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KALDOR'S WAR

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Introduction

In the 1930s the young Nicholas Kaldor (1908-1986) established himself as one of the world's leading economic theorists (King 2007). As with so many lives, Kaldor's was turned around by the Second World War. This was not the result of enemy action. Although his family in Hungary suffered grievously at the hands of the Nazis, Nicky himself was not called to arms. While he had become a British citizen in 1934, and made enquiries about joining the Civil Service as an economic advisor, he was told that his Hungarian origins would disqualify him from anything other than menial duties in Whitehall. He therefore decided to stay in academia, and relocated to Cambridge with his remaining LSE colleagues in September 1939, when the Ministry of Works took over the School's Aldwych site in central London .[1]

Now based at Peterhouse, Kaldor was able to deepen old friendships and develop new ones. A 'war circus' of economists began to operate, named by analogy with the 'Cambridge circus' of young theorists who had interrogated Keynes in 1930-1 after the publication of the *Treatise on Money* and helped to focus his mind on the revolutionary breakthrough of the *General Theory* (Moggridge 1995, pp. 531-2). In addition to Kaldor the war circus included Joan Robinson, Piero Sraffa and (when he could escape from official duties in London) Richard Kahn. Kaldor was particularly fond of Sraffa, though the secretive Italian would never let him (or anyone else) into the details of his very long-term project for the rehabilitation of classical economics. He also became a close friend of Robinson, who took him on long walks in the Cambridgeshire countryside during which they discussed economic theory with an intensity that once nearly got them into serious trouble:

> Quite inadvertently we walked into an ammunition dump for the R. A. F. We were arrested and brought before a very fine old English major. He was much too old for fighting in the war, and like many other retired officers, was put in charge of routine duties, like looking after an ammunition dump. He took our telephone numbers and addresses and wanted to check our identity by telephone. I gave my wife's address and Joan Robinson gave her husband's address. Then he said, 'Excuse me, I hope I'm not creating any family problems by ringing up your husband?' He was a fine gentleman. (Kaldor 1986, p.68)[2]

While he must have discussed theoretical questions on these long country walks, Kaldor's thinking had already shifted, fundamentally, away from questions of pure theory and towards the policy issues thrown up by the war. Lacking any public responsibilities and free from the constraints imposed by official secrecy, he was able to publish a series of articles on the principles of war finance and the prospects for postwar reconstruction. By 1945 Kaldor was no longer merely a theorist. He had emerged as an applied economist of great talent and energy, and had acquired a taste for providing policy advice that he would retain for the rest of his life.

How To Pay For The War

In November 1939 Keynes wrote a series of articles for the London *Evening Standard* that were subsequently published as a best-selling booklet. In *How To Pay For The War* Keynes demonstrated that his new macroeconomic theory was far from being restricted to the 'economics of depression', as even sympathetic critics like J. R. Hicks (1937) had once claimed. Precisely the same principles of public finance that

Keynes had prescribed for the achievement of full employment in the mid-1930s were now invoked to explain how total war could be waged successfully without disastrously accelerating inflation or inflicting gross injustice on any section of the civilian population. Keynes's pamphlet confirmed his status as Britain's greatest living economist, and the analytical framework that he set out in it was used to great effect by the financial planners of the Second World War (Moggridge 1995, pp. 629-34; Skidelsky 2000, pp. 67-8).

It is not widely known that Nicholas Kaldor had (almost) got there first. In a short, incisive article in *The Banker* magazine in August 1939 he demonstrated that Keynesian macroeconomics could be adapted to a fully employed (in fact, over-employed) economy at war. The two 'principles of emergency finance', Kaldor maintained, were 'first, to ensure that the *aggregate real burden* falling on the community should be as small as possible; and second, that the *distribution* of this burden should be equitable' (Kaldor 1939, p. 149; original stress). The first principle required that total output should be as large as possible. An increase in government expenditure would raise aggregate demand and stimulate output. This was true even if the extra government spending was matched by increased taxation, Kaldor suggested, since part of the extra taxes would be 'paid by a reduction of saving, not by a reduction in consumption', so that aggregate demand would rise (*ibid*., p. 150). Here he was very close to enunciating the balanced budget multiplier theorem, according to which a one dollar increase in government spending, accompanied by a one-dollar increase in lump-sum taxation, is not neutral but in fact raises aggregate demand by one dollar. This theorem was not published until 1943.[3] Although Kaldor was a little vague as to the details he was crystal clear on the underlying mechanism: 'as most economists now agree, it is quite possible for the aggregate real burden of additional

public expenditure to be negative, rather than positive' (*ibid.*, p. 149) – crowding *in*, to use more familiar language, instead of crowding out. Everything hinged on the extent to which output could be increased, and this was largely a question of the available reserves of labour-power, which in turn depended on the numbers of men still involuntarily unemployed, the willingness of workers to put in longer hours, and the possibility of increasing the employment of women. 'The limits of "safe" borrowing cannot therefore be determined without knowledge of Government policy in regard to labour….Taxation during the war should be screwed up only to the extent necessary to avoid an inflationary spiral' (*ibid.*, pp. 150-1). This was the first principle of war finance.

Many people believed, Kaldor continued, that there was an upper limit to the size of the National Debt. But this was 'a pure bogy and it is high time that this bogy should be laid' (*ibid.*, p. 151). Doubling the debt would also double the interest burden (assuming the rate of interest to remain unchanged), and would therefore double the taxes required for that purpose. At the same time, however, it would double the amount of interest received by the owners of the newly-created government securities. The effect would be a redistribution of income and wealth, to those who ended up owning the additional securities, from those who did not. Kaldor thought that entrepreneurs would be the principal beneficiaries and fixed-income recipients (salary-earners and rentiers) would be the losers; wage earners would be largely unaffected. His argument here is rather opaque. It seems to rest on a theory of income distribution that is not clearly articulated, in which profits (mainly) and wages (to a lesser extent) rise as total output increases, while salaries and interest payments do not; these distributional changes would presumably accelerate if inflation occurred along with the growth in real output. Entrepreneurs would tend to save a significant

proportion of their increased incomes, while wage-earners would spend almost all of theirs, and so the additional government securities would come to be owned by the entrepreneurs. Similar effects on the distribution of income and wealth would occur if the extra government spending was financed by taxation (*ibid*., pp. 152-4).

After his move to Cambridge Kaldor taught courses in both income distribution and public finance, and he soon began to clarify his thinking on these questions (Targetti 1992, pp. 8-9). Indeed, with the exception of some rather minor criticisms of Hayekian and Pigovian macroeconomics (Kaldor 1941b, 1942c; cf. Hayek 1942, Pigou 1942), the only theoretical questions that seriously engaged Kaldor during the war concerned taxation. As we have seen, there was a good very reason for this. To win the war, the British government had to assume control of a very much larger proportion of the country's economy than it had in peacetime. There were three ways in which this could be done. First, the state could commandeer resources, effectively suppressing the price system, the market and the use of money for the duration of hostilities. In Australia the expatriate Keynesian economist Colin Clark, now working for the Queensland government, proposed precisely this immediately after the fall of Singapore, when a Japanese invasion seemed imminent. Michal Kalecki's widely-discussed plan for 'general rationing' of all consumer goods in Britain was a less extreme version (King 1998a). Second, the state could buy all the commodities, labour and raw materials that it needed, using its ability to issue securities and print money without limit to outbid private customers. This, however, would generate a high, rising and inherently unpredictable inflation rate, which would be grossly unfair to those on fixed incomes and would almost certainly provoke bitter and costly industrial conflict. Third, the state could try to prevent demand inflation by increasing taxation to reduce the sum of private consumption and investment

expenditure by an amount corresponding to the increase in government spending. This, in essence, was the question that Kaldor had been addressing in his 1939 article on the principles of emergency finance.

Almost everyone agreed that higher taxation was, in principle, superior to both a command economy and uncontrolled inflation as a means of mobilising resources to fight the war. An economic theory of taxation was essential if this was to be done effectively, and would also be crucial for postwar reconstruction, when aggregate demand might be either excessive or seriously deficient. In any case, something would have to be done about the excess profits that would have been made, and the unearned fortunes that would have been accumulated, by the 'hard-faced men who had done well out of the war'. In August 1939 Kaldor still had some way to go in working out his ideas on the principles of optimal taxation. This did not stop him from making some very forthright policy proposals. First, in order to minimise the distributional impact of increased borrowing, interest rates should be kept as low as possible. Second, and for the same reason, high marginal rates of taxation should be imposed on the excess incomes generated by the war, especially (but not exclusively) on profits. Third, a wealth tax should be introduced after the war, the proceeds being used to reduce the National Debt. These measures would help to counter the 'twin phenomena of the "*nouveau rich*" and the "*impoverished bourgeoisie*", which so often appear after periods of war, [and] never fail to be a cause of great social unrest' (Kaldor 1939, p. 154). As he noted three years later, 'The main argument in favour of a post-war capital levy for repaying the National Debt is distributional: it makes it possible to fix the burden of the Debt on a particular group of taxpayers, the capitalists, rather than diffuse the burden among income tax-payers in general' (Kaldor 1942a, p. 140n1).

Accounting for Macroeconomists

If the theory of war finance was still a work in progress, the same was very much true of the data. In 1941, 1942 and 1943 Kaldor published three papers in the *Economic Journal* examining in painstaking detail the new official statistics on national income and expenditure. Since the overall planning of the war effort demanded reliable data on all the relevant magnitudes, the definition and measurement of aggregate output was no longer a purely academic question, and considerable resources were devoted to it in Whitehall. Kaldor's analysis of the three White Papers never lost sight of the big issues that lay behind the rather arid technical distinctions drawn by the statisticians.

It is worth noting at this point that there were two distinct national income accounting projects under way in the late 1930s and early 1940s: distinct, but not separate, for they shared a great deal of common ground, but distinct none the less. Project one involved the measurement of economic welfare, sometimes referred to as the 'national dividend', so that questions of the following type could be answered. Are we better off on average now than our grandparents were and, if so, by roughly how much? Are we better off on average than people in other parts of the world, or worse off, and by roughly how much? Project two was all about macroeconomics, and was originally inspired by the need to deal with the mass unemployment of the 1930s. It attempted to answer a different set of questions. What is the maximum potential output of the entire economy, if all its productive resources – especially labour - are fully employed? How far short of this potential is the economy at the present time, and how can the gap between actual and potential output be eliminated so that full

employment can be achieved? Project one had its roots in classical economics; project two was the product of Keynes's *General Theory*.

We now know that these were indeed distinct projects, though it was much less obvious then. They were not, to repeat, separate: they relied heavily on the same sorts of data (on total output, income and expenditure, valued at market prices), and they gave rise to monetary aggregates, for there was no other way of adding them up. But they were distinct. The techniques for measuring Gross National Product and Gross Domestic Product that were generated by project two are indispensable for coherent macroeconomic policy-making, but they are likely to be seriously misleading if carried over uncritically into project one. Today every student of economics understands that per capita GNP is not a satisfactory index of economic welfare for many (in hindsight very obvious) reasons. GNP fails to take account of environmental degradation, the value of leisure, the non-market work performed very largely by women….the list is a long one and has led critics of national income accounting to advocate other and supposedly superior indices of welfare, from the United Nations' Genuine Progress Indicator to the King of Bhutan's concept of Gross National Happiness (Stilwell 2002, pp. 41-2). But these alternative measures are themselves unsuitable for solving the problems of macroeconomic management that were at the heart of project two. And it was project two which, in 1939, suddenly became a matter of great urgency, as Kaldor's early and imperfect musings about 'emergency finance' revealed.

His interest in Britain's first published national accounts was not, therefore, a purely academic one:

> It is impossible to judge intelligently the system of taxation, or the scale of public expenditures, without a quantitative record of the total economic activity of the nation, which forms the background. This is perhaps even more important in war-time, when the Government controls so much larger a part of the national income; but it is vital in peace-time as well. If a statement of this kind had been presented year by year, simultaneously with the Budget, many financial mistakes of past Governments might have been avoided.
>
> Moreover, the regular publication of this document would stimulate both Government and Parliament to look upon the level and the stability of the National Income, rather than the conventional and narrowly financial standards, as the true criterion of budgetary policy; to regard the movements of the national expenditure, and not merely of the expenditures of public departments, as within their province. It is on the assumption of this wider responsibility that our best hope lies for the post-war world. (Kaldor 1941a, p. 181)

This criterion would soon be restated, by Kaldor's old LSE friend Abba Lerner (1943), as the principle of 'functional finance': 'Government expenditure and revenue should be determined so that total expenditure in an economy is at the rate which will produce full employment without inflation. This is to be done without any concern about whether the resulting budget is in surplus or deficit' (Nevile 2003, p. 149). The principle of functional finance is in sharp contrast with the traditional principle of 'sound finance', which requires that the budget always be balanced, either annually or over the course of the trade cycle. Only in exceptional circumstances, Lerner argued,

would the precepts of functional finance and sound finance coincide; when they were in conflict, functional finance should prevail.

In this spirit Kaldor took his readers through the details of the White Paper on National Income and Expenditure, explaining with great care the way in which it was proposed to finance the British war effort. There was increased government spending of £2,500 million on one side of the balance sheet and five items on the other side: a cut in consumption (£350 million), increased output (£450 million), reduced private fixed investment (£500 million), depletion of inventories (£250 million) and an increase in the overseas deficit (£950 million) (Kaldor 1941a, p. 189; all magnitudes are in 1938 prices). These figures, he concluded, were 'encouraging in showing how much more we can still do before our war effort really reaches its maximum'. Consumption might feasibly be cut by an additional 15%, and output could be increased further. 'Not until real output is at least 115 per cent of the 1938 level, and the Government sector takes up at least 50 per cent of this larger total (as compared with the 37 per cent in the last quarter of 1940) can we feel that our economy has been fully geared to the war' (*ibid*., p. 190).

In a sense these were vital military secrets, as Kaldor acknowledged:

> The Government are to be congratulated on their wisdom and courage in revealing the 'secrets of War Finance' in the middle of the war. Their frankness – in significant contrast to German methods, which conceal even the budgetary figures – make[s] possible intelligent discussion and criticism of our methods of War Finance, and provides a solid foundation for the confidence of the nation in its own tremendous strength. (*ibid*., p. 191).

When he travelled to Germany at the end of the war the Nazi archives revealed their own financial secrets. They told a surprising story:

> ….the picture of the German war effort which dominated Allied imagination was very largely a false one. Germany did not fight a ‘total war’; despite all the propaganda talk, she made no serious attempt to exploit her own war potential fully, except perhaps for a brief period in August and September, 1944, when it was too late to be of any consequence. Whatever the ruthlessness she may have shown towards vanquished enemies, there is no evidence of ruthless sacrifices having been imposed upon her own people for the sake of victory; in terms of the thoroughness of the war effort, Germany lagged well behind not only Britain or Russia in the present war, but also behind her own showing in the first World War. Whatever else may be said about the German war economy it certainly was not ‘totalitarian’. (Kaldor 1945-6, p. 33; cf. Milward 1965; Sereny 1995, chapter XII)

Throughout the war the British government continued to publish its own estimates of the national accounts. Reviewing the 1941 White Paper, Kaldor commented on the huge increase in personal savings that had taken place since 1938 (Kaldor 1942b, p. 213). By this stage

> ….about one-quarter of our increased Government expenditure since the war was furnished by increased production, and one-quarter by reduced consumption, while the remaining half came from sources which involve a ‘burden on the future’ – i.e., which make the amount of resources at the

> disposal of the post-War generation less than they would have been if there had been no war. In 1940 just under two-thirds of the war expenditure came from such sources; so that, as between these two years [1940 and 1941], the proportion furnished by sources which involve no burden on the future has increased. (*ibid*., p. 221)

There was still scope for improvement; the government could at a pinch increase its command over resources by another 14 per cent, ‘but this rate may be approached in 1942’ (*ibid*., p. 222).

Kaldor’s third and final excursion into national income accounting, written with his Hungarian colleague Tibor Barna, drew even more optimistic conclusions. By 1942 reduced consumption made up roughly 25 per cent of the ‘real sources of war finance’, about the same as in 1940; increased output now constituted 43 per cent, up from 17 per cent in 1940; and the contribution made by reduced investment, at home and abroad, had fallen from 60 per cent to 32 per cent (Kaldor and Barna 1943, p. 272). ‘In all these respects’, they concluded,

> ….the performance greatly exceeded the promise; there are few economists (if any) who would have dared to predict in 1939 that the war-time increase in the national income could become so large, or that the war-time capital consumption or the degree of price inflation could be kept so small. The latent reserves of our peace-time economic system have proved to be greater than even the most optimistically (or pessimistically?) minded observer could have expected. (*ibid*., p. 263)

There were important implications for Britain's postwar economic prospects. 'If the war ended tomorrow and hours were reduced to the 1938 level, and if only half of the five millions additionally occupied could be retained in industrial employment, home-produced output would still show an increase of some 18 per cent over 1938' (*ibid*., p. 273). Added to this, productivity would almost certainly continue to rise, so that, on the assumption that full employment was maintained, 'post-war home produced output can be expected to be about a quarter above the pre-war level; and this expectation should provide the framework in which plans for post-war reconstruction are to be fitted' (*ibid*., p. 274). Here project one and project two come together.

Unless We Plan Now….

Kaldor now began to ponder more general questions about the organisation of the economy, and the broader society, after the war. Again the context is important. Public opinion in Britain swung sharply to the left between 1939 and 1942; George Orwell believed, as late as February 1941, that a socialist revolution was both imminent and necessary for victory over the Nazis, since only radical political change would give the working class sufficient motivation to continue the fight (Orwell 1941). This was an extreme view that soon proved to be false, but there was an almost universal conviction that there could be no return to the mass unemployment, poverty and intolerable inequality of the 1930s (Addison 1975). Once the danger of a German invasion had passed there was an intense and sustained debate on how to create a better future, which attracted students to thousands of adult education classes (both civilian and military) and spilled over into the popular press and the BBC. Never before (or since) had popular interest in economics been so widespread or so intense.

Kaldor's first contribution to these debates came in a pamphlet on the special problems of transition from a wartime to a peacetime economy written with his old friend Peggy Joseph. Published by the Association for Education in Citizenship, it was intended for use by adult classes (and ends with a list of questions for class discussion). The tone of the pamphlet is consistently optimistic. The problems that Britain faced were less serious than commonly supposed, Joseph and Kaldor argue, and the solutions would prove painless and effective. There was a general feeling in the country that in many ways things had got better since the start of the war, but also a sense of foreboding and a vague but powerful belief that it was all too good to last:

> Most people, if asked about conditions in war-time, would answer that although life is undoubtedly harder than it was before the war, it is not nearly so bad as they feared it would be when war broke out. Hours of work are longer, food is simpler, amusements are fewer, life is more monotonous – but there are compensating advantages. There is a greater sense of comradeship among people of all classes; there is more social equality. There is also much less social insecurity; people are much less afraid of losing their jobs and of suddenly ceasing to earn their daily livelihood. (Joseph and Kaldor 1942, p. 2)

All this was due to rationing, which ensured fair distribution, and to full employment. However, many people had the impression 'that all this war-time spending must be at the cost of the future; if things are not so bad now – because people are earning decent wages and there is work for all and enough food for all – this only means that conditions will be all the worse afterwards' (*ibid*., p. 2).

This unease was given some credence by memories of the unhappy experience at the end of the First World War, when a brief but furious boom was followed by a severe depression. To 'avoid the mistakes of the last demobilisation and to set up an economic system which will enable us to enjoy the full benefits of our economic wealth' (*ibid*., p. 7), sensible policies would be necessary in both the immediate aftermath of the war and in the longer term. Planned demobilisation would be essential in the short term, with the retention of wartime controls for as long as was necessary to transfer labour and other resources to peacetime use. The 'bonfire of controls' that had been staged in 1919 could not be repeated. In the longer term, policy should be directed towards the 'three outstanding features of the pre-war economic system which everyone would like to get rid of….unemployment, poverty and inefficiency' (*ibid*., p. 14). Full employment could be maintained through government spending, which would win general support 'once it is understood that increased State expenditure for the purpose of employing idle resources is not wasteful but is actually a way of avoiding waste' (*ibid*., p. 16). But full employment would bring new problems, the most important of which was wage and price inflation:

> There is a great danger….that with the present system of sectional wage-bargaining, in a state of full employment, a tug of war will ensue between the workers of different industries for larger slices of the national cake, in the course of which wages and prices will continually rise….A policy of full employment will require, therefore, that the present system of wage-bargaining by trade unions and employers' federations in *individual industries* should be replaced by a system of wage determination on a national basis'. (*ibid*., p. 18; original stress)

For the rest of his life Kaldor was to be a consistent advocate of national incomes policy as the principal anti-inflationary instrument, superior in every way (be believed) to more orthodox policies of demand deflation.

The problem of poverty, Joseph and Kaldor continued, could be solved by implementing the newly-published Beveridge proposals for a comprehensive welfare state (see below). The question of inefficiency arose from the lack of genuine price competition in very many industries. As a result,

> ….prices in most industries are much higher than the costs of production with the most efficient methods and are generally high enough to allow many inefficient firms to exist side by side with efficient ones. And so it comes about that only a fraction of each industry's output is produced by the most efficient methods. (*ibid*., p. 20)

Since 'competition does not fulfil its function of eliminating the unfit' (*ibid*., p. 22) the state should step in, 'forcing industries to sell at truly competitive prices – and at prices at which only the efficient, and not the inefficient firms can survive'. This method, they concluded, 'is the only one by which capitalism could be made to work' Discussion of 'the much wider question of Socialism versus Capitalism' was deferred to a later date (*ibid*., p. 23).

They were in no doubt, though, that a suitably reformed British capitalism *would* work. The war had not greatly reduced the nation's capital stock, and would probably improve the skill and technical ability of the working population. Given a reasonable degree of international economic cooperation, the postwar prospects for

British exports were bright. The loss of foreign assets would reduce investment income from overseas, but only by 2-3% of prewar national income (*ibid*., p. 5). There was no reason to worry about the (domestically-owned) War Debt, 'for the simple reason that the members of the nation are the creditors as well as the debtors' (*ibid*., p. 6). There would have to be a transfer of income to the owners of government debt, but in all likelihood this would be quite modest: 'The total increase in interest-burden owing on all the debt incurred in the first two years of the war is only about £50 million per annum – or about half the average annual pre-war cost of unemployment benefits' (*ibid*., p. 6n).

Beveridge I: the Welfare State

In Sir William Beveridge's first wartime report, *Social Security and Allied Services*, the Director of the London School of Economics proposed a comprehensive system of social security to eliminate poverty (Beveridge 1942). Joseph and Kaldor gave Beveridge their endorsement in a brief section of their pamphlet (*ibid*., pp. 18-20). Kaldor became an enthusiastic propagandist for the plan, publishing a scholarly appraisal of its financial implications in the *Economic Journal* (Kaldor 1943a) and a popular version in another pamphlet published by the Social Security League (Kaldor 1944b). This pamphlet was the transcript of a BBC broadcast in October 1943, in the series 'The World We Want: What Must We Give to Get It?' Two fundamental principles were involved, Kaldor told his radio audience:

> First, the idea of *universality*; everyone is brought in, irrespective of social status or income level. Everyone would pay the same rate of contribution and everyone, the millionaire as well as the navvy, would be entitled to the same

> benefits. Under the present scheme, only *employees* are covered by social insurance, and only up to as certain income level. (Kaldor 1944b, p. 4; original stress)

The second new principle was 'even more important: it is the idea of a '*minimum standard'*: the scales of benefit are worked out on the basis of the cost of purchasing the basic needs of life' (*ibid*., p. 5; original stress). All this was expected to cost £265 million per year, with £125 coming in contributions from insured persons, £86 million from the government and £54 million from employers' contributions. The latter was effectively a tax on wages, which would fall, 'like any indirect tax, on the consumer, who pays it in the form of higher prices' (*ibid*., p. 10); it would add only about one per cent to the cost of consumer goods. The Beveridge proposals as a whole were financially very modest, Kaldor concluded: 'The whole burden of the social security plan is not much more than the increase in the national income in a single year which is due to the normal rate of progress of society in peace-time' (*ibid*., p. 9). This was a price well worth paying, and even this might prove to be exaggerated, since the improved health and efficiency of the population would raise aggregate output. At the very least, this would far outweigh any loss from increased malingering (*ibid*., p. 9).

Kaldor made the same point in his *Economic Journal* assessment of the social security proposals:

> ….the cost of Beveridge to the taxpayer will be a '1*d*. on beer and 6*d*. on the income tax' – a very modest sacrifice, indeed, for the abolition of want. It is less than 1.2 per cent of the average incomes of all classes of the community; less than 1.6 per cent of the average 'disposable incomes' – the incomes

> remaining after all other taxes and compulsory levies have been paid. (Kaldor 1943a, p. 18)

Assuming that full employment could be maintained after the war, the cost to the taxpayer would be more than met by savings on unemployment relief. The employee contribution could not be regarded as a significant burden, since ‘insurance against sickness, old age, unemployment, etc….[would provide] tangible benefits for which the insured would be quite ready to pay voluntarily, if the opportunity were offered to him’ (*ibid*., p. 24).[4] Kaldor did criticise the reasoning behind the employer contribution:

> If it is intended that its incidence should fall on the employees, it would be much better to charge it to the employees openly, and to abolish the employers’ contribution altogether. If it is intended, on the other hand, that it should be a charge on the employers – that it should fall on profits, and not on wages – it is no use levying a tax which enters into prime costs; it should be raised as a tax on profits, and not in the form of a tax on employment. (*ibid*., pp. 26-7)

As he argued in his contribution to the National Peace Council’s ‘Peace Aims Pamphlet’, *Planning for Abundance*, the Beveridge plan involved ‘….practically no re-distribution of income from rich to poor….That does not mean that the Plan is not a good thing, but it should not be regarded as a measure towards socialism - a measure which will make the income distribution of this country more equal’ (Kaldor 1943b, p. 26). Overall, Beveridge offered very large social benefits in exchange for very small costs. ‘There is really little cause to be afraid’ (Kaldor 1943a, p. 24).

Beveridge II: Full Employment in Peacetime?

Kaldor had concluded his radio broadcast with the following words::

> But we must also remember that social security is not everything. To get the 'world we want' it must be part of a larger pattern of reform – which includes better housing, better education, and the provision of full employment.
> You can think of other things for yourself. All I would like to say in conclusion is that this last reform – full employment – is perhaps the most important of all. For it would not only remove a great evil; it would also make us much more prosperous and able to afford more easily all the other things that we want. (Kaldor 1944b, p. 12)

Thus his final contribution to the debate on postwar reconstruction was to extend the macroeconomic principles of war finance to the long-term problem of maintaining full employment, without undue inflation, after the war. This was the subject of the second Beveridge Report, *Full Employment in a Free Society*, which was published in 1944 and for which Kaldor wrote a lengthy technical appendix (Beveridge 1944; Kaldor 1944a). Along with Fritz Schumacher, in fact, he was Beveridge's chief economic advisor on the full employment project (Wood 1984, p. 162).

Kaldor's starting point was, once again, the principle of functional finance. He rejected what he described in an article that he wrote for *The Times* in March 1943 as the 'blind fetish worship of the "balanced budget"' (Kaldor 1943c, p. 5).[5] Instead, fiscal policy must be 'so regulated as to secure adequate total outlay for the community as a whole' (1944a, p. 345). There were four ways in which this could be

done, on the assumption that there was no government interference with private business investment decisions:

> The first is by increased public expenditure covered by loans; the second is by increased public expenditure covered by taxation; the third is by increased private spending brought about through remission of taxation, and the fourth is by increased private spending brought about through changing the incidence of taxation or imposing a combined system of taxes and subsidies. The first two methods imply that idle resources are primarily absorbed for purposes that are determined by, or are under the control of, the State; the last two that they are absorbed in uses determined by private citizens. (*ibid*., p. 345)

These were the four routes to full employment.

His first contribution to the Beveridge Report was to make precise calculations as to what they would each have implied for the achievement of full employment in 1938, in an economy where national output was thereby increased by 11% (from £4675 millions to £5175 millions). This would have required a corresponding increase of £500 millions in aggregate expenditure, from public and/or private sources as specified by the four routes previously mapped out. Route I holds tax rates constant and raises government spending, 'to the extent necessary to secure adequate total outlay', and involves a budget deficit. Route II raises government spending and taxation in equal amounts, retaining a balanced budget. Route III holds government expenditure constant and relies exclusively on tax cuts; again the budget will be in deficit. Route IV keeps the budget in balance, but changes the structure of taxes in such a way as to increase consumption spending, and reduce taxation, by the

necessary amount (*ibid*., p. 361). Kaldor adds two variants: route IIa, in which only direct taxation is increased, and route IIIa, in which tax cuts are restricted to indirect taxation. Route IV can then be disregarded, as it is 'a virtual combination of Routes IIa and IIIa' (*ibid*., p. 362).

To make the necessary calculations Kaldor has to consider the effect of increased government spending, and various types of changes in taxation, on aggregate consumption expenditure, and therefore on saving; he has also to estimate the impact of higher incomes on spending on imports. Although he does not (quite) use the terminology, what he is doing here is to estimate the marginal propensities to consume and to save out of wages and profits (*ibid*., p. 357), and the marginal propensity to import (*ibid*., pp. 358-9). (A decade later the idea that there were substantial differences in consumption and savings propensities of workers and capitalists would prove fundamental to his theoretical models of income distribution and growth (Kaldor 1956). He had also to guess at the increase in private investment spending that might be associated with an 11% increase in total output (Kaldor 1944a, pp. 360-1). He could then begin his assessment of the various routes to full employment. The actual level of government spending in 1938 was £800 millions, of which £725 millions had been covered by tax revenues and £75 millions (the budget deficit) had been financed by loans. Full employment could have been achieved in 1938 by any one of the five routes (I, II, IIa, III and IIIa). The fiscal implications of each of them are shown in Table 1.[6] It can be seen from Table 1 that the five routes to full employment have very different consequences for the government's finances. Three of them (I, III, IIIa) require budget deficits, and the two that do not (II, IIa) involve extremely large increases in government spending.

TABLE 1: FIVE ROUTES TO FULL EMPLOYMENT IN 1938

	Route I	Route II	Route IIa	Route III	Route IIIa
Govt. spending	1090	1710	1435	800	800
Taxation	860	1710	1435	460	515
Deficit	230	0	0	340	280
Δ Govt. spending	290	910	635	0	0
Δ Taxation	135	985	710	-265	210
Δ Deficit	155	-75	-75	265	210

Source: derived from Kaldor 1944a, Table 46, p. 363.

So much for 1938. The situation would be quite different after the war, when the needs of private industry,

> ….together with the higher ratio of exports to imports, are likely to set up, for a number of years, a demand for labour that will be much more closely related to the available supply than was the case before the war. This might enable a full employment policy, for a time, to be consistent with budgetary surpluses, rather than public borrowing. But taking a longer view, there appears to be no reason why the employment problem should not again present itself in much the same aspects as in the 1930s; and once this stage is reached, the practical methods of maintaining full employment will again be the creation of loan

expenditure, either by increasing public outlay, or by lowering taxation. (*ibid.*, p. 348)

The second and third parts of Kaldor's contribution to the Beveridge Report thus deal with the elimination of the 'inflationary gap' (*ibid.*, p. 368) that is at first to be expected after the war, and with the long-run consequences of the public borrowing that would be needed to eliminate the subsequent deflationary gaps.

Supposing that the transition to a peacetime economy has been completed by 1948, Kaldor repeats his calculations on the assumptions that both the distribution of income between wages and profits and the UK's terms of trade are unchanged from their 1938 levels. He expects labour productivity to be 13% higher, and income from foreign investments 40% lower, than before the war (*ibid.*, p. 369). One very important institutional change is assumed to occur:

> Our hypothesis is that the Government, through a National Investment Board, will so regulate the rate of capital expenditure (by fitting together the investments undertaken by public authorities and by private industry into a common national plan) as to ensure stability and adequacy in the national outlay as a whole. (*ibid.*, p. 388)

Kaldor now calculates the implications of three alternative investment plans, each of them designed to achieve full employment without inflation. In plan I, total net investment (public and private) would be £765 millions in 1948, compared with the 1938 level of £610 millions; in plan II, it would be £1000 millions; and in plan III, £1333 millions (all at 1948 prices, which are expected to be one-third higher than in

1938). Plans II and III would allow a much more rapid programme of house-building and much higher levels of business fixed investment than would be possible under plan I. On Kaldor's estimates, 'each of these plans is consistent with a higher level of private real consumption than obtained in 1938, and would thus leave the community better off, in terms of current standard of living, than they were before the war', by 19%, 14% and 7% respectively (*ibid.*, p. 391). Plans II and III would require large budget surpluses and correspondingly steep increases in tax rates (by 20% and 49%):

> But in the case of Plan III at any rate, the required increase in taxation is so stiff – it implies an income tax of 8s 8d. [43.3%], instead of 5s. 10d. in the £ [29.2%], if all Central Government taxes were raised proportionately – that it might be preferable, in this case, to secure the required reduction in consumption (at least in part) by other means of control, such as rationing. (*ibid.*, pp. 391-2)

Finally, Kaldor turned to the problem of the long run. Real incomes would rise over time, due to the combined effects of continued capital accumulation and technical progress. Measures would then be necessary to ensure that consumption grew at the appropriate rate. This might well involve 'more radical methods of income redistribution', since 'it will no longer be possible to afford the degree of inequality of incomes that can be sustained during the period of relatively high investment'. In all likelihood this would entail deficit financing, and the final section of Kaldor's Appendix was thus devoted to analysing 'the effects of a policy of continuous borrowing under peace-time conditions' (*ibid.*, p. 393). It has a remarkably modern ring.

What, Kaldor asks, is the 'real burden' of a growing national debt? His answer is rather more cautious than it had been in 1939 or 1942, since he now recognises the possibility of disincentive effects.[7] On the (admittedly highly unrealistic) assumption that the national debt was equally distributed among the population at large, a growing ratio of debt to income would mean that the composition of each citizen's income would change, with a growing proportion coming as 'rent' (that is, interest payments from the government) and a declining proportion from productive effort. A case could therefore be made for stabilising the ratio of debt to income to avoid discouraging effort. What would this mean for the British economy over the 25 years after 1948? Kaldor's analysis is numerical rather than algebraic, but it effectively establishes the 21st-century rules for 'fiscal sustainability' (Burger 2003). The critical relationship, he maintains, is that between the rate of growth of output and the real rate of interest. Kaldor assumes the latter to be fixed at 2%, with a nominal interest rate of 2% and a stable price level established by suitable 'monetary and wages policy' (*ibid*., p. 398). The rate of growth of output would depend on changes in three factors: the working population, average hours of work, and output per hour. Kaldor expects that the first two factors would work to reduce output, since low fertility would cause the working population to fall (shades of our own allegedly looming 'ageing crisis'!) and hours of work would continue to decline, perhaps by 10% over the quarter-century under consideration. Productivity, however, would grow, in particular because 'the past tendency towards an exorbitant number of people entering the field of distribution might be arrested'.[8] On balance, output might increase by 1% per annum.

Now come the numerical estimates. In 1948 GDP would be £8450 million, at 1948 prices, while interest payments on the national debt were expected to amount to

6% of GDP, or £500 million. (With the rate of interest set at 2%, this implies a national debt of £25 billion, or approximately three time annual output). Output would grow by approximately £90 million each year. To keep the ratio of interest payments to GDP constant, the debt could grow by £250 million per annum (since 0.02 x £250 million = £5 million, and 5/90 = roughly 6%). If the working population began to grow again after 1970, as demographers predicted, this figure would rise. At all events,

> ….the contention that a policy of increasing the National Debt in peace time involves a steadily increasing potential burden on the taxpayer is very far from the truth. This could only be the case with a rate of borrowing that is far in excess of anything that might be necessary under peace time conditions in order to sustain a full employment policy. (*ibid*., p. 400)

Kaldor might also have emphasised the important role played by cheap money in these calculations.[9]

Looking back on his 1944 forecasts in 1964, in the introduction to volume one of his collected *Essays on Economic Policy*, he noted contemporary criticisms by the econometricians Richard Stone and A. G. Hart (Hart 1945; Stone and Jackson 1946), and acknowledged 'important errors….which I can only now attribute to youthful exuberance' (1964, p. xi). He had underestimated the negative effect of wartime dislocation on labour productivity, Kaldor admitted, and had taken an overly optimistic view of Britain's postwar terms of trade. 'These two factors explain the discrepancy between the 20 per cent rise in real national income that was forecast and

the 4 per cent increase which actually occurred, and this in turn was responsible for the erroneous conclusions on taxation' (*ibid*., p. xii).

Conclusion

Evidently Kaldor's wartime socialism was cautious and moderate. He seems to have been uninterested in any significant extension of public ownership or in the introduction of comprehensive microeconomic planning. Even in 1942-3, when the war-time radicalism was at its peak, he advocated limited reforms to a largely unchanged capitalist economy, reforms that (he implied) would be agreed upon by all reasonable and intelligent citizens. There is no trace, in Kaldor's wartime writings, of the political tensions that dominated the thinking of contemporaries like Joan Robinson and Michal Kalecki. Robinson detected alarming echoes of Fascism in the growth of business support for economic planning, while Kalecki famously mused on the rise of capitalist opposition to full employment, which would come to be viewed as a threat to 'discipline in the factories' (Robinson 1942; Kalecki 1943; cf. King 2004). At a more technical level, Kalecki's independent statistical assessment of the prospects for full employment in postwar Britain was 'not much divergent' from Kaldor's (Kalecki 1944b, p. 285n). The Polish economist was, however, less inclined to believe that stimulating private investment offered a viable route to full employment, since the effects 'depend….on the reaction of entrepreneurs, and it is quite possible that when they are in a very pessimistic mood they may not respond even to considerable inducements. This may happen, for instance, if they do not feel confidence in the political situation' (Kalecki 1944a, p. 53). Kalecki therefore favoured the two alternative solutions: deficit-financed public investment and public consumption, and the redistribution of income from rich to poor. Oxford and Cambridge seem not to have communicated on these important issues; at any event,

there is no record of Kaldor having responded to Kalecki's arguments. He certainly did not share hia misgivings about 'the political situation'. On the contrary, the tone of Kaldor's wartime writings is consistently (indeed, remarkably) optimistic.

His personal circumstances were less cheerful. Relations with Hayek had long been strained, as can be inferred from the ill-tempered exchanges between the two men in *Economica*, where Kaldor attacked the Austrian's almost unintelligible writings on the trade cycle and Hayek complained of systematic and apparently wilful misunderstanding (Kaldor 1942c; Hayek 1942). This was not the way for a young lecturer to advance his career at the LSE. The Kaldor papers include a remarkable exchange of letters in 1942-4, which contain what is probably the only instance in recorded history of an academic demanding to be given *more* examination scripts to mark. In January 1942 Kaldor complained to his friend and patron, Harold Laski, that Hayek had excluded him from examining duties, provoking Hayek to tell Laski that 'Kaldor thinks himself too good for the work he is asked to do', neglecting his teaching commitments and failing to report on the students he was supposed to be supervising. Kaldor complained to the Director of the LSE, Alexander Carr-Saunders, who managed to smooth things over[10], but the grievance rankled enough for him to engage in a public row with Hayek two years later; this time Lionel Robbins intervened, on Hayek's side. Kaldor now placed a sinister construction on the behaviour of his two adversaries: the reappointment of the same examiners, year in, year out, 'inevitably compelled students to concentrate their work on a particular [Austrian?] approach to economics, and excluded others' [Keynesians?][11].

Things could not go on like this for much longer. Significantly, Kaldor did not move back to London when the LSE returned there at the end of the war. Instead he remained in Cambridge and commuted to carry out his teaching duties, and official

responsibilities took up more and more of his time. In 1945 he was seconded to the United States Strategic Bombing Survey, where he worked with a talented team of economists that included John Kenneth Galbraith (the Survey's director), Paul Baran, Edward Denison, Fritz Schumacher and Tibor Scitovsky (Galbraith 1979, pp. 219-20; 1981, p. 210). In the following year Kaldor worked briefly at the Ministry of Defence as advisor to the British Bombing Survey, and also advised the Hungarian government on postwar reconstruction. In 1947, after providing the French government with a report on the reform of taxation, he was approached by Gunnar Myrdal to join the United Nations Economic Commission for Europe in Geneva. Kaldor was refused leave of absence from LSE and so resigned, after an association that had lasted exactly 20 years.[12] While in Geneva in 1947-9 he largely wrote two of the Commission's annual 'Economic Surveys of Europe', served as adviser to the United Nations Technical Committee on Berlin Currency and Trade, and wrote much of the 'Report on National and International Measures for Full Employment' for another United Nations expert committee (Thirlwall 1987, pp. 100-11; Targetti 1992, pp. 10-12).

Much though he enjoyed having access to the corridors of power, Kaldor was not cut out for a career in the public service, national or international; he valued his freedom too much for that. So he sought an early return to academic life, preferably in Cambridge. As early as 1943 Keynes had proposed him, along with Richard Stone, as a Fellow of King's (Skidelsky 2000, p. 160). Two years later a proposal to appoint him to a Cambridge lectureship was rejected by 4 votes to 2, Piero Sraffa and the philosopher Richard Braithwaite voting in favour and Dennis Robertson, Gerald Shove, C. R. Fay and J. W. F. Rowe opposing him (Marcuzzo 2004, p. 16 n35). Kaldor seems to have been seriously attracted by the prospect of becoming the first

professor in the newly-established economics department at the Australian National University in Canberra, but eventually decided against the move (Cornish 2006). Finally, in 1949, he was appointed to a fellowship at King's, at the instigation of Richard Kahn and Joan Robinson, and also to a University lectureship. In January 1950 Kaldor returned to Cambridge, to academic life – and to economic theory.

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[1] The scale of activities was necessarily considerably reduced, a peacetime complement of 90 academics and 3,000 students declining to 9 professors, 35 lecturers and 500 undergraduates. Student numbers rose slightly in the later stages of the war, while the number of staff continued to fall (Abse 1977, p. 47; cf Dahrendorf 1995, chapter 6),

[2] Cited from the English typescript of Marcuzzo’s interview with Kaldor (Kaldor Papers, King;’s College Cambridge, NKP 3/138, p. 48).

[3] The theorem was first published in Danish in 1941, by J. Gelting; its first English appearance was in a 1945 paper by T. Haavelmo, with ‘an important early contribution’ having been made in the previous year by H. Wallich (Peston 1987, p. 178).

[4] Evidently a market failure is involved in this claim, which implies that the opportunity to insure against these risks was not being offered by private providers. The standard arguments concerning adverse selection and (perhaps) moral hazard

certainly apply to social security, as Kaldor would have readily agreed. He probably regarded this point as being too obvious to require explicit statement.

[5] Kaldor wrote two articles, which were published anonymously on successive days (Kaldor 1943c, 1943d). His authorship has been established by Targetti (1992, p. 94).

[6] Kaldor further amends the numbers by assuming an increase in exports and imposing the requirement that there must be no balance of payments deficit, but this adds nothing important to the argument (Kaldor 1944a., pp. 364-59).

[7] This was later emphasized by James Meade (1945) in the criticism of the principle of functional finance that he makes in his review of Abba Lerner's *Economics of Control*.

[8] Two decades later Kaldor oversaw the introduction of a Selective Employment Tax to achieve precisely this end (Thirlwall 1987, pp. 241-6).

[9] The formula is $r < g$, where r is the real rate of interest and g is the rate of growth of output (Burger 2003, chapter 2).

[10] F. von Hayek to Kaldor, 25 January 1942, 29 January 1942; Kaldor to A. M. Carr-Saunders, 4 February 1942; Carr-Saunders to Kaldor, 7 February 1942 (Nicholas Kaldor Papers, King's College Cambridge, NKP 3/30/85).

[11] L. Robbins to Kaldor, 8 June 1944; Kaldor to Robbins, 18 June 1944 (Nicholas Kaldor Papers, King's College Cambridge,NKP 3/9/2).

[12] For the politics, both academic and international, behind this refusal see Thirlwall (1987, pp. 104-5).