfolios, at death or whenever else they might be available, could also be extended.

Until such time as clearer evidence is available, there must remain some doubt whether Victorian investors acted "rationally" in their own perceived

interest; there is less doubt that, according to numerous complex models at several levels of abstraction, private and social costs/benefits are "in most circumstances . . . likely" to diverge.[102] On certain assumptions made by Kennedy, a diversion of capital from overseas to home purposes would have added 25-50 per cent, and a dynamic structure, to British national income. Crafts, on more restrictive assumptions, made it 25 per cent, Bairoch on a cruder basis, even made it 70 per cent, while Sir Arthur Lewis envisaged a switch to home industry which would after a structural change, have set off fast, export-led growth in the long run.[103] But the assumptions underlying those calculations are counter-factual and hence, in the nature of things, unrealistic.

Since it has turned out that the more refined the theory, and the more careful the calculations, the greater the uncertainty, the temptation is great to fall back on the crude, but solid tenets of the Victorians and Edwardians themselves. Among the more prominent of these were that capital investments in certain primary producer countries lowered British costs, but equipping potential competitors would be detrimental to this country; that there was bias in the London capital market, channelling funds more easily abroad than into home industry; that investment abroad brought higher returns than were possible at home and were a sign of strength, but that it was also likely to reduce employment and the return to others factors, especially labour, at home.

Where, in all this does the overall balance lie? Where so many well-informed persons of goodwill differ it is most unlikely that one set is wholly "right", the other wholly "wrong". It is much more probable that they measure against different criteria. The alternatives that leap to the eye are those discovered by the genius of Friedrich List in relation to the similarly inconclusive debate between free traders and protectionists: the quarrel in the last resort is between those whose ultimate criterion is wealth now, and those to whom the optimal policy is one that maximizes the power to create wealth in the future.[104]

Those who measured success by wealth now or in the medium term were inclined to be satisfied with the performance of the Victorian investor who sent so much of British capital abroad. Those who were not, and took the long-term view, conjured up visions of a rich "nation of bankers and commission agents, supporting armies of unemployed loafers"[105] as a result of unduly high capital exports, a rentier nation in danger of following the path of the

[102] Dunning, *Studies*, p. 120.

[103] Kennedy, *Economic Growth and Structural Change in the U.K., 1870-1914*; 'Economic Growth'; Bairoch, *Commerce extérieur*, p. 217; Lewis, 'International Competition', p. 586; N. F. R. Crafts, 'Victorian Britain Did Fail', *Econ. Hist. Rev.* 2nd ser. XXXII (1979), p. 536.

[104] Friedrich List, *Das Nationale System der Politischen Oekonomie* (Jena, 1910), ch. 12, esp. pp. 220-1; Bernard Semmel, *Imperialism and Social Reform: English Social-Imperial Thought, 1895-1914* (1960), p. 163; Waltershausen, *Kapitalanlage*, esp. pp. 96, 176-80, 393-4; Werner Stauffacher, *Der Schweizerische Kapitalexport unter Besonderer Berücksichtigung der Kriegs und Nachkriegsperiode* (Glarus, 1929), p. 210; Iversen, *Capital Movements*, p. 166; Peter Cain, 'Political Economy in Edwardian England: The Tariff Reform Controversy', in Alan O'Day, ed. *The Edwardian Age* (1979), p. 43; *Royal Commission on the Depression in Trade and Industry*, (P.P. 1886, XXIII) Final Report, Minority Report pp. xiv, lx.

[105] Lord Wyndham, quoted in Wolfgang Mock, *Imperiale Herrschaft und Nationales Interesse: Constructive Imperialism oder Freihandel in Großbritannien vor dem Ersten Weltkrieg* (Stuttgart, 1982), p. 323; Waltershausen, *Kapitalanlage*, pp. 363-7, 374, 382 ff., 404.

Dutch by undermining its own industrial base in the long run. Later generations might also be dissatisfied with a policy which sacrificed the future for the present. On whom the blame should fall, whether it was the businessmen who did not foresee "the trick history was to play on them",[106] or the government, which should have taken a longer view and acted on it, or indeed whether the apportionment of blame is a useful exercise is, of course, another matter.

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[106] McCloskey and Sandberg, 'Damnation to Redemption', p. 102.