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crisis**

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SOCIAL STRUCTURES OF DISACCUMULATION

A 101 ON THE RATE OF PROFIT AND THE CAUSE OF CRISIS

Alan Freeman Sunday, August 2, 2015

Abstract

These educational notes were prepared for a summer camp organised by *Ideas Left Out* at Elbow Lake, Ontario in the summer of 2015. I suggested to the organisers that I could produce a fairly simplified introduction to the discussion which would be pluralist, in the sense that it would introduce the various conflicting ideas about the cause of crisis and the special role that the rate of profit plays within it. I promised, after the discussion, that I would make the notes available for those who expressed interest but could not attend. Here they are.

This article contains a shameless amount of self-reference. This is not just because the referenced articles of my own contain more explanation than is reasonable in a 101 introduction, but because these articles also contain bibliographies which will allow the reader to explore the subject in her own chosen way and at her own chosen pace.

INTRODUCTION: WHY IS THE PROFIT RATE CONTROVERSIAL?

The profit rate has been a controversial issue in economics, especially Marxist economics, since the turn of the last century. However, in the nineteenth century it was not, which is a puzzle. The following quotation from James Mill illustrates the point; he clearly regards ‘the tendency of profits to fall as society advances’ as an uncontroversial and established fact.

The tendency of profits to fall as society advances, which has been brought to notice in the preceding chapter, was early recognized by writers on industry and commerce; but the laws which govern profits not being then understood, the phenomenon was ascribed to a wrong cause (Mill 1848, my emphasis).

The second point to note is that for Mill, as for Ricardo and Smith who both also spoke of, and offered (differing) explanations for it, this tendency was not really a ‘prediction’. It was a fact. The problem, as Mill states, was to explain its cause.

From the very late 1990s, beginning with the Russian legal Marxists and Marx’s Austrian critics, there is a change of tone: this tendency, and its importance for understanding society, becomes contested. Why? It clearly touches some sore point. We get a clue to where this might lie from Marx’s own treatment of the question.

[G]iven the great importance that this law has for capitalist production, one might well say that it forms the mystery around whose solution the whole of political economy since Adam Smith revolves. (Marx 1991:319)

This ‘mystery’ is not a proof that the rate of profit falls. It is the explanation. To be precise, Marx argues not that he discovered the fall itself, which is a recognised empirical fact, but that he has discovered its cause – the accumulation of capital in the course of capitalist development. That is to say, when capitalists use their profits to invest in new production (which is what they exist to do and what sustains their class in existence) they undermine, as an unintended consequence, the conditions for this investment to take place, and thereby, their own existence. Capitalism, in short, undermines itself. This was what Marx claims to have discovered.

This is probably the most controversial result in the whole of economic theory: it leads to the conclusion that capitalism contains within itself contradictions that it cannot overcome. It is therefore very unpopular with the ‘furies of private interest’ of which Marx speaks when assessing the reception of *Capital*.

The best way to understand the discussion – indeed, probably the best way to understand almost the entire evolution of economic theory in the twentieth century – is to read it as a history of attempts to evade this conclusion.

I find that a useful way to think of this is to distinguish between *esoteric* and *exoteric* approaches to the acquisition of knowledge. These are obscure words but they are used by Marx to good purpose in his treatment of Smith, and they serve to understand much economic discussion. I describe the distinction in more detail in *Heavens Above* (Freeman 2015a):

[E]quilibrium is a metaphysical or metatheoretical construct, not a simple mathematical method, although it is invariably introduced in the guise of a pure mathematical technique, disguising its esoteric function. It thereby plays a religious, or *esoteric* role, not a scientific role. Its function is to justify the state of things that we live through and observe, not to explain them (the exoteric function of inductive, fact-based science)

For those political economists – whether Marxist or not – who seek practical ways to exit from the crisis without paying a great price in human suffering, the problem is therefore, as Marx put it in his discussion of Hegel, to stand the debate on its feet – to convert it from an esoteric to an exoteric enquiry. The primary purpose of a theory is exoteric. It is to explain what we observe; therefore, the starting point of the enquiry has to be the facts – what really happens. This is not at all a crude empiricism; it simply re-iterates the scientific principle that if one has a theory that does not explain the facts, then it is the theory that has to change, not the facts.

But in almost the entire debate since the late 19th Century, the debate has been the opposite, beginning from the theory and, when it conflicts with the facts, seeking ways to re-interpret, re-present or dare we say it, manipulate the facts to render them consistent with a theory that the protagonists have already decided must be correct. This is an esoteric, in fact religious, mode of enquiry.

The problem may appear to be complicated in that theories themselves construct facts, by analysing and presenting data derived from raw experience in a way that conforms to the theory – for example, in the presentation of the national accounts. Therefore, in what sense is it meaningful to speak of facts as if they existed prior to the theory? To this one can give a robust and no-nonsense answer, but couple it to a practical method for judging whether a theory conflicts, or does not conflict with the facts.

The robust response is that the facts exist no matter how we choose to know them, or indeed whether we know them at all. Being determines consciousness; the material world is not constructed by our minds, because our minds are material.

The practical method is really quite simple and is adopted by all true sciences and is based on two principles, which I term *systematic pluralism* and *inductive consistency*. It is that first, we should always judge between conflicting theories, never a single theory. All attempts to *eliminate* a theory from consideration, including the countless (disproven) attempts to discount Marx's analysis as inconsistent or non-existent (see Carchedi and Freeman 1996, Kliman et al 2013) are essentially dogmatisms, in that they attempt to exclude a potentially valid theory *prior* to testing it against the facts. The same applies to alternative *interpretations* of a theory (Kliman 2007, Freeman et al 2014) because, if one imposes on a theory a reading that renders its primary conclusions unreachable, then it is the interpretation, not the theory, that has to be treated as questionable.

The reason for the above is that science never tests a single theory against reality, but always tests rival alternatives. If potentially valid explanations are ruled out before the facts are

examined, we have a race with one horse; no matter how badly it performs, unless it actually collapses and dies it cannot but win.¹

The second principle is that the criteria for choosing between theories are those which identify the theory which best explains the facts as constructed by that theory. There is a simple caveat; the chosen theory must be judged by all the facts it can construct, not just those it finds convenient. This latter is the 'consistency' in the term 'inductive consistency'. Economic theories are frequently inductively inconsistent, in that they focus on one special phenomenon to the exclusion of all others, which they explain perfectly, whilst at the same time completely failing to explain many other phenomena which they did not set out to study. Nice try, but no cigar; No theory which produces predictions of *anything* that conflicts with the facts can be accepted as adequate, whether or not the scholar who produced it expresses an interest in these facts. Indeed, the surest sign of a religious and dogmatic mode of enquiry is that its practitioners see no need to confront evidence that conflicts with their conclusions.

Therefore, for example, a theory which predicts that the rate of profit should rise is invalid, or at least wants some changes, if in any country and at any time the rate of profit, as measured by that theory, falls when the theory predicts it should rise. This rules out, as we shall see, virtually all theories which deny the profit rate should rise, by the simple test of explaining the course of US profit rate from 1946 to 1968 (see Freeman 2009).

But it also calls into question all those theories which accept that the profit rate in fact falls for prolonged periods which fail to explain its *rise* at definite points in history – as discussed below – by wrongly predicting that the profit rate must fall at all times and places. Moreover even those theories which do correctly allow for both falls and rises in the profit rate must be questioned if in even *one* particular place and time, their predictions are shown to be false. This is particularly pertinent to the debate, or rather non-debate, around the simple proposition that credit-money capital functions in modern capitalism as an element of capital stock with a claim on aggregate profits, and so enters into the formation of the profit rate, as discussed later (see Freeman 2012).

Responses to this simple idea, which provides a very coherent account of the present recession in all its elements, have without exception failed to respond to a single but vital empirical fact: according to all conventional measures of the profit rate which refuse to take financial assets into account, the UK profit rate has risen steeply and monotonically since Thatcher first took office. This flies in the face of everything else that these same theories have to say about the UK's economic performance. For a scientist, the failure of a theory to explain even one salient fact – for example the failure of pre-Copernican theory to explain mountains on the moon – is a sufficient basis to discard, or at least question deeply, that theory. It's just not serious, as John MacEnroe might have said, to ignore a ball that falls on the wrong side of the line, just because it

¹ Indeed, even if it collapses and dies, provided the jockey has the strength and the hands are allowed onto the course, victory can be claimed by carrying the poor creature over the starting line as so much dead meat. This is not far from what has happened in the less useful branches of this discussion.

might lose you the game. The exceptional case of the UK profit rate is *the* case to study if one wishes to arrive at a comprehensive explanation of crisis. If one does not study it, one does not have a general theory of the profit rate. One has a theory of the US profit rate, which is a very different thing and not much use if you don't happen to live in Trumpland.

It is precisely because the debate around the profit rate does not follow these two basic criteria – systematic pluralism and inductive consistency – that the reader will become very confused if she treats this debate as a discussion about what is really going on in the world. It is in fact best understood as a series of attempts, within economics but especially within academic Marxist economics, to arrive at a 'respectable' account of the laws governing a commodity society, which excludes the uncomfortable conclusion that such a society contains contradictions which undermine the conditions of its own existence.

The problem is that once such a theory is arrived at, it can no longer explain reality. The conflict between theory and reality is containable as long as the contradictions of capitalism do not present themselves in too obvious a form, so that its many problems can be ascribed to external causes such as misgovernment or political interference, or to secondary causes such as financial imbalances or wrong practices.

If we follow the view that has been developed as a result of the work of scholars of the Temporal Single System School (TSSI, see Freeman and Carchedi 1996 and Kliman 2007), we are led to the conclusion that though these causes do affect how capitalism behaves, just as the solid earth 'resists' gravity, they do not abolish such fundamental causes of disturbance as the tendential fall in the profit rate, which merely express themselves in different ways, in the presence of other disturbing factors.

This imposes itself on human consciousness, at least to the extent that it disturbs the tranquil soliloquies of academic discourse, only at moments of extreme and prolonged disturbance – such as the present.

When this happens, the previously-forgotten laws that help us to understand the causes of these extreme disturbance are 'rediscovered' – but with enormous and meticulous precautions to avoid expressing this in its original form, and to confine the 'rediscovery' to that which is just sufficient to excuse the failures of the mistaken ideas that have dominated for the previous fifty years. This took place in the 'Keynesian revolution' of the 1940s which, as I try to explain in Freeman (2015b), contained an enormous amount that was theoretically in common with Marx's own analysis, accompanied by a proportionately prodigious effort to disguise this all-too-obvious fact.

TWO SPURIOUS DEBATES: IMPOSSIBILISM AND INEVITABILISM

The opening shots in the debate, which dominated until the financial crash of 2008 began to make the ideas concerned too implausible for comfort, began with the prolonged attempt to prove that Marx's explanation was *impossible*: that the profit rate could not conceivably fall, provided a certain number of very reasonable assumptions held. This came to a head with the

Okishio theorem (Okishio 1962, Steedman 1977), used by Western Marxists from around 1965 until well into the 1990s – though with earlier precedents, including the Russian Legal Marxists and also, notably, Joan Robinson – to ‘prove’ that the rate of profit cannot possibly fall as long as the capitalists invest in ‘cost-saving’ technology and the real wage remains constant. Crucially, support for this theoretical view depends on interpreting Marx as an equilibrium theorist, a view particularly characteristic of the ‘Marxism without Marx’ school and its variants (Freeman 2010).

This ‘impossibilist’ view has a counterpart which dates back to theories known as *Zusammenbruch* or breakdown theories, which asserted that the rate of profit was *inevitable* and could not but fall. This was held to be a reason that capitalism must inevitably collapse.² This was a minority tendency within the early history of Marxism, and the subject of much illegitimate abuse until the 1990s, because it suffered the disadvantage of having no adequate response to the arguments of the Marxism without Marx school, since the Okishio is a perfectly valid deduction from this interpretation. This led to such charges as that levelled by Fine and Harris (1976) who dubbed this school ‘fundamentalist’ on the (illegitimate) grounds that though it explained much of the facts, its explanatory power was unsupported by a complete and rigorous theory.

With the emergence of the TSSI Marx’s value theory could once again be reconciled with his theory of the rate of profit and of crisis. This – and the crisis itself – has led to a resurgence of inevitabilism, and one school within TSSI, with roots in earlier theories of breakdown, has come to the conclusion that the rate of profit must inevitably fall (see for example Carchedi and Roberts 2013). The main problem with this well-intentioned attempt to counter the Marxists Without Marx is that it is not true; the rate of profit does not in fact fall all the time, and so it is hard to sustain the conclusion that it cannot but do so. There is some mileage to be made by exploring such concepts as ‘the rate of profit must fall eventually’ (see Freeman

A number of the most recent discussions centre on this second thesis, which has quite a strong following; however it is easiest, and best, to understand it as the counterpart to impossibilism, in the following sense: both views assert the positivist view (Freeman 2009) that economic events have the character of natural laws that impose themselves on us, and cannot be affected by conscious human action. As we shall see, this is incompatible with the empirical facts that at definite though rare moments in history and in definite places, the fall in the rate of profit has in fact been reversed sharply. The most salient, but not the only example, is the US rate of profit which collapsed before the Second World War and was restored to a previously unattained peak as a result of the war and the role which the US state played in the economy during that war. The two poles in this debate are:

The outcome of both these positivist attempts has been a long and – to outsiders – arcane debate which it is not entirely necessary to follow in order to grapple with the importance of the

² See Kuhn 2007 for a balanced discussion of Grossman’s contribution to this debate; Grossman is often unfairly, as is usual, blamed for views more properly attributed to his followers.

profit rate. However, for those with a collector's interest in the ornate, there is much bedtime reading here. Those with a sleep problem may consult Howard and King (1989).

For the purpose of this introduction the critical point is the following: empirically, the profit rate *does* fall and the rate of profit *does* recover. Neither of the two above positions, on the grounds of inductive consistency, can be treated as useful contenders as explanations of reality;³ rather they constitute either purely theoretical positions, or at best very long-range predictions. The reader would be justified in concluding that they may not be of the greatest relevance to understanding what's actually happening right now.

Unfortunately, most of the literature is concerned with articulating one or other of these positions, which contributes to the reputation for obscurity that discussion of the profit rate has, somewhat unjustly, earned itself.

THE TROTSKY-KONDRATIEFF DEBATE ON THE CONJUNCTURE

The basic issues are quite simple if we are clear that the problem is simply to explain, as Marx set out to do, what we actually observe in history. This discussion, generally neglected in the literature, opens with the wide-ranging but sadly neglected debate among Marxists and others at the Conjunctural Institute in Moscow in 1924 (Day 1989 contains a commentary and several important translations). The issue facing the economists of the fledgling soviet state of that day was this: what would actually happen to capitalism and what did this allow us to conclude about the policies that the Soviet Union should follow? Approximately two positions emerged, well-expressed in the sharp exchange between Kondratieff and Trotsky.

Endogenous recovery is the view expressed by a range of 'Long Wave' theorists, notably Kondratieff himself but also Schumpeter, who successfully popularised the idea though it never really took hold in mainstream economics, that capitalism contained within itself the means to *restore itself from even the deepest crisis, if left to itself*.

Exogenous recovery is the view expressed by Trotsky, in common with Keynes, that external, conscious human intervention could potentially lay the basis for renewed accelerated expansion by capitalism.

Trotsky's difference with Keynes, in distinction to most Marxists, lay not in the proposition that some kind of external intervention could create the conditions for a renewal of capitalist expansion. It lay in the *extent* of what was required; for Trotsky only the most catastrophic, violent and destructive of circumstances could lay the basis for a restoration.

TROTSKY

One can reject in advance the attempts by Professor Konrad'ev to assign to the epochs that he calls long cycles the same 'strict rhythm' that is observed in short cycles. This attempt is a clearly mistaken generalisation based on a formal analogy. The periodicity of short cycles is

³ Although, as the principle of systematic pluralism tells us, they should never be ruled out of contention when we examine the evidence.

conditioned by the internal dynamic of capitalist forces, which manifests itself whenever and wherever there is a market. As for these long (fifty-year) intervals that Professor Konrad'ev hastily proposes also to call cycles, their character and duration is determined not by the internal play of capitalist forces, but by the external conditions in which capitalist development occurs. The absorption by capitalism of new countries and continents, the discovery of new natural resources, and, in addition, significant factors of a 'superstructural' order, such as wars and revolutions, determine the character and alteration of expansive, stagnating, or declining epochs in capitalist development.

KONDRATIEFF

L.D. Trotsky, in his article titled "Concerning the Curve of Capitalist Development," whilst not denying the existence of long waves in economic conditions, refused to recognize their patterned, cyclical character, and regards them as the result of adventitious (and, in that sense, random) circumstances of an economic and political nature

For both citations see Day (1981)

If we reject either of the two positivist extreme views, that the rate of profit cannot possibly fall or that it must inevitably fall, we are thus driven to consider the relation between the economy and the human intervention: the state is of course central but as Trotsky notes, we also have to consider the entire range of 'exogenous' factors that are now coming to the fore – wars, revolutions, fascism, and so on. This obliges us to consider the actual empirical facts, and much of the modern debate has surrounded these with two issues at stake

- (1) Does the rate of profit *actually* fall? And if it does, was it restored in the 1980s by neoliberalism, or did in fact continue to fall, signalling a deeper and more intractable crisis that could be overcome only by more extreme interventions or developments
- (2) Does the rate of profit actually impact the economy anyhow?

TABLE 1: DOES INVESTMENT AFFECT GROWTH?

Country	Investment ^a	Post-crash growth rate ^b	Memo: Government Spending ^a
China	48%	9.0%	29%
India	31%	6.5%	27%
Korea	29%	3.2%	21%
United States	19%	0.9%	37%
Germany	17%	0.7%	45%
France	22%	0.3%	57%
United Kingdom	14%	0.2%	44%
Japan	21%	0.1%	40%

Source: IMF World Economic Outlook Database 2014

a: share of GDP, current local currency

b: average GDP growth, constant local currency 2008-2013

c: (caution) investment normally includes public investment which is in addition to current spending. This has not been checked for the figures in this table

It's easiest to approach this question by taking the second question first. At the core of the discussion is the notion, which is actually shared by all economists, that as the overall rate of return on capital goes down, the rate of investment will also fall. This being the case, it will depress the economy for two reasons. First of all, investment is itself an indispensable component of demand. Since the surplus in the economy is not consumed in its entirety by the workers, the remainder must be either consumed wastefully or by the capitalists, or it must be invested. Second, investment in new methods is the principal source of innovation and rises in productivity; it hence affects the capacity of entrepreneurs to expand their markets.

What really happens? The evidence is strong that investment as such plays a major role in the present Great Recession. Table 1 provides an illustration (not a proof!) of three very general empirical laws:

- 1) Countries *only* grow when they invest. If they stop investing, they stop growing. (that's why austerity hasn't worked)
- 2) The more you invest the faster you grow.
- 3) Contender countries invariably invest a higher proportion of GDP than their predecessors.

There are three reasons for the first two laws

- 1) Investment (usually but not always) increases productivity
- 2) Investment is a big proportion of demand (compare government spending)
- 3) Investment leads to increased consumption of constant capital

We can explore both of these by considering Marx's own presentation of the components of aggregate supply and demand (the first and least complicated mathematical part of this paper)

THE DETERMINANTS OF AGGREGATE DEMAND

Empirically, to get a handle on the implications of the causes of crisis, we should note that every crisis, at least superficially, takes the form of a mismatch between supply and demand. Put in the simplest possible terms, the capitalists cannot sell what they produce.⁴

Surface appearances have to be explained and cannot be ignored. However, to arrive at an explanation of what we simply observe, we need to enquire lies behind it, for the same reason

⁴ One may run around in circles for a long time, and many do, by arguing that in fact they produce what they cannot sell. There is as much difference between these statements, in and of themselves, as between Tweedledum and Tweedledee. As far as the phenomena are concerned, all we know is that the two do not match. Exactly as with the course of the sun in the skies, we cannot deduce what happens simply from what we see; this is why we need theories. If the truth of every thing that exists was knowable merely by looking at it, there would be no need for theory at all.

that though it appears to us that the sun goes around the earth, we need to grasp that the earth itself rotates before we can go beyond seeing to understanding.

To get beneath the surface of any mismatch between supply and demand, therefore, we need first to consider what both are composed of. In Marx's terms, which are also those of the standard 'commodity-flow' national accounts, the totality of the goods produced in any given time period is equal to $C + V + S$, where

V = the value paid to the workers who produced these goods

S = the surplus appropriated by the owners of capital

C = raw materials or intermediate products consumed in making these goods

If this is all sold, production can proceed in the next period but will not repeat exactly either the proportion or the magnitude, because either some of the surplus S will be invested in new production or, if the capitalists are not motivated to use the surplus in this way for any reason, production will decrease and capital will withdraw from production, where it will sit idle in the form of hoards of money, stockpiles of unsold goods, inventory, or indeed, hoards of speculative forward purchases of commodities such as oil.

C can further be divided into two parts:

K = investment (turnover > 1 year)

C = circulating (turnover < 1 year)

It is important to recognise that there is a relation between these two magnitudes which is independent of consumption. If for example a capitalist builds a factory that requires 100 tons of bricks and 200 tons of steel, then the demand for steel and bricks will rise in that period quite regardless of what happens to personal consumption. It is of course true that the decision of the capitalist may depend on such things as anticipated or expected demand. But it may also depend on other things such as the current rate of return on investments of this type, the interest rate, or the alternative uses of the capital.

That is to say, investment is what is termed an *autonomous* source of demand. A great deal of complication can be avoided if this simple fact is borne in mind.

Empirically, it's worth noting that total output ($C+V+S$) is purely as a rule of thumb and to fix ideas – about twice the size of GDP ($V+S$). That is to say, the constant capital consumed by a 'typical' modern capitalist economy is about equal to GDP. So for every \$1 in value produced by workers, the capitalists use up approximately \$1 in materials and depreciated plant and machinery

Aggregate demand consists of the demand for these two components – both C and $V+S$ – and also while both vary to some extent together (because a relatively fixed amount of raw materials and partly-worked-up goods have to be used up when producing a consumer good), investment as such constitutes an independent source of demand for constant capital (because when a factory is build, bricks, steel and other elements of circulating constant capital are

required to make it, regardless of how much the workers consume). Thus the demand for constant capital is not restricted to investment. Rather, it is a multiple of investment, and empirically, a larger multiple than the consumption multiplier.

In consequence, no theory which attributes all cause to consumption can be *complete*; it must omit something, because the demand for constant capital varies independently of it. This is why the study of those factors which bear directly on this demand – such as investment – cannot be omitted from a complete explanation.

A number of responses to this point have been offered in the course of the discussion about the profit rate, and we will turn to them. It's worth noting however that none of these responses lead to a complete theory based on consumption alone. As an example, we may take the argument that capitalists make investment decisions which are in part conditioned by their expectations of sales, that is to say, future consumption. But in the present, future consumption has not happened; expectations can only be formed on the evidence now available to the capitalist. If we turn to the actual way that capitalists make their investment decisions, we in fact arrive at an empirical question: does their expectation of future consumption completely determine their decisions? To make this argument, one has to suppose that the current rate of return has no influence whatsoever on their decisions. That is a possible theory but not one which can have an immediate claim to pre-eminence, given the long experience of business, and the large body of economic theory, which not only recognise the rate of return influences the capitalists, but urges them to make it their primary concern.

Once we leave behind us the trivial sphere of 'monocausal' explanations – that either the rate of profit, or consumption demand, are the *sole and only factors* operating at every level of economic decision-making, we have to acknowledge that the real problem confronting theory is the *relation between these two factors* and of course, their relation to other factors. This brings us to the most recent chapter of the discussion.

THE DEBATE ON CAUSALITY

The statements that either consumption, or investment, either dominate, or are primary, or are the sole fact which needs to be taken into account when studying crisis, are not only contentious, but have led to vitriolic exchanges and sharp divisions.

These divisions are considerably less arcane, and considerably more important theoretically and practically, than that between the impossibilists and the inevitabilists. Writers on the whole fall into two schools though the real issue is more complex than to deserve this crude polarisation. At the risk of misrepresentation, we can summarise this as a discussion between those who believe that the 'primary' determinant of aggregate demand is the consumption demand of the workers and the government, and those who point out that because of the autonomy of the demand for constant capital, sources of demand which arise from the action of the capitalists themselves and above all their investment decisions, will operate at least as an additional, and arguably as a fundamental cause at work in crisis – at least in major crises such as the present.

The heat of the exchanges can obscure the fact that in the last analysis, it is an empirical and not a theoretical question as to which explanatory law actually holds in any given situation, *provided* the reader discounts extreme views to the effect that either consumption, or investment, can have no effect at all. It should also be noted that the idea that investment has no effect at all has a practical consequence today; it is the underlying theoretical position that underpins most government policy, and a mantra which has been with us since Thatcherism, that the state cannot possibly invest. In fact, state investment or at least public investment of some kind is the only way to make up for the deficiency in private demand. The above view is thus a major impediment to overcoming the crisis.

There is also an ideological reason for this, which is part of the complex of class and economic interactions which I refer to as 'social structures of disaccumulation'. For, once it is recognised that there is an alternative way to run, and improve the economy, than leaving it to private capital, then there is no obvious limit to the extent this is done. It therefore poses an existential threat to the capitalist class, at least in their minds, which is why they generally tolerate it only under extreme duress, such as under fascism, or with extreme guarantees of some limitations on it, as during a war, or when they have no choice, as after a revolution.

It is precisely because capitalists are so unwilling to allow the state to play a role in production that resistance is so strong to the idea that investment demand can always be relied upon to re-establish itself through the purely private mechanisms of the movement of capital in search of a profit

It is important to distinguish between the decisions of individual capitalist and sectors, who may well in favour a stronger role for the state – for example the fledging domestic capitalists of many developing countries, as Radhika Desai (2012) has effectively pointed out – and the preferences of the capitalist class as a whole. The fears of the capitalists as a whole arise not from their *economic* fears but their *political* fears, which leads to their adoption of counter-intuitive stances, such as opposing the New Deal, to take a classic example. This subject is broached in the last section of this paper: it is because the fear of the capitalists is not that any particular measure of the state may affect their returns, but the fact that they can set no *limit* on the action of the state, once the principle is conceded. Thus once the wall is breached, classes other than themselves may push the action of the state to the point where not only their immediate economic interests, but their existence as a class, are directly threatened.

For this reason we are likely to fail if we attempt to explain capitalist opposition to state intervention in purely individual, economic terms. First and foremost, this opposition has to be explained as *political* opposition. It is precisely for these reasons that the development of economics requires the abandonment of economics and the recuperation of political economy as Desai (2016) argues.

This issue is dealt with in the next section but is flagged up in order to ensure that even at this initial stage, the reader can bear in mind that economic and political issues ultimately intersect in such questions as 'who holds power?' and 'what does the state do?' which, it follows from the Trotsky-Kondratiev exchange and the whole question of exogenous cause, hold the key to the

resolution of the most prominent issue of all, namely ‘what are the conditions for an exit from a deep depression?’

For now, we return to the purely economic discussion on causality. Lurking behind the somewhat superficial exchanges just discussed, there lies a further debate, which came to the fore in a set of exchanges between Andrew Kliman and David Harvey (see for example Harvey 2014, Kliman 2015), in which the question of cause figures centrally. This discussion is one of those which I may not do justice to in a short introduction but which is pretty well indispensable if the reader wishes to grapple with the real difference between the conflicting accounts of the ‘causal’ role of the profit rate and the ‘causal’ role of consumer demand, in crisis.

Harvey’s objection to attributing a causal role to the profit rate is presented in the following phrases:

It may seem I am unduly picking on the falling rate of profit theorists and singling them out for criticism. I do so, however, because of all the divergent theories of crisis that have emerged from the Marxist tradition, this one holds an iconic position within the Marxist imaginary and it is typically presented in such a way as to exclude consideration of other possibilities. There is, I believe, no single causal theory of crisis formation as many Marxist economists like to assert. (Harvey 2014)

To this Kliman (2015) responds

The real issue is not that anyone has advocated a *mono-causal* theory, but that Harvey is campaigning for what we might call an *apousa-causal* theory, one in which the LTFRP plays no role at all (*apousa* is Greek for ‘absent’). He is the one who is trying to exclude something from consideration. In light of his emphasis on capitalism’s ‘maelstrom of conflicting forces’ and its ‘multiple contradictions and crisis tendencies’, one might expect that he would urge us to consider all potential causes of crisis, excluding nothing. However, Harvey is not merely suggesting that other potential causes of crisis be considered alongside the LTFRP. He seems determined to consign it and the theory of crisis based on it to the dustbin of history. A large part of his paper is devoted to questioning whether the LTFRP is a genuine law, whether Marx really subscribed to it in the end, whether there is good evidence that the rate of profit fell, and whether it fell for the reason the law says it tends to fall. I will respond to all this as well.

The philosophy of cause, on the whole, support Kliman’s position. Theories that propose a *single* cause of anything are rare and in science almost non-existent, because the real movement of any actual object is decided by many causes. If we put a magnet over a piece of steel it will rise, but this does not refute the law of gravity. Therefore, to reject the theory that the rate of profit is a cause of crisis, at least in the same sense that the law of gravity is a cause of the motion of objects, on the spurious grounds that such a theory excludes all other causes, is to argue with a straw man and, as Kliman notes, conveniently commit the crime of which the victim is accused, namely to exclude an inconvenient theory from consideration.

Harvey's use of the word 'typical' is also unhelpful. It may be true that some absolutist explanations of crisis are somewhat monocausal, most notably the inevitabilist theories discussed above. But this monocausality arises not because they are Marxist but because they are absolutist. Setting this family aside, actually monocausality is somewhat untypical of Marxist theories of crisis which seek, to the contrary, to explain how the falling rate of profit interacts with all the many complex factors at work in crisis. The charge is, sadly, another episode in a dreary and long history of substituting gratuitous and perhaps crowd-pleasing epithets for a less popular recourse to reason and evidence. To reject a theory on the grounds of what its 'typical' proponents say is to renounce any responsibility for discussing what its non-typical theorists say. That is, it constitutes a spurious reason for refusing to consider the theory as such.

Thus, accepting without demur Harvey's uncontroversial assertion that crisis has many causes, this is no reason to exclude the rate of profit as one of them, and no reason to refuse to explore the way this variable affects all the other causes we may wish to assess. The only construction that makes sense of Harvey's argument is that cause itself is a meaningless concept and one should not seek to attribute any cause to crisis at all. This is a position that does have some support in philosophical discussion but leaves us with a problem: if we cannot speak of causes, what can we actually say about crisis? Harvey himself does not refrain from presenting causal mechanisms, by simply abstaining from the word 'cause', for example

2007-8 was the culmination of a series of crises in which accumulation by dispossession, orchestrated largely through the credit system, became a significant lever of crisis formation.

What is a lever, if not a cause? In fact the very (and ironically, mechanical) simile exposes the central problem in this discussion. A lever, as Archimedes informed us, has two ends; if accumulation by dispossession was at one end of it, what was at the other?

Causes do not operate independently. Any real phenomenon corresponds to a structure of causes, in which one thing leads to another. The wave of dispossessions that opened the crisis of 2008 had its own cause. What was that cause? What was the cause of that cause? Most death certificates record, as the cause of death, the failure of some organ or another. Does this mean that aging has no role in death? Neither the fact that some people die in accidents, nor the fact that their hearts give out because their bodies have become too feeble to sustain them, or have provoked another organic failure which in turn caused the heart to stop beating, entitles us to say that people will live forever.

The real problem lies elsewhere: it is to determine first of all the *interdependency of these causes* and secondly the *circumstances under which each such cause may be suspended*. It would be foolish to argue that, for example, the spectacular growth of financial assets of all kinds (Lapavistas 2009) played no role in the crash of 2008. But, as I will argue below, it is equally foolish, and does not square with the facts, to claim that the prior fall in the rate of profit in the twenty years beforehand, which continued apace while this spectacular growth was taking place, had nothing to do with that growth.

The real practical problem is *what will capitalism have to do in order to escape the consequences of the falling profit rate*, just as the practical problem confronting any living human in the present state of medical science is what can be done to escape the consequences of old age. To this issue – what can be done to get out of the present crisis? – that we now turn.

THE RELATION BETWEEN PROFIT RATE AND INVESTMENT

In the above, we covered the reason that investment may be an important factor in crisis. What is the connection between investment and the profit rate? As with the previous parts of this paper, we offer only a summary of the wide range of positions at play.

The notion that profit is a determinant of investment is not a Marxist fantasy, though it is frequently painted as such. In fact, it is a view that underpins virtually every branch of economics

The simple story: Capitalists seek the highest return on capital (Business theory)

The longer story: The rate of return on capital (classicals) or the ‘normal rate of profit (neoclassicals) is the ‘price of capital’ and so the laws of supply and demand will shape how much is invested. The lower the rate of return, the less investment, and vice versa.

The full story: Capitalists invest if their expected rate of return is higher than other possible uses of their capital, including especially using it as money, either by hoarding it or by speculating with it (Keynes, Marx)

THE COURSE OF THE PROFIT RATE: THE SHORT EMPIRICAL STORY

How do the various schools of thought attempt to decide which of the above accounts holds good? There is no shortage of what we might term ‘theoretical absolutism’ – wrongly, in my opinion, laid at Marx’s door under the name of ‘dogmatism’. Theoretical absolutism argues that, no matter what the facts are, the theory tells us what actually happens. This is particularly common in neoclassical economics and in fact, the entire opus of neoclassical thought is best understood as a form of religious absolutism deduced from the primary proposition that the market inevitably works – expressed in the doctrine of equilibrium, which is merely a mathematical way of writing down that the market inevitably works.

Theoretical absolutism is not at all absent from Marxist thinking of course, but is most evident in those schools of Marxist thinking (the majority) which have adopted the equilibrium hypothesis. A particularly startling example comes from Roemer (1979:380):

Responses to this claim, of Okishio and others, have been of three types. These are, first, what Fine and Harris (1976) call fundamentalist positions on FRP. Second, there are empirical discussions of whether or not the organic composition of capital is indeed rising. While this sort of investigation may be useful, it does not bear upon the *theoretical* issue of whether or not the rate of profit falls due to technical change ... empirical investigations, then, are certainly necessary, but they cannot provide refutation of a theory.

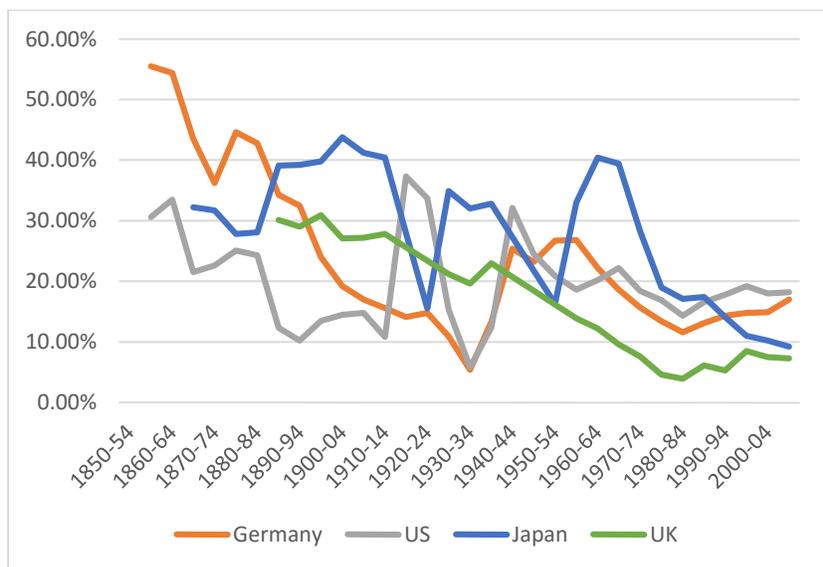
As explained, one purpose of this paper is to re-instate the inductive principle for which Galileo and any other scientists suffered much in the face of religious theoretical absolutism: when theory conflicts with fact, it is the theory that must be revised, not the facts. If the rate of profit in fact falls, and in fact the organic composition rises, and in fact this occurs at the same time that technical change is taking place, then to seek a reason for it is not fundamentalist but scientific. It is Roemer's assertion, that facts cannot refute a theory, that parts company from the pursuit of truth.

Difficulties in the modern debate arise, however, which are not the consequence of theoretical absolutism, but because the facts themselves are constructed and therefore, writers tend to exhibit a preference for those facts that support their theory. The real task is to uncover the theoretical presuppositions behind each presentation of the facts – for example, in the way that different writers choose to measure the profit rate, as we will see – and take this fully into account, when judging between theories.

Certain facts are not widely disputed, and it is always wise to begin from them. First, 'Great Depressions' (1870-1890, 1929-1942, 2007-?) are always periods of low growth, low investment, and low profit rates. 'Long Booms' (1848-1870, 1890-1920, 1945-1968) are always periods of high growth, high investment, and high profit rates. Thus whatever happens in each individual, sometimes short recession, as is observed every 7-10 years under capitalism and is well-known to writers of all schools as the 'business cycle', there is an empirical connection between the profit rate, investment, growth and employment in the infrequent *long* or 'great' recessions such as that of the 1930s, and the one we are going through now.

Probably the best and most accessible source of long-term historical data on the profit rate is the collection assembled by E. Maito, some of which are illustrated in chart 1 below.

CHART 1: PROFIT RATES IN MAJOR INDUSTRIAL COUNTRIES, 1850-2004



Source: Maito, E.

These illustrate two fundamental points: that there is a long-term empirical tendency for the rate of profit to decline in all countries; and that this long-term fall is, at definite moments, sharply reversed. Controversy persists, however, around what has actually happened above all in the USA, since the 1980s

The disagreements concern what happens next. Especially sharp in relation to the US profit rate. There is a sharp divergence between two schools

- 1) Dumenil-Levy, Kotz, Basu and Vasedaran, McNally and others (see the bibliography) maintain the profit rate recovered in the 1980s as a result of neoliberalism and the present crisis is not a crisis of profitability or investment, but of the governance structures of neoliberal capitalism
- 2) Freeman, Kliman, Maito, Carchedi-Roberts (also see the bibliography) maintain the profit rate did not recover and the present crisis is a combined crisis of unresolved profitability plus other factors.

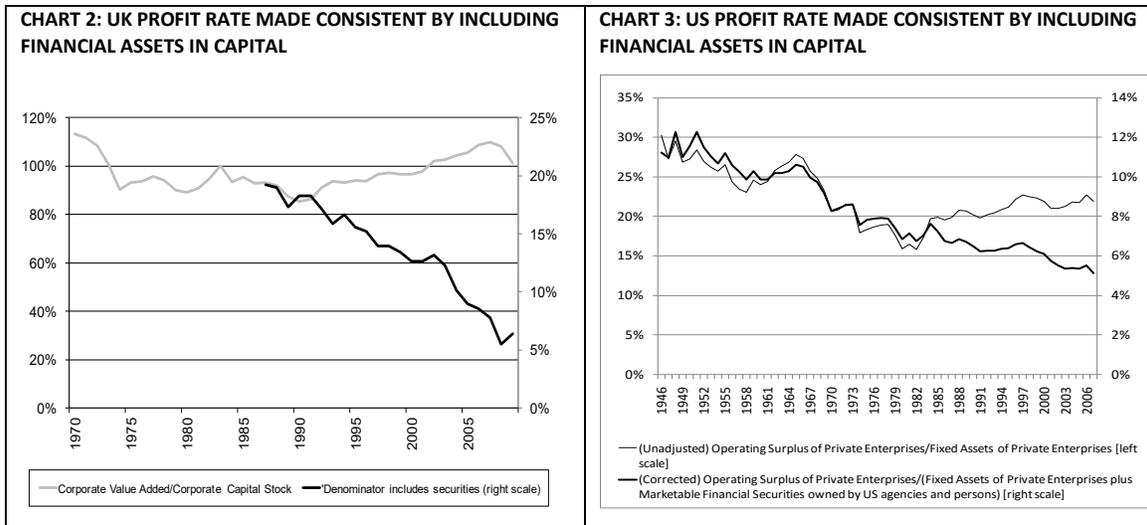
These discussions tend to be very tightly connected to the way in which the various authors concerned measure, and present, the profit rate. Thus Basu and Vasedaran, as well as Kotz, cite only those measures of the rate of profit that support their argument. There are alternative measures which include

- (1) The measures assessed by Kliman (2010) which insist that the historic, rather than the more commonly used current, measure of capital stock is the one that accurately measures the value of this stock. If this is used, the recovery in the profit rate that is claimed by writers of the 'recovery' school is not observed
- (2) Writers such as Mohun and Moseley, who argue that investment decisions are governed not by the return on total capital but by the return on productive capital – that is, capital other than finance or commerce. They produce different measures of the profit rate, which in general show less of a tendency for recovery

The measure which I myself advocate in Freeman (2012) which notes that the traditional measures of capital fail to include financial and money capital. This is contradictory since they include financial profits in their measure of profits, yet the major characteristic of the post 1974 evolution of capitalism – on which all writers agree – is that an ever-growing proportion of capital takes the form of monetary and financial assets. If the US and UK profit rates are corrected to remove this inconsistency, the continued fall in the profit rate is beyond doubt, as charts 2 and 3 show.

Space does not allow me to examine the (growing) range of arguments around the empirical evidence for these views. However, the reasoning which leads me to judge that the 'Full capital' profit rate measure is superior both theoretically and empirically is given both in my article and in the reasoning that follows in the next section.

I refer the reader to much published work which she or he can find with a little persistent Googling or, these days, by actually reading Facebook posts, though this latter is a rare and possibly redundant talent.



WHAT IS TO BE EXPLAINED

What causes the profit rate to fall? What causes the profit rate to be restored? Why doesn't the profit rate get restored by the business cycle? These questions are not answered by the purely empirical studies considered in the last section. We have come full circle, but are hopefully better informed, in that if we are clearer what needs to be explained, we are more likely to make a better judgement of the explanation.

In this final section, setting aside all theoretical absolutism, I address the problem of the actual mechanisms through which the profit rate affects investment behaviour, leading to what I believe is a fully coherent account of the present, and past, great recessions. In Freeman (2015c) I explore this issues at greater length.

I first of all argue, calling on a lost chapter of theoretical enquiry, that Keynes himself advanced a theory of investment that is much closer to Marx's than is acknowledge either by most Marxists, or by most Keynesians.

To see this we have to grasp neglected aspects of the work of both writers. First we have to see volume III of capital as it was intended, as a work of political economy and not pure economics. In particular, it was meant to explain the determinates of the way all the propertied classes behave under capitalism, including not just the industrial or productive capitalists but the landlords, merchants and financiers, by asking how they get their revenue, starting from the formation of an average rate of profit, accompanied by its tendency to equalise through competition, as the governing factor of the way that any capital – be it an industrial, landed, merchant or purely money capital – may expect to extract a share of the total profit of society.

The second neglected part of the theory of the past is Keynes's concept of the Marginal Efficiency of Capital. The essence of the matter is that the propensity to invest is governed not by the average rate of profit, but by the possibilities for capitalists to secure a rate of profit above the average, or as Mandel and Marx both put it, a 'surplus profit'.

The ordinary theory of distribution, where it is assumed that capital is getting *now* its marginal productivity (in some sense or other), is only valid in a stationary state. The aggregate current return to capital has no direct relationship to its marginal efficiency...

the extent of investment in any direction will depend on a *comparison between the rate of return over cost and the rate of interest*. (Keynes 1971[1936]:139-140. The second emphasis is mine)

The reason that this affects the investment of capital, as explained by Keynes but also implicit in Marx's reasoning, is that investment in production is not the only possible use of capital. Many other capitalist classes compete, as a consequence of the process by which the rate of profit tends to equalise, for a share of profits. These include merchants who do play some role in the actual production of goods and their circulation, but who do not participate in the creation of new value; landowners who will cream off the average profit rate in the form of *absolute rent* but will withdraw from production when the marginal return on their product declines (as takes place during a fall in commodity prices, which announced the onset of the 2016 crisis); and most of all, it includes financial or banking capital which plays no role in production at all.

As the average rate falls, so does the volume of investment that is used in production.

Alternative uses of capital take over. It is commonplace to denounce the purely speculative use of capital, for example the excessive greed of the landowners and the financiers. However, their role in the crisis, morally reprehensible though it is, is insufficient to explain it. The underlying cause which is decisive in the crisis analysis proposed by both Keynes and Marx, is that a certain proportion of capital simply remains *idle* – it takes the form of 'hoards' or pools of relatively liquid, monetary or semi-monetary assets, waiting for 'things to turn up' – for prices to begin rising again and for demand to pick up, or just for opportunities to speculate. The fact that very large sums of capital find a resting home in financial assets is no more than the modern expression of this general law.

SOCIAL STRUCTURES OF DISACCUMULATION

The road just travelled has a destination; it is an explanation of the present crisis, leading to the prospect of identifying what to do about it. There are many junctions on this road, not to mention roadside halts, and the reader may choose to take any of these exits – I have not concealed them,

However, it would be a dereliction of responsibility not to present a conclusion, especially when it is, despite the extraordinary efforts that are generally made to avoid it, both the only reasonable conclusion that conforms to the facts and is supported by a rigorous and consistent theory.

The conclusion is this: by combining the insights presented above, we obtain a quite clear way to understand the underlying causes of the present long recession, and the reactions of the various classes in terms of the policies they favour and the actions they take, in reaction to it. We then arrive at what is best described as a theory of the Social Structures of Disaccumulation.

In crisis, the proportion of capital entering production to invest in new productive capacity steadily reduces as the declining average rate of return – driven by the insatiable demands of *all* sections of capital, not just the industrialists – for a ‘fair share’ of the output that arises alone from production – diminishes the marginal prospects of finding something to invest in that will actually yield a profit above this simple average. At the same time a correspondingly higher range of opportunities are created by speculative capital as it rampages through society seeking to monetise, and convert into debt, every conceivable human activity from housing, to farming, to simply continuing to exist. This insatiable debt creation does not cut short the decline in productive investment opportunities however but feeds them, as it raises the rate of return on the unproductive investments. This ‘perfect storm’ creates the exact circumstances which explain a wide range of the phenomena we are now living through – and point to the means that are required to extract ourselves from it without suffering the consequences of another ‘self-restoration’ like 1893-1914, or 1933-45.

APPENDIX: SOME FORMULAE

Suppose a private owner invests a sum k which yields a profit s over a given period of time. The return on capital, or rate of profit r over this period is

$$r = \frac{s}{k} \quad (1)$$

Average rate of return on two or more capitals. With two investments k_1, k_2 yielding profits s_1, s_2 , this is

$$r = \frac{s_1 + s_2}{k_1 + k_2} \quad (2)$$

In general average profit rate for any set of capitals

$$r = \frac{S}{K} \quad (5)$$

where capital letters signify aggregates (so s is the sum of all the returns and K is the sum of all the capitals. If K is now total privately invested capital and S the total return on it, (5) gives the rate of profit in the whole economy.

Part of the surplus – say, A – is invested: this is what accumulation consists of. The measure of A depends on the theory concerned, if a writer argues that K falls through devaluation by D , whilst some portion B of S is not invested, then that theory defines A to be

$$A = S - D - B \quad (6)$$

Just like (1)-(5), every theory conforms to this identity. If, therefore, over any period of time T the total accumulated surplus is AT , then K will grow to $K+AT$ and the new rate of profit will be

$$r_T = \frac{S}{K+AT} \quad (7)$$

All differences about the rate of profit reduce to differences about S and A ; r_T can be greater than r only if the increase in S offsets the fact that K grows by A as long as accumulation continues, or if A becomes negative – disaccumulation.

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