Chris Harman

The Crisis of Bourgeois Economics

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(June 1996)

From **International Socialism** (2nd series), No.71, June 1996.
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An enormous change has taken place in the tone of mainstream economics over the last 30 years. In the 1960s anyone coming across the subject was confronted with a single confident set of ideas, set down in textbooks claiming to dish out the unquestionable truth in much the same way as primers in A-level physics or chemistry, complete with tick-in multiple choice questionnaires at the end of each section to make sure you learnt the correct answers by rote. [1] Economists believed their 'understanding of the economy was nearly complete'. [2] Typically, Paul Samuelson, adviser to the Kennedy government and author of a best selling textbook, claimed that this understanding meant economic crises were a thing of the past. 'The National Bureau of Economic

> Research', he told a conference of economists in 1970, 'has worked itself out of one of its first jobs, namely business cycles'.

Today the textbooks can be just as bland, repeating the same formulae as 30 years ago, and politicians continue to insist we have to obey 'the economic laws' contained in them. But such bravado cannot conceal a deeper unease. Thirty five years of economic boom have given way to 25 years of repeated crises. Unemployment, which averaged 1.7 percent in Britain in the years 1948-1970, has since doubled and more than doubled again. Across the advanced world figures of 8 percent, 12 percent or even more than 20 percent (Spain, Ireland, Finland) are common. And there seems to be no end to the destruction of jobs and job security through 'downsizing'.

But it is not only workers who have felt the effects of the changed economic environment, even if they have suffered on a scale beyond the ken of those who employ them. Giant corporations have been knocked off balance by the wild ups and downs of the system, with a level of bankruptcies in the early 1990s recession (Pan-Am, BCCI, Maxwell Communications Corporation, etc.) inconceivable in the mid-1960s. As a result, top businessmen who are only too happy to repeat old adages when it comes to explaining the need for sackings and wage cuts can be scathing when speaking to each other about the economists who proclaim those adages. They complain that most of the economics profession is devoted to producing mathematical models with no relevance to reality and which provide economic 'forecasts' that cannot predict major events like the recession that hit the US and Britain in 1990, the longest economic downturn Japan has known in half a century or renewed recession on the European mainland as I write.

Some of them even sponsor conferences which challenge the economics taught in the textbooks, as with a conference on *Complexity and Strategy – the Intelligent Organisation* held in

London in May 1995, backed by the banking group Citicorp and charging firms £2,500 a head booking fee.

Meanwhile, that section of the economics profession not devoted either to the exam-passing textbook orthodoxy or working out irrelevant mathematical formulae has split into rival schools – the 'New classicists', the 'supply siders', the 'monetarists', the 'New Keynesians', the 'Austrians', the 'Neo-Ricardians', the 'Chaos and Complexity theorists'. Each promotes its ideas and denigrates its rivals through its own journals, conferences and books. Yet none of them can explain the central issue that has destroyed the old certainties – the intractability of the crises which afflict the advanced industrial heart of the capitalist world.

Lost illusions

> The economic consensus of 30 years ago claimed it had solved the problem of crises for once and for all. The answers, it claimed, had been provided by a 'revolution' in economics which occurred with the publication, in January 1936, of John Maynard Keynes' **General Theory of Employment, Interest and Money**. Before that, it was admitted, economics had had a great yawning hole in the middle of it. Its 'microeconomic' descriptions of how the market 'worked' as people bought and sold could provide no explanation of slumps. Keynes had filled this hole, it was said, by providing a 'macroeconomic' account of how the economy as a whole worked and how government intervention in the market could avoid slumps.

Such was the orthodoxy in government circles, the media and the educational system. It was also the orthodoxy for Labour politicians. Marx was out of date, argued Anthony Crosland and John Strachey in two very influential books that appeared in 1956, since he had seriously underestimated the possibilities of stabilising the capitalist system. [3] The application of Keynes' teaching could ensure that there would never be slumps again and that poverty would be completely eradicated within a few years.

Then, suddenly, in the mid-1970s this 'Keynesian' orthodoxy fell apart. The advanced Western economies were all afflicted by recessions – and far from providing governments with a means to avoid them, the methods preached by Keynes seemed only to produce inflation alongside unemployment. Keynesianism suddenly ceased to be fashionable, and was replaced by 'new classical' economic theories based on the previously fringe ideas of Milton Friedman and Friedrich von Hayek.

They preached a return to versions of the old ideas that had preceded Keynes. Government intervention, they insisted, worsened rather than improved the performance of an economy. The only 'legitimate' economic role any of them accepted for government was the 'monetarist' one of controlling the money supply and preventing 'unnatural monopolies' interfering with markets, especially the labour market. If left to itself, the market would then always find its own feet, without either deflationary recessions or inflationary booms getting out of hand.

Yet the policies of Friedman and Hayek have been no more capable of stabilising the capitalist system than have those of Keynes. Governments that took them to heart, like the Thatcher governments in Britain, were unable to prevent either inflation or further recessions. As a result, the Hayekian and monetarist economists quarrel openly among themselves. Yet the social democratic parties which used to insist it was so easy to reform the system using 'Keynesian methods' have no alternative to the Hayekian and monetarist prescriptions. They declare 'Keynesian'

reform to be impossible because of 'globalisation' and embrace the 'infallibility of the market' just as, in theory and in practice, the failures of the market are to be seen more clearly than ever.

There is a crisis in bourgeois economics in the sense that it cannot begin to explain what has gone wrong with the system in the last quarter century or how to put it back on the right track. It is caught between, on the one hand, providing bland apologies for the market of the sort which are to be found in the textbooks or the reports of the IMF and the World Bank, or, on the other hand, of pointing to faults in the system to which it freely admits it has no answers.

Bourgeois economics before Keynes

> The pre-Keynesian economic orthodoxy was what is normally called the 'neo-classical' or 'marginalist' school (although, confusingly, Keynes in his own writings usually referred to it as 'the classical school'). This arose in the 1870s and 1880s out of attempts by the Austrians Menger and Boehm Bawerk, the Englishmen Jevons and Marshall, the Frenchman Walras, the Italian Pareto, and the American Clark to resolve problems which had beset mainstream economists over the previous half century. [4]

Until then economists had relied on the ideas of the Scottish economist of the mid-18th century, Adam Smith, and the English economist of the early 19th century, David Ricardo. Smith and Ricardo had written at a time when modern capitalism was still fighting for supremacy with old landed and mercantile interests. Their main concerns had been with what encouraged the wealth of society to grow and what determined its distribution between the different classes in society –

especially between the rising capitalist class and the old landowners. They saw an objective measure of value as a precondition for coming to terms with these issues. Smith suggested it was to be found in labour, although he failed to develop the idea consistently. Ricardo went further, and built his whole system around the notion.

But Ricardo left succeeding bourgeois economists with two major problems. One was theoretical: to explain how profits could be averaged out between industries which employed the same amount of capital but different amounts of labour. [5] The other was ideological: how to provide some account, other than the robbery of one class by another, to justify the existence of profit at all. Otherwise, they would not be able to prevent radical critics of existing society from turning Ricardo's system into an attack not just on landowners but on capitalism as a whole.

For half a century bourgeois economists floundered as they tried to deal with both problems. As Marx pointed out, they alternated between a scholasticism which consisted in merely repeating abstract expressions from Ricardo, without showing how they related to concrete reality, and abandoning Ricardo's insights so as to apologise for profit. In either case, they abandoned the scientific approach to be found in Smith and Ricardo, which at least attempted to cut through superficial appearances to find underlying causes, in favour of a shallow 'vulgar economics'.

The marginalists took this process a stage further. They proclaimed they could cut through all the problems in Ricardo's system by dropping the very idea of an objective measure of value as mistaken.

But they did not reject everything said by Smith and Ricardo. They enthusiastically embraced those of their contentions which seemed to justify the untrammelled play of market forces – for instance Adam Smith's 'hidden hand' view that the best way to serve the general good was to allow free competition between

producers whose only concern was with their individual interests, and Ricardo's 'theory of comparative advantage' defence of free trade. At the same time, they put at the centre of their system a 'law' promulgated by the French economist Jean-Baptiste Say and accepted by Ricardo. This held that generalised crises of overproduction were impossible because 'supply created its own demand'. The extra value of the goods produced by any firm over and above material costs, Say said, was equal to the wages paid to its workers plus the profit paid to the capitalist. So for the economy as a whole, the total amount in people's pockets from wages and profits must be exactly the same as the amount needed to buy all goods that had been produced.

Slumps, then, were logically impossible unless for some reason, a group of people were refusing to sell the goods at their disposal or to spend the money in their pockets. John Stuart Mill had expressed the prevailing view some 20 years before the marginalists developed their own ideas:

> Each person's means for paying for the production of other people consists in those [commodities] that he himself possesses. All sellers are inevitably by the meaning of the word buyers ... A general over-supply ...of all commodities above the demand is ...an impossibility ... People must spend their ...savings ...productively; that is, in employing labour. [6]

The marginalists were only too happy to incorporate this view as a central feature of their own system. Where they broke with the Smith-Ricardo tradition was over what the main concern of economics should be. What mattered to them was not the creation of wealth and its distribution between classes, but rather showing that the fixing of prices through the market, without conscious human intervention, automatically led to the most efficient way of running an economy. And so they abandoned the old view

of value, with its concentration on the objective necessity of labour for production.

Value became for them not an objective measure at all, but rather a subjective estimation by individuals of the ‘utility’ they got from every extra amount (‘marginal increment’) of any commodity. Curves could be drawn showing how people compared the ‘marginal utility’ of one commodity with another, and these would indicate the relative amounts they would be prepared to pay for each commodity if they were allowed a free choice in an unfettered market.

Curves could also be drawn showing the cost of producing goods. The marginalist economists measured this in two different ways. Some, like Jevons and Marshall, started from the assumption that production involved people in various sorts of hardship, of negative utility or ‘disutility’. Workers had to toil, whereas most would have been happier doing nothing. And investors had to ‘sacrifice’ present consumption of some wealth so that it could be used to produce more wealth in future. Wages and profits ‘rewarded’ the ‘disutility’ each had incurred, and, of course, were equally justified. [7] Other marginalists like Boehm Bawerk, recognising the difficulty of crudely equating the hardship of labour with the ‘sacrifice’ of saving, adopted a different approach. They claimed the costs of production depended on the ‘utility’ of the various goods used in production (the consumption goods of the workers plus the materials, machines etc) with an addition to take account of the increase in output which occurred when goods were used as means of production over time and not consumed immediately. This extra element provided the basis for payment of interest on capital. [8]

All the marginalists insisted that labour and capital were alike ‘factors of production’ and that each received a ‘reward’ (wages or profits) for increasing total ‘utility’. The costs of supplying extra amounts (‘marginal increments’) of each good could be plotted on a ‘demand curve’. And the point where such a demand

curve crossed a supply curve was the point at which the 'marginal cost' of producing a good corresponded with the 'marginal utility' it gave to someone who bought it. At that point, the price for the goods would ensure that the needs of the consumer were being satisfied in the most efficient way by the producer.

There was only one 'equilibrium' point, all the marginalists insisted, at which this could happen. This was because, they argued, demand and supply curves would always slope in different directions and cross each other only once. On the demand side, people's desires for any particular good tended to get the less the more of it they had, and so the 'demand' for it would decline the more there was available. On the supply side, by contrast, they claimed, applying to industry a 'law of diminishing returns' established by Ricardo for agriculture, the cost of producing goods increased the more that were turned out. [9] The one million and first widget or screw or motor car or hamburger would always cost more to produce than the one millionth. Because of this supply costs would always rise with output, while the price people were prepared to pay for something would fall the more of it was available.

What is more, they claimed, supply and demand curves existed not just for each good, but for the whole pool of goods produced in any economy. Provided they were free to spend their money as they liked, buying whatever they wanted within their means, consumers would choose the range that gave them the greatest utility at a particular set of prices. And providing they were free to produce whatever they wanted and to charge whatever price they could get for it, producers would adapt their output to satisfy these utilities at cost to themselves – that is, with the most economical combinations of land, labour and capital.

The whole economy, according to this picture, is like a street market where the buyer of fruit and vegetables calculates what combination of apples, tomatoes, potatoes, etc gives them the

best value for the money they have got in their pockets, while the stallholders calculate the best price they can get for each of their goods. As each adjusts their calculations to the others', the whole product gets sold. And since the seller is, in turn, the buyer from the wholesale market, and the wholesalers in turn are the buyers from the growers, in this way a whole network of prices is set up which ensures that what is produced is exactly what people want.

So if you lumped together all the supply and all the demand curves for society as a whole, you could show that the range and number of goods produced in the whole economy had to coincide with what people were prepared to buy. This the French economist Walras claimed to do, with hundreds of pages of equations and graphs. [10]

Problems could only arise if some people insisted on trying to get more for their goods than other people were prepared to pay – that is, than the 'marginal utility' of those goods. Then the equations would not balance, markets would not 'clear' and there would be stocks of unsold goods. This, however, was the fault of the sellers of the goods for trying to evade charging the 'natural' price, and they would soon be brought to their senses by the pressures of the market providing there was no impediment to its free operations – that is, providing sellers were free to compete with each other and buyers free to shop where they wanted.

Labour, from this standpoint, was no different to any other good. If workers demanded wages greater than the extra utility created by their labour, then no one would employ them and unemployment would exist. But if they were prepared to lower the wages for which they would work, then supply and demand would once more coincide and full employment would return. All that was necessary for Say's law to operate was that there should be no 'artificial' inducement against them accepting lower wages (pressure from the unions, or state benefits enabling workers to survive without work). The argument still underlies the contention that the introduction of a minimum wage would

destroy jobs.

Marginal problems

> The development of these 'neo-classical' ideas took place over 40 or 50 years, and there were differences of interpretation between the various marginalist economists. So, for instance, many gave in to the obvious criticism that there is no way of comparing the amount of 'utility' one person gets from one good as against the 'utility' another person gets from another good and that, therefore, the whole idea of 'utility curves' for society as a whole is nonsense. They responded by replacing the term 'utility' by 'ophelimity' or even by dropping any notion of value altogether – although 'marginal utility' continues to be taught in school and college textbooks to this day as the 'modern' answer to the labour theory of value.

The most prestigious of the English marginalists, Marshall, accepted in his major work, **The Principles of Economics**, that in the real world the economy could deviate in many of these ways from the marginalist model. He admitted that the notion that a multi-millionaire living in luxury received profits as payment for 'abstemiousness' was rather far fetched, and preferred to refer to 'waiting' rather than 'abstemiousness'. He devoted several passages and appendices to what happened if there were not diminishing returns. Consequently supply and demand curves intersected differently than expected or even crossed each other at more than one point – something which threatened to undermine the whole notion of a single stable equilibrium point. Elsewhere he suggested there might occasionally be merit in using a labour theory of value: 'the real

value of money is better measured for some purposes in labour rather than in commodities', although he hastened to add, 'This difficulty will not affect our work in the present volume ...' [11]

Marshall admitted, in passing, to an enormous gap in his theory – that it had nothing to say about what happened to an economy as it changed through time. The marginalist account of prices was in terms of what happened when a given level of demand, based upon a certain set of consumer choices, encountered a given pattern of supply, based on an existing set of techniques and existing land, labour and capital resources. It paid no heed to the reality that capital was continually accumulating and the techniques of production were continually developing, so transforming both the pattern of supply and the pattern of demand for those products that served as inputs to production. 'Time', Marshall wrote, is 'the source of many of the greatest difficulties in economics', [12] and went on to admit that the process of accumulation caused enormous problems for the marginalists:

> Changes in the volume of production, in its methods, and its costs are ever mutually modifying one another ... In this world, therefore, every plain and simple doctrine as to the link between cost of production, demand and value is necessarily false ... A man is likely to be a better economist if he trusts his common sense and practical instincts rather than if he professes and studies the theory of value and is resolved to find it easy. [13]

> Walras too recognised momentarily that 'production requires a certain lapse of time.' But he simply shrugged the problem off. 'We shall solve the ...difficulty purely and simply by ignoring the time element at this point'. [14]

He went on to argue that prices would remain unchanged through time, as if the transformation of the whole productive apparatus brought about by accumulation would not also mean a transformation of the structure of supply and demand:

> There may be a small element of uncertainty which is due solely to the difficulty of foreseeing possible changes in the data of the problem. If, however, we suppose these data constant for a given period of time and if we suppose the prices of goods and services and also the dates of their purchase and sale to be known for the whole period, there will be no occasion for uncertainty. [15]

In other words, his whole analysis of the capitalist economy was posited on the assumption that those most characteristic features of that economy – accumulation, technical change and a consequent reduction of production costs – do not occur!

Finally, the marginalists had to accept that in practice the economy experienced a ‘trade cycle’ or ‘business cycle’ of booms and recessions, in which for some reason supply and demand did not always balance as their theory claimed. Their reaction was to blame these things on external factors that somehow led to temporary distortions in a fundamentally healthy system. So Jevons wrote that the business cycle was a result of sun spots which, he claimed, speeded up and slowed down the trade winds, while Walras saw crises as disturbances caused by the failure of prices to respond to supply and demand, comparable in effect to passing storms on a shallow lake. [16] They did not allow what they saw as short term aberrations to undermine their faith in an unchallengeable system of laws which laid down how any efficient economy must operate.

The logic of marginalism was that the existing economic system was the best in the best of all possible worlds, providing the ‘optimal’ [17] conditions for production and laying down rules for any situation in which ‘scarce resources’ had to be allocated between ‘competing ends’. [18] It was for people like the English establishment economist, Robbins, or the Austrian, von Mises, nothing less than an expression in economic terms of democracy: by freely spending their money as they wanted, consumers were ‘voting’ through the price mechanisms for those

items they wanted to be produced. This could even justify existing inequalities in wealth and incomes:

That the consumption of the rich weighs more heavily in the balance than the consumption of the poor is in itself an 'election result', since in a capitalist society wealth can be acquired and maintained only by a response corresponding to the consumers' requirements. Thus the wealth of successful businessmen is always the result of a consumers' plebiscite. [19]

Not all the marginalists were as reactionary as this. Bernard Shaw tried to base arguments for Fabian socialism on Jevons's version of marginalism. And some academic marginalists claimed there had to be a socialist redistribution of wealth and income for the neo-classical model to find full expression in reality.

But the left wing marginalists believed as much as the right wing ones that their economic theory had proved the efficacy of the market. They all held that they had developed an unchallengeable system of economic laws and had proved that any interference with the workings of the market would do more harm than good. Even if state intervention was regarded as necessary, it had to be in accordance with these 'laws', rather than aimed at overriding them.

Keynes and Say's law

Keynes's **General Theory** contains many attacks on certain of the contentions of neo-classical economists. But it was far from being an attack on the whole theory. Keynes had studied under Marshall and believed for many years that the 'free' market would work well were it not for the blundering of politicians. In the mid-1920s he provided his Cambridge students with 'rosy prophecies of

> continually increasing capitalist prosperity' [20], even if he was strongly critical of particular government policies. He assured people, 'There will be no further crash in our lifetime'. [21] Even after the experience of the great slump at the beginning of the 1930s he continued to take the main marginalist concepts for granted.

But he did now challenge two of the economic orthodoxy's central contentions – Say's law and the idea that wage cutting was the way to restore full employment.

His attack on Say's law was simple and direct. The law, as we saw above, states that the wages and profits paid out during the production of goods are equal to the total sum required to buy them, and that therefore they can always be sold.

The argument, Keynes points out, depends on supposing that, whenever someone saves, the labour and commodities they would otherwise have consumed are 'automatically invested in the production of capital wealth'. This might be true in 'some kind of non-exchange Robinson Crusoe economy', where the individuals produce everything they want themselves and where 'saving' can only occur if they devote some of the products of their present activity to the purpose of future production'. [22] But it is certainly not the case in a money economy, where saving can mean simply hoarding money without using it to buy things.

If such saving can occur, then some of the money paid out in wages and profits is not spent on goods, and all the goods produced need not be bought. An overproduction of goods in relation to the market for them can then arise.

Not to see this, Keynes argued, was to be 'deceived by an optical illusion which makes two essentially different activities appear to be the same'. It was to assume that, because investment cannot take place unless some labour and goods are saved rather than immediately consumed, then saving and investment were the same thing. But they were not. They were

different activities, often undertaken by different people for different reasons. This could lead people to want to undertake saving on a higher level than they chose to invest.

People save, Keynes argued, for a variety of motives – because they want to buy things later rather than immediately, because they know they will incur certain costs at some point in the future, because they want to guard themselves against unexpected events, and for speculative reasons. The combination of all these factors determines their 'propensity to save'.

By contrast, he insisted, the level of investment depends on the profits businessmen believe they will make in future (what he refers to as 'the marginal efficiency of capital'). If these expected future profits are low – and he expected them to decline as capitalism got older – then investment will not take place on any scale, regardless of how high savings are. And if this happens, the total output of the economy cannot be sold. 'Overproduction', the thing ruled impossible by Say's law, will occur.

An initial excess of supply over demand would leave firms with goods they could not sell. They would react by reducing output (or going bust) and paying out less in wages and profits. Only when this process had reduced saving until it was at the same level as investment would an 'equilibrium' be reached at which the total expenditure would provide a market for all the goods produced.

Keynes, in effect, turned the old orthodoxy about supply and demand on its head. It had been assumed that, if saving increased, investment would increase to create full employment and full capacity operation of industry. He insisted that, if investment was not as high as saving, the economy would contract until saving fell to the same low level:

> Thus given the propensity to consume and the rate of new investment, there will be only one level of employment consistent

> with equilibrium ... But there is no reason in general for expecting it to equal full employment. [23]

> Indeed, as he wrote shortly before the appearance of **The General Theory**, 'unemployment is increased by whatever figure is necessary to impoverish the community so as to reduce the amount people desire to save to equality with the amount they are willing to invest'. [24]

What is more, a vicious circle can arise. If businessmen do not believe the economy is going to grow, then they will expect profits to be low and will reduce their investments accordingly, so bringing about the lack of growth they fear. The level of economic output then depends on guesses by investors as to what other investors are going to do. And that level certainly does not have to be one at which supply and demand ensure full employment of labour and resources, as the old orthodoxy claimed.

'We have reached the third degree,' Keynes observed, 'where we devote our intelligence to anticipating what average opinion expects average opinion to be ...' [25] But this meant investment depended on speculation, rather than 'genuine long term expectation', and, 'when the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill done'. [26]

The great failure of the orthodoxy – which Keynes rather unfairly blamed on the influence of Ricardo – had been its inability to see any of this, despite the all too palpable reality of mass unemployment and repeated crises of 'overproduction'. The hold of orthodoxy was, Keynes argued, 'a curiosity and a mystery', explicable only for ideological reasons, because of its 'complex suitabilities ...to the environment into which it was projected':

> That it reached conclusions quite different from what the ordinary uninstructed person would expect added, I suppose, to its intellectual prestige ... That its teaching, translated into practice,

was austere and often unpalatable, lent it virtue. That it could explain much social injustice and apparent cruelty as an inevitable incident in the scheme of progress ... commended it to authority. That it afforded a measure of justification to the free activities of the individual capitalist, attracted to it the support of the dominant social force behind authority. [27]

Keynes and wage cutting

Just as stringent as Keynes' attack on Say's law was his criticism of the idea that cutting wages would cause a rise in employment. The existing economic orthodoxy could not simply ignore the very high level of unemployment experienced in Britain from 1921 onwards, and especially in the early 1930s. But it could attempt to explain it away, using the arguments of Pigou, Marshall's successor as professor of economics at Cambridge. He had claimed unemployment was high, not because of the untrammelled market system, but because of an imperfection in the labour market.

Workers, Pigou argued, were more interested in money wages than real wages. This led them to resist cuts in money wages even when prices were falling (as they were from 1920 onwards) and the real value of their wages was rising. In this way, they were pricing themselves out of work without realising it. Keynes himself had for a long time accepted this argument. But the sheer scale of the slump of the early 1930s led him to challenge it. He pointed to two central flaws in Pigou's argument.

First, it assumed that reductions in money wages right across the economy would increase the demand for goods. But although reducing the pay bill might help one firm sell more goods at the expense of its competitors, it could not have this effect

throughout the economy as a whole. Indeed, it would merely decrease the demand for consumer goods, without automatically increasing investment sufficiently to compensate for this. [28] By redistributing income from workers to entrepreneurs and shareholders, groups who tend to spend a smaller portion of their income on consumption than do workers, the effect could be to reduce effective demand and to increase unemployment [29]:

> There is, therefore, no ground for the belief that a flexible wage policy is capable of maintaining a state of continuous full employment ... The economic system cannot be made self-adjusting along these lines. [30]

> There would be a vicious circle, by which cuts in wages led to cuts in employment, and cuts in employment led to further cuts in wages: 'If real wages were to fall without limit whenever there was a tendency for less than full employment ...there would be no resting place ...until either the rate of interest was incapable of falling further or wages were zero'. [31]

Second, he argued, there was in fact no way an individual worker or group of workers could cause their real wages to fall, even if they wanted to: 'The classical [ie neo-classical] theory assumes that it is always open to labour to reduce its real wage by accepting a reduction in its money wage ...that labour itself is in a position to decide the real wage for which it works ...'

But all versions of neo-classical theory also assumed that prices depended, at least in part, on wages. If all workers accepted a cut in wages, then all prices would fall – and there would be no reduction in the buying power of wages:

> Thus if money wages change, one would have expected the ... school to argue that prices would change in almost the same proportion, leaving the real wage and the level of unemployment practically the same as before ... There may exist no expedient by

> which labour as a whole can reduce its real wage to a given figure by making revised wage bargains with entrepreneurs. [32]

> Although these are Keynes's two central arguments about wages and jobs, he throws in a third, for polemical purposes, which is not nearly as strong: that in practice workers are concerned with comparing their money wage to that of other groups of workers, and not with their real wage. [33] This 'monetary illusion' argument has often been presented as Keynes's central argument, although (or perhaps because) it is not nearly as radical as the other two arguments – and, in fact, reopens the door to Pigou's arguments to the effect that it is the obsession with money wages which causes unemployment.

As Axel Leijonhufvud has pointed out, many 'Keynesians have, in fact, reverted to explaining unemployment in a manner Keynes was quite critical of, namely by "blaming" depressions on monopolies, labour unions, minimum wage laws, and the like.' This leads to the conclusion that, 'if competition could only be restored, "automatic forces" would take care of the employment problem'. [34] Paul Mattick in his Marx and Keynes bases part of his criticism of Keynes on the same misunderstanding:

> Keynes did not question the assertion that under certain conditions unemployment indicated the existence of real wages that are incompatible with economic equilibrium, and that lowering them would increase employment by raising the profitability of capital and thus the rate of investment. But he found that wages were less flexible than had been generally assumed ... [35]

> In fact, Keynes looks at the argument that cutting wages will create employment by increasing profits and investment and argues that generally this will not be the case. [36] As one of Keynes's collaborators at Cambridge, Joan Robinson, noted:

> The Keynesian revolution began by refuting the then orthodox theory that cutting wages is the best way to reduce unemployment. Keynes argued that a general cut in wages would reduce the price level more or less proportionally, and so raise the burden of debt, discourage investment and increase unemployment. [37]

She also noted that Michal Kalecki, who had independently developed a theory similar to Keynes', had added that the argument was just as strong even without the neo-classical view that prices depend on wages: 'If prices do not fall, it is still worse, for then real wages are reduced and unemployment is increased directly by the fall in the purchase of consumption goods'. [38]

Radical words and conservative policies

Keynes was a trenchant critic of the notion now, popular in ruling circles once more, that the 'free market' system could automatically solve all of humanity's problems. He insisted again and again that the answer to unemployment was not to cut wages, or to provide the rich with 'incentives' for saving. And on occasions his talk of the evils of the 'free market' could sound very radical indeed. So, for instance, in a lecture in Dublin in 1933, he lambasted the orthodox economic view:

> We have to remain poor because it does not 'pay' to be rich. We have to live in hovels, not because we cannot build palaces, but because we 'cannot afford' them ... With what we have spent on the dole in England since the war we could have made our cities the greatest works of man in the world ... Our economic system is not enabling us to exploit to the utmost the possibilities for economic wealth afforded by the progress of our technique. [39]

> In **The General Theory** he is scathing about the idea that interest is a reward for the abstinence of the saver, insisting that 'interest today rewards no genuine sacrifice, any more than does the rent of land', and goes on to urge the gradual 'euthanasia' of the '*rentier*' who lives off dividends. [40]

Yet he did not regard any of this as implying, in any sense, a revolutionary challenge to the existing economic system. 'In some respects,' he argued, his theory was 'moderately conservative in its implications'. [41] All that was needed for the existing system to work was for the existing state to disregard the old orthodoxy and to intervene in economic life to raise the level of spending on investment and consumption. Two sorts of measures were necessary.

First, he argued, governments could intervene in money markets to drive down the rate of interest. This would both encourage better off people to spend rather than save their incomes, so providing a market for the output of others and encourage firms to invest – although, Keynes noted, he was 'somewhat sceptical of the success of a merely monetary policy directed towards influencing the rate of interest'. [42]

Second, governments could undertake direct expenditures of their own, to be financed by borrowing. Such 'deficit financing' would increase the demand for goods and so the level of employment. It would also pay for itself eventually through a 'multiplier effect' (discovered by Keynes' Cambridge colleague Kahn). The extra workers who got jobs because of government expenditures would spend their wages, so providing a market for the output of other workers, who in turn would spend their wages and provide still bigger markets. And as the economy expanded closer to its full employment level, the government's revenue from taxes on incomes and spending would rise, until it was enough to pay for the previous increase in expenditure.

These two measures were soon seen as the archetypical 'Keynesian' tools for getting full employment. It was these that both conservative and social democratic politicians took for granted as the key to economic management in the 1940s, 1950s, 1960s and early 1970s.

At some points in **The General Theory** Keynes seemed to look to more radical forms of state intervention. The state, he argued, was 'in a position to calculate' the long term results of investment, and so could take 'an ever greater responsibility for directly organising investment ...' [43] 'I conceive' he argued,'that a somewhat comprehensive socialisation of investment will prove the only means of securing an approximation to full employment'. [44] But even this did not depend on 'state socialism', since 'it is not the ownership of the instruments of production which it is important for the state to assume.'

If the state simply determined 'the aggregate resources' to be devoted to new investments, 'it will have accomplished all that is necessary'. [45] So there was the possibility of 'all manner of compromises and devices by which the public authority will co-operate with private initiative', bringing about the necessary changes 'gradually and without a break in the general traditions of society'.

The 'socialisation of investment' would follow inevitably as low interest rates weakened the position of bondholders, while industrialists, dependent on government stimulation of the economy, allowed it to play an increasingly central role. There would be no need for any sort of radical break with the past.

So unrevolutionary did Keynes conceive such change to be, that he argued that once it was in place, the existing economic orthodoxy would then be applicable:

> If our central controls succeed in establishing ...f ull employment ... the classical theory comes into its own again ... Then there is no objection ... against the classical analysis of the manner in which

private interest will determine what in particular is produced, in what proportions the factors of production will be combined to produce it, and how the value of the final product will be divided between them ... [46]

Reform versus revolution

Keynes believed his approach was the only one which could save capitalism from itself and win young people from the lure of Marxism. A friend of Keynes at Cambridge, Julian Bell, described in 1933 how the student body was pulled sharply to the left under the impact of the world economic crisis and the rise of fascism in Europe:

In the Cambridge that I first knew in 1929 and 1930 ...as far as I can remember we hardly ever talked or thought about politics. By the end of 1933 we have arrived at a situation in which the only subject of discussion is contemporary politics, and which a very large majority of the more intelligent undergraduates are Communists or almost Communists. [47]

This state of affairs horrified Keynes, 'who was scathing in his attacks on Marxism'. He told Bell that Communism was a 'religion', and that 'Marxism was the worst of all, and founded on a mistake of old Mr Ricardo's'. [48] He claimed in a letter to Bernard Shaw at the beginning of 1935 that his new theory would 'knock away ... the Ricardian foundations of Marxism'. [49] Later in the year he told students, 'Marxism ... was complicated hocus pocus, the only value of which was its muddleheadedness.'

He put his argument rather more logically during a series of lectures outlining his new theory in 1934. Marxism, he argued, was wrong because it accepted, as much as the neo-classical

orthodoxy, that state intervention could not improve the operations of capitalism:

> The Marxists have become the ultra-orthodox economists. They take the Ricardian argument to show that nothing can be gained from interference. Hence, since things are bad and mending is impossible, the only solution is to abolish [capitalism] and have quite a new system. Communism is the logical outcome of the classical theory. [50]

He believed his 'general theory' showed how capitalism could be saved by relatively simple reforms, and that therefore the Marxists were fundamentally mistaken. It was an argument some at least of the 1930s left wing intellectuals accepted, especially as they became disillusioned with Stalinism after the Stalin-Hitler pact in 1939. And it was a view which spread when the boom of the post-war failed to give way to the imminent slump many predicted.

In Britain, John Strachey had been by far the best known Marxist writer on economics in the 1930s. His **The Nature of the Capitalist Crisis**, **The Coming Struggle for Power** and **The Theory and Practice of Socialism** had taught Marxist economics to a whole generation of worker activists and young intellectuals. Yet by 1956 he was arguing, in his **Contemporary Capitalism**, that Keynes had been right and Marx wrong on the crucial question of whether the capitalist crisis could be reformed away: 'There are no specifically economic fallacies in the Keynesian case ... If the Keynesian remedies can be applied they will have broadly the predicted effects'. [51]

Keynes's only mistake, Strachey held, was that he thought the capitalists or their political parties would introduce such remedies of their own volition. In fact it required pressure from below, from the workers' parties and unions. 'The Keynesian remedies ... will be opposed by the capitalists certainly: but

experience shows they can be imposed by the electorate'. [52] Keynes helped 'the democratic and democratic socialist forces to find a way of continuously modifying the system, in spite of the opposition of the capitalist interests ... And in doing so he helped show the peoples of the West a way forward which did not lead across the bourne of total class war ...' [53]

Strachey was articulating what became the conventional social democratic argument throughout the 1950s and 1960s. Capitalism had experienced a deep slump in the inter-war years and governments had been unable to cope. But this was not because of the intrinsic faults of capitalism as a system. It was because governments had adopted the wrong policies, imprisoned by a hidebound doctrine that led them to cut public expenditure and wages, pushing down consumption when really the need was to do the opposite. They need never make the mistake again, now that Keynes's theory had provided them with a new intellectual tool for understanding what was happening. Indeed, it was said, British governments need not have made the mistake in the inter-war years themselves since, even before he published **The General Theory**, Keynes had advised them against going on the Gold Standard in 1926 and cutting public expenditure to balance the budget in 1931.

It is an argument which people like **The Observer** editor Will Hutton try to revive today when they argue that, if only governments would abandon 'dogma' and follow in Keynes's footsteps, there would be an alternative to economic crisis and social deterioration. But there is one glaring fault with this argument. It does not take into account what really happened, either in the inter-war years or during the long post-war boom.

Keynes: the failure of practice

> A brief look at the record shows that Keynes did not pose consistent alternatives to the decisions taken by British governments during the inter-war years.

Take, for instance, the return to the Gold Standard in 1925, which led directly to the lockout of the miners and the general strike in 1926. Part of Keynes's reputation as providing an alternative to the misery of the inter-war years rests on the pamphlet he wrote soon afterwards – **The Economic Consequences of Mr Churchill**. This criticised the decision to return to the Gold Standard for increasing the cost of exports and depressing the economy. Keynes's most recent biographer, Robert Skidelsky, tells us that Keynes blamed Europe's rulers for disrupting the 'harmonious' pre-1914 economy through war and now expecting 'workers to bear the cost of trying to restore it'. But in the key months before the decision to return to the Gold Standard, 'for tactical reasons he abandoned outright opposition to the return and pushed the case for delay ... In the final stages of the debate he oscillated between pointing out the practical difficulty of deflating money wages to the amount required to restore equilibrium at the pre-war parity and urging the authorities to attend to this before deciding to go back'. [54] Keynes's testimony to the government Chamberlain Committee considering the matter 'helped to crystallise the view that the pre-war parity could be regained and maintained without detrimental effect on the real economy'. [55] Keynes behaved in this way because 'he had his reputation to consider; he could not appear to be in favour of a policy which smacked of inflation'. [56]

In 1931 there was again a sharp contrast between his analysis of the disastrous direction government policy was going in and the timid corrections he suggested making to it. When the government-appointed May Committee recommended enormous cuts in public expenditure, Keynes wrote an article for the **New Statesman** denouncing the idea: 'The reduction in

purchasing power which would follow the recommended economies would add 250,000-400,000 to the unemployed ... At the present time,' Keynes wrote, 'all governments have budget deficits. [They are] nature's remedy, so to speak, for preventing business losses from being ...so great as to bring production altogether to a standstill'. [57] Yet Keynes went on to welcome the May Committee report, because 'it invites us to decide whether to make the deflation effective by transmitting the reduction of international prices to British salaries and wages.' [58] And in a letter to the prime minister, MacDonald, he hedged his bets even more, saying he himself 'would support for the time being whatever policy was made, provided the decision was accompanied by action sufficiently drastic to make it effective'. [59] His 'hesitations', according to Skidelsky, 'were seen by MacDonald as reinforcing the Bank [of England's] advice to carry out the **May Report**'s recommendations ... Once more, at the critical moment ... Keynes's ... counsel was clouded'. [60] This did not stop Keynes from denouncing the course taken by MacDonald and his chancellor, Snowden, as 'replete with folly and injustice' in the **New Statesman**, but only after the event.

The same vacillation between radical talk and cautious policy occurs again and again before, during and after the writing of **The General Theory**. So in 1929 he had backed Lloyd George's call for public works to deal with unemployment. But in 1933 his advice to a Stockholm banker was to go slow on public works 'if this would help as a transitional method towards much lower interest rates ...' [61] Later in 1933 he wrote 'an open letter' to President Roosevelt for the **New York Times**. The future of 'rational change' throughout the world depended on Roosevelt, he wrote. But, for this very reason, there had to be care about pushing 'business and social reforms which are long overdue' in case they 'complicate recovery' through an 'upset' to 'the confidence of the business world'.

Every proposal Keynes made, notes Skidelsky, was tailored, 'taking into account the psychology of the business community.

In practice he was very cautious indeed'. [62] Thus a series of articles Keynes wrote for **The Times** in 1937 suggested that Britain was approaching boom conditions, even though unemployment remained at 12 percent. He claimed that 'with unemployment now largely confined to the "distressed areas", the risk was that further expansion in demand would cause inflation to take off. This justified the Treasury in making cuts elsewhere to compensate for the cost of special assistance to these'. [63] Keynes's timidity was not an accident. His account of how investment took place was in terms of the 'expectations' of businessmen. But he was only too aware that they would shy away from any policy which seemed likely to damage profits in the short term. And so, in practice, he avoided recommendations which might frighten them.

The wrong remedies

> But it was not only big business suspicions that limited the effectiveness of Keynes's remedies. There is strong evidence that they could not have worked unless accompanied by moves much more radical than any he contemplated.

Estimates suggest that the Lloyd George public works programme supported by Keynes could not have shaved more than 11 percent off the unemployment figure between 1930 and 1933 – at a time when the figure grew 100 percent. [64] Another estimate calculates that to provide the 3 million jobs needed to restore full employment at the deepest point of the 1930s slump there would have to have been an increase in government spending of some 56 percent. [65] Such an increase was not possible using the 'gradualist' methods acceptable to Keynes, since it would have led directly to a flight of capital abroad, a rise in imports, a balance of payments deficit and a steep rise in

interest rates. [66] Carrying it through would have required 'the transformation of the British economy into a largely state controlled, if not planned, economic system'. [67]

Such radical intervention did not, in fact, occur in any of the advanced Western states until the establishment of full blooded war economies, first in Nazi Germany from 1935 onwards, and then in Britain between 1939 and 1940, and in the US in 1941. Prior to that, economic 'recovery' was only cyclical, with output rising from 1933 to 1936 and then dipping very sharply, with the US experiencing 'the steepest economic decline in the history of the US' in the autumn of 1937 – despite the use of government deficit financing on a substantial scale in the years 1933-36. [68] And with the war economies, what was established was not a 'gradual' increase in the power of the state, but a takeover by the state of all major decision making about investment: by 1943 the American state was responsible for no less than 90 percent of total investment. [69] If this was 'Keynesianism', it was of a much more radical form than that suggested by Keynes himself during the depression years, when he argued that governments should not 'muddle up spending with planning, recovery with social reform.' [70]

Keynes certainly showed in the 1930s that the free market economy had no answer to slump. But his call for limited state intervention in the economy provided no better answer.

Keynesianism and the post-war boom

Economists and social democrats of the Strachey sort based their support for Keynesian remedies on the post-war experience. The long boom, they argued, had come about because governments now accepted Keynes's doctrines in a way in which they had not before. So

pervasive was this view that it was hardly questioned over more than two decades, and was even accepted by some Marxist critics of Keynesianism. Thus Paul Mattick ascribed the boom to government efforts to bring together 'labour and idle capital for the production of non-market goods' through 'deficit spending and government induced production'. [71]

But this view did not fit the facts any more than the previous claim that Keynesian policies would have stopped the 1930s slump. British governments, for example, did not use budget deficits, Keynesian style. Matthews pointed out, at the height of the boom:

> Throughout the post-war period, the government, far from injecting demand into the system, has persistently had a large surplus. This surplus ... has been much larger than at any time in the 20th century. [72]

When governments did intervene, it was 'a question of reducing the size of the deficit', not of 'turning a surplus into a deficit'. The 'overall effect' was 'one of restraint'. [73] Nor could government socialisation of investment have lain behind the boom. 'Investment in the public sector has been on average a smaller proportion of total investment in the post war period than it was in the inter-war years'. [74] And the public sector borrowing requirement actually fell in the 1950s and 1960s. [75] In fact, the main form government intervention took until the 1970s was of 'credit squeezes' to slow down the economy, rather than deliberate increases in spending to speed it up.

It was only when the long boom came to an end and the economies of the advanced countries went into recession in

1974-1976 that governments turned to Keynesian policies of deliberately expanding demand. And it was when they found these policies did not work, fuelling inflation but not increasing production substantially, that they abandoned them, throwing Keynesian economists into complete confusion. Not that government deficits themselves disappeared. In the 1990s all major Western governments have had budget deficits, ranging from about 1.5 percent of Gross Domestic Product (GDP) in the case of the US to about 7 percent in the cases of Italy and Japan, without bringing their economies to the level of full employment taken for granted in the non-deficit 1950s. [76]

The evidence suggests, then, that the long boom could not have been a result of Keynesian 'deficit financing'. Something else had happened during the years of the long boom which had enabled the economy to expand continually, without being punctuated by deep recessions. This in turn had then provided a situation in which capitalists could have 'expectations' of future profits and invest accordingly, so providing the sort of stable environment which enabled other capitalists to be optimistic about their investments.

What was this 'something' which underlay the long boom, but which clearly had not been present in the inter-war years and was to be absent again from the mid-1970s onwards? During the long boom itself two of Keynes's former collaborators, Michal Kalecki and Joan Robinson, had suggested that its roots did not lie in government expenditure as such, but in a special form of that expenditure, spending on armaments. [77] Arms production, they argued, was a form of government organised investment which was acceptable to private capital and which could explain the operation of a capitalist economy at near full employment for a long period of time. It could provide private capital with an expectation of ready markets and high profits, so encouraging private investment. This dependence of the capitalist economy on armaments was, for Kalecki, one reason to object to it: 'He thought the post-war American experience

illustrated the role of armaments expenditure as wasteful and dangerous, and saw the apparent need to resort to this form of expenditure to maintain high levels of demand as a major shortcoming of capitalism'. [78] Yet even Kalecki assumed there had to be permanent budget deficits in the US. [79]

If economies seemed to have escaped from mass unemployment in the aftermath of the 'Keynesian revolution' it was for reasons which were difficult to explain on the basis of Keynes's own arguments. It is hardly surprising, therefore, that when the economy entered a new period of crisis from the mid-1970s onwards, the Keynesians were at a loss to say why.

The failure of eclecticism

> 'He who only half makes a revolution digs his own grave', said the French Jacobin leader Saint Just. But the Keynesian revolution was not, in theoretical terms, even half a revolution. Keynes challenged the idea that if the 'free enterprise' system was left to itself the law of neo-classical economics would ensure full employment and a maximum use of resources. But he tried to do so while leaving most of the theoretical structure of the neo-classical edifice intact. And when he found this insufficient for his needs, he simply glued onto it new bits of theory of his own in an *ad hoc* fashion, however ill they fitted with the rest.

Most of the way through **The General Theory** Keynes uses the concepts of marginalism. For him, as much as for his 'orthodox' opponents, firms will expand their output until marginal output costs equal the price people are prepared to pay for goods. He accepted the argument that a rise in real wages

above this level will prevent goods from being sold. And so he also accepted that any rise in output would have to be accompanied by falling real wages. His disagreement with the orthodoxy was not over the principle, but over its application. He denied the practical possibility of bringing about the cuts in real wages needed to sell more goods. This was why governments had to stimulate the economy. Once this had happened, the economy could then work along lines put forward by the neo-classical orthodoxy.

So much did Keynes accept the neo-classical framework that he rejected damning criticisms of it from economists who were close to him personally. As we have seen, Marshall had already been forced to question in part the assumption of diminishing returns. Keynes's friend and Cambridge colleague Piero Sraffa went further in a keynote article in 1926 and argued that not diminishing but increasing returns were the norm. This threw into question the whole edifice of neo-classical theory, as he tried to explain to Keynes: 'If a firm's costs of production fall as its output rises, there is no stable equilibrium between supply and demand, and nothing to stop its size expanding indefinitely. The problem then is how equilibrium is reached'. [80]

The point was devastating. As the influential economist J.H. Hicks admitted 13 years later, unless 'marginal costs ...rise as the firm expands' there is nothing to stop a firm growing into a monopoly which has 'some influence over the prices at which it sells'. But 'a universal adoption of the assumption of monopoly must have very destructive consequences for economic theory ... The basis on which economic laws can be constructed is shorn away' and there is 'wreckage of the greater part of economic theory'. [81]

The only way to save existing economic theory, Hicks wrote, was to take the 'dangerous step' of assuming that most markets are 'competitive markets'. In fact, the great mass of economic teachers and economic textbooks have taken this step with hardly a thought. And so did Keynes. For him there could be no

talk of a root-and-branch abandonment of the neo-classical framework. He still insisted, more than a dozen years after Sraffa first put his arguments, 'I have always regarded decreasing physical returns in the short period as one of the very few incontrovertible propositions in our miserable subject'. [82] As Skidelsky notes, 'Keynes did not consider the theoretical problems for value theory raised by Sraffa to be of serious practical importance'. [83]

Theoretical issues which people banish through the front door have a habit of reappearing through the back. This was certainly true with value theory for Keynes. At one point in **The General Theory** he had deal with the question of how to measure increases in economic output. He recognised that you cannot simply add together different sets of physical commodities at one point in time and compare them with a different set at a later point. [84] To make such comparisons involves 'covertly introducing changes in value'. [85] To deal with this problem, he drops the usual assumptions of neo-classical theory and makes half a turn to a labour theory of value, [86] to 'the general assumption that the amount of employment associated with a given capital equipment will be a satisfactory index of the amount of resultant output'. [87] He explains later, 'I sympathise with the pre-classical [*sic*] doctrine that everything is produced by labour, aided by what used to be called art and is now called technique, by natural resources … and by the results of past labour, embodied in assets …' [88]

But the half turn away from neo-classical theory is never carried through to its logical conclusion. It is introduced into the work to deal with one problem, in a quite eclectic manner, and then forgotten. The main body of the work remains wholly within the neo-classical framework. This had a number of important implications.

Keynes could not fully avoid having to say something about what would happen if workers did not simply put up with falling living standards that would, according neo-classical theory, have

to accompany rising output. This led him at points to fall back on the need for unemployment to discipline workers:

> Our methods of control are unlikely to be sufficiently delicate or sufficiently powerful to maintain continuous full employment ...and in practice I should probably relax my expansionist measures a little before technical full employment had actually been achieved. [89]

> **The General Theory** begins with a diatribe against the idea that wage cutting can end a slump. But here Keynes himself is close to saying that wages are a problem and that there is a necessary level of unemployment to hold them down – what right wing economists came to call 'the natural level of unemployment' in the 1970s and 1980s.

The eclecticism is strongest – and most damaging – when it comes to his discussion of why investment is below the full employment level. Although this question is absolutely central to his whole theory, he does not provide a clear account, but refers to four different possible reasons.

First, there is the level of interest rates. The importance of these is often downplayed in discussion of Keynes's work. Yet an awful lot of **The General Theory** is devoted to them – its full title is, after all, **The General Theory of Employment, Interest and Money**.

Part of Keynes's critique of the old orthodoxy was that it tended to equate the rate of profit and the rate of interest, seeing both as determined by the amount of saving on the one hand and the amount of investment on the other. It held that if saving rose above investment, interest rates would fall, making investment cheaper and encouraging it to rise to the level of saving. This was the rationale behind its contention that the key to economic growth was saving. It has also served to justify both profit and interest: they were the 'reward' to saving for the extra economic output obtained with increased use of capital. Indeed, the rate of

interest was equal to the marginal output per extra unit of investment.

Keynes challenged this view strongly. He insisted the rate of interest was different to the rate of profit, being determined not by the productivity of capital but by the willingness of people to hold their savings in the form of ready cash or as loans to entrepreneurs, bankers or the state (their 'liquidity preference'). The greater their desire for ready cash, the higher the rate of interest – and the greater the cost to entrepreneurs of borrowing. Far from the level of borrowing determining the rate of interest, the rate of interest determined the level of investing. But the government could influence the desire of people to hold on to cash, and the rate of interest, by its own operations in the money markets. And if it did so in such a way as to hold interest rates down, it would stimulate investment.

Keynes was doubtful whether low interest rates alone would be sufficient to end a deep slump like that of the 1930s. But he believed they had an important role to play – a view that could easily be interpreted as meaning all governments had to do to keep the economy expanding was to tinker with interest rates through the money markets.

The second factor he saw as causing investment was, as we have already seen, the expectation of entrepreneurs about future prospects. But 'the outstanding fact is the extreme precariousness of the basis of our knowledge on which the estimates of prospective yield have to be made'. [90] Since the success of any one entrepreneur's investment depended on the willingness of other entrepreneurs to provide a market for goods by investing themselves, what came to determine overall investment was not its real efficiency, but the crowd psychology, 'the average preferences of the competitors as a whole'. 'Investment based on genuine long term expectation is so difficult today as to be scarcely practicable'. [91] Here again, however, Keynes implied government could quite easily come to the rescue, since 'then the state ... is in a position to calculate the

marginal efficiency of capital goods on the long view and on the basis of general social advantage, taking an ever greater responsibility for directly organising investment'. [92]

But there was an important proviso here, for Keynes's 'expectations' were determined not just by what the government did, but by the way businessmen viewed what it did.

If the fear of a Labour government or a New Deal depresses enterprise, this need not be the result either of reasonable calculation or of a plot with political intent; it is the mere consequence of upsetting the delicate balance of spontaneous optimism. In estimating the prospects for investment, we must have regard, therefore, to the nerves and hysteria and even the digestions and reactions of the wealthier of those upon whose spontaneous activity it largely depends. [93]

In other words, at one point state intervention is easy, but at another it is very difficult.

Thirdly, Keynes connected the willingness to risk investment not merely with how investors thought other investors were going to behave, but also with individual psychology – what he referred to as the 'animal spirits' of entrepreneurs:

> Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be the result of animal spirits – of a spontaneous urge to action rather than inaction ... Thus if the animal spirits are dimmed and the spontaneous optimism falters ...enterprise will fade and die. [94]

The implication of this notion is that deep slumps like that of the inter-war years are a result not of economic causes at all, but of changes in psychology.

But Keynes also suggested there was an objective economic reason for the level of investment by individual firms and individuals to decline over time. He argued that the very process of expanding capital investment led to a decline in the return on

it – ‘the marginal efficiency of investment’. Such a decline increased the risks of further investment, and so increased the likelihood that the ‘animal spirits’ would not be strong enough for capitalists to take the risk of investing and undermined any expectation that economic growth would justify any particular investment.

He believed the declining ‘marginal efficiency of capital’ to be an empirical fact which could be found, for instance, in the inter-war ‘experience of Great Britain and the United States’. [95] The result was that the return on capital was not sufficiently above the cost to the entrepreneurs of borrowing as to encourage new investment, so tending ‘to interfere, in conditions mainly of laissez faire, with a reasonable level of employment and with the standard of life which the technical conditions of production are capable of furnishing. [96]

Keynes’s explanation of this decline was grounded in his overall ‘marginalist’ approach, with its acceptance that value depended on supply and demand. As the supply of capital increased it would grow less scarce. As a result the value to the user of each extra unit would fall until, eventually, it reached zero – something that could happen in ‘a properly run community equipped with modern technical resources … within a generation …’ [97]

This theoretical reasoning seems to have been too obscure for most of Keynes’ followers. The ‘declining marginal efficiency of capital’ hardly appears in most accounts of Keynes’s ideas. Yet it is the most radical single notion in his writings. It implies that the obstacles to full employment lie with an inbuilt tendency of the existing system and not just with the psychology behind ‘propensities to save’, ‘liquidity preferences’, ‘expectations’ and ‘animal spirits’. If that is so, there would seem to be no point in governments simply seeking to ‘restore confidence’: there is nothing to restore confidence in! As such the notion has obvious parallels with Marx’s theory of ‘the tendency of the rate of profit to decline’ – although Marx based his theory on an objective

labour theory of value, while Keynes' rested his on his own peculiar interpretation of marginalism. Both had implied that capitalism as we know it is no longer an advancing system with a great future.

Marx, of course, drew revolutionary conclusions from this – that workers had to seize control of the means of production so as to transform the whole basis of decision making on investment. Keynes, as a liberal committed to capitalism, could not draw such conclusions. At some points he shies away from any stress on the objective character of 'marginal efficiency', emphasising instead its 'dependence' on 'expectations'. At others he claims the decline will make capitalists accept the gradual reform of their own system, with 'a gradual disappearance of the rate of return on accumulated wealth' providing 'a sensible way of gradually getting rid of many of the objectionable features of capitalism ...' [98] Yet, whatever Keynes himself might have thought, the implication remained that the very development of capitalism itself implied deepening crisis. No doubt this, as well as the obscurity of the theoretical argument, led to the notion disappearing from view after the publication of **The General Theory**.

But dropping the 'decline in the marginal efficiency of capital' from Keynes's overall theory leaves an enormous hole in it – however ill worked out the notion is and however unpalatable to defenders of the existing system. For it is the only attempt in **The General Theory** to consider what happens when capital accumulation occurs. Omitting it leaves **The General Theory** as an account of the capitalist economy in which a central characteristic of that economy is missing. As Joan Robinson, one of those Keynesians who dropped 'the declining efficiency of capital', says:

> The main topic of **The General Theory** was the consequence of a change in the level effective demand within a short period situation with given plant and available labour. The consequences of changing the stock of plant as investment matures hardly come

into the story … Keynes himself had almost nothing to say about growth. [99]

In showing this general lack of concern with accumulation, Keynes was, as in so many other respects, keeping within the neo-classical tradition. To jettison the notion of the declining 'marginal efficiency of capital', as most followers of Keynes did, was to jettison his most important, if flawed, attempt to go beyond neo-classicalism.

The post-war synthesis

The version of Keynesianism – sometimes called 'orthodox Keynesianism' or the 'post-war synthesis' – which hegemonised mainstream economics for the 30 years after the Second World War involved precisely such a purging from Keynes's theory of its non-neo-classical elements. The theory was then reduced to a set of equations showing the alleged interaction between income, interest rates, investment, saving, and the supply of and demand for money – the so called 'IS/LM diagram', first drawn up by J.H. Hicks in 1937.

It turned 'Keynes's logical chain of reasoning designed to expose the causes which drive the economy towards a low employment trap into a generalised system of simultaneous equations, devoid of causal significance …' [100] This 'model' of the total economy could then be treated as a simple addition to the old neo-marginalist account of how prices led to individual commodities being produced in the right quantities to satisfy consumer 'demand'. And it seemed to lay down golden rules for

governments to smooth out the slump-boom cycle and maintain full employment. It thus served 'to reconcile revolution and orthodoxy in a double sense: in terms of the discipline of economics, and in terms of the continuity of political and social institutions ...' [101]

Every element in Keynes's work which might have been construed as a radical critique of free market capitalism was removed. What remained was an account of how easy it was for governments to intervene so as to restore 'the best of all possible worlds' – and to do so without upsetting the owners of capitalism. In this way Keynesianism became, in the economics textbooks of the 1950s and 1960s, an apology for capitalism and its main line of defence against the challenge from Marxism.

Joan Robinson, who resented this deradicalisation of Keynes and claimed it was a 'bastard Keynesianism' (although she had to admit Keynes himself prepared the ground for it), pointed out that in a certain sense it even restored Say's law. For it portrayed the system as self equilibrating, provided governments intervened in accordance with its 'economic laws':

> The old orthodoxy against which the Keynesian revolution was raised was based on Say's law – there cannot be a deficiency of demand. Spending creates demand for consumption goods, while saving creates demand for investment goods such as machinery and stocks.
>
> > Keynes pointed out the obvious fact that investment is governed by decisions of business corporations and public institutions, not by the desire of the community to save.
> >
> > An increase in household saving means a reduction in consumption; it does not increase investment but reduces employment.
> >
> > According to the bastard Keynesian doctrine it is possible to calculate the rate of saving that households collectively desire to achieve, and then governments by fiscal and monetary policy can organise the investment

> of this amount of saving. Thus Say's law is artificially restored, and under its shelter all the old doctrines creep back again. [102]

> Among these 'old doctrines' was the one Keynes wrote **The General Theory** to refute – the doctrine that unemployment can be cured by cutting wages. For the new orthodoxy's set of equations indicated that if governments intervened according to the rules full employment could be achieved. They purported to show 'that any amount of capital will provide employment for any amount of labour at the appropriate equilibrium real wage rate'. [103] If unemployment persisted then, it could only be 'because wages are being held above the equilibrium level'. [104]

Leijonhufvud pointed out nearly 30 years ago that the mainstream 'Keynesians' had come to accept the main tenets of 'neo-classical resurgence', employing the same basic model and seeing Keynes's theory as a 'special case' of the neo-classical theory. [105] 'The Keynesians have, in fact, reverted to explaining unemployment in a manner Keynes was quite critical of, namely by "blaming" depressions on monopolies, labour unions, minimum wage laws, and the like.'

Their conclusion was that, 'if "competition" could only be restored, "automatic forces" would take care of the employment problem. Thus the modern appraisal is that Keynesianism in effect involves the tacit acceptance of the traditional theory of markets with the proviso that today's economy corresponds to a "special case" of the theory, namely the case that assumes rigid wages.' [106]

In fact, the Keynesians came to assume the 'rigidity' of wages meant there was an inflationary price to be paid if unemployment was to be cut below a certain point – a notion

embodied in a diagram, the 'Phillips curve', which purported to show there was a 'trade off' between unemployment and inflation. It was only a small step from this to accepting that there was a 'natural rate of unemployment' – and that if the average level of unemployment rose over time, it was not because of the irrationalities in the system mentioned by Keynes himself, but because 'rigidities in the labour market' were forcing the 'natural rate' up.

The differences between 'orthodox' Keynesians and monetarist adherents of the old pre-Keynesian orthodoxy became technical differences, about how to use a model they shared, not differences of fundamental analysis. Even Milton Friedman, the high priest of monetarism, could call Keynes 'one of the great economists of all time', differing with the Keynesian orthodoxy not so much on the overall model of the economy as on important details within it (the importance of controlling the money supply by open market operations). [107]

The disintegration of consensus

The fact that they shared the same basic model of the economy as the monetarists made it easy for lifelong 'orthodox' Keynesians to abandon key aspects of their master's teaching when the long boom gave way to a new period of crises in the mid-1970s. All they had to do was to switch from one technical interpretation of the model to another and to argue that little could be done about soaring unemployment except perhaps to clamp down on wages and welfare benefits. Joan Robinson acerbically described the change in their shared message:

> The spokesmen of capitalism were saying: Sorry chaps, we made a mistake, we were not offering full employment, but the natural

level of unemployment. Of course, they suggested that a little unemployment would be enough to keep prices stable. But now we know that even a lot will not do so. [108]

Labour's prime minister James Callaghan virtually admitted this when he told his party's conference in September 1976:

We used to think you could just spend your way out of recession by cutting taxes and boosting government borrowing. I tell you in all candour that that option no longer exists; and insofar as it ever did exist, it worked by injecting inflation into the economy. And each time that has happened, the average level of unemployment has risen.

The point was repeated by Labour's current economic spokesman, Gordon Brown, at a conference on 'global economic options' in September 1994:

Countries which attempt to run national go it alone macro-economic policies based on tax, spend, borrow policies to boost demand, without looking to the ability of the supply side of the economy, are bound these days to be punished by the markets in the form of stiflingly high interest rates and collapsing currencies. [109]

The politicians and academics who were brought up on Keynesianism have come to accept the same parameters for deciding economic policy as their old opponents. And like these opponents, they have come to accept that there is no alternative to high levels of unemployment, welfare cuts, 'flexibility' to make workers 'more competitive' and laws to restrain 'trade union power'. This is the message to be found today in the speeches of politicians of all mainstream parties, in media commentaries on the economy and in IMF/World Bank reports on particular countries.

Yet the message is not nearly as powerful for defenders of existing society as the Keynesian orthodoxy of 30 years ago, despite the volume at which it is broadcast. It is not as ideologically reassuring to tell people their lives are insecure and going to get worse as to tell them they've 'never had it so good', as a Tory prime minister famously did in 1959. And as crises can cause enormous headaches, even to capitalist giants like General Motors and IBM, there is bound to be increasing dissent even at the highest levels of the system at the inability of the dominant economic ideas to provide any explanation of crises and why they tend to get worse.

The result in recent years has been a flourishing of dissident economic schools.

Kalecki and the radical Keynesians

> There was an alternative interpretation of Keynes's ideas to that of 'orthodox Keynesianism' from the moment **The General Theory** hit the bookshops. Certain of Keynes's closest disciples at Cambridge, such as Richard Kahn, Joan Robinson and Nicholas Kaldor, took up some of those elements in **The General Theory** which questioned the ability of capitalism to attain a full employment equilibrium without 'socialisation' of investment.

This 'radical' Keynesianism became much more critical of many neo-classical assumptions than Keynes ever was, subjecting them to destructive criticism. But it remained as ambivalent as Keynes himself was as to what to do when faced with the crises of the system. It was stranded, like Keynes, between radical talk on the one hand and recognition of the

limits of what is acceptable to those who run the system on the other.

Two economists influenced by Marxism had an impact on the thinking of the radical Keynesians – the Pole Michal Kalecki and the Italian Piero Sraffa.

Kalecki had actually foreshadowed some of the key notions of Keynes's in papers published in Polish (and so unknown to anyone in Britain or the US) in the three years before **The General Theory** appeared. [110] He was much more left wing in his attitudes than Keynes, coming from a family which was hit by unemployment after the First World War, and supported the left wing of the Polish Socialist Party during the 1930s. He was forced to return to Poland in the 1950s by McCarthyism in the US, but then fell out with the Stalinist government because he would not accept that planning should subordinate consumption to accumulation.

Kalecki got from Marx and the Polish-German revolutionary Rosa Luxemburg something not to be found in mainstream economics before Keynes – the view of the economy as a totality, with the level of effective demand dependent upon prior decisions about investment. [111] Kalecki's own experience as a business statistician also convinced him that the central neo-classical assumption of diminishing returns was wrong. Diminishing returns, he argued, occurred only in the production of raw materials, but not in manufacturing, where increasing returns were the rule.

However, Kalecki disregarded key elements in Marx's own theory: the labour theory of value, the tracing of profit back to surplus value acquired by exploitation in the production process, and the tendency of the rate of profit to fall. He showed no interest in value theory and saw profit as dependent on the degree of monopoly control a firm exercised over the market. This in turn meant that 'from Kalecki's approach there is no clear prediction on the course of the rate of profit'. [112]

Instead he saw a tendency to 'a slowing down in the growth of capitalist economies in the late stages of development', resulting 'in part from the decline in the intensity of innovations' connected with 'the declining importance of the discovery of new sources of raw materials, of new lands to be developed, etc.' and with 'the increasing monopolistic character of capitalism' which 'would hamper the application of new inventions'. [113]

He expected there to be a rising trend in the level of unemployment after the war that only deficit government budgeting would be able to counter. When, instead, the system experienced the longest sustained boom in its history, the great majority of economists showed no interest in 'the problems raised by Kalecki' such as 'the question of whether the stimulation of private investment can be adequate for long term full employment, and, if not, how a policy involving a permanent deficit' is possible. [114]

Once the boom was under way, Kalecki and the 'radical Keynesians' he influenced tended to see the problem of maintaining 'effective demand' and full employment not as an economic problem, intrinsic to the dynamics of the system, but as a political problem – that of persuading big business to go against its own instincts and accept government intervention in investment decisions. The arms economy was important for him, because it involved a form of spending easily accepted by big business, not because of its influence on some aspect of the fundamental dynamics of the system.

Sraffa and the onslaught on marginalism

Sraffa too came from a left socialist background and was influenced by Marxism: he had written for Gramsci's paper **Ordine Nuevo** in the early 1920s, maintained a correspondence with him in prison for the ten years

before his death in 1937 and acted as his main connection to the outside world. He was also friendly with Keynes, owing to him a position at Cambridge and a job editing Ricardo's collected works. But his approach to economics was very different to that either of Kalecki or Keynes. His concern was not with either effective demand or the cause of unemployment, but to destroy the theoretical basis of neo-classical theory and to reinstate the approach to be found in Ricardo and Marx. This he attempted to do in **The Production of Commodities by Means of Commodities**, published in 1960.

The work is a highly formalistic model of an economy, showing how it is possible to derive the set of physical quantities of different commodities and the prices at which they exchange by starting from the assumptions made by Ricardo and abandoned by marginalism. Far from supply and demand playing the central role ascribed to them by mainstream economics for the last century, each is shown to be a mere by-product of the existing technical organisation of production and the distribution of output between investment, capitalists' consumption and workers' consumption.

As Joan Robinson summarises the work's conclusions, 'There is no room for demand equations in the determination of equilibrium prices.' 'The marginal productivity theory of distribution' – which is used by mainstream economists to justify profit and oppose minimum wage laws – 'is all bosh ... Sraffa ... demonstrates conclusively that there is no such thing as a "quantity of capital" which exists independently of the rate of profit'. [115]

The radical Keynesians at Cambridge took up Sraffa's point, insisting that the neo-classical economists' elaborate algebraic calculations and geometrical curves rested on a tautology as

meaningless as that which says, ‘An egg is an egg.’ The neo-classicists said profits and interest were ‘rewards’ for ‘abstention’, ‘waiting’ or ‘production time’, and were equal to the increase in value (‘marginal product’) produced by extra capital. So the rate of profit was marginal product divided by the value of the total capital. But how was the value of that capital to be measured? It could not be arrived at by adding together the different physical measurements of goods that made up the means and materials of production (tons of iron, gallons of oil, kilowatts of electricity, etc.). In fact, it depended, according to marginalist theory, on the value of the marginal product – the same thing that the measurement of profit depended on. In that case, there was no way of arriving at a figure for the ratio of the profit to the capital, that is, at the rate of profit. Or, to put it another way, the rate of profit and interest depended on the amount of capital, and the amount of capital depended on the rate of profit and interest. [116]

Neo-classical economics became a set of equations referring to nothing real. As Joan Robinson put it:

> Quantitative utility has long since evaporated, but it is still common to set up models in which quantities of ‘capital’ appear, without any indication of what it is supposed to be a quantity of. Just as the problem of giving an operational meaning to utility used to be avoided by putting it into a diagram, so the problem of giving a meaning to the quantity of ‘capital’ is evaded by putting it into algebra. [117]

The analysis of marginalist ‘capital theory’ led to another, related, conclusion which destroyed the old argument that workers would always be able to get jobs if only they accepted lower wages. The marginalist argument rested on the assumption that as wages fell it would always be profitable for capitalists to switch from ‘capital intensive’ to ‘labour intensive’ techniques of production, so absorbing unemployed workers. Kaldor and Robinson

> showed that, in fact, a growth of profits at the expense of wages could so alter prices as to cause a process they called 'reswitching' – a change making it more profitable for the capitalist to cut the workforce by using capital intensive rather than labour intensive methods. [118] Garegnani has gone further and suggested that if neo-classical theory were to take account of this phenomenon of 'reswitching' it would have to paint a picture not of an economy in a state of equilibrium, but of one much more unstable than 'has ever been observed in reality'. This, he has argued, reflects 'the absence of a factual base' for neo-classical theory. [119]

In these ways Sraffa's work laid the basis for tearing apart the logical foundations of marginalism, while proving that a theory of value based on the tradition of Ricardo and Marx could work. To this extent, it threw into question the great body of textbook economics. As Joan Robinson put it, 'This knocked the bottom out of the logical structure of orthodox theory, but mainstream teaching goes on just the same'. [120]

Sraffa's writings did not, however, replace marginalism with any positive analysis of economic issues. They could not, because they were simply a formal proof that a model based on Ricardo's arguments would work, and did not attempt to provide real life examples of what was involved. Robinson admits: 'Sraffa's model is too pure to make a direct contribution to formulating answerable questions about reality, but it makes a very great contribution to saving us from formulating unanswerable questions'. [121]

In fact, Sraffa himself did not claim it could do more than this. It was, the subtitle of the work proclaimed, a 'prelude to' – a clearing of the ground for – 'a critique of political economy'. But this of necessity meant it could not begin to measure up to the

writings of Ricardo, let alone Marx, when it came to saying anything about the dynamics of the system.

Sraffa himself told people that 'he would not have been able to write the **Production of Commodities by Means of Commodities** if Marx had not written **Capital** ... He had been strongly influenced by the work of Marx, and he felt more sympathy with him than with those he called the "whitewashers" of capitalist reality'. [122] Joan Robinson reports, 'Piero always stuck close to pure unadulterated Marx'. [123]

Yet some radical Keynesians claimed that Sraffa provided an alternative 'neo-Ricardian' method to that of Marx which showed the irrelevance of the labour theory of value and, with it, the falsity of his theory of the declining rate of profit. [124] These 'neo-Ricardians' drew the conclusion that in the real capitalist world the only thing that could produce a fall in the rate of profit was a rise in the share of output going to wages – or, as Marx would have put it, 'a fall in the rate of exploitation'.

Their conclusion was that the crisis of capitalism was a result of low levels of investment because of the sharpness of the class struggle – an argument presented in the early 1970s, for instance, by two left wing economists Glyn and Sutcliffe in a popular paperback, **British Capitalism, Workers and the Profits Squeeze**. [125] Glyn and Sutcliffe themselves put a left slant on this, arguing that it showed the wages struggle had to be political and challenge the system as a whole if it was not to lead to unemployment. But the argument easily led back to the old orthodoxy that wages were to blame for unemployment and that, therefore, the way out of the crisis lay through wage cuts – whether these were pushed through in the 'pre-Keynesian' way by the individual employer or in a 'Keynesian' way using incomes policy.

Sraffa's writings may have torn the pretensions of neo-classicalism apart, but the 'Neo-Ricardian' system built on them acted as a bridge between radical Keynesians and their 'orthodox

Keynesian' colleagues, just as these were reaching a degree of consensus with the old pre-Keynesian orthodoxy.

Other criticisms of neo-classicalism

> The arguments of Kalecki and Sraffa were not the only ones the radical Keynesians could use against the neo-classical assumptions of the 'orthodox' Keynesians. A whole range of other anti-marginalist arguments emerged in the 1940s and 1950s. It was pointed out, for instance, that the neo-classical assumption of rapid and automatic adjustment of supply and demand through the price mechanism was impossible in reality.

Walras had written as if there were some 'auctioneer' acting for the economy as a whole to bid prices up and down. But in reality any adjustment only takes place on an *ad hoc* basis, commodity by commodity, over time. Even before supply and demand have come into line for one commodity, the conditions of production for other, related, commodities can have changed, so altering the conditions of supply and demand for the first commodity. For instance, by the time the price of grain has moved in such a way as to balance supply and demand, the price of fertilisers used to produce the grain can have further changed, so altering the costs of supplying the grain – and preventing the price from maintaining the balance with demand.

As the economist Schumpeter – a non-Marxist and non-Keynesian whose own ideas grew out of Boehm Bawerk's version of marginalism – summarised the argument in the early 1940s:

> Once equilibrium has been destroyed by some disturbance, the process of establishing a new one is not so sure and prompt and economical as the old theory of perfect competition made it out to

be ... The very struggle for adjustment might lead such a system farther away from instead of nearer to a new equilibrium. [126]

> Again Schumpeter could point out that the neo-classical assumption of perfect competition was incompatible with firms making any long term investment in innovation. For perfect competition should mean that the moment a firm started reaping rewards from its investment, other firms would be able to muscle in on its markets, taking advantage of innovations it had initiated. 'The introduction of new methods of production and new commodities is hardly compatible with perfect and perfectly prompt competition from the start ... As a matter of fact, perfect competition has always been temporarily stemmed whenever anything new is being introduced'. [127]

He saw the 'dynamism' of capitalism as resting on the 'creative destruction' wrought by the struggle of competing near monopolies, not on the neo-classical picture of perfect competition and flexibility of prices. Schumpeter held that far from tending 'to maximise production' these features of the pure neo-classical model 'might in depression further unstabilise the system ...' [128]

The neo-classicalists could not reply to these arguments. But there was a sense in which they did not need to. While the long boom lasted there did seem, to those who could not be bothered to look beneath the surface of economic events, to be some correspondence between the orthodox Keynesian neo-classical 'synthesis' model and the reality of continually growing, more or less full-employment economies. Even economists like Schumpeter and Gailbraith who saw the logical flaws in neo-classicism argued that the capitalist economy could grow rapidly and improve people's living standards despite – or even because

of – them. [129] There was little obstacle to the neo-classicalists continuing as if their arguments had never been questioned. As Joan Robinson writes:

> Orthodox theory reacted to this challenge, in true theological style, by inventing fanciful worlds in which the difference between the past and the future does not arise and devising intricate mathematical theorems about how an economy would operate if everyone in it had correct insight about how everyone else was going to behave. [130]

’New classical’ and ‘supply side’ counter-revolution

Even the ending of the long boom in the mid-1970s did not destroy the confidence of the neo-classical economists. Indeed, at first it reinforced it. What had failed, they claimed, was not the ‘free market’ but attempts to ‘interfere’ with its free operation. All that was necessary to return to the best of all possible worlds, argued ‘new classical economists’, was to end that interference. As two of their critics write:

> The Keynesian consensus faltered in the 1970s. The new classical economists argued persuasively that Keynesian economics was theoretically inadequate, that macroeconomics must be built on firm micro-economic foundations. They also argued that Keynesian economics should be replaced with macro-economic theories based on the assumptions that markets always clear and the economic actors always optimise ... They imply that the invisible hand always guides the economy to the efficient allocation of resources. [131]

The extreme logic of this position was to argue against any government intervention in the economy: ‘The central lesson of economic theory is the proposition that a

competitive economy if left to its own devices will do a good job at allocating resources'. [132] Recessions would cure themselves:

> Recession in a laissez faire society is a period of readjustment ...a manifestation of individuals exercising legitimate property rights. Entrepreneurial alertness and freedom to profit from it promote the most rapid discovery of exchange possibilities that end recession and reduce unemployment. [133]

Because of this, they insisted, Von Mises had been quite right to conclude, 'Unemployment in an unhampered market is always voluntary'. [134] Or, as the new classicalist Edward Prescott, put it, 'rhythmic fluctuations' in unemployment are really 'counter-cyclical movements in the demand for leisure'. [135]

The job of governments was not to try to speed up or slow down the total 'macro economic' functioning of the economy. Instead, their job was to pull back from intervention as much as possible, in particular by cutting taxes on incomes, so increasing the 'supply side' incentives to entrepreneurial initiative. So effective would cuts in tax rates be, argued the most politically influential of the 'new classical economists' in the Reagan years – the so called 'supply siders' – that total government revenue was bound to rise, balancing the budget automatically as the free market caused the economy to return to its natural boom condition.

Even the failure of Friedman's monetarism to control the money supply, inflation and the cyclical movement of the economy in the 1980s (for instance, under Thatcher in Britain) did not dent the enthusiasm of the most thorough going of the new classicalists for their reborn dogma. For, they argued, Friedman fell into the same trap as Keynes by urging government intervention to shift the money supply: he was, in a certain sense, 'a Keynesian'. [136] Such moves could not alter

business behaviour in the hoped for way, since the 'rational expectations' of entrepreneurs would always lead them to discount government intervention in advance. Fiddling with the money supply, like government deficit spending, stopped supply and demand reacting to each other properly. 'Booms and slumps', it was claimed, 'are the outcome of fraudulent Central Reserve banking'. [137]

It is an amazing commentary on the remoteness of most academic economics from any contact with reality that the 'new classicals' could maintain intellectual credibility when they denied the instability and irrationality of the *laissez faire* economy in a period which saw three major international recessions. But they had one very important asset on their side: their ideas were very comforting to the ruling class and its placemen and women holding positions of influence in the media and the universities. On this Joan Robinson was quite right:

> The radicals have the easier case to make. They have only to point to the discrepancies between the operation of the modern economy and the ideas by which it is supposed to be judged, while the conservatives have the well nigh impossible task of demonstrating that this is the best of all possible worlds. For the same reason, however, the conservatives are compensated by occupying positions of power, which they can use to keep criticism in check ... The conservatives do not feel obliged to answer radical criticisms on their merits and the argument is never fairly joined. [138]

The high point of these sort of ideas was in the mid to late 1980s. The short lived boom in the advanced Western countries seemed to vindicate their optimism about the benefits to economic growth of deregulation, privatisation and dropping all restraints on the greed of the rich. At the same time the crisis and then collapse of the old 'Communist' bloc seemed to prove that attempts at national planning were doomed to failure. Its ex-planners

were suddenly lauding the virtues of the Western market and lapping up the pre-Keynesian pure market message preached by Milton Friedman and Friedrich von Hayek. In the Third World, 'dependency economists', who had looked to the national state as the only way to break the stranglehold of the first world over economic advance, now embraced the free market balanced budget 'structural adjustment' programmes of the International Monetary Fund and the World Bank. In the West many prominent left wing intellectuals concluded that capitalism had proved its economic superiority to 'socialism': the editor of **New Left Review** in Britain could write a long article suggesting that the critique of 'socialist planning' by von Mises and Hayek was vindicated by the Russian experience. [139]

The breakdown in orthodoxy: the 'Austrian school'

Just as the boom of the late 1980s gave a boost to 'free market' and 'new classical' views, the recession of the early 1990s inevitably caused a reaction against these. It produced a sense of panic which the bland reassurances of the 'new classicals' did little to calm down. In this climate there was a new hearing, even in respectable bourgeois circles, for ideas which questioned some of the tenets of neo-classical equilibrium theory.

Three main sets of 'heterodox' views have gained prominence as a result, known respectively as the 'Austrian school', the 'New

Keynesians', and the 'complexity' or 'chaos' theorists.

The first school is as committed to unfettered free markets as the 'new classicals' and has its origins in the marginalist theories of Menger and Boehm Bawerk as developed in varying ways by Mises, Hayek and Schumpeter. Hayek was an early critic of Keynes in the 1930s. But it was in the 1980s that he achieved real prominence. He was Margaret Thatcher's favourite economist because he had argued for years that, if only regulation was abandoned and unions were weakened, then the economy would automatically be restored to its optimal condition. 'The regular cause of extensive unemployment is real wages that are too high', he had insisted in one of his more popular writings in 1970. The responsibility for unemployment then lies with trade unions which use their power 'in a manner which makes the market ineffective'. Union power had to be curbed 'at its source'. [140]

This version of Hayek's argument hardly differed from that of the 'new classical' economists, and gained him popularity in right wing circles for similar reasons. But it was possible to put a gloss on his more academic writings which seemed to protect them from the accusation of simply ignoring the reality of crises. For in the course of the 1930s Hayek had in part broken away from his previous view that slumps were simply a result of mistaken government monetary policies. His works at points came close to accepting that there was something intrinsic to capitalist production that led to investment growing too rapidly in boom periods, with slumps as an inevitable counter-reaction. [141] He could talk about 'the limits of traditional neo-classical theory' and accept that 'economic agents' ...different expectations about the world might lead to divergence rather than convergence of behaviour'. [142] He referred to the term 'equilibrium' which 'economists usually use to the describe the competition process' as 'unfortunate', [143] noting that the 'fundamental problem' about 'the relevance of the concept of equilibrium' is 'the explanation of a process taking place in time',

[144] and preferring, himself, to use the term 'order'. He could even, in one passage, admit that Marx was responsible for introducing, in Germany at least, ideas that could explain the trade cycle, while 'the only satisfactory theory of capital we yet possess, that of Boehm Bawerk', had 'not helped us much further with the problems of the trade cycle'. [145]

'Competition is valuable,' he wrote later, 'only in so far as its results are unpredictable and on the whole differ from those which anyone has, or could have, deliberately aimed at'. [146] 'Spontaneous order produced by the market does not ensure that what general opinion regards as more important needs are always met before the less important ones'. [147]

These writings mean that, while the likes of Margaret Thatcher acclaim Hayek for showing the wonders of the unrestrained market, some economists now claim that he produced a non-apologetic version of market economics which broke away from the crudities of the neo-classical school. This seems, for instance, to be the attitude of Paul Ormerod, who writes of 'the much misunderstood Hayek'. [148] The implication is that a non-apologetic economics, which drops neo-classical equilibrium theory but retains marginalism, can be built on a Hayekian basis.

But there is no such possibility. Hayek may have been forced at points in the 1930s to concede the inadequacy of the neo-classical notion of equilibrium. But he could never fully drop such a key assumption of the marginalist theories on which he based himself. In both his academic and his popular writings he again and again reverted to it, taking it for granted that the market left to itself will tend to produce the best possible organisation of production. Thus he wrote of 'the price mechanism' as a 'self equilibrating system' in one of the very works which attempted to describe the pressures driving to boom and slump; [149] the only problem, as he saw it, was that 'money by its very nature constitutes a kind of loose joint' in this apparatus – as if the apparatus could exist without money! He might claim to reject 'equilibrium theory', but he was capable in

the same passage of arguing that it is possible to avoid a 'disequilibrating effect', and 'to rescue as much as possible this slack in the self correcting forces of the price mechanism'. [150]

So one minute he rejected the notion of equilibrium and the next he embraced it. It is this which enabled him to suggest elsewhere that if only 'conditions in general are conducive to easy and rapid movements of labour' then this will 'create stable conditions of high employment'. [151]

He wanted to have his cake and eat it – to attack the notion of equilibrium when it clearly clashed with the harsh empirical reality of mass unemployment and the slump-boom cycle, but to return to it when he was intent on polemicising against trade unions and in defence of free markets.

He believed the unrestrained market led to the best of all possible worlds, since it encouraged entrepreneurs to undertake new and more efficient methods of production in a dynamic way. But at the same time he could not avoid recognising that it produced enormous and repeated disruption of people's lives: 'In a continuously changing world, even mere maintenance of a given level of wealth requires incessant changes in the direction of greater effort of some, which will be brought about only if the remuneration of some activities is increased and that of others is decreased'. [152]

Hayek would insist that competition would only 'work' by rejecting any attempt to ease the burden of change on the mass of people. In one rare passage he even expressed the fear that 'the communist countries' had the advantage over 'the capitalist countries' of being 'freer from the incubus of "social justice" and more willing to let those bear the burden against whom development turns ...' [153]

The ambiguities built into Hayek's writings has led, in recent years, to a growing division among Hayekians over how to interpret the master's ideas. 'This problem has, in recent years, split the Austrians into two camps' – between those who believe

the market leads to a co-ordination of supply and demand, and those who 'question whether markets co-ordinate'. [154]

This second group tends to be influenced not only by Hayek's writings, but also by Schumpeter, who, as we have seen, could be as critical of neo-classical notions of 'perfect competition' and 'perfect knowledge' as any radical Keynesian, and whose own account of the overall functioning of the system is, at points, closer to Marx's than to that of the neo-classical orthodoxy. But Schumpeter insisted he differed fundamentally with Marx – and, for that matter, Keynes – in his view of the future of the system. Neither Marx's 'rate of profit' nor Keynes's 'marginal efficiency of investment' was going to decline, and there would be no tendency for crises to worsen. Precisely because the system was based on monopoly and imperfect competition, innovation would lead to economic growth on a scale which, he predicted in 1950, would within 'half a century' 'do away with anything that according to present standards could be called poverty'. [155]

This version of the 'Austrian' model, with its picture of a system driven to create unimaginable levels of output, but only on the basis of 'creative destruction' and the boom-slump cycle, has had a certain appeal in recent years to politicians running capitalism and wanting some excuse for their inability to avoid slumps. So it is that Nigel Lawson, who as Tory chancellor of the exchequer claimed he was presiding over an 'economic miracle' during the late 1980s boom, now says he is not responsible for the slump which followed because the 'business cycle' is inevitable. But it is a picture that can hardly appeal to those whose lives are torn apart by the 'creative destruction' of the slump and whose support capitalist politicians seek in the run up to an election. A stress on the inevitability of further slumps is not likely to win many votes. Whatever they may think in private, most current politicians are likely to repeat in public the reassuring nostrums of the 'new classicals' and claim that if only the 'supply side' is efficient then maximum employment will

follow.

The ‘New Keynesians’ and the complexity theorists

> Alongside the revival of interest in the ideas of Hayek and Schumpeter there has also been the emergence, especially in certain US academic circles, of the sort of criticisms of neo-classicalism and ‘free market’ capitalism made by the followers of Keynes half a century ago. ‘New Keynesians’ like Mankiw and Romer [156] have returned to the old arguments about monopoly, imperfect competition, and the failure of supply and demand to adjust to each other. Joseph Stiglitz has emphasised the failure of market prices to transmit information in the way the neo-classical economists claim and the incompatibility of ‘perfect competition’ with innovation; neo-classical theory is ‘simply not robust at all’, he concludes. [157] Card and Kreuger have shown that the contention that minimum wage laws cost jobs is empirically wrong. [158]

Will Hutton has transmitted popularised versions of these ideas to a quite wide audience in Britain through his regular columns in **The Guardian** and **The Observer** and in his best selling attack on British economic policy, **The State We’re In**. He claims:

> Over the last decade a new generation of Keynesians, American almost to a man and woman, have been mounting a vigorous fightback, resurrecting and updating Keynes’s ideas – and devastating the free market position as much as Keynes ever did. They show how the neo-classical idea that the world of money somehow stands apart from the real world of production and

exchange is unsustainable; they demonstrate that markets necessarily have profoundly disruptive imperfections. [159]

The 'New Keynesian' assault on free market orthodoxy has been joined from a rather different direction by a group of theorists which grew out of seminars on 'chaos' and 'complexity' run by mathematicians and physicists at Stanford University, California. They applied their mathematical methods to the economy and found that, far from a system based on the adjustment of supply and demand through the movement of prices arriving at an equilibrium state, it behaves according to chaos theory, possessing 'an extremely high number of natural ground states, or equilibria'. [160] As Medio puts it, 'when the stability hypothesis' was put to the test using systems of equations, 'no compelling reason could be found for the equilibrium system to be stable.' What is more, the conditions which would have produced stability 'were found to correspond to ...economically arbitrary constraints'. [161] Or, as Peter Smith of Manchester University has put it, 'chaos theory suggests that even without external disturbances, permanent, large, patternless oscillations can occur'. It 'radically challenges' the 'received wisdom' that competitive markets are 'inherently stable' and that 'they provide a benign system of informative price signals'. [162] In other words, there was no reason to expect an economy built on neo-classical principles to settle down to a condition of full employment.

So convincing have such arguments been that they have won over Kenneth Arrow, who was joint author with Debreu of a very

influential updated exposition of the neo-classical 'general equilibrium system'. Now he admits that this 'Walrasian system' only works 'if you assume no technological progress, no growth in population and lots of other things'. Otherwise:

> We can have perfectly good examples where everybody perfectly foresees the future and seeks to equilibrate supply and demand on all markets present and future simultaneously and where the economy simply whirls round; it does not converge to a steady state ... With different kinds of goods, it is possible to produce examples where the economy can produce almost any kind of behaviour. [163]

> Not surprisingly, Arrow is scathing about attempts to explain away unemployment and crises using the old orthodoxy: 'The new classical theorists tell various stories that I do not find convincing ... The new classical economics is built on market clearing . And I do not believe markets clear'. [164]

Paul Ormerod has provided a popular exposition of some of these 'New Keynesian' and 'chaos theory' attacks on the neo-classical orthodoxy in his book **The End of Economics**, where he compares its 'understanding of the world' to 'that of the physical sciences in the middle ages' [165] (although, interestingly, he does not go so far as to repeat the far more thoroughgoing criticisms of marginalism to be found in the 'Cambridge school' writings of Sraffa and Robinson, neither of whom he even mentions).

Yet if the criticisms of the orthodoxy made by both groups of theorists are devastating and expose the hollowness of what passed for 'the laws of economics' among not just right wing, but also Labour and social democratic politicians and opinion makers, their conclusions are not necessarily at all radical.

They may be more trenchant in their critique of neo-classical assumptions than were the 'orthodox' post-war Keynesians, but they do not go any further than them in their criticism of the

system which neo-classical economics attempts to sanctify. Again and again their practical conclusion is to suggest a reliance on the same failed techniques of limited government intervention, through taxation, borrowing and monetary policies, as the old 'orthodox Keynesians'. Indeed, it is often the case that a more radical criticism is combined with even less reliance on government action.

Some of the American 'New Keynesians' are not even clear whether it is the neo-classical model of the economy which will not function, or whether instead – as in Pigou's pre-Keynesian explanation of unemployment – the problem is that the real economy suffers from 'monopolistic' practices and 'sticky' prices and wages not to be found in the model. [166] This can easily be interpreted by politicians as meaning all that is required to deal with recession is to wage a war on monopolistic practices, including union practices, as the free market economists urge.

For Will Hutton's **The State We're In** the problem is not capitalism, but the British model of capitalism, which, he claims, is dominated not by the long term drive of industry for competitive investment, but short term profit taking by financial institutions. He suggests that, if only a 'German', a 'Japanese', or even an 'American' model of capitalism was adopted, everything would be all right. Yet, as even he sometimes admits, these countries too have all been hit by the recession of the first half of the 1990s, with the most intractable problems seeming to be in his most favoured model, Japan.

For Stiglitz, the conclusions to be drawn are not dissimilar to those of Hayek. The neo-classical model is wrong, and the system does not come to any easy equilibrium. The result is that people suffer, in a way that the neo-classical economists refuse to admit. But at the end of the day, there is no alternative to this messy state of affairs and we have to accept recessions and a certain level of waste, if not as the best of all possible worlds, then as the least bad. [167]

Ormerod manages to go in a complete circle. He begins his book **The Death of Economics** with a devastating attack on existing economic orthodoxy – and ends up with diagrams suggesting the very conventional conclusion that if only people would accept lower living standards, high employment would result: 'The solution [to mass unemployment] would require many people in employment to surrender income in exchange for leisure'. [168]

More recently, in a letter to **The Guardian** defending the policies of Blair and Brown, he argues that Hayek pointed to 'theoretical reasons', which are backed up by chaos theory's 'recognition of the limits of knowledge in non-linear systems', for the failure of 'social reform programmes' to promote 'equality of opportunity'. [169] In other words, because the economy operates in a chaotic manner, all we can do is hope for the best. The message is that we live in an irrational world and we have to grin and bear it. The critic of the neo-classical orthodoxy ends up with the same attitude of resignation in face of the disorder and inhumanity of the economic system as a whole (the 'macro-economy') as do the 'new classical' apologists for the system.

Conclusion

> In 1936 Keynes suggested there was a fundamental feature of the system which led crises inevitably to grow deeper in a free market system – the 'declining efficiency of investment'. He also suggested this could not be countered except by the state going beyond trying to influence the parameters within which businessmen took decisions; there needed to be a 'socialisation' of investment. The 'orthodox' post-war Keynesians retreated

from these radical positions – and so have the 'New Keynesians'.

The radical Keynesians did attempt to hold to the notion of the 'socialisation' of investment. But they did so within a framework which took for granted certain features of capitalism – the relation of wage labour and capital, the inevitable subordination of living labour to dead labour, the need for 'economies' to be competitive with each other. This was what was involved in the rejection of Marx's theory of value, with its depiction of the whole accumulation process as alienated labour taking on a life of its own. The result was, on the one hand, an underestimation of the contradictions of capitalism, abandoning Keynes's notion of 'declining marginal efficiency of capital' without embracing Marx's insight into the tendency of the rate of profit to fall. On the other hand, it was to see the future as lying with the 'planned' state capitalisms of the Eastern bloc and parts of the Third World. When these entered into crisis, the radicals were left with little to say.

The limited revival of Keynesian ideas today in the writings of Will Hutton and others is a testimony to the depths of the crisis of the system. But the modern Keynesians are even less willing than Keynes was to talk of radical solutions – hence their complete silence over his call for 'socialisation of investment'. If he was not willing, in practice, to fight for the implementation of such talk but instead bowed down before the need to maintain the 'confidence' of industrialists and financiers, they are certainly not going to fight for more far reaching action. So they vacillate between criticising parties like Labour or the Democrats in the US, who have accepted the revived laissez faire orthodoxy, and endorsing their latest proposals.

This reinforces a simple truth. The questions the Keynesians, old and new, have raised about how to deal with the inbuilt tendency of capitalism to economic crisis are not ones that can be solved in Keynesian terms. For a time capitalism did seem to

have an answer to the problem. But it was not the liberal or social democratic answer suggested by the Keynesians. Rather it involved the most barbaric of measures – the militarisation of the economy, the waging of all out war and the stockpiling of weapons of mass destruction. And today, even such barbarism is no longer enough to prevent repeated crises.

Keynes was right to suggest that the secret of overcoming the tendency to crisis lies in the socialisation of production. Only that can allow people's expectations when they undertake production to correspond to any great degree to the circumstances that exist when production comes on stream. And only this can ensure that investment continues as profit rates tend to decline below levels that would motivate private capital. But Keynes was quite wrong to suggest that such socialisation of investment could come about gradually, with the acquiescence of private capital, even in his own day. It is certainly not going to happen today, with giant firms increasingly organised on a multinational basis and able to move funds from country to country to wreck the plans of any government that challenges their investment decisions while leaving untouched their control of the means of production.

Labour and social democratic politicians and economists say that 'globalisation' prevents any state challenging the multinationals. They are wrong. The multinationals can be challenged, but only by action much more radical than that of which Keynesians, old or new, have ever dreamt. As Rosa Luxemburg once wrote, 'Where the chains of capital are forged, there they have to be smashed.' There has to be a battle in every workplace to seize control of the means of production from capital as part of the battle to create a new sort of state, based on direct workers' representatives, if there is to be the real planning of investment which Keynes, in his more radical moments, saw as necessary. Keynes, as we have seen, hated the very idea of such a revolution. The fate of the post-war orthodoxy built

around his ideas shows that without such a revolution his dream of resolving the crisis of the system cannot be fulfilled.

Appendix:
Sraffa and the neo-Ricardian criticism of Marx

> The 'Neo-Ricardian' argument against Marxism by Steedman and others rests on the claim that Sraffa showed it was possible to build a model of a functioning capitalist economy using a standard basket of goods ('the standard commodity') as the basis for measuring value, without any need to refer to labour.

The claim is misplaced. Not only did Sraffa himself not make such a claim, but the 'standard basket of goods' approach only works if you ignore the changes in production that take place with accumulation – that is all the time in any real capitalist economy. For such changes involve continual changes in the proportions of different goods produced through the economy, so that a 'standard basket of goods' which might serve as a measure of output at one time cannot serve as such a measure at some other time. If you want a measure of value which is not subject to such a change, you have to find something which remains fixed as output changes – that is, you have to look to labour as the measure of value.

The confusion arises because Sraffa's own model is not really a model of capitalist accumulation at all. It assumes that each round of production produces the same goods in the same proportions as each previous round of production – or, to use Marx's language, it is a model of 'simple reproduction', not expanded reproduction. [170]

Like the neo-classical theory it attacks, it is a model of the economy that exists outside time. That is why it can serve as a 'prelude to a critique of political economy', but nothing more. It certainly does not begin to deal with questions that are central to Marx – the dynamic of competitive accumulation, the drive for 'dead labour' to grow more rapidly than living labour, the consequent increase in the productivity of labour and the loss in value of already produced goods, the effect of these changes on the ratio of profit to investment (the rate of profit) and thus on the ability for accumulation to proceed at the necessary pace to provide a market for all the goods that are being turned out. Marx's work begins with the analysis of the commodity and the location of value in labour, but goes on to point to the endemic contradictions of the system, the way these lead to periodic crises of 'overproduction', and the long term trends in the system that tend to make these get worse over time.

By contrast, Sraffa does not even approach the question of short term, cyclical crises of overproduction. As Robinson points out while praising Sraffa: 'There is no discussion of the realisation of surplus as profit. It is merely taken for granted that whatever is produced is disposed of at such prices as to result in a uniform rate of profit in all lines of production.' [171] 'Consequently, there is no causality in Sraffa's system. The capitalists do not decide what labour to employ, what prices to set and what investment plans to draw up. All they do is meekly to fulfil the equations that the observing economist has written down'. [172]

Indeed, in this respect, Sraffa's work is a step backwards from Ricardo. He did begin to touch on such questions in the chapter *On Machinery* added to the third edition of his **Principles of Political Economy**. Here he accepted that the mechanisation of production can be detrimental to the interests of the worker.

The neo-Ricardian school that claimed to base itself on Sraffa's work, therefore, was moving backwards, not forwards, when it counterposed itself to Marxism. What is more, the 'neo-

Ricardians' have proven completely incapable of explaining the increased incidence of crisis over the last quarter century.

The key issue here became that of profitability. Sraffa's timeless model takes the technical conditions of production as fixed and then makes the rate of profit depend solely on the division of the product between wages, profits and rents. There can then be no fall in the rate of profit without an increase in the workers' share of output. But the 'workers' share' has fallen virtually everywhere in the 1980s and 1990s, without restoring the old rates of profit and growth of the system. [173]

By abandoning Marx, the neo-Ricardians have left themselves as incapable of explaining what has gone wrong with the system as the outright apologists for it. The disproof of the neo-Ricardian pudding is in the eating.

Notes

1. See P.A. Samuelson, **Economics**, R.G. Lipsey's **Introduction to positive economics**.

2. N.G. Mankiw and D. Romer, **New Keynesian Economics**, Vol.1: *Imperfect competition and sticky prices*.

3. A. Crosland, **The future of socialism** (London 1956), and J. Strachey, **Contemporary Capitalism** (London 1956).

4. The marginalists differed among themselves over a number of points, but shared a common general approach. For a reasonably accessible discussion on their differences see E. Roll, **A History of Economic Thought** (London 1962), chapters 8 and 9, and for critical overview of their ideas, M. Dobb, **Political Economy and Capitalism** (London 1946), ch.1 and 5. There is a marginalist attack on Marxism with a reply by one of the most eminent Marxist economists in E. Boehm Bawerk and R. Hilferding, **Karl Marx and the Close of His System**. Nicolai Bukharin's **Economic Theory of the Leisure Classes** is a brilliant demolition of the 'Austrian' version of marginalism, but is sometimes difficult to follow since it assumes an acquaintance with Boehm Bawerk's own formulations, which are

somewhat different to the version of marginalism usually taught in Britain.

5. The so called ‘transformation problem’ which Marx takes up in Volume III of **Capital**.

6. J.S. Mill, **Principles of Political Economy** (London 1911), p.339.

7. See, for example, A. Marshall, **Principles of Economics** (8th edition, London 1936), pp.140-141. See also the very useful discussion on this in M. Dobb, **Political economy and capitalism**, **op. cit.**

8. For fuller summaries of Boehm Bawerk’s views see M. Dobb, **op. cit.**, pp.151-156; E. Roll, **op. cit.**, pp.404-406.

9. Some marginalists qualified this by recognising that costs of production could fall as output increased up to a certain point – but then insisted that at a later point they would inevitably start rising, so that the cost curve would be J shaped. This was one of the problems that worried Marshall. But none of them let the problem disturb their basic view that there was only one equilibrium point – or that if the cost of production of a certain commodity rose (for instance because of union pressure on wages or a minimum wage law) this would lead to a fall in the demand for it.

10. See L. Walras, **Elements of Pure Economics** (1889, trans. London 1954), but don’t try reading it unless you want to get an insufferable headache.

11. A. Marshall, **The Principles of Economics**, **op. cit.**, p.62.

12. **Ibid.**, p.109.

13. **Ibid.**, p.368.

14. L. Walras, **op. cit.**, p.242.

15. **Ibid.**, p.317.

16. **Ibid.**, p.381.

17. Pareto’s phraseology, adopted by most other neo-classical economists.

18. The formulation of one English populariser of marginalism, Lord Robbins.

19. Von Mises, quoted in M. Dobb, **op. cit.**, p.177.

20. Julian Bell, quoted in R. Skidelsky, **John Maynard Keynes**, Vol.2, (London 1994), p.515.

21. **Ibid.** p.341.

22. J.M. Keynes, **General Theory of Employment, Interest and Money**, (London 1960), p.19-20.

23. **Ibid.**, p.28.

24. Quoted in R. Skidelsky, **op. cit.**, p.535.

25. J.M. Keynes, **op. cit.**, p.156.

26. **Ibid.**, p.159.

27. **Ibid.**, p.33.

28. **Ibid.**, pp.261-262.

29. **Ibid.**, p.262.

30. **Ibid.**, p.267.

31. **Ibid.**, p.504.

32. **Ibid.**, p.12.

33. **Ibid.**, pp.8-9 and p.14.

34. A. Leijonhufvud, **On Keynesian Economics** (London 1968), p.37.

35. P. Mattick, **Marx and Keynes** (Boston 1969), p.7.

36. J.M. Keynes, **op. cit.**, p.264.

37. J. Robinson, **Further Contributions to Economics** (Oxford 1980), p.34.

38. **Ibid.**

39. Quoted in R. Skidelsky, **op. cit.**, p.477-478.

40. J.M. Keynes, **op. cit.**, p.376.

41. **Ibid.**, p.377.

42. **Ibid.**, p.164.

43. **Ibid.**, p.164.

44. **Ibid.**, p.378.

45. **Ibid.**, p.378.

46. **Ibid.**, p.378.

47. Quoted in R. Skidelsky, **op. cit.**, p.515.

48. **Ibid.**, p.517.

49. **Ibid.**, p.521.

50. **Ibid.**, p.511.

51. J. Strachey, **op. cit.**, p.235.

52. **Ibid.**, p.239.

53. **Ibid.**, p.353.

54. R. Skidelsky, **op. cit.**, pp.188-189.

55. **Ibid.**, p.193.

56. **Ibid.**, p.191.

57. **Ibid.**, p.394.

58. **Ibid.**, p.394.

59. Quoted in **ibid.**, p.394.

60. **Ibid.**, p.394.

61. Quoted in **ibid.**, p.488.

62. **Ibid.**, p.605.

63. Summary of article, with quotes, in R. Skidelsky, **op. cit.**, p.629.

64. Estimate given in R. Middleton, **Towards the Managed Economy** (London 1985), pp.176-177.

65. Estimated by S. Glynn and P.G.A. Howells, quoted in **ibid.**, p.178.

66. These points are well made in G. Pilling, **The Crisis of Keynesian Economics** (London 1986), pp.50-51

67. Arndt, quoted in R. Middleton, **op. cit.**, p.179.

68. Kindelberger, **The World in Depression 1929-34** (London 1973), p.272.

69. A.D.H. Kaplan, **The Liquidation of War Production** (New York 1944), p.91.

70. Quoted by R. Skidelsky, **op. cit.**, p.491.

71. P. Mattick, **op. cit.**, pp.161-163. For a very similar mistaken analysis see D. Yaffe and R. Schmiede, **State Expenditure and the Marxian Theory of Crisis** (London 1972).

72. R.C.O. Matthews, *Why has Britain had full employment since the war?*, **Economic Journal**, September 1968, p.556.

73. **Ibid.**, p.556.

74. **Ibid.**, p.560.

75. Figures in J. Tomlinson, *The "Economics of Politics" and Public Expenditure: a Critique*, in **Economy and society**, vol.10, no.4, November 1981, p.390.

76. Budget deficit figures given in **Independent on Sunday**, 19 November 1995.

77. See, for example, M.C. Sawyer, **The Economics of Michal Kalecki** (London 1985), pp.78-79 and p.132.

78. **Ibid.**, p.132.

79. **Ibid.**, p.135.

80. Summary of Sraffa's letter to Keynes cited in R. Skidelsky, **op. cit.**, p.290.

81. J.H. Hicks, **Value and Capital** (Oxford 1939), p.82.

82. Quoted in R. Skidelsky, **op. cit.**, p.604.

83. **Ibid.**, p.290.

84. 'Two sets of incommensurable collections of miscellaneous objects cannot in themselves provide the material for a quantitative analysis', J.M. Keynes, **op. cit.**, p.39.

85. **Ibid.**.

86. Although it is Malthus's version, in which the wage is the measure of value, rather than Ricardo's version, in which it is labour performed.

87. J.M. Keynes, **op. cit.**, p.41.

88. **Ibid.**, pp.213-214.

89. Quoted in R. Skidelsky, **op. cit.**, p.603.

90. J.M. Keynes, **op. cit.**, p.149.

91. **Ibid.**, p.157.

92. **Ibid.**, p.164.

93. **Ibid.**, p.162.

94. **Ibid.**, p.161-162.

95. **Ibid.**, p.219.

96. **Ibid.**, p.219.

97. **Ibid.**, p.221. For Keynes's account of the 'marginal efficiency of capital' and its tendency to 'diminish' see pp.135-136 and p.214.

98. J.M. Keynes, **op. cit.**, p.221.

99. J. Robinson, **op. cit.**, p.13.

100. R. Skidelsky, **op. cit.**, p.811.

101. **Ibid.**, p.613.

102. J. Robinson, **op. cit.**, p.34.

103. **Ibid.**.

104. **Ibid.**.

105. A. Leijonhufvud, **op. cit.**, pp.6-7.

106. **Ibid.**, p.37.

107. For a readily accessible discussion on the similarities and differences between the 'orthodox' Keynesians and the monetarists, see J.A. Trevithick, **Inflation, a guide to the crisis in economics** (Harmondsworth 1977).

108. J. Robinson, **op. cit.**, p.36.

109. Quoted in **The Guardian**, 15 September 1994.

110. English translations are to be found in the first articles in M. Kalecki, **Selected essays on the dynamics of the capitalist economy** (Cambridge 1971).

111. See the account by Rosa Luxemburg of how different economists dealt with the issue, in her **The Accumulation of Capital** (London 1963).

112. M.C. Sawyer, **op. cit.**, p.162. Sawyer does, however, point to a work by Kalecki in 1945 which seems to imply a theory of the falling rate of profit – see pp.85-86.

113. **Ibid.**, p.64. Kalecki's account shows considerable similarities with two other theories of long term stagnation. See J. Steindl, **Maturity and Stagnation in American Capitalism** (London 1953) and P. Baran and P. Sweezy, **Monopoly Capital** (London 1973). For a critique of their views, see my **Explaining the Crisis** (London 1984), pp.148-154.

114. M.C. Sawyer, **op. cit.**, p.136.

115. J. Robinson, **op. cit.**, pp.148-149.

116. For a series of articles discussing this problem and the failure of different marginalist economists to deal with it, see J. Eatwell, M.

Millgate and P. Newman, (eds.), **Capital Theory** (London 1990). The article by L.L. Pasinetti and R. Scazzieri, *Capital Theory: Paradoxes*, pp.136-147, provides a useful and relatively accessible summary of the arguments.

117. Joan Robinson, **Economic Philosophy** (London, 1962), p.68.

118. J. Robinson's discussion on this question can be found in **Further Contributions to Economics**, **op. cit.**, p.21. A long, rather opaque, account of the argument is to be found in P. Garegnani, *Quantity of Capital*, in J. Eatwell *et al.*, **op. cit.**, pp.1-78.

119. P. Garegnani, *Quantity of capital*, **ibid.**, pp.70-71.

120. J. Robinson, **Further Contributions to Economics**, **op. cit.**, p.101.

121. **Ibid.**, p.xii.

122. Quoted in J.P. Potier, **Piero Sraffa** (London, 1991), p.73.

123. J. Robinson, **Further Contributions to Economics**, **op. cit.**, footnote on p.188.

124. This was the argument of I. Steedman, **Marx after Sraffa** (London 1977) and was more or less accepted by Joan Robinson, who had always rejected the labour theory of value and the falling rate of profit, see J. Robinson, **op. cit.**.

125. A. Glyn and B. Sutcliffe, **British Capitalism, Workers and the Profits Squeeze** (Harmondsworth 1972). For the 'neo-Ricardian' arguments against Marx that led to this conclusion, see, for example, A Glyn in **The Bulletin of Socialist Economists**, Autumn 1973.

126. J.R. Schumpeter, **Capitalism, Socialism and Democracy** (London 1950), p.103.

127. **Ibid.**, p.104.

128. **Ibid.**, pp.77 and 93.

129. **Ibid.**, and J.K. Gailbraith, **op. cit.**.

130. J. Robinson, **Further Contributions to Economics**, **op. cit.**, p.56.

131. N.G. Mankiw & D. Romer, **op. cit.**, p.1.

132. M. Skousen, *Free Market Response to Keynesian Economics*, in M. Skousen (ed.), **Dissent on Keynes**, p.30.

133. J.B. Egger, **Fiscal stimulus**, in **ibid.**.

134. Quoted favourably in H.H. Happe, *The Misesian case against Keynes*, in **ibid.**, p.200.

135. Quoted (unfavourably) in *Interview with Kenneth Arrow*, in C.R. Feiwel (ed.), **Joan Robinson and Modern Economics** (London 1989), p.164.

136. See R.W. Garrison, *Is Milton Friedman a Keynesian?*, in M. Skousen (ed.), **op. cit.**, p.131.

137. H.H. Happe, **op. cit.**, p.209.

138. J. Robinson, **Further Contributions to Economics**, **op. cit.**, p.2.

139. R. Blackburn, *Fin de siécle: socialism after the crash*, **New Left Review 185**, Jan-Feb 1991.

140. From **The Constitution of Liberty** (London 1970), reprinted in F.A. Hayek, **A Tiger by the Tail** (London 1972), pp.73 and 84. See also his 1967 argument along the same lines in the same collection, p.64.

141. See, for instance, **ibid.**, p.56: 'The main cause of recurrent waves of unemployment', he wrote, was that 'during each boom period a greater quantity of factors of production is drawn into the capital goods industry than can be permanently employed there'. This is 'the cause of the collapse which has regularly followed a boom'.

142. J. Tomlinson, **Hayek and the Market** (London 1990), pp.2 and 8.

143. F.A. Hayek, *Competition as a discovery process*, in C. Nishijypama and K.R. Leube, **The Essential Hayek**, p.259

144. F.A. Hayek, **Profits, interest and investment** (London 1939), p.138.

145. F.A. Hayek, **Prices and Production** (London 1935), p.103-4.

146. F. Hayek, *Competition as a discovery process*, in C. Nishijypama & K.R. Leube, **op. cit.**, p.255.

147. **Ibid.**, p.258.

148. Letter to **The Guardian**, 29 February 1996.

149. F.A. Hayek, **The pure theory of capital** (London 1941), section reprinted in F.A. Hayek, **A tiger by the tail**, **op. cit.**, p.3.

150. **Ibid.**, p.3.

151. A passage from 1967, reprinted in **ibid.**, p.57.

152. F.A. Hayek, *Competition as a discovery process*, in C. Nishijypama & K.R. Leube, **op. cit.**, p.262.

153. **Ibid.**, p.262.

154. J. Tomlinson, **op. cit.**, p.110.

155. J.R. Schumpeter, **op. cit.**, p.66. Schumpeter was pessimistic in that he thought the capitalist system he supported was doomed. But this was because he thought people would reject its harsh logic, not because of inbuilt economic contradictions.

156. See their two volume work, **New Keynesian Economics**.

157. J.E. Stiglitz, **Whither socialism?** (Cambridge 1995), p.x.

158. D. Card and A.B. Kreuger, **Myth and Measurement: the new economics of the minimum wage** (Princeton 1995).

159. W. Hutton,**op. cit.**, pp.245-247.

160. B. Arthur, quoted in M. Mitchell Waldrop, **Complexity** (London 1994), p.139.

161. A. Medio, **Chaotic dynamics: theory and application to economics**, p.11.

162. P. Smith, **The Guardian**, 29 October 1990.

163. *Interview with Kenneth J. Arrow*, in G.R. Feiwel (ed.), **Joan Robinson and macroeconomic theory** (London 1989), pp.147-148

164. **Ibid.**, pp.165 and 168.

165. P. Ormerod, **The Death of Economics** (London 1994).

166. O. Hart, *A model of imperfect competition with Keynesian features*, in N.G. Mankiw and D. Romer, **op. cit.**, pp.337-338.

167. These are effectively the arguments of E. Stiglitz's **Whither Socialism?**, **op. cit.**

168. P. Ormerod, **op. cit.**, p.207.

169. **The Guardian**, 29 February 1996.

170. As Robinson admits: 'The model presents a strictly one technique economy. In the system of equations, each input used up in one period

is replaced in kind as production goes on. This entails the same technique is going to be used in the new period ... Sraffa blurs the point by introducing changes into his self repeating story..' J. Robinson, **Further Contributions to Economics**, **op. cit.**, p.65. Sungar Savron has argued that even with simple reproduction Sraffa's equations do not allow for any change in distribution between wages and profits, and so fail to fulfil Sraffa's own aim. See S. Savron, *On the Theoretical Consistency of Sraffa's Economics*, **Capital and Class**, issue 7 (London, 1979).

171. **Ibid.**, p.65.

172. **Ibid.**, p.86.

173. For further details, see my two part article, *Where is capitalism going?*, in **International Socialism 58** (Spring 1993) and **International Socialism 60** (Autumn 1993).