IAN LITTLE

Ian Malcolm David Little
1918–2012

IAN LITTLE, who died on 13 July 2012, at the age of 93, was one of Britain's foremost economists and, for a time, the world's most influential development economist. Ian had a mind of unusual penetration, subtlety and creative power. The quantity and quality of his scholarly output was impressive, and he wrote or edited around twenty books and about a hundred papers, some of which were path-breaking. He also made an impact beyond the groves of academe. His seminal writings undermined the orthodox post-war view that protectionism, and *dirigiste* central planning, were the road to prosperity for developing countries. He became, thereby, one of the intellectual leaders of the shift in most of these countries towards liberal trade policies, which made a major contribution to lifting millions of people out of poverty in the last quarter of the twentieth century. Astonishingly, he was not knighted.

This memoir is divided into several sections. The first is an account of his life, career and personality. Later sections discuss his writings in the main areas which bear his imprint: theoretical welfare economics; applied welfare economics (project evaluation); trade and development; and the Indian economy. The last section appraises his work as investment bursar of Nuffield College. As there is no published complete bibliography of Ian Little's writings, this is appended to the memoir: full details of all items referred to in the text can be found there.

Biographical Memoirs of Fellows of the British Academy, XIII, 315–349. © The British Academy 2014.

Life, career, personality

The sketch of Ian's life below is an inferior substitute for his own account in *Little by Little* (hereafter *LbL*), a remarkable autobiography that combines detached frankness with dry humour.[1] Another useful source for details of his life and views is *Collection and Recollections* (hereafter *CaR*), which reprints some of his articles (selected by him), interspersed with his later reflections.[2]

Ian was born on 18 December 1918 into a large, upper middle class, family. He writes in *LbL* that his lineage both on his father's and his mother's side was devoid of intellectual distinction. A harsh judgement but, even if true, distinction as such was not lacking. His grandfather was a general in the British army, his father a brigadier general, and they both commanded the 9th Lancers. On his mother's side, he was descended from Thomas Brassey, the great Victorian entrepreneur, who built railways all over the world. The family was well-off: according to *LbL*, Ian's childhood home had

> 23 bedrooms . . . and an appropriate number of reception rooms, servants' rooms and offices and so forth. It stood in about four acres of garden. There were six cottages, housing four gardeners, the butler, the head groom . . . There were ten or more horses . . . two motor cars . . . Within the house, there were eight or nine servants making about 20 in all. This was all apart from the mixed farm of about 180 acres with another three cottages for the bailiff and other farm workers . . .

But family relationships were distant; 'it is Nanny who was the real parent'.

After early instruction at the hands of a governess and a prep school, Ian went to Eton. He did quite well in examinations but was not regarded as a high-flier, partly because of his inability to learn by heart. He describes himself in *LbL* as painfully shy and fearful of sexual advances by older boys: he took up carpentry to avoid being in his house during the evening hours. He left school as soon as he was admitted to Oxford, because he was terrified of making the customary end-of-year speech to a gathering of parents. Travel during his gap year gave him 'some self-confidence which was woefully lacking'. All in all, while it would be an exaggeration to say that he suffered his Etonian education, he certainly did not much enjoy it.

Ian went up to New College, Oxford, to read Philosophy, Politics and Economics (PPE) in 1938. For some time, he was by his own account a

[1] I. M. D. Little, *Little by Little* (Privately Printed, 2004).
[2] I. M. D. Little, *Collection and Recollections* (Oxford, 1999).

hunting, drinking, gambling man, lacking any focus or direction. Things improved after the first two terms, when his intellectual interests were stimulated by philosophy tutorials with Isaiah (later Sir Isaiah) Berlin, and his friendship with Monty Woodhouse (later Lord Terrington). Even so, he writes in *LbL*, 'if it had not been for the war, I would not have got a first, perhaps not even a second'. Called up soon after war was declared, he served for nearly the full six years in the Airborne Forces Experimental Establishment of the Royal Air Force. At first he flew autogyros, which were used to calibrate the ring of radar stations that warned of approaching enemy planes. Later, he was a test-pilot and flew some hair-raisingly dangerous contraptions such as the 'rotachute', an innovative rotary-wing device designed by Raoul Hafner to be a super-parachute for dropping airborne soldiers, and the 'rotabuggy', also designed by Hafner, that was intended to convert a jeep into a flying machine by attaching a two-bladed rotor.[3] Much skill and courage was required in these obligatory adventures; he had several crashes and nearly met his death in one of them. Though he made light of the dangers (he compares himself in *LbL* to 'a sort of James Bond trying out Q's inventions'), the Air Force Cross that he was awarded towards the end of the war was clearly well deserved.

In 1945, he was demobilised with the rank of 'squadron leader' and returned to undergraduate studies at New College. The war had changed him profoundly. Before, he had been an amiable playboy, uninterested in scholarship. Now, he threw himself into academic study and resolved to become an academic. He took papers in philosophy (tutors: Isaiah Berlin and Herbert Hart) and economics (tutor: Philip Andrews) and got an outstanding First in PPE in the summer of 1947, and then a scholarship to Nuffield College to do graduate work in economics. He chose economics over philosophy because it offered wider possibilities and, as he says in *LbL*, 'it seemed to me that philosophers were cleverer than economists and so the competition would be less severe'.

His graduate supervisor was the eminent J. R. (later Sir John) Hicks, but they got on very badly. Ian was critical of his supervisor's work and Hicks was so affronted that he tried, thankfully without success, to get Ian's scholarship discontinued.[4] Shortly thereafter, Ian was elected to a prize fellowship (a fellowship by examination) at All Souls College,

[3] During the intervals between these test-flights, Ian trained as a pilot of the Sikorsky helicopter that had just arrived in England.
[4] On Hicks, see J. Creedy, 'John Richard Hicks 1904–1989', *Biographical Memoirs of Fellows of the British Academy*, XII (2013), 215–31.

Oxford. Isaiah Berlin is said to have remarked that Ian 'was the most ignorant person to get a fellowship at All Souls'. Presumably he meant that his breadth of knowledge fell far short of a typical young fellow's, but he made up for that in superior analytical power. At All Souls, Ian finished in two years his doctoral thesis, *A Critique of Welfare Economics* (hereafter *A Critique*). Though it was largely self-directed, he acknowledged helpful conversations with William Baumol, Jan Graaff and Lionel McKenzie. The thesis was examined by Arthur (later Sir Arthur) Lewis and David Worswick. It was however rejected for publication by Macmillan.[5] This was a bad business decision: it was published instead by Oxford University Press (OUP) in 1950, became a classic, sold 70,000 copies, and established his world reputation as an economic theorist. *A Critique* was motivated by a deep conviction that welfare economics had become a pretentious subject, insulated from good sense. What does it mean to say that one economic outcome is better for society than another? This is among the most basic, foundational questions in welfare economics. Ian demonstrated in *A Critique* that an ethical judgement about the distribution of income is intrinsic to any legitimate answer to this question, and that the search for some objective, value-free criterion of economic improvement is doomed to failure. While that is the justly famous central point of the book, we can see, retrospectively, that it made another advance. It clearly foreshadowed the theory of the second best, the idea that if one of the Pareto conditions is violated, satisfaction of one or all of the others would not, in general, constitute an improvement in efficiency. This proposition is stressed time and again in the middle chapters of *A Critique*, though a formal proof had to wait for the famous article by Richard Lipsey and Kelvin Lancaster in the *Review of Economic Studies*.[6] Ian himself followed up *A Critique* in 1951 with a short paper in the *Economic Journal*, refuting the alleged superiority of direct over indirect taxes. This was a rigorous exercise in the economics of the second best, of which there is not, so far as we know, another such early example, except Jacob Viner's work on customs unions, which appeared at about the same time.

[5] In *LbL* Ian speculates that the referee was A. C. Pigou. The passage is worth quoting: 'The anonymous referee's report said that I seemed incapable of grasping the elementary distinction between the size of a cake and the way it is sliced. As it was a central and closely argued message of the thesis that no such distinction can be drawn, because one does not know the size of the cake until one knows how it is sliced, this was a frustrating comment. I do not know for certain who the referee was, but I think it was A. C. Pigou . . .' (*LbL*, p. 81).

[6] R. G. Lipsey and K. Lancaster, 'The general theory of second best', *The Review of Economic Studies*, 24 (1956–7), 11–32.

In 1950, Ian succeeded Anthony Crosland as Fellow and Tutor in Economics at Trinity College, Oxford. He was there for two years, during which he wrote two well-known papers: a review article (for which he retained a special fondness) in the *Journal of Political Economy* (1952) of Kenneth Arrow's *Social Choice and Individual Values*, and the paper on 'Direct versus indirect taxes' mentioned above. He was elected an Official Fellow of Nuffield College, Oxford in 1952, and it remained his base thereafter, despite several spells away. After a year at Nuffield in which he wrote a policy-orientated book, *The Price of Fuel*, he was seconded in 1953 to Whitehall for two years as Deputy Director of the Economic Section of the UK Treasury, under Sir Robert Hall. This spell of government duty stimulated an abiding interest in problems of economic management and policy. He continued writing books and articles after his return to Nuffield. During 1955–8, he directed and published (jointly with Richard Evely) a study of concentration in British industry, and wrote articles on capital theory, as well as (jointly with Robert Neild and C. R. Ross) a long memorandum of evidence for the Radcliffe Committee on monetary policy. In addition, he collaborated with Paul Rosenstein-Rodan on a study of nuclear energy in Italy. Looking back, he later described himself in this phase as lacking in focus. He was clearly still searching for an area of specialisation.

To this end, the Rosenstein-Rodan connection proved to be critical: he invited Ian to join the MIT India Project. The Project Team that went to India in 1958 consisted of Ian, George Rosen and Trevor Swan. Ian and Swan established a close relationship with Pitambar Pant, the head of the Perspective Planning Division of the Planning Commission, and became intimately involved with producing India's Third Five Year Plan. The nine months in India were a turning point in Ian's career: thereafter, he became primarily a development economist.[7] For Ian, the road to Delhi was to be the road to Damascus. At that preliminary stage, however, his work did not depart much from contemporary orthodoxy, and was supportive of central planning. The India trip also got him interested in the economics of foreign aid. After a three-month tour of Africa in 1963, funded by the Overseas Development Institute (ODI), he wrote two books on the subject (*Aid to Africa*, and *International Aid*, the latter co-authored with Juliet

[7] 'The nine months that I spent in India was a turning point in my career. I became a development economist. I felt that there were problems that an open-minded economist could help to solve; and the terrible poverty would greatly increase the value of any material improvement one could help to bring about. But this was not the main influence. I think this was simply that I liked India and Indians' (*LbL*, p. 107).

Clifford) in the next two years. These were sympathetic to the objective of aid but expressed severe doubts about the absorptive capacity of African developing countries at that time.

The breakthrough in Ian's work on development came after his second trip to India in 1965, again on behalf of the MIT India project. This time, relations with the Planning Commission turned out to be less cordial. So Ian made his services available to the Bell Mission of the World Bank, which was visiting the country. As part of this consultancy, Ian was asked to do an economic appraisal of a heavy electrical plant in Bhopal. This project was a clear instance of plan-driven import substitution. If the Indian five-year plan model was soundly based, this project should have scored high marks. Ian came to the opposite conclusion. While doing the project evaluation, he realised that the investment made sense only if inputs and outputs were valued at domestic market prices. Valued at world prices, which are the true measures of opportunity cost in an open economy, the project was a waste of money. This was the seed from which sprouted his cardinal insight that economic progress in many developing countries had gone off the rails, as a result of neglecting the use of foreign trade.[8] This idea was to provide the focus of his work for the next ten years, during which he wrote two path-breaking books.

Both books were initiated during a two-year stint as Vice-President of the OECD Development Centre in Paris from 1966–8. Both were written with others but Ian was the driving force. The first, *Industry and Trade in some Developing Countries* (1970), was co-authored with Maurice Scott and Tibor Scitovsky. Using theory, as well as empirical evidence from six background country studies, it argued that trade controls, and inward-

[8] 'My work on Bhopal was a major factor in changing my ideas about planning development. I concluded that this very large project was seriously flawed in conception, implementation, and current operations, and that it promised a very low rate of financial and social return. The project evaluation work of other members of the Bell mission suggested that Bhopal was no exception. If planning threw up many projects that seemed to have a very low rate of return, belief in planning—anyway, planning as it was actually done was undermined. A related lesson was that one of the reasons for the low calculated rate of return was that the advantages of international trade were being neglected. This insight, blindingly obvious as it now appears, was then quite a revelation, for the ethos of development economics at the time prohibited any attention to the advantages of trade' (*LbL*, p. 129). Note that Ian's change of view about economic planning constituted an abandonment of the earlier influence of Rosenstein-Rodan whose big-push theory of economic development argued for rapid industrialisation on all fronts in economies with surplus labour in agriculture, to take advantage of network effects. While undoubtedly well intended, the big-push theory is toxic to rigorous and effective economic planning. It makes it acutely difficult to consider economic performance piecemeal, as any apparent local failings may be offset by network effects, which are easy to invoke but impossible to measure.

looking policies more generally, impose large economic costs and reduce employment and growth. It advocated radical trade liberalisation, but not laissez faire: it was explicitly in favour of using taxes and subsidies to offset domestic market failures. It also showed that some developing countries, notably South Korea and Taiwan, were already breaking out of economic stagnation on the basis of export-oriented policies. The book had a huge impact on development thinking and policy and its message has stood the test of time. There is now a wide consensus that an open trade policy is a necessary, though not a sufficient, condition of economic transformation. Ian's other outstanding book on development, also initiated at the OECD, was *Manual of Industrial Project Analysis II*, *Social Cost Benefit Analysis* (1969), published later in revised form as *Project Appraisal and Planning for Developing Countries* (1974). It was written in collaboration with James (later Sir James) Mirrlees and proposed an original and constructive scheme of social cost–benefit analysis for project evaluation, sensitive to foreign trade opportunities as well as distributional considerations. It had a major influence on the practice of project selection in the World Bank and elsewhere. (Notably, Ian himself succeeded in persuading the Indian Planning Commission to set up a Project Appraisal Division.)

For many years, Ian's work as a development economist did not give him entry to the UK development economics community. The circle of UK development economists was then a closed shop dominated by a 'structuralist' view that held underdeveloped countries to be a separate family, to which orthodox (and especially neoclassical) methods had no application. The role of prices in economic development was underplayed because they were seen as chiefly to do with distribution, in which regard they could easily be offset by taxation and price regulation. That prices have crucial effects through the incentives that they create for action, however obvious that may now seem, was not then regarded as important.[9] If Ian's decision to become a development economist gave him no entry to the national community, it proved to be worth even less when it came to recognition in Oxford where, in the 1950s and 1960s, there were two regnant camps: Professor Hicks and his followers, and the development economics establishment led by Thomas (later Lord) Balogh. The former

[9] This last description applies better to British thinking on development than to development theory world-wide. Albert Hirschman in particular based his theory of unbalanced growth on the idea that what the state does creates incentives and outcomes in the private unplanned sector of the economy.

kept him at a distance, the latter met his ideas with active hostility. Nuffield College was the sanctuary in which Ian flourished. Along with Max Corden, James Mirrlees and Maurice Scott he made it a centre of excellence to which many of Oxford's brightest graduate students in economics gravitated.[10] Looking back on Ian Little's life it is difficult not to feel some sadness and embarrassment for British economics. He rarely received the credit due to him, and even when granted it was often reluctantly delivered. *A Critique of Welfare Economics* was not generally recognised as the masterpiece it undoubtedly represents, and Sir John Hicks's churlish rejection of Ian's work was a disgrace. But it is in the field of development economics that the embarrassment is greatest, and it is in Oxford that it reaches its peak. Ian Little was a giant of development economics, and the Oxford colleagues who rejected him and tried to lock him out were shown to be completely misguided. To assume that good ideas always win in the end is too optimistic. However, in the case of trade and development Ian, notwithstanding his early rejection, has proved to be on the winning side.

In 1970, Ian was elected to the Professorship of the Economics of Underdeveloped Countries at Oxford, and in 1973 to a Fellowship of the British Academy. He resigned the Oxford chair after four and a half years, in part because he was uncomfortable in the lecture theatre and hated public speaking. He then moved to Washington for two years as Special Adviser in the Development Economics Division of the World Bank. While there, he initiated a research project on small-scale manufacturing enterprises. (After he left, it made slow progress. He returned to the Bank for a few months in 1984 to write the overview.) He retired to Provence in 1978 but came back to live in Oxford after the death of his first wife.

Two of Ian's non-academic positions are noteworthy: board membership of the British Airports Authority (BAA) from 1968–73, and investment bursarship of Nuffield College off and on (including a short stint after retirement).[11] As member of the BAA board, he had a major influence in scuppering the mooted Third London Airport at Maplin. He argued that the Roskill Commission had greatly over-estimated the bene-

[10] 'As already indicated, I was now in my own mind a development economist but this was not recognised in Oxford. With only two exceptions no postgraduate student of the subject, or from a developing country, was assigned to me by the university before I became 'professor of the economics of underdeveloped countries' a decade later and acquired some say in the matter . . . However, Nuffield College always appointed a college supervisor for its students in addition to the university supervisor, and in this way I did acquire a few students, the most famous of whom was Manmohan Singh, Finance Minister of India from 1991 to 1996' (*LbL*, p. 114).

[11] He was also a member of the UN Committee for Development Planning from 1972–5.

fits of a new airport by failing to consider the use of peak-load pricing at existing airports. The case for Maplin was at first accepted by the Heath government. But Ian advised Tony Crosland, in opposition in 1971, that at most one new runway was needed in the London area in the twentieth century. He describes the ensuing course of events as follows: 'Sometime early in 1974 I had a telephone call from Tony Crosland, then again a Minister . . . asking what he should do about Maplin. I said "ditch it". He did. . . . If I had any decisive influence on this issue I reckon I earned my somewhat niggardly salary many times over' (*LbL*, pp. 145–6). Ian was co-investment bursar at Nuffield College with Donald MacDougall from 1958–62 and Uwe Kitzinger from 1962–5, and investment bursar from 1968–70 and 1990–2.

In retirement, Ian remained active and intellectually vigorous and wrote several major books and articles. The first was *Economic Development: Theory, Policy and International Relations* (1982), a brilliant, insightful survey of the field of development economics. In 1984 he was invited by Anne Krueger, then Vice-President of the World Bank, to design a large multi-country research project on the macroeconomic policies of developing countries. Seventeen countries were studied. Ian's involvement was considerable. He co-wrote the synthesis volume *Boom, Crisis and Adjustment* (1993) with Richard Cooper, Max Corden and Sarath Rajapatirana.[12] In addition, he co-wrote one of the country studies, *India—Macroeconomics and Political Economy, 1964–1991* (1994), with Vijay Joshi. This was shortly followed by another book co-authored with Vijay Joshi, *India's Economic Reforms, 1991–2001* (1996). In his eighties, he edited two books, and wrote two others: *Ethics, Economics and Politics*, a concise introduction to the interrelationship of the three component subjects of PPE; and *Little by Little*, the personal memoir mentioned above. He was appointed CBE in 1997.

At Nuffield College, Ian inspired many pupils and colleagues. One of his great satisfactions was that his doctoral student and friend, Manmohan Singh, became Finance Minister and then Prime Minister of India, and instigated many of the reforms that he had advocated. Ian's conversational style was quiet and reflective, not flashy; its hallmarks were the discerning throwaway remark, the *mot juste*, and the brief but incisive comment that goes to the heart of the matter. Despite the economy of

[12] Developing-country macroeconomics is an area in which Ian could fairly be claimed to have had a major influence. We have left out any discussion of his contribution to this field to keep the length of this memoir within reasonable bounds. For Ian's thoughts on the subject and on the World Bank project see *LbL*, pp. 172–3 and *CaR*, pp. 90–2 and 250–69.

words, his presence was magnetic; and its impact is captured by Francis Seton when he writes: '. . . [his] views, however modestly expressed, would command immediate acceptance for their lucidity and independence. He had no need to seek effects, to hedge about, manipulate the waverers, or lobby the influential . . . nothing seemed more alien to him than showmanship, conformity, plodding exertion, or nail-biting discomfiture.'[13] It is no surprise that this style did not endear him to the great and the good, and it may account for the fact that, like his illustrious ancestor Thomas Brassey, he received few of the honours in this country that one might have expected to come his way.

Ian's personality was complex. He was outwardly diffident but had an inner core of iron self-confidence. He was deeply serious and high-minded, but he was not a puritan; he loved the food, wine, and sun of Provence. He was rather reserved but gave wonderful parties. He had no ear for music but a very good eye for the visual arts. He was well-born but un-snobbish, hated ostentation and pomposity, and believed in taxing wealth more harshly than any of the political parties do today.[14] He was in some ways a correct English gentleman but there was also a wild streak in him, manifested by his love of fast cars and by the houses he designed and lived in, with their lethal spiral staircases. It was difficult to know what was going on behind his steely blue eyes, so people sometimes found him reticent or unapproachable, or even slightly frightening. But he was a warm and affectionate friend; and in the company of friends he would melt, and talk about people and events with ironic amusement. And these apparently contradictory elements did not in any way add up to a fractured or inconsistent personality. They were held together by his personal integrity, his humane and liberal outlook, and his zest of life.

Ian married twice. Both his marriages brought him fulfilment, though different in kind. He met Doreen Hennesey, known to friends as Dobs, while he was in the Royal Air Force. They married in 1946. They were a stylish couple and gave sensational parties that came to be known in Oxford as the 'parties for dancing economists'. The marriage was not peaceful during its middle years because Dobs was battling alcoholism and depression, but its last fifteen years were serene. Dobs died in 1984. Life as a widower did not suit Ian and, as he often remarked, he was very lucky to meet and marry Lydia Segrave in 1991. With her, Ian became young again. They had two decades of a rewarding and contented life,

[13] See Francis Seton, 'Ian Little—a salute *Inter Vivos*', in M. FG. Scott and D. Lal (eds.), *Public Policy and Economic Development: Essays in Honour of Ian Little* (Oxford, 1990), pp. 1–9.
[14] See J. Flemming and I. Little, *Why We Need a Wealth Tax* (London 1974).

travelling the world, visiting art museums, doing the *Times* crossword, seeing friends, and working. Lydia sculpted and Ian continued to write. He was very proud of Lydia's talent as a sculptor. She survives him, together with his two stepchildren, and a son and daughter by his first marriage.

Theoretical welfare economics

A Critique of Welfare Economics was the major contribution from Ian Little in his early career as an economist. It can also take its place beyond doubt as one as the most important publications on economics from the decades of the early post-war years. It is striking then to note that it reads less as pure economics than do many comparable works of the time. The author is certainly an economist, thoroughly grounded in the history and theory of the economics of welfare. Yet more than any other writer in the field, with the possible exception of Kenneth Arrow, he is also a philosopher. We recognise this from his insistence that welfare economics is about ethics, and that this aspect of the subject cannot be disguised or evaded.

To appreciate this work it must be seen in the context of its time. These were the years of the New Welfare Economics. This was founded in the rejection of the old welfare economics of Mill, Bentham, and Marshall, which depended upon measurable utility. To these writers it made sense to discuss whether it is a good idea to take £10 from a rich man to give the proceeds to a poor man, even if leakage created by this transfer reduced the poor man's gain to £3. A comparison of the marginal utility of money of the two parties provides a precise numerical answer. This kind of reasoning was a victim of the revolution in philosophical thinking that was logical positivism, and the ideas of the Vienna School. Taken to extremes, as it sometimes was, this new philosophy reached such bizarre conclusions as the refusal by the Oxford philosopher A. J. Ayer to admit to being an atheist, on the ground that the proposition 'There is no God' is untestable, and hence without meaning.

If arguments are valid only if they discuss exclusively the observable and the measurable, there is no room for cardinal utility. The tendency of an economics that adopted a positivist outlook was to eschew discussion of the distribution of welfare gains and losses, and to focus on efficiency, and the possibility of changes that could make everyone better off. One escape from the constraint of positivism was to confine attention to Pareto improvements of this kind. If a change could give the rich man £10 *and* the poor man £3, then surely it could be recommended, regardless of the measurement of utility. Here the problem is that changes that are Pareto improvements are quite unusual. Normally there are losers, even with the most attractive interventions.

It is in response to this difficulty that John Hicks and Nicholas Kaldor came up with the concept that came to be called the Kaldor–Hicks criterion (the K–H test). According to this test, a change can be recommended if the gainers are able to compensate (bribe) the losers and still be better off. That looks appealing, but what exactly does it mean? Are we asked to accept that a change that passes the K–H test, plus the required compensation, is to be recommended? That is no more than a particular case of the Pareto test, and is similarly limited in scope. Instead of such a narrow application, the K–H test did not require that the compensation be paid.

Then Tibor Scitovsky showed that the reversal of a K–H improvement could also pass the K–H test. With inefficient states, well inside the production possibility frontier, there is plenty of surplus to pay compensation, so Scitovsky's finding is not unexpected. It is to this confusing tangle of ideas that Ian Little brought his sharp and precise intellect. In place of the K–H test, he proposes a two-item check list for a change to count as a welfare improvement. First, it would produce a not-unfavourable redistribution of income; and secondly, the losers from the change could not bribe the gainers to vote against it. These two tests together define *the Little Criterion*. The second test takes care of Scitovsky's point.

The first three chapters of *A Critique* develop carefully and thoroughly the theory of welfare comparisons based on the choices made by individuals in market-situations. It is shown how consistent choices can generate indifference curves (or behaviour curves) that provide a behavioural definition of 'better off' for an individual consumer. The many difficulties that this approach encounters are noted at every step. Ian eventually relies on the possibility that the theory might work better for an average individual, than for a particular genuine individual. One of the striking features of *A Critique* is its focus on the central field of a basic welfare economics. Its author refuses to be diverted towards extensions, such as dynamics, or the cardinal utility measures of von Neumann and Frank Ramsey. He is aware of this material, but chooses not to go down those side-roads. As the reader will learn from this volume, there is plenty to be done with the most elementary welfare economics; and the author does just that.

The balance between rigorous scepticism, and a determination to achieve what can be achieved, is perfectly captured in the short paragraph that closes chapter III of the volume:

> But we must certainly not pretend that our analysis is anything but rough and ready. As we have already implied, it is particularly inapplicable in respect of choices between jobs, and different hours and kinds of work. Nevertheless, enough has, I think, been said to show that it would be foolish to dismiss the whole of welfare economics solely on the ground that the analysis of 'individual' behaviour, on which it rests, is hopelessly at variance with the facts.

Chapters IV and V of *A Critique* move on from the behaviour of individuals and the evaluation of individual welfare to the difficult fields of the distribution of welfare, interpersonal comparisons, and value judgements. This is economics, yes; but truly it is high-standard philosophy. Central to Ian Little's case is a head-on assault on the clear fact-value distinction of David Hume and G. E. Moore. These writers insisted that 'is' propositions cannot yield 'ought' propositions. The same distinction was the basis of Lionel Robbins's claim that when economists argue that the abolition of the Corn Laws was a good thing, this is not Science. If the effect of Corn-Law-abolition was to harm landlords, and benefit workers, the evaluation of that change depends upon the value judgement that the landlord losses count for less than the worker gains. The K–H test is designed to jump over that difficulty without confronting it. Ian Little allows himself no such easy ride. He shows in detail how slippery is distinction between fact and value.

Central to Little's argument is the observation that terms such as 'happy' or 'better off' do not refer to the entirely subjective and personal, as it might be maintained does 'tastes good'. Even this last term cannot be completely subjective. A man who says that raw sewage tastes good is not truthful. Also some terminology that appears to be no more than a value judgement reflects commonly understood criteria for its application. So while the description 'a good man' may be less precise than 'a tall man', it is not available for anyone to use as he likes. To say that a mass murderer is a good man is simply to reveal linguistic incompetence. Now the sentence 'John would be happier if he gave up drinking' can be considered a positivist statement. One who insists on a rigid fact-value distinction cannot claim that this last sentence does not entail a value-loaded recommendation that John gives up drinking. Clearly the positivist statement does imply a recommendation in favour of abstinence in John's case. A crucial conclusion of Ian Little's detailed analysis heads a list at the end of chapter IV: 'Interpersonal comparisons of satisfaction are empirical judgements about the real world, and are not, in any normal context, value judgements.'

Chapter VII is a short chapter devoted to the social welfare function, such as is proposed by Bergson and Samuelson. In the Preface to the 2002 reissue of *A Critique*, Little states that he has not taken note of Kenneth Arrow's book on social choice,[15] because he does not think 'that this subject has much relevance to classical welfare economics'. This view is strange, because Arrow arrived at his impossibility theorem after he had attempted unsuccessfully to arrive at a formal justification of the social welfare function. His analysis shows that given his other axioms, one individual must be decisive concerning a pairwise choice, which violates his no-dictatorship axiom. This is quite similar to the conclusion reached by Little, who characterises the social welfare function as the objective of 'a Superman', i.e. a dictator.

Chapters VIII and IX examine the optimal conditions of production and exchange: equal marginal rates of substitution for different individuals or producers. Yet the important point delivered by these chapters is that the satisfaction of one of these conditions is not sufficient for an optimum, however defined, if other marginal conditions are not satisfied. For example, direct taxation is not necessarily superior to indirect taxation when direct taxation destroys the equality between the rates of transformation and substitution of leisure and goods. This type of argument is now always called the theory of the second best. Ian Little is perhaps its originator, although few would realise that. As Ian himself puts it: 'Unfortunately for me, I did not name the theory!' (*CaR*, p. 8).

Marginal conditions do not work when there are indivisibilities. A bridge across a river is either built or not built; one cannot have a little less bridge. Ever since Alfred Marshall, this problem has been treated by applying the theory of consumer surplus to focus on the difference in total utility that the bridge delivers. This approach was obviously undermined when cardinal utility was abandoned. John Hicks applied much energy to rehabilitating the concept without cardinal utility, while Little took a different route, preferring direct ordinal assessments of lumpy changes. So Hicks and Little differed sharply on two separate questions: the K–H test, and consumer surplus.

The remaining chapters of *A Critique* (XI to XIV) examine output and price policy for public enterprises; the valuation of national income;

[15] K. J. Arrow, *Social Choice and Individual Values* (New Haven, CT, 1951, 2nd edn. 1963).

welfare theory and international trade; and welfare theory and politics. Chapter XV concludes. There are numerous sharp insights in these discussions, and also some intriguing surprises. Take, as an example of cutting analysis, the question of marginal-cost pricing for public enterprises. It is evident that the theory of the second-best will take issue with a simplistic argument in favour of marginal-cost pricing. This is because with average costs far higher than marginal costs, as is typically the case with public enterprises, such as the railways, strict marginal-cost pricing leaves a large revenue gap to be filled. There is no non-distorting way of raising that revenue, so the case in favour of marginal-cost pricing collapses. Little goes further by showing marginal cost to be a slippery concept. In the short run marginal cost oscillates wildly, as when the marginal cost of a rail journey varies according to how crowded are the carriages. In the extremely long run marginal cost is much the same as average cost.

Given his espousal of the second-best, one might expect Ian Little to reject the case for free trade. His actual position is more subtle and interesting. In the Preface to the 2002 edition he writes:

> The basic fallacy is that the free trade dogma neglects the distribution of income. Fifty years later I can find no fault with this. However I fear that the cursory reader might think that I believe that free trade generally worsens the distribution of wealth both between and also within countries. On the contrary, I believe that for most developing countries, especially the poorest, trade benefits the poor: this is because exports are relatively labour intensive, and raising the demand for labour reduces poverty.[16]

A good way of assessing the weight of the contribution that is provided in *A Critique* is to ask what a contemporary undergraduate studying welfare economics would lose if told to read nothing but that one volume. The answer must be that this imagined student would not be badly disadvantaged. Of course there are numerous other references that would benefit that individual. Ideally he or she should certainly study some social choice theory, which does have relevance for classical welfare economics. Also the welfare economics of risk and uncertainty, and inter-generational welfare, should not be neglected. And analysis using welfare weights, rejected by Hicks and only adopted later by Little, is hugely valuable. Yet a must-have tool-kit of welfare economics, with the correct emphasis on the distribution of welfare, is all to be found in the pages of *A Critique*.

[16] Preface to the 2002 edition of *The Critique*, p. xii.

Project evaluation

Many economists if asked to nominate Ian Little's major contribution to development economics would select his work on project evaluation. Given that, it is notable that Ian's entry to that field was almost accidental. It was not that he sought out the question of how to evaluate projects. Rather the issue landed on his desk while he was with the OECD in Paris:

> The other main product of my two years at the Development Centre was the OECD *Manual of Industrial Project Analysis*. This was jointly authored by myself and Jim Mirrlees. This was not the outcome of research that I had started. The Development Centre had already commissioned a French consultancy firm to produce such a manual, soon after it heard that the UN was doing so. A draft arrived which I thought terrible. I criticized it fundamentally, and revisions were promised. I considered the revised draft which eventually arrived to be still unacceptable. A small conference was called, most participants of which sided with me. But I had to threaten resignation to get the ball rolling. Baron [the then President of the OECD Development Centre] was convinced that my opposition simply stemmed from an Anglo-Saxon attitude. (*LbL*, p. 132)

Here the discussion of the contribution made to project evaluation theory by Little and Mirrlees (henceforth L&M) will concentrate on their 1974 publication (henceforth *Project Appraisal*) rather than the original 1969 manual.[17] Two reasons support this choice. First, the 1974 book develops and presents their ideas more thoroughly and richly than the original. Secondly, the later publication responds in detail to the UNIDO *Guidelines* volume published between the two in 1972.[18] A comparison of the L&M approach and that of UNIDO is made difficult because the two volumes have distinct orientations. To put it simply, UNIDO is far more theoretical whereas L&M originated as a manual and remains such in the developed 1974 exposition. A manual is literally something to be held in the hand, like a guide book for workers in the field. For this reason the L&M exposition is intensely practical and offers detailed guidance concerning short-cuts and approximations.

Fundamentally, L&M and UNIDO follow similar paths in that they adjust market based returns by using shadow prices that are designed to

[17] The two publications are: I. M. D. Little and J. A. Mirrlees, *Manual of Industrial Project Analysis, II, Social Cost–Benefit Analysis* (Paris, 1969), and I. M. D. Little and J. A. Mirrlees, *Project Appraisal and Planning for Developing Countries* (London, 1974).

[18] P. S. Dasgupta, S. A. Marglin and A. K. Sen, *Guidelines for Project Evaluation* (New York, 1972).

better reflect social valuations. A difference between the two methods that received great attention is in itself of limited significance: the two systems use different numeraires (accounting units). The choice of a numeraire cannot of itself make a great difference. However once a numeraire has been selected, conversion factors are required; that is, formulae to convert other values, such as wage rates, into values expressed in the numeraire. Then the details of conversion can make a substantial difference. The L&M numeraire is 'uncommitted social income measured at border prices', which contrasts with UNIDO's 'aggregate consumption measured at domestic market prices'. To cut short what could become a lengthy discussion, it suffices to say that the L&M method is simpler and more reliable in practice. This is because it avoids the complex issue of deciding how far domestic market prices correctly reflect their contribution to consumption. In a highly distorted economy this is a complex exercise. L&M, on the other hand, avoid this tangled maze, either because if the good is traded one goes directly to the border price or, if it is not traded, its value can be measured at its marginal cost of production, broken down into its direct and indirect traded-good content (valued at border prices) and labour costs.

The focus of any project evaluation exercise is on the particular project and the numerical values associated with it. For that reason the impression is too easily arrived at that the theory is entirely microeconomic, concerned only with the project itself. This would be a mistake, and it is a great merit of the L&M method that it shows in a clear light how the evaluation of the individual project must be embedded in a global perspective that reflects the entire economy. The point can be illustrated via the consideration of a crucial value in any social return calculation, the shadow price of labour. The L&M formula for the shadow wage (SWR) is derived from:[19]

$$SWR = m + (c' - c) + \left(1 - \frac{1}{s}\right)(c - m)$$

where

c' = value of consumption at market prices including items that do not directly contribute to welfare such as transport costs;

[19] Little and Mirrlees, *Project Appraisal*, p. 271. The formula shown in the text is not quite correct given the definitions of the variables at the top of the same page. This problem has been taken care of here by the provision of different definitions of the variables to make the formula correct.

c = welfare producing consumption;
m = marginal productivity of the wage earner; and
s = the value of uncommitted government income in terms of consumption.

The first term in the above equation is the marginal product of labour; the second term adds the costs of delivering consumption, such as transport costs; the third term shows increase in consumption of the marginal worker minus that part of it which is reckoned to be a benefit. The final total SWR is in domestic local-currency value. That must be converted to the numeraire (foreign exchange) by the application of the shadow exchange rate. This last number is an economy-wide value with which all project evaluators will be provided.

The derivation of the shadow wage rate illustrates beautifully some of the basic principles that underlie the L&M analysis. Wages display two contrary aspects. On the one hand they are a welfare benefit; they provide workers and their families with consumption, and the higher they are the more consumption they provide. On the other hand they are a cost to the national budget, because each rupee of wage paid out might otherwise be applied to beneficial government expenditure. In a simple case let (c'–c) be zero, so no additional resources are devoted to the provision of consumption. Also, let m equal zero, because for example labour employed on the project comes from agriculture where the marginal worker adds nothing to output. Furthermore assume that workers consume all their wages, there being no saving. These are not realistic assumptions, but they help to show the principles of shadow wage rate calculation in a clear light. Then the formula for the shadow wage rate reduces to:

$$SWR = \left(1 - \frac{1}{s}\right) w$$

where w is the market wage rate that the project will have to pay. Note that the shadow wage rate is below the market wage rate. This implies that public sector projects evaluated positively by the L&M method will be more labour intensive than would be a similar project chosen to maximise profit in the private sector.

Another important value for the accurate assessment of projects is the accounting rate of interest (the *ARI*), the number that measures how future numeraire values are weighted relative to current numeraire values. This rate of interest may vary over time, but the discussion concentrates reasonably on the case where it is nearly constant. The role of the *ARI* is to act as a gate-keeper for the projects being assessed. It must not accept too many, when taxes would have to rise sharply, and present consumption would be depressed excessively. Equally it must not accept too few, when welfare-increasing possibilities would be wasted. The questions at issue here are easier to answer in a classroom on a blackboard than in reality. The two fundamental effects that need to be taken into account are the rate at which per capita consumption will rise, and the root discounting of the future that reflects the impatience of the planner (or the population). Growth of per capita consumption argues for weighting future consumption more lightly. Impatience adds an additional effect in the same direction. These two effects together generate an *ARI* that should be equated to the rate of return on the marginal project—the one that only just gets accepted. L&M discuss an interesting, although special, case in which the return on private investments provides a useful estimate of the *ARI*.

The OECD Manual was hugely influential. It generated important empirical studies that applied its methods in the field.[20] It also played a crucial role in promoting formal rule-based project evaluation methodology in the World Bank. For many years in that institution project evaluation and Little/Mirrlees became synonymous. These successes were in sharp contrast to the largely hostile reception of the OECD Manual in Britain, and notably in Oxford. As Ian Little writes:

> The OECD Manual was strongly attacked by the development establishment, especially the Oxford branch. The essential principle it promoted was that, in considering the costs and benefits of domestic production of something, both export possibilities and the alternative of satisfying domestic demand by importing should be carefully considered. The implied insistence on trying to use international trade optimally was anathema to those who had been taught that free trade was a colonial tyranny designed to ensure that developing countries would for ever produce only primary commodities . . . Since those days relatively open trading policies have become more widely practised in developing countries, and few would now deny the benefit of such policies. But I myself continue to be reviled as The Great Satan in some development schools. (*LbL*, p. 138)

[20] See, inter alia, I. M. D. Little, T. Scitovsky and M. FG. Scott, *Industry and Trade in Some Developing Countries* (London, 1970); M. FG. Scott, J. MacArthur and D. M. G. Newbery, *Project Appraisal in Practice: the Little/Mirrlees Method Applied in Kenya* (London, 1974); and N. H. Stern, *An Appraisal of Tea Production on Small-Holdings in Kenya* (Paris, 1972).

The critiques of L&M pursued many arguments, these of variable merit. The February 1972 edition of the *Bulletin of the Oxford Institute for Economics and Statistics* was devoted entirely to a symposium concerned with the OECD Manual. Several of these papers, including one by Vijay Joshi, took a favourable view of L&M, and the paper by Nicholas Stern on an application to tea farming in Kenya provided a valuable example of the L&M method in practice. Partha Dasgupta's paper compared the OECD and UNIDO manuals. In contrast, the long paper by Frances Stewart and Paul Streeten is not unlike a prolonged artillery assault on L&M.[21] Elsewhere, a paper by Amartya Sen explored the issue of irrational (or at least immovable) government policies,[22] a point also stressed by Stewart and Streeten.

Leading issues raised by the Oxford critics of L&M are the following: irrational governments; economic linkages; and non-traded goods. It was claimed that L&M assume that the government of the country to which project evaluation is applied is as rational and detached as the authors themselves. Another assertion is that L&M ignore the multiple linkages—forward, backward, and sideways—that are characteristic of under-developed countries. The final claim from the prosecution is that L&M give insufficient weight to non-traded goods and fail to price them correctly.

In the final paper in the *Bulletin of the Oxford Institute* issue Little and Mirrlees provide a vigorous and robust reply to their critics. They agree that recommendations may be conditional on a rational government response but note that the implication of an irrational response is often contained in the recommendation. Thus if the project evaluator recommends the adoption of a scheme to manufacture motor vehicles domestically, provided that the engines are imported, this implies, and that could be made explicit, that the scheme should not be adopted if the government insists on all production being domestic. On linkages, L&M confirm their scepticism concerning their universality and measurability, yet point out that if a linkage is evident and important it becomes part of the project, to be assessed with other components of the same. They underline their flexibility concerning the shadow pricing of non-traded goods, such as electricity supply in many countries. Non-traded goods can often be

[21] F. Stewart and P. Streeten, 'Little–Mirrlees methods and project appraisal', *Bulletin of the Oxford Institute of Economics and Statistics*, 34 (1972), 75–91. All the other papers (except Sen's) mentioned in this and the succeeding paragraph are to be found in the same issue of the journal.
[22] A. K. Sen, 'Control areas and accounting prices: an approach to economic evaluation', *Economic Journal*, 82 (1972: Special Issue), 502–30.

priced by their opportunity costs in terms of traded goods. If that is not possible the values in domestic prices can be translated to border values using the conversion factor that already figures in their analysis. Notable in the L&M response is how, rather than mounting new arguments, these authors usually point their critics to what is already there in the Manual.

The 1970s were the years when project evaluation based on cost–benefit analysis was at its high-point, both in developed and developing countries. Since then its status has declined, although it is still used (or abused).[23] A leading problem that emerged when institutions such as the World Bank tried to impose the method is that project evaluation proved to be strongly liable to manipulation. As L&M show clearly in their writing, estimates and guesses have important parts to play. That opens the door to biased estimates designed to achieve a particular result—usually the acceptance of a dubious project. A senior Indian civil servant once told one of the authors of this memoir that, given the book of rules, he and his colleagues could arrange for almost any favoured project to get over the finishing line. In fact the bias affecting project evaluation is two-sided. Governments receiving aid favour certain projects and will twist the assessment process to favour those schemes. And lenders have their own biases. They are not paid for turning down projects; their job is to lend money. So a rigorous tough approach to project proposals does not suit donors any more than recipients. Ian Little was sharply aware of the problems created when political forces encroach on project evaluation. He writes: 'The main difficulty facing cost–benefit analysis is that large public, or publicly subsidized, investments are a source of prestige, patronage, and kick-backs for those in power, and their relatives and cronies. They do not want their projects submitted to hard-nosed appraisal by economists' (*LbL*, p. 142).

Aside from the problems of manipulation discussed above, there is another major reason why cost–benefit analysis on L&M lines has declined in importance. A leading motivation for the L&M approach, and the same could be said of the UNIDO method, is to surmount the misleading price signals prevalent in highly distorted economies, especially those subject to strong and unbalanced trade protection. All this has become far less important as developing countries have become more open, their markets

[23] A current case in point is the claimed benefits of the proposed hugely expensive high-speed rail link in the UK between London and Birmingham, and points north. The benefits concerned are hard to measure and highly impressionistic. The costs are massive, and sometimes neglected. This is an exercise more in political persuasion than in genuine evaluation.

less interfered with, and their tariffs and controls diminished, often to levels below those of rich industrial countries. A great deal of credit for this belongs to Ian Little and to economists who thought on similar lines. So perhaps Little the trade and protection specialist was the executioner of Little the project evaluation innovator. If that is the case he would probably not have minded that outcome.

Trade and development

So influential have been the ideas of Ian Little, and parallel thinkers, on the role of trade in economic development that it is difficult now to recover the intellectual climate of early post-war economic thinking on this topic. To put it simply, an orthodoxy of that time held that trade was ineffective, unnecessary, and a dangerous break on development. This view was underpinned by the belief that the way to economic advancement took the form of industrialisation, and that this required the protection of infant industries from foreign competition. One finds this kind of thinking in many newly independent countries, but it is well illustrated with India because that country produced one of the most articulate expressions of anti-trade thought.[24] Two ideas powered this philosophy. First, it was felt that colonialism had hampered Indian industrialisation for selfish reasons, a claim that was not without foundation, and that policy should now reverse that tendency. Secondly, self-sufficiency was seen to be an ideal, supposedly because it offered more security than the perils of dependence on trade.

For India the Soviet Union provided a model of successful economic development for a large country based on forced industrialisation and little international trade with the capitalist west. There was an appreciation of undoubted Soviet successes, including the defeat of Nazi Germany, rapid growth, and impressive development of some sectors. The Soviet Union had by a long way the world's largest shoe industry. There was less understanding of the severe deficiencies of the Soviet economy. Agriculture was a disaster sector, the victim of forced confiscation of output, collectivisation, and discriminatory pricing. The delivery of consumer goods was extremely poor. Even those millions of shoes were in wrong sizes and styles. Crucially the basic mechanism of the planning system was

[24] The Prebisch–Singer theory that held that the terms of trade would inevitably move against primary-product exports was another argument for industrial self-sufficiency.

misguided. Output was crudely measured with quantity counting for much more than quality. Producers operated with soft budgets, encouraging them to waste such inputs as they could obtain. For such a lavishly forested nation to produce a timber shortage was an astounding achievement. The closed nature of the economy implied that economic planning was directed to producing to targets without the question of whether national comparative advantage favoured those outputs ever being considered.

Indians, like everyone else, were in a poor position to view the true nature of the Soviet economy, hidden as it was behind propaganda and misleading statistics. Had they been able to enjoy a clearer view they could have drawn useful lessons concerning economic management and economic planning. Among these lessons would have been the danger of grandiose projects undertaken without proper assessment of costs and benefits. Another lesson would have been the cost of neglecting export opportunities. Had forestry not been starved of inputs, the Soviet Union could have exported timber to its benefit, rather than failing to meet even domestic needs. Finally, the five-year plan model, under which growth targets for various sectors were laid down in advance, led to the misallocation of scarce inputs, and the underweighting of consumer needs.

Whatever the problems of economic planning, it was required in some form by newly independent countries. Hardly anyone thought that simply introducing laissez faire would produce the results required. The question was what form should planning take, and particularly in what direction it should point economic development. Should it favour heavy industry over light? What place should it give to international trade, to imports and to exports? Ian Little was a product of his time, and he started out firmly in favour of economic planning. Over time, experience and sharp observation modified his views. Autobiographies too often take the form of a prolonged monologue on the lines of 'I was always right, and everyone else was wrong.' This is foreign to Ian's character. He freely admits to alterations in his position:

> I am widely regarded as having shifted from uncritical belief in *dirigiste* planning to excessive trust in the price mechanism. Apart from the adjectives, this is broadly true. All economists are conversant with the faults of the price mechanism, some would suppress it altogether. Many liberals, including myself, wanted to tinker with it, and to rely on government to implement the tinkering. We were slow to realize that the most prevalent reason for market failure was government itself. Governments were driven by false economic ideology—heavy industry, protection, and import substitution—and also became increasingly

> self-serving and corrupt. My own change in emphasis is obvious. . . . It was driven by experience and research. However, although the change is insidious from 1960 to 1990, my India visit of 1965 was a watershed. It led directly to my research programme at the OECD, and hence to increasing emphasis on free trade and the reduction of domestic controls. (*CaR*, p. 81)

Ian's evolving views on trade and development were laid out extensively and provided with solid empirical support in the fine volume that he co-authored with Tibor Scitovsky and Maurice Scott, henceforth *Industry and Trade*. This volume draws together the conclusions of several OECD studies of individual countries—Brazil, India, Mexico, Pakistan, the Philippines, and Pakistan. The essence of the approach adopted in this volume is the following. Beginning students of economics learn that the advantages of international trade lie in the exploitation of comparative advantage: a country should do what it does relatively best, and rely on imports for what it does badly. It then seems clear that numerous qualifications destroy this simple conclusion. Among these are terms of trade that vary with the volume of exchange, externalities and infant-industry considerations, issues of income distribution, and more. In *Industry and Trade* we find a forensic analysis of the multiple effects of protection and economic planning biased towards heavy manufacturing, and hence inevitably biased against agriculture and light manufacturing. Most importantly, this policy obliterates the possibility of taking advantage of opportunities for exports, that is, exactly those exports that have proved to be the foundation of economic growth in the successful East Asian countries, such as South Korea and Taiwan.

Industry and Trade is a volume that cannot be fairly summarised in a short essay. It examines the issues involved in great depth and breadth. However picking out some of its leading points gives a good sense of its contributions. Chapters 2 and 5 discuss the magnitude of protection, and distinguish between the 'nominal' rate of protection (how much protection raises domestic prices), and effective protection (how far protection permits the value added in production to exceed what it would be in its absence). Effective protection is often far higher than its nominal cousin, and sometimes, when outputs are more heavily protected than inputs, even allows activities with negative value added at world prices to survive.

Chapter 6 looks at the pernicious consequences of reliance on controls, a characteristic of a planned, and over-planned, economy. Widespread controls on investment and other activities are costly and they blunt private initiatives. Entrepreneurs gain more from playing the planning system than from innovation and productivity improvements.

Industrialisation has aggravated income inequalities. The extra profits made in industry are not a net gain to the community. Protection of large-scale industry implies the anti-protection of light industry and agriculture, sectors in which incomes are low. Chapter 2 notes that a major source of saving and investment is the profits of heavy industry inflated by protection. These profits are invested to a great extent in the same industries that generated them, thus adding force to the bias against light manufacturing and agriculture. Protection biased in favour of heavy industry is bad for employment and the full utilisation of capital. Finally, and crucially, protection of heavy industry leads to the neglect of comparative advantage. This echoes points made above concerning biases in the Soviet system.

The Indian economy

Ian Little's connection with India extended for more than fifty years and was the inspiration for a good deal of his work after he wrote *A Critique*. We have already covered his first visit in 1958, while he was favourably disposed to Indian planning, and his second visit in 1965, when he became disillusioned with it. A major reason for the disillusionment was that he became convinced of the falsity of 'elasticity pessimism', which was one of its central tenets. This change of view, in conjunction with his field experience in project analysis, strongly influenced his thinking on methods of project selection for developing countries. The first fruits of this can be seen in 'Public sector project selection in relation to Indian development', an article that was published in an obscure book in 1969.[25] Many of his distinctive ideas, in particular the use of world prices as shadow prices for tradable goods, later refined in collaboration with James Mirrlees, can be found in this seminal piece. More generally, his second thoughts on India's development strategy, along with early evidence of the success of export-oriented growth in the 'Gang of Four', prompted him to mount the large OECD project on trade and industrialisation policies in developing countries. Six countries were selected for close examination; one of these was India. The volume on India, written by Jagdish Bhagwati and

[25] The article was written in 1965. One of the authors of this memoir attended the seminar in Nuffield College at which it was presented and remembers the mixture of admiration and outrage with which it was greeted. The article was published in A. V. Bhuleshkar (ed.), *Indian Economic Thought and Development* (Bombay, 1969); it has since been reprinted in *CaR*.

Padma Desai, became a classic in its own right.[26] Following the OECD project, and until his retirement, Ian did not work directly on India but maintained his strong links with the country.

After he retired, Ian wrote extensively about the Indian economy. This came about as a result of the project on macroeconomic policy in developing countries that he initiated at the World Bank in the mid-1980s. Ian wrote the India volume with Vijay Joshi as his co-author, and it was published by OUP in 1994 under the title *India—Macroeconomics and Political Economy, 1964–1991*. This was the first systematic assessment of Indian macroeconomic policies from the death of Pandit Nehru until the inauguration of the liberalising reforms of 1991. The book was divided into three parts. Part One was an introduction to India's history, institutions and markets. Part Two examined four major macroeconomic crises that the country experienced during this period—in 1965–7, 1973–5, 1979–81, and 1990–1. To put it very crudely, the first three crises were mainly the result of exogenous events, in particular droughts and oil price increases. The fourth was different. It resulted from the pursuit of unsustainable fiscal policies during the 1980s. The authors analysed in depth the causes and resolution of the crises, with particular attention to the shortcomings of stabilisation policy. Part Three was concerned with longer-term trends in policy. Separate chapters were devoted to fiscal, monetary, and trade and payments policies, and to the connection between macroeconomic policy and long-run growth. A distinctive contribution of the book was that it demonstrated a link between microeconomics and macroeconomics in the Indian context. Before this book, the fashionable view about Indian economic policy was that it was unsound microeconomically but sound macroeconomically, and that these phenomena were positively related—in other words, the controls that led to microeconomic inefficiency helped to attain macroeconomic stability. In contrast, one of the central conclusions of the book was that India's control system was not only microeconomically inefficient but macroeconomically perverse. In *CaR*, Ian writes about this book, 'It was the first and only macroeconomic history of India since the death of Nehru and will, I hope, prove to be the definitive study of the period.'

By the time that book was published, India had embarked on an ambitious reform programme designed to move the economy towards greater openness and market orientation. Vijay Joshi and Ian Little got a grant from the Overseas Development Administration to carry out an appraisal

[26] J. Bhagwati and P. Desai, *India: Planning for Industrialization* (London, 1970).

of this programme. The book that resulted—*India's Economic Reforms, 1991–2001* (1996)—was the first systematic assessment of India's reforms. It went into seven impressions and made a significant impact. There were five chapters, apart from an introductory and a concluding chapter. Chapter 2 on stabilisation policy showed that government deficits and debt were on an unsustainable track, and that fiscal consolidation was imperative. On balance-of-payments policy, it was supportive of India's decision to opt for a managed exchange rate, buttressed by targeted capital controls, and by occasional sterilisation of reserve accumulation, in order to prevent excessive exchange rate appreciation caused by exuberant capital inflows. This policy proved its worth during the build-up to the East Asian crisis of 1997. Chapters 3, 4 and 5 undertook a critique of structural reform. The authors took the view that while India had made a good beginning, the reforms were partial and incomplete. On trade and indirect taxation, they argued that India should move to a uniform value-added tax harmonised between the Centre and the States, with few exemptions, supplemented by a uniform tariff no higher than 10 per cent for industry as well as, more controversially, for agriculture.[27] They drew attention to the super-abundance of government subsidies, explicit and implicit. Fertilisers, fuel, electricity, irrigation water, and many other goods and services that are not public goods were sold well below their costs of production. The beneficiaries were preponderantly the better-off sections of society. Winding up these subsidies would improve resource allocation and yield more than enough fiscal savings to compensate the poor. On industrial policy, the book argued for privatising state-owned enterprises producing tradable goods. In these sectors, international competition would annul the main argument for nationalisation—viz. the possibility of monopolistic exploitation. Public sector enterprises producing non-tradables should be broken up into competitive and naturally monopolistic elements. The former should be privatised; the latter could be privatised or left in state ownership but in either case independent regulation was essential. The economy's poor infrastructure, which was mainly in state ownership, was identified as a critical constraint on growth. The book also argued strongly that liberalising output markets was not

[27] The authors recognised that there is a theoretical case for non-uniformity but preferred a uniform rate for various pragmatic reasons. On agricultural trade liberalisation, they argued that it would raise prices and profits for farmers producing the principal crops. This would enable the elimination of various ill-judged subsidies to agriculture. The rise in output prices would hurt the poor but they could and should be compensated by direct transfers, which would require reform of the public distribution system. These changes would not be easy but the net benefits would be large.

enough. Factor markets needed reform. Company laws, labour laws and urban land law had combined to make the economy highly inflexible and to impede labour-demanding, inclusive growth. Chapter 6 considered the social sectors. It argued that well-designed public employment schemes were superior to food subsidies (distributed via the highly inefficient public distribution system) as instruments of poverty alleviation.

Since the book was written, India's reform programme has made significant progress. But many shortcomings remain, including a bias against employment, and continuing presence of counter-productive subsidies. These failings were clearly identified and analysed in the 1996 book.

Ian as investment bursar

Ian Little's experience of portfolio investment began with his appointment as one of the two investment bursars at Nuffield College in 1958. At that date Nuffield College ceased to be a department of the university and became responsible for the management of its own funds. He served with Donald (later Sir Donald) MacDougall, and subsequently with Uwe Kitzinger. The college's broker was Vickers da Costa, and its Chairman Ralph Vickers advised the bursars directly, this advice being delivered via a daily telephone call that reported on the state of the market. The performance of the college's investments in the first four years, with Ian partly in charge, was outstanding. This owed much to Ralph Vickers's unusual investment skills. He studied company reports with forensic care, an approach that served Keynes well when he was a successful investor, as it did later for Warren Buffett.

Ralph Vickers was an extraordinary individual. His warmth and huge generosity gave him friendships with left-leaning academics despite his own right-wing politics and his support for apartheid South Africa. He was an active and daring investor. He was not afraid to select the unorthodox and to bet on relatively short-run movements. Riding price bubbles is notoriously dangerous, and it is a measure of Ralph Vickers's judgement and intuition that it protected him and his clients from the worst perils of high-risk investment. A striking example of this comes from a time long after Ian Little had ceased to be an investment bursar. Ralph Vickers put the college into Asil Nadir's *Polly Peck* conglomerate, to show a considerable profit, and got out of that stock in good time before the company was exposed as a sham and went bust. The daily telephone conversations with Ralph Vickers were hugely enjoyable, but resulted inevitably in too much trading (churning as it is now called), a bad investment strategy, though profitable to a broker on commission for trades.

One of the investment trusts that served the college well was the Vickers da Costa Insecs (Investing in Success) fund. This fund was based largely on the principle of investing in firms that had shown a high rate of growth of earnings per share in the past. This strategy was surprisingly successful for some time. The success is surprising because the policy is based on two assumptions. First, it is assumed that earnings are positively serially correlated. Secondly, the strategy only succeeds if stock prices do not reflect that correlation, as what would now be called the efficient markets hypothesis would require. The serial correlation of earnings is such a natural and intuitive idea that it takes an unusual intellect to question it. That intellect was Ian Little's. As he writes: 'However I was unhappy that there was no statistical proof that past growth was a good predictor of future growth. I feared that our success might be based on an illusion, which could not last' (*LbL*, p. 113).

The result of these ruminations was a short paper with what Ian describes as 'the eye-catching title of "Higgledy-Piggledy Growth"' published in November 1962, and subsequently a small book co-authored with A. C. Rayner, published in 1966, *Higgledy-Piggledy Growth Again*. These studies destroyed the notion that there are growth stocks whose future earnings performance can be predicted from the past. This discovery was embarrassing because Ian Little was an Insecs director (a position from which he resigned shortly thereafter), and because his findings could be seen as ungrateful in view of the great benefits that had accrued to Nuffield from its investment in Insecs. As Ian writes: 'Donald MacDougall also thought I was "rather letting the side down". I did not see it that way, as I did not believe success could continue for long if based on error. Perhaps I also thought that an academic scholar should put the dissemination of truth before profits' (*LbL*, p. 113). As it happens, opinion in the City was catching up with Ian's thinking. The fashion for growth stocks was soon in decline, and the analysis of company prospects became far more sophisticated. Ian's friendship with Ralph Vickers survived this history, and he became a Director of the General Funds Trust, the other big beast in the Vickers da Costa stable.

CHRISTOPHER BLISS
Fellow of the Academy
VIJAY JOSHI
Emeritus Fellow, Merton College, Oxford

Bibliography of works by I. M. D. Little

Books

A Critique of Welfare Economics (Oxford, 1950, 2nd edn., 1957).

The Price of Fuel (Oxford, 1953).

(with P. N. Rosenstein-Rodan) *Nuclear Power and Italy's Energy Position* (Washington, DC, 1957).

(with R. Evely) *Concentration in British Industry: an Empirical Study of the Structure of Industrial Production 1935–51* (Cambridge, 1960).

Aid to Africa: an Appraisal of U.K. Policy for Aid to Africa South of the Sahara (London 1964).

(with J. M. Clifford) *International Aid: a Discussion of the Flow of Public Resources from Rich to Poor Countries with Particular Reference to British Policy* (London, 1965, repr. Chicago, IL, 1967).

(with A. C. Rayner) *Higgledy Piggledy Growth Again: an Investigation of the Predictability of Company Earnings and Dividends in the UK, 1951–61* (Oxford, 1966, repr. New York, 1971).

(edited with H. B. Chenery, F. Baade, J. Kaufmann, L. H. Klaassen, and J. Tinbergen) *Towards a Strategy for Development Co-operation, with Special Reference to Asia* (Rotterdam, 1967; Little contributed a chapter on 'Aid: Project, programme, and procurement tying').

(with J. A. Mirrlees) *Manual of Industrial Project Analysis in Developing Countries, II, Social Cost–Benefit Analysis* (Paris, 1969, also French trans.).

(with T. Scitovsky and M. FG. Scott) *Industry and Trade in Some Developing Countries: a Comparative Study* (Oxford, 1970, also French and Spanish translations).

(with D. G. Tipping) *A Social Cost–Benefit Analysis of the Kulai Oil Palm Estate West Malaysia* (Paris, 1972).

(with J. A. Mirrlees) *Estudio Social Del Costo–Beneficio en la Industria de Paises en Desarrolla: Manual de Evaluacion de Proyectos* (trans. from *Manual of Industrial Project Analysis, II*, Mexico City, 1973).

(with J. A. Mirrlees) *Project Appraisal and Planning for Developing Countries* (London, 1974).

(with J. S. Flemming) *Why We Need a Wealth Tax* (London, 1974).

(with W. M. Corden and M. FG. Scott) *Import Controls versus Devaluation and Britain's Economic Prospects* (London, 1975).

(edited with M. FG. Scott) *Using Shadow Prices* (London, 1976).

Una Critica dell' Economica del benessene (Milan, 1976, trans. Guido Tesarum and with a new introduction by the author).

(with M. FG. Scott and W. M. Corden) *The Case against General Import Restrictions* (London, 1980).

Economic Development: Theory, Policy and International Relations (New York, 1982).

(with D. Mazumdar and J. M. Page Jr.) *Small Manufacturing Enterprises: a Comparative Study of India and Other Economies* (Oxford, 1987).

(with R. N. Cooper, W. M. Corden, and S. Rajapatirana) *Boom, Crisis and Adjustment* (New York, 1993).

Macroeconomic Analysis and Developing Countries: 1970–1990 (San Francisco, CA, 1993).
(with V. Joshi) *India: Macroeconomics and Political Economy 1964–1991* (Washington, DC, and Delhi, 1994).
(with V. Joshi) *India's Economic Reforms 1991–2001* (Oxford and Delhi, 1996).
Picking Winners: The East Asian Experience (London, 1996).
Collection and Recollections: Economic Papers and their Provenance (Oxford, 1999).
(edited with I. J. Ahluwalia) *India's Economic Reforms and Development: Essays for Manmonhan Singh* (Delhi, 1998, 2nd edn., 2012).
Ethics, Economics and Politics: Principles of Public Policy (Oxford, 2002).
A Critique of Welfare Economics: a Retrospective Reissue (Oxford, 2002).
Going to War and Global Morality (London, 2004).
Little by Little (Privately Printed, 2004).

Contributions to books

'Fiscal policy', in G. D. N. Worswick and P. H. Ady (eds.), *The British Economy 1945–50* (Oxford, 1952).
'Direct versus indirect taxes', in R. A. Musgrave and C. S. Shoup (eds.), *Readings in the Economics of Taxation* (London, 1959).
(with R. R. Neild and C. R. Ross) 'The scope and limitations of monetary policy', in *Principal Memoranda of Evidence Submitted to the Committee on the Workings of the Monetary System*, iii (London, 1960).
'Fiscal policy', in G. D. N. Worswick and P. H. Ady (eds.), *The British Economy in the 1950s* (Oxford, 1962).
'Comment on 'Evaluation of "Social income": capital formation and wealth' by P. Samuelson', in D. C. Hague (ed.), *The Theory of Capital* (London, 1963).
'Tax policy and the Third Plan' and 'The real cost of labour and the choice between consumption and investment', in P. Rosenstein-Rodan (ed.), *Pricing and Fiscal Policies* (London, 1964).
'Executive, co-ordinating, supervisory and evaluation machinery', in R. Robinson (ed.), *Overcoming Obstacles to Development: Impressions and Papers of the Fourth Cambridge Conference on Development Problems* (Cambridge, undated).
'Direct versus indirect taxes', in K. J. Arrow and T. Scitovsky (eds.), *Readings in Welfare Economics* (Homewood, IL, 1969).
'Public sector project selection in relation to Indian development', in A. V. Bhuleshkar (ed.), *Indian Economic Thought and Development* (Bombay, 1969).
'Regional international companies as an approach to economic integration', in P. Robson (ed.), *International Economic Integration* (Harmondsworth, 1971).
(with J. A. Mirrlees) 'Further reflections on the OECD Manual of Project Analysis in Developing Countries', in J. Bhagwati and R. S. Eckaus (eds.), *Development and Planning: Essays in Honour of Paul Rosenstein-Rodan* (London, 1972).
'On measuring the value of private direct overseas investment', in G. Ranis (ed.), *The Gap Between Rich and Poor Nations* (London, 1972).
'Social choice and individual values', in E. S. Phelps (ed.), *Economic Justice* (Baltimore, MD, 1973).

'A critical examination of India's Third Five-Year Plan', in C. D. Wadhva (ed.), *Some Problems of India's Economic Policy* (New Delhi, 1973).

'The economy of poor countries and their population stabilization: an introduction', in H. B. Parry (ed.), *Population and its Problems: a Plain Man's Guide* (Oxford, 1974).

(with K. M. McLeod) 'The new pricing policy of the British Airports Authority', in G. P. Howard (ed.), *Airport Economic Planning* (Cambridge, MA, 1974).

'The use and abuse of capital in developing countries', in Y. Ramati (ed.), *Economic Growth in Developing Countries—Materials and Human Resources: Proceedings of the Seventh Rehovot Conference* (New York, 1975).

'Bretton Woods', 'Development economics', 'Necessary and sufficient conditions', 'Take-off point', 'Underdevelopment', and 'Welfare, welfare economics', in A. Bullock and O. Stallybrass (eds.), *The Fontana Dictionary of Modern Thought* (London, 1977).

'Welfare criteria, distribution and cost–benefit analysis', in M. J. Boskin (ed.), *Economics and Human Welfare: Essays in Honor of Tibor Scitovsky* (New York, 1979).

'An economic reconnaissance', in W. Galenson (ed.), *Economic Growth and Structural Change in Taiwan* (Ithaca, NY, 1979).

'The developing countries and the international order', in R. C. Amacher, G. Harbeler, and T. D. Willett (eds.), *Challenges to a Liberal International Economic Order* (Washington, DC, 1979).

'Distributive justice and the new international order', in P. Oppenheimer (ed.), *Issues in International Economics* (London, 1980).

'Comment on Richard S. Eckaus, "Strategies of development and the international division of work"', in *Conference Internacionale Sobre Economia Portuguesa* (Lisboa, 1980).

'Social democracy and the international economy', in D. Lipsey and D. Leonard (eds.), *The Socialist Agenda: Crosland's Legacy* (London, 1981).

'The experience and causes of rapid labour-intensive development in Korea, Taiwan Province, Hong Kong and Singapore and the possibilities of emulation', in F. Lee (ed.), *Export-led Industrialization and Development* (Geneva, 1981).

'Comment on S. Kuznets's "Driving forces of economic growth: what can we learn from history?"', in G. Giersch (ed.), *Towards an Explanation of Economic Growth: Symposium 1980* (Kiel, 1981).

'Indian industrialization before 1945', in M. Gersovitz *et al.* (eds.), *The Theory and Experience of Economic Development: Essays in Honour of Sir Arthur Lewis* (London, 1982).

'Import controls and exports in developing countries', in R. K. Ghosh (ed.), *International Trade and Third World Development* (Westport, CT, 1984).

'Discussion', in A. P. Thirlwall (ed.), *Keynes and Economic Development* (Macmillan, London, 1987).

'A Comment on Professor Toye's Paper', in L. Emmerij (ed.), *Development Policies and the Crisis of the 1980s* (Paris, 1987).

'Crosland, Anthony', in J. Eatwell, M. Milgate and P. Newman (eds.), *The New Palgrave: a Dictionary of Economics* (Macmillan, 1987).

'Comments on Wolfram Fischer, "Swings between protection and free trade in history"', in H. Giersch (ed.), *Free Trade in the World Economy: Towards an Opening of Markets* (Tubingen, 1987).
'Resource use efficiency and the small scale enterprise', in K. B. Suri (ed.), *Small Scale Enterprises in Industrial Development: the Indian Experience* (New Delhi, 1988).
'Comment on Professor Findlay's Paper', in G. Ranis and T. P. Schultz (eds.), *The State of Development Economics: Progress and Prospects* (Oxford, 1988).
'The macroeconomic effects of foreign aid: issues and evidence—a comment', in C. J. Jepma (ed.), *North-South Co-operation in Retrospect and Prospect* (London, 1988).
(with V. Joshi) 'Indian macroeconomic policies', in G. Calvo, R. Findlay, P. Kouri and J. Braga de Macedo (eds.), *Debt, Stabilization and Development: Essays in Memory of Carlos Diaz-Alejandro* (Oxford, 1989).
'Ethics and international economic relations', in B. Barry and R. E. Goodin (eds.), *Free Movement* (Hemel Hempstead, 1992).
(with V. Joshi) 'Future trade and exchange rate policy for India', in R. Cassen and V. Joshi (eds.), *India: the Future of Economic Reform* (Delhi, 1995).
(with V. Joshi) 'Macroeconomic management in India 1964–94', in V. N. Balasubramanyam and D. Greenaway (eds.), *Trade and Development: Essays in Honour of Jagdish Bhagwati* (London, and New York, 1996).
'Protection and the industrialization of developing countries', in I. M. D. Little, *Collection and Recollections* (Oxford, 1999).

Articles

'A reformulation of the theory of consumer behaviour', *Oxford Economic Papers*, NS 1 (1949), 90–9.
'The valuation of social income', *Economica*, 16 (1949), 11–26.
'The foundations of welfare economics', *Oxford Economic Papers*, NS 1 (1949), 227–46.
'A note on the interpretation of index numbers', *Economica*, 16 (1949), 369–70.
'Welfare and tariffs', *Review of Economic Studies*, 16 (1949), 65–70.
'The economist and the state', *Review of Economic Studies*, 17 (1949–50), 75–6.
'Economic behaviour and welfare', *Mind*, 58 (1949), 195–209.
'The theory of consumer behaviour: a comment', *Oxford Economic Papers*, NS 2 (1950), 132–5.
'Direct versus indirect taxes', *Economic Journal*, 61 (1951), 577–84.
'Electricity tariffs: a comment', *Economic Journal*, 61 (1951), 875–82.
'Social choice and individual values', *Journal of Political Economy*, 60 (1952), 422–32.
'L'Avantage collectif', *Economie Appliquée*, 5 (1952), 455–68.
'Classical growth', *Oxford Economic Papers*, NS 9 (1957), 152–7.
'The economist in Whitehall', *Lloyd's Bank Review*, NS 44 (1957), 29–40.
'Die Rolle des Nationalokonomen in Whitehall', *Konjuncturpolitik* (Berlin, 1957).
'The aims of monetary policy', *Bulletin of the Oxford Institute of Economics and Statistics*, 9 (1957), 29–40.
'The role of the economist in Whitehall', *Administration*, 6 (Summer 1958).
'Atomic Bombay', *Economic Weekly*, Bombay, 10, 29 November 1958.

(with R. Evely) 'Some aspects of the structure of British industry, 1935–1951', *Transactions of the Manchester Statistical Society*, Session 1957–8.
'The strategy of Indian development', *National Institute Economic Review*, 9 (1960), 20–9.
'The Third Five-Year Plan and the strategy of Indian development', *Economic and Political Weekly*, 12 (1960).
'The real cost of labour and the choice between consumption and investment', *Quarterly Journal of Economics*, 75 (1961), 1–15.
'A critical examination of India's Third Five-Year Plan', *Oxford Economic Papers*, NS 14 (1962), 1–24.
'Welfare criteria: an exchange of notes', *Economic Journal*, 72 (1962), 229–31 and 233–4.
'Higgledy piggledy growth', *Bulletin of the Oxford Institute of Economics and Statistics*, 24 (1962), 387–412.
'Two comments', *Economic Journal*, 73 (1963), 778–9.
'Welfare economics, ethics and essentialism: a comment', *Economica*, 32 (1965), 223–5.
'Regional international companies as an approach to economic integration', *Journal of Common Market Studie*s, 5 (1966), 181–6.
'Direkte Gegen Indirekte Steurn', *Finanztheorie* (Cologne, 1969).
'Symposium on project appraisal in lesser developed countries', *Journal of Agricultural Economics*, 22 (1971).
'Trade and public finance', *Indian Economic Review*, NS 6 (1971), 119–32.
(with K. M. McLeod) 'The new pricing policy of the British Airports Authority', *Journal of Transport Economics and Policy*, 6 (1972), 101–15.
(with J. Mirrlees) 'A reply to some criticisms of the OECD Manual', *Bulletin of the Oxford Institute of Economics and Statistics*, 34 (1972), 153–68.
(with Robert Mabro) 'Coping with Arab billions', *Financial Times*, 22 December 1973.
'Economic relations with the third world: old myths and new prospects', *Scottish Journal of Political Economy*, 22 (1975), 223–35.
'Perspectives for the second half of the Second UN Development Decade', *Journal of Development Planning*, 9 (1976).
'Import controls and exports in developing countries', *Finance and Development*, 15 (September 1978), 20–2.
'Robert Cooter and Peter Rappaport's "Were the ordinalists wrong about welfare economics?"; a comment', *Journal of Economic Literature*, 23 (1985), 1186–8.
'Small manufacturing enterprises in developing countries', *World Bank Economic Review*, 1 (1987), 203–35.
(with V. Joshi), 'Indian macroeconomic policies', *Economic and Political Weekly*, 22 (28 February 1987), 371–8.
'Small manufacturing enterprises and employment in developing countries', *Asian Development Review*, 6 (1988).
(with V. Joshi) 'Les politiques macro-economiques Indiennes', *Revue Tiers Monde*, 30 (1989), 797–821.
(with J. Mirrlees) 'Project appraisal and planning twenty years on', *Proceedings of the World Bank Annual Conference on Development Economics* (1991).
'Trade and industrialization revisited', *Pakistan Development Review*, 33 (1994), 359–89.

'India's economic reforms 1991–96', *Journal of Asian Economics*, 7 (1996), 161–77.
'Comment on "Review-debt adjustment and recovery"', *World Economy*, 19 (1996), 595–8.

Reviews

A la recherche d'une discipline economique by M. Allais, *Economic Journal*, 60 (1950), 558–60.
Income and Wealth, series I, ed. F. Lundberg, *Journal of Political Economy*, 60 (1952), 172–3.
Welfare and Competition by T. Scitovsky, *Econometrica*, 20 (1952), 703–4.
Welfare Economics and the Theory of the State by W. J. Baumol, *Economica*, 20 (1953), 78–80.
Principles of Private and Public Planning by W. Keilhau, *Economic Journal*, 63 (1953), 133–5.
The History of Economic Analysis by J. A. Schumpeter, *Economic History Review*, 8 (1955), 91–8.
An Expenditure Tax by N. Kaldor, *Economic Journal*, 66 (1956), 116–20.
The Role of the Economist as Official Adviser by W. A. Johr and H. W. Singer, *Economic Journal*, 66 (1956), 34–136.
Theoretical Welfare Economics by J. de V. Graaff, *Economica*, 24 (1957), 262–4.
Some Economic Aspects of the Bhakra Nangal Project by K. N. Raj, *Economic Journal*, 71 (1961), 413–15.
Indian Economic Policy and Development by P. T. Bauer, *Economic Journal*, 71 (1961), 835–8.
Equilibrium and Growth in the World Economy by R. Nurkse, *Economic Journal*, 72 (1962), 688–9.
The Development of the Indian Economy by W. B. Reddaway, *Economic Journal*, 72 (1962), 722–3.
The Management of the British Economy by J. C. R. Dow, *Economic Journal*, 74 (1964), 983–5.
Project Selection for National Plans by A. Papandreou and U. Zohar, *Journal of Economic Literature*, 12 (1974), 1336–7.
Economic Growth and Social Equity in Developing Countries by J. Adelman and C. T. Morris; and *Redistribution with Growth* by H. Chenery *et al.*, *Journal of Development Economics*, 3 (1976), 99–116.
Pioneers in Development, ed. G. M. Meier and D. Seers; and *The Hobbled Giant: Essays on the World Bank* by S. Please, *Finance and Development*, 22 (1985), 47–8.
The Role of the State in Economic Change, ed. H.-J. Chang and R. Rowthorn, *Journal of Development Economics*, 53 (1997), 471–4.