Capitalist Competition and the Tendency to Overproduction: Comments on Bob Brenner's 'Uneven Development and the Long Downturn', *New Left Review*, 229, 1998.

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The publication of Bob Brenner's long-awaited analysis of the development of post-war capitalism is to be welcomed. Brenner's systematic review of a mass of data on the development of the US, German and Japanese economies finally, and incontrovertibly, destroys the 'profit squeeze' explanation for the tendencies to stagnation and crisis which have afflicted global capitalism over the past thirty years. This once fashionable theory explained the crisis tendencies of capitalism in terms of the ability of workers to restrict profitability through their demands for higher wages and their resistance to the intensification of labour. It is manifestly the case that the struggles of workers over the past thirty years have been predominantly defensive struggles, attempting at best to limit the erosion of relative gains of previous years in the spheres of wages, job control and welfare provision. The resistance of workers to a further intensification of their exploitation may have presented a barrier to the resolution of the crisis on the basis of capital, but it is certainly not the struggle of workers that has provoked the crisis.

In this comment I would like to focus on the other side of Brenner's paper, his alternative analysis of the developmental tendencies of global capitalism, which is in my view much less satisfactory. While he is quite right to reject simplistic `Marxist' analyses which see the crisis tendencies of capital accumulation as an immediate expression of the class struggle, and is quite right to make a serious investigation of the forms in which those crisis tendencies are manifested in the relations between particular capitals, the deficiency of his analysis is that it remains at the level of the forms of appearance of the crisis tendencies, without even attempting to relate those forms of appearance to the underlying dynamics of the capitalist mode of production as a system based on the production and appropriation of surplus value.

The claim of the editors of New Left Review that 'Marx's enterprise has certainly found its successor' is somewhat overstated, for Brenner's analysis does not engage at all with Marx's enterprise. It may be that Marx's enterprise has been entirely superseded by the sophisticated analyses of modern economists (although Brenner makes little reference to the latter), but this can hardly be taken for granted in a period in which even bourgeois commentators are noting that perhaps Marx was right. The one hundred and fiftieth anniversary of the Communist Manifesto led more than one such commentator to note just how closely global capitalism has been following the script written for it by Marx and Engels one hundred and fifty years ago. It is not, therefore, in the spirit of fundamentalism that I would criticise Brenner's enterprise from the perspective of Marx's own analysis, but in the conviction that Marx provides a more incisive conceptualisation of the developmental tendencies of global capital, which can provide a more adequate analytical foundation for Brenner's empirical observations.[1]

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[1] I will not reproduce the criticisms developed by Ben Fine and his colleagues in their critical review of Brenner in *Capital and Class*, with which I am more or less entirely in agreement (Fine, Lapavitsas and Milonakis 1999).

Fixed capital and overproduction in manufacturing industry

It is striking that the focus of Brenner's analysis is not global capital, but the development of particular national economies and branches of production, expressed in relative rates of growth of investment and production, with a special emphasis on manufacturing industry, which is implicitly assumed to play the role of the leading sector in stimulating the growth of each national economy and consequently of the world economy as a whole. The whole of his analysis is then oriented to explaining the relative slowing in the growth of manufacturing production over the past three decades, expressed in a mutually reinforcing reduction in the rates of investment and productivity growth. This is in turn conditioned by and expressed in a relative reduction in the average realised rate of profit in manufacturing industry throughout the capitalist world. Brenner's purpose is then to counter those who claim that this fall in the rate of profit is an expression of the power of labour by showing that time-series and cross-sectional data is not consistent with such an explanation. Brenner argues instead that stagnation can only be explained by the systematic and sustained overproduction of manufactured goods which has depressed manufacturing prices and so the rate of profit in the manufacturing sector.

So far so good – to this point the focus of Brenner's attention has been determined primarily by that of his opponents. However, the problems arise when we move beyond this empirical description to attempt to provide an explanation. The systematic depression of profits in the manufacturing sector implies that sustained capital accumulation does not face any barriers in the sphere of production: Brenner shows that there has been no significant check to the growth of productivity or of technological innovation, nor any significant increase in the demands of labour or its resistance to an intensification of its exploitation. The explanation for the depression of manufacturing profits is found in the sphere of the distribution of surplus value: between capitalists active in particular branches of the productive economy, through the depression of prices of manufactures against those of non-manufactured goods and services, and between manufacturing capitalists active in particular countries (currency zones) through fluctuations in exchange rates of their currencies. The former determines the sectoral impact of the crisis, the latter its geographical focus.

Bourgeois economists recognise the possibility of overproduction as a result of the unrealised expectations or `animal spirits' of investors, and it is possible that overenthusiasm could lead to overproduction in an entire branch of the economy, even on a world scale. However, for bourgeois economics such disproportionalities should be self-correcting in a relatively short space of time as newly capitalised surplus value is diverted to more profitable outlets in other branches of the economy. For bourgeois economists a persistent tendency to overproduction and to the depression of the rate of profit in one particular sector of the economy verges on the incomprehensible. It is this phenomenon that Brenner tries to explain in his account.

Brenner is very clear what sort of theory he wants. He wants a theory that can show `simultaneously that capitalism tends to develop the productive forces to an unprecedented degree, and that it tends to do so in a destructive, because *unplanned and competitive,* manner'. He wants a theory not `in terms of national states and national economies' but one which takes `the international economy – the capital accumulation and profitability of the system as a whole – as a theoretical vantage point'. Finally, `a sufficient theory of crisis must explain not only why what individuals and collectivities do in pursuit of their interests leads to an aggregate pattern of production and distribution in which profitability is undermined, thereby reducing the capacity and incentive to invest. It must also explain why that same pattern leads producers to take remedial action that fails to bring about an adjustment and ends up exacerbating the difficulties of the initial situation' (Brenner 1998, p. 23).

These statements could all be paraphrases (in the language of analytical Marxism) of repeated programmatic declarations of Marx, and the obvious place to look for such a theory would seem to be the work of Karl Marx, but there is not a single direct or indirect reference to Marx in Brenner’s theoretical discussion, beyond a footnote reference acknowledging Marx’s priority in discussing the issue, referring to my work and that of John Weeks.

Brenner tries to develop his theory within the framework of the theory of competition of orthodox economic theory, attempting to show that we can explain the phenomenon of overproduction by introducing fixed capital into the equation. He develops his argument using the method of partial equilibrium analysis, the argument at each stage resting on a number of *ceteris paribus* assumptions that are sometimes questionable and are not always spelled out. Unfortunately the argument is never developed systematically, and the various elements of the discussion are by no means consistent, with *ad hoc* elements being introduced from time to time (c.f. Fine et al., 1999, for various examples). This all makes it extremely difficult to follow Brenner’s explanation. However, his core argument appears to be that manufacturing capitalists, who employ a large proportion of fixed capital, will maintain production in the face of a substantial intensification of competitive pressure from newcomers even if they are not covering their fixed costs, so long as they can return a normal profit over their current costs. New and more efficient producers are thus not able to drive out older-established and less efficient producers, with the result that the continued production of the latter pulls down the market price and so the average rate of profit. A lower average rate of profit means that manufacturing capitalists have a relatively lower incentive and relatively fewer means to make new investments, with a resulting secular decline in the rate of investment, rate of growth of manufacturing productivity, incomes and employment.

This analysis is reminiscent of traditional stagnationist arguments, that explained the depression of profits and investment by the fact that monopolists would only invest in new capacity if it compensated them for the consequent devaluation of their old plant, but Brenner extends the argument to the case where existing producers have no means of preventing new entrants. However, it is by no means clear that, even within his own terms, Brenner’s argument can bear the weight that he puts on it. The devaluation of fixed capital is a normal part of the process of capitalist accumulation. When capitalists invest they do not expect to continue using the capacity to the end of its physical life, they make allowance for what Marx called its ‘moral depreciation’, in anticipation that more productive plant will come on stream in future years. In discounting their future expected flow of profits they write off their capacity at an appropriate rate of depreciation, determined primarily by the anticipated rate of growth of productivity in their branch of production, although tax legislation can have an important impact on the allocation of realised capital between depreciation and profits in company accounts and, correspondingly, in national income statistics. This means that, in the normal course of events, they will already have recovered their fixed costs before the pressure of competition begins to tell. Because they have paid off their fixed costs, they may well be able to realise at least as high a rate of profit as their more efficient competitors. Problems only arise if there has been an unexpected acceleration in the rate of technical progress, so that they are faced with falling prices before they have paid off their fixed costs. But even then, it is not clear why the innovation should necessarily lead to a fall in the average rate of profit.

Every capitalist is constantly seeking to expand his capital by finding new outlets for its profitable employment. He may be reluctant to add to his existing capacity, beyond an amount sufficient to meet the growth in demand, for fear that he will have to cut his prices, and so his profits, in order to carve out a greater share of the market. However, if there are opportunities to install more profitable productive capacity and he does not do so, one of his competitors will. He therefore has to assume that the price will fall, whether or not he installs new capacity himself. If the investment would be profitable for his competitor, then it will be equally or, to the extent that he enjoys the advantages of an incumbent, more profitable for him. In short, if the existing producer does not have any monopoly powers, the existing producer and the new investor are in exactly the same situation in assessing the possibilities for new investment. If the new investment is more profitable than any alternatives available, then the existing producer will make that investment even if he has to take a cut in the profits earned on his existing capacity. However, if, as Brenner's argument implies, the achieved rate of profit on the latter is lower than on the former then he would do better to scrap his old capacity, even if it still earns him a profit, and to concentrate his resources on his more profitable new plant.[2] Thus the only conditions under which the existence of fixed capital might lead to a fall in the rate of profit would be those under which one or the other party (or both) had made a misjudgement about the relative profitability of the two methods of production.

It is difficult to see how fixed capital can create a particular problem in the economists' competitive model (and if it did so, it is difficult to understand why economists have not noticed it). In general, the market expands and productivity advances year by year, so that there is a range of plants of different vintages and different levels of productivity in any given branch of production. Every year the addition of new plants using the latest production methods leads to a small fall in the price of the product, a fall in the profitability of existing producers and the consequent retirement of the most antiquated plant. None of this leads to any drag on the rate of profit, since it has already been anticipated in allowances for depreciation. In reality, as Brenner emphasises, the course of accumulation does not run so smooth: there are bursts of investment in particular branches, in particular regions and at particular times, so that there are concentrations of plant of a particular vintage which may all become vulnerable to liquidation at the same time.[3] But this does not alter the fundamental point: the reason why some plant is being liquidated is that new plant is able to operate more profitably. There is no reason why the average rate of profit in this branch should necessarily fall, and the rate of profit in the economy overall should rise. Of course, the capitalists do not make as much profit as they would if they could sell the expanded mass of commodities at the old price, and in this rather idiosyncratic sense the presence of fixed capital reduces the average rate of profit, but even capitalists cannot have their cake and eat it.

We have seen that there is no particular reason why the existence of fixed capital should depress the average rate of profit, in any meaningful sense of the term. However, even if this were the case, a fall in the rate of profit does not provide an explanation for a tendency to stagnation and/or crisis.[4] This, as Ben Fine and his colleagues

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[2] As Fine, Lapavitsas and Milonakis point out (1999, pp. 56-7), if he does not do so then a competitor will buy him out and close down the capacity.

[3] It is not always clear whether Brenner intends his argument to apply in general, or only to 'unplanned-for, unforeseen innovation … in great masses of fixed capital' (Brenner 1998, p. 29), which leads us from stagnationism to long wave theory. An unforeseen innovation may impose an unexpected loss on the established producer, but the *quid pro quo* is a higher rate of profit for the innovator.

[4] Until the 1970s it had always been axiomatic within the Marxist tradition that a fall in the rate of profit could be a symptom or a consequence but could never be a cause of crisis. The theory of the falling rate of profit was a theory of the secular tendency of capitalist development. The word crisis recurs frequently in Brenner's text, but

note, is the part of the traditional 'profit squeeze' explanation that Brenner adopts lock, stock and barrel, his only modification to the theory being that for him the profit squeeze derives from capitalist competition rather than from the pressure of the working class.

Capitalists are not guided in their investment decisions by the average rate of profit realised in the past, but by the marginal rate of profit anticipated in the future. In the depths of a depression the average rate of profit may even be negative, but at the same time there may be ample opportunities to make profits on new investments. Moreover, capitalists are not motivated by the absolute level of the rate of profit, but by the rate of profit anticipated in one outlet relative to that anticipated in another. Capital is allocated to those uses which promise the highest return, however low that return might be, because a low return is always preferable to none. Prospects for new investment are obviously going to be more favourable in branches of production in which the market is growing more rapidly and technical progress is greater, so we would expect more capital to flow into such branches, but so long as there are some outlets available in which capital can earn a positive rate of profit then, other things being equal (which of course they are not) accumulation will be sustained. A lower rate of profit may be associated with a relatively lower rate of investment and lower growth of productivity and output, but the low rate of profit is as much a symptom as a cause of the lack of dynamism of the economy. There is certainly no reason why a reduction in the rate of profit should precipitate a crisis.

There is no point in continuing this discussion through all the twists and turns of Bob Brenner's argument. His account of post-war economic history is structured around a succession of questionable assertions which are not developed with any consistency or theoretical rigour, nor substantiated by the mass of empirical material that he presents. No evidence is presented to establish that overproduction is to be found most in those branches which carry the largest amount of fixed capital: in the present period overproduction is probably most marked in the first instance not in manufacturing industry but in primary production, including fuels, and in real estate and financial services. As already noted, his account of global capitalism is largely confined to a discussion of manufacturing industry and to three national economies, with no attempt to incorporate this account into an analysis of the global accumulation of capital that he proposed at the beginning of his text. Bob is an outstanding historian, he is an exemplary comrade, but according to *New Left Review*'s eulogistic editorial, 'Brenner writes as a historian in the tradition of Marx … But this is an original Marxism that has little in common with what has often passed for orthodox deductions from *Capital*' (Brenner 1998, p. ii). Such original Marxisms have long been the stock-in-trade of *New Left Review*. In this case, it is within the terms of bourgeois economics, to which he has been led by analytical Marxism, that Bob Brenner has set out his stall, but bourgeois economics cannot deliver the goods.

The overaccumulation and uneven development of capital

The present global crisis, which perches uneasily at the end of Brenner's text, has brought home yet again that what we need is neither an original Marxism, nor a dogmatic Marxism, but a Marxism that can develop a theoretically rigorous and empirically informed analysis of the crisis. Orthodox deductions from *Capital* would certainly be a better place to start than the meandering of bourgeois economics.

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the only crises are those that arise in the monetary system, so that the theory is really a theory of secular stagnation.

I do not intend to discuss the Marxist theory of crisis at great length, since I have written extensively on the issue elsewhere,[5] but the problem that preoccupied Marx throughout his life was very much that with which Brenner is grappling, that of explaining the possibility of general overproduction. For all the weaknesses of Brenner's theoretical formulation of the problem, he does highlight what Marx characterised as the fundamental tendency of capitalist accumulation, the systematic tendency to overproduction. However, shorn of all its dross, the only explanation that Brenner can offer for this phenomenon is that manufacturing capitalists have consistently underestimated the pace of technical progress over the past thirty years, so that they have systematically over-invested in manufacturing, only to face huge losses when new and more productive capacity has come on stream. Why they should have done so remains a complete mystery.

Brenner's account provides a very narrow view of the crisis tendencies of global accumulation, reduced to the slowing down of the growth of manufacturing after the immediate post-war boom. But there is no reason to privilege manufacturing: the slower rate of growth of manufacturing is just a part of the slower rate of growth of the economy as a whole. And the slower rate of growth, like the lower average rate of profit, is the outcome of tendencies, contradictions and conflicts that cannot be isolated in one branch of the capitalist system, but pervades the system as a whole. The crisis is not a crisis of manufacturing production, it is a crisis of capital, of the production, appropriation and realisation of surplus value.

The tendency to overproduction is not only a feature of manufacturing industry, it is inherent in capitalist accumulation and so is characteristic of every branch of production at all times. General overproduction only occurs in a period of general crisis, in which capital is withdrawn from circulation and there is a general economic collapse. In periods of normal accumulation overproduction is confined to particular branches of production and particular regions and so appears in the form of the dis-proportionality of production. Overproduction in one branch of production implies that the accumulation of capital in that branch has run ahead of that required by the material requirements of the expanded reproduction of capital as a whole. Since we live in a global economy, we can define overproduction on a global scale, but since there are barriers to the free movement of commodities, overproduction and uneven development may also be localised. But what is the source of this tendency to overproduction?

Within the orthodox Marxist tradition the tendency to overproduction tended to be explained by the capitalist's blind and insatiable desire for profit, which constantly drives production beyond the limits of the market. However, if we focus on the subjectivity of the capitalist this lust for profit appears irrational, for the anticipation of loss in the event of overproduction should equally restrain the ambition of the capitalist. The implication would seem to be that the tendency to overproduction has no objective foundation, but rests on the subjective irrationality of the capitalist, and can only be the result of his foolhardiness or ignorance. If crises arise it can only be because of the existence of barriers to the proper functioning of the market. This is the logic that Brenner follows in his argument.

The error of such explanations is to look to the subjective motivation of the capitalist, and not to the objective social relations of the production and appropriation of surplus value for the key to the tendency to overproduction. Behind this error lies the reliance on the bourgeois conception of competition as a formal

[5] Clarke 1994, 1988, 1990. The argument below is developed more fully in the latter article.

abstract process of equilibration and the failure to develop an adequate analysis of capitalist competition as a moment of the reproduction of capitalist social relations of production.

The purpose of capitalist production is not consumption, as the bourgeois economists since Adam Smith have insisted, but the expansion of capital through the production and realisation of surplus-value. In the early stages of capitalist development the capitalist increased the production of surplus-value by extending the working day and forcing wages below the value of labour-power. However, such methods confronted the physiological barrier of the endurance of the worker and the social barrier of working class resistance. In mature capitalism the capitalist overcomes these barriers by revolutionising methods of production in order to increase the productivity of labour, so raising the rate of profit by reducing the cost of the means of production and the value of labour power. But the production of relative surplus value has by no means displaced the more barbaric means of cutting the capitalist's costs.

The production of surplus value is achieved only by expanding the mass of commodities produced by a given mass of labour power. The more successful is the capitalist at overcoming the barriers to the production of an expanded value, the greater will be the increase in the mass of commodities produced. This increase in production has not been called forth by an expanding demand, but has been driven by the desire of the capitalist to increase the production of surplus value. The drive to increase the production of surplus value leads capitalists constantly to increase the mass of commodities produced with a given capital by constantly economising in the use of living labour and the elements of constant capital. The immediate consequence of this contradiction is that the growth of the market tends constantly to lag behind the growth of production. Nevertheless, every capitalist has to realise his expanded capital by disposing of the mass of products on the market. The greater the extent of overproduction, the fiercer will be the competition between capitalists in a particular branch of production, and the more the pressure to expand the production of surplus value will confront them as an external force. Thus the drive to increase the production of surplus value, although imposed by capitalist competition, is not confined within the limits of the market, but is subject to its own laws, which determine the tendency to expand production *without regard for the limits of the market*. These laws are defined not by the subjective irrationality of the capitalist, but primarily by the *uneven development of the forces of production* as capitalists struggle for a competitive advantage.

Capitalist competition is not a process within which capitalists meekly confine their ambitions within the limits of the market. The capitalist does not take the conditions of production, or the extent of the market, as given, but rather confronts them as barriers to the production and realisation of surplus value, barriers to be overcome by the revolutionising of the forces of production, the intensification of labour, the extension of the working day, and the expansion of the market on a world scale. The overproduction of commodities is the result of every capitalist attempting to overcome these barriers, and capitalist competition is no more than the everyday manifestation of the tendency to overproduction. Competition expresses the threat of extinction which confronts every capitalist, but the capitalist who succeeds in overcoming the barriers is able to realise his expanded capital, and perhaps even to appropriate a surplus profit. In this sense competition is both the presupposition and the manifestation of the tendency to overproduction inherent in the social form of capitalist production. As Marx put it in a note to himself:

> Conceptually, *competition* is nothing other than the inner *nature of capital*, its essential character, appearing in and realised as the reciprocal interaction of many capitals with one another, the inner tendency as external necessity .… The simple concept of capital has to contain its civilising tendencies

> etc. *in themselves*; they must not, as in the economics books until now, appear merely as external consequences. Likewise the contradictions which are later released, demonstrated as already latent within it (Marx 1973, p. 414).

It is obvious that the ambitions of the more successful capitalist will not be restrained by the barrier of the market, since his more advanced methods of production offer him the prospect of earning a surplus profit, which will in turn stimulate the even more rapid growth of his production in order to capitalise on favourable market opportunities while they still persist. Competition presses hardest on the more backward capitalists, who are unable to realise their expanded capital at the prevailing rate of profit. However, rather than tamely restricting their ambition to the barrier of the limited market, the least successful capitalists are even more likely to confront the market as a barrier to be overcome. They will respond by marketing their product more aggressively and by seeking to reduce their own costs of production by intensifying labour, extending the working day, reducing wages, laying off employees, cutting back their expenditure on maintenance and on protecting the health and safety of their employees. In other words, the market provides as much or more incentive to the less successful to increase their production with a given capital as it does to the more successful.

This is where Brenner's fixed capital enters into the equation, for the more that the unsuccessful capitalist has tied up in fixed capital, the more he will be inclined to try to remain in production in order to salvage something from his investment. But even the capitalist with a limited amount of fixed capital will have a substantial proportion of his capital immobilised in stocks and work in progress that can only be liquidated gradually. The last thing that the unsuccessful capitalist can afford to do is to cut his prices, because in that event he will immediately have to revalue his stocks and his fixed capital, leading to a sharp fall in profit, a deterioration in his credit-worthiness and perhaps immediate bankruptcy. Thus the immediate response of the less successful capitalists to increased competition will be to try to maintain their selling prices so that they can continue to show a paper profit, expanding their borrowing to continue in production, while they seek to dispose of their stocks through aggressive marketing and drive down their production costs at the expense of the wages and working conditions of their employees. In the longer term, they will try to stay in business for long enough to give them the opportunity to introduce the more advanced methods of production in their turn. Meanwhile the most advanced capitalists, still able to earn a surplus profit despite falling prices, will increase their investment, intensify labour, and extend the working day in the hope of capitalising on their good fortune before events take an unfavourable turn.

The very success of capitalists in improving the conditions for the realisation of surplus value by creating new needs and opening up new markets and in improving the conditions for the production of surplus value by forcing down wages, intensifying labour and revolutionising the forces of production merely intensifies the tendency to the over-accumulation of capital, the overproduction of commodities and the pressure of competition. The tendency to overproduction may give rise to a crisis of overproduction, in which the less successful capitalists are liquidated, their capital devalued, their productive capacity destroyed and their workers thrown out of work. However, in expanding each branch of production without regard to the limits of the market, capital at the same time expands the market for the products of other branches of production, so that the tendency to over-accumulation does not appear immediately in the form of general overproduction, but rather in the form of the uneven development of the various branches of production. The uneven development of the various branches of production is determined primarily by the uneven development of the conditions of production, which provides the greatest potential for surplus profits, rather than by the different rates of growth of the market for their products.

The longer the gestation period of fixed investment, and the longer the period of production and circulation, the greater the extent to which productive capacity can continue to expand without confronting the barrier of the market. But sooner or later that barrier will reappear in the form of a limit. However, when capital in a particular branch of production confronts the market as a limit it does not adjust production in a smooth movement towards equilibrium. It experiences the market as a limit in the form of a crisis. Stocks of commodities build up in warehouses, plant and machinery lies idle, marketing expenses escalate. As prices fall, paper profits disappear and sources of credit dry up. As capitalists unload stocks to ease their cash-flow prices may collapse and even the most advanced capitals may see their profits evaporate, while the weaker capitals will be forced into liquidation. Thus the threat always immanent in competition comes into the open as competitive pressure gives way to open crisis, and overproduction is removed through the devaluation of capital, destruction of productive capacity and the redundancy of labour.

In the crisis it will not necessarily be the least efficient producers who are faced with bankruptcy. The conservative capitalist, using antiquated equipment, but carrying a very small burden of debt, minimising stocks by producing to order, and relying on cash transactions, will be well able to weather the storm, while the most advanced capitalist, with high fixed costs and a heavy burden of debt may be one of the first to collapse. Nevertheless bankruptcy will free the assets of the latter from the burden of debt, providing the means to restore profitability. Thus the restructuring of production in the wake of the crisis also involves a restructuring of the property relations within the capitalist class, the centralisation and socialisation of capital and the concentration of the means of production providing the basis for renewed accumulation at a higher technical and social level.

The sustained accumulation of capital depends on the ability of capitalists to stave off the threat of crisis by overcoming the barriers to the expanded reproduction of capital. The ultimate limits to the ability of the capitalist to overcome these barriers confront the capitalist in the form of the limited availability of money, whether in the hands of his customers to purchase his commodities, or in his own hands to renew accumulation. Credit provides the means of overcoming these barriers. `The entire *credit system*, and the overtrading, overspeculation etc connected with it, rests on the necessity of expanding and leaping over the barrier to circulation and the sphere of exchange' (Marx 1973, p. 416). It is only credit that makes it possible for accumulation to be sustained, despite the inherent tendencies to over-accumulation and uneven development.

Credit appears to have the magical power of suspending altogether the barriers to the accumulation of capital, providing finance for new ventures, and sustaining unprofitable capitalists through periods of difficulty. The only limit to accumulation appears to be the availability of credit. As the boom gathers momentum the ready availability of credit, and the negotiability of credit money, reduces the demand for cash, so that banks are able to reduce their cash ratios and continue to feed the boom by expanding credit. As capital overcomes the barriers to accumulation, debts are regularly repaid, a mood of optimism prevails, and credit becomes cheap and freely available.

In principle accumulation could be continued indefinitely, if capital were able to overcome the barriers to accumulation. Crisis might regular recur in particular regions and particular branches of production, but a buoyant credit system will be able to take such setbacks in its stride, so that there is no reason why a crisis in one branch of production should not be resolved without setting of the chain of bankruptcies that threatens to precipitate a general crisis. On the other hand, in suspending the barriers to accumulation, the expansion of credit gives free rein to the tendency to the over-accumulation and uneven development of capital, so that disproportionalities are likely to be cumulative, fed by the unfettered growth of credit. At first the overproduction of commodities in particular branches of production can be absorbed by the liquidation of petty producers and smaller capitalists, who have limited access to credit and whose failure puts little pressure on the financial system. However, the expansion of credit will stimulate the continued over-accumulation and uneven development of capital, further inflating the demand for credit. Meanwhile rising prices for the products of the less dynamic branches of production, and perhaps rising wages too, put further pressure on the profits of the capitalists in the over-expanded branches of production. The continued expansion of credit can relieve this pressure on profits, but only at the risk of fuelling inflation. Rising prices may sustain accumulation by eroding wages, inflating the paper profits of hard-pressed capitals, and devaluing money capital to the benefit of productive capital. However, as the unrestrained growth of credit neutralises the barrier of the market, the uneven development of the various branches of production will be likely to increase and the pressure on weaker capitalists will be likely to grow.

As the tendencies to overproduction make themselves increasingly felt in the real economy the outlets for profitable investment in the productive sphere are contracting, at the same time as credit continues to expand. In its search for profitable outlets capital flows into more and more speculative ventures which give the boom an increasingly speculative and so precarious character.

Eventually the boom will break as the expansion of credit reaches its limits. The event which precipitates the crash may be remote from the underlying cause of the crisis, and may be apparently insignificant – it is most likely to be the collapse of a series of more or less fraudulent speculative ventures launched in the later phases of the boom. Whatever triggers the crash, it will gain momentum as the contraction of credit precipitates defaults that spread through the financial and productive system in a destructive spiral. In the crisis the over-accumulation of capital suddenly appears in the form of a mass of worthless debt and an enormous overproduction of commodities, leading to the massive devaluation of productive capital and destruction of productive capacity, and an enormous increase in the reserve army of labour, in a cumulative spiral which will only be checked when the conditions for profitable accumulation have been restored.

The cycle of over-accumulation and crisis has been familiar to economists for over two hundred years. However the source of the cyclical form of accumulation in the inherent contradictions of the capitalist mode of production is not so obvious. For bourgeois economists the cycle of boom and slump has always appeared to be a monetary phenomenon: the boom has been stimulated by the expansion of credit, the crash provoked by its contraction. This gives rise to the illusion that an appropriate monetary policy can overcome the tendency to over-accumulation and crisis by curbing the over-expansion of credit that gave rise to the boom. However, the expansion and contraction of credit is not a matter of the whim of bankers or the irresponsibility of the monetary authorities, but expresses the contradiction between the tendency for capital to develop the productive forces without limit, and the need to confine production within the limits of the expanded reproduction of capital.

The state, in the first instance through its fiscal and monetary policies, can clearly have an impact on the course of accumulation, and these policies are accordingly the object of class and political struggles. However, state intervention is necessarily confined within the limits of the contradictory form of capitalist production which appears in the inherent tendency to over-accumulation and crisis. The state can pursue expansionary policies, in order to avert the threat of stagnation, recession or a deflationary collapse, but at the risk of stimulating the inflationary over-accumulation of capital which carries with it the threat of an even greater crisis. Equally the state can contain the threat of inflation by restricting the growth of credit, but at the risk of stagnation, recession or depression. The dynamism and the crisis-tendencies of capitalist accumulation are necessarily two sides of the same coin.

While different regulatory regimes will have a different impact on the course of accumulation, they cannot overcome the contradictory form of accumulation, but can merely reinforce one pole or the other of the contradiction. The post-war boom was fuelled by a relatively liberal and later expansionary credit regime which resulted in a period of rapid economic growth, but led to a growing dislocation of the real and monetary economies that culminated in the crises of the 1970s. The transition from an expansionary to a restrictive credit regime was not achieved overnight, but only in the course of an extended period of class struggle on a global scale that culminated in the installation of a restrictive credit regime (outside the United States) which sought to confine accumulation within the limits of the market, subjecting capitalists to the competitive pressure which compels them, on pain of extinction, to overcome the barriers to accumulation by improving methods of production, opening up new sources of supply and developing new markets, but at the same time limiting the means and opportunity available to enable capitalists to overcome those barriers, so that every barrier becomes a limit which threatens to stop accumulation in its tracks. Thus accumulation through the 1980s and 1990s has been marked by a slower and more faltering growth of the real economy, with accumulation nevertheless being sustained by the restructuring of the global economy, with increasing amounts of surplus capital pouring into speculative ventures on a global scale.

In conclusion, Bob Brenner is absolutely right the stress the tendency to overproduction as the inherent tendency of the capitalist mode of production. However, the tendency for the accumulation of capital to take the form of over-accumulation and crisis is not a pathological tendency arising from the disruption of market equilibration by the existence of fixed capital, it is the normal form of capitalist accumulation in all branches and departments of social production at all times. The tendency to overproduction underlies the threat of crisis which hangs over every capitalist, and which appears immediately in the pressure of competition. In this respect it is the most fundamental tendency of the capitalist mode of production, for it underlies the permanently antagonistic form of the social relations of capitalist production as the capitalist is compelled to hold down wages, to intensify labour and to extend the working day. However it also underlies the tendency for capital to develop the forces of production, to expand the world market, and to create new needs. Thus, to abstract from the tendency to overproduction, from the dynamic and destructive process through which `revolutions in value' take place, is to abstract not only from the crisis-tendencies inherent in capital accumulation, but also from the progressive tendencies of the capitalist mode of production.

Bob has put a great deal of work over many years in to amassing the data through which he has finally interred a theory which, by the time he had finished, had been long dead. His own account of the development of post-war capitalism is excessively schematic and rests on much too narrow and superficial a theoretical foundation. However, the task of constructing a more adequate account remains to be accomplished. Let us hope that the debate set of by Bob’s account will stimulate the development of such an account, whose urgency is increased as the global accumulation of capital appears to be entering a new phase.

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