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Essays on Capital

By

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CHAPTER 1

Introduction

As I write these words, the world economy seems mired in a period of serious difficulty such has not been seen for some time, although the extent and future duration of the disaster is not yet clear. What began in 2007 with the popping of a real estate bubble in the United States, and in particular with the collapse of 'sub-prime' mortgage lending, was quickly transmitted throughout the global financial system, affecting the largest banks as well as hedge funds and equity investment groups. Economists have been at a loss to explain these developments, other than as an over-correction to an earlier period of reckless lending. (In the words of a *New York Times* correspondent, taking up an expression of former Federal Reserve chief Alan Greenspan, 'If the housing boom was a manifestation of irrational exuberance, some say it has swung too far in the other direction to irrational despondency'.)[1] The financial crisis, in turn, led to a slowing of growth rates internationally, to widespread bankruptcies, the collapses of other bubbles (in Ireland, Iceland, Spain, and Greece, notably), and so to sustained high unemployment. Despite the recovery of the US economy in June 2009 announced by the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER), sovereign and private debt crises in Europe have led to a Europe-wide recession, and attempts by governments to prime the economic pump, notably in China and the US, have not had long-lasting results.

Under these circumstances, it is not surprising that there has been a revival of interest in Marx's theory of capitalist society, a theory which sees recurrent periods of depression as normal and expectable features of this form of social life. The stagnant state of economic affairs, and the obvious bankruptcy of mainstream economics, have brought new life to the marginal academic area called 'marxist economics', and even outside it made the geographer David Harvey, whose wish to understand the spatial distribution of economic power led him to an engagement with *Capital* along with the analysis of current affairs, a minor international intellectual star. At the same time, this revival of attention has brought into view the fact that marxist economics shares with the rest of its parent discipline the absence of established, generally accepted theoretical principles and methods of data collection and analysis.

1 Vikas Bajaj, 'Downturn Tests the Fed's Ability to Avert a Crisis', *New York Times*, 9 March 2008.

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Marxist economists quarrel, to take two important examples, about whether Marx's analysis of the market price system in terms of the labour performed in production is consistent or needs radical correction, and about how to understand the rate of profit, whose changes Marx held to determine the growth and decline of capitalism. A recent volume on the former question (the 'transformation problem') denounces all writers on the subject, except for those few who share the author's viewpoint, as fundamentally un-marxist in their thinking;[2] on the other hand, a widely circulated paper by Deepankar Basu and Ramaa Vasudevan argues that a variety of contending theoretical approaches to the study of profitability differ analytically despite agreement on empirical data. This is because 'the precise causal mechanisms underlying the present crisis remain subject to intense debate among Marxist scholars', reflecting the fact that 'Marxist scholarship has not developed a single, overarching "general theory" of capitalist crisis'.[3] As a result, even if we limit attention to the explanatory role of profitability, clearly central to Marx's account of capitalist dynamics, there is disagreement among contemporary marxists about the origin of the current crisis. For example, both Simon Mohun and Gérard Dumenil together with Dominique Lévy present statistical evidence for *rising* profitability in the recent period, explaining the 2008 downturn as a 'crisis of neoliberalism', due to a distribution of profit away from investment towards speculation, resulting from the social hegemony of financial capital.[4] To take only two examples of competing explanations, both Robert Brenner[5] and Andrew Kliman[6] locate the cause of the crisis in *declining* profitability; but while the former explains

2 Kliman, *Reclaiming Marx's 'Capital'. A Refutation of the Myth of Inconsistency* (2007). As one of the few writers on this topic undiscussed in Kliman's exhaustive treatment, I have unfortunately not been able to benefit from his critical eye.

3 Basu and Vasudevan, 'Technology, Distribution and the Rate of Profit in the US Economy' (2015), p. 2. I cite a publicly unavailable revised version; an earlier version of the paper can be found in *Cambridge Journal of Economics*, 37, 1 (2013), pp. 57–89.

4 Mohun, 'The Crisis of 2008 in Historical Perspective', Queen Mary Working Paper, 2010; Dumenil and Lévy, *Capital Resurgent* (2010); for a related view, since abandoned by the author but shared still by many, Fred Moseley wrote in 2008 that 'Three decades of stagnant real wages and increasing exploitation have substantially restored the rate of profit [in the US], at the expense of workers. This important fact should be acknowledged … The main problem in the current crisis is the financial sector … The best theorist of the capitalist financial system is Hyman Minsky, not Karl Marx. The current crisis is more of a Minsky crisis than a Marx crisis' ('Some Notes on the Crunch and the Crisis', [2008]).

5 Brenner, *The Economics of Global Turbulence* (2006).

6 Kliman, *The Failure of Capitalist Production: Underlying Causes of the Great Recession* (2012).

this as due to 'overcapacity' and the growth of competition, the latter ascribes it to the tendency of the rate of profit to fall that Marx deduced from the labour theory of value.

In this disarray economic marxism participates in the general theoretical chaos of economics as a field, within which incompatible theoretical approaches cohabit,[7] in which predictive and explanatory failures are acknowledged with little effect on the continuing fortunes of the various schools of thought, and in which fundamental problems with both empirical data and basic theoretical concepts are paid scant attention, like unpleasant members of a family with whom one may have to live but who needn't be addressed.[8]

In addition, however, marxism has its own history of contending schools, of multiple revisionisms and orthodoxies. A salient feature of this history is the disregard of Marx's economic writings, for the most part, within the marxist movements. As Henryk Grossmann observed long ago,

> a particular difficulty already arose from the fact that *Capital* first appeared only as a torso, as only one of several volumes. It required almost three decades before the concluding volumes (edited by Engels from Marx's literary remains) of the system appeared (Volume II in 1885, Volume III in 1895). And it took another fifteen years before Karl Kautsky brought out the last volume of the *Theories of Surplus Value* (1910).[9]

The bulk of Marx's economic manuscripts remained unpublished until the twentieth century. But even his published writing – including classic short texts such as the *Communist Manifesto* – existed only in small editions. Though it

7 A most amusing example was the awarding of the Nobel Prize in Economic Science for 2013 to both Robert J. Shiller, who 'in 2005 described the rapid rise of housing prices as a bubble and warned that prices could fall by 40 percent', and Eugene F. Fama, theorist of markets as rational, efficient setters of asset prices, who remarked, 'I don't even know what a bubble means' ('Economists Clash on Theory, But Will Still Share the Nobel', *New York Times*, 15 October 2013).

8 Curiously, outstanding – but largely ignored – assaults on both ends of the discipline can be found in the writings of one major economist, Oskar Morgenstern: 'Thirteen Critical Points in Contemporary Economic Theory: An Interpretation', *Journal of Economic Literature*, 10:4 (1972), pp. 1163–89, and *On the Accuracy of Economic Observations*, 2nd ed. (1963). The continuing validity of Morgenstern's critique of economic statistics is argued in Philipp Bagus, 'Morgenstern's Forgotten Contribution: A Stab to the Heart of Modern Economics' (2011).

9 Grossmann, 'Die Fortentwicklung des Marxismus bis zur Gegenwart', in Grossmann and Grünberg, *Anarchismus, Bolschewismus, Sozialismus* (1971), p. 281. In fact, Volume III appeared in 1894.

might have been called 'the Bible of the working class', Marx's *Capital* was read by few, even – or especially – within the bureaucracy that ran the trade unions and parties of classical marxism. As a result, Paul Thomas observes, 'the entire revisionism debate [at the turn of the twentieth century], which was about orthodoxy and threatened to tear apart German Social Democracy and with it the Second International itself, was carried on in an astounding ignorance of what Marx had written'.[10] Instead, the touchstones of the body of doctrine that developed as 'Marxism' were for the most part written by Marx's great friend Friedrich Engels while, as Thomas trenchantly states, 'Engels's doctrines owed little or nothing to Marx, the man he called his mentor …' In particular, 'historical materialism was something left to us not by Marx but by Engels', whose *Dialectics of Nature* similarly provided the source of the philosophical doctrine of 'dialectical materialism'.[11] This situation was only exacerbated by the creation of 'Marxism-Leninism', with historical and dialectical materialism at its core, as the official ideology of the Communist movement after the Russian Revolution of 1917. Thus the identification of a body of Marxian theory is complicated by the fact that neglect and even rejection of Marx's actual work went together with claims to his mantle.[12]

By the late nineteenth century, the dominant strain of thought within the largest of the marxist parties, the German Social Democrats (SPD), was the revisionism of Eduard Bernstein, who proclaimed that the contemporary development of capitalism, bringing steady growth and the improvement of working-class living and working conditions, had rendered Marx's theory of capitalist crisis and mass impoverishment, based on study of an earlier era of the system, obsolete. A similar position was developed later, in more technical terms, by Rudolph Hilferding, who argued that the development of 'finance capital' – formed by tight links between the banking system and industry that made possible a high degree of conscious control of the economy in the form of industry-wide cartels and even national economic planning – had rendered the

10 Thomas, 'Critical reception: Marx then and now', in Carver (ed.), *The Cambridge Companion to Marx* (1991), p. 34.

11 Ibid., p. 41. See also Rubel, 'La légende de Marx, ou Engels fondateur', in *Marx critique du marxisme* (1974), pp. 17–24. Hal Draper usefully challenges the exaggeration involved in this sharp distinction between Marx and Engels: see *Karl Marx's Theory of Revolution. Part 1: State and Bureaucracy* (1977), pp. 23–6.

12 Here, and henceforth, I use 'Marxian' to denote ideas due to Marx himself, as opposed to 'marxist' for those constituting the various marxisms – which of course also often make use of Marx's ideas.

crisis tendency discerned by Marx in the mid-nineteenth century inoperative.[13] On a more abstract theoretical plane, the Russian economist Michael Tugan-Baranowsky drew on the reproduction schemas devised by Marx in Volume II of *Capital* to illustrate the workings of the total economy on the basis of market relations, to assert – in opposition to Marx's views – the possibility of economic growth without serious disturbances. It was in response to such thinkers, whose ideas implied the possibility of a peaceful evolution of capitalist society into socialism, that Rosa Luxemburg found it necessary to disagree theoretically as well as empirically with Marx, asserting that the smooth process of social reproduction pictured in Marx's schemas both contradicted Marx's own thinking in Volume III of his work and could not in fact be realised. In 1929, Henryk Grossmann took a position in opposition to all these currents of Marxist thought in insisting on the primacy of crisis theory, based on the tendency of the rate of profit to fall, to Marx's theoretical vision.[14]

Such discussions came more or less to a halt with the general destruction of the European left in which they had their home, in the course of the 1930s and the Second World War. After the war, Marxism survived in the so-called East primarily as the ideology of the Communist party-dictatorships; the few Russians who had seriously tried to engage with the theoretical problems raised by Marx's work had long since died, in most cases at the hands of the Bolshevik state. In the 'West', the economic upswing that followed the war, apparently rendering Marx's dire predictions for capitalism risible, was joined by the disappearance of the institutional infrastructure that had supported marxist intellectual theorising. As the mass left-wing parties either formally de-marxified themselves, like the SPD, or adapted to changing times by becoming ordinary social-democratic parties, like the French and Italian Communist parties, serious interest in the Marxian critique of political economy disappeared. Instead, attempts to reassert attitudes to some degree in opposition to the dominant society looked to the 'young Marx', and the championship of 'humanist' values at odds with economic imperatives.

Only the intellectual upheaval that accompanied the slowing of the post-war economic miracle in the late 1960s, together with the growing crisis of the Soviet system, led, particularly in Germany, to a revival of interest in Marxian theory, manifested both in the republication of classic texts and in the production of new writing. This neo-marxist flowering soon gave way to the reasser-

13 See my review essay, 'Rudolph Hilferding, *Finance Capital*' (1982–3).

14 See Tugan-Baranowski, *Theoretische Grundlagen des Marxismus* (1905); Luxemburg, *The Accumulation of Capital* (1951 [1913]); Grossmann, *Das Akkumulations- und Zusammenbruchstheorie des kapitalistischen Systems* (*zugleich eine Krisentheorie*) (1929).

tion of academic orthodoxy as the radical hopes engendered by and manifested in the events of 1968 bowed to capitalism's resistance to their challenges. Yet a path into professional economics opened for leftists as the stagflation of the 1970s demonstrated the practical and theoretical failure of the neo-Keynesian economics that had become the accepted orthodoxy in public policy and therefore in academia as well. The ensuing free-for-all of discredited theories made way for attempts to construct new theoretical models utilising elements of Marxian theory – to 'marxist economics'.

As this brief history is meant to suggest, the period since Marx wrote has not seen the emergence of the sort of research programme (to use the terminology of philosopher of science Imre Lakatos) ascribable to established sciences.[15] This situation is, for social-historical reasons, exactly what one would expect: A science which was intended to theorise opposition to every facet of the existing society, including and especially the field of economic theory, could hardly achieve the necessary institutional implantation either in the organisations of the turn-of-the-century left, devoted to the use of the vote to advance political positions within the existing system, or in academia, especially after World War II, when the very idea of fundamental social change, earlier vigorously opposed, became nearly unthinkable, particularly by professional intellectuals.[16]

To give the simplest example of what the absence of a research programme means, there are no student textbooks or handbooks of Marxian theory that do not explicitly offer an 'interpretation' of *Capital* that is expected – and fated – to

15 I owe the thought about Marxian theory in these terms to Tony Smith, 'Marx's Theory of Social Forms and Lakatos's Methodology of Scientific Research Programs' (1997).

16 On the other hand, this state of affairs is not peculiar to the critique of political economy; in linguistics, for instance, anyone wishing to build on the theoretical work of Z.S. Harris – in my opinion, a major achievement of twentieth-century science – will have to return to Harris's own writings, long out of print, despite the fact that, as noted in the excellent Wikipedia entry on Harris, their influence 'is pervasive in linguistics, often invisibly'. The handful of people interested in Harris's work have not been numerous or institutionally contiguous enough to coalesce into a 'school', with access to grant money and control of academic positions, and for the most part that work is ignored in linguistics teaching. As a result Harris's books and research reports, written over forty-odd years, remain the most detailed and thoroughly developed examples of this line of analysis, despite progress made in particular areas by others. As with Marx, this situation is maintained in part by a high degree of miscomprehension, and even on occasion falsehood, involved in the criticism of Harris's work by more mainstream linguists, though this case is no doubt due to the workings of academic politics rather than to the general ideological predispositions of academics.

meet with disagreement from other commentators; and this holds for the most basic elements of the theory and not just the frontiers of investigation, where disagreement is normal in an established science. As a result, such handbooks – Michael Heinrich's *An Introduction to the Three Volumes of Karl Marx's* Capital is a recent, worthwhile example[17] – must themselves be evaluated for accuracy by comparison with Marx's own writing. (No one, by contrast, would evaluate the latest textbook on quantum mechanics by comparing it with classic papers by Schrödinger, Heisenberg, or Dirac.) As a result, at present every attempt to progress beyond Marx's work is still doomed to begin by returning to that work; this is a science that can be advanced only as it is being established.[18]

The problem is further complicated by the fact that Marx presents his own ideas in the context of a critique of eighteenth- and nineteenth-century economic theories, with which today's readers cannot be assumed to be familiar. Thus one is faced with the reconstruction of a lost thought-world simply as a prolegomenon to the presentation of Marx's ideas. One can, however, avoid too deep an immersion in the history of economic ideas and institutions by limiting explicit attention to those concepts and writers essential to the way in which Marx worked out his critical approach.[19]

While it necessarily pays attention to Marx's relation to earlier thinkers, the main interest of this book is the attempt to bridge the gap between Marx's ideas and their application to present-day circumstances. For the reasons just given, I take the exposition of Marx's own ideas as fundamental; hence my presentation is determined by Marx's writings, rather than by those of his many commentators. Nonetheless, since the field of study centred on Marx's work is characterised by competing interpretations, the very attempt to disengage Marx's own ideas from the constructions put on them by others requires a certain amount of attention to those interpretations, as either clarifying or obscuring those ideas.[20]

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17 Heinrich, *An Introduction to the Three Volumes of Karl Marx's* Capital (2012).

18 It should be acknowledged, however, that even a science like Newtonian physics, intimately adapted to the nascent bourgeois society within which it developed, only received radical theoretical development a good 100 years after the publication of the *Principia*. And even if science students no longer read Newton by the end of the nineteenth century – though they begin their study to this day with Newton's three laws – relativity theory still appeared as a revolutionising of *Newtonian* mechanics, represented by a set of mathematical expressions reformulating those in the *Principia*.

19 This is similar to the way in which, for instance, accounts of Einstein's Special Theory of Relativity typically begin with an explanation of the Michelson-Morley experiment, without presenting a detailed account of the theory of the luminiferous ether.

20 The most significant example of this will be found in Chapter 7, devoted to untangling

Given the absence of a generally agreed-on research programme, I am myself, of course, proposing an 'interpretation' of Marx's thought.[21] But because I find Marx's basic ideas, while difficult, not obscure, I prefer not to take 'interpretation' in the sense of hermeneutics, elucidating hidden meanings as of a biblical text. I prefer to use the word as in the 'Copenhagen interpretation' of quantum mechanics (without meaning to take a position on that stance in physics). Somewhat as the Bohr circle rested their interpretation on certain philosophical ideas, I find that conceptual clarity for contemporary readers is aided by the restating of Marxian ideas in a twentieth-century – perhaps even on occasion a twenty-first-century – vocabulary. This has the additional benefit of detaching the ideas from Marx as a particular person, objectifying them and making them potentially more part of a shared mode of inquiry. Thus I have made an effort not to rely on the traditional marxist jargon of 'dialectics', 'totality', and the contrast between 'inner' and 'surface' features of social reality; instead I have tried to *explain* such concepts, when they appear in Marx's writing, in terms as clear and well-defined as I can come up with. In particular, I find it useful to use terminology developed within the philosophy of science over the last fifty years. This vocabulary is particularly apt as it was framed in an effort to understand the relation between observable reality and theoretical representation central to the modern physics of mass-energy fields and quantum particles and the biology of populations and genomic sequences. In the width of the gap between observable reality and theoretical abstraction, the natural sciences share important features with the Marxian critique of capitalist economics.

When Marx wrote *Capital*, capitalism was hardly the world's primary system for the production and distribution of goods (even in England there were still more domestic servants than industrial workers), though it could be argued that at least in Europe and North America it was already socially dominant, in the sense that its institutions were central enough to social life to determine their continuing growth in importance as society continued to evolve. By abstracting from the complex range of features characterising the actual societies of his time to focus on what he took to be basic to capitalism as such, Marx was able to explain both the evolution towards a more completely capitalist society and specific, apparently essential, features of that evolution, such

rival solutions to the supposed problem of the 'transformation of values into prices' from Marx's ideas.

21 Naturally, the interpretation proposed here is not 'mine'; it is only a further elaboration of the understanding of Marx's theoretical procedure developed by Henryk Grossmann and Paul Mattick (my father), among others.

as the growth of mechanisation, the development of credit instruments, the tendency towards the centralisation and concentration of capital, the recurrent business cycle, and class struggle.

It is the gap, produced by this procedure of abstraction, between theory and observable reality that makes Marx's theory still explanatorily relevant to a social system that continues to have the basic features Marx identified. Just as it applied successfully to the nascent capitalism of his own day, Marx's theory applies to the modern mixed economy, in which private enterprise coexists with a high degree of government-sponsored economic activity, because of the continuing centrality to the social system of the relation between wage-labour and capital. At the same time, the theory-empirical reality gap requires care especially in distinguishing between particular features of modern capitalism and the terms of theoretical analysis required to understand them. For example, in his theory of money Marx identified the function of 'world money', in terms of which value transfers between nations with different currencies can be made, with gold as its material instantiation. With the definitive breakdown of the gold standard in the course of the twentieth century, world money has acquired a new form, related to credit money and national state-issued fiat money, usefully termed by theorists 'quasi-world money'.[22] Utilization of Marxian theory to analyse capitalism as a world system requires bridging the gap between his abstract concept of world money and the actual forms of value used for this purpose.

To take another – and perhaps even more important – example, the concept of crisis requires important reformulation if we are to apply it to the contemporary mixed economy, though (as in the case of world money) this reformulation changes nothing in the basic conceptual apparatus of the theory.[23] Yet another development unanticipated by Marx was the appearance of state-run systems utilising the form of wage-labour to manage the industrialisation of capitalistically underdeveloped countries. A comprehensive understanding of the nature of these systems, and the nature of the capitalist or quasi-capitalist societies into which they were transformed at the end of the twentieth century, would be another important extension of the Marxian critique of political economy.

The disappearance of marxist movements since the Second World War – a process hastened by the collapse or self-transformation of the party-states of the Soviet Union and China at the end of the 1980s – has made the investiga-

22 See Labrinidis, 'International Reserves in the Era of Quasi-World Money' (2014).

23 This will be discussed in Chapter 11 below.

tion of Marx's thinking easier today than in the past, when it was encumbered with the ideological apparatus of marxism in all its forms. Furthermore, more of Marx's writings are available, in good editions, than ever before. Yet it still remains difficult to make headway against the dominant styles of political and economic thought. The attempt to utilise the resources of contemporary science and philosophy for my purposes also brings unavoidable intellectual dangers. Despite my best efforts, I will not be surprised to find that I have on occasion failed to achieve independence of the ideological field within which I, as a professional brain-worker, do my work.

While some of the chapters that follow are completely new, others are reworkings of essays written for varied occasions over many years. I have not attempted to rewrite all this material into a continuous text. This is in part, I must confess, because in many cases I still like their original characters. The form of the essay collection, in addition, more accurately reflects my conception of this work than would a single long text: I make no claim to completeness either in the exposition of Marx's ideas or in the solution or even exploration of the theoretical problems to which they open a path. Many important topics are not covered and others are only hinted at. Despite its piecemeal nature, however, the book is intended to present the core ideas of the Marxian critique and to suggest some modes of applying them to the understanding of present-day experience. I will be happy if others find it a contribution to their own efforts in the construction of a critical science of society that would no longer have to be identified so intimately with the name of Marx.

CHAPTER 2

Marx's Abstraction

A glance at the newspaper reveals the extreme complexity of economic phenomena. This is from the *New York Times* business section of 29 May 1998, describing consequences of the 'Asian Crisis' of 1997–8:

> Just when it began to look as if Latin America had dodged the bullet of Asia's financial and economic woes, stock markets from Mexico to Chile began to tumble. The decline, which began in earnest three weeks ago, accelerated earlier this week, ushering in a period of increased volatility, stock market analysts said.
>
> Stock trackers are taking note of everything from low commodity prices causing trade imbalances in Venezuela and Chile, to political uncertainty in Argentina, to fears over currency stability in Brazil, to an embarrassing money-laundering bank scandal in Mexico, stormy weather in Peru and disappointing company earnings throughout the region.
>
> But economic instability in Russia and East Asia, and particularly the recent weakness in the Japanese yen, appears to be playing a bigger role in shifting investor sentiment than any local economic or political factors.[1]

The changing prices of stocks and other financial instruments, institutional turmoil, low profitability, and even bad weather are all described as elements in a developing situation that thereby evades a unified explanation.

Despite their access to a technical literature employing academically-elaborated concepts, along with enormous masses of data, professional economists essentially have had not much more to offer in explaining such phenomena than business journalists, who employ a set of concepts shared with actual businesspeople. One respected professional view of the Asian crisis, for example, explained it as due to sudden shifts in 'market expectations' amounting to 'investor panic', magnified by incorrect responses on the part of financial institutions and the International Monetary Fund.[2] A competing view of the

1 Clifford Krauss, 'Late But Emphatic, Asia's Woes Reach Latin America', *New York Times*, 29 May 1998.

2 See Radelet and Sachs, 'The Onset of the East Asian Financial Crisis' (1998). This view also echoed business-professional opinion: '"Perceptions have a sneaky way of affecting the fun-

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crisis by three notable experts in finance more plausibly emphasised 'structural and policy distortions in the countries of the region', magnified by the 'moral hazard' problem caused by implicit or explicit government guarantees of risky investments.[3] In an analysis that makes the Asian crisis seem like a rehearsal for the worldwide Great Recession of 2008, these economists observe that 'many loans made by banks and non-banks were of low *quality*, financing investment of dubious profitability', particularly in over-valued real estate, 'or speculative purchases of existing financial assets'.[4]

This analysis succeeds in focusing on a set of factors clearly implicated in the ensuing disaster. It lacks two elements that would be required to earn the title of 'science' for economic research: First, there is no discussion of the possibility of a connection between this crisis and the financial and currency crises that preceded it in various parts of the world; each crisis is given its own narrowly focused explanation, without raising the question of the relations between seemingly recurrent phenomena. As a result the analysis is closer to a market newsletter than to a theoretical explanation. This is partly because, despite the omnipresence in economic discourse of the concept of 'globalisation', here as generally in economics analysis begins from national or regional areas rather than from the world economy as a whole, and also because it participates in the tendency, dominating the field in the last half century, to explain crises as individual events rather than as episodes in a long-term pattern.[5] Hence the analytic reliance on the concept of 'contagion', which seems to have come into use as a way of explaining the spread of financial panic from region to region in the Asian Crisis: earlier systemic difficulties, such as the banking troubles, debt crises, and recessions of Latin American countries in the 1980s, were analysed

damentals", warned Jorge O. Mariscal, the chief investment strategist for Latin America at Goldman, Sachs' (Krauss, 'Late But Emphatic').

3 Corsetti, Pesentu, and Roubini, 'What Caused the Asian Currency and Financial Crisis?', *Japan and the World Economy* 11:3 (1999), p. 305. For another example of this view, see Krugman, 'Fire Sale FDI' (2014), which, making essentially the same argument as Corsetti et al., without the convincing data, shows how little is added in terms of explanatory theory by the simplifying modelling on which Krugman's approach is based. The problem, I hasten to say (in anticipation of the discussion to follow in this chapter) lies not in the simplification per se but in the concepts Krugman takes as basic.

4 Corsetti et al., 'What Caused the Asian Currency and Financial Crisis?', *Japan and the World Economy* 11:3 (1999), p. 331.

5 This is true in the study under discussion even though Nuriel Roubini, one of its three authors, is on record as believing that 'far from being the exception, crises are the norm, not only in emerging but in advanced industrial countries … Indeed, in many ways, crises are hardwired into the capitalist genome' (Roubini and Mihm, *Crisis Economics* [2011], p. 4).

as due to economic and political conditions in individual areas, rather than as aspects of a general condition.[6] The weakness of a concept like 'contagion' shows itself in the failure to consider the possibility of linking earlier crises in developing countries to the more recent set.

Second, while precipitating factors of the crisis – deregulation, over-leverage, moral hazard, etc. – are examined in sufficient detail, the question of underlying causes or conditions is not raised. This is not because it fails to suggest itself. A recurrent motif of the analysis is the fact that 'the evidence for the Asian countries in the mid-1900s highlights that the profitability of new investment projects was low'.[7] No doubt this seems not to call for comment because business common sense tells us that investments are made in search of profit; if the profit is not forthcoming investments will fail and new ones decline. But how low profitability must be to inhibit investment, why profitability fell at this particular time, and how the Asian profit shortfall relates to profitability globally are not discussed, except for the suggestion that the 'worldwide growth slowdown' that followed on the Asian events in 1998 may have been a consequence of those events.[8] As a result, while the mechanics of the events are admirably explained, their place in a more general history of capitalism is unaddressed.

Such sophisticated but theoretically unsatisfying modes of explanation seem to exemplify Karl Marx's charge that 'confusion on the part of the theorists shows … how the practical capitalist, imprisoned in the competitive struggle and in no way penetrating the phenomena it exhibits, cannot but be completely incapable of recognizing, behind the semblance, the inner essence and form of this process'.[9] This was, according to Marx, also the fate of the

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6 See 'Financial Contagion', *Wikipedia* (accessed 11/26/2014).

7 Coresetti et al., 'What Caused the Asian Currency and Financial Crisis?', *Japan and the World Economy* 11:3 (1999), p. 307. In particular, they note 'the long period of stagnation in the Japanese economy', the region's largest at this time (p. 308). For further emphasis on declining profitability, see pp. 317–19. This is of course also at the root of the phenomenon of 'non-performing loans.'

8 Ibid., p. 366. The absence of a discussion of trends in the rate of profit globally is also, doubtless, due to the nonexistence of a generally accepted theory of the determination of the rate of profit in mainstream economic theory. As Daniel Hausman observed in his sympathetic study of orthodox theory, *Capital, Profits, and Prices, An Essay in the Philosophy of Economics* (1981), 'Economists possess no good theory of capital or interest, or of their relation to equilibrium prices. Certainly, they possess elegant models and are able to prove many theorems. Unfortunately, these models and theorems do not enable them to explain real phenomena of capital and interest …' (p. 191).

9 Marx, *Capital*, Vol. III (1981 [1895]); henceforth *Capital* III, p. 269. In his 1861–3 draft of *Capital*

'vulgar economics' that took the place of 'classical political economy' when the working-class mobilisations of 1830, placing the ideological institutions of society under pressure, 'sounded the knell of scientific bourgeois economics'.[10] While classical economics was centrally the study of the economy as a social structure, focused (as above all in Ricardo's writing) on 'the antagonism of class interests, of wages and profits, of profits and rent',[11] vulgar economics 'does nothing more than translate the peculiar notions of the competition-enslaved capitalist into an ostensibly more theoretical and generalized language …'[12]

Marx did not, however, attempt to improve on this model of economic analysis by returning to political economy. Fundamental to the classical-economic mode of theorising was the ahistorical assumption that basic features of capitalist society (in particular, market exchange, capital, and labour as a commodity) were common to all forms of society; in Marx's view – to be explored in depth in later chapters of this book – this blocked not only a comprehensive analysis of the functioning of capitalism as an economic system but even full success in solving the theoretical problems that the classical economists set themselves. Instead, he insisted on the historically specific nature of the basic concepts of his analysis.[13]

The object of his examination, Marx declares, 'is the capitalist mode of production and the relations of production and forms of intercourse that correspond to it'. Thus his theoretical interest is not in any particular episode or even stage in the life of the social system but 'to reveal the economic law of motion

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Marx identified 'the specific difference which sets the science of political economy apart from all the other sciences' as 'the fact that the latter seek to uncover the essence which lies hidden behind commonplace appearances, and which mostly contradicts the form of commonplace appearances (as for example in the case of the movement of the sun about the earth), whereas the former proclaims the mere translation of commonplace appearances into equally commonplace notions to be the true business of science' ('Economic Manuscript of 1861–63', in Marx and Engels, *Collected Works* 1975–2005, Vol. 34; henceforth MECW 34, p. 86).

10 Karl Marx, *Capital*, Vol. I (1976 [1867]; henceforth *Capital* I, p. 97. The connotations of the word 'vulgar' today may obscure that Marx's concept is close to Jerome Ravetz's notion of a 'folk-science', 'a body of accepted knowledge whose function is not to provide the basis for further advance but to offer comfort and reassurance to some body of believers' (*Scientific Knowledge and Its Social Problems* [1971], p. 366). For an application of the concept to economics see p. 378 n. 14.

11 Ibid., p. 96.

12 Marx, *Capital* III, p. 338.

13 For the concept of 'historical specificity', see Korsch, *Karl Marx* (1963 [1938]), pp. 24ff.

of modern society …'[14] On the other hand, as Henryk Grossmann emphasised, it is the totality of the phenomena of the capitalist economy 'that Marx ultimately wants to identify and understand in their interconnection. By no means does he simply want to restrict himself to the exploration of the "essence" while ignoring the phenomena'.[15] Marx's post-1848 reengagement with political economy was led, for example, by his hypothesis of a causal link between the trade cycle and the ebb and flow of revolutionary movements, and the studies that were to culminate in the writing of *Capital* commenced in 1850 with a detailed study of the British currency crisis of 1847, alongside an immersion in economic theory. It was in fact Marx's claim that his approach provides a superior understanding of economic affairs than that of the economists, whose works are riddled by theoretical inconsistencies, major unsolved problems, and empirical inadequacy. His work rests on the claim, typical of would-be sciences, that an analysis of capitalism in terms of a small enough set of basic features to make possible an understanding of its continuity over several centuries (in his terms, 'the inner essence and form of the process') would shed light on specific historical phenomena.

Science

As his use of the phrase 'law of motion' suggests, Marx took the modern natural sciences as models for social theorising. 'The physicist', for instance, 'observes natural processes where they occur in their most significant form, and are least affected by disturbing influences, or, whenever possible, he makes experiments under conditions which ensure that the process will occur in its pure state'.[16] The experimental method operates on classes of objects and processes conceptually isolated from the flux of events; the experiment, with its controls and artificially limited environment, is an attempt to realise in practice, however approximately, the intellectual abstraction involved in the construction of scientific concepts. Even in the experimental sciences, as Immanuel Kant already grasped in late eighteenth-century reflections on the 'revolution in the way of thinking' that he identified in the work of such scientists as Galileo, Torricelli, and Stahl, 'Reason, in order to be taught by nature, must approach nature with its principles in one hand, according to which alone the agreement among

14 Marx, *Capital* I, pp. 90, 92.

15 Grossmann, 'The Value-Price Transformation in Marx and the Crisis Problem' (2016 [1932]), p. 105.

16 Marx, *Capital* I, p. 90.

appearances can count as laws, and in the other hand, the experiments thought out in accordance with those principles – yet in order to be instructed by nature not like a pupil, who has recited to him whatever the teacher wants to say, but like an appointed judge who compels witnesses to answer the questions he puts to them'.[17] Marx's insight – perhaps learned originally from Kant and certainly developed through his later study of Hegel – was that the construction of the conceptual abstraction is as central to scientific work as data-production, fundamental even especially in fields where experimentation can play at best a minor role.[18]

The closest analogy to experimentation in his study of capitalist society, Marx explains, is the choice of England 'as the main illustration of the theoretical developments I make',[19] because it was at the time the country in which capitalism was most fully developed (even if it could hardly be said to exist in a pure state) and in which its operation was therefore the least hindered by surviving elements of earlier social forms. The limitation of the analogy rests in the fact that in the absence of actual experimentation, the features taken to be central can *only* be isolated conceptually from the mass of phenomena constituting the English example; as Marx puts it, 'in the analysis of economic forms neither microscopes nor chemical reagents are of assistance' and '[t]he power of abstraction must replace both'.[20]

We can distinguish two aspects of Marx's attempt to locate what he calls the 'essential' features of capitalism, namely, those that explain its course of development. *First* is the conceptual isolation of features historically specific to this

17 Kant, *Critique of Pure Reason* (1998 [1787]), pp. 108–9. Kant's picture of experimentation reflects the over-valuation of theory's place in scientific work typical of philosophers; see Hacking, *Representing and Intervening: Introductory Topics in the Philosophy of Natural Science* (1983), Part B. For the development of the concept of 'scientific revolution', see Cohen, 'The Eighteenth-Century Concept', *Journal of the History of Ideas* 37–2 (1976): 257–88. I cite Kant in this connection not only as an important interpreter of the scientific revolution as the product of conceptual constructive activity but as an author much studied by Marx in his university days and later. Marx himself, as we will see in Chapter 3 below, used the concept of 'revolution' to describe his contribution to social science. For the correctness of Kant's assessment of the basis of the early modern revolution in science, see Ravetz, *Scientific Knowledge and its Social Problems* (1971), pp. 110 ff.

18 This is why Kant considered Euclid's axiomatisation of geometry the historically first example of the sort of scientific revolution achieved in the physical sciences only in the early-modern period (see *Critique* (1998 [1787]), pp. 107–8). Neither Kant nor Marx, however, meant to downplay the role of experiment in science.

19 K. Marx, *Capital* I, p. 90.

20 Ibid.

social system. This necessarily begins with the conceptual materials to hand: in the study of society, with generally accepted judgments about which features of a social system explain its operation, and in particular with the working-up of those judgments into the conceptual apparatus of existing would-be sciences, in this case that of classical political economy. Work with the ambition to accomplish a 'revolution' in an existing field of inquiry will of course involve a radical reworking of those concepts and judgments.

Marx invokes biological science in explaining his choice of theoretically central concepts: if 'the complete body' of an organism 'is easier to study than its cells', presumably because we begin with a stock of categories already in use for identifying bodily features and processes, identification of the cell as an entity central to organic functioning, and the study of the constitution of the cell and of cell-types, require the elaboration of new, specifically scientific concepts (as well, of course, as an experimental apparatus). We will return, in the next chapter, to Marx's biological model for the study of society, from which he takes not only the idea of cellular structure but also the notion of a self-reproducing system subject to evolutionary alteration. The central idea of the present discussion is that in the study of capitalist society, which might begin from an attempt to understand a nineteenth-century currency crisis (or, at a later date, the Asian crisis), 'the commodity-form of the product of labour, or the value form of the commodity, is the economic cell-form'.[21] As an organism is an organised system of cells, so the 'wealth of societies in which the capitalist mode of production prevails appears as an 'immense collection of commodities'; the individual commodity appears as its elementary form'.[22] Beginning with this cell-form permits investigation of what Marx elsewhere calls 'the physiology of the bourgeois system', since the basis of 'the internal organic coherence and life process' is 'the determination of *value by labour time*'.[23]

The fact that most goods are produced for sale as commodities, with values measured by their exchange against quantities of money, is a central peculiarity of capitalism, differentiating it from all earlier societies. As Marx recapitulates this idea at the end of Volume III of *Capital*,

21 Ibid. This idea testifies to the penetration of Marx's studies of contemporary natural science, as it was only during the period of his economic studies that something like the modern 'cell theory' of organisms emerged in a clear and convincing form in the work of nineteenth-century biologists. See Han, 'Die Metapher der Zelle. Zur Rekonstruktion Marxscher epistemischer Kontexte' (1997), especially pp. 113 ff.

22 Marx, *Capital* I, quoting his own *Contribution to the Critique of Political Economy*, p. 125.

23 K. Marx, 'Manuscripts of 1861–63', in MECW 31, p. 391.

> Two characteristic traits mark the capitalist mode of production right from the start.
>
> *Firstly*, It produces its products as commodities. The fact that it produces commodities does not in itself distinguish it from other modes of production; but that the dominant and determining character of its product is that it is a commodity certainly does so. This means, first of all, that the worker himself appears only as a seller of commodities … – i.e. labour generally appears as wage-labour …
>
> The *second* thing that particularly marks the capitalist mode of production is the production of surplus value as the direct object and decisive motive of production.[24]

The two traits are linked in that what Marx calls 'surplus value', the portion of the social commodity product available to the capitalist class for investment and other purposes, takes the form of the portion of a commodity's value in excess of its cost of production. The analysis of the commodity, as a good produced with a value expressed in terms of money, will therefore be central to an understanding of capitalism.

As an eminent contemporary biologist explains, updating Leydig's mid-nineteenth-century analysis of the cell, '[t]he smallest unit of integration, co-operation, and reproduction [of an organism] is the cell', while '[t]he functioning of each cell is controlled by the organism as a whole'.[25] The success of Marx's analogy is visible in his first attempt to draw up a general analysis of the economic system, the 'Reflection' written in March 1851 as a distillation of his ongoing study of monetary circulation and economic crisis.[26] 'With what do the free individuals [who constitute market-economic society] buy at the grocer's?' Marx asks.

> The equivalent or the value-sign of their incomes … And what does the shoemaker, the grocer, etc. exchange for the gilded wage, rent, profit, interest? His capital. He replaces, reproduces, and enlarges it in this act …
>
> Thus in this apparently so simple act *firstly* all the class relations step forth, presupposed, the classes of wage-labourers, of landed proprietors,

24 K. Marx, *Capital* III, pp. 1019–20.

25 Lwoff, *Biological Order* (1962), p. 5.

26 It is contained in Notebook VII, filed in the International Institute for Social History in Amsterdam under Sig. B 44/54; I quote below from the transcription in Schrader, 'Kritik des Geldsystems zu dem Manuskript "Reflection" von Karl Marx (1851)' (1978), pp. 276–90.

> of industrialists, of non-industrial capitalists. On the other hand this presupposes, above all, the existence of particular social relationships, which give wealth the character of capital and distinguish capital from revenue.[27]

The whole set of social relationships specific to capitalism can eventually be described in terms of elements of the cell-form, the commodity. But at the beginning of the theoretical construction, just as with a schematic analysis of the biological cell, the analysis of the economic cell-form abstracts from the complexity of the social interactions which will only be explained as they are explored, including such features as the differentiation of cell types and various modes of interaction between them. Because capital is money invested to make more money, the study of capital begins with the study of money, itself to be explained as a type of commodity, a good produced to be exchanged for a different good. As the theoretical construction proceeds, the differentiation and relations between economic cell-forms will illuminate the functioning of the system of which they are elements.

Marx's theoretical procedure follows the practice of the natural sciences in more than the choice of a central set of objects for study from a welter of phenomena. To examine this *second* aspect of his attempt to identify the 'essence' of capitalism it will be useful to borrow from the vocabulary of philosophy of science, which has made use of a terminology quite close to Marx's in its development of the concept of 'idealisation' alongside that of 'abstraction'.[28] Thus, noting his exclusion of 'the world market and its conjunctures, the movement of market prices, the cycles of industry and trade and the alternation of prosperity and crisis' from the discussion in *Capital*, Marx explains that 'the actual movement of competition lies outside our plan' for this part of his projected study of capital, 'and we are only out to present the internal organization of the capitalist mode of production, its ideal average, as it were'.[29]

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27 Ibid. p. 284.

28 Interestingly, one of the first major works on scientific idealisation was a study of Marxian theory: Leszek Nowak's *The Structure of Idealization. Towards a Systematic Interpretation of the Marxian Idea of Science* (1980). I will have more to say about this pioneering book below.

29 Marx, *Capital* III, p. 970. Henryk Grossmann was the first to grasp this aspect of Marx's methodology and to make it central to his work on Marxian theory, comparing Marx to Galileo in his use of idealisation to construct an abstract model which is then concretised in order to apply its explanatory structure to empirical phenomena; see Grossmann, *Das Akkumulations- und Zusammenbruchsgesetz* (1929), pp. 79 ff. and 'The Value-Price Transformation' (2016), especially sections 1 and 2.

Where abstraction is a matter of 'leaving things out, while still giving a literally true description', idealisation treats 'things as having features they clearly do not have', to produce a description of a system 'that *fictionalizes in the service of simplification*'.[30] Examples from classical physics include point masses, perfectly rigid bodies, and frictionless planes; contemporary neoclassical economics makes use of decision-making individuals with perfect information about economic variables.[31] In the natural sciences, idealisation is generally an attempt to introduce 'false but non-difference-making causal factors' into an analysis of the causal structure of a phenomenon in such a way as to make that causal structure clear, or to facilitate a mathematical description of it:

> In explaining Boyle's law, for example, theorists often introduce the assumption that gas molecules do not collide with each other. This assumption is false: collisions do occur in low-pressure gases. However, low-pressure gases behave as if there were no collisions. This means that collisions make no difference to the phenomenon and are not included in the … explanation. Theorists' explicit introduction of the no-collision assumption is a way of asserting that collisions are actually irrelevant and make no difference.[32]

Such an idealised representation of a system is often called a *model* of the system. Models are also used in explaining phenomena where aspects excluded from the model do make a difference, thus sacrificing quantitative accuracy for qualitative clarification; they can also represent quantitative aspects of the phenomena approximately, so as to facilitate calculation, or even make it possible at all.

Ronald Giere usefully defines 'theoretical hypothesis' – or, for important or well-established cases, 'theory' – in terms of this sort of conceptual construction, as 'a statement asserting that some designated real system (or class of systems) is *similar* to a given model in specified *respects* and to specified *degrees*'. A Newtonian model of the dynamic relationship between the earth and the moon idealises by abstracting from gravitational effects of other bodies in space besides these two, allowing a description of the positions and velocities of the two bodies in the model which is only approximately true. Then it is, as Giere puts it, a theoretical hypothesis that the 'positions and velocities of

30 Godfrey-Smith, 'Abstractions, Idealizations, and Evolutionary Biology' (2009), pp. 47, 48.

31 Daniel Hausman discusses idealisation in economics also under the name of 'simplification': see *Capital, Profits, and Prices* (1981), pp. 139 ff.

32 Weisberg, *Simulation and Similarity: Using Models to Understand the World* (2013), p. 101.

the earth and moon in the earth-moon system are very close to those of a two-particle Newtonian model (with specified initial conditions)'.[33] In the same way, Marx's theory of commodity exchange asserts that the actual movement of goods and money in the capitalist economy shares important features, and relations between them, with the model of this movement (the 'law of value') presented in *Capital*, despite such differences between the two as the commodity money used in the model and the credit and fiat money central to the real system, and the even more important difference between exchange at 'values' defined by the model and the actual exchange of goods at market prices.

Abstraction and idealisation, as in the example of Boyle's law, are thus commonly combined. This is typically the case with what Michael Weisberg calls 'minimalist idealisation',

> the practice of constructing and studying theoretical models that include only the core factors which give rise to a phenomenon … Put more explicitly, a minimalist model contains only those factors that *make a difference* to the occurrence and essential character of the phenomenon in question.[34]

What counts as 'essential' can vary with the scope of explanation aimed for. To return to Boyle's law,

> To derive the ideal gas law for some specific body of gas using the kinetic theory of gases, we construct a model of the gas according to which the molecules making it up are perfectly elastic spheres which exert no attractive forces upon one another … [S]uch a 'billiard ball' model of the gas makes no mention of the internal structure of the molecules. Yet that internal structure is surely relevant to predicting the way in which the pressure, volume, and temperature of the gas will covary, for it is the internal arrangement of the parts of the molecules and of the atoms which make them up that gives rise to the attractive intermolecular Van der Waals forces, and once those forces are taken into consideration, a different equation relating pressure, volume, and temperature results … [I]t seems accurate to say that the model omits mention of a feature of the modeled system – namely the structure of its molecular components – which is relevant to the behavior with which the model is concerned.[35]

33 Giere, 'Towards a Unified Theory of Science' (1984), pp. 12–13.

34 Weisberg, *Simulation and Similarity* (2013), p. 100.

35 Martin Jones, 'Idealization and Abstraction: A Framework' (2005), pp. 189–90.

When theoretical or practical purposes require attending to these aspects of gas behaviour, a less idealised model will be required.

Models can also be made more specific by adding more features; we could speak of them as being made less abstract, or more concrete, in this way, to whatever extent they are idealisations. For example, lasers 'may be made of rare earth ions floating in dissolved molecules, or from organic dye solutions, or from ruby rods, or numerous other materials'. But all lasers consist of at least three components, an active material, a pumping source of energy, and mirrors, which amplify the light produced in the material. Thus defined, lasers are 'highly simplified and idealized objects', involving 'the kind of artificial precision and geometrization … required by theories formulated in mathematical terms, for example, by the use of differential equations'.[36] A model of a ruby laser, in contrast, will incorporate, at the least, a model of this particular lasing medium (though even this model itself is likely to be quite idealised).

Idealisation

The goal of Marx's theory, the 'law of motion' of capitalism, is a causal explanation of long-term trends in the development of capitalist society. In Marx's model of capitalism, the economy is an organisation of social labour by way of the representation of quantities of labour-time by sums of money. Changing ratios of labour-time, embodied in commodities (including money itself) that play specific functional roles in the operation of the system, produce varying states of the economy. Marx aims to demonstrate that the normal operation of the system, over a long enough time period, will lead to increasing mechanisation of production, concentration and centralisation of capital ownership, polarisation of social class interests, and recurrent economic crisis, all of which he believed would open the way to the creation of communism.

In an early draft of *Capital* Marx explains that his analysis

> need only consider the forms which capital passes through in the various stages of its development. The real conditions within which the actual process of production takes place are therefore not analyzed. It is

36 Cartwright and Mendell, 'What Makes Physics' Objects Abstract?' (1984), pp. 143, 138; Cartwright and Mendell note that the laser is a highly 'theory-laden' concept, making sense as a description of the world 'only if a large number of theoretical laws that we believe to be true are true' (p. 138). For further discussion of idealisation in the conceptualisation of lasers, see Cartwright, *How the Laws of Physics Lie* (1983), pp. 145–51.

> assumed throughout, that the commodity is sold at its value. We do not examine the competition of capitals, nor the credit system, nor the actual composition of society, which by no means consists only of two classes, workers and industrial capitalists, and where therefore consumers and producers are not identical categories ... Nevertheless ... the examination of the general nature of capital, even without going further into the actual relations which all constitute prerequisites for the real process of production, reveals [the possibility of crisis] ... clearly.[37]

This passage points to examples of both abstraction and idealisation.

Since Marx is interested in explaining changing states of the system as a whole, he initially abstracts from features that differentiate its constituent parts in ways that do not contribute to this explanation. Within the completed study of capital, however, Marx speaks of his depictions of 'the configurations of capital' as approaching 'step by step the form in which they appear on the surface of society ... in competition, and in the everyday consciousness of the agents of production themselves'.[38] Much of the discussion in the present volume will be devoted to the de-idealisation and concretisation thanks to which Marx attempts to make his model of the 'law of motion' of capitalism useful for the explanation of specific historical phenomena. In what remains of this chapter, I will illustrate the initial procedure of abstraction and idealisation with brief discussions of his treatment of two fundamental topics, money and capital.

Marx makes it clear on numerous occasions that he 'knows that money is not gold and, moreover, that capitalism could not have developed as it did without the credit system'.[39] He idealises by disregarding these aspects of capitalist reality when he treats money as a commodity throughout the first two volumes of *Capital* and well into Volume III. There are a number of reasons for this, as Martha Campbell has explained:

> There is the obvious 'expositional' advantage that gold money gives Marx a way of presenting money and value so that he can proceed to the concept of capital, which presupposes both; banking, by contrast, presupposes not only capital but the division into different kinds of capital. Another expositional convenience is that Marx uses gold money

37 Marx, 'Economic Manuscripts of 1861–63', in MECW 32, p. 124.

38 *Capital* III, p. 117.

39 Campbell, 'Marx's Explanation of Money's Functions: Overturning the Quantity Theory' (2003), p. 1; Campbell's writings constitute an exceptionally clear exposition of Marx's theory of money.

> throughout *Capital*, Vol. I as the measure, or expression of value, in order to explain, for example, the origin of surplus value and the factors that influence its quantity. By treating gold as the direct equivalent of the labour hours devoted to its production, Marx gives the expression of value a transparency that it lacks in reality.[40]

Beginning with commodity money also enables Marx to critique the quantity theory of money, which obscured the nature of credit (and provided the rationale for the disastrous British monetary policy of the 1840s, which in that way constituted a sort of economics experiment). Further idealisations are the assumptions that the value of the money commodity does not change, which makes possible the representation of changes in the value of other commodities in terms of a constant standard, and that there is only one world money (an assumption implied by his treatment of capitalism as represented by an economy whose features can be explained without reference to the existence of different nations and trade among them, which Marx intended to discuss at a later stage of his project).

Crucially, however, nothing in the Marxian analysis of money, which centres on the representation of the value of commodities in some medium independent of the commodities themselves, depends on its taking the form of a particular commodity, like gold (or on the constancy or singularity of money). Hence, as Marx makes his model more realistic by introducing bank money 'as the form of money specific to capitalism'[41] in Volume III of *Capital*, money preserves its place in the representation of capitalist society: that as the 'universal equivalent' of all commodities it functions to represent the social character of privately owned and managed capitalist production. Even fiat money is not a symbol, but (to use Marx's word) a thing.[42] It is not a convention (like the economists' 'numéraire') but a relational structure that regulates social behaviour (in this

40 Ibid., pp. 1–2.

41 Campbell, 'The Credit System' (2002), p. 213.

42 See e.g. Marx, *Capital* III, p. 707: 'This social existence that [money or gold as money] has thus appears as something beyond, as a thing, object, or commodity outside and alongside the real elements of social wealth'. As Campbell comments on a collection of such passages, 'In Marx's view at least, so long as production "decisions" are left to the market, money, since it realizes value, is the thing by which social conflict (among capitalists and between capitalists and workers) is managed. In this sense, credit money is just as much a thing as gold money' (Campbell, 'The Credit System' [2002], p. 226.) This is why Marx insists that it is a 'mistaken notion' that money 'is itself a mere symbol', whose origin is to be found in '[t]he fact that money can … be replaced by mere symbols of itself …' (Marx, *Capital* I, p. 185). For an illustration of what this can mean in practice, see Tony Norfield's

regard, it can be compared to gender or 'race' in modern society). Even with the introduction of credit money in Volume III, however, since Marx models capitalism as one global system, the various national currencies and changing relations between them, which have important effects on investment patterns and on the global distribution of surplus value, are still idealised away.

Marx argues that money emerges as a basic means for the exchange of commodities as the commodity becomes the fundamental form of product. 'Commercial intercourse, in which the owners of commodities exchange and compare their own articles with various other articles, never takes place unless different kinds of commodities belonging to different owners are exchanged for, and represented as values with, one single further kind of commodity'. This further commodity is money, which in this way 'crystallizes out of the process of exchange'.[43] The fact that exchange in such a system is actually a double process of sale and purchase, in which a commodity must be exchanged for money, and that money used to buy a further commodity, opens up the possibility of a gap between sale and purchase: on the one hand, the money received for a good need not be spent; on the other, the money against which a good was intended to exchange need not be paid. Inherent in the commodity-money system – in the cell-form of capitalist society – we therefore find the possibility of a breakdown in the chain of exchanges that constitutes the normal functioning of the economy, and so the possibility of 'that aspect of an industrial and commercial crisis which is known as a monetary crisis'.[44] We also find the possibility of credit, both in the substitution of certificates of debt for actual money owed and in the availability of money withdrawn from exchange for borrowing. In this way, Marx shows that the model of money with which he began provides materials for a (less abstract) model of the breakdown of market exchange as well as for successful exchange – a key point in Marx's way of thinking, associated (as we shall see) with the concept of 'contradiction'. It also, while not including credit, demonstrates that the addition of credit mechanisms to the model does not affect the money functions described in the first place in terms of a money commodity.

Marx's treatment of the relation between 'values', which in his initial model are the monetary representations of the labour-times required to produce commodities, and the prices at which commodities are sold on real markets

discussion of the 'seignorage benefit' to US capital as a result of the dollar's international function as a store of value (*The City* [2016], p. 164).

43 Marx, *Capital* I, pp. 183, 181.

44 Ibid., p. 236.

involves what is arguably an even more radical idealisation. Because this idealisation is made in connection with the modelling of capital, the chief object of study, it has led to major dispute about the nature of that study. Since Eugen von Böhm-Bawerk's 1896 critique of *Capital*, the question of an apparent logical contradiction between the theory of value in the first two volumes and the theory of production prices in the third has been central to the evaluation of Marx's work. We will discuss this question at length in Chapter 6 below, but for now we can echo Leszek Novak's observation that 'the contradiction which was pointed out by Böhm-Bawerk is impossible on purely logical grounds', because Marx's statements in the earlier and later parts of his work refer to different models, with different degrees of idealisation.[45] A brief examination of Marx's model of capital will show the interaction of abstraction and idealisation basic to Marx's theorising.

Marx begins by idealising away from the variety of types of capital investment that actually exist in modern society: industrial, commercial, and money capital. His justification for this procedure is that only the first of these involves all the functions associated with capital: the production of goods, their circulation by means of sale, and the management of the money necessary for continued investment.[46] When he later introduces commercial and money capital he treats such firms as specialising in functions required by industrial-capitalist enterprises (the selling of their products and the management of money). In the first two volumes of *Capital*, however, these forms are idealised away and 'capital' refers to industrial capital alone; the discussion proceeds as if no other form of capital investment exists.

This can be contrasted with the approach more normal in economics, the formation of the concept of capital by generalising from different types of enterprise. Marx examines this approach in action in two chapters of *Capital*, Vol. I. In Chapter 4, 'The General Formula for Capital', he defines capital simply as the investment of money to make money, which can be carried out by any of

45 Nowak, *The Structure of Idealization* (1980), p. 247.

46 'Industrial capital is the only mode of existence of capital in which not only the appropriation of surplus value or surplus product, but also its creation, is a function of capital. It thus requires production to be capitalist in character … Money capital and commodity capital, [forms that historically antedate capitalist society proper,] in so far as they appear and function as bearers of their own peculiar branches of business alongside industrial capital, are now only modes of existence of the various functional forms that industrial capital constantly assumes and discards within the circulation sphere, forms which have been rendered independent …' (Marx, *Capital*, Vol. II (1978 [1884]); henceforth *Capital* II, pp. 135–6).

the three actual forms of capitalist enterprise. This is a general description of capital 'in the form in which it appears directly' as a phenomenon of the market, of exchange relations between commodities and money.[47] In Chapter 5, 'Contradictions in the General Formula', he demonstrates the impossibility of explaining the origin of the surplus value claimed (under the names of 'profit' or 'interest') by the three types of investor in terms of commodity exchange: if we begin by asking what (say) marketing and manufacturing have in common that makes possible the winning of additional money by each – simply assuming, as investors themselves do, that investment will yield a dividend – we will not succeed in solving the problem.

There is clearly something missing from the General Formula: by defining 'capital' in terms of commodity exchange, it leaves unmentioned the fact that capitalism represents an historical form of the social production of goods and services. Or, rather, this is left unmentioned because the general concept of 'capital' does not distinguish between the activity of production, which must be carried out in all forms of society, and the specific way this is organised in present-day society by way of commodity exchange. The General Formula identifies capital as a market process; Marx's explanation of capital as the use of money to purchase labour power, which when consumed as labour is able to produce a value greater than its own, identifies it as a social form of production.

Since in this historically specific form produced goods must be transformed into money for surplus value to appear, both manufacture and market exchange are necessary to the expansion of capital value. While all forms of capital must derive their gains in value from the surplus created in the production process, the appearance that commercial capital is the source of its profit is explained as the result of the separation of the activities of producing and selling between distinct enterprises. The result is a representation of capital that accounts for the existence of the 'return' on investment claimed by capitalists of all sorts, while insisting that only productive (industrial) capital creates it. In the course of this explanation, the locus of explanation has shifted away from the individual capital; mercantile capital is understood by reference to its relationship to industrial capital. And with regard to the latter, in turn, the class relation between owners of labour power and employers – a fact of society as a whole – is treated as more fundamental, for the explanation of the production of profit, than the relation between capitalists and their property. On the other hand, the latter relation is more fundamental for the explanation of the distribution of surplus value among capitals. Both are features of capitalism.

47 Marx, *Capital* I, p. 257.

Here idealisation, as opposed to generalisation from the observable features of the economic system (namely, the fact that all successful capital entities claim a return on investment), makes possible a theoretical model of the origin of 'surplus value', the term used by Marx throughout the first two volumes of *Capital* to distinguish a quantity of value in his model from the observable phenomena of industrial and commercial profit and interest (and, with extension of the analysis, rent and taxes). Marx's model, developed in the first two volumes of *Capital*, focuses on the production of surplus value as a process carried out by every (successful) industrial capital. He can then later (in Volume III) analyse 'competition' as the struggle between capitalist firms of all types to appropriate maximal shares of the total surplus value generated, thus taking quantities of surplus value *from each other*. Continuing the comparison of his work with physics, Marx asserts that 'a scientific analysis of competition is not possible, before we have a conception of the inner nature of capital, just as the apparent motions of the heavenly bodies are not intelligible to any but him, who is acquainted with their real motions, motions which are not directly perceptible by the senses'.[48] A geocentric representation of the heavenly system takes the earth's motion relative to the sun to be motion of the latter (as the economist might take commercial as well as industrial capital to produce surplus value as well as claim a share of it). The heliocentric representation, based not on specific features of earth and sun but on a model of them as idealised 'physical objects' subject to universal forces in a unified space, makes possible a reinterpretation of this appearance as a function of the position of human observers within the system of earth and sun. Similarly, Marx will show, his analysis of the production of surplus value makes possible an understanding of the belief that investment *per se* gives rise to an expansion of value: the fact that capitalists appropriate surplus value from each other as well as from their employees obscures the fact that it is the latter alone who *produce* the surplus.

The first volume of *Capital* is therefore devoted to the construction of a model of capital explaining the origin of surplus value as the product of unpaid labour; for this purpose the distribution of surplus values among capital entities does not have to be discussed. This involves an important idealisation: Marx abstracts from competition – from the conflict among capitals over the appropriation of surplus value – by assuming counterfactually that each (successful) capital appropriates exactly the amount of surplus value produced by its employees. This assumption allows each capital to function as a model for the

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48 *Capital* I, p. 433.

total social capital, for which the total surplus value produced equals the sum of the surplus value quantities produced by each individual capital.

Since the assumption implies that the value of the output of each capitalist enterprise is equal to the value of the inputs employed by it – the value of means of production consumed and of labour power – plus the surplus value newly produced, all goods are sold at their values. Values are defined on the counterfactual assumption that the production system is in a general supply-demand equilibrium. This is required to guarantee that every commodity has a use value (actually satisfies some social want) while the demand for it is, as contemporary economists say, effective. Under these conditions, commodity prices represent the labour required to create them as 'socially necessary' – as performed under technical conditions of average productivity for each type of production – in a social system in which the production of goods is regulated by market exchange.[49]

This idealisation abstracts from the market fluctuations which in actuality would produce commodity prices differing from values but theoretically accounted for as representations of socially-necessary labour time. The treatment of values as the tendential resting points of price fluctuations is an example of what has been called 'Galilean idealisation', in which a model distinguishes factors determining an outcome in order to single out a factor or factors of special interest, the classical example being the assumption of a frictionless plane in order to state the law of inertia. Marx's equilibrium, however, represents a more radical idealisation than the identification of values with centres of market-price oscillation that he is sometimes thought to share with neoclassical theory. Marx notes that it 'is true that the different spheres of production constantly tend towards equilibrium …' The tendency towards equilibrium must be assumed in order to explain how the physical production process can be regulated by commodity exchange so as to make possible the continued physical reproduction of the set of people who constitute society. Were production carried out without regard for the question 'how much of its disposable labour-time society can expend on each kind of commodity', continued reproduction would not be physically possible. At the same time, he emphasises, this tendency 'only comes into play as a reaction against the constant upsetting of this equilibrium', because the competition between firms for surplus value leads to constant changes in techniques of production, types of

49 The establishment of prices for each kind of good by market equilibrium means the elimination of firms producing with a lower than average degree of labour productivity, since the more productive firms can expand production to satisfy the entire demand.

production undertaken, and quantities of goods produced.[50] Marx invokes the equilibrium principle of price determination to define values at every temporal point without assuming that it represents a long-term trend of the economic system.

To abstract from competition cannot mean abstraction from the plurality of capital entities. This is because the commodity (and so money, the representation of commodity value) is the cell-form of this social organism only because production is (for the most part) carried on by and to the account of independent, privately-owned firms.[51] As a result, the consumption of goods, on which social reproduction depends, requires the circulation of commodities. A firm's production, for example, requires the purchase of materials produced by other firms, as well as the hiring of workers whose consumption needs are met by still other firms. By the same token, its continued existence depends on its sale of its own products to others. It is this system character (as we might call it) of capitalism that Marx analyses in the second volume of *Capital*.

But it is implicit already in the first volume's analysis of 'relative surplus value', the increase in surplus value accomplished by increasing the productivity of labour. Given a constant working day and real wage, the amount of surplus value extractable from workers rises as increasing labour productivity in consumer goods industries, and in industries producing means of production for those industries, lowers the value of labour power, equivalent (in Marx's model – this is another idealisation) to that of the goods workers consume. This is, however, not the reason capitalists strive to increase the productivity of their employees. 'When an individual capitalist cheapens shirts, for instance, by increasing the productivity of labour, he by no means necessarily aims to reduce the value of labour power and shorten necessary labour-time in proportion to this'. He is competing with other producers for market share. But,

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50 Marx, *Capital* I, p. 476. Marx's treatment of market equilibrium, and its difference from that of bourgeois economics, is discussed brilliantly in Henryk Grossmann's fundamental study, 'Marx, Classical Economics, and the Problem of Dynamics', (2007 [1941]), pp. 48ff. and *passim*. Cf. Grossmann's *Das Akkumulations- und Zusammenbruchsgesetz* (1929), p. 284: While 'Marx's reasoning starts from the notion of equilibrium … within Marx's theoretical reasoning the "normal path", equilibrium, is only a preliminary methodological fiction, in order to demonstrate with its help that the maintenance of equilibrium over time is impossible in the capitalist mode of production …' See also Mariña-Flores, 'Market Price of Production: A Structural Interpretation of Disequilibrium in the Framework of the Law of Value' (1998–9).

51 For a particularly useful exploration of this, see Campbell, 'Marx's Concept of Economic Relations and the Method of *Capital*' (1993).

whatever his motivations, arising from his misunderstanding of the workings of the system of which he is an element, 'he contributes towards increasing the general rate of surplus value only in so far as he ultimately contributes to this result. The general and necessary tendencies of capital' – its 'law of motion' – 'must be distinguished from their forms of appearance' in competition.[52]

The individual capitalist is seeking a competitive advantage by lowering his costs; whether or not he succeeds personally, his action contributes to an increase in surplus value for other capitalists, just as his need to lower his own costs reflects downward pressure on the rate of profit for capital generally. This knowledge, if he had it, would be useless to him, since he is constrained by the effect of competition on his personal fortunes, which tends to shape his interests and theoretical point of view. If we abstract from his individual fortunes, however, regarding him as a constituent – in the idealised model, an aliquot part – of the total social capital, we can explain both his need for increased profitability and the contribution of his decisions to the social rate of profit. This fiction is legitimate because differences among capitals – for example, differences in the proportions of investment in labour power and in means of production, what Marx calls the composition of capital – have no effect on the matters with which Marx is concerned (like the molecular collisions in Boyle's law). Marx, in contrast to the individual capitalist, has no interest in the latter's competitive position (or in the determination of his commodity's price), but is interested in long-term trends of the system as a whole. Primary among them is what he argues to be a 'general and necessary' tendency to increase the productivity of labour, of which the individual's attempt to better his competitive position is a 'form of appearance', and of which a tendential fall in the rate of profit is a consequence.

Explanation

A model of capitalism that treats commodity prices as determined by values idealises radically because it implies the appropriation of surplus value by capitals at unequal rates relative to the size of invested capital (because the amount of surplus labour performed varies with the number of labourers and so with the composition of capital but is measured against total capital). 'There is no doubt, however, that in actual fact … no such variation in [appropriation of surplus value] exists between different branches of industry, and could not

52 Marx, *Capital* I, p. 476; a footnote has been omitted.

exist without abolishing the entire system of capitalist production'.[53] This is because the point of capitalist investment is the extraction of profit, and so the demand for maximum profit relative to investment. This had already been understood by the classical economists, and was one motive for their abandonment of the analysis of the economic system as an organisation of social labour-time. In Marx's view, this abandonment of the labour theory of value demonstrated an under-appreciation of the role of abstraction in science: the classical economists had attempted to describe the functioning of the economy by applying highly theoretical concepts like 'value' to observable phenomena like the tendential equality of profit rates. In contrast, having decided that the cell-form of the capitalist organism involved the representation of the labour required to produce a commodity by the money for which it was exchanged, Marx began by idealising capitalism as a system of interacting capitals whose products, along with the labour power necessary to produce them, are sold at prices corresponding to their labour-time contents.

Just as heliocentrism had to explain geocentric appearance, Marx then had to explain the appearance that capitals earned their own profit, observable in the phenomenon that profit is determined by the excess of the price obtainable for a good in the market over its cost of production (which will ordinarily include interest, itself analysed by Marx as a portion of surplus value together with profit). This he accomplished in the third volume of *Capital* by explaining the deviation of prices from values as the result of competition among capitals for maximal profit rates (to be discussed at length in Chapter 6 below).

This step of de-idealisation (of what remained an extremely idealised model in other respects, such as the definition of values in terms of supply-demand equilibrium) maintains the core idea that the function of money in capitalist society is to represent social labour-time; that representation is in the later step of the theoretical construction given a more complicated mechanism that takes account of the demand of individual capitals, with different compositions, for (at least) equal shares of the total surplus value. By this means Marx includes his analysis of surplus value as unpaid labour in a more concrete model of capitalism, thus making possible the demonstration of the tendency of the rate of profit to fall that he considered 'the most important law of political economy'. In this way, as Nancy Cartwright explains in her discussion of models in physics, '[t]he pattern of explanation derived from the ideal situation is employed even where the conditions are less than ideal …'[54] In

53 Marx, *Capital* III, p. 252.

54 Cartwright, *How the Laws of Physics Lie* (1983), p. 48.

order to accomplish this, as we will see, Marx had to demonstrate that the de-idealisation was compatible with the analysis of surplus value as the product of unpaid labour. This is the main burden of Volume III of *Capital*.

There is an important difference between Marx's modelling procedure and those of theoretical physics to which I have been comparing it. Quantum theory, for example, analyses the hydrogen atom with the use of a highly idealised model of a particle trapped inside an area of space by electrical force (the Coulomb potential) due to the positively charged proton of this atom. This analysis can be extended to many-electron systems to produce 'a simple model of electrons in a metal' yielding 'in at least a qualitative way, many of the properties of normal metals – response to magnetic fields, specific heat capacity, and so on'.[55] It can in this way explain much of the structure of the periodic table of elements. In this qualitative use, the analysis of electron dynamics in terms of an idealised 'potential well' is analogous to Marx's analysis of the production and distribution of surplus value, with its implications for central dynamics of the capitalist system.

In physics, however, it is also possible to use this model as the basis for calculations whose results are in excellent quantitative agreement with experimental observation, for instance with measurements of the light spectrum emitted by hydrogen. It is this yield in quantitative information that led both to assurance as to the truth-value of quantum theory and, practically, to the construction of nuclear weapons, the transistor, and the laser. Marx's model of the capitalist economy, in contrast, does not yield quantitative results that could be compared with economic data: it is capable neither of accounting for the actual prices of goods on the market nor of predicting (or even accounting for) such phenomena as the rates of profit obtaining at one time or another. This is – as we will explore in greater detail – because of the peculiar nature of the phenomena (price representations of labour time) with which it is concerned, which serve social functions involving the concealment of real relationships rather than their direct manifestation. This obviously has important consequences for the evaluation of Marxian theory: It cannot be tested in any exact-quantitative way, but only by its qualitative match with the unfolding history of the capitalist economy.

55 Cooper, *An Introduction to the Meaning and Structure of Physics* (1981), p. 551. Already in the case of helium, with two electrons, the wave function is not susceptible to an analytic solution; with '3,4, or 5 electrons it is hopeless to try to obtain exact solutions … It is possible, however, even with a sloppy approximation – and some fixing – to understand, at least qualitatively, many chemical properties which show up in the periodic table' (Feynman et al., *The Feynman Lectures on Physics*, Vol. 3: Quantum Mechanics [1965], pp. 19–14).

In this regard Marx's theory is less like the physics he compared it to than to catastrophe theory, as explained by Ivar Ekeland:

> Catastrophe theory does not enable us to make precise, quantitative predictions, the way relativity theory does, for instance. Neither can it be proved or disproved by an experiment, and so the question arises whether it is a scientific theory at all.
>
> Actually, it is – but it is much closer to biological theories like that of evolution than to physical theories like that of relativity. It fits certain facts together and provides an abstract setting to grasp them all at once.

Like catastrophe theory, Marx's resembles Darwin's theory, which 'is not predictive' of specific events but 'singles out a central fact, the evolution of species, to which a host of biological phenomena are subordinate'.[56] In Marx's case, the central fact is the dependence of capitalist prosperity on the rate of profit, and that of the rate of profit on the conditions of the exploitation of labour; one difference from a theory like Darwin's, which makes no predictions about the system of living things as a whole, is that Marx predicts that this rate tends to fall over time, a tendency manifested in recurrent cycles of prosperity and depression.

Another example provides a perhaps better model of Marx's modelling procedure:

> After World War I, there was an unusual shortage of aquatic life in the Adriatic Sea … This seemed especially strange because fishing had slowed considerably during the war … After carefully analyzing the statistics of fish markets [the biologist Umberto D'Ancona] discovered an interesting fact: The population of sharks, rays, and other predators had increased during the war, while the population of squid, several types of cod, and Norwegian lobsters had decreased. How could this be?

The answer was discovered by D'Ancona's father-in-law, the physicist and mathematician Vito Volterra, who

> approached the problem not by studying the fishery statistics directly … but by constructing a mathematical model composed of one population of predators and one population of prey … His model predicted that

56 Ekeland, *Mathematics and the Unexpected* (1988), pp. 76–8.

> intense levels of a general biocide, which kills both predators and prey at the same time, would be relatively favorable to the prey, whereas lesser degrees of a biocide would favor the predators. From this he reasoned that heavy fishing, a general biocide, favors the prey … This is not something that Volterra or anyone else would have expected *a priori*. However, armed with the dynamics of his mathematical model, Volterra found a solution to this perplexing problem.[57]

Marx's theory differs from such cases in that all the elements of the system it models and the forces affecting them are social, thus generated endogenously; even labour, a seemingly physiological element, appears in a socially-constructed form.[58] But like Volterra's model of predation (now known as the Lotka-Volterra model) it derives unexpected conclusions – such as that efforts to increase profitability lead to a declining rate of profit – from a highly idealised version of reality.

Even as a qualitative explanation, the theory elaborated in the three volumes of *Capital* leaves us still at a great distance from the Asian crisis of 1997–8. Marx's theory perfectly exemplifies Cartwright's idea that the 'basic scientific laws do not literally describe the behavior of real material systems'.[59] But it should be possible already to see how Marx's procedure of abstraction and idealisation makes possible the creation of a model which can then be made more similar to the real world. To cite Cartwright again, '[t]o explain a phenomenon is to find a model that fits it into the basic framework of the theory and that allows us to derive analogues for the messy and complicated phenomenological laws which are true of it'.[60] She is thinking of situations like an idealised laser, where the models to be fitted into the basic framework are

57 Weisberg, *Simulation and Similarity* (2013), pp. 3–4. Volterra's reflections on his methodology are reminiscent of Marx's: 'As in any other analogous problem, it is convenient, in order to apply calculus, to start by taking into account hypotheses which, although deviating from reality, give an approximate image of it … to schematize the phenomenon by isolating those actions that we intend to examine, supposing that they take place alone, and by neglecting other actions' (Volterra, 'Variazioni e fluttuazioni del numero d'individui in specie animali conviventi', in *Memorie della R. Accademia Nazionale dei Lincei* 2 [1926], p. 5, cit. Weisberg, *Simulation and Similarity* [2013], p. 74). The Lotka-Volterra model can be de-idealised – this has become the norm in predator-prey studies – by rewriting its basic dynamics in terms of individuals rather than whole populations; such rewritings remain, of course, quite idealised.

58 See Chapter 5 below.

59 Cartwright, *Nature's Capacities and Their Measurement* (1989), p. 203.

60 Cartwright, *How the Laws of Physics Lie* (1983), p. 152.

mathematical. But her point applies to fields where mathematical modelling is not very useful, but where we might speak of 'bridge models' by analogy with the mathematical 'bridge laws' that link idealised models in physics to measurable phenomena.[61]

Thus, for example, the modelling of the production of surplus value and its distribution among capital entities, accomplished over the three volumes of *Capital*, opens the way to a concretisation of the model by defining 'profit' and 'interest' as portions of the total surplus value. This allows for a revision of the model to include commercial and money-dealing capital. The redefinition of the concept of 'profit' involved in this in turn opens the way to an explanation of the growth of the finance sector of the economy relative to its industrial element, as in Henryk Grossmann's theory that declining profitability stimulates the speculative search for short-term gains at higher rates.

Cartwright speaks, beyond the construction of more concrete models, of the need to deal with factors peculiar to individual cases: 'A physicist may preach the principles by which a laser should operate; but only the engineers know how to extend, correct, modify, or sidestep those principles to suit the different materials they may weld together to produce an operating laser'.[62] Thus we are brought to what she calls 'the problem of *material abstraction*'.[63] A striking example of this is provided by Marx's study of the British currency crisis of the late 1840s, in which his Volume I model of the workings of money in a capitalist economy, including the built-in tendency to obscure the actual working of the money system from social actors, was enriched by reference to the roles of

61 Léo Apostel, comparing different kinds of model in science, suggests another way of making this point: Let us say that, for one domain of phenomena, 'we do have a full-fledged theory, but one too difficult mathematically to yield solutions, given our present techniques. We then interpret the fundamental notions of the theory in a model, in such a way that the underlying assumptions can express this assignment: under these simplifying assumptions, the equations become soluble. Using the theory of harmonic oscillators in the study of heat conduction is an example of such a procedure'. In contrast, 'It often occurs that the theoretical level is far away from the observational level'; – this is certainly the case with the Marxian theory of capitalist society – then 'concepts cannot be immediately interpreted in terms of observation. Models are then introduced to constitute the bridge between the theoretical and observational levels, the theoretical predicates being interpreted as predicates of the model and the observational predicates being also interpretable as predicates of the model, the model furnishing lawful relationships between the two interpretations' ('Toward the Formal Study of Models in the Non-Formal Sciences' [1961], pp. 2–3).

62 Cartwright, *Nature's Capacities*, p. 211.

63 Ibid., p. 207.

particular social and political factors (including the prestige of Ricardo's economic theory) in producing a legal structure (the 1844 Bank Law) that had to be dismantled when it aggravated conditions caused by the slump of 1847–8.[64]

Similarly, in the case of the Asian economy circa 1997–8, a social-behavioural model like that signalled by the phrase 'moral hazard' provides a link between the highly idealised Marxian model of capital and a specific phenomenon of capitalist economic history, explaining how declining profitability could interact in particular locations with state-protected over-leveraging to produce investment bubbles – and so their collapse.[65] To work this out in detail would involve expanding the original model by adding descriptions, schematic or detailed as required for the purpose at hand, of the credit and currency exchange systems, governmental interests and programmes, international lending institutions, etc., in order to explain the mechanisms through which an underlying – long-term or, as Marx would say, 'essential' – tendency towards declining profitability might produce the events that so roiled the international economy in those years.[66]

64 See Marx, *Capital* III, pp. 543ff.

65 For an interesting discussion of the interlinking of different theoretical models in biology, suggestive for the understanding of similar phenomena in the social sciences, see Morange, 'Articulating Different Models of Explanation: The Present Boundary in Biological Research' (2009).

66 We shall explore in later chapters both the conversion of Marx's highly idealised law of the tendency of the rate of profit to fall into an explanation of recurrent cycles of prosperity and depression, and the procedures necessary to align these idealised models with empirical phenomena like business and national-income statistics.

CHAPTER 3

Questions of Method

'That the method employed in *Capital* has been little understood is shown by the various mutually contradictory conceptions that have been formed of it'. This observation of Marx's on the reception of the first volume of his *magnum opus* remains true today. The problem of the 'Marxian method' is particularly complicated by commentators' use of the word 'method' to denote a number of different, though related, things. Marx himself distinguished a 'method of presentation' – the principles on which a work as written is organised (e.g. the order of topics) – from 'method of inquiry', which he identified with scientific method in general and with analytic approaches required by social theory in particular, and which he described (as we have just seen) with the concept of 'abstraction'.[1] Usually, however, 'Marx's method' is identified either as a mode of theorising called 'dialectics' or as a general theory of social history, 'historical materialism', the two generally thought of as bound up with each other.[2] Both have been conceived in distinction to his economic theorising proper, opening the possibility of valuing the method or the theory while disparaging the other.

Writing in the context of the Second and Third Internationals, Georg Lukács went so far, in his 1923 *History and Class Consciousness*, as to claim that orthodoxy in marxism 'refers exclusively to *method*'. This method he identified as 'dialectical materialism', by which he meant the principle that social facts are meaningful only 'in the context of the total historical process of their relation to society as a whole'. Against the revisionist critique of *Capital* on the basis of facts of economic progress – particularly the improvement of working-class living conditions and the apparent moderation of capitalism's crisis tendency – held to have disproved Marx's predictions, Lukács argued:

1 Marx, *Capital*, Vol. 1, pp. 99,102; see also p. 90.

2 Lest this be thought to be an obsolete practice, it should be noted that, to take only two recent examples, the 'Western' marxist Alfred Schmidt, in his influential *History and Structure. An Essay on Hegelian-Marxist and Structuralist Theories of History* (1981 [1971]), invoked both 'the materialist conception of history' and 'dialectical materialism' as key concepts for discussing Marx's work; while, at the opposite pole, the 'analytic marxism' developed by some anglophone academics in the late 1970s and 1980s centrally involved a critical examination of 'the conceptual structure of the Marxist theory of history' (Erik Olin Wright, Andrew Levine, Elliott Sober, 'Historical Materialism: Theory and Methodology' [1994], p. 53).

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> Let us assume for the sake of argument that recent research had disproved once and for all every one of Marx's individual theses … [E]very serious 'orthodox' Marxist would still be able to accept all such modern findings without reservation and hence dismiss all of Marx's theses *in toto* – without having to renounce his orthodoxy for a single moment.[3]

Aside from the odd bedfellow that the concept of 'orthodoxy' makes for the theory of Marx, who welcomed 'every opinion based on scientific criticism',[4] such a statement is a *reductio ad absurdum* of this concept, practically begging for Karl Popper's naive objection that an empirically unfalsifiable doctrine is no scientific theory. This rather astonishing concept of 'method' is especially bizarre in Lukács's case, in view of that author's orientation towards the Hegelian roots of Marx's thinking. For Hegel emphatically described his dialectical method as 'not an external form, but the soul and the Concept of the content'; for 'it can only be the nature of the content itself which spontaneously develops itself in a scientific manner of knowing'.[5] This is as much as to say that 'method' cannot be evaluated independently of its success in studying a subject-matter. From this point of view, untruth of content implies a radical mischoice of method.

Not himself a marxist and therefore unconcerned to safeguard orthodoxy in the face of the apparent disproof of Marx's theoretical results,[6] Franz Petry expressed a similar view of Marx's method in the statement, normal for his time (he was killed early in World War I), that 'Marxism claims to give not only a scientific understanding of economic life, but an encompassing philosophy of history, a universal science of human social life, which illuminates not only the darkness of past times but also the future …' Given that Marx's economics proper is only a part of this overarching theory, it partakes in all the difficulties of expression and interpretation of such a *Weltausschauung*. In particular, '[t]he great contradiction ruling the Marxian system, making a unified interpretation of it finally impossible, is that unnatural blend of idealistic themes

3 Lukács, 'What is Orthodox Marxism?', in *History and Class Consciousness* (1971 [1923]), p. 1. It's hard not to think of Marx's mockery of Proudhon for his devotion to 'method', in which 'metaphysics – indeed all philosophy – can be summed up, according to Hegel …' (Marx, *The Poverty of Philosophy* [1847], in MECW 6, p. 161).

4 Marx, *Capital* I, p. 93.

5 Hegel, *The Encyclopedia Logic* (1991 [1830]) § 243, p. p. 307, and *The Science of Logic* (1969 [1812–16]), p. 27.

6 It might be said that Lukács's orthodoxy-preserving manoeuvre in 'What is Orthodox Marxism?' consisted precisely in abandoning Marx's theory of capitalist development, apparently disproved by the revisionist critics, for the vaguer concept of the social-historical 'totality.'

based on the aftereffects of Hegel's philosophy of Spirit with materialistic and natural-scientific intentions' forced on the system by political and agitational considerations rather than purely intellectual ones. Specifically, 'this dualism underlies the ambiguity and the great problem of the Marxian theory of value', the conflict between the value calculation followed in Volume I of *Capital* and the price theory of Volume III.[7]

This dualism of methodological principle and economic analysis is a recurrent theme of Marx-criticism. Joseph Schumpeter, for instance, in his *Capitalism, Socialism, and Democracy* (written in 1942 as an explicit response to 'the Marxian revival in the United States'), distinguished between Marx 'the Prophet', 'the Sociologist', and 'the Economist',[8] although he emphatically denied the existence of 'the Philosopher' whom others have discovered in Marx. The last of Schumpeter's tripartite being is the brilliant economist crippled by his adherence to Ricardo's labour theory of value. The second is the inventor of the Economic Interpretation of History, linked to the economics by a theory of social classes as determined by ownership of the means of production. The first is the visionary who has won a place in history 'by formulating with unsurpassed force that feeling of being thwarted and ill treated which is the autotherapeutic attitude of the unsuccessful many, and, on the other hand, by proclaiming that socialistic deliverance from those ills was a certainty amenable to rational proof'[9] – i.e., by leaving the world of science and real 'rational proof' far behind. Schumpeter's magisterial *History of Economic Analysis* echoes the work just cited by affirming that though marxists may – 'perhaps rightly' – resent it, the 'pieces' into which Marx's theoretical structure may be decomposed 'divide up into two groups, one sociological and one economic … [While the] sociological framework offered most of the pegs that Marx needed in order to have something upon which to hang his glowing phrases … as far as pure [economic] theory is concerned, Marx must be considered a "classic" economist, and more specifically a member of the Ricardian group'.[10]

Similarly, Joan Robinson felt free in her *Essay on Marxian Economics* to make 'no attempt to deal with the broad treatment of history and sociology which

7 Petry, *Der soziale Gehalt der marxschen Werttheorie* (1916), pp. 1–2.
8 These are the first three chapter titles in Schumpeter's book.
9 Schumpeter, *Capitalism, Socialism, and Democracy* (1942), p. 6. For an incisive critique of Schumpeter's views on Marx, see Morf, *Geschichte und Dialektik in der politischen Ökonomie* (1970), pp. 20 ff.
10 Schumpeter, *History of Economic Analysis* (1954), pp. 389–90.

forms the most important part of Marx's doctrine'.[11] Not being interested in orthodoxy, she disregarded the dialectical method to deal only with strictly economic questions. Here, however, she came up against what Petry also diagnosed as a fundamental flaw in the logical structure of Marx's work: his use of the classical labour theory of value for the construction of a model of the capitalist economy in Volume I of *Capital* together with what she took to be its abandonment in Volume III, where prices differing from labour values are introduced. Since the prices at which goods exchange on the market can be easily shown – as Marx pointed out – to be different from values defined in terms of labour time, Robinson described the sequence of ideas in *Capital* as 'the uphill struggle of Marx's own mind from the simple dogmatism of the first volume … to the intricate formulations of Volume III'.[12]

Robinson, like Petry, here followed the economist Eugen von Böhm-Bawerk, who believed that he had argued conclusively against Marx's attempt to reconcile the labour value theory with the facts of the world of prices, a failure papered over in Marx's text with 'dialectical hocus-pocus'.[13] Böhm-Bawerk's opinion that this contradiction vitiated the theory as a whole is a view superior to Robinson's at least in taking seriously Marx's attempt to create a coherent theoretical structure in his three volumes. Exactly for this reason, Robinson termed Böhm-Bawerk's critique and the marxist replies it has received 'a great fuss about nothing'. Marx's system, she explained in her *Economic Philosophy*, is simply incoherent. It divides up into a metaphysics of value, 'a mere rigmarole of words', and a scientific hypothesis, based on the inescapable cost-of-production analysis of price, about the behaviour of wage rates, which has turned out to be wrong. For Robinson, Volume I of *Capital* is generally to be disregarded, and the question of the *point* of Marx's 'uphill struggle' is not raised, but dismissed with a reference to Marx's 'nineteenth century habits of thought, which are alien to a generation brought up to inquire into the meaning of meaning'.[14]

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11 Robinson, *An Essay on Marxian Economics* (1966), p. xxiii.

12 Ibid., p. 10. This reflects her apparent ignorance that Marx wrote the drafts later edited by Engels as Volume III before preparing Vol. I for the press, not to mention that the theoretical issue Robinson discusses was a central preoccupation of Marx's.

13 Böhm-Bawerk, 'Karl Marx and the Close of His System' (1949 [1896]), p. 77.

14 Robinson, *Essay* (1966), p. vii; *Economic Philosophy* (1962), pp. 39, 41. Since a glance at Robinson's *Essay* shows that, whatever her feeling for the meaning of meaning, she has only the most superficial knowledge of her object of study, her criticisms would not merit serious confrontation except for the respect accorded them by academic economists, who by and large have an acquaintance with Marx's work inferior even to her own. Despite the

Marxists as well as critics of Marx have found the dualism of historical materialism and economic theory a useful framework, though (like Lukács) they tend to regard the Hegelian element of Marx's thinking with more favour than Petry or Robinson. David Harvey, for instance, celebrates Marx's 'rigorous theorizing' on the basis of 'historical materialism' and by means of a 'ruthless application of dialectical modes of reasoning – the principles of which are very different from but just as tough and rigorous as any mathematical formalism'[15] – though he finds inadequate or incorrect many of the chief results in economic theory to which Marx was led by the dialectical method. For an earlier example, in an essay of 1935 Oskar Lange rejected the economic theory but found enduring value in the historical materialist method. He agreed that 'that Marxian economics fails is due to the labour theory of value'. What is of importance in Marx is not his economics but the specification of the institutional basis of capitalism – the ownership of the means of production by capitalists – that makes possible 'a theory of economic evolution'. This, together with 'the theory of historical materialism, the object of which is to elucidate the causal chains connecting economic evolution with social evolution as a whole', allows predictions about the evolution of the capitalist system beyond the reach of economic theory proper. Thus from Lange's point of view, the object of Marx's study splits into two parts: the capitalist economy, studied best by neoclassical price theory, and the capitalist social system, studied by means of the marxist theory of history.[16]

Another marxist, Paul Sweezy, in his influential *Theory of Capitalist Development* (recommended as an introductory text by Sweezy's doctoral supervisor Schumpeter), argues that Marx's chief economic results do not depend on the labour theory of value, but can be reached on the basis of price calculations. While dispensable from the point of view of strict economics – the quantitative aspect – the value theory which Marx used to get his results is worth saving,

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progress in grappling with Marx's actual writings since Robinson wrote, we find a sophisticated philosophical commentator like Daniel Hausman, baffled by Marx's critique of Ricardo, still finding it 'obscure and, in a pejorative sense, "philosophical"' – a less colourful version of 'dialectical hocus-pocus' (Hausman, *Capital, Profits, and Prices* [1981], p. 187).

15 Harvey, *Limits of Capital* (1999), p. 38. Harvey never explains in what the rigour of dialectics consists, unfortunately, and he too finds most of Marx's results inadequate. For further discussion, see my review of Harvey's book in *Historical Materialism* 16 (2008): 213–24.

16 Lange, 'Marxian Economics and Modern Economic Theory' (1968 [1935]), pp. 79, 86. Lange's position is a very curious one: for him the labour theory of value is simply a version of equilibrium price theory; one of its major failures is, accordingly, its inability to explain dynamic phenomena like the business cycle.

at least in what Sweezy (following Petry) calls its qualitative aspect, because it refers in the definitions of its fundamental terms to the class institutions of capitalism.[17] The obvious questions about the connection between the social theory and the economic theory constructed in its terms are not raised (except in the purely mathematical form of treating the results of Marx's value calculations as approximations to the price calculations reachable on a conceptually different basis). It was this separation of economic from political and sociological theory that permitted Sweezy to join Paul Baran, in their jointly-written *Monopoly Capital* (1966), in an interpretation of Marx accurately described as one 'that eliminates the labour theory of value and the laws of accumulation, while holding to the Marxian theory of the political structure of capitalism'.[18]

An approach much fairer to Marx's theoretical aspirations is offered by the much less eminent Murray Wolfson, who, like Petry, Robinson, and many others, argues that the error of Marx's use of the labour theory of value derives from 'fundamental methodological rather than merely formal economic considerations'. By 'method' here Wolfson means philosophical standpoint: he contrasts Marx's 'rationalism' unfavourably with 'empiricism', locating the basic source of Marx's errors in his 'typically nineteenth century belief' in a rationalist metaphysic explaining all phenomena in terms of 'the inexorable progress of a single universal essence towards its ultimate destiny …' Since for Marx this essence, 'matter', appears in social history in the form of the production process, Marx's method requires that 'the familiar phenomena of market supply and demand has [*sic*] to be shown to be a superficial form of a more profound entity, labour value, which would relate capitalism to a dialectical theory of different modes of production'. The labour theory is supposedly deducible from the metaphysics: aside from the problem with such a rationalist approach to knowledge in itself, Wolfson claims that the 'dialectical materialist' presuppositions are disproved by the inability of the labour theory to explain the empirical features of the capitalist economy. 'Since the labour theory of value cannot be independently established, Marx cannot use labour value as a verification of dialectical deductions'.[19]

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17 Sweezy, *The Theory of Capitalist Development. Principles of Marxian Political Economy* (1942), p. 129. A more recent appearance of this view, based this time on the substitution of a neo-Ricardian mode of analysis for the general-equilibrium approach favoured by Sweezy, will be discussed in Chapter 7 below: Cogoy, *Wertstruktur und Preisstruktur: Die Bedeutung der linearen Produktionstheorie für die Kritik der politischen Ökonomie* (1977).

18 Cogoy, 'Neo-Marxist Theory, Marx, and the Accumulation of Capital' (1987 [1972]) p. 11.

19 Wolfson, *A Reappraisal of Marxian Economics* (1966), pp. xi, 185, 39, viii.

Despite the philosophical naiveté and almost total incomprehension of Marxian theory evident in Wolfson's book, it has the virtue of taking seriously Marx's claim to having produced a coherent body of ideas. His method, or methods, whatever these words may be used to mean, cannot be judged independently of their use, and that use is clearly to explain and predict the course of capitalist economic and social development. If the economic analysis can be understood and evaluated independently of its social-theoretical context, the general aims of this theoretical work must be called into question.

It turns out, as one would expect in the case of a thinker of Marx's calibre, that both aspects of the work can be understood adequately only when considered as elements of a theoretical system, and not as dissociable parts. However, Marx was neither an economist in the normal sense – and certainly not, as we shall see, 'a member of the Ricardian group' – nor a philosopher of social history.

Marx's Abandonment of Philosophy

Far from promulgating a general theory of history, in fact, Marx took care to emphasise that the 'historical inevitability' which he ascribed to the development of capitalism in his 'so-called theory … is expressly limited to the countries of Western Europe'.[20] This remark, offered to Russian revolutionaries hoping that the archaic peasant commune might serve as a basis for socialism in Russia, which would thus be spared its dissolution and the transformation of the peasantry into wage labourers, echoed a statement made earlier in the draft of a letter intended for the journal *Otechestvenniye Zapiski*, which had published a text by the Populist theorist Nikolai Mikhailovsky criticising Marx for proposing a 'necessary stages' theory of history; Marx replied that it was only his Russian critic for whom it was necessary

> to metamorphose my historical sketch of the genesis of capitalism in Western Europe into a historico-philosophical theory of general development, imposed by fate on all peoples, whatever the historical circumstances in which they are placed, in order to eventually attain this economic formation which, with a tremendous leap of the productive forces of social labour, assures the most integral development of every indi-

20 Marx to Vera Zasulich, March 8, 1881, in MECW 24, pp. 369–70.

> vidual producer. But I beg his pardon. This does me too much honour, and yet puts me to shame at the same time.[21]

One can of course come to more or less general conclusions, wrote Marx, by comparing the results of detailed studies of different areas and times. But a scientific understanding of social phenomena will never be achieved 'by employing the all-purpose formulae of a general historico-philosophical theory whose supreme virtue consists in being supra-historical'.[22]

Was Marx simply choosing to forget his 'broad outline', in the Preface to the *Contribution to the Critique of Political Economy*, of 'the Asiatic, ancient, feudal and modern bourgeois modes of production' as 'epochs marking progress in the economic development of society' – a sequence in which bourgeois society is 'the last antagonistic form of the social process of production'?[23] Despite appearances, by 'Asiatic mode of production' Marx meant 'the general form of naturally evolved community which took different courses of development in different historical contexts' and constituted 'the starting point in Europe'.[24] Marx's stages are, as he says, exclusively European.

The rejection of 'historico-philosophical theory' was at the heart of the youthful critique of Hegelianism – as represented by the work of the master himself and by the (in Marx's eyes) inadequate criticism of that work by the

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21 Marx to the editors of *Otechestvenniye Zapiski*, November (?), 1877, in MECW 24, p. 199.

22 Ibid., p. 201. This recalls a passage in the *Grundrisse* where Marx observes that 'It is of course pleasant for Proudhon, for instance, to give a historico-philosophical explanation of the origin of an economic relationship whose historical genesis he does not know …' ('Economic Manuscripts of 1857–58', in MECW 28, p. 18). For further discussion of Marx's denial that he had a theory of history, in the context of his rejection of the possibility of a general theory of society altogether, see my *Social Knowledge* (1986), Ch. 6.

23 Marx, *Contribution*, in MECW 29, pp. 263–4.

24 Draper, *Karl Marx's Theory of Revolution* (1977), pp. 539 and 541 (citing a letter from Marx to Engels). Draper's erudite discussion of this matter (pp. 515 ff.) is well worth reading. With respect to the specifically Eastern appearances of the 'Asiatic mode of production', it should be remembered that in Marx's view literally 'Asiatic' or 'Oriental' societies characteristically retained their basic social structure in the face of dynastic upheavals and invasions; thus, despite his sharp critique of the horrors of British rule in India, he credited it for disrupting a relatively static social system, 'English interference' having blown up the 'economical basis' of the Indian village community, 'and thus produced the greatest, and to speak the truth, the only social revolution ever heard of in Asia' (Marx, 'The British Rule in India', *New-York Daily Tribune* [June 10, 1853], in MECW 12, pp. 131–2). It was capitalism, born in Europe, that would – if allowed to operate indefinitely – convert history into world history.

Young Hegelians – which culminated in Marx's collaboration with Engels on the writing of *The German Ideology*. For Hegel, history followed a necessary path, determined by the meaning-relationships between concepts whose systematic totality, unfolded over time and culminating in the production of the Hegelian system itself, constituted what Hegel called 'Spirit' (*Geist*). But this dialectic of concepts, Marx now saw, imposed on the actual course of history a conceptual framework dreamed up by the philosopher. A deeper understanding of the historical process required other methods. 'Where speculation ends', Marx wrote,

> where real life starts, there consequently begins real, positive science, the expounding of the practical activity, of the practical process of development of people. Empty phrases about consciousness end, and real knowledge has to take their place. When the reality is described philosophy as an independent pursuit loses its medium of existence. At the best its place can only be taken by a summing-up of the most general results, abstractions which are derived from the observation of the historical development of people. These abstractions in themselves, divorced from real history, have no value whatever. They can only serve to facilitate the arrangement of historical material ...[25]

In his attempt to develop a 'real, positive science' of society Marx was much aided by his reading of such historically-oriented philosophers and economists as Condorcet, Saint-Simon, Sismondi, and James Steuart. Their work was central to what Henryk Grossmann identified as 'a current of thinking which emerged in the social sciences during the last third of the eighteenth century and became triumphant during the first half of the nineteenth century: the concept of the evolution of human society through a succession of economic stages, each superior to the preceding one'.[26]

As we have seen, Marx shared this view, in a de-universalised form. For Marx, the historical progress of European society was not a moral or general one (and certainly not, as with Hegel, a matter of the 'development of the Concept'), but specifically a matter of 'the economic development of society'. By this he meant

25 Marx and Engels *The German Ideology* [1845–6], in MECW 5, p. 37 (translation amended).

26 Grossmann, 'The Evolutionist Revolt against Classical Economics I' (1943a), pp. 385–6. Grossmann emphasises that these thinkers 'based their universal laws and predictions on *history*, or actually observed *evolutionary tendencies*. Their ideas are the theoretical reflection of such great historical phenomena as the French and American revolutions and the industrial revolution in England' (p. 384).

to emphasise not so much particular systems of social relations as stages in the development of the productivity of human labour: 'It is not what is made but how, and by what instruments of labour, that distinguish different economic epochs'.[27] What justifies taking this as a standard for comparison of 'social epochs' is the centrality of labour, the meeting-point of biology and culture, to human existence:[28]

> Labour is, first of all, a process between man and nature, a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself and nature ... He sets in motion the natural forces which belong to his own body, his arms, legs, head, and hands, in order to appropriate the materials of nature in a form adapted to his own needs. Through this movement he acts upon external nature and changes it, and in this way he simultaneously changes his own nature.[29]

The history of labour is then a culturally-inflected extension of biological evolution; Marx explicitly compared the history of technology to evolution as theorised by Darwin, 'the history of natural technology, i.e. the formation of the organs of plants and animals, which serve as the instruments of production for sustaining their life'.[30]

Here the contrast with Hegel's philosophical view of social development could not be stronger. For Hegel, this development is teleological, directed by the dialectic of thought-contents towards the full realisation of Spirit. The same is true of nature: though 'a *system of stages*, one arising necessarily from the other', each stage 'is not generated *naturally* out of the other but only in the inner Idea which constitutes the growth of Nature'. Hence he was opposed –

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27 Marx, *Capital* I, p. 286. The two aspects of historical development just distinguished are linked of course; Marx continues: 'Instruments of labour not only supply a standard of the degree of development which human labour has attained, but they also indicate the social relations within which men work'.

28 In the work, written with Engels, with which he made his decisive break with Hegelian philosophy, Marx put the point this way: 'Men can be distinguished from animals by consciousness, by religion or anything else you like. They themselves begin to distinguish themselves from animals as soon as they begin to *produce* their means of subsistence, a step which is conditioned by their physical organization. By producing their means of subsistence men are indirectly producing their material life' (*The German Ideology* [1845–6], in MECW 5, p. 31).

29 Ibid., p. 283.

30 Ibid., p. 493 n. 4.

well in advance of Darwin's work – to the very idea of evolution: 'a thinking consideration must reject such nebulous, at bottom, sensuous ideas, as … the *origination* of the more highly developed animal organisms from the lower, and so on'.[31] In consequence of his rejection of the idealist approach, 'Marx refuses to follow Hegel on the basic question of the concept of development … For Marx, evolution is an objective process of history, whereby each historical period or social structure is *marked by specific objective tendencies*'[32] – such as the 'law of motion' that governs capitalist society. These tendencies delimit possible futures without determining particular outcomes so that social history – like organic evolution – is law-governed without having a determinate direction.

This theoretical (and political) orientation can be seen, as Gideon Freudenthal has noted, in Marx's use of the metaphor of development in the context of his comparison of society to the organic cell. Unlike the Hegelian use of 'development' to depict the historical evolution of social forms as predetermined by an essence (to be eventually discovered as *Geist* unfolds its conceptual complexity), Marx's 'biological analogies … express a methodological idea: to accept as "given" as few entities and facts as possible and explain all others as developed from the assumed "nucleus", to explain by internal properties and yet as contingent, to demystify phenomena by showing that they develop out of non-mysterious practices'.[33] The contingency of development follows from the understanding that 'whereas a special social form fulfills necessary functions of reproduction, these necessary functions can take on very different social forms'.[34] As a result, while 'the connections between the concepts of the theory are of course necessary (this is why it is a theory and not a narrative), and it may therefore appear as if it is a construction a priori … this is a mere semblance'.[35]

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31 *Hegel's Philosophy of Nature* (1970), § 249, p. 20.

32 Grossmann, 'The Evolutionist Revolt Against Classical Economics II' (1943b), pp. 515–16.

33 Freudenthal, 'Marx's Critique of Economic Reason', in *Science in Context* 10:1 (1997), p. 189. It is worth noting that the constructive 'methodological idea' Freudenthal identifies is central to modern scientific practice.

34 Ibid., p. 188. This is a key to the 'critical' aspect of Marx's treatment of economic categories, the subject of the next chapter: 'The critique consists in the demonstration that in order to "develop" the form out of the nucleus, many more assumptions have to be introduced than can be justified by necessities of social reproduction' (ibid.). For example, generalised commodity exchange does not, as Adam Smith assumed, follow naturally from the need for a social division of labour, but requires many contingent historical preconditions, such as the availability of a labour force 'freed' from the ability to produce the goods it requires for existence.

35 Ibid., p. 189. Hence Marx's theory is explicitly anti-historicist; as he remarks, 'What is called

So it is not surprising that, when he replied, in the Postface to the second edition of *Capital*, to the accusation of Hegelianism levelled at him by critics of his publication, Marx insisted that his 'dialectical method is, in its foundations, not only different from the Hegelian, but the exact opposite of it'. At the same time he avowed himself 'the pupil of that mighty thinker', acknowledging that he had 'even, here and there in the chapter on the theory of value, coquetted with the mode of expression peculiar to him'.[36] In a text-centred domain like marxism, this paradoxical appreciation of Hegelian dialectics was bound to provoke endless commentary.

The twentieth-century rediscovery of the 1857–8 rough draft of *Capital*, the *Grundrisse*, in particular led to a flood of interpretations of Marx's work as a materialist use of Hegel's dialectical logic, exemplified by Hans-Jurgen Krahl's declaration: 'The basic concept of the Marxian critique of political economy, the commodity form of the product in its general validity for the capitalist social formation, cannot be explained without Hegel's dialectic of Essence and Appearance'.[37] Roman Rosdolsky's book, *The Making of Marx's 'Capital'*, similarly claimed that the *Grundrisse*, a key to the understanding of *Capital*, was a 'massive reference' to Hegel's *Logic*, so that 'academic critics of Marx will no longer be able to write without having first studied his method and its relation to Hegel'.[38] The thought that mastery of Hegel's *Logic* is, as Lenin was one of the first to declare, 'a sine qua non for the comprehension of *Capital*' is an alarming one, given the obscurities of the former work.[39] Yet, given its prominence in the

historical development rests, in general, on the fact that the latest form regards the earlier ones as stages leading towards itself and always conceives them in a one-sided manner, since only rarely … is it capable of self-criticism …' ('Economic Manuscripts of 1857–58', in MECW 28, pp. 42–3).

36 Marx, *Capital* I, pp. 102–3.

37 Krahl, 'Bemerkungen zum Verhältnis von Kapital und hegelscher Wesenslogik', in Negt (ed.), *Aktualität und Folgen der Philosophie Hegels* (1970), p. 113.

38 Rosdolsky, *The Making of Marx's 'Capital'* (1977), p. xiii. A similar conclusion was reached, though with a different analytical purpose, by Zelený, *The Logic of Marx* (1980 [1968]). More recent arguments to the same end have been made – to take a small sample of a large field – by Banaji, 'From the Commodity to Capital: Hegel's Dialectic in Marx's "Capital"' (1979), pp. 14–45; Arthur, 'Hegel's *Logic* and Marx's *Capital*' (1993); and Smith, 'Marx's *Capital* and Hegelian Dialectical Logic' (1993). A recent compendium of such efforts is Moseley and Smith (eds.), *Marx's* Capital *and Hegel's* Logic (2014).

39 Lenin, 'Conspectus of Hegel's Book *The Science of Logic*', in *Collected Works*, 4th ed. (Moscow, 1976), Vol. 38, p. 180. My own experience is the exact opposite: it was only after a grasp of Marx's analysis of the structure and history of capitalism that I was able to make

marxist literature, this idea, espoused by deeper thinkers than Lenin, must be faced in the attempt to understand Marx's scientific procedure.

Logic and Abstraction

In a letter to Engels of 16 January 1858 – thus, during the writing of the *Grundrisse* manuscripts – Marx wrote:

> I am, by the way, discovering some nice arguments. E.g. I have completely demolished the theory of profit as hitherto propounded. What was of great use to me as regards the method of treatment was Hegel's Logic at which I had taken another look by mere accident … If ever the time comes when such work is again possible, I should very much like to write 2 or 3 sheets making accessible to the common reader the rational aspect of the method which Hegel not only discovered but also mystified.[40]

The significance of this should not be exaggerated: Marx never did find the time to write his demystified Logic, though he had time to spare for a detailed critique of the academic socialist Karl Vogt, to whom he devoted a pamphlet in 1860. Nonetheless, Hegel's influence is evident in the rough draft of Marx's critique of political economy, notably in the chapter on money and in his conceptualisation of what at that time he called 'capital in general'. That this influence lasted, at least on some level, to the writing of *Capital* can be seen in the opening section of that book, the analysis of money as the form of value in the first chapter of Volume I, where the verbal flirtation with Hegelian categories is, as Marx said, apparent. In addition, his recourse to Hegel for inspiration in the treatment of the transformation of money into capital is to be inferred from the existence of notes made on the 'Doctrine of Being' in Hegel's *Logic* between 1860 and 1863, that is, in the period after the publication of *A Contribution to the Critique of Political Economy* when Marx was redrafting *Capital*, in the process composing the text now known as 'Theories of Surplus Value'.[41]

What use might a look at Hegel's *Logic* have been in the 'demolition' of the classical theory of profit?

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sense of Hegel's writing (with the help of the marxist reading of Hegel in Herbert Marcuse's *Reason and Revolution: Hegel and the Rise of Social Theory* [1941]).

40 Marx to Engels, 16 January 1858, in MECW 40, p. 249.

41 See O'Malley and Schrader (eds.), 'Marx's Précis of Hegel's Doctrine of Being in the Minor Logic' (1977).

As noted in the previous chapter, the classical economists saw an incompatibility between the labour theory of value and the earning of (tendentially) equal profit rates by capitals of different compositions. On the other hand, the labour theory was essential to one of classical economy's great achievements, the analysis of land rent as a deduction from capitalist profit. Marx called his history of economic thought 'Theories of Surplus Value' because the extraction and division of the social surplus – the excess of production, represented by a sum of money, beyond that necessary to reproduce the producers – was the actual subject of investigation, despite the fact that the classical economists themselves had not constructed the concept of 'surplus value'.

> Thus Adam Smith conceives *surplus value* … as the *general category*, of which profit proper and rent of land are merely branches. Nevertheless, he does not distinguish surplus value as such as a category on its own, distinct from the specific forms it assumes in profit and rent. This is the source of much error and inadequacy in his inquiry, and of even more in the work of Ricardo.[42]

Ricardo too nowhere considers '*surplus value separately and independently from its particular forms* – profit (interest) and rent'.[43]

Both Smith and Ricardo erred by failing to distinguish profit (alongside rent and interest) – an empirical phenomenon, the revenue collected by actual capitalist firms – from surplus value, a quantity of value defined in the idealised model of capitalism required to explain its 'laws of motion'. From Marx's point of view, it is a virtue of Ricardo's work, with its greater consistency in use of the labour theory of value, that it clarifies the difference between empirical phenomena and theoretical model, by demonstrating 'the contradiction between the apparent [i.e., observable] and the actual [i.e., abstractly modelled] movement of the system'.[44] Ricardo was, however, unable to escape the horizon of bourgeois society to the extent required to see profit, along with rent, as simply the expropriation of the product of unpaid labour time. To give up every form of the idea of profit as a natural 'return to capital' would be to admit that cap-

42 Marx, 'Economic Manuscript of 1861–63', in MECW 30, pp. 388–9.

43 Marx, 'Economic Manuscript', in MECW 32, p. 9.

44 Marx, 'Economic Manuscript', in MECW 31, p. 391. Recalling Marx's comparison of the problem of understanding capitalism with the development of the heliocentric theory of the solar system, we might cast Ricardo as a Tycho Brahe-like figure, unwilling to abandon appearances to the extent of accepting the Copernican system while incorporating a Copernican aspect in his world picture.

italists with capitals of different compositions claim the same return on their investments simply 'on account of both of these ragamuffins having the fixed idea that both of them must draw the same spoils from "the support they have given to labour" …'[45] In this Ricardo is stuck in the position of the '*vulgus*' who has 'concluded that theoretical truths are abstractions which are at variance with reality, instead of seeing, on the contrary, that Ricardo does not carry true abstract thinking far enough …'[46]

Marx, in contrast, carried abstraction to the level discussed in the previous chapter. And in the 1857–8 manuscripts in which he worked out his 'demolition' of the classical theory of profit, he describes this procedure in terms lifted directly from Hegel's treatise:

> Capital, so far as we consider it here … is *capital in general*, i.e. the quintessence of the characteristics which distinguish value as capital from value as simple [commodity] value or money … We are concerned neither as yet with a *particular* form of capital, nor with *one individual capital* as distinct from other individual capitals. We are present at the process of its becoming. This dialectical process of becoming is only the ideal expression of the real movement through which capital comes into being.[47]

As Fred Moseley has pointed out, the triad of 'general' [*allgemein*], 'particular', and 'individual' is borrowed directly from the section on the Concept (*Begriff*) in Hegel's *Logic*, which is explained in terms of a relationship between the Universal [*das Allgemein*], the Particular (meaning a specific type [species] falling under the universal) and the Individual that exemplifies the Universal.[48]

For Hegel – and this is no doubt the mystification to which Marx objected – it is the Universal that *produces* the particular, in line with the philosopher's doctrine that Spirit – the immaterial Soul of the real – must embody itself

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45 Ibid., p. 407.

46 Marx, 'Economic Manuscript', in MECW 32, p. 72.

47 Marx, 'Economic Manuscript' in MECW 28, p. 236. Somewhat earlier in the same manuscript, Marx tried out a related but different utilisation of Hegel's categories as a framework for structuring his book; see ibid., p. 205.

48 Moseley, 'The Universal and the Particular in Hegel's *Logic* and Marx's *Capital*', in Moseley and Smith (eds.), *Marx's* Capital *and Hegel's* Logic (2014), pp. 115–39. The same point was made, in less detail, by Chris Arthur in 'Capital in General and Marx's *Capital*' (2002). Arthur notes correctly that 'the term "capital in general" … vanished' by the time Marx revised his work into *Capital*, something of which Arthur's Hegelian orientation leads him to disapprove.

in material particularity in order to become fully conscious of its content by discovering itself in reality. Thus the world of objective particulars 'is the *real Notion* that *has emerged from its inwardness* and passed over into determinate being'.[49] In this way 'the *Idea* … becomes the creator of nature' and eventually of '*concrete spirit*',[50] i.e. forms of society in a progressive sequence leading up to that which produced Hegel's own works, in which finally the creating Idea comes to know itself.[51]

Already in the 1840s Marx had decisively rejected this hypostatisation of ideas produced by people in particular historical circumstances into 'the Idea', producing those circumstances.[52] In his chapter of introduction to the *Grundrisse* he explains 'the method of political economy' as the analysis of social reality in terms of a set of abstract categories specifying fundamental aspects of the system; these categories then permit 'a return journey' to the phenomenon analysed, 'which this time would be not a chaotic conception of a whole, but a rich totality of many determinations and relations'. Marx contrasts this procedure with Hegel's 'illusion that the real was the result of thinking synthesizing itself within itself, delving ever deeper into itself and moving by its inner motivation; actually, the method of advancing from the abstract to the concrete is simply the way in which thinking assimilates the concrete and reproduces it as a mental concrete'.[53]

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49 Hegel, *Logic* (1991[1830]), p. 597.

50 Ibid., p. 592.

51 It is not necessary here to consider the not very convincing argument by which Hegel attempts to demonstrate that the universal must necessarily involve the idea of particularity. A trenchant critique of Hegel's procedure, in its application to the realms of Spirit and of Nature, can be found in Rosenthal, *The Myth of Dialectics* (1998), pp. 103–10.

52 See Schrader, 'Marxens Abstraktionskritik: Differenzierung und Funktionswandel 1843–1858' (1984). A particularly exuberant expression of the critique of idealist hypostatisation is to be found in *The Holy Family*, published by Marx and Engels in 1845: 'If from real apples, pears, strawberries, and almonds I form the general idea "Fruit," if I go further and imagine that my abstract idea "Fruit," derived from real fruit, is an entity existing outside me, is indeed the true essence of the pear, the apple, etc., then in the language of speculative philosophy I am declaring that "Fruit" is the "Substance" of the pear, the apple, the almond, etc. I am saying, therefore, that to be a pear is not essential to the pear, that to be an apple is not essential to the apple; that what is essential to these things is not their real existence, perceptible to the senses, but the essence that I have abstracted from them and then foisted on them, the essence of my idea – "Fruit." I therefore declare apples, pears, almonds, etc., to be mere forms of existence, modi, of "Fruit"' (MECW 4, pp. 57–8).

53 Marx, 'Economic Manuscripts', MECW 28, pp. 37–8.

Though Marx speaks of 'the concrete' reality that is the object of analysis as 'the concentration of many determinations', these determinations are themselves categories, any of which 'can never exist other than as an abstract, one-sided relation within an already given, concrete, living whole'. The 'concrete totality' achieved through theoretical synthesis following the process of analysis 'is a totality of thoughts, concrete in thought, in fact a product of thinking and comprehending'.[54] Here the employment of a Hegelian mode of speech makes for confusion. The use of 'abstract' and 'concrete' as terms for the analysis of theories is unambiguous only for a system like Hegel's, in which both terms refer to cognitive elements, since the synthesis of a cognitive 'concrete' from (relatively) 'abstract' concepts is treated as ultimately identical with the really evolving structure of the natural and social world. It is because as 'conceptions' abstractions are not aspects of reality but aspects of the conceptual appropriation of reality that concepts cannot, according to Marx, be said to have a life of their own, to be exhibited at work either in the process of history or in the arrangement of categories in a theoretical construction. The presentation of categories cannot, that is, be said to follow an 'immanent logic', but must be understood as governed by the researcher's effort to account for the fundamental features of the social system under investigation. At any rate, the Hegelian triad of General (Universal), Particular, and Individual disappears from Marx's theory in its next revision, where he makes clear that the abstract concept of capital with which he is working is drawn from a particular form, what he calls 'industrial' or 'productive' capital.[55]

It was in commenting in the Postface to *Capital* on the criticism of his book as overly 'German-dialectical' that Marx distinguished the 'method of presentation' of theoretical material from the 'method of inquiry'. While the former may proceed from the presentation of an abstract model to a concretisation of the theory, the latter must construct that model on the basis of empirical investigation. It

54 Ibid., p. 38. Compare Hegel's description of the progress of the Notion's dialectical advance as 'determined as beginning from simple determinednesses, the succeeding ones becoming ever *richer and more concrete*' (Hegel, *The Science of Logic* (1969 [1812–16]), p. 840).

55 Thus in the first volume of *Capital* 'capital in general' is replaced by the 'General Formula for Capital' (Chapter 4), which is quickly shown to lead to 'contradictions' (Chapter 5) due to the fact that 'both merchants' capital and interest-bearing capital are derivative forms' (*Capital* I, p. 267), so that capital must be investigated not 'in general' but in the particular form of 'industrial capital' (p. 256).

> has to appropriate the material in detail, to analyze its different forms of development and to track down their inner connection. Only after this work has been done can the real movement be appropriately presented.

It is the success of this presentation, he explains, that has given readers the impression of 'an a priori construction' in the Hegelian fashion, while in fact the method employed is 'exactly opposite' to such a procedure.[56] In the *Grundrisse* Marx had already shown himself aware of this problem, noting (in the chapter on money) that 'It will later be necessary … to correct the idealist manner of presentation which makes it appear as if it were merely a matter of the definitions of concepts and of the dialectic of these concepts'.[57]

What principles, if not those of a putative dialectical derivation, guide the sequence of categories in the construction of Marxian theory? In attempting to answer this question with a look at the most Hegelian pages in *Capital*, we may at the same time cast light on why Marx found the categories of the *Logic* so suitable a mode of speech for the unriddling of the nature of money by the working out of the value-form.

Given his identification of commodity exchange as the 'cell form' of capitalist society, it is with this that Marx begins his investigation.[58] The result of this analysis is the description of the commodity as an object with both use value and exchange value, 'the quantitative relation … in which use values of one kind exchange for use values of another kind'.[59] The form of use value, the shape in which it is to be recognized, is the same as that of the commodity as a kind of thing itself; for exchange value to be knowable it must also have some 'form of appearance'. As always in Marx's philosophically-formed language,

56 Marx, *Capital* I, p. 102. Cf. Marx's criticism of Lassalle's attempt at a Hegelianisation of political economy: 'He will discover to his cost that it is one thing for a critique to take a science to the point at which it admits of a dialectical presentation, and quite another to apply an abstract, ready-made system of logic to vague presentiments of just such a system' (Marx to Engels, 1 February 1858, in MECW 40, p. 261).

57 Marx, 'Economic Manuscripts', in MECW 28, p. 89. As John Mepham has observed, the treatment of money in *Capital* is quite different from that in the *Grundrisse*, in which Marx indeed undertakes 'a thoroughly Hegelian discussion of "the transition from value to money"' – a discussion replaced in the later work by the analysis of what Marx called 'real relations' of society (see Mepham, 'From the *Grundrisse* to *Capital*: The Making of Marx's Method', [1979], p. 161).

58 He makes it clear that what is being analysed is the commodity at once in itself and as theorised by the classical tradition, with footnotes relating basic statements in his text to classical writings. I will discuss this aspect of the analysis in the following chapter.

59 Marx, *Capital* I, p. 126.

'appearance' indicates that exchange value *represents* some more fundamental property of a commodity, its value. In section 3 of this first chapter Marx considers exchange value as the form of value in great detail. It is here, where Marx wishes 'to trace the development of the expression of value contained in the value-relation of commodities from its simplest, almost imperceptible outline to the dazzling money-form',[60] that his coquetry with the Hegelian vocabulary is the most visible.

The dialectic that Hegel aims to follow in the argument of the *Logic* may be described (with all the distortions of concision) as follows: a category, originally found at play in ordinary language, is shown to be necessary for the description of reality but is also found to lead to an incoherent, or 'contradictory', characterisation of that reality. This provides the demonstration of the indispensability of a further category, which makes possible the resolution of the contradiction discovered in the application of the earlier one. The chain of categories constructed in this manner is to demonstrate (to quote Charles Taylor's lucid commentary) 'that our categorial concepts as we ordinarily understand them, unrelated by radical necessity, are in some way contradictory; and that this contradiction can only be resolved (or, in fact, reconciled) by seeing them as linked in a rational structure'.[61]

Apart from the fatal vagueness of the 'in some way' in this characterisation of the contradictoriness of dialectical concepts, the actual sequence of concepts in Hegel's *Logic*, as Taylor, among other students of Hegel, has pointed out, does not strictly follow this scheme, nor are the transitions from one category to the next always convincing. Even in the best examples, it must be said, a case for the *necessity*, as opposed to the plausibility or illuminating character, of the transition between categories in the Hegelian dialectic – and hence of its being a *logic* – has not been convincingly made.[62] Hegel, at any rate, simply asserts it. Nevertheless, the pattern of this 'dialectical logic', and in particular the centrality of the idea of contradiction, provides a model for Marx's analysis of the value-form in *Capital*, an analysis centred on 'the internal opposition

60 Ibid., p. 139.

61 Taylor, *Hegel* (1975), p. 227.

62 As Léo Apostel, a logician who has shown great sympathy for dialectics generally and Hegelian thought in particular, observes, 'In reading Hegel, the logician frequently comes up against the impression of an absence of proof of the development followed' (*Logique et dialectique* [1979], pp. 133–4). In this way, interestingly, Hegel's dialectic is – despite his intention – like its ancient Greek forbear to be contrasted with logical demonstration as 'the critical examination of the generally accepted opinions' (Lloyd, *Magic, Reason, and Experience* [1979], p. 117).

between use value and value', the definitive attributes of the commodity.[63] *Capital* is structured throughout by the opposition of use value to exchange value. As the argument proceeds through the work's three volumes, this contradiction is mobilised theoretically to explain the recurrence of economic crisis – when value considerations block the production and use of use values – as a normal feature of the system and even – at Marx's most optimistic – the generation of a social class, the proletariat, 'trained, united, and organized by the very mechanism of the capitalist process of production' but which feels itself to be 'fettered' by capitalism, which in this way 'begets, with the inexorability of a natural process, its own negation'.[64]

Marx begins the exploration of this contradiction in section 3 of the first chapter of *Capital* with the results as demonstrated (in section 1) that commodities have a dual nature, as both use values and exchange values, so that they can 'only appear as commodities … insofar as they possess a double form, i.e., natural form and value form'. The value form required is known to all in money, which represents the values of commodities in contrast to 'the motley natural forms of their use values'. Value, a property of all commodities, is represented only in the form of a particular commodity, the money commodity.[65] But how can this be? How does money represent the value of commodities? Section 2 has demonstrated that as values commodities are expressions of a 'social substance', abstract labour, so that their character as values 'is therefore purely social. From this it follows self-evidently that it can only appear in the social relation between commodity and commodity', that is, in exchange value.[66] This produces the following contradiction: Value, a property of commodities, is visible only in the relation between commodities. Value, that is, seems to be at once an individual and a relational property. It is by resolving this contradiction that Marx attempts to explain the form of value, money, on the basis of the category of exchange value.[67]

How is the value of a commodity represented? In line with his methodological prescription, Marx begins with 'the simplest value-relation', that of one commodity to another of a different kind. Basic to this relation as 'the simplest

63 Marx, *Capital* I, p. 153.

64 Ibid., pp. 928–9.

65 Cf. Marx's letter to Engels of 2 April 1858: 'The contradiction between the general characteristics of value and its material existence in a particular commodity, etc … gives rise to the category of money' (MECW 40, p. 301).

66 That is, the social relation between commodity exchangers is represented by the value-relation between commodities, which takes the form of the exchange value of each one.

67 Marx, *Capital* I, pp. 138–9.

expression of the value of a single commodity' is the difference between the roles played by the two commodities involved. If y amount of commodity B is the exchange value of x amount of commodity A, then A's natural form represents its use value, and B's represents A's value: y is what, in B terms, x amount of A is worth. The equation of A and B as exchangeable represents their character as values as opposed to their character as use values, with respect to which they are different and not exchangeable. But the value character of each is therefore visible only in the use-value body of the other.

The classical economists' analysis of value as labour explains why commodities have value – they can be compared to each other as substantiations of labour – but it does not explain why we should find out what that value is in the act of exchange. But once we realise that this act, as an equation of two commodities, is thereby an equation of the kinds of labour that produced them, we can understand why the general character of being products of labour finds representation in exchangeability. 'It is only the expression of equivalence between different sorts of commodities which brings to view the special character of value-creating labour, by actually reducing the different kinds of labour embedded in the different kinds of commodity to their common quality of being human labour in general'.[68] (This follows from Marx's conclusion in section 2 that 'only the products of mutually independent acts of labour, performed in isolation, can confront each other as commodities'.[69] Under such conditions of production there is no representation of social labour in abstraction from the particular kinds that make it up outside of exchange.)

That is: Value can be expressed *only* in the relation between two different things equated by the act of exchange; in its value-relation to B, A 'signifies more than it does without it, just as some men count for more when inside a gold-braided uniform than they do otherwise'.[70] The analogy is not just a stroke of wit. Like the use of gold braid to signify authority, the use of commodity exchange to signify the social character of labour is a social-historical institution, not a fact of nature. This is shown, according to Marx, by the fact that commodity exchange could not be fully understood, even by as brilliant a theorist as Aristotle, until the advent of a form of society in which a generally accepted conception of human equality had rendered possible the idea of equating all forms of labour – a conception that became 'possible only in a society where the commodity-form is the universal form of the product of labour,

68 Ibid., pp. 139–42.

69 Ibid., p. 132.

70 Ibid., p. 143.

hence the dominant social relation is the relation between men as possessors of commodities'. Thus 'it is only a historically specific epoch of [social] development which presents the labour expended in the production of a useful article as an "objective" property of that article, i.e., as its value'.[71]

So far, what Marx claims to have shown is that under certain historical conditions – those of capitalism, in fact – the labour expended in individual units of production is made into social labour (only) when the products of those units are exchanged, so that the social character of the labour expended in the production of any commodity is represented (only) by its exchangeability and the quantity of that social labour is represented (only) by the quantity of goods for which it can be exchanged. In the vocabulary of economics, value is represented (only) by exchange value. Marx claims further that to have explained this is already to have in principle explained the riddle of money. He introduces his justification of this claim by a most Hegelian set of phrases:

> We perceive straight away the insufficiency of the simple form of value: it is an embryonic form which must undergo a series of metamorphoses before it can ripen into the price-form [in which value is represented by a quantity of money].[72]

Here we have one of Hegel's favourite metaphors for conceptual development, that of organic growth, and more fundamentally the suggestion that it is the 'insufficiency' of the simple form that requires the appearance of the price form – of money. But the appearance of 'dialectical logic' here is misleading. The simple form of value is a product of Marx's analysis of exchange. It illuminates a central aspect of exchange, but is inadequate to represent exchange in a full-blown monetary economy. It is insufficient because it is only the first step in Marx's analysis.[73] Put otherwise, the insufficiency of the simple form is not logical but practical and material: It would not suffice as a mode of representation of value in a system in which all goods are treated as products of homogeneous (social) labour. For this to be accomplished, value must be rep-

71 Ibid., pp. 152–4.

72 Ibid., p. 154.

73 Hence it is misleading to say, as Arthur does, that with Marx as with Hegel 'the formal structures are indeed self-acting, not just in the sense of being categorially connected by our thought process', so that 'meditating on one category drives us to introduce another contrary, or more comprehensive one' (Arthur, 'Hegel's *Logic* and Marx's *Capital*' [1993], pp. 66, 64). The interconnection of categories is not self-generated but constructed by Marx.

resented in the form of a commodity to which all other commodities can be simultaneously equated by exchange.

As Marx says a few paragraphs later, 'the simple form of value automatically passes over into a more complete form'.[74] Although this rhetoric ('passes over') also derives from Hegel, Marx again has something relatively unphilosophical in mind. Given that the value of a commodity is represented in the form of another, the natural form of that other commodity does not matter. What does matter is that some one commodity should play this role in relation to all others, because only in this way can value as such, as opposed to the value of one or another particular commodity, be represented. The value-form is not, that is, a form that 'value takes' (like the appearance of essence in Hegel) but *a form in which people represent something*, the social character of their labour. The argument depends not on a purported logic of contradiction and resolution but on the gradual exposition of the (practical) requirements of a social practice.

This is not to say that Marx's use of 'contradiction' is purely rhetorical: the word serves to signify a structural property of capitalism that leads the normal operation of the system to produce recurrent difficulties for its reproduction. But Marx is careful to demystify – to de-philosophise – the concept of contradiction, by explaining it as an extension of the composition of forces in classical physics. Reminding us that 'the exchange of commodities implies contradictory and mutually exclusive conditions', he states that the development of money 'does not abolish those contradictions, but rather provides the form within which they have room to move'. 'This is', he adds,

> the way in which real contradictions are resolved. For instance, it is a contradiction to depict one body as constantly falling towards another and at the same time constantly flying away from it. The ellipse is a form of motion within which this contradiction is both realized and resolved.[75]

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74 Marx, *Capital* I, p. 154.

75 Marx, *Capital* I, p. 198. Generalising from this example, Apostel has suggested that we define the concept of a 'real contradiction' characterising the relation between events in, properties of, or elements of a physical or social system, by analogy with the logical relation between a proposition and its negation. Advancing beyond analogy to something more specific for descriptive or analytic purposes requires the identification of 'relations, defined in the multiple algebras utilized to represent reality, sufficiently homomorphic to the relation between affirmation and negation in a Boolean algebra'. Specifically, 'We say that there is a real contradiction between two events if there is a partial isomorphism between the relation between these two events, on the one hand, and the relation between a proposition and its negation, on the other. Contradiction is, in logic, the zero element in

While the composition of forces in mechanics is representable by the simple addition of two vectors (quantities fully described by a magnitude and a direction) representing the motions involved, the analysis of commodity exchange requires reference to disparate modes of social activity, one of which – the human interests definitive of use value – is not quantitative in character, though the other – the idea of fair exchange, definitive of exchange value – has a quantitative aspect. But Apostel has demonstrated, in a brilliant work of logical investigation, that the relation between production for use and production for exchange as aspects of the same social process can be formalised (utilising the logic of action developed by Henryk von Wright and Roderick Chisolm) so as to demonstrate a logical incompatibility between those aspects, a contradiction resolved though not abolished (hence, without an Hegelian *Aufhebung*) by the existence of the money commodity.

With the money commodity, Apostel observes, we 'obtain at the same time the maximal unity of use value and exchange value: the use value of money is its exchange value – and the maximal separation between exchange value and use value by the separation between money and other commodities'.[76] Furthermore, just as the fact of the elliptical orbit does not end the 'contradiction' between centrifugal and centripetal forces, the development of money does not resolve the discordance between production for use and production for monetary gain. This discordance, Marx argues throughout *Capital*, is at the root of economic crisis and requires for its resolution the abolition of capital as a social relation of production, which would bring with it the abolition of commodity exchange and of the monetary representation of human productive activity.[77]

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a Boolean algebra in relation to intersection, as the addition of equal vectors with opposed signs is the zero element in vector algebra in relation to vectorial multiplication' (Apostel, 'Logique et dialectique' [1967], p. 364).

76 Apostel, *Logique et dialectique* (1979), p. 34.

77 Apostel's formalisation, while not required for comprehension of Marx's argument, serves to clarify its basic structure and also to demonstrate that 'far from there being an opposition between formal logic and dialectical logic', as is stated *ad nauseum*, without any demonstration, by many adepts of Hegelian dialectics, 'the notion of dialectics is susceptible to a formal definition from which it follows that the dialectical method' so interpreted 'is central to the comprehension of *Capital*' (Apostel, *Logique et dialectique* [1979], p. 5). As Apostel remarks elsewhere, 'it is possible to describe what Kant and, after him, Hegel and Marx … called "real contradiction", without the slightest infringement of classical logic' ('Logique et dialectique' [1967], p. 363). (Richard Routley, who holds that 'a satisfactory dialectical logic will be a relevant one', and hence not classical, also nevertheless finds no 'gulf separating dialectical logic and formal logic' generally, with 'classical logic … supplemen-

Marx's transformed concept of contradiction dates to his first economic studies, the so-called *Economic and Philosophical Manuscripts* of 1844. Just as he there de-philosophised the concept of 'alienation', transforming Hegel's 'self-alienation of Spirit' into an historically-specific relation between the wage-worker and his or her employer, who confronts the worker as the 'alien, hostile' owner of the labourer's product, so he locates the 'contradiction' at the heart of capitalism not in a relation between concepts but in 'the antagonistic struggle between capitalist and worker'.[78] This is the same contradiction he was later to identify at the heart of monetary commodity exchange, where the waged character of productive labour imposes the conflicted coexistence of production for use and production for monetary gain. It indicates that the contradiction between use value and value, while it may be characterised as a logical one, is also a practical one to which a revolutionary class struggle could put an end. Unlike the contradiction between centrifugal and centripetal forces determining solar-system orbits, founded presumably on constant (at least post-Big Bang) features of nature, the contradictions of capitalist social practice, historical in character, are open to abolition.

The vocabulary of Hegel's *Logic* is present throughout Marx's argument in forms that I have not discussed here; thus, much of the discussion in section 3 of *Capital*'s Chapter 1 recalls the dialectic of quantity and measure, which links the Doctrine of Being to the Doctrine of Essence. But here too the appearance of 'an a priori construction' due to the mode of expression is belied by the actual matter of the argument. Thus, for example, the important contention that 'the magnitudes of different things only become comparable in quantitative terms when they have been reduced to the same unit'[79] is not in its origins a 'materialist inversion' of Hegel's treatment of quantity but derives directly from Sismondi's discussion of value in the *Études sur l'économie politique*

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ted by, and … *completed* by dialectical logic' [Routley, 'Dialectical Logic, Semantics, and Metamathematics' (1979), pp. 305, 303, 313].) An additional virtue of Apostel's approach is its clarification of the fundamental difference between Hegel's dialectic, 'a dialectic of the concept (with the concept conceived as an organized, individual totality)' and Marx's, 'a dialectic of the human labour performed by human groups (in one of the Theses on Feuerbach, Marx declares himself formally nominalist by affirming that "humanity" or "man" is nothing but the concrete group of concrete individuals involved with each other in concrete relations of production and cooperation)' (*Logique et dialectique* [1979], p. 95).

78 Marx, 'Economic and Philosophic Manuscripts', in MECW 3, p. 234. In Hal Draper's elegant formulation, Marx is here transposing a Hegelian concept 'out of the speculative sphere of philosophy, through the ideological sphere of the bourgeois economists, into the realities of the social struggle' (*Karl Marx's Theory of Revolution* [1977], p. 166).

79 Marx. *Capital* I, pp. 140–1.

studied and excerpted by Marx in his preparatory studies for the *Grundrisse*.[80] In short, there is no reason why we should not, as Fred Schrader suggests, accept Marx's own explanation of the place of Hegel's logic in his work from the *Grundrisse* on: 'There is no portentous reception of Hegel, no World Spirit unmasked as Capital, and no need to decode an identity between the movements of Being and Value'. There is rather the use of Hegel's mode of expressing the systematic interconnection of categories 'to bring propositions of the theory of money, already worked out for all essentials' on the basis of the ideas of Storch and Sismondi, 'into a systematic interrelation'.[81] Hegelian turns of speech here provided a literary form, a 'method of presentation' for Marx's complex scientific argument.

This still leaves us with the questions why Marx found the Hegelian mode of expression so congenial, and what, finally, it might mean to speak of a Marxian dialectic.

The *Grundrisse*, as Schrader has demonstrated, provides a key to the answer to the first of these questions. It is important to remember that Marx undertook his critical investigation of political economy not with the aim of working out a logic of economic categories but out of a desire to understand the nature of the crisis tendency of the capitalist economy (its 'law of motion'). This brought him, through the literature on money and banking, into a confrontation at once with bourgeois economic theorising and with Proudhonian (and English utopian-socialist) attempts to elaborate a socialist currency policy, which would revolutionise the relations of production and distribution 'by means of changes in the instrument of circulation – changes in in the organization of circulation'. In opposition to such views, Marx argued that no form of money 'can resolve the contradictions inherent in the money relationship', and that such projects can 'only express these contradictions in one form or another'.[82] Thus

80 See Schrader, *Restauration und Revolution* (1980), pp. 128ff. To cite Karl Korsch's summary: 'all that apparent "Hegelianism" did not amount, in Marx, to more than what he at one time most appropriately called an "occasional flirtation with Hegel's peculiar mode of expression". In actual fact, he completely broke with the whole of Hegel's speculative philosophy … The principles of the Marxian critique of existing society … are opposed to the philosophical system of Hegel not only in content, subject matter, and aim, but quite as much in theoretical form. If Marx, indeed, took his start from a critical and revolutionary reversal of the principles inherent in Hegel's method, he certainly went on to develop, in a strictly empirical manner, the specific methods of his own materialistic criticism and research' (*Karl Marx* (1963 [1938]), pp. 64–5).

81 Schrader, *Restauration und Revolution* (1980), p. 136.

82 Marx 'Economic Manuscripts', in MECW 28, pp. 122, 123.

it was, precisely because of the place of money in the commodity-exchange 'cell form' of capitalism, a concrete political issue that led Marx to concentrate on the questions: 'does not the bourgeois system of exchange itself make a specific instrument of exchange necessary? Does it not of necessity create a special equivalent of all values?'[83]

This Marx argues by demonstrating that in a commodity-market system, social labour time cannot be represented directly, but only in the form of exchange value, specifically in the price form, so that any attempt to represent abstract labour, say by 'time-chits', would only result in the creation of a new form of money. In the course of working out this demonstration, Marx comes suddenly to the realisation that provides the key to his theory of money: 'Because labour time as a measure of value exists only ideally, it cannot serve as the material for the comparison of prices. (This also explains how and why the value relationship assumes a material and distinct existence in the form of money. This point to be developed further)'.[84] The understanding of value as an abstract idea Marx had discovered in Sismondi, and that of money as a 'common term of comparison' between all commodities he found in Storch's *Cours d'économie politique*.[85] Marx's own insight was the idea that the abstract relation between commodities as products of social labour had to be represented by something distinct from the commodities themselves in order for people to be able to actualise it in exchanges. Money as value-form thus provides a means for the representation of abstract labour time. It is the material incarnation of an idea: 'Such a symbol presupposes general recognition; it can only be a social symbol; in fact, it only expresses a social relationship'.[86]

This idea has arisen, in fact, as a representation of the social relations that constitute capitalism as a system. Although 'individuals are now ruled by *abstractions*', these abstractions, or ideas, are 'nothing but the theoretical expression[s] of those material relationships which dominate the individuals'.[87] Those relations are ultimately – in the progress of theory in *Capital* (as before it in the *Grundrisse*) – to be described in terms of the relation between the controllers of the means of production and those who possess nothing but their ability to work. To put it crudely, labour can be socialised as commodity-producing labour only when the ability to labour has itself become a commodity. In order for the product of labour to have the character of value represented

83 Ibid., p. 65.
84 Ibid., pp. 77–8. See the discussion in Schrader, *Restauration und Revolution* (1980), pp. 113 ff.
85 Schrader, *Restauration und Revolution* (1980), p. 127.
86 Marx, 'Economic Manuscripts', in MECW 28, p. 142.
87 Ibid., p. 101.

by its exchangeability against money, that labour must be wage labour. Alternatively put, wage labour and capital are not only types of commodity but the fundamental types, whose existence alone makes the existence of a social system governed by value relations possible.[88]

The revelation of this truth is the ultimate outcome of Marx's critique of political economy. That critique aims to demonstrate how the categories of economic theory represent a systematisation of the representations of the social relations definitive of capitalist society in everyday language and thinking. These representations are taken for logically ultimate descriptions of structures and forces – 'the economy' – regulating social experience just because, in capitalism, the social relations of production have no other form of representation than those of commodity-value and money. As Marx explained this in the concluding section of the first chapter of *Capital*:

> The private producer's brain reflects [the] twofold social character of his labour [as concrete and abstract] only in the forms which appear in practical intercourse, in the exchange of products ... The value character of the products of labour becomes firmly established only when they act as magnitudes of value. These magnitudes vary continually, independently of the will, foreknowledge and actions of the exchangers.

Hence, though only forms of thought, the categories of bourgeois economics are 'socially valid and therefore objective'.[89] They have, that is, the character of an autonomous system, even though 'the characteristic which objects of utility have of being values is as much people's social product as is their language'.[90]

For this reason, one can understand how Hegel's dialectical logic provided Marx with an irresistibly attractive rhetoric for the depiction of the system of economic categories that structure social action in capitalist society. Hegel's illusion that his concepts themselves generated the sequence of ideas in his systematic treatment of cognition mirrors the illusion of humankind under capitalism that the social relations that are their own historical product have an ineluctable life of their own.[91] The very 'mystical' character of the Hegelian dia-

88 See ibid., pp. 156–8.

89 Marx, *Capital* 1, pp. 166–9.

90 Ibid., p. 167; translation amended.

91 Indeed it has been suggested by Herbert Schnädelbach, in a very stimulating essay, that 'the Hegelian form of logic itself is not as a system independent of the world view in which the bourgeoisie imagines its own social relationships' ('Zum Verhältnis von Logik und

lectic that made it unacceptable to Marx as a method of scientific investigation matched in a mode of theorising 'the mystical character of the commodity'[92] manifested in everyday social life.

Marx's Dialectic

But the fundamental feature of the Hegelian viewpoint for which Marx honoured him as a 'mighty thinker' was the idea of the dialectic as realized in social history, as the principle (as Marx put it in the Postface to *Capital*) according to which 'every historically developed form' is to be conceived as being in a fluid state, in motion, and therefore as 'transient'. Hegel's expression of this idea indeed represented a 'mystification', due, as Marx explained it in *The German Ideology*, to the tendency of intellectuals (he is thinking of the tradition that began with the Enlightenment and took on new forms among the German philosophers of the first half of the nineteenth century) to see ideas, the stuff of their profession, as the determinants of history.[93] It is only too easy then for someone like Hegel to 'bring an order into this rule of ideas, prove a mystical connection among the successive ruling ideas [in different historical periods], which is managed by regarding them as "forms of self-determination of the concept" (this is possible because by virtue of their empirical basis these

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Gesellschaftstheorie bei Hegel' [1970], p. 59). This idea was anticipated by Marx, who – as Grossmann reminds us – in 'his critique of Hegel's dialectic ... characteristically compares the logic with which Hegel begins his *Encyclopedia* with money and value: It is "mind's *coin of the realm*" and the "*mental value*" of man and nature, because it "has grown totally indifferent to all real determinateness" and is "thinking which abstracts from nature and from real man; *abstract* thinking"' ('Marx, Classical Economics, and the Problem of Dynamics' (2007 [1941]), p. 27, quoting 'Economic and Philosophic Manuscripts of 1844', in MECW 3, p. 330).

92 Marx, *Capital* I, p. 164.

93 The same tendency, visible in Lenin's insistence in his *What is to Be Done?* of 1902 that 'Without revolutionary theory there can be no revolutionary movement' – with the understanding that theory is the product of the professional revolutionaries governing the revolutionary party – perhaps explains his emphasis on the understanding of Hegel as essential to a correct Marxism. Lukács was only following the lead of his ideological master in insisting on the importance of Hegelian method as the key to orthodoxy. In both cases, the emphasis on theoretically-informed political leadership seems related to the similarity of the Russian Revolution to the nineteenth-century bourgeois revolutions theorised in the Hegelian dialectic.

ideas are really connected with one another and because, conceived as *mere* ideas they become self-distinctions, distinctions made by thought)'.[94]

In the Postface Marx singled out the review of *Capital* by I.I. Kaufmann for its accurate depiction of his 'rational' version of the dialectical method. This depiction identifies two main aspects of the Marxian dialectic. First, according to Kaufmann, Marx has sought to construct a social theory on the model of natural science, understood as the attempt to discover the laws governing some domain of phenomena on the basis of empirical investigation. In social as in natural science, the facts that are to serve as material for theoretical generalisation are to be determined by the researcher, independently (in the former domain) of the conceptions that the people studied have about their social circumstances. Whatever people imagine the character of their social life to be, '[t]he only things of importance for this inquiry are that the facts be investigated as accurately as possible, and that they actually form different aspects of development vis-à-vis each other'. This first aspect of Marx's approach noted by Kaufman clearly constitutes the core of the 'inversion' necessary to transform the dialectic from what he calls the 'mystified form' it has in Hegel's hands to the 'rational form' which, instead of viewing historical change as generated by the relationships between concepts, understands the construction of concepts as a part of the social process of production, fundamentally constrained by previous technical development (modes of production, in Marx's vocabulary) and social power relations (relations of production).[95] This is the turn from philosophy to 'real, positive science'.

Second, Kaufmann observes, objects in the particular domain of knowledge investigated – society – are unlike those studied by physics and chemistry, but like those investigated by biology, in being characterised by laws of their evolution 'from one form into another, from one series of connections into a different one'. That is, there are no general laws of social life; 'on the contrary, in [Marx's] opinion, every historical period possesses its own laws'.[96] This comparison with biological organisms stresses two features of the 'dialectical' approach to society. First, 'it regards every historically developed form [of society] as being

94 Marx and Engels, *The German Ideology*, in MECW 5, p. 62.

95 Thus, in the *Grundrisse*, discussing the cultural changes involved in the transformation of pre-capitalist into capitalist society, Marx comments that, 'Considered *notionally*, the dissolution of a definite form of consciousness would be sufficient to destroy an entire epoch. In reality, this barrier to consciousness [for example, to the development of science] corresponds to a *definite degree of development of the material productive forces* and thus of wealth' ('Economic Manuscripts', in MECW 28, p. 464).

96 Marx, *Capital* I, pp. 100–1.

in a fluid state, in motion, and therefore grasps its transient aspect as well'.[97] Second, it regards each social form as a distinct whole with its own laws; that is to say its functioning is regulated by a structure peculiar to it, rather than by general transhistorical properties of society as such or even institutions identifiable across a range of social systems.

For example, money, a feature of many earlier social systems, acquires particular features and functions in capitalism because of its centrality to the processes of production and exchange: once the ability to labour becomes exchangeable for money, the products of labour, belonging not to the labourer but to his or her employer, can be acquired only in exchange for money, and the buying of labour to produce commodities for profitable sale transforms the money paid for it into invested capital. Again, 'labour' itself

> seems to be a very simple category … Nevertheless … 'labour' is just as modern a category as the relations which give rise to this simple abstraction … The fact that the particular kind of labour is irrelevant corresponds to a form of society in which individuals easily pass from one kind of labour to another … [a] state of affairs … most pronounced in the most modern form of bourgeois society …[98]

Classical political economy took as its task to explain the distribution of the social product, conceptualised as the joint product of the eternal triangle of land, labour, and capital (in the sense of means of production), between the three great classes of society, capitalists, workers, and landed proprietors. For Marx, in contrast, labour and land-ownership have come to have historically specific economic forms determined by their relation to capital: 'the reaction of capital on the older forms of landed property converts the latter' into the modern form that entitles its owner to a money rent; along with this 'the cottiers, serfs, villeins, copyholders, cottagers, etc' of pre-capitalist society become 'wage labourers' earning a money income by producing a surplus value that the owners of capital share with modern land-owners under the name of rent. Thus '*wage labour* in its *classical* form, as permeating the whole extent of society, and making itself in lieu of the soil the ground on which society rests, is first created by modern landed property, i.e. by landed property as a value created by capital itself'. In this way, this 'organic system has its premises as a totality, and its development into a totality consists precisely in subordinating all elements

97 Ibid., p. 103.

98 Marx, 'Economic Manuscripts', in MECW 28, pp. 40–1.

of society to itself, or in creating out of it the organs it still lacks'.[99] Just as biological species exist as self-reproducing populations distinct from the species from which they have evolved, so the historical presuppositions of capitalism – in particular, the expulsion of the agricultural labourers from the land due to the commercialization of agriculture –

> have vanished and therefore belong to the *history of its formation* but by no means to its *contemporary* history, i.e., do not belong to the real system of the mode of production dominated by it. If e.g. the flight of serfs into the cities was one of the *historical* conditions and presuppositions for the development of the medieval city, it is not a *condition*, a moment, of the reality of fully developed city life, but belongs to its *past* presuppositions …[100]

Once formed, this system of interdependent elements is like a biological organism in being self-regulating and self-reproducing. Thus, as Marx wrote in his 1861–3 draft of *Capital*, 'the result of the process of production … now appears to be above all the *reproduction* on an ever-increasing scale of the very relationship of *capital* and *labour*, of *capitalist and worker*'.[101] While the product of transformations operating on earlier systems, societies are identifiable as the particular entities they are by reference to such reproduced features. The products of historical transformation, they are now, as historically specific

99 Marx, 'Economic Manuscripts', in MECW 28, pp. 206–8.

100 Marx, 'Economic Manuscript of 1861–63', in MECW 34, p. 235. An essay by François Mayer on 'Situation épistémologique de la biologie' interestingly furthers the comparison between biological and social evolution: 'The whole biological problem is … concentrated on its historical dimension. A given biological system is not only a structure currently existing in space-time, but presents a temporal dimension that exceeds it unimaginably: all its structural and functional properties can be explained only as the current outcome of the entire history of a line leading to the first differentiating steps marking the history of life. That is to say that, if the secret of the functioning of a living being lies in its structure, the secret of that structure is to be found in the logic which governed its elaboration in the course of paleontological time' ([1967], p. 806).

101 Marx, 'Economic Manuscript', in MECW 34, p. 234. Marx makes the comparison to biological evolution himself: 'In the same way, the existence of the human race is the result of an earlier process which organic life passed through … But once man has evolved, he becomes the permanent presupposition of human history, likewise its permanent product … [In the same way,] labour must separate itself from the conditions of labour in their previous form … and only thus are its conditions converted into *capital* …' ('Economic Manuscripts', in MECW 32, p. 492).

totalities, governed by laws peculiar to them. It is 'the law of motion of capitalist society', not transhistorical laws of economics or of social life more generally, that is the goal of Marx's researches.

The Marxian dialectic is neither a theory of history nor a special 'method' of theory construction, but the principle of the critique of ideology. This critique is not primarily logical but anthropological and historical, in that it aims to demonstrate that the insufficiencies of economic theory (and of philosophy, for that matter) for the comprehension of capitalist reality are due to its practice of taking the forms of social interactions – in reality the product of human history – for ineluctable structures. As a result, 'something which is only valid for this particular form of production … namely the fact that the specific social character of private labours carried on independently of each other consists in their equality as human labour, and, in the product, assumes the form of the existence of value, appears to those caught up in the relations of commodity production … to be just as ultimately valid as the fact that the scientific dissection of the air into its component parts left the atmosphere itself unaltered in its physical configuration'.[102] The critique of this view is an attempt, therefore, not to display the 'self-development of concepts' but to explain the development of concepts by the 'real individuals' (as Marx puts it in *The German Ideology*) whose activity constitutes the history of society.

Marx's own development of concepts is part of this history, made possible by (and limited by) the particular socio-historical context of Marx's intellectual activities. Marx is at pains to emphasise that at every point in the process of empirical analysis and subsequent synthesis we are dealing with 'a product of the working-up of observation and conception into concepts', that is, with 'a product of a thinking head, which appropriates the world in the only way it can'. A philosopher like Hegel, for whom (as a result of his place in the division of labour) 'the conceptual world as such is the only reality', and to whom 'the movement of the categories appears as the real act of production', may fall into the illusion of mistaking the resulting system of categories 'as a product of the concept which thinks and generates itself'.[103] It was this illusion that Marx

102 Marx, *Capital* I, p. 167. Further discussion of this principle would lead to Marx's conception of the relation between what he called the 'material foundation' and the 'ideological superstructure' of social reality; see my *Social Knowledge* (1986), especially Ch. 5.

103 Marx, *Capital* I, p. 101. Marx did not, of course, deny that the phenomena conceptualised by the simpler categories may 'have an independent historical or natural existence predating' the more complex ones. Thus money, basic to the capitalist system of production, existed before capital came into being. But it is not in general the case that 'the path of abstract thought, rising from the simple to the combined, [corresponds] to the real his-

wished to ward off in writing *Capital* by correcting 'the idealist manner of the presentation'. In understanding the origin of capitalism as a system, it 'must be kept in mind that the new productive forces and relations of production do not develop out of *nothing*, or out of thin air, or from the womb of the Idea positing itself, but within and into the existing development of production and inherited, traditional property relations'.[104] Similarly, it was not the concept of capital that demanded dialectical development in the form of the Marxian critique; it was people's experience of the limits of capitalism that suggested the limits of political economy. Marx looked not to the study of Hegel but to the experience of economic crisis 'to drum dialectics' even into the heads of the ruling classes.[105]

torical process'. Thus the explanatory priority of concepts relative to the analysis of one or another specific social system neither reflects nor explains the historical sequence of social institutions but is entirely a function of the nature of the specific system under investigation (see ibid., p. 102).

104 Marx, 'Economic Manuscripts', in MECW 28, p. 208.

105 Marx, *Capital* I, pp. 100, 103.

CHAPTER 4

Theory as Critique

Already during Marx's lifetime marginalism and general equilibrium theory were on their way to victory over classical political economy, deeply engaged with the labour theory of value. The effect of this victory on the evaluation of what Schumpeter called 'Marx the Economist' is evident from the representative sample of opinions in the preceding chapter. Critics reject him as the pupil of Ricardo, while the faithful accept him as the heir, developer, and perfector of the classical theory. For Rudolph Hilferding, who wrote the classic marxist reply to Böhm-Bawerk, Marx 'was able to take up the analysis at the point where the investigations of the classical economists had been arrested'. Because of his socio-political viewpoint, historical materialism, he was able to clarify theoretical issues which the outlook of the classicals left them incapable of solving. Marx's interpretation of the labour theory of value in terms of the materialist conception of history put the capitalist economy in its historical place as a specific form conferred on economic activities by capitalist social institutions. This demonstration 'signifies the close of political economy as a *bourgeois* science and its foundation as a *proletarian* science'. This view, which is the ancestor of Sweezy's attempt to integrate marxism into academic economics – a goal finally achieved by a younger generation with the post-1970s creation of academic 'marxist economics' – compared marxism with marginalism as alternative economic theories, acceptance of the subjectivist theory of value signifying for Hilferding 'the repudiation of economics'.[1]

It is more surprising to see this picture of Marx as a Ricardian among the marxists than among their critics.[2] Marx gave the name 'classical' to the English tradition which in the theory of Ricardo 'reached the limits beyond which it could not pass', to contrast it with its later 'vulgarization', its transformation from science into apologetics.[3] For Marx, not he but 'Ricardo … gave to classical political economy its final shape …'[4] as a science. Even the works of social-

1 Hilferding, 'Böhm-Bawerk's Criticism of Marx' (1949 [1904]), pp. 195–6.

2 For a fundamental discussion of this question, extended into a critique of neoclassical economic theory, see Henryk Grossmann, 'Marx, Classical Economics, and the Problem of Dynamics' (2007 [1941]), pp. 6–31.

3 Marx, *Capital* I, p. 96.

4 Marx, *Contribution to the Critique of Political Economy* [1859], in MECW 29, p. 301.

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ist writers like Thomas Hodgskin and Percy Ravenstone, whom Marx praised for seeing certain matters more clearly than Ricardo, nevertheless constitute 'writings which defend the interests of the proletariat from the Ricardian standpoint, basing themselves on his assumptions'.[5] A deeper understanding of capitalism would require, not the further perfecting of a theory already essentially brought to its limits, but thinking of a different sort.

Classical political economy, its Ricardian-socialist critique, and the vulgar economics which followed on what Marx called 'the disintegration of the Ricardian school' all share the assumption that basic features of capitalist society are necessary features of every social system of production. From this, in Marx's eyes, stemmed the limit to the development of economics as a science. The rise of modern industry, however, brought with it, on the one hand, recurrent economic crises, raising awkward questions about the naturalness of capitalist institutions, and, on the other, the working-class movement, which answered them with talk about the construction of a new social system. As he put it in his polemic against Proudhon's attempt to create that very combination of Ricardian economics, French socialism, and Hegelian philosophy that has been claimed for Marx, '[j]ust as the *economists* are the scientific representatives of the bourgeois class, so the *socialists* and the *Communists* are the theoreticians of the proletarian class'.[6]

It was the crisis-stimulated upheavals of 1830 and 1848 which, in Marx's eyes,

> sounded the knell of scientific bourgeois economics. It was thenceforth no longer a question whether this or that theorem was true, but whether it was useful to capital or harmful, expedient or inexpedient, in accordance with police regulations or contrary to them.[7]

Marx explained the poverty of economic thought in Germany, his native country, in terms of the relation between the evolving capitalist economy and the theories about it. Germany was in Marx's time an underdeveloped country: there 'the living soil from which political economy springs' – a self-confident, expanding industrial system – 'was absent'. Capitalism was coming to Germany at a time when class struggle between labour and capital was making scientific

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5 Marx, 'Economic Manuscript of 1861–63', in MECW 32, p. 394. See also, Marx, *Contribution*, in MECW, p. 301.

6 Marx, *The Poverty of Philosophy* [1847], in MECW 6, p. 177. See Lenin, 'The Three Sources and the Three Component Parts of Marxism', (1967 [1913]), pp. 41–5.

7 Marx, *Capital* I, p. 97.

economics impossible. This historical circumstance forbade, in that country, 'any original development of "bourgeois economics"', but not 'its critique'.[8]

This – the critique of political economy, not its development or refinement – was the task Marx assigned himself. Immanuel Kant had used the word *Kritik* in his trilogy of major works to denote an inquiry into the limits of application of a set of concepts.[9] The question of limits arises when the application of a system of concepts in some area of inquiry leads to problems unsolvable in the terms set by this system (thus, according to Kant, unresolvable disputes in metaphysics arise from the attempt to apply the vocabulary of empirical knowledge to a domain lying outside all possible experience). Hegel's conception of dialectical *Aufhebung* – translated variously, but always hopelessly, as 'supercession', or 'sublation' – was a development of this idea. The verb *aufheben* has a double meaning, as Hegel points out: '(1) to clear away, or annul …; (2) to keep or preserve …'[10] That is, the critique of a system of concepts (or theory) requires the construction of a new system which replaces it but at the same time 'preserves' it, in that it explains both the phenomena which form the subject matter of the original theory and the limitations of that theory.

With respect to the 'preservative' aspect of critique, J. Witt-Hansen has made an example of physics, pointing out, in an interesting comparison of Kant and Marx, that '[m]odern epistemology in the field of physics has taught us that the limits of application of a physical theory can be determined in an exact way only on the basis of a more general theory which includes the theory in question as a special case'.[11] On the other hand, the element of what Hegel called 'negativity', the aspect of destruction, lies in the circumstance that a demonstration that the paradoxes which arise on the basis of a theory are not solvable within it points to the existence of difficulties in the theory's foundations. Removing these difficulties therefore requires the redefinition of essential concepts, or at any rate new sets of assumptions associated with them. Thus the sense in which a critique or *Aufhebung* 'preserves' the content of the original theory is problematical. To continue the comparison with physics, this

8 Ibid., pp. 95, 98.

9 See Kant, *Critique of Pure Reason* (1998 [1781]), pp. 149 ff. For a penetrating comparison of Marx's procedure with the Kantian *Kritik*, see Gideon Freudenthal's essay, 'Marx's Critique of Economic Reason' (1997), pp. 171–98; see in particular the discussion on p. 186, where Freudenthal develops the significance of a particular Kantian usage in Marx's argument.

10 Hegel, *Logic, Being Part One of the Encyclopaedia of the Philosophical Sciences* (1975 [1830]), § 96, p. 180.

11 Witt-Hansen, *Historical Materialism: The Method, the Theories. Exposition and Critique*, Book One (1960), pp. 9–10.

issue arises, for instance, with respect to the concept of 'mass', constant under changes of velocity in classical mechanics, but variable, because intertransformable with energy, in relativistic mechanics.[12] We will see the same kind of issue in the transformation which the classical concept of 'value' undergoes in the Marxian critique of Ricardian theory.

As the comparison with the history of physics suggests, the concept of 'critique' is thus related to the more recent one of 'scientific revolution', and indeed we find Marx speaking of his work, in a letter to a friend, as a scientific attempt 'to revolutionise a science'.[13] What did he mean by this? Commentators, as we have seen, tend to understand Marx's theory of capitalist society, in relation to its bourgeois predecessors (and contemporaries), on the model of rival theories of the same basic sort. Extended to the present this conception underlies the idea of 'marxist economics', as a school of economic theory contending with others. From this point of view – the dominant one, I believe – *Capital* presents a critique of political economy in the same sense as that in which general relativity may be taken as a critique of classical mechanics. This is all the more true when Marx is thought of, and again I think this is the dominant view, as having adopted, from his theoretical forbears, the labour theory of value. From this viewpoint – essentially that of Hilferding, with which we began this chapter – Marx's version of this theory may be an improvement over Ricardo's, and it may be deployed in a scientifically superior manner, but its fundamental place in his system makes him an heir of classical economics, in the same way that Einstein can be seen as an heir of classical physics.[14]

In his *Contribution to the Critique of Political Economy* of 1859, the first published fruits of the labours undertaken in the *Grundrisse*, Marx described the situation in classical economics at the time of his writing:

> Since the determination of exchange value by labour-time has been formulated and expounded in the clearest manner by Ricardo, who gave to classical political economy its final shape, it is quite natural that the arguments raised by economists should be primarily directed against him.

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12 For a detailed example of the process of conceptual change within theoretical development, see Nersessian's study of the 'field' concept, *Faraday to Einstein: Constructing Meaning in Scientific Theories* (1984).

13 Marx to Ludwug Kugelmann, 28 December 1862, in MECW 41, p. 436.

14 For a contemporary example of this view, from an author particularly sympathetic to Marx, see Duncan Foley, 'The Long-Period Method and Marx's Theory of Value', in Volker Caspari (ed.), *The Evolution of Economic Theory: Essays in Honour of Bertram Schefold* (Abington: Routledge, 2011), pp. 15–38.

There follows a list of four points to which the disagreements of the post-Ricardian economists could be reduced:

> *One* … given labour-time as the intrinsic measure of value, how are wages to be determined on this basis? …
>
> *Two* … how does production on the basis of exchange value solely determined by labour-time lead to the result that the exchange value of labour is less than the exchange value of its product? …
>
> *Three* … The exchange value of commodities is … determined not by the labour-time contained in them, but by the relation of demand and supply. In fact, this strange conclusion only raises the question how on the basis of exchange value a market-price differing from this exchange value comes into being [this is what was to become known as the value-price transformation problem] …
>
> *Four* … how does the exchange value of natural forces [which are not products of labour] arise?[15]

A striking fact about this list of problems is that it adds up to *the main problem to which classical political economy had addressed itself*: an explanation of the distribution of the social product among the three great classes of workers, capitalists, and landlords, to be made possible by an explanation of the market-price system as a regulator of social production. Apart from the degree to which his diagnosis of a political basis for the loss of faith in Ricardian concepts is correct,[16] what Marx describes in this passage is evidently a situation of the sort that Thomas Kuhn famously analysed in his *The Structure of Scientific Revolutions* as a 'crisis' in a scientific theory, in which an accumulation of important problems in a field leads to a general loss of confidence in the set of categories and methods guiding research and discussion in the field. Yet, although Marx's revolution aimed to solve problems that had arisen in the practice of political economy as a 'normal science' (to use Kuhn's vocabulary), his intention was not to create an improved political economy, any more than the communist

15 Marx *Contribution to the Critique of Political Economy* [1859], in MECW 29, pp. 301–2.

16 That this degree is not negligible is suggested by comments by turn-of-the century economists, such as J.B. Clark's defence of the marginalist theory of the distribution of income: 'if [the workers] create a small amount of wealth and get the whole of it, they may not seek to revolutionize society; but if it were to appear that they produce an ample amount and get only a part of it, many of them would become revolutionists and would have the right to do so' (*The Distribution of Wealth: A Theory of Wages, Interest and Profits* [New York: Macmillan, 1902], p. 4), cit. Hausman, *Capital, Profits, and Prices* (1981), p. 190.

revolution he envisaged was supposed to solve problems (poverty, inequality, unemployment, trade crises) produced by the normal functioning of capitalist society by reforming that society.

Classical economic theory had not, like nineteenth-century electromagnetic field theory, thrown up unsolvable problems in the course of yielding powerful explanatory and predictive results. It had failed at the basic task it had set itself. Marx was the inheritor of Ricardo's economics only in that his starting-point was the inability of the classicals to solve the problems which their analytic work had posed. What Marx did with his inheritance was to demonstrate that this inability was due not to some accidental shortcomings of Ricardo or to the purely intellectual difficulty of the problems, but to basic assumptions of the classical approach. Marx promised to solve the problems produced by classical theory by his own approach: the first by 'the theory of wage labour'; the second by 'our analysis of capital'; the third by 'the theory of competition'; and the last by 'the theory of rent'.[17] This approach would not constitute an improved economics but was meant to break the spell of economic concepts and theories on the minds of modern people.

This kind of radical alteration in theory, involving a fundamental reconceptualisation of its objects, is not peculiar to social science: the abandonment of Aristotelian for Galilean physics and the related early-modern replacement of Aristotelian biology by mechanicism were similarly profound Both these examples involved rethinking the similarities and differences between living beings and the rest of nature: in the first case, the dropping of an anthropomorphic concept of movement and force, in the second a basic remodeling of the conceptualisation of animate being.[18] In Marx's case, the change involved the reconceptualisation of 'the economy' as an historical social construct, dependent for its existence on humans' perpetuation of certain modes of conceptually mediated action. The scientific revolution effected by Marx therefore involved not only a redefinition of economic categories but the construction of another sort of categories, explicitly social and historical ones.[19]

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17 Marx, *Contribution to the Critique of Political Economy* [1859], in MECW 29, p. 302.

18 It was the remodeling of human beings as machines, in the context of Christianity, that produced the mind-body problem, which did not arise in the Aristotelian system.

19 The ideological – i.e., systematically misrepresentational – character of the economic categories is at the heart of 'the striking analogy between metaphysics, in a narrow sense, according to Kant, and ideology in the Marxian sense', to which Witt-Hansen draws our attention. Because it was precisely the great metaphysical questions which could not be answered by pure Reason, Kant claimed to be the author not of a new metaphysic but of the outline of an entirely new science, the science of Reason and its limits, which would

Moreover, these categories bear on the social constructions – including modes of behaviour and forms of conscious reflection on that behaviour – on which the continued existence of the economy as a mode of social life depends.

Thus more is at stake in Marx's work than a relation between two theories. Since in Marx's conception theories are to be understood as representations of socially regulated experience, theoretical critique here echoes Hegel's remark that dialectical consciousness is not 'peculiarly confined to the philosopher', so that it 'would be truer to say that dialectic gives expression to a law which is felt in all other grades of consciousness, and in general experience'.[20] In this, Hegel's formulation of dialectic goes well beyond Kant's conception of *Kritik*. Marx's represents a further, and distinct, development of the idea, since he regards his theoretical *Aufhebung*, the critique of political economy, as a response not to some necessity inherent in the inadequacy of the conceptual structure of classical economics – an inadequacy that had not on its own provoked a theoretical advance among the economists – but as called for and rendered possible by the experienced crisis tendency of capitalism and the workers' movements responding to it.

Although *Capital* is recognised to be a critique of political economy, this is generally not taken to have important implications for the structure of Marx's argument. It is only natural, then, for discussions of that structure, what he called the 'method of presentation' of his theory, to proceed primarily in terms of various logics of theory construction; for example, by searching for analogies to the progression of concepts in Hegel's logic or, more generally, by noting such features as a movement from relatively abstract to relatively concrete descriptions. I will argue that the architectonic of Marx's work cannot be adequately understood without direct reference to its character as a critique not just of rival theories but of what I will call economic discourse.

Political Economy as Text and Discourse

Writing to Lassalle in 1858, Marx described the manuscript he was completing as 'a Critique of Economic Categories or, if you like, a critical exposé of the system of the bourgeois economy. It is at once an exposé and, by the same token, a critique of the system'. He goes on to say that 'generally speaking the cri-

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provide a solution to all metaphysical problems by redefining them (*Historical Materialism* [1960], p. 28).

20 Hegel, *Logic* (1975 [1830]), pp. 149–50 (§ 81).

tique and history of political economy and socialism would form the subject of another work, and, finally, the short historical outline of the development of economic categories and relations yet a third'.[21] It is clear that 'economy' is meant differently in Marx's description of his current project (and his projected third book) and of his planned second book. In the first, Marx speaks of a critique directed at a system of social relations, in the second of a critique of economic theory. And yet, the ambiguity of *Ökonomie* appears also in the reference to *Kategorien* as objects of critique. It is in fact essential to Marx's conception of his theoretical project that economic categories be both what Durkheim would call 'social facts' and what some later French thinkers would call '*mentalités*'. Cultural, embodied in linguistic behaviour along with other modes of action, these categories, as symbolic representations of certain modes of social action, function to organise and can therefore be seen in those modes of action.

A couple of examples may clarify this central element of Marx's thinking: 'Art', once it came to be used in the later eighteenth century to classify a range of objects and performances valued as collectible objectifications of creative activity, both defined a type of production and could also be projected backwards into history to classify objects – Greek tableware, Egyptian temple statues, medieval altarpieces – originally produced with very different social purposes and significations.[22] Perhaps an even better example, because of its confusion of social-historical and scientific aspects, is the concept of 'race', like the categories of economics a product of early modern society. Although the consensus of scientific thought has long been that there are no races in biological reality, the concept continues to function, however roughly and even paradoxically (so that, for instance, in the United States a 'white' woman can bear a 'black' child, but a 'black' woman cannot have a 'white' child) so pervasively that it is almost indispensable in daily life in modern countries. As we will see in some detail, concepts like 'value', 'labour', and 'capital' have this culturally-constructed character; speaking of historically variable 'forms of social life' in the first volume of *Capital*, Marx wrote that 'The categories of bourgeois economics consist precisely of forms of this kind. They are forms of thought which are socially valid and therefore objective, for the relations of production belonging to this historically determined mode of social production, i.e., commodity production'.[23]

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21 Marx to Lassalle, 22 February 1858, in MECW 40, p. 270.

22 See my *Art in Its Time: Theories and Practices of Modern Aesthetics* (2003), Chs. 1–3.

23 Marx, *Capital* I, p. 91.

The economists' category of 'value' was produced in the attempt to understand commodity exchange, which had long since developed as a social practice. It corresponds to the vernacular concept of value invoked when it is asked what some good is 'worth' or if payment for it will receive 'value for money'. What makes it appropriate to describe features of that practice themselves as categories is, in Marx's conception, that they amount to a historically specific mode – what Marx calls a 'social form' – of organising the nature-imposed task of production. They embody, so to speak, a view of the labour process. In the exchange of commodities the kinds of labour that have produced them are, necessarily, treated as interchangeable. Exchange establishes their interchangeability. This involves a different way of classifying, dealing with, and thinking about labour than one in which the products of different kinds of labour are not treated as interchangeable.

Further: interchangeability of products makes the labour that has produced them *social*. In capitalism, it is the exchange process that by realising the social character of commodity-producing labour signifies this mode of sociality. Other kinds of labour can have a social character as well, of course – for instance, much of the work performed in the household. But this can be explicitly recognised as social, by the use of such categories as 'chores'. Commodity-producing labour has a special status in capitalist society (namely, it is 'productive' labour, productive of surplus value). It is a special kind of social labour, and this character also needs to be signalled in some way. It is the act of exchange against money that in this case classifies the labour performed as social labour. As Marx explains it in the *Grundrisse*, money as 'sign of exchange value' is a 'symbol' that 'represents' the social labour contained in a particular commodity.[24] The vocabulary of value – the equation of a commodity to a sum of money in answer to the question, how much is it worth? – provides a signifier for this particular type of social labour.

There are thus two levels of representation to be distinguished under the heading of economic categories. First, commodity exchange 'transforms every product of labour into a social hieroglyphic'. In the exchange process, each of two commodities exchanged represents the labour that has gone into the making of the other product, and by doing so marks that labour as social. Because equation to a sum of money is the only form in which labour is so marked, 'value' as an expression in everyday language is used to refer to an (apparent) property of commodities.

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24 Marx, 'Economic Manuscripts of 1857–58', in MECW 28, p. 82. Though as we saw in Chapter 2, it is not *just* a symbol.

On the second level, that of economic theory, 'value' so used is a phenomenon to be explained; it is asked what determines the value of a commodity, or in what the value of commodities consists. 'Later on, men try to decipher the hieroglyphic, to get behind the secret of their own social product: for the characteristic which objects of utility have of being values is as much men's social product as is their language'.[25] According to Marx, the classical economists were not able finally to 'decipher the hieroglyphic', specifically because they were unable to recognize the representational – the cultural-historical – character of value.

To recognise this character, as Marx did, is to transform the conditions of theorisation. From his point of view (though not in his words), to understand value is to understand a social practice and the discourse that is part of it. 'Political economy', Marx wrote, 'has indeed analyzed value and its magnitude, however incompletely, and has uncovered the content concealed within these forms. But it has never once asked the question why this content has assumed that particular form, that is to say, why labour is expressed in value …'[26] To ask this is to ask a social-historical question, one not answerable within economics: under what conditions did people come to represent social labour in the form of exchange value? It is to ask a question about the historical conditions of economic discourse, about the circumstances under which the categories of economics have a use.[27] Marx's 'critique' is thus an expansion of the Kantian idea of a demonstration of the limits of applicability of some theory or, more broadly, some discourse: an historical critique of economic theory is also a critique of the social practice in relation to which economic discourse exists.

Capital is, in accord with the intentions expressed in Marx's letter to Lassalle, not a study of political economy as a set of texts ('the critique and the history of political economy', which was to come later). It is an investigation of economic discourse – the field of categories defining a mode of conceptualisation and discussion of social experience. For this reason, Marx refers to specific

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25 Marx, *Capital* I, p. 167.

26 Ibid., 174. See also Marx's comment in the manuscript later published as *Theories of Surplus Value* (Marx, 'Economic Manuscript of 1861–63', in MECW 31, pp. 389–90): '… *Ricardo* does not *examine* the form – the peculiar characteristic of labour that creates exchange value or manifests itself in exchange values – the *nature* of this labour. Hence he does not grasp the connection of *this labour* with *money* or that it must assume the form of money'.

27 This – a question about the systemic conditions of existence of a capitalist economy – should be distinguished from the strictly historical question about the process that brought those systemic conditions into existence (the topic of Marx's projected third book, in the letter to Lassalle quoted above).

texts in *Capital* for the most part in footnotes, as illustrations of his analysis. Because social experience itself has a discursive aspect – because the categories fundamental to economic theory are (relative) theorisations of categories describing, as they have a part in, structures of social practice – the critique of the categories deployed in political economy raises questions about the society reproduced by way of that social practice. This is why *Capital* is a critique of economic categories, as determinants of social practice, by way of an investigation of the conditions of applicability of economic theory.

Representation and Reality

In the 'General Introduction' that heads the *Grundrisse* manuscript, Marx concludes a discussion of the sequence in which topics should be taken up in a critical study of capitalist economics by declaring that

> The order obviously has to be (1) the general, abstract determinations which obtain in more or less all forms of society … (2) The categories which make up the inner structure of bourgeois society and on which the fundamental classes rest. Capital, wage labour, landed property. Their interrelation … (3) Concentration of bourgeois society in the form of the state … (4) The international relation of production … (5) The world market and crises.[28]

The preface to the *Contribution to the Critique of Political Economy*, the first published work to emerge from these manuscripts, restates this plan as the series of topics '*capital, landed property, wage-labour; the State, foreign trade, world market*'.[29] This evidently corresponds to the contents of (2)–(5) in the *Grundrisse* plan (which in this form Marx never changed).[30] Abandoned is what had earlier seemed the 'obviously' proper beginning with a treatment of 'the general, abstract determinations which obtain in more or less all forms of society'. The general introduction is omitted since, Marx says, 'it seems to me confusing to anticipate results which still have to be substantiated'.[31]

28 Marx, 'Economic Manuscripts', in MECW 28, p. 108.
29 Marx, *Contribution* [1859], in MECW 29, p. 261.
30 For a discussion of Marx's evolving writing plan, see Maximilien Rubel, 'Plan et méthode de l'Économie' (1974b).
31 Marx, *Contribution*, in MECW 29, p. 261.

A glance at the *Grundrisse* introduction shows the nature of these 'results'. They fall into two main groups. The first Marx describes under the headings '1) Production in General; 2) General Relationship Between Production, Distribution, Exchange and Consumption; 3) The Method of Political Economy'. The second falls under the heading '4) The Means (Forces) of Production and Production Relations; Production Relations and Relations of Intercourse, etc'.[32] Sections (1) and (2) concern general categories of the discourse of political economy. In the first Marx emphasises the social and historical nature of the human relation to nature called 'production', thereby criticising the economists' attempt 'to present production ... as encased in eternal natural laws independent of history, at which opportunity *bourgeois* relations are then quietly smuggled in as the inviolable natural laws, on which society in the abstract is founded'.[33] In the second section he focuses on 'the various categories which the economists line up next to' that of production.[34] Arguing against both bourgeois economists and radical critics of capitalism (notably Proudhon) Marx insists on the analytical primacy of the category of 'production' for social analysis. Finally, his discussion of method emphasises again that 'even the most abstract categories ... are ... themselves a product of historic relations, and possess their full validity only for and within those relations'.[35]

The first group of topics, then, develops a critique of fundamental categories of bourgeois political economy. Presumably the 'results which still have to be substantiated', therefore, concern the limits and inadequacies of bourgeois theory. Their substantiation would be the Marxian critique as a whole, and in fact Marx returns to 'Relations of Distribution and Relations of Production' at the end of the materials published posthumously as Volume III of *Capital*. On the other hand, Marx judged it appropriate to give, in the preface to the *Contribution*, a précis of his conception of the dynamic relation between 'production relations and relations of intercourse', in the form of 'brief remarks regarding the course of my study of political economy'.[36]

These 'remarks', removed from their context, as they are in countless anthologies, constitute one the best-known passages in Marx's oeuvre, the most concise statement of what came to be called 'historical materialism'. It is worth remembering that they represent a highly abbreviated residue of (the last part of) Marx's projected introduction to his critique of economic categories when

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32 Quoted from the cover of Marx's 1857–8 notebook in MECW 28, p. 542 n. 6.

33 Marx, 'Economic Manuscripts', in MECW 29, p. 87.

34 Ibid., p. 88.

35 Ibid., p. 105.

36 Marx, *Contribution* [1859], in MECW 29, p. 261.

we ask, as is rarely done, what is the significance of their presence at the head of the *Contribution*, beyond their announced purpose of demonstrating that Marx's views 'are the outcome of conscientious research carried on over many years'.[37]

The central point of Marx's remarks is made in his statement that 'It is not the consciousness of men that determines their existence but their social existence that determines their consciousness'.[38] It was his conviction on this point that led Marx in the early 1840s away from philosophy to the study of political economy. In particular he became convinced that a study of 'relations of production' was required if the prospects for social revolution were to be comprehended.

> In studying such transformations it is always necessary to distinguish between the material transformation of the economic conditions of production, which can be determined with the precision of natural science, and the legal, political, religious, artistic, or philosophical – in short, ideological forms in which men become conscious of this conflict and fight it out. Just as one does not judge an individual by what he thinks about himself, so one cannot judge such a period of transformation by its consciousness, but, on the contrary, this consciousness must be explained from the contradictions of material life, from the conflict existing between the social forces of production and the relations of production.[39]

At the time when he wrote these words Marx seems to have believed that he was living at least near such a period of social transformation. He wished his work to contribute to the coming social revolution by clarifying the issues at stake. We may remember here the intention stated in Marx's 22 February 1858 letter to Lassalle, that 'another book' (in addition to the six called for by the plan of his critique) should address the critique and history of socialism along with that of political economy, contributing to the political debate that would be part of any revolutionary movement. But just as the discourse of political economy is criticised in advance of detailed examination of the history of economic theory, so socialist ideologies fall already under the same critique insofar as they submit to the rule of that discourse. Thus Marx wrote to Weydemeyer, in reference to the chapters on commodities and money in the *Contribution*, that '[i]n these

37 Ibid., p. 265.
38 Ibid., p. 263.
39 Ibid.

two chapters, the Proudhonist socialism now fashionable in France – which wants to retain private production while organizing the exchange of private products, to have commodities but not money, is demolished to its very foundations. Communism must above all rid itself of this "false brother" '.[40] This was all the more important in Marx's eyes as he had come, since his move to England, to understand that such ideas, far from being peculiar to Proudhon, were widespread in the English workers' movement.

Essential to Marx's project, then, was a distinction between people's understanding of their social activities and the actual processes underway (particularly in a 'period of transformation'). Such a distinction implies, first, the need for a redescription of those activities, in terms systematically different from those in use. Second, it suggests that, in place of the usual procedure of analysing society by means of the categories in current use, the normal understanding of social life is itself to be explained by reference to features of that life as redescribed.[41] In the case of Marx's critique, the normal terms are those furnished by economic discourse, taken for granted by political economy. The workings of this discourse must itself be explained by reference to the categories of a newly produced social description.

The Starting Point

Marx takes his distance from the economists' representation of the social world in the first sentence of his text. 'The wealth of bourgeois society', the *Contribution* begins, 'at first sight, presents itself as an immense accumulation of commodities, its unit being a single commodity'.[42] *Capital* only reformulates this with more elegance, quoting the earlier version to emphasize the continuity of thought: 'The wealth of societies in which the capitalist mode of production prevails appears as an "immense accumulation of commodities"; the individual commodity appears as its elementary form'.[43] Translation obscures the fact

40 Marx to Joseph Weydemeyer, 1 February 1859, in MECW 40, p. 377.

41 For a discussion of the epistemological issues raised by this project, see my *Social Knowledge* (1986).

42 Marx, *Contribution*, in MECW 29, p. 269. Lest this observation of Marx's be taken as outmoded, it is to be noted that Thomas Piketty's *Capital in the Twenty-First Century* (2014), the most celebrated recent work of economic theory, defines 'capital' as 'all forms of wealth that individuals (or groups) can own and that can be transferred or traded through the market on a permanent basis' (p. 46).

43 Ibid., p. 125.

that Marx uses the same verb in both texts: *erscheint*, which refers, through Hegel's particular treatment of it, to the oldest of philosophical and scientific distinctions, that between appearance and reality. 'Appearance' here indicates the terrain of economic discourse.

The object of study is that identified by the 'father of political economy', Adam Smith: the wealth of nations, 'the necessaries and conveniences of life'.[44] To begin with the analysis of commodities is to begin with the science of political economy Smith initiated, which he defined in opposition to mercantilism's equation of wealth with money. From the viewpoint of political economy, as J.S. Mill explained in his *Principles* of 1848, money 'is rightly regarded as wealth' but so also is 'everything else which serves any human purpose'. Thus wealth may be defined as 'all useful or agreeable things which possess exchangeable value'[45] – i.e., as commodities. In his restatement of Mill's definition, however, Marx specifies the wealth under discussion by reference to a specific type of 'nation', bourgeois society. This sentence, then, contains *in nuce* the programme of the Marxian critique as a whole. The appearance of wealth in the commodity form is to be explained, in the manner suggested by the preface to the *Contribution*, by reference to the system of social relations constituting the capitalist mode of production.

If the mention of social wealth calls Smith to mind, Marx's initial theme – use value and exchange value as complementary properties of the commodity – evokes the author Marx considered the greatest of all economists. The first chapter of Ricardo's *Principles of Political Economy*, 'On Value', opens with the distinction between value in use and value in exchange; this is echoed by the second sentence of the *Contribution*'s Chapter 1, and is the main topic of the version of this chapter in *Capital* as well. In this Marx is choosing the path of Ricardo into economic discourse as against that of, say, Mill. Thus he insists in the *Grundrisse* that 'In order to develop the concept of capital, we must begin not with labour, but with value, or more precisely, with the exchange value already developed in the movement of circulation. It is just as impossible to pass directly from labour to capital' – as Mill does, in the first four chapters of the *Principles*, discussing value only in Book III, on Exchange – 'as from the different races of men directly to the banker, or from nature to the steam-engine'.[46] The reason is that 'labour', which can be used as a transhistorical concept, does not then pick out an element specific to capitalist society, any

44 Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (1976 [1776]), p. 10.

45 J.S. Mill, *Principles of Political Economy* (1965 [1848]), pp. 7, 10.

46 Marx, 'Economic Manuscripts', in MECW 28, p. 190. The passage is repeated in the 'Economic Manuscript of 1861–63;' see MECW 31, p. 20.

more than 'means of production' does; only when specified as the producer of value can the category of labour serve in an explanation of the nature of capital, accumulated surplus value.

Thus it is that the index to the *Grundrisse* manuscripts which Marx prepared as preliminary to producing a publishable text begins with the heading, 'I) Value' (followed by 'II) Money' and 'III) Capital in general').[47] When he began to prepare that text, Marx still called his first chapter 'Value'. But he opened with a sentence recognisably the ancestor of the initial sentences of the *Contribution* and *Capital*: 'The first category in which bourgeois wealth makes its appearance is that of the *commodity*'.[48] 'Commodity', strikingly, is not among the 'simplest determinations' – the thinnest abstractions to be reached through analysis of the concrete phenomena of economic life, such as 'division of labour, money, value … exchange value' – listed in the 'General Introduction' to the *Grundrisse*.[49] The analogous passage in the preface to the first edition of *Capital* speaks of 'the power of abstraction' as revealing 'the commodity form of the product of labour, or the value-form of the commodity' as 'the economic cell-form' of bourgeois society.[50] This idea led, as we know, to the writing of the chapter on the commodity, which replaced value as the starting-point of Marx's study of capital,[51] or rather which provided the theme in relation to which he developed the theory of value.

This might seem to be a minor point. Yet in his notes on Adolph Wagner, written in 1879–80, Marx stressed that 'for me neither "value" nor "exchange value" are subjects, but the commodity'.[52] One significance of this change is suggested by a passage in the *Grundrisse* written before it was made. Discussing the exchange relation, in the 'Chapter on Capital', Marx calls the 'pure form' of exchange 'the economic aspect of the relationship', contrasting it with 'the content' which 'lies wholly outside the specifically economic form', and is 'the different use value of the commodities to be exchanged'.[53] This is the same contrast made in *Capital* by distinguishing the value form of the commodity from

47 Marx, 'Index to the 7 Notebooks', in MECW 29, pp. 421–3.

48 Marx, 'Economic Manuscripts', in MECW 29, p. 252.

49 Marx, 'Economic Manuscripts', in MECW 28, pp. 37–8.

50 Marx, *Capital* I, p. 90.

51 See Marx's letter to Engels, 29 November 1858, in MECW 40, p. 358. For a detailed and illuminating discussion of this transformation of Marx's plan, see Fred Schrader, *Restauration und Revolution* (1980), pp. 196 ff.

52 Marx, 'Marginal Notes on Adolph Wagner's *Lehrbuch der politischen Ökonomie*', in MECW 24, p. 534.

53 Marx, 'Economic Manuscripts', in MECW 28, pp. 173, 174.

its use value, 'the material content of wealth, whatever its social form may be'.[54] To begin with value as such would have been to begin inside the discourse of economics; to begin with the commodity is implicitly to set the society in which that discourse has its place against other forms of society in which it does not. Transhistorical content must exist always in one form or another, but there is no reason why it must eternally exist in *this* form.[55]

There is a further aspect of this matter to be noted. What is peculiar to capitalism is not the phenomenon of exchange value, but the fact that the commodity is the dominant form of product, so that wealth appears as an 'immense collection of commodities'. This is only the case (as Marx argues in *Capital*) when the ability to perform labour is itself a commodity. 'The capitalist epoch is therefore characterized by the fact that labour power, in the eyes of the worker himself, takes on the form of a commodity which is his property; his labour consequently takes on the form of wage-labour. On the other hand, it is only from this moment that the commodity-form of the products of labour becomes universal'.[56] The condition of this is the separation of the producers from the means of production, including land, which makes it impossible for them to produce goods either for their own consumption or for exchange. The generalisation of the commodity form, that is, is an index of the class relation between capital and wage labour, the relation that makes possible the exploitation of the working class by the owners of capital. Its key point is the appearance of labour power as a commodity.[57]

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54 Marx, *Capital*, Vol. I, p. 125.

55 For a related argument about Marx's choice of the commodity as his starting point see Martha Campbell, 'Marx's Concept of Economic Relations' (1993), especially pp. 144 ff.

56 Marx, *Capital*, Vol. I, p. 274.

57 Derek Sayer is therefore mistaken in holding that capital 'in no sense' remains 'the starting point as well as the finishing point' of Marx's investigation. According to Sayer, 'The hidden exegetical structure of Capital is that of a hierarchy of conditions of possibility. Thus the commodity is analyzed before money, and money before capital, the first form in either pair being a condition of the second; the concept of value is developed before that of surplus value, and that of surplus value before those of its transmuted forms (profit, rent, interest) for the same reason' (*Marx's Method: Ideology, Science and Critique in* Capital [1983], p. 101). The hierarchy Sayer has in mind is one of logical conditions, a structure that gives *Capital* a 'quasi-deductive' form for good reason reminiscent of the 'dialectically necessary' sequence of categories in Hegel's logic. Without returning to the topic of Marx and dialectic, it can be pointed out that Sayer's purported logical chain of categories in *Capital* does not exist.

While Marx indeed defines capital – at least, initially – in terms of money and, obviously, surplus value in terms of value, the commodity cannot be 'analyzed before money'

The Argument in *Capital*

The first chapter of *Capital* presents the general form of Marx's argument as a whole, within the limits set by its position in the book. Beginning with the commodity as the historical form in which wealth appears in capitalist society, Marx proceeds to describe exchange value as it 'appears' in the exchange ratio between two commodities. 'Value' is then defined as the reality, which thus appears, although Marx is quick to emphasise that it can *only* appear in this form. 'We may twist and turn a single commodity as we wish; it remains impossible to grasp it as a thing possessing value'. This is because value is a 'purely social' property, a relation between people engaged in commodity exchange, and therefore 'can only appear in the social relation between commodity and commodity'.[58] This reference to a 'social relation' between things is at once ironic, hinting at the topsy-turvy character of a world in which people represent their mutual relations by relations between things, and liter-

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since the analysis of money is part of that of the commodity. Under capitalist conditions money and commodities exist together as elements of market exchange. As Marx argues, even if we imagine the simplest, exchange of good against good, each must function, if the other is to be a commodity, as the value equivalent of the other – and thus functionally as already money. The commodity is discussed before money not because it is a condition of the latter's existence but because, as a unity of use value and exchange value, it represents the double character of capitalism, as a particular form of the general imperative of production, whose historically specific aspect is exhibited in money.

Further, as this suggests, capital is the condition for the dominance of the commodity form, Marx's starting point: in the words of the draft 'sixth chapter' of *Capital*, 'Only on the basis of capitalist production does the commodity actually become the *universal elementary form of wealth*', the cell form (Marx, 'Results of the Immediate Process of Production', in *Capital* I, p. 951). The initial discussion of the commodity is thus already – as the opening sentence of *Capital* suggests – a discussion of capital. Finally, the concept of surplus value, as we shall see, is developed 'before those of its transmuted forms' not because it is logically prior but because it is epistemically posterior. It constitutes Marx's theoretical explanation of the phenomena of profit, rent, and interest, which, as well-established elements of economic practice and discourse, occupy a radically different epistemological status than their Marxian explanation. Here, too, it is the relation of reality (surplus value) to appearance (profit et al.), the relation of social-theoretical explanation to ideological form, that is represented by the structure of the argument.

For the relation between the focus on the commodity and Marx's discovery of the twofold nature of commodity-producing labour, on the one hand, and his abandonment of an Hegelian mode of conceptual development in the presentation of his ideas, on the other, see Schrader, *Restauration und Revolution* (1980), pp. 204–13.

58 Marx, *Capital* I, pp. 138–9.

ally true, for as exchange is a social act, exchange relations are social relations. It becomes ironic when the actual exchangers are left out of the depiction of the act (and the irony is doubled when, in Chapter 2, the exchangers appear as the 'bearers' of commodity relations, as persons who 'exist for one another merely as representatives, and hence owners, of commodities').[59]

Irony is the appropriate rhetorical mode here, for it is the particular set of social practices that go under the name of exchange that the discursive representation of those practices as an exchange of commodities conceals.[60] Capitalism, like any other mode of society, must, whatever else it does, organise the labour process by which human life is maintained. It is clear that, in the absence of any other mechanism for doing this, it is – as the classical economists already realised – the practice of market exchange that regulates the production and distribution of goods. For this reason 'the private producer's brain reflects [the] … social character of his labour only in the forms which appear in practical intercourse, in the exchange of products'.[61] This is what Marx calls the 'fetishism' of commodities, the treatment of the historical peculiarities of capitalist society, in everyday life and economic theory alike, as though they were 'as much a self-evident and nature-imposed necessity as productive labour itself'.[62] Ending with the discussion of this 'fetishism', Marx's chapter has begun with a set of appearances – the phenomena of commodity exchange – which are then redescribed in terms of a novel theoretical vocabulary (notably, the distinction between abstract and concrete labour) that makes possible a social-historical explanation of the appearances and their place in economic discourse.

Marx is at pains in his chapter on the commodity to demonstrate the oddness, even the 'absurdity' of economic discourse. But the demonstration of its inability to account for fundamental aspects of capitalism comes only in Part II of the first volume of *Capital*, which explicitly introduces the concept of capital. Capital is money advanced to make money. Considered 'in the form in which it

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59 Ibid., pp. 178, 91.

60 Ibid., p. 169. For a stimulating discussion of irony in Marx's deconstruction of economic discourse, see Wolff, *Moneybags Must Be So Lucky. On the Literary Structure of 'Capital'* (1988). Despite its excesses and errors this is an interesting little book. Its treatment of Marx's critique of economics is all the more remarkable given its description of *Capital* as 'a work of theoretical economics' and its author's own insistence, in an earlier book, on a neo-Ricardian reconstruction of Marxian theory – a project quite incompatible with the picture of that theory given in the later volume.

61 Ibid., p. 166.

62 Ibid., p. 175.

appears (*erscheint*) directly in the sphere of circulation',[63] its existence is inexplicable, for acts of exchange, as Marx argues, cannot produce an increment of value. As we know, the solution to this riddle is the existence of the commodity labour power, embodied in a class of propertyless producers. It is the purchase and use of this commodity by capitalists that makes possible the production of value in excess of its own value. 'The consumption of labour power is completed, as in the case of every other commodity, outside the market or the sphere of circulation'. To understand the production of surplus value, therefore, we must leave the realm of appearances, 'this noisy sphere, where everything takes place on the surface and in full view of everyone', for 'the hidden abode of production'.[64]

This represents a further break with the Ricardian model, of course. From Ricardo's point of view, 'the principal problem in Political Economy' is 'to determine the laws which regulate [the] distribution' of 'the produce of the earth … among three classes of the community …'[65] The second section of the *Grundrisse* introduction had such a view in mind, in considering the relation between production and 'the various rubrics which the economists place alongside it':

> Production is determined by general laws of nature, distribution by social chance, and it may therefore exert a more or less stimulating influence on production … When looking through the ordinary run of economic works, one is struck at once by the fact that everything is posited twice in them, e.g. rent, wages, interest and profit figure under the heading of distribution, while under the heading of production we see land, labour and capital figure as agents of production … Economists like Ricardo … have … regarded distribution as the only object of [political] economy, for they have instinctively treated the forms of distribution as the most definite expression in which the agents of production are found in a given society.[66]

Because of its double nature, the commodity form obscures the class relation on which its social dominance rests. For when the ability to work appears as a commodity, its exchange against money seems no different from any other act of market exchange. (In Ricardo's words, 'Labour, like all other things which are

63 Ibid., p. 257.
64 Ibid., p. 279.
65 Ricardo, *On the Principles of Political Economy and Taxation* (1966 [1817]), p. 5.
66 Marx, 'Economic Manuscripts', in MECW 28, pp. 26–7, 32–3.

purchased and sold, and which may be increased or diminished in quantity, has its natural and its market price'.)[67] Thus

> The sphere of circulation or commodity exchange, within whose boundaries the sale and purchase of labour power goes on, is in fact a very Eden of the innate rights of man. It is the exclusive realm of Freedom, Equality, Property, and Bentham. Freedom, because both buyer and seller of a commodity, let us say of labour power, are determined only by their own free will. They contract as free persons, who are equal before the law … Equality, because each enters into relation with the other, as with a simple owner of commodities, and they exchange equivalent for equivalent. Property, because each disposes only of what is his own. And Bentham, because each looks only to his own advantage. The only force bringing them together [as in Smith's description of the market] … is the selfishness, the gain, and the private interest of each … And precisely for that reason, either in accordance with the pre-established harmony of things, or under the auspices of an omniscient providence, they all work together to their mutual advantage, for the common weal, and in the common interest.[68]

These ideological categories – in their socialist as well as in their bourgeois-economist use – must be distinguished from the actual 'economic conditions of production'. But this is not only to identify a scientific error; the actual conditions explain the appearance, to the common and the educated sense of bourgeois society, of the categories of economics as appropriate for the description of those conditions. A passage in the *Grundrisse* makes clear that this is an application of the 'guiding principle' of Marx's studies explained in the preface to the *Contribution*: 'equality and freedom are not only respected in exchange which is based on exchange values but, the exchange of exchange values is the real productive basis of all *equality* and *freedom*. As pure ideas, equality and freedom are merely idealized expressions of this exchange; developed in juridical, political, and social relations, they are merely this basis on a higher level'.[69] The centrality of economic discourse to capitalist social life, which itself reflects the dominance of the commodity form as the general form of the

67 Ricardo, *Principles* (1966 [1817]), p. 93.

68 Marx, *Capital* I, p. 280.

69 Marx, 'Economic Manuscripts', in MECW 28, p. 176. The last phrase is a striking variant on the concept of 'superstructure', suggesting the error involved in over-literal readings of Marx's architectural metaphor.

product of labour, shapes the vocabulary of politics, along with other systems of representation, such as philosophy. It is for this reason that 'the anatomy of ... civil society ... has to be sought in political economy'.[70] The inadequacies of political economy, however, will point the way to a radically new understanding of society.

The domain of production provides the solution to the problem of the origin of surplus value precisely because it does not share the essential features of the marketplace, the domain of circulation. Freedom and equality are gone: the exchange of labour power for wage concluded, 'the worker works under the control of the capitalist to whom his labour belongs ...'[71] The nature of capital becomes clear: what from the point of view of economics is alternatively a sum of money invested in production or the means of production purchased with part of that sum is visible, in the activities constituting the production process, as a social power relation between employer and employee. Later in Volume I this redescription of capital is deepened, in the course of Marx's explanation of capital accumulation. Looked at over time, a capitalist in the present hires workers with surplus value produced by workers in the past. 'The relation of exchange between capitalist and worker becomes a mere semblance belonging only to the process of circulation, it becomes a mere form, which is alien to the content of the transaction itself, and merely mystifies it'.[72]

In this way the labour theory of value itself, the great theoretical conquest of classical political economy (and generally reputed the foundation of marxist economics) is revealed to belong to the appearances of economic discourse. In the discussion of commodity exchange, 'the rights of property seemed to us to be grounded in a man's own labour' since 'the means of appropriating the commodities of others was the alienation of a man's own commodities ... produced by labour'.

> Now, however, property turns out to be the right, on the part of the capitalist, to appropriate the unpaid labour of others or its product, and the impossibility, on the part of the worker, of appropriating his own product. The separation of property from labour thus becomes the necessary consequence of a law that apparently originated in their identity.[73]

70 Marx, *Contribution*, in MECW 29, p. 262.

71 Marx, *Capital* I, pp. 291–2.

72 Ibid., pp. 729–30.

73 Ibid., p. 730. This idea is developed in the manuscript, 'Results of the Immediate Process of Production': while '[c]apitalist production is the first to make the commodity into the general form of all produce', this system 'destroys the basis of commodity production in so far

As the last sentence suggests, this is not an injustice to be corrected by political enforcement of the rights of labour, but is essential to the existence of a social system in which 'labour' is the name of a factor of production, and in which market exchange is an act involving for all practical purposes 'only the mutually independent buyer and seller'.[74] Were we to examine the exchange process as one taking place between social classes, rather than between individuals, 'we should be applying standards entirely foreign to commodity production'[75] and its style of self-representation. From the viewpoint implied by those standards, however, value can be recognised to be a social form for the exploitation of one part of society by another, in the guise of a principle of equality in exchange.

While the exchange relation is a 'mere form' when it is a matter of explaining the origin of surplus value, according to Marx actual modes of social life are determined by such forms. In another variation on the basis/superstructure theme, Marx explains in Volume III of *Capital* that 'the specific economic form in which unpaid surplus labour is pumped out of the direct producers determines the relationship of domination and servitude' that differentiates one form of class society from another, so that '[o]n this is based the entire configuration of the economic community arising from the actual relations of production, and hence also its specific political form'.[76] Therefore *Capital* must return, as it does in the second volume, to the circulation process with which the argument began.

The commodity – or, better, the commodity-money pair – remains the cell form of the specifically capitalist mode of exploitation. Wealth is not, as it appears, an accumulation of commodities. Wealth is the accumulation of *capital*, and capital 'is not only the command over labour, as Adam Smith thought. It is essentially the command over unpaid labour'.[77] But capital operates only through the commodity form; it is the commodification of labour power that makes possible the control over others' labour in the specific form of surplus value, as it is the ownership of money, accumulated surplus-labour, that gives its possessor that control. 'Capital, as self-valorising value, does not just comprise class relations, a definite social character that depends on the existence of labour as wage-labour. It is a movement, a circulatory process through differ-

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as the latter involves independent individual production and exchange of commodities between owners or the exchange of equivalents' (*Capital* I, p. 951).

74 Ibid., p. 733.

75 Ibid., p. 732.

76 Marx, *Capital* III, p. 927.

77 Marx, *Capital* I, p. 672.

ent stages, which itself in turn includes three different forms of the circulatory process'.[78] Hence the material contained in Volume II, while covering a range of topics, above all demonstrates that the category of the market – in economic terms, demand – represents the social form of the reconstitution and growth of capital as a surplus labour-extracting system.[79]

This understanding, however, is only available on the basis of the critique of economic categories effected in the first volume. Indeed, according to Marx, a reexamination of the circulation process explains why to those whose experience is defined by its forms in action 'the conditions of the original production of value fall completely into the background ... Both the restoration of the values advanced in production, and particularly the surplus value contained in the commodities, seem not just to be realised only in circulation but actually to arise from it'.[80] The third volume of *Capital*, synthesising the class relation at the heart of capitalist production with the specific forms in which capitals interact with one another, in explaining the forms taken by surplus value in circulation – profit, interest, and rent – accounts more thoroughly for 'the everyday consciousness of the agents of production themselves' and for the economists' theorisations of that consciousness.[81]

Volume III concludes, accordingly, with a discussion of the way in which the workings of the economy obscure from view the nature of value, which seems to be, not a representation of social labour under the control of capital, but a method for the fair division of the social product among those who have contributed in different ways to its production. The portion of the social product necessary for the reproduction of the working class appears as wages, the price of labour, just as the labour required to reproduce the means of production appears as a portion of the price of the product. The labour performed beyond that required for reproduction – the surplus labour – appears in the various categories into which its money-representation ('surplus value') is divided: profit, interest, rent, commercial profit, each the payment for a 'service' rendered by an owner of property. It must so appear, for in real economic life the various

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78 Marx, *Capital* II, p. 185.

79 'In so far as the capitalist simply personifies industrial capital, his own demand consists simply in the demand for means of production and labour power ... In so far as the worker converts his wages almost wholly into means of subsistence ... the capitalist's demand for labour power is indirectly also a demand for the means of consumption that enter into the consumption of the working class' (*Capital* II, p. 197).

80 Marx, *Capital* III, p. 966.

81 Ibid., p. 117.

claimants to portions of the social product must be satisfied, at least in proportion to their ability to make their claims count for others, if that life is to continue.

Only at this point in the argument is commodity-exchange, with which Marx began, fully theorised (at least on the relatively abstract level of analysis, disregarding the various particular forms of competition at work in the world market, undertaken in *Capital*). As Marx observes in the manuscript published long after his death under the title *Theories of Surplus Value*, 'to be produced, to be brought to the market, the commodity must at least fetch [a] market price' yielding a satisfactory rate of profit to its capitalist producer, 'whether its own value be greater or smaller than that [price]'.[82] Since, as was established in the first volume of *Capital*, value provides the social form of the product of labour only when production is dominated by capital, values are defined for products that are exchanged as products of capitals, not just as products of 'social labour'. Though the labour input to the product of a given firm counts as socially necessary only to the extent that the exchange makes it a part of social labour time, the commodity is exchanged as part of the social product only as the private property of a capitalist firm. Its price must therefore ideally yield, to its owner-producer, a rate of profit at least as high as that received by any other firm.

As a result, according to Marx, 'just *because* the value of the commodity is determined by *labour time*, the average price of the commodities … can *never* be equal to their value although this determination of the average price is only derived from the value which is based on labour time'.[83] Value, which regulates capitalist society as a system of class exploitation, is invisible in market exchange. Here it appears only in the form of the exchange value, in money terms, of commodities, determined for all practical purposes by relations of supply and demand, in which the various divisions of surplus value appear as so many elements of a commodity's price.

It is quite natural, Marx concluded, 'that the actual agents of production feel themselves completely at home in these estranged and irrational forms … for these are precisely the configurations of appearance in which they move, and with which they are daily involved'. It is equally natural that those he called 'vulgar economists' – the ancestors of today's neoclassical writers – whose theory is 'nothing more than a … more or less doctrinaire translation of the everyday notions of the actual agents of production', elaborate the same points of view,

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82 Marx, 'Economic Manuscript', in MECW 33, p. 273.

83 Marx, 'Economic Manuscript', in MECW 32, p. 269.

while even the classical economists 'remained more or less trapped in the world of illusion' their theorising had attempted to penetrate.[84] Thus, at the end of the third volume of his work, Marx returns to his starting point: the capitalist economy as it is represented in economic discourse – both the 'religion of everyday life' and the theology elaborated by economists – as a set of institutions, structured by exchange relations, for the production of goods satisfying human desires: wealth as an accumulation of commodities.

On the other hand, the consciousness of capitalism's critics must also be explained, and even the understanding, however limited, of the system's structural difficulties represented by the political economists' conception of a tendency of the rate of profit to fall. The discussion of the process of capital accumulation in the first volume of *Capital* concludes with a consideration of 'the influence of the growth of capital on the fate of the working class'.[85] Discovering the consequences of accumulation in the tendential replacement of living labour by means of production, on the one hand, and the cycle of expansion and contraction produced by the need to reorganise the social structure of capital in response to changing conditions of accumulation, on the other, Marx argues that 'in proportion as capital accumulates, the situation of the worker, be his payment high or low, must grow worse'. In bad times, unemployment rises, wages fall, and working conditions worsen, but even in good times 'all methods for raising the social productivity of labour are put into effect at the cost of the individual worker … so that they become means of domination and exploitation of the producers'.[86] It was in these terms that Marx accounted for the workers' movements of the nineteenth century, arguing that the growth of 'the mass of misery, oppression, slavery, degradation, and exploitation' brought with it 'the revolt of the working class … trained, united, and organized by the very mechanism of the capitalist mode of production'.[87]

As the first volume of *Capital* progresses from an analysis of appearances – capitalism's economic representation as a system of commodity exchanges between individuals – to a redescription of the system as one of class exploitation, it ends appropriately with the effects of the working of this system on the working class and the promise of 'the expropriation of a few usurpers by the mass of the people'.[88] In the third volume, which examines the operation

84 Marx, *Capital* III, p. 969.
85 Marx, *Capital* I, p. 762.
86 Ibid., p. 799.
87 Ibid., p. 929.
88 Ibid., p. 930.

of the economic categories that obscure the actual class structure of society, the same subject is reexamined, this time as it appears in the vicissitudes of the category of profit.

Profit is defined, in the first two parts of the volume, as surplus value considered as the 'return' to capital invested in labour power and means of production. This is to look at surplus value from what one may call the viewpoint of a schematic capitalist; as experienced by actual capitalists, surplus value appears under different rubrics – as interest and rent, as well as profit, topics taken up later in Volume III – depending on the particular nature of the claim made to it. In Part 3 Marx presents his law of the tendential fall of the rate of profit 'before depicting the decomposition of profit into various categories which have become mutually autonomous' in order to show 'how the law in its generality is independent of that division and of the mutual relationships of the categories of profit deriving from it'.[89]

In a letter written to Engels, after publication of the first volume of *Capital*, Marx listed as the first of the 'fundamentally new elements of the book' that 'in contrast to all previous political economy, which from the outset treated the particular fragments of surplus value with their fixed forms of rent, profit, and interest as already given, I begin by dealing with the general form of surplus value, in which all these elements are still undifferentiated, in solution as it were'.[90] Given the result established in the second part of Volume I, that the expansion of value definitive of capital cannot be explained on the basis of exchange relations but only in terms of the expropriation of (unpaid) labour time – that is, in terms of the class relation between workers and capitalists – 'surplus value' is the explanatorily illuminating name for the revenues known to the agents of production (and distribution) as profit, rent, etc.

As Marx observed to Engels in another letter, the treatment of the struggle over the length of the working day which follows the analysis of surplus value in *Capital* 'demonstrates ad oculos to what extent those bourgeois gentlemen comprehend the source and nature of their profit in practice'.[91] Were economic theory to employ the concept of surplus value, however, it would have to give up the idea that capitalism is completely describable as a system of market exchanges, for this concept involves understanding labour power as unique among commodities in its capacity to produce, when consumed, more value than it represents. It is for this reason, Marx argues in Volume III, that the eco-

89 Marx, *Capital* III, p. 320.

90 Marx, letter to Engels, 8 January 1868, in MECW 42, p. 514. The same point is stressed in a letter to Engels of 24 August 1867; see ibid., p. 407.

91 Marx, letter to Engels of 27 June 1867, in ibid., p. 391.

nomists, while they perceived the phenomenon of the tendency of the profit rate to fall – most spectacularly visible in the recurrent crises that afflicted capitalism during the nineteenth century – 'tortured themselves with their contradictory attempts to explain it'. In Marx's view, this law, given its importance for the life of the social system, 'forms the mystery around whose solution the whole of political economy since Adam Smith revolves and … the difference between the various schools since Adam Smith consists of the different attempts made to solve it'.[92]

The insolubility of this mystery arose from the internal structure of the discourse of economics: the impossibility of understanding the functioning of capitalism in terms of economic concepts, which nevertheless are experienced as 'natural' and fundamental categories of social life by those who employ them. A theory capable of explaining both capitalist accumulation and its crisis tendency required a redescription of economic relationships as relations of class exploitation. It is for this very reason that, once having solved the mystery, Marx devotes the remainder of Volume III to the explanation of economic appearances. Having worked out the forms taken by surplus value (more correctly: the phenomena redescribed in terms of 'surplus value'), Marx can then examine economic reality as it appears in 'vulgar' economic theory, as the production of wealth by the three factors of production, capital, land, and labour, to whose owners revenue accordingly (and justly) flows as profit (or interest), rent, and wages. The entire text of his work to this point has exposed the reality experienced in the form of these categories; here Marx is in a position to explain their power. For the trinity of economic factors actually are the sources of their specific revenues 'in the sense that capital for the capitalist is a perpetual pumping machine for surplus labour, land for the landowner a permanent magnet for attracting a part of the surplus labour pumped out by capital and finally labour the constantly self-renewing condition and means for the worker to obtain a part of the value he has produced and hence a part of social product measured by this portion of value under the heading of wages'.[93]

The viability of economic discourse is in this way shown to depend on the fact that 'the capitalist mode of production, like every other, constantly reproduces not only the material product but also the socio-economic relations, the formal economic determinants of its formation'. Economic theory gains its plausibility from the conformity of its conceptual apparatus to the assumptions embodied in commercial calculations and contracts, and these assump-

92 Marx, *Capital* III, p. 319.
93 Ibid., p. 961.

tions maintain their power because people naturally attempt to carry on their lives within the social relations in which they find themselves caught up, of which the assumptions provide the structural terms. As Marx put it, in a concise statement of the culturally-constructed character of social reality, 'The specific shape in which the value components [of social wealth] confront one another is presupposed because it is constantly reproduced and it is constantly reproduced because it is constantly presupposed'.[94]

On the other hand, Marx has argued that the reproduction of capitalist social relations involves a tendency to economic crisis, and that this, given the massive degradation of working-class life it entails, contains the possibility of *social* crisis. Marx emphasised the historically specific, and so in principle transitory, nature of economic categories in the Postface to the second edition of *Capital*'s first volume, asserting that 'the fact that the movement of capitalist society is full of contradictions impresses itself most strikingly on the practical bourgeois in the changes of the periodic cycle through which modern industry passes, the summit of which is the general crisis'.[95] This remark gives a particular content to the general proposition in the preface to the *Contribution*, that 'an era of social revolution' begins when 'the material productive forces of society come into conflict with the existing relations of production …'[96] Marx uses nearly the same words at the end of Volume III of *Capital*, when he criticises the notion, particularly associated with J.S. Mill but shared generally by political economists, that only the relations of distribution are historical, and not the relations of production. In reality, says Marx – and this can stand as a summary of *Capital's* critique of economics – production is only ever carried on within the social framework represented by particular relations of distribution, or claims to the social product. That a 'contradiction and antithesis between, on the one hand the relations of distribution, hence also the specific form of relation of production corresponding to them, and, on the other hand, the productive forces, productivity, and the development of its agents, gains in breadth and depth' is the sign that a moment of social crisis has arrived, in which the construction of new forms of social life is possible.[97]

Marx explained the timid criticism of capitalism he saw in Mill's differentiation between distribution and production as a reaction to the evidence of the system's tendency to such crisis. His own work, as a thorough critique of the categories of life and thought in which economists like Mill were caught

94 Ibid., p. 1012.

95 Marx, *Capital* I, p. 103.

96 Marx, *Contribution*, in MECW 29, p. 263.

97 Marx, *Capital* III, p. 1024.

alongside the 'actual agents of production', was made possible by his engagement with the working-class movements that Marx believed were working out new categories of social action. A positive critique of economics, *Capital* is also, one might say, a negative theory of socialism, clarifying the social relations that need to be abolished for a fundamental break with capitalism to be accomplished. Consciousness, both that embodied in economic discourse and that capable of imagining a new mode of social life, is thus 'explained from the contradictions of material life', as the preface to the *Contribution* demanded and promised.

CHAPTER 5

Labour as Activity and as Representation

In a letter to Engels written in early 1868, Marx explained a 'fundamentally new' aspect of his *Capital*, of which Vol. I had been published the previous year, by observing

> that the economists, without exception, have missed the simple fact that, if the commodity has the double character of use value and exchange value, then the labour represented in the commodity must also have a double character; thus the bare analysis of labour *sans phrase*, as in Smith, Ricardo, etc., is bound to come up against the inexplicable everywhere. This is, in fact, the whole secret of the critical conception.[1]

And this is why he placed first among the strong points of *Capital*, in an earlier letter, his discussion of 'the two-fold character of labour according to whether it is expressed in use value or exchange value, which is brought out in the very First Chapter …' This, he wrote Engels, 'is fundamental to all understanding of the facts'.[2] Labour conceptualised as productive of objects or services designed to meet particular human needs, Marx called 'concrete' labour; labour conceptualised as productive of goods equivalent to each other as exchangeable (in corresponding quantities) he called 'abstract' labour.

The 'two-fold character of labour' was the pivot on which his conception of value swung away from that of the classical economists. Even Ricardo, Marx wrote in *Capital*, 'nowhere distinguishes explicitly and with a clear awareness between labour as it appears in the value of a product, and the same labour as it appears as the product's use value'.[3] Classical political economy identified social institutions specific to capitalism with social reproduction in general. Labour as the production of use values is indeed 'a condition of human existence which is independent of all forms of society'.[4] But since it is the practice of market exchange that transforms concrete into abstract labour, labour as the production of value is peculiar to societies in which goods are distributed as commodities, and this becomes the typical form of labour only in capitalism.

1 Marx to Engels, 8 January 1868, in MECW 42, p. 514.
2 Marx to Engels, 24 August 1867, in MECW, Vol. 42, p. 407.
3 Marx, *Capital* I, p. 173.
4 Ibid., p. 133.

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Elsewhere Marx expressed his critique of Ricardo by speaking of the economist's failure to examine 'the form of value – the particular form which labour assumes as the substance of value'.[5] While Marx's many formulations of this criticism are often quoted, the connection between this idea and that of the dual character of labour has been left obscure (though it was discussed, especially among marxists in the UK, in the 1970s and early 1980s). But only by explaining this connection can we understand Marx's claim that the analysis of value in terms of labour-time 'will lead us back to exchange value as the necessary mode of expression, or form of appearance, of value'.[6]

The opening chapter of *Capital* has been taken by many to contain an attempted proof of the labour theory of value. But Marx did not intend to demonstrate that labour was the substance of value. On the contrary, he started with the truism that every society exists through the productive activity of its members.[7] Sketching the logical structure of the classical theory of value, he raised the question of why in capitalism this activity is organised as the production of goods for sale at money prices, and what effects this has on the nature of social life. Why is labour time dealt with in this system as *value* (i.e., by means of price relations), rather than as *labour time*? It was the economists' failure to ask this question that led both to neglect of the forms of value – specifically,

5 Marx, 'Economic Manuscript of 1861–63', in MECW 31, p. 399.

6 Marx, *Capital* I, p. 128.

7 Even, writes Marx in a letter to his friend Ludwig Kugelmann, 'if there were no chapter on "value" at all in my book, the analysis I give of the real relations would contain the proof and demonstration of the real value relation. The chatter about the need to prove the concept of value arises only from complete ignorance both of the subject under discussion and of the method of science. Every child knows that any nation that stopped working, not for a year, but let us say, just for a few weeks, would perish. And every child knows, too, that the amounts of products corresponding to the differing amounts of needs demand differing and quantitatively determined amounts of society's aggregate labour. It is self evident that this necessity of the distribution of social labour in specific proportions is certainly not abolished by the specific form of social production; it can only change its form of manifestation. Natural laws cannot be abolished at all. The only thing that can change, under historically differing conditions, is the form in which those laws assert themselves. And the form in which this proportional distribution of labour asserts itself in a state of society in which the interconnection of social labour expresses itself as the private exchange of the individual products of labour, is precisely the exchange value of these products' (Marx to Kugelmann, 11 July 1868, in MECW 43, p. 68). For an attempt to realise Marx's suggestion by writing an analysis of capitalism without using the concept of value, see my *Business as Usual: The Economic Crisis and the Failure of Capitalism* (2011), Ch. 3 and *passim*.

to unsatisfactory theories of money – and to misunderstanding the nature of value-constituting labour itself.

Sketching the development of the classical approach to political economy in Chapter 1 of *Capital*, Marx noted the economists' tendency to ignore the historical specificity of capitalist social institutions. Thus, Adam Smith attempted 'to accomplish the [conceptual] transition from concrete labour to labour which produces exchange value [i.e., abstract labour] by means of the *division of labour*. But though it is correct to say that private exchange presupposes division of labour, it is wrong to maintain that division of labour presupposes private exchange'.[8] Indeed, because they identified value-creating labour with social labour in general, the classical economists did not really distinguish between abstract and concrete labour. Ricardo pointed out that we must not be 'inattentive to the different qualities of labour, and the difficulty of comparing one hour's … labour in one employment with the same duration of labour in another'. But he judged this 'difficulty' as of no great moment, since the comparison of forms of labour is accomplished 'in the market with sufficient precision for all practical purposes'.[9]

For Marx, in contrast, the 'difficulty' of measuring abstract in terms of concrete labour is of the essence of the matter. The abstract labour which is the substance of value is, to repeat, not a natural phenomenon, but a social and historical creation. Characteristic of social labour in capitalism is precisely that the treatment of quantities of various forms of concrete labour as quantities of homogeneous, abstract labour is a cultural practice, that occurs *only* through market exchange. Furthermore, it occurs only when production for sale has become the dominant social mode of production. In pre- or early-capitalist times, for instance, when only a small minority of goods – Eastern spices, for

8 Marx, *Contribution*, in MECW 29, p. 299. That this illusion was not confined to the eighteenth century is illustrated by the efforts of the distinguished economic anthropologist Raymond Firth to come to terms with Marx. In a generally appreciative essay, Firth criticised Marx for making labour the essential defining character of man and for 'belittl[ing] the primary character of exchange in human society'. Asked to address the question, 'What can I say of a man – any man?' Firth commented: 'I could have chosen man's propensity to symbolize – in fact I chose his propensity to exchange. All comparative anthropology shows men engaging in forms of exchange, of immaterial as well as material things, of services as well as goods' (Firth, *The Sceptical Anthropologist? Social Anthropology and Marxist Views on Society* [1972], p. 12). Did it really take two centuries of anthropology to discover that labour in society has a social character? – though to describe this with the concept of 'exchange' is certainly misleading. Firth could with greater modesty have simply referred his readers to Chapter Two of *The Wealth of Nations*.

9 Ricardo, *On the Principles of Political Economy and Taxation* (1966 [1817]), p. 20.

example – were traded for money, it was not the distribution of social labour-time but the particular characteristics of the goods and the trouble required to produce them and bring them to market that appeared in market prices.[10] But as social labour as a whole became oriented towards commodity production, the allocation of this labour among spheres of production as a whole came to be regulated by the exchange values of the total set of commodities.

'Labour' as such, the concept formed by abstraction from all the sorts of ('concrete') labour that constitute society's productive work as a whole, describes productive activity in all social systems. In Marx's terminology, it designates just that part of the human interaction with the rest of nature that is consciously controlled.[11] On the other hand, 'labour' is – as we saw in an earlier chapter – the example Marx himself chose to illustrate the fact that 'even the most abstract categories, despite their being valid – precisely because they are abstractions – for all epochs, are … just as much a product of historical conditions, and retain their full validity only for and within these conditions'.[12] It is no accident that the concept of labour in the abstract arose in a system in which individuals could move 'freely' from one type of work to another, and in which their ability to work appeared as a 'resource' at the disposal of the controllers of production – in which it could both be conceived of and treated abstractly.[13] Once developed, the concept of social labour can be applied to all societies. If it is to function within an explanation of the organisation and development of a particular social form, however, it must be defined explicitly in terms of the institutions specific to that social form. It is the character that productive activity, organised within the relation between capital and wage labour, has in capitalism that Marx refers to in *Capital* as 'abstract labour'.

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10 'It should in general be noted that when products are first exchanged as commodities the *quantitative ratio* in which they are exchanged is *d'abord* directly a matter of accident. They are posited as commodities to the extent that they are *exchangeable* at all, i.e. expressions of *the same thing*. But it is not thereby posited that they are *equivalents*, in so far as each contains the same amount of labour time. Continued exchange and therewith reproduction increasingly eliminates this accidental character' ('Economic Manuscript', in MECW 33, pp. 13–14).

11 'Labour is … a process by which man, through his own actions, mediates, regulates and controls the metabolism between himself and nature … At the end of every labour process, a result emerges which had already been conceived by the worker at the beginning, hence already existed ideally' (Marx, *Capital* I, pp. 283, 284). For further discussion, see the next chapter.

12 Marx, 'Economic Manuscripts', in MECW 28, p. 42.

13 See the history of 'labour' in Raymond Williams, *Keywords* (1983), pp. 177–79.

According to Marx, it is 'the same labour' that is materialised as use value and as value. Marx's critique of political economy can therefore be approached by way of the question of the relation of that labour to its two modes of appearance, and so of their relation to each other. This question has a distinct methodological importance. It is not only that it bears on the question of the general relation, in Marxian theory, of historically specific social forms to their historical conditions; it also involves an important issue for the understanding of the workings of capitalist society in particular. In Marx's theory, value is a culturally-specific treatment of labour – its representation by the exchange relations between commodities on the market – which renders the actual labouring activity of production invisible in the social location – the marketplace – in which that activity acquires its fully social significance. But just because life in a market society is conducted on the basis of these representations, it is essential to Marx's theory that value is the form in which definite quantities of abstract labour-time appear. His aim is to elucidate the 'law of motion' governing capitalism – the tendencies of the productivity of labour to rise, of the rate of profit to fall, of the immiseration of the proletariat, and of the development of class struggle – in the terms of this form. Value, that is, while a cultural construct, must have causal reality capable even of posing challenges to the continuing existence of the culture. What is the relation between the two appearances of labour, such that the dynamic of the value representation, which shows up in such phenomena as the average rate of profit and the prosperity or weakness of the economy, is matched by the class relations between workers and employers at work and in the rest of daily life?

Value as Representation

'The categories of bourgeois economics' – in the first place, value – are, writes Marx, 'forms of thought which are socially valid, and therefore objective, for the relations of production belonging to this historically determined mode of social production, i.e. commodity production'.[14] The value relations between commodities 'have absolutely no relation with the physical nature of the commodity and the material relations arising out of this. It is nothing but the definite social relation between people themselves which assumes here, for them,

14 Marx, *Capital* 1, p. 169.

the fantastic form of a relation between things'.[15] Labour takes on the character of 'value' in the practice of market exchange, in the course of which 'by equating their different products to each other in exchange as values' people 'equate their different kinds of labour as human labour'.[16]

It is because it is a representation of labour (rather than a property of commodities as objects of consumption) that value is visible, and therefore measurable, only in quantities of the money commodity. Labour, Marx asserts, is by nature measured in units of time.[17] While this is true of 'abstract labour' also, as a 'socially valid' substance it can be measured in practice only in terms of a social institution, money. To say that a good has value – contains some quantity of abstract labour time – is to say that it is exchangeable against some quantity of money. On the other hand, as Marx insists in his critique of Samuel Bailey's polemic against Ricardo, 'Money is already a *representation* of value, and presupposes it'.[18] Value itself is a representation: a way of 'treating' (to use Marx's word) labour time. The presupposition of which Marx speaks is explanatory: it is the analysis of the practice of commodity production that explains what property of produced goods is signified by the equation of one commodity to another in exchange.

The merit of the classical economists, Ricardo at their head, was, in Marx's view, their identification of this property as that of being the product of labour; their principal failure was not to see that this labour must be conceived in its historically specific form of commodity-producing labour. What sort of labour is this?

First of all, 'Objects of utility become commodities only when they are the products of the labour of private individuals who work independently of each other' and whose products must therefore be exchanged, so that 'the specific social characteristics of their private labours appear only within this exchange'.[19] Second, the labour that counts in commodity exchange is not the actual amount of time a particular producer has used in creating the good but the labour time 'socially necessary' for its production. 'The individual commodity counts here only as an average sample of its kind'.[20] Its labour-time content

15 Ibid., p. 165; translation amended.

16 Ibid., p. 166.

17 This is, of course, also a feature specific to labour under capitalism, in which the drive for profit compels the wage-payer to maximize output relative to the labour paid for, and in which labour processes involve coordination between numbers of people.

18 Marx, 'Economic Manuscript', in MECW 32, p. 347.

19 Marx, *Capital* I, p. 165.

20 Ibid., pp. 129–30.

is 'the labour time required, under generally prevailing conditions of production, to produce another unit of the same commodity'.[21]

Why should this be? Labour could, after all, count as social labour without being reduced to a productivity-defined standard. We can think, for example, of the particular value that production by a particular person might have for a fellow family member. In a collectively run society, an additional hour of labour beyond the current workday norm might count as an extra effort.

But such situations are not ones involving 'private individuals' working 'independently of each other'. As he announces in the first sentence of *Capital,* Marx is investigating 'societies in which the capitalist mode of production prevails'; the individuals exchanging produced commodities are here actually capitalist enterprises. The distribution of social labour, rather than being regulated by custom, the will of social superiors, or collective decision-making on the part of the producers themselves, is left to the market, the domain of inter-capitalist competition. In the third volume of *Capital*, where Marx completes his critique of the theory of value, he explains that social labour is constituted in the market only in so far as goods sold there yield what Marx calls 'prices of production' to their capitalist owners, prices including (ideally) at least the average rate of profit. While the tendential equalisation of profit rates produced by competition means that goods will not exchange at ratios equal to their value ratios, 'to be produced, to be brought to the market, the commodity must at least fetch that market price, that [price of production] to the seller, whether its own value be greater or smaller than that [price of production]'.[22] To yield at least average profit rates, labour power employed by the firms in a competitive sector of the economy cannot cost more, relative to output, than the average case in that sector. This means that competing firms in the same branch of industry will be forced to use labour power of at least average productivity, even though the socially-necessary labour time incorporated in the product will not be accurately represented by its price.

The actual producers of commodities work as wage labourers for employers who purchase their labour power on the condition that it is of (at least) average quality. Hence, while 'the labour time expressed in exchange value is the labour time of an individual', that individual is treated in the exchange process as 'in no way differing from the next individual and from all other individuals in so far as they perform equal labour …'[23] The individual worker, in other words, is

21 Marx, *Contribution*, in MECW 29, p. 273.

22 Marx, 'Economic Manuscript', in MECW 32, p. 273.

23 Marx, *Contribution*, in MECW 29, p. 274.

in principle replaceable by any other producer able to do the same work. He or she is simply an embodied unit of labour power, a fraction of the labour force. His or her labour, considered in the form of its representation as value, is a unit of average labour.

Thus there is a relationship between the exchange process and the production process: in both domains the labour of different individuals is treated as quantities of a uniform substance. From the employer's point of view, 'labour' is the name of a resource embodied in any number of people. In the exchange of commodities against the universal equivalent, money, '[t]he effect is the same as if the different individuals' who have produced different products 'had amalgamated their labour time and allocated different portions of the labour time at their joint disposal to the various use values. The labour time of the individual is thus, in fact, the labour time required by society to produce a particular use value …'[24] Taking commodity exchange for granted as the 'natural' mode of social labour, the classical economists did not enquire into the circumstances under which labour took on the abstract quality signified by its money representation. Marx's critique of political economy demonstrates that the generalisation of wage labour is the historical condition for the generalisation of commodity production and so for the 'social validity' of abstract labour, or value. Value is a representation of the work performed by waged labour.

Abstract Labour and Value

Abstraction is a cultural process; as Marx puts it, concrete labour becomes abstract labour as a function of the way it is 'treated' or 'regarded'. This is not to say that the treatment of labour as abstract is a purely conceptual process, a mere matter of classification (just as money is not a mere symbol). Marx emphasises in *Capital* that the practice precedes its conceptualisation (especially since buying and selling antedate capitalism):

> The forms which stamp products as commodities … already possess the fixed quality of natural forms of social life before man seeks to give an account not of their historical character, for in his eyes they are immutable, but of their content and meaning. Consequently, it was solely the analysis of the prices of commodities which led to the determination of

24 Ibid., p. 274.

> the magnitude of value, and solely the common expression of all commodities in money which led to the establishment of their character of values.[25]

In the *act* of exchanging two commodities we abstract from their use values and thereby abstract from the differences between the kinds of labour required to produce each of them. The abstraction is thus actually 'made every day in the social process of production'.[26] It is required for goods to change hands (in accordance with social norms), for those goods to be produced with a view towards their sale on the market, and for a portion of the product to be appropriated by the employers of labour power.

To clarify what he calls the reality of the reduction of concrete individual labour to abstract social labour Marx makes use of a curious analogy: 'The conversion of all commodities into labour time', he writes in the *Contribution*, 'is no greater an abstraction, and is no less real, than the resolution of all organic bodies into air'.[27] Marx is not here denying the distinction between natural and social-historical determinations fundamental to his critique of economics. What makes possible the dissolution of organic matter into air is the chemical make-up of the former. Organic molecules, regarded abstractly, are arrangements of atoms of various sorts – sorts also found in air. In the process of putrefaction these arrangements are undone. Materials lose their specificity to become simply quantities of atmosphere, revealing their normally hidden kinship.

Analogously, types of labour, regarded abstractly, have in common that they are 'productive expenditure of a certain amount of human muscles, nerves, brain, etc'.[28] No matter what sort of labour is being performed, it will involve the doing of work in the physical sense, the transformation of energy from one form to another.[29] Since we are abstracting from particular individuals and par-

25 Marx, *Capital*, I, p. 168.

26 Marx, *Contribution*, in MECW 29, p. 272.

27 Ibid., p. 172.

28 Ibid. Compare *Capital* I, p. 134.

29 Hence it is measured by labour time, 'just as motion is measured by time' (ibid., p. 271). Anson Rabinbach has pointed out the significance, for the historical contextualisation of Marx's work, of the mid-nineteenth-century development of thermodynamics. By the 1840s French political economists, like Pelligrino Rossi, whom Marx studied, had borrowed the engineering term *puissance du travail* to mean the physiological capacity to work. On the other hand, Hermann Helmholtz himself affirmed that 'The concept of work for machines or natural processes is taken from the comparison with the work perform-

ticular types of work, 'it is the expenditure of … the labour power possessed in his or her bodily organism by every ordinary person, on the average, without being developed in any way'.[30] This is what Marx calls 'simple average labour', as opposed both to the concrete labour defined by the particular use value it produces and to the 'complex' labour which in his view constitutes skilled labour. Simple labour is itself not unskilled in any absolute sense, for socialisation is required to turn any person into a potential contributor to the social product. What that socialisation encompasses varies historically and locally 'but in a particular society it is given'.[31]

In all societies, according to Marx, 'the labour time it costs to produce the means of subsistence must necessarily concern mankind, though not to the same degree at different stages of development'.[32] What is historically peculiar about abstract labour in capitalism is its existence as an object of practical activity in the form of commodity value. Abstract labour is here represented in the commodity form, that is, by exchange value and specifically by price (exchange value against the money commodity). For this reason Isaak Illich Rubin insists that 'the characteristics of abstract labour do not in any way coincide with a physiological equality of different labour expenditures', even though he does not wish to deny 'the obvious fact that in every social form of economy the working activity of people is carried out through the expenditure of physiological energy'.[33] To take an obvious example, the labour performed in producing goods that cannot be sold is *ipso facto* not socially necessary and therefore does not count in this society as abstract labour. Yet Rubin's statement that 'The expenditure of physiological energy as such is not abstract labour and does not create value'[34] seems to conflict with Marx's assertion that the value of a commodity represents human labour pure and simple, the expenditure of human labour in general.[35]

However, that value represents abstract labour does not imply that all abstract labour is represented by value. As Marx expresses this point in the *Con-*

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ance of human beings …' (quoted in Rabinbach, *The Human Motor. Energy, Fatigue, and the Origins of Modernity* [1990], p. 59; for Rossi, see p. 70).

30 Marx, *Capital* I, p. 135, translation amended.

31 Ibid.

32 Ibid., p. 164.

33 Rubin, *Essays on Marx's Theory of Value* (1972 [1924]), pp. 133, 136.

34 Ibid., pp. 136–7.

35 Marx, *Capital* I, p. 135; see p. 137: 'all labour is an expenditure of human labour power, in the physiological sense, and it is in this quality of being equal, or abstract, human labour that it forms the value of commodities'.

tribution, using the Aristotelian terminology of his university days, labour time is the 'substance' of value; exchange value – specifically, price – is the 'form' that turns use values 'into exchange values and therefore into commodities …'[36] 'Average' or 'physiological' labour is itself an abstraction, a way of conceptualising a set of human activities. The average amount of work done in an hour by each member of the labour force is, at any moment, a particular number, but it is only accidentally the actual amount of work performed by any particular person in an hour. The socially necessary abstract labour time that appears as value, according to Marx, involves a further specification: it is the (physiological) work done that an employer can expect to get, on the average, out of any employee for an hour *and* whose product can then be exchanged for a quantity of money (at the average rate of profit).

As Marx pointed out in the introduction he sketched to the first draft of his critique of economics, 'physiologically abstract labour' is a peculiarly 'modern' abstraction, which arose only in a society 'in which individuals easily pass from one kind of labour to another' and in which labour has become 'a means to create wealth in general [i.e., in the form of the general equivalent, money] and has ceased as a determination to be tied with the individuals in any particularity', i.e., as a particular use value-defined kind of labour.[37] Nonetheless, it does not coincide with the practical abstraction of labour effected by market exchange. Much labour in the physiological sense – familial child-care, for example – is not represented as value, and labour intended to be so represented (as just noted) may fail to be. Although the concept of labour in general is a product of modern society, the labour process, Marx stresses in Chapter 7 of *Capital*, Vol. I, as 'an appropriation of what exists in nature for human requirements' is 'common to all forms of society in which human beings live'.[38] The tension between physiological and economic abstract labour is not only one present within the capitalist system of production; it also suggests the conflict between human reproductive activity and its economic representation that points to the historical limits of that system.

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36 Marx, *Contribution*, in MECW 29, p. 272.

37 Marx, 'Economic Manuscripts', in MECW 28, pp. 40–1.

38 Marx, *Capital* I, p. 291; translation amended.

Abstraction in Practice

There is another reason why Rubin is right to refuse to identify economically abstract labour with the abstractly considered expenditure of human energy in production. They share the element of abstraction from particular (use value-determined) means and ends of labour definitive of the different species of concrete labour. But while the physiological abstraction represents work done as the physiological expenditure of energy (measuring it, say, in ergs per unit of time) the economic abstraction represents the same (physical) work done as the production of the exchange value of commodities (measuring it in quantities of the universal equivalent). The system of monetary exchange values (prices) is not a representation of the distribution of energy among spheres of production. First of all, the actual expenditure of energy in a given type of production counts as 'socially necessary', and so as value, only to the extent that it conforms to the average productivity within that type. Dynamically, as the competitive pressure through which each firm experiences the drive to expand the value of its capital alters the structure of production, with the utilisation of new technologies, increases or decreases in the intensity of labour, and changes in the mix of use values produced, the same ergonometric relationships come to have different value representations.

Furthermore, 'although price, being the exponent of the magnitude of a commodity's value, is the exponent of its exchange-ratio with money, it does not follow that the exponent of this exchange-ratio is necessarily the exponent of the magnitude of the commodity's value'.[39] In the first volume of *Capital* Marx is content to note that the 'independence' of the exchanging commodities inherent in the commodity system means that 'circumstances' can allow a divergence of price from value; in the third volume he argues that this is the general case and that it is only accidentally that (abstract) labour time should be accurately represented in exchange relations. This is because the exchange of commodities against money serves the appropriation of surplus labour from the class of producers by the class of capitalists, the fundamental process defining capitalism as a social system. Values are defined for products that are exchanged as products of capitals, not just as products of 'social labour'. Though the labour input to the product of a given firm counts as socially necessary only to the extent that the exchange process *makes* it a part of the total social labour time, the commodity is exchanged as a part of the social product only as the private property of a firm. Its price must therefore yield, to its owner-

39 Marx, *Capital* I, p. 196.

producer, a rate of profit at least as high as that received by any other firm. With capitals striving to accumulate value, it is the value representation, not the thermodynamic relationships, that structure the exchange relations on which the continuation of the social reproduction process depends. That is to say, a divergence between value and ergonometric representation is inherent in the system's functioning.[40] In Marx's words,

> The possibility … of a quantitative incongruity between price and magnitude of value … is inherent in the price-form itself. This is not a defect, but, on the contrary, it makes this form the adequate one for a mode of production whose laws can only assert themselves as blindly operating averages between constant irregularities.[41]

How then does price represent social labour? How does 'the measure of the expenditure of human labour power by its duration' take on 'the form of the magnitude of the value of the products of labour'[42] if the two diverge? Marx's explanation amounts to the assertion that 'the various proportions in which different kinds of labour are reduced to simple labour as their unit of measurement are established by a social process that goes on behind the backs of the producers'.[43] It can only happen 'behind their backs', because the abstract labour time quantities as such are invisible; what is visible is the price-regulated movement of goods into and out of the market. In this movement commodities are treated as the products of uniform labour by being exchanged against the same commodity, the universal equivalent.

> E.g., if a yard of linen has a value of 2s. and a price of 1s., the magnitude of its value is not expressed in its price; and its price is not an equivalent, not the adequate monetary expression, of its value. Nevertheless, it remains the *monetary expression* of its value – the *value expression* of the yard of linen – in so far as the labour contained in it is represented as general social labour, as *money*.[44]

In this way, despite the fact that prices cannot be expected to correspond to values, the exchange process, the equation with the general equivalent, money,

40 For a related discussion, see Mattick, 'Reflections on Input-Output Economics' (1967).
41 Marx, *Capital*, Vol. I, p. 196.
42 Ibid., p. 164.
43 Ibid., p. 135.
44 Marx, 'Economic Manuscript', in MECW 34, p. 114.

'brings to view the specific character of value-creating labour, by actually reducing the different kinds of labour embedded in the different kinds of commodity to their common quality of being human labour in general'.[45]

Why is this a 'reduction' of particular, concrete labour times to 'simple, average' labour, rather than an arbitrary representation of quantities of labour time in terms of an imaginary standard? Marx's answer is that the labour process, at once a process of value creation and a process of physical transformation of natural resources into a humanly usable form, 'is single and indivisible … The work is not done twice over, once to produce a suitable product, a use value … and a second time to generate *value* and *surplus value*, to *valorize value*'. This is (as already mentioned) why the work that is the 'substance' of value is *socially necessary* labour: 'the labour process becomes a valorization process by virtue of the fact that the concrete labour invested in it is a quantity of *socially necessary* labour … = a certain quantity of average social labour, and by virtue of the further fact that this quantity represents an *excess* over the amount contained in wages', thus providing a profit for the employer.[46] The representation is not arbitrary because it is required by the nature of social production as a surplus labour-extracting system. Under capitalist conditions there is no other way in which the labour process can be represented in economic terms.

The Reduction of Skilled Labour

The one case of reduction of concrete to simple labour that Marx discusses has unfortunately had the effect of obscuring rather than clarifying Marx's idea. This is the reduction of skilled labour to a multiple of simple labour.

> More complex labour counts only as *intensified*, or rather *multiplied* simple labour, so that a smaller quantity of complex labour is considered equal to a larger quantity of simple labour. Experience shows that this reduction is constantly being made. A commodity may be the outcome of the most complicated labour, but through its *value* it is posited as equal to the product of simple labour, hence it represents only a specific quantity of simple labour.[47]

45 Ibid., p. 142.

46 Marx, 'Results of the Immediate Process of Production', in *Capital* I, pp. 991–2.

47 Marx, *Capital* I, p. 135.

Böhm-Bawerk leaped on this passage as an example of circular reasoning, taking the place of an adequate account of value determination. Why is a quantity of skilled labour reducible to a particular quantity of simple labour? 'Because experience shows that it is so reduced by a social process. And what is this social process? The same process that has to be explained', the treatment of a quantity of skilled labour as equal to a quantity of simple labour.[48]

The explanation Marx does offer for the particularities of the reduction of skilled to simple labour seems only to make things worse. In a footnote to the passage of *Capital* just quoted Marx notes that 'we are not speaking here of the wages or value the worker receives for (e.g.) a day's labour, but of the value of the commodity in which his day of labour is objectified'. Yet in another passage explaining how such a reduction is effected Marx appears to do just this. Describing the production of commodities as at once a use value-creating and a value-creating process, Marx asserts that

> All labour of a higher, or more complicated, character than average labour is expenditure of labour power of a more costly kind, labour power whose production has cost more time and labour than unskilled or simple labour power, and which therefore has a higher value. This power being of higher value, it expresses itself in labour of a higher sort, and therefore becomes objectified, during an equal amount of time, in proportionally higher values.[49]

In apparently contradicting the earlier footnote this seemingly violates a foundational element of Marx's theory of surplus value, the independence of the value of labour power from the value created by its exercise as labour. Since it's hard to believe that Marx would make an error so stupidly in contradiction with his own theory, however, it's worth trying to understand what he might have had in mind in this passage.

A key is afforded by the discussion of the value of labour power in the sketch of a theory of wages offered in *Capital*. (Fuller treatment of this matter – including, one assumes, the relation of skilled to simple labour power – was postponed to the Book on Wage-Labour that Marx never wrote.) The value of labour power is determined, according to Marx, by 'the value of the commodities which have to be supplied every day to the bearer of labour power, the

48 Böhm-Bawerk, 'Karl Marx and the Close of His System' (1949 [1896]), p. 83.

49 Ibid., p. 305.

man, so that he can renew his life-process'.[50] This 'daily value of labour power is calculated on a certain length of the worker's life, and this corresponds, in turn, to a certain length of the working day'.[51] What is being purchased by the employer is the ability to work at a certain rate for a certain number of hours over a certain period of time (in the course of which, in addition, the worker must be tendentially replaced by his or her children). This labour power is a worthwhile purchase if the working day is long enough to allow for a quantity of surplus labour sufficient, given the level of capital accumulation, for accumulation to continue. Such a calculation depends on the truth of Marx's proposition that 'a working-day of a given length always creates the same amount of value …'[52] Thus there is a relation between the value of labour power and the amount of work, at the average rate, for an average lifetime of standard working-days, in which that labour power will be realised. What the value of labour power purchases is, as with other commodities, a particular use value: the ability to produce a certain quantity of value.

This can be seen, for instance, in regard to the intensification of labour that accompanied the shortening of the working day in the course of the nineteenth century (after having accompanied the lengthening of the working day in the early period of industrialisation). If the intensification of labour is pushed too far, as it apparently was in England around 1860,[53] the consequent shortening of the worker's life limits the value producible by that worker and so the use value purchased by the wage. Yet intensified labour, 'increased expenditure of labour in a given time',[54] produces more value in that time. Thus the intensity at which it will be employed becomes an important dimension of labour power, alongside the length of the working day.[55] That increased intensity makes up for shorter days demonstrates that for a given working day labour of a higher than average intensity counts as a multiplication of average, simple labour.

To summarise: while the value of labour power is not determined by the value it creates when set in motion, labour power itself is bought and sold as a use value whose significant dimensions are an average lifetime's work,

50 Ibid., p. 276.

51 Ibid., p. 679.

52 Ibid., p. 656.

53 When factory inspectors reported 'that the shortening of the working day has already produced such an intensification of the labour itself as is injurious to the health of the worker and therefore to his labour power as well', which loses in average life span (ibid., p. 542).

54 Ibid., p. 660; intensification is relative to a norm: see ibid., p. 661.

55 See ibid., p. 534.

with a standard workday, at an average intensity; the goods necessary to reproduce that labour power, whose value determines its value, are those required to reproduce that working life. These considerations explain how the labour of instruction required to create skilled labour is relevant to the value produced when that skilled labour is set in motion. Like the intensification of labour, skill means changes both in the conditions of reproduction of labour and in the value that labour can produce in a given period of time.[56]

This interpretation is confirmed by the alteration that Marx himself made in the passage under discussion, when the issuing of the French translation of *Capital* gave him an opportunity to clarify this point (among a number of others). He substituted for the passage quoted above, at note 49, the following: 'Let us admit, for example, that, compared with the labour of a spinner, that of a jeweler is labour of a higher power, that the one is simple labour and the other complex labour manifesting a force that has required more effort to create and which produces more value in the same amount of time'.[57] It is not the size of the wage that accounts for the greater value-creating power of skilled labour, but the production requirements of labour able to create more value in a given amount of time that explains the higher wage that can therefore serve as its index.

We are still left with Böhm-Bawerk's question: what determines the ratio at which skilled is reduced to simple labour? As with the representation of labour-time in the value form generally, it is of the essence of the phenomenon that there is no way of knowing in any particular case. It happens 'behind our backs'. Price relations – which do not reflect value relations anyway – provide the only functional representation we have of relative labour-times. Böhm-Bawerk's objection, that Marx's explanation of the reduction of skilled to simple labour is circular, rests on his misunderstanding of Marx's theory. Böhm-Bawerk believed that price for Marx is a translation into exchange value terms of labour-time values knowable as amounts of abstract labour-time (this is one reason why he believed that Marx's theory suffers from a problem with the 'transformation of values into prices'). He did not understand Marx's view that social labour in capitalism is practically quantifiable *only* in the form of

56 'If I buy the services of a teacher … to acquire skills with which I can earn money – or if other people buy this teacher for me – … these costs of learning form as much a part of the costs of production of my labour capacity as do my subsistence costs' (Marx, 'Economic Manuscript', in MECW 34, p. 140).

57 Marx, *Le capital* (1963 [1867]), p. 749.

price, because market exchange is the process by which, in this social system, concrete labours of different types and skill levels are equalised to form elements of social labour.[58]

The Causal Reality of Value

However misconceived, Böhm-Bawerk's criticism returns us to the fundamental problem with which we began: what is the relation between the value representation of the labour process and social reproduction as an actual human activity? To answer Böhm-Bawerk's question, how does Marx explain the social process that effects the socialisation of particular labours? While it happens 'behind the backs' of social actors, this process is describable from a theoretical point of view for which the categories of economic activity are objects of critical analysis, rather than fundamental categories of description. The analysis of 'value' as a representation of social labour is carried out throughout the three volumes of *Capital*; it is only with the discussion of the distribution of surplus value among capitals in the process of competition, discussed in the third volume (and the topic of my next chapter), that the basic discussion of the relation of the exchange value 'form' to the social labour 'substance' of value is completed.

Nonetheless, we can here, for example, examine the question of the effect on the value of a commodity of an increase in the productivity of labour in a particular branch of production. Increased productivity, Marx tells us, causes a decrease in the value per commodity in this branch. Under the conditions of free competition presupposed by Marx's idealised model of capitalism, this will have effects visible in commodity prices: 'whatever the relation between the value and the [price] of a commodity, the latter will always change, rise or fall, according to the changes of value, that is to say, the quantity of labour required for the production of the commodity'.[59] In reality, characterised by

58 'It is sufficient to state that this reduction [of qualitatively different kinds of labour to simple labour] is in fact *completed* by the positing of the products of all kinds of labour as values. As values they are equivalent to one another in certain proportions; the higher sorts of labour are themselves estimated in terms of simple labour. This becomes clear immediately when it is considered that e.g. Californian gold is the product of simple labour, and yet every kind of labour is paid with it' ('Economic Manuscripts', in MECW 29, p. 222).

59 'Economic Manuscript', in MECW 32, p. 272. I have substituted 'price' for Marx's 'cost price', the term he used in 1861–3 to mean what he would call 'price of production' in the third

conditions of 'imperfect competition', this decrease may or may not appear in the price of these goods. Perhaps their producer is in a strong monopoly position and so able to maintain the original price even though the cost of production per unit has fallen. This would require, in line with Marx's Volume III explanation of price formation, the appearance in the price of this commodity of surplus-labour performed by the employees of other capitals and so a decline of profitability for at least some of those other capitals. An ensuing movement of capital out of the lower-profit branch(es) and the consequent reorganisation of the production structure could conceivably lead to increased competitive pressure on the innovating capital and the lowering of its prices in the attempt to deal with it; alternatively, the low-profit capitals might seek employment in new fields of investment, once again altering the production and price structures as wholes.

The price structure of the economy will change with the alteration of productivity in any of its branches, because it is the actual allocation of human productive activity that the price system serves to organise, albeit under the constraint that it allow for a tendential equalisation of profit rates among capitals. The reality socially represented in the value form is visible in the fact that individual economic actors are faced by relatively stable sets of prices:

> The *given magnitude* of value of the commodity, serving as a fund for the payment of wages and profit, appears empirically to the industrialist in the form that a definite market price of the commodity holds good for a shorter or longer time, in spite of the fluctuations in wages.[60]

If the buying and selling of commodities did not proceed under prices making possible, by providing capitalists with the sums of money required, the renewal of the process that produced them – with the employment of particular numbers of people, working under specific technical conditions and using particular materials and means of production – social life would not continue.

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volume of *Capital*. Elsewhere, Marx explains in greater detail: 'If, for example, the worker can now produce 20 hats in the same period of time which it formerly took him to produce 10 hats, and if wages accounted for ½ the expense of the hat, then the … costs of production … of the 20 hats, in so far as they consist of wages, have fallen by half … If the hat manufacturer were to sell the hats at the same price he would sell them above the [price of production]. If the profit had previously been 10% then it would now be 46⅔% … As a result of the fall in value, the new natural price will therefore fall to such an extent that the price only yields 10% profit' ('Economic Manuscript', in MECW 31, p. 437).

60 Marx, 'Economic Manuscript', in MECW 30, p. 403.

In fact, in situations where this renewal is interrupted – most notably, in the disturbances of profitability conditions experienced as economic crises – social life *is* radically disrupted. Both the normal continuity of capitalist production and the crisis cycle bear witness to the work of value – the representation of labour-time by sums of money – in regulating the production process.

Thus, as Grossmann observed, 'the discussion of the tendency of the rate of profit to fall, in the third volume of *Capital*, when set in relation to the first volume's discussion of the development of the productivity of labour, shows that Marx developed this category too from the dual character of labour, namely out of the inverse movement of values and the mass of use values as the productivity of labour increases'.[61] According to Marx, the growth of labour productivity requires increased quantities of raw materials and involves increased investment in means of production, implying a decreasing quantity of labour relative to total capital. This increase in the composition of capital implies declining profitability, whose manifestation in recurrent periods of economic depression therefore provides another demonstration of the causal reality of values despite their invisibility in the form of market prices. By the same token, it is the tendential fall in the profit rate in which the changing proportions of invested value and produced surplus value are manifested that drives 'machinery-based large-scale industry ... to revolutionize the technology of the labour process and with it the social structure', a dynamic central to the 'law of motion' of capitalist society.[62]

Basic to Marx's argument is the idea that capitalism's systemic processes cannot be objects of conscious awareness for social actors but *must* go on 'behind their backs'. For this reason, the adequacy of Marx's critique of political economy, understood not just as an interpretive ethnography of the categories of economic action and consciousness, but also as a theory of the 'law of motion' of capitalism, must be evaluated by reference not to its treatment of price movements, which it makes no claim to explain other than generally, in qualitative terms, but to its explanation of systemic processes. Marx's theory cannot specify the factors of the reduction of the skilled labour contained in a particular type of commodity to simple labour, because it argues the impossibility of knowing the abstract labour content of a commodity otherwise than by its price representation. Nonetheless, interpreting economic categories in this way both explains how the system of representations functions to organise social reproduction and offers an understanding of the periodic crises in the

61 Grossmann, 'Marx, Classical Economics, and the Problem of Dynamics' (2007 [1941]) p. 21.

62 Ibid., p. 31.

system's functioning that threaten that reproduction by intensifying the conditions of class struggle. This, not the explanation of prices, or even short-term macroeconomic prediction, is the aim of the critique of political economy.

CHAPTER 6

Value and Price: Marx's Resolution of a Ricardian Conundrum

Classical political economy attempted to understand how commodity exchange structures the production and distribution of national wealth. In Marx's view, these economists had grasped the interconnection between production and distribution in conceiving of value as labour time. But the economists' understanding was limited by their failure to inquire into the nature of the social relations within which the practice of generalised commodity exchange has its place, the conditions under which the modern concept of economic value has meaning. Instead, they simply assumed that the economic categories of modern society could be applied to the analysis of any and every social system. Marx's critique of political economy, in contrast, emphasises the social-historical circumstances under which the practices associated with the concept of value came to provide a basic structure of social reproduction. In this way, it also pointed to future circumstances under which that reproduction would break down and those practices might come to an end.

I emphasise this aspect of Marx's theorising, already discussed in Chapter 4, because it is generally ignored in the debate, involving marxists and non-marxists, about the supposed problem of the 'transformation of values into prices', which is then dealt with as a technical issue in economic theory, rather than as a key point in Marx's critique of classical economics. This problem, as earlier noted, emerged in the writing of the classical economists, contributing to the internal difficulties of classical theory that helped pave the way to its loss of intellectual authority. Since the publication of *Capital*, however, arguments originally directed against Ricardo as representative of the labour theory of value have been directed against Marx.

This is not surprising, when Marx is regarded (to repeat Schumpeter's words) as 'a "classic" economist and more specifically a member of the Ricardian group'.[1] In addition, the apparent conflict between the labour theory of value

1 Schumpeter, *History of Economic Analysis* (1954), p. 390. Schumpeter calls Marx 'Ricardo's only great follower' in the same section of his book in which he points out correctly 'that the objections that may be made against Ricardo's use of the concept of real value do not apply to Marx's theory', thanks to the latter's denial of the identity of values with average prices (pp. 396, 398).

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and the observable realities of the capitalist economy received a particularly clear statement in Marx's theory, since Marx's attention to the explanatory structure of theory led him to make a clearer distinction between the concepts of price and value than that customary in classical economics. This methodological clarity, paradoxically, appears to create the problem of the relation between the two,[2] so that the transformation problem has come to be seen as a problem specifically of Marxian theory, and even – by a bizarre reversal of the history of the question – to require solution by means of a Ricardian revival.

Referring to the economists' dispute over value theory, Marx wrote Engels in 1858 that

> All objections to this definition of value [in terms of labour-time] derive either from less developed relations of production or else are based on confused thinking, whereby the more concrete economic definitions from which value has been abstracted (and which may therefore also be seen, on the other hand, as a further development of the same) are upheld as against value in this its abstract, undeveloped form.[3]

As this suggests, understanding Marx's solution to the value-price problem requires paying attention to Marx's use of abstraction and idealisation in theory construction, as discussed in Chapter 2 of this book.

The 'confused thinking' Marx found to be at work in the classical economists' problems with the labour theory of value reflects their failure to distinguish between idealised models and economic phenomena. The resulting confusion appears, for instance, in Adam Smith's analysis of the social surplus product in capitalism. Smith introduces his book on *The Wealth of Nations* with the highly abstract idea that 'the annual labour of every nation is the fund which originally supplies it with all the necessaries and conveniences of life …' He then analyses the market as a means for the socialisation of individual labour – necessary if the benefits of a social division of labour are to be attained – through the exchange of labour-products:

2 See ibid., p. 597: 'Whereas for Ricardo relative prices and values were essentially the same thing and whereas hence the economic calculus in terms of values was the same thing as the calculus in terms of relative prices, values and prices were not the same thing for Marx, so that he created for himself an additional problem that *apparently* does not exist for Ricardo, namely, the relation between the two calculi or the problem of *Wertrechnung and Preisrechnung*'.

3 Marx to Engels, 2 April 1858, in MECW 40, pp. 300–1.

> What is bought with money or with goods is purchased by labour, as much as what we acquire by the toil of our own body. That money or those goods indeed save us this toil. They contain the value of a certain quantity of labour which we exchange for what is supposed at the time to contain the value of an equal quantity.

Finally, he explains the existence of profit and rent as categories of income in terms of the appropriation, by capitalists and landlords, of part of the produce of the nation's labour. In capitalism,

> the whole produce of labour does not always belong to the labourer. He must in most cases share it with the owner of the stock which employs him … He must give up to the landlord a portion of what his labour either collects or produces.[4]

On the other hand, Smith asserts that under just the circumstances of capitalist social relations – 'as soon as stock has accumulated in the hands of particular persons, some of whom will naturally employ it to setting to work industrious people, whom they will supply with materials and subsistence, in order to make a profit by the sale of their work …'[5] – an unmodified labour-embodied concept of value is inapplicable. The rate of profit is measured on the total amount of capital employed in production and has no direct relation to labour-input, as is also the case with rent. Smith suggests the use of 'labour commanded' as a standard of value under these conditions, but this is quite different from defining value in terms of labour content. (Labour functions in the former case only as a good of purportedly constant value in quantities of which changes in the values of other goods can be measured.) In this way Smith treats the value of commodities in capitalism as formed by the sum of wages, profits, and rents – the components of price, and hence of 'labour commanded' by the commodity in the market.

This discontinuity in Smith's value theory is conventionally described as a move from a labour-content to an additive, cost-of-production theory. While true, such a formulation fails to draw attention to the heart of the matter. The cost-of-production version begins by assuming given, 'natural' rates of wages, profit, and rent. But these rates themselves need to be accounted for on the

4 Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations* (1976 [1776]), pp. 1, 47–8, 67.

5 Ibid., pp. 65–6.

basis of the law of value (the idea that goods exchange in ratios determined by the ratios of their labour-time contents), if it is to function as a theory for the dynamics of capitalist society.

Smith, as Marx has it,

> moves with great naiveté in a perpetual contradiction. On the one hand, he traces the intrinsic connection existing between economic categories or the obscure structure of the bourgeois economic system. On the other, he simultaneously sets forth the connection as it appears in the phenomena of competition and thus as it presents itself to the unscientific observer just as to him who is actually involved and interested in the process of bourgeois production.[6]

There is no attempt to relate the two degrees of abstraction, to use one as a basis for explanation of the other. Instead, having stated the labour theory of value in an attempt to render comprehensible the phenomenon of economic value dominating the market society, Smith confines it to the pre-capitalist period!

Marx honoured Ricardo for noticing this aspect of Smith's work.

> Adam Smith's successors, in so far as they do not represent the reaction against him of older and obsolete methods of approach, can pursue their particular investigations and observations undisturbedly and can always regard Adam Smith as their base, whether they follow the esoteric or the exoteric part of his work or whether, as is almost always the case, they jumble up the two. But at last Ricardo steps in and calls to science: Halt! The basis, the starting-point for the physiology of the bourgeois system – for the understanding of its internal organic coherence – is the determination of *value by labour time*. Ricardo starts with this and forces science to get out of the rut, to render an account of the extent to which the other categories – the relations of production and commerce – evolved and described by it, correspond to or contradict this basis.[7]

In this way Ricardo's work involved 'a critique of hitherto existing political economy', in particular, that of *The Wealth of Nations*.[8] First of all, Ricardo observed that Smith, 'who so accurately defined the original source of exchangeable value' in terms of labour-time, contradicted this position by claiming that

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6 Marx, 'Economic Manuscript of 1861–63', in MECW 31, p. 390.

7 Ibid., p. 391.

8 Ibid., p. 394.

labour commanded could be a standard measure of value. Since the value of labour (i.e., the rate of wages) is as variable as that of other commodities, labour cannot serve as such an invariable measure or standard of value.[9] Second, with respect to the value of commodities, Ricardo pointed out that, while Smith claimed that the labour theory lost full validity with the development of private property in 'stock' and in land, he nowhere demonstrated exactly *how* the law is modified. Instead he gave it up altogether.[10]

The question of the validity of the labour theory of value was not of purely theoretical interest. It bore on the debate raging in England during the first decades of the nineteenth century over the maintenance or abolition of the Poor Laws, which hindered the full marketisation of labour power, and the Corn Laws, which kept up the price of wheat by protectionist means. It followed from the classical value theory that government interference with the natural forces – i.e., population growth and its limitation by starvation – regulating the size of the working class interfered with the market equation of wages with the 'natural price' of labour; thus 'instead of making the poor rich, the [Poor Laws] are calculated to make the rich poor; and whilst the present laws are in force, it is quite in the natural order of things that the fund for the maintenance of the poor should progressively increase till it has absorbed all the net revenue of the country ...'[11] With respect to the Corn Laws Ricardo argued, against the agricultural interest, that high grain prices produced high wage-costs. For a given level of production, this meant that more of the social product was consumed by workers, leaving a smaller amount for capitalists, and so diminishing the rate of capital accumulation, on which the growth of general prosperity depended.[12] Such an analysis of national income as a division of a given social product is possible with the labour theory of value, but not with Smith's adding-up sub-

9 See Ricardo, *On the Principles of Political Economy and Taxation* (1966 [1817]), pp. 13–14.

10 But it is to be noted that for Ricardo too it 'is in the early stages of society, when few exchanges are made, that the value of commodities is most peculiarly estimated by the quantity of labour necessary to produce them, as stated by Adam Smith'. For this reason, Ricardo further explained in a letter to a friend, 'I do not, I think, say that the labour expended on a commodity is a measure of its exchangeable value, but of its positive value. I then add that exchangeable value is regulated by positive value and therefore is regulated by the quantity of labour expended' (Ricardo to Hutches Trower, 4 July 1821, cit. Robert M. Rauner, *Samuel Bailey and the Classical Theory of Value* [1961], p. 51).

11 Ricardo, *Principles* (1966 [1817]), pp. 105–6.

12 For an outstanding analysis of the centrality of these practical interests to the formation of classical economic theory, see Kanth, *Political Economy and Laissez-Faire: Economics and Ideology in the Ricardian Era* (1986), chs. 3, 4, and *passim*.

stitute for it. For if prices were formed, as Smith asserted, by the addition of the three elements of cost, then if, for example, wages should rise, prices could rise also, leaving capitalist revenue unaltered.

Preoccupied as he was with the effect of rising wages on the economy, Ricardo did not investigate as such the conflict between the observable tendency to a uniform profit rate and the labour theory of value. He dealt with it only in the form of changes in relative values (prices) caused by changes in the price of labour. The nub of the matter, according to Ricardo, was not the introduction of capital as a (class-owned) factor of production, but the distinction between fixed and circulating capital – between slowly and rapidly turning-over portions of investment.[13] As a function of the quantity of invested capital, the given 'fair' rate of profit, and time, the profit earned (as they say) on a capital must vary with the length of time the capital, or some part of it, is used. Hence, the situation can arise in which capitalists employ

> precisely the same quantity of labour annually on the production of their commodities, and yet the goods they produce differ in value on account of the different quantities of fixed capital, or accumulated labour, employed by each … The difference in value arises … from the profits being accumulated as capital, and is only a just compensation for the time that the profits were withheld.[14]

Given this disturbing effect of capital on labour-value, 'the degree of alteration in the relative value of goods, on account of a rise or fall of [the price of labour], would depend on the proportion which the fixed capital bore to the

13 Cf. Ricardo, *Principles* (1966 [1817]), p. 30. In his introduction to the *Principles*, Piero Sraffa takes pains to show that Ricardo did not maintain a '100 % labour theory of value' even for pre-capitalist times. He cites a letter to James Mill in which Ricardo asserts that his position, in opposition to Smith's, is 'that it is not because of [the] division [of the produce of labour] into profits and wages – it is not because capital accumulates that exchangeable value varies, but it is in all stages of society owing only to two causes: one the more or less quantity of labour required, the other the greater or less durability of capital – that the former is never superseded by the latter, but is only modified by it' (ibid., p. xxxviii). Sraffa leaves unmentioned the absurdity of a point of view from which pre-capitalist society exhibits not only generalised commodity production (as with Smith) but even capital itself.

The classical concept of 'circulating capital' jumbles together wages and the cost of raw materials; thus Ricardo's distinction lacks the clarity of Marx's contrast between 'constant' (purchasing all means of production) and 'variable' (labour power-purchasing) capital.

14 Ibid., pp. 34, 37.

whole capital employed'.[15] Goods produced with a high proportion of fixed capital would actually *fall* in price if wages rose. Those with a lower than average ratio of fixed to circulating capital would rise in price; on average, the price level would remain unchanged. As a result, 'there can be no rise in the value of labour without a fall in profits'.[16]

It was in the context of this argument that Ricardo developed his idea of an 'invariable standard measure of value', such as Smith had imagined might be found in labour. If gold were produced by a capital with an average proportion between fixed and circulating capital, for example, its value would be unaffected by changes in the distribution of the social product between wages, profits, and rents; prices reckoned in terms of it would give an accurate picture of the effects of such changes on the relative values of all other commodities.[17] In the absence of such a standard, Ricardo's argument against Smith seemingly lacks the possibility of verification. Ricardo believed, however, that since the wage rate determines the profit rate, the differential effect of changes in wages on capitals with different ratios of fixed to circulating capital must be 'comparatively slight'. This is 'not so with the other great cause in the variation in the value of commodities, namely the increase or diminution in the quantity of labour necessary to produce them'.[18]

Ricardo's account of the deviation of price from labour-time value is quite confused: he ascribes it sometimes to the effect of changes in the wage rate, given different compositions of capitals, and sometimes directly to 'the greater or less durability of capital'. At any rate, as Marx observed, these circumstances have an effect on exchange value only because capitalists have 'the fixed idea that [they should all] draw the same spoils from "the support they have given to labour"'. It is capitalists' requirement of equal profits, and not the wage rate or the composition of capital *per se*, that conflicts with the labour-time law of value. But,

> how from the mere determination of the '*value*' of the commodities, their surplus value, the profit and even a *general rate of profit* are derived remains obscure with Ricardo. In fact, the only thing which he proves … is that the *prices* of the commodities, insofar as they are determined by the general rate of profit, are entirely different from their *values*. And he arrives at this difference by postulating the *rate of profit* to be law. One

15 Ibid., p. 35.
16 Ibid.; see also p. 43, and for an earlier formulation, p. 63.
17 Ibid., pp. 43 ff.
18 Ibid., p. 36.

> can see that though Ricardo is accused of being too abstract, one would be justified in accusing him of the opposite: lack of the power of abstraction, inability, when dealing with the values of commodities, to forget profits, a factor which confronts him as a result of competition.[19]

With respect to the theory of value as the determinant of exchange value or price, which is the basis of Ricardo's critique of Smith, the supposedly minor character of the effect on price of wage increases is beside the point. Moreover, as Thomas Malthus pointed out, the progress of 'civilization and improvement … tends continually to increase the quantity of fixed capital employed, and to render more various and unequal the times of the returns of the circulating capital'. The classes of what Ricardo terms 'exceptions' to the labour-time rule become 'so numerous, that the rule may be considered as the exception, and the exceptions the rule'.[20]

With this judgment Marx concurred. As a result of his historical approach to economic phenomena, Marx's criticism went deeper than any other. The classical economists, viewing the institutions of capitalism as 'natural', applied the categories of value without hesitation to what Smith called 'that early and rude state of society which precedes both the accumulation of stock and the appropriation of land'. The operation of the law of value, in its pure form, as regulator of exchange was relegated to this far-off period; and the problem for the labour theory was to explain the departures from the law caused by the entrance upon the scene of capital, by capital's varying fixed-circulating ratio, and by landed property. For Marx, however, value theory did not describe the 'natural' state of social affairs. It was developed to explain bourgeois society, and its subject matter – production as (in general) the production of *commodities* – occurs only under capitalist conditions. For only under capitalism, with labour power as well as all other inputs objects of commerce, can the production process be described generally as structured by the buying and selling of commodities, just as it is under these conditions alone that all outputs are necessarily commodities. Hence the problem is posed in the most perplexing form imaginable:

> Thus the law of the commodity is supposed to be valid for a type of production which produces no commodities (or only to a limited extent) and not to be valid for a type of production which is based on the product as a

19 Marx, 'Economic Manuscript', in MECW 31, pp. 407, 416.

20 Malthus, *Definitions in Political Economy* [1827], cit. Marx, 'Economic Manuscript', in MECW 32, p. 224. For Marx's agreement, see p. 261.

> commodity. The law itself, as well as the commodity as the general form of the product, is abstracted from capitalist production and yet it is precisely in respect of capitalist production that the law is held to be invalid.[21]

If values are defined as embodied labour time, we cannot speak, as Ricardo does, of alterations in value brought about by varying ratios of fixed and circulating capital. If he wishes to treat profit as a share of the labour time value contained in a commodity, Ricardo cannot also invoke the principle of equal profits on equal capitals as another determinant of value, alongside labour time. It is perhaps in unconscious acknowledgement of these problems that Ricardo, while he defends the labour theory as a theory of relative prices, uses it in *On the Principles of Political Economy and Taxation* exclusively 'to determine the laws which regulate' the distribution 'of the whole produce of the earth' between the three great classes of workers, capitalists, and landlords.[22]

Even though the social system is identical with its parts, as an organism can be identified with the totality of its cellular components, the relations between those parts determine their operations and experiences. Because of the complexity of those relations, a high degree of abstract analysis is required to focus on processes central to the system's reproduction. Marx originally expressed this methodological point in the *Grundrisse* – as we saw earlier – by speaking of '*capital in general*, i.e. the quintessence of the characteristics which distinguish value as capital from value as simple value or money', contrasting this abstraction with 'a *particular* form of capital' – such as industrial, merchant's, or money capital – and 'with *one individual capital* as distinct from other individual capitals, etc'.[23] In *Capital*, dropping this terminological framework, he identified the general features of capital in the 'general formula for capital', 'M[oney]-C[ommodity]-M[oney]′', with the superscript indicating an increased amount, which summarises 'the process in which, while constantly assuming the form in turn of money and commodities' a sum of value 'changes its own magnitude' by generating a surplus value through the exploitation of labour. This is the form in which capital 'appears directly in the sphere of circulation';[24] further analysis reveals that the commodities purchased with the

21 Ibid., p. 265.

22 Ricardo, *Principles* (1966 [1817]), p. 5.

23 Marx, 'Manuscripts of 1857–58', in MECW 28, p. 236. This notion reappears in the Preface to the *Contribution*: 'The first part of the first book [of Marx's projected 6 books], dealing with Capital, comprises the following chapters: 1. The commodity; 2. Money, or simple circulation; 3. Capital in general' (in MECW 29, p. 261).

24 Marx, *Capital* I, p. 255.

initial investment must be means of production and labour power, whose use as labour can produce a surplus value. This in turn indicates that the operation of one capital entity requires the existence of others, producing means of production and consumer goods for employed workers; this interdependence of capitals is explored in the second volume of *Capital*.

Already in Volume I, however, it is clear that while 'the growth of the social capital is accomplished through the growth of many individual capitals', the conditions of the latter are determined and so to be explained by properties of the system of capital as a whole.[25] The many capital units form a system, in the sense that the behaviour of each is subject to and so can't be understood without reference to its relations with the others, effected through market transactions. In addition to the systemic character of value-determination, which depends (as we have seen) on a (tendential) supply-demand equilibrium for all products, the creation of surplus value, while accomplished by the employees of individual capitals, is conditioned by the capitalist system as a whole, since the value of labour power, purchased by all capital entities, is determined in part by the productivity of labour in the consumption-good industries.

This view of the capitalist system as a whole Marx contrasted with economic phenomena as perceived (to use his description of Smith's procedure) from 'the standpoint of the individual capitalist', to whom the rate of profit achievable by other entrepreneurs appears as a given which he seeks to match or surpass, just as the prices of inputs – his expenses – and the price he can ask for his output are givens at any particular moment. The point of value theory was to explain the factors that by regulating the system as a whole structure the decision-making possibilities of the individual firms, or, as the classical economists put this, to explain the distribution of social income among the different classes of society. The level of the average rate of profit, a central one of these factors, is one of the phenomena to be explained by value theory. It cannot, therefore, simply be invoked to explain departures from labour-determined values. On the contrary, if the labour theory of value is to have scientific worth, then the difference between price and value implied by the achievement of equal profit rates by firms employing different ratios of labour and fixed capital must be explained *without contradicting the concept of labour-determined value*. If this cannot be done, the 'law of value' must be abandoned, as the critics of the Ricardian school maintained. Marx claimed boldly to show

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25 Marx, *Capital* I, p. 776.

> that just *because* the value of the commodity is determined by *labour time*, the average price of the commodities … *can never* be equal to their value although this determination of the average price is only derived from the value which is based on labour time.[26]

What this required was a critical assault on the classical theory of value itself. This is the heart of *Capital* – 'the critique of political economy'.

Labour and Value

A glance at the history of value theory will reveal the ideological origins of the theoretical paradox Marx wished to resolve. Classical economics arose in the seventeenth century as the study of trade: as Barbon defined it in 1690, 'the making and selling of one sort of goods for another'. Characteristic was Barbon's further specification that 'the chief end of business of trade is to make a profitable bargain'.[27] The body of literature on 'trade', growing rapidly since the sixteenth century, was a response to a real phenomenon. With the growth of production for the market, the concept of 'just' prices gave way to that of 'natural' or normal prices. As more and more productive activity was pursued with an eye to profit, the rate of profit claimed status as a component of the 'natural price', the price at which goods tended to sell over time, as did the rent charged the profit-seeking users of other's property.

Looking at society as a whole, the determination of the social surplus as a price-defined value which emerged in trade transformed the study of 'trade' into 'political economy', with implications for governmental policy. Throughout the growth of classical political economy three themes express aspects of one investigation: the need for free trade (*laissez-faire*); the nature of the connection between the making and the selling of goods; and the dependence of economic progress on profit-making. Allowed free play, the search for profit in the market would develop production to satisfy present needs and to ensure future expansion. It was the exploration of this idea that led to the labour theory of value, even though the viewpoint so defined formed a barrier to this theory's satisfactory development.

The solution to the problem – how production is organised by the market, which, while characterised by fair exchanges, permits the appearance of a sur-

26 Ibid., p. 269.

27 Nicholas Barbon, *A Discourse of Trade* (1905 [1690]), p. 9.

plus – was originally sketched without reference to the concept of value. Since the Physiocrats considered agriculture the basis of the economy (as indeed it was in eighteenth-century France), it was easy for them to think of the production of a surplus in physical terms, as the production of more agricultural goods than were consumed by the producers. It is true that they treated this surplus product as a gift of nature rather than as a product of labour. Yet we find in Turgot the reflection that 'As soon as the labour of the husbandman *produces more* than his wants, he can with this superfluity *that nature accords him as a pure gift* over and above the wages of his toil, buy the labour of the other members of the society'.[28] To be noted is the account of the surplus as produced independently of exchange relations, but realised and distributed through them. Exchange is thus conceptualised as the exchange of different people's labour, embodied in products. Through this exchange the surplus produced in agriculture is transformed into control over a portion of the total social product. In contrast to the case of agriculture, where the existence of a surplus beyond raw material (seed) and labour (food) replacement costs is visible in physical terms, Marx pointed out that:

> In manufacture the workman is not generally seen directly producing either his means of subsistence or the surplus additional to his means of subsistence. The process is mediated through purchase and sale, through the various acts of circulation, and the analysis of value in general is necessary for it to be understood.[29]

The labour theory of value has been traced to the Canonist writers of the Middle Ages. While it is worth remembering that this theory, like market exchange, did not emerge *ex nihilo* in the seventeenth century, its true roots are to be found in the ideology of 'possessive individualism' and its Enlightenment transformations. In his second *Treatise of Civil Government*, John Locke founded the right of property on labour. A man has a right to his own person and to his own labour.

> Whatsoever, then, he removes out of the state that nature hath provided … he hath mixed his labour with, and joined to it something that is his own, and thereby makes it his property … Thus this law of reason makes

28 Turgot, *Réflexions sur la formation et la distribution des richesses* [1766], cit. Marx, 'Economic Manuscript', in MECW 30, p. 363.

29 Marx, 'Economic Manuscript', in MECW 30, p. 355.

> the deer that Indian's who hath killed it; 'tis allowed to be his good, who hath bestowed his labour upon it, though before it was the common right of everyone.[30]

If one thinks of the social presuppositions of such a view, its resonances with basic characteristics of the then emerging bourgeois society appear: the idea that a man's 'person' and so the labour of his body 'belong' to him *prima facie* rules out slavery or serfdom, as the idea of the labour-earned right to property threatens the right of the sword. Generally, Locke's view reflects an opposition of the 'productive' to the 'unproductive' groups in society, to use the terms in which the emergent bourgeoisie conceived of their struggle against the remains of feudalism.

An idea visible in implicit form in the above citation from Turgot, in combination with the association of labour with property, opened what seemed a way to a unified theory of exchange and surplus production – to what Marx would call a theory of surplus value. This was the idea of the social division of labour, among the most important ideas evolved, in its modern form, during the eighteenth century. The chief intellectual problem raised by the displacement of the *ancien régime* in Europe by developing capitalism was how to justify the emerging social order in the face of the dissolution of earlier social, political, and religious bonds. As ever in social history, the terms of the problem contained the solution. If humanity consists of individuals characterised by no social bonds of the traditional types, but only by needs for, or rights to, the objects and services defining the good life, then the question – what is the natural basis of society? – takes on a specific form. Condorcet's version of this question constitutes a beautiful statement of the conceptual background usually ignored in studies of classical economics:

> Man has certain needs and also certain faculties with which to satisfy them; from these faculties and from their products … there results an accumulation of wealth out of which must be met the common needs of mankind. But what are the laws according to which this wealth is produced or distributed, accumulated or consumed? … What, too, are the laws governing that general tendency towards an equilibrium between supply and demand from which it follows that, with any increase in wealth, life becomes easier and men are happier? … How, with all the astonishing multifariousness of labour with all the frightening complex-

30 Locke, *Second Treatise of Civil Government* (1690), Book I, Chapter V, § 30.

> ity of conflicting interests that link the survival and well-being of one individual to the general organization of societies … how, with all this seeming chaos, is it that, by a universal moral law, the efforts made by each individual on his own behalf minister to the welfare of all, and that the interests of society demand that everyone should understand where his own interests lie, and should be able to follow them without hindrance?[31]

It is exactly the division of society's productive activity among the independent individuals who make it up that provides the basis for the bond and 'universal moral law' they share.

Fundamental to this view was the identification of the division of labour with production for a market. Adam Smith in one passage of the *Wealth of Nations* founds the division of labour on a natural propensity of humans 'to truck, barter, and exchange one thing for another'; in another passage he explains market behaviour as the natural form of the division of labour, given the absence of any other social bond:

> But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favor, and show them that it is for their own advantage to do for him what he requires of them. Whoever offers to another a bargain of any kind, proposes to do this … It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest.[32]

If the basis of the system of production for trade is the division of labour, the analysis of trade as exchange of labour is but a step away. We can see it being taken explicitly by Benjamin Franklin: 'Trade in general being nothing else but the exchange of labour for labour, the value of all things is … most justly measured by labour'.[33] This mode of evaluation is *just*, not only because labour is the basis of the right to property, but also because this measure ensures the equivalence of the individual's contribution to and his gain from the social treasury. It is this that assures the harmony of supply and demand and promotes individual initiative and the growth of social wealth.

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31 Condorcet, *Sketch for a Historical Picture of the Human Mind* (1955 [1794]), p. 130.

32 Smith, *Wealth* (1979 [1776]), pp. 25, 26–7.

33 Franklin, *A Modest Inquiry into the Nature and Necessity of a Paper Currency* [1731], cit. Marx, *A Contribution to the Critique of Political Economy*, in MECW 29, p. 296.

Nonetheless, although value could be analysed in terms of labour, and the social surplus in terms of social surplus labour, the classical economists were not able to combine the two strands into a thread of theory strong enough to bear the strain of the economic facts. In particular, the equality of profit rates, necessary if each capitalist is to receive fair recompense for his contribution to production, proved, as we have seen, incompatible with the regulation of exchange by labour-time content. The labour theory of value had to be abandoned as a basis for economic (and social) liberalism.

Marx did not begin his investigation of modern society with the assumption that it is a just one, in which income measures contribution to the social welfare. As a result, he was able to see that, precisely when the law of value regulates production, exchange cannot be, as the classical thinkers liked to imagine it, an exchange of labour for labour. Not owning means of production, the workers cannot exchange their labour in product form, or directly as living labour, since under capitalism production requires increasing amounts of tools and materials. So the exchange between capitalists and workers is not one of labour for labour, but of labour for labour power. (As in any case the capitalists do no labour, their exchanges with workers or with each other involve the transfer of claims to labour, indeed, but of claims to *other people's labour*.) In this way Marx solved the first of the two problems that Engels, introducing Volume II of *Capital*, identified as the reefs on which both Ricardian theory and its 'vulgar' successors had come to grief: the explanation of the origin of a surplus value in an apparent exchange of equivalents between capital and labour.[34] In the course of this solution, as is evident, Marx destroyed the attempt to use the labour theory of value to explain and justify social relations. Value is not the magic that ties the self-interest of each to the social interest of all; it is the form in which the exploitation of one part of society by another is carried out.

The productive activities investigated by political economy under the name of 'labour', though carried out for society at large, are exercised under the control and to the account of privately-owned enterprises. As explained in the previous two chapters, though the work of production is in fact social labour, its social character is *invisible* until the products are sold. Only then can the place of a given piece of work in social production be measured – for only then does it definitely *have* such a place. Since, outside of the market, there is no structure of social coordination uniting all the producers,

34 See Marx, *Capital* II, p. 101. This corresponds to the first two of the insoluble problems Marx identified as the causes of the 'disintegration of the Ricardian school'; see Chapter 4 above, p. 76.

> the specific social characteristics of their private labour appear only within this exchange … Men do not therefore bring the products of their labour into relation with each other as values because they see these objects merely as the material integuments of homogeneous human labour. The reverse is true; by equating their products to each other in exchange as values, they equate their different kinds of human labour.[35]

This is why in capitalism social labour appears not as such, but as value, i.e., as the property of commodities signalled by their prices (their capacity for exchange). Value is abstract labour formed from concrete labour by market exchange.

To say that abstract labour appears as value is to say that the value of a commodity cannot be expressed directly in terms of labour hours, but only in terms of another commodity for which it exchanges. In each act of exchange, however, we still have a trade of two use values, two products of concrete labour. How in the act of exchange are these two labours transformed into (more specifically, treated as though they were) quantities of abstract labour? This question, unasked by the classical economists, Marx answered with his theory of money. As we have seen, Marx's idea is that in exchange, each commodity serves as the form of value – which is in this way distinguished from the natural, use value form of products – for the other. The generalised exchange of all commodities against each other – which is what gives the labour producing them its abstract character – is made possible by the selection of one commodity specifically for this function of representing by quantities of itself the exchange values of all other goods. In this way,

> Money necessarily crystallizes out of the process of exchange, in which different products of labour are in fact equated with each other, and thus converted into commodities. The historical broadening and deepening of the phenomenon of exchange develops the opposition between use value and value which is latent in the nature of the commodity. The need to give external expression to this opposition for the purposes of commercial intercourse produces the drive towards an independent form of value … At the same rate, then, as the transformation of the products of labour into commodities is accomplished, one particular commodity is transformed into money.[36]

35 Marx, *Capital* I, pp. 160, 165.

36 Ibid., p. 181.

Thus, we can expand the definition of 'value' given at the end of the previous paragraph: it denotes abstract labour time contained in a commodity as represented by a quantity of the money commodity produced (ideally) by an equal amount of labour time.

This definition exhibits the distinction, as well as the intimate relation, between value and the form in which it is represented, price. If we do not *assume*, as the classical economists did, that a labour theory of value implies at least a long-term equivalence of exchange ratios and value ratios, there is no reason to think that the exchange ratios of commodities to gold in particular should be congruous to their value relations. Representation may be misrepresentation: there is nothing in the Marxian theory of the money-form which implies that prices will coincide with values.[37] Perhaps it was the impossibility of perceiving value except in the form of price that led the economists to identify the two (thus landing themselves in the toils of the transformation problem). But this at least poses no problems for a theory that makes a clear distinction between observed phenomena and explanatory concepts. For Marx, the potential for price to differ from value 'is not a defect, but, on the contrary … makes this form the only adequate one for a mode of production whose laws can only assert themselves as blindly operating averages between constant irregularities'.[38] Uninterested in explaining (and justifying) individual prices in terms of abstract social labour, Marx makes other use of the concept of value.

Marx, as already noted, defines the value of a commodity not as the quantity of labour expanded in its production, but as the 'socially necessary labour time' required to produce it. The full implications of this definition have often been overlooked. In constructing the idealised model described in Chapter 2 above, Marx adopted from the classical economists the restriction that labour which forms value must be of normal productivity for the industry in which it is used,

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37 This point is made clearly in Duncan Foley's article, 'The Value of Money, the Value of Labour Power, and the Marxian Transformation Problem' (1982): In accordance with Marx's conceptualisation of value as a property of system-wide social labour, Foley observes that '[a]ny particular commodity can be seen as embodying a certain fraction of the total abstract labour expended in producing commodities; it also exchanges for a certain amount of money (its price), which represents a possible different fraction of the aggregate abstract social labour expended. This theory thus inherently permits the possibility of a deviation of the price of a commodity from its labour value, that is, the fraction of the aggregate abstract social labour embodied in the commodity' (pp. 37–8).

38 Marx, *Capital* I, p. 196.

and so for the system as a whole. He is careful to spell out another restriction, that this normally productive labour be allocated to meet the demand for different kinds of goods. To quote one of many expressions of this point:

> The total quantity of labour-time used in a particular branch of production may be under or over the correct proportion to the total available social labour, although each aliquot part of the product contains only the labour-time necessary for its production, or although each aliquot part of the labour-time used was necessary to make the corresponding aliquot part of the total product.[39]

The 'correct proportion' for every product is that at which there is no tendency for producers to expand or contract production in one branch of industry or another.

> The question is, in what quantities the necessary labour-time itself is distributed among the various spheres of production. Competition constantly regulates this distribution, just as it constantly disorganizes it. If too large a quantity of social labour-time is used in one branch … the value of the total product … is in this case not equal to the labour-time contained in it, but = the proportional amount of labour-time which would have been used had the total product been in proportion to the products in other spheres.[40]

Under-produced goods count as containers of the abstract labour that would be contained by a demand-balancing supply of these goods, and vice versa for over-produced goods. In the terminology of modern economics, values are defined, as we have already had occasion to note, by reference to a hypothetical general equilibrium of supply and demand, though without the assumption that the system actually tends over time towards such an equilibrium.

In the third volume of *Capital*, Marx reminds us that the relation of supply to demand is the specifically capitalist form of the general biosocial relation of production to consumption: it is this general relation as organised through a market and regulated by competition, i.e., by capitalists' search for maximum profit. The 'socially necessary' criterion for value-constituting labour can be expressed, therefore, in this form:

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39 Marx, 'Economic Manuscript', in MECW 31, pp. 131–2.

40 Ibid., p. 132.

> To be produced, to be brought to the market, the commodity must at least fetch the market price, that [price of production including an adequate profit] to the seller, whether its own value be greater or smaller than that [price of production].[41]

The production of goods that cannot be sold at a satisfactory rate of profit will be discontinued. This means that a full understanding of the 'law of value' requires attention to the competition between individual capitals as an aspect of the interrelations which form them into one social system.

As the history of capitalism demonstrates, there is no obvious connection between the conditions determining profitability and the relation between needs and resources. By making supply-demand equilibrium an explicit condition for the definition of value, Marx did not, like general-equilibrium theorists, mean to describe the price system as a mechanism adjusting production to consumption desires, but to emphasise the subordination of goods-production and demand-satisfaction to profit-making. As value-production is the organisational principle of production specific to capitalism, values are defined for products that are exchanged as products of capitals, not just as products of 'social labour'. Though the labour input to the product of a given firm counts as socially necessary only to the extent that the exchange process *makes* it a part of the total social labour time, the commodity is exchanged as a part of the social product only as the private property of the firm. Its price must, as we have seen, yield a rate of profit high enough to make possible the firm's continued operation on a capitalist basis.[42]

The model of capitalism utilised in Volumes I and II of *Capital* – let us call it Model I – idealised by (*inter alia*) abstracting from the capitalist demand for the highest possible profit rate. As pointed out earlier, this idealisation allowed individual capitals to model the total social capital, explaining how surplus value is created in the individual enterprise as an element of a social totality. In

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41 Marx, 'Economic Manuscript', in MECW 32, p. 273. At the time when he wrote this, Marx used 'cost-price' or 'market price' to mean what he later designated as 'price of production': 'the value of the advances + the average profit' (ibid.).

42 Here, as in this chapter as a whole, I follow Marx (to this point in his book) in abstracting entirely from the division of surplus value among forms of revenue other than profit of enterprise – i.e., from rent and interest – and also from the flow of social surplus value through nonproductive investment. It should be remembered, therefore, that in what follows, 'total profit', 'total wages', etc. cannot be identified directly with empirical aggregates of profit and wages.

this model it is clear that each capital, and so the total capital of society, generates surplus value depending on the amount of labour power employed, and so on the amount of variable capital (this is the ratio Marx calls the rate of surplus value, $\frac{s}{v}$). But the distinction between variable and constant capital central to this explanation is of no importance to the capitalist investor; whatever the composition of capital, as Marx calls the ratio of constant to variable capital, the capitalist measures his profit against his *total* investment.

That capitals of different compositions yield profit at disparate rates in Model I 'is true on the same basis as our whole investigation so far: that commodities are sold at their values', since in this case each capital receives, upon sale of the product, the surplus value produced by its workers. In reality, however, 'ignoring inessential, accidental circumstances that cancel each other out, no such variation in the average rate of profit exists between different branches of industry, and it could not exist without abolishing the entire system of capitalist production'.[43] An understanding of the dynamics of profitability, and so of the competitive organisation of the productive system, requires, therefore, the construction of a less idealised representation, which I will call Model II. In this model, developed in Volume III of *Capital*, Chapter 9, Marx understands the equilibrium that defines socially-necessary labour time as a result of profit-maximisation as well as of the matching of supply with demand: capital, given its (ideal) complete mobility, stops migrating between spheres of industry when no capital can increase its rate of profit by moving. 'Value' then refers to the allocation of labour time that would obtain if all capitals were to receive profit at the same rate.

Value and Price

Since price is the only form in which capitalist labour is represented, it is also the form of representation of surplus labour, of the quantity of labour time required for the reproduction of the working class, and of the quantitatively increasing power of the capitalist class, as measured by its control of labour time embodied in means of production. Thus, the sum of all prices is the monetary representation of total abstract labour;[44] the total of the sums expended

43 Marx, *Capital* III, p. 252.

44 Since we are still idealising away the existence of credit and landed property, this includes neither the prices of financial assets nor the price of land, to be later explained in terms of the appropriation of surplus value by, respectively, financial capitalists and landowners.

on means of production and in the purchase of labour power represents the capitalists' investment of past social labour appropriated by them in the production process; and the total of profits expresses in terms of the money commodity the capitalist-controlled portion of the labour-time newly expended in production.

It is of the essence of capitalist commodity production that the social labour time relationships just described are invisible at the level of the individual firm. For the firm demands a return on investment determined by the size of that investment, not by its contribution to social production as a whole. So while the value of every commodity is a definite quantity of abstract labour time, this quantity is – as we saw in the previous chapter – *in principle* not measurable. Nonetheless, the rate of surplus value, the relation between value invested and value produced in excess of that investment, affects all capitalists in the form of the average rate of profit, on the basis of which they make investment decisions.

Marx opens his exposition of 'the transformation of surplus value into profit' in *Capital*, Volume III, with a distinction between 'what the commodity costs the capitalist', its *cost-price*, and 'what it actually does cost to produce it' in labour time, including surplus labour time.

> When we combine the various portions of commodity value that simply replace the capital value spent in the commodity's production, under the heading of cost price, we express … the specific character of capitalist production. The capitalist cost of the commodity is measured by the expenditure of *capital*, whereas the actual cost of the commodity is measured by the expenditure of *labour*.[45]

For the individual capitalist, the portion of society's labour carried out by his employees figures only in the form of services that he has bought. Wages are a *cost* for him, just like the cost of means of production. His only interest is that the price of the product he manufactures by combining these 'inputs' should yield as high a return on investment as is possible under given conditions.

Price formation, then, bears no direct relation to the abstract-labour content of goods but is a function of capital costs and the average profit rate. Therefore,

> although the capitalists in the various spheres of production get back on the sale of their commodities the capital values consumed to produce them, they do not secure the surplus value and hence profit that is pro-

45 Marx, *Capital* III, p. 118.

> duced in their own sphere in connection with the production of these commodities. What they secure is only the surplus value and hence profit that fall to the share of each aliquot part of the total social capital, when equally distributed, from the total surplus value or profit produced in a given time by the social capital in all spheres of production.[46]

Marx illustrates this conception with a table representing a five-branch economy.[47] Since compositions differ among the five capitals, their ratios of surplus value to cost-price in value terms differ. Competition for the total surplus value available ensures that each branch of production receives the average rate of profit, measured on its total investment, so that the economy is in supply-demand equilibrium. While the price totals that determine the average rate of profit will be the 'money-expressions' of the labour socially necessary to produce them, in order to yield equal profit rates the commodities produced in all branches must be sold at prices, differing from their values, equal to costs plus the average rate of profit measured by the ratio of total surplus value to total capital.

Since Marx's table is intended only as an illustration of this bit of reasoning, Marx has simplified things by representing cost-prices as equal to the values of means of production and labour power purchased by individual capitals. He is careful to point out that this representation does not correspond to reality, even the Model II version of reality:

> for the buyer of a commodity, it is the price of production that constitutes its cost-price and can thus enter into forming the price of another commodity. As the price of production of a commodity can differ from its value, so the cost-price of a commodity, in which the price of production of other commodities is involved, can also stand above or below the portion of its total value that is formed by the value of the means of production going into it. It is necessary to bear in mind this modified significance of the cost-price, and therefore to bear in mind too that if the cost-price of a commodity is equated with the value of the means of production used up in producing it, it is always possible to go wrong. Our present investigation does not require us to go into further detail on this point.[48]

46 Ibid., p. 258.
47 Ibid., pp. 255–6.
48 Ibid., pp. 264–5.

It is peculiar, to say the least, that Marx's critics have insisted on discussing the argument as represented by his tables, while treating this and similar passages not as corrective supplements to that representation but as admissions of theoretical failure.[49] It seems clear that Marx did not engage in a 'closer analysis of this point' because the aim of his table was not to exhibit a computation of prices from value data – a computation uncalled for as well as ruled out by his theory of value and price – but to *explain* the divergence of profit and price from surplus value and value. Indeed, on the basis of Marx's theory,

> Apart from the fact that the price of the product of capital B, for example, diverges from its value, because the surplus value realized in B may be greater or less than the profit added in the price of the products of B, the same situation also holds for the commodities that form the constant part of capital B, and indirectly, also, its variable capital, as means of subsistence for the workers … However, this is always reducible to the situation that whenever too much surplus value goes into one commodity, too little goes into another, and that the divergences from value that obtain in the production prices of commodities therefore cancel each other out.[50]

In reality, of course, the situation is the reverse of that pictured in Marx's table, which starts not from reality but from the idealised model of it presented in Volume I of *Capital*. What the analyst of the capitalist economy has to start with as phenomena to be understood is various sets of prices, representing the costs of production in various industries, on the one hand, and profits earned, on the other (at this point in Volume III the division of surplus value into industrial profit, commercial profit, interest, rents, and taxes is still idealised

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49 In a recent book, Fred Moseley, concerned in contrast to justify Marx's approach, maintains that '[t]his "modification in the determination of the cost price" *does not mean a change in the magnitude* of the single, given, actual cost price. The only thing that changes is the *explanation* of this … cost price …' (*Money and Totality* [2016], p. 163). But in saying that, '[a]s the price of production of a commodity can differ from its value, so the cost-price of a commodity, in which the price of production of other commodities is involved, can also stand above or below the portion of its total value that is formed by the value of the means of production going into it' Marx is clearly describing a quantitative modification of cost-price, an alteration for which, of course, he offers an explanation.

50 Ibid., p. 261; and see pp. 259–60 for another clear statement of the situation.

away, as in Volumes I and II; industrial profit is therefore just another name for surplus value). The theoretical problem is to explain what these prices signify, and why that content is represented in this particular way in this form of society. The general answer is that they are representations of social labour under specifically capitalist conditions. The product of the social system taken as a whole is 'a mass of commodities', and 'the labour expended on each commodity' cannot be calculated 'except as an average' – socially necessary abstract labour time – 'reckoned *ideally* as an aliquot part of the total labour expended on it'.[51] In this way, as discussed in the previous chapter, the concrete labour times expended on the different kinds of products are abstracted into a socially-valid homogeneous abstract labour time by being exchanged against money. This analysis of prices as the representation of social labour opens the way to the analysis of profit as the difference between labour newly performed and the past labour-cost of its performance. In this way Marx has, to use the language of the introduction to the *Grundrisse*, ascended from the concrete to the abstract.

The part of the argument expounded in the first two volumes of *Capital* has as its main purpose to explain capital as the appropriation of surplus labour on the individual and social scales, and to outline the historical consequences of this. For this purpose, Model I, which ignores the equalisation of profit rates, is sufficient. In fact, an understanding of the production of surplus value requires clarity about the distinct roles played by different elements of capital investment – by constant capital, whose value is simply transferred to the product, and by variable capital, which buys labour power that can be put to work to create an amount equal to variable capital plus an increment. To illuminate the class relation of exploitation between the labouring and capital-owning classes, Model I abstracts from the competitive struggle between capitalists over the surplus value produced within the system as a whole.

In Chapter 9 of Volume III, however, Marx begins his 'return from the abstract to the concrete' by discussing, if only schematically, the differences between capitals – at this point, the differences in composition which, in Model I, yield (in effect if not terminologically, since the category of 'profit' has not yet been defined) differing profit rates for different capitals.[52] Competition is a response to these differences, the changes in supply-demand relations

51 Marx, 'Results of the Immediate Process of Production', in *Capital* I, p. 954.

52 If we 'assume to start with that all commodities in the various spheres of production were sold at their actual values … very different profit rates would prevail in the various spheres of production' (*Capital* III, p. 275).

effected by the flow of capital among industrial sectors in search of higher profit rates altering prices so that every investment yields (ideally) the average rate of profit.[53] The outcome of this (continuous) process is a situation in which the cost-price paid prior to production in each industry includes a share of the surplus value generated during the previous production period, distributed among the various industries as a function of cost-price and the average rate of profit. Thus the more-concrete Model II of the third volume explains the equalisation of profit rates as the redistribution of surplus value among the whole set of capitals via the formation of market prices.[54]

The equalisation of profit rates is a real process, in Marx's conception (though of course, as he points out, not one that actually begins from cost-prices in value terms): the differences in the amount of surplus value that

> emerge in the particular spheres of capital investment, partly owing to differences in the ratio of variable to constant capital, partly owing to the ratio of circulating and fixed capital (let us say owing to all the relations which emerge from the ratio of production time to circulation time) – these *different rates of surplus value* or the *diversity of surplus value*, continue to exist, although in the altered form of differences in profit or different rates of profit. These serve as the substance of the *general rate of*

53 The equalisation of profit rates, Marx points out, assumes a tendency towards the equalisation of rates of surplus value across industries. Following the method of idealisation, '[w]e assume a general rate of surplus value of this kind, as a tendency, like all economic laws, and as a theoretical simplification; but in any case this is in practice an actual presupposition of the capitalist mode of production, even if inhibited to a greater or lesser extent by practical frictions, that produce more or less significant local differences'. The empirical approximation to the theoretical ideal 'is all the more exact, the more the capitalist mode of production is developed and the less it is adulterated by survivals of earlier economic conditions …' (ibid.). Specifically, the freedom of capital to migrate across sectors in search of maximum profitability requires 'the abolition of all laws that prevent workers from moving from one local seat of production to any other', along with the '[i]ndifference of the worker to the content of his work' produced by the institution of wage labour and the tendential 'reduction of work in all spheres of production to simple labour', thanks to the division of labour and its consequent mechanization (ibid., p. 298).

54 Marx clearly distinguishes the two models: 'In Volumes 1 and 2 we were only concerned with the *values* of commodities. Now a part of this value has split away as the *cost price*, on the one hand, while on the other, the *production* price of the commodity has also developed, as a transformed form of value' (Marx, *Capital* III, p. 263).

> *profit* … They are equalized, reduced to their average magnitude, which is then the real (normal) rate of profit in all particular spheres … [This] alters the *absolute magnitude* of profit – hence of surplus value, which appears in the form of profit [for each individual capital].[55]

Nonetheless, 'considering … the total amount of the social capital … [t]he average rate of profit is nothing other than the total surplus value related to and calculated on this total capital, in so far as profit is considered only as surplus value which has been converted formally'.[56] Surplus value is represented by the sum of profits earned in all spheres of production.

While Model II drops the idealisation consisting in ignoring inter-capitalist competition, it shares two fundamental features with Model I: (1) the basic social mechanism regulating production, that labour-time is practically represented by the exchange value of products; and (2) the determination of the total surplus value available for capitalist use at the end of each production period by the extension of the working day beyond the point necessary to reproduce the consumption requirements of the producers. This is not changed by the fact that the price that must be paid, via the payment of wages, to purchase those consumption goods will differ from the value of those goods, as it will be increased or diminished by the quantity of surplus value transferred from or to other spheres of production. Just as in Model I, in Model II the increment to capital investment is the amount of value produced in excess of the labour-time cost of reproducing the working class.

As Marx expresses this relation between the two models, '[t]he competition of capitals is nothing more than the realization of the immanent laws of capital …'[57] In a capitalist economy, in fact, it is the quest for profit that unites individual firms in a social totality: It 'is through the equalization of the profits of the different capitals that they are connected with each other as aliquot parts of the aggregate social capital, and as such aliquot parts they draw dividends out of the common funds of surplus value …'[58] Although the magnitude of a commodity's value

> is not expressed in its price; and its price is not an equivalent, not the adequate monetary expression of its value [n]evertheless, it remains the

55 Marx, 'Economic Manuscript', in MECW 33, p. 97.
56 Ibid., p. 104.
57 Ibid., p. 102.
58 Marx, 'Economic Manuscript', in MECW 32, p. 2.

> *monetary expression* of its value – the *value expression* of [the commodity] – in so far as the labour contained in it is represented as general social labour, as *money*.[59]

Because money can be understood only as a representation of social labour time in the abstract, its use as the equivalent of a commodity signals the character of the totality of market exchanges as a regulation of the expenditure of social labour.

In the economy as represented by the more realistic Model II, prices must in general differ from values, because they include profits calculated at the average rate, and because that profit is calculated on cost-prices that themselves include profits calculated at (what was during the previous production-circulation cycle) the average rate. For the individual capitalist, the distinction between value and price of production is inconsequential; all that matters to him is that the inputs purchased can be employed to produce a product yielding the highest possible rate of profit. Thus, '[a]s a general rule, the principle that the cost price of a commodity is less than its value has been transformed in practice into the principle that its cost price is less than its price of production'.[60] As a result, at the end of the analysis as at its starting point the theoretically-identifiable values of means of production and consumption goods have no direct empirical representation, as they are visible only in the form of production prices. Even though the price of the consumer goods for which wages are exchanged does not equal their value, because those goods are necessary to reproduce the labour force, their price '= the value of the labour capacity for which the variable part of the capital is exchanged'.[61]

Marx's Model I, developed in Volumes I and II of *Capital*, abstracts from the difference between value and price, and so treats what Marx calls necessary labour (the amount of abstract social labour required to maintain the labour

59 Marx, 'Economic Manuscript', in MECW 34, p. 114.

60 Ibid., p. 265.

61 Marx, 'Economic Manuscript', in MECW 33, p. 232. It is to be remembered that v is the value of labour power, and only indirectly of the commodity bundle which sustains it: although the wage 'is in fact only the general equivalent form of the worker's necessary means of subsistence … [w]hat the capitalist buys is not the worker's means of subsistence, but his actual labour power. It is not the worker's means of subsistence that form the variable part of the capitalist's capital, but his active labour power. What the capitalist consumes productively in the labour-process is labour-power and not the worker's means of subsistence' (Marx, *Capital* II, p. 245).

force) as equal to the labour contained in workers' consumer goods. Model II abandons this equivalence. At this point, when the distribution of social surplus value among different industries is considered, the value of labour power must, as Marx says, be treated as equal to the *price*, not the value, of consumer goods. To follow the discussion in the *Grundrisse*, if the value of wage goods is, say, higher (expressed in money terms) than the social variable capital, the capitalist producers of these goods will be losing money to other capitalists via the transfer of surplus value, since the 'necessary wage', or *v*, will be equal to their aggregate price and not to their value.[62]

Similarly, the total constant capital of society, which reappears in the product, is a sum of value that now includes surplus value generated in the previous production period. Accordingly, it must in practice also be determined by the prices of means of production, not their values. The reappearance of constant capital costs in the products of individual firms is an effect of competition, expressing the demand of capitalists for the highest possible rates of profit relative to their total investment, irrespective of the difference between the price representation and the labour-time content of that investment. Thus the fact that the production of means of production is part of the production of final goods, even if those processes are carried out by different business entities (a fact depicted in Model I by the reappearance of the value of constant capital in the value of output), appears in reality (at least in the Model II version of reality) in the distorted form of the capitalist counting the price of means of production as a cost that must be recouped, with a profit, in the sale of his product. Of course, each capital entity will have paid not the value but the price of the means of production it employs, and will demand that this be included in the production price of its own product, because of its practically-necessitated blindness as to the origin of the surplus value it appropriates as profit. But, however the surplus value produced in the previous production period is redistributed among branches of production by the formation of production prices,

62 'As for the variable capital, the average daily wage is certainly always equal to the value product of the number of hours that the worker must work in order to produce his necessary means of subsistence; but this number of hours is itself distorted by the fact that the production prices of the necessary means of subsistence diverge from their values. However, this too is always reducible to the situation that whenever too much surplus value goes into one commodity, too little goes into another, and that the divergences from value that obtain in the production prices of commodities therefore cancel each other out' (Marx, *Capital* III, p. 261). See also Marx, 'Economic Manuscripts', in MECW 28, pp. 365–66; cf. ibid., pp. 352–3.

for the system as a whole the sum of constant and variable capital expresses in money terms the value-cost of means of production and labour power.[63]

The rate of surplus value remains the ratio between the amount of time the proletariat must work to produce its means of subsistence and the length of the (social average) working-day in excess of that time. But this value relation is invisible, because the capitalist demand for equal profitability requires the representation of labour-times by prices differing from values. Thus it appears only in the form of the average rate of profit, the ratio of surplus value to total capital investment.

This state of affairs was represented in Model I by abstracting counterfactually from the capitalist demand for the equalisation of profit rates among different industries. While in Model II individual capitals are represented as equal to the prices of inputs, the 'return' to which takes the form of profit calculated at the average rate, the total capital is numerically equal to that in Model I. The quantities of variable and constant capital differ between the two models (though their sum remains the same), but this affects only the price relations of interest to individual capitalist firms in competition with each other. It does not affect the value relation of interest to Marx: the rate of profit. The rate of profit remains the ratio between the total surplus value and the sum of social constant and variable capital. Of course, total value (expressed in money) and total price are equal, since neither the values (including previously redistributed surplus value) invested nor the new surplus value distributed among the various spheres of production have changed. Circulation mediated by prices does not alter the case, imagined in Model I, of circulation mediated by values, when,

> even if the rate of profit is numerically different from the rate of surplus value, while surplus value and profit are in fact the same and even numerically identical, profit is still for all that a transformed form of surplus value, a form in which its origin and the secret of its existence are veiled and obliterated. In point of fact, profit is the form of appearance of surplus value, and the latter can be sifted out from the former only by analysis. In

63 'If we consider the total capital, the total surplus value represents the total excess quantity of labour which is realized in the total surplus produce, over and above the product which replaces the constant part of capital and is required for the reproduction of the whole of the working class – a surplus produce which is in part converted back into capital and in part forms the income of all classes living, under various headings, from their command over alien labour, from their respective shares in this surplus produce' (Marx, 'Economic Manuscript', in MECW 33, p. 98).

> surplus value, the relationship between capital and labour is laid bare. In the relationship between capital and profit, … [i]t appears to consciousness as if capital creates this new value in the course of its movement through the production and circulation processes.[64]

In this way, the analytical insight achieved in Model I is preserved in Model II, even while the 'illusion generated by competition', as Marx calls it in the title of Chapter 50 of the third volume, is explained.

The value relations are not only ignored by individual capitalists; they are in principle unknowable, because of the fact that in capitalism abstract social labour is represented only in the form of money prices. Nonetheless, it is the average profit rate, the relation of surplus value to the total capital investment, which limits the accumulation possibilities of capital, and not the struggle of the individual firms to grab as much of the social surplus value as possible. (This is why Marx's theory is a theory of monopoly as well as of competitive capital.) Thus, despite the invisibility of abstract labour time in market transactions, in the form of the average profit rate the 'law of value' – the representation of social labour by money – rules capitalist society. The divergence of production price from value

> does not alter in any way the value of the commodity; it does not alter the fact that, whether its [production] price is equal to, greater or smaller than, its value, it [the commodity] can never be produced *without its value* being produced, that is to say, without the total amount of materialized and immediate labour required for its production being expended on it. This quantity of labour … must be expended on it, and nothing in the general relationship between capital and labour is altered by the fact that in some spheres of production a part of the unpaid labour is appropriated by 'brother capitalists' and not by the capitalist who puts the labour in motion in that particular branch of industry.[65]

Such passages suggest that 'transformation' is a misleading expression in the context of Marx's explanation of the relation between price and value. For Marx's recasting of value theory solves the second great riddle of Ricardian the-

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64 Marx, *Capital* III, p. 139.

65 Marx, 'Economic Manuscript', in MECW 32, p. 272. To put this in the terms I have introduced in this discussion: the explanation of the origin of surplus value in Model I does not lose its validity in Model II.

ory – 'how on the basis of exchange value a market price differing from this exchange value comes into being'[66] – by showing that the concept of value applies only to a system in which goods exchange at prices differing from their values. Values cannot be literally transformed into prices because the two play different theoretical roles; for each commodity there is *both* a value (in the theoretical analysis of social labour under capitalism) and a price (in economic reality). Value is an explanatory category, price an empirical one.

Marx had sympathy for the economists, above all Bailey, who found the Ricardian labour theory of value analytically worthless:

> At the same time one perceives how economists who, on the one hand, observe the actual phenomena of competition and, on the other hand, do not understand the relationship between the law of value and the law of [production] price, resort to the fiction … that there is no such thing as value.[67]

Only by clarifying the relation between economic phenomena and their theoretical explanation could the Ricardian dilemma be overcome. Value *is* social labour *as represented in* the price form. 'Value' is a doubly theoretical category: as a term of economic theory, it refers to the social practice of representing labour time by money prices.

Donald Clark Hodges makes this point well by observing that 'value is imputed to commodities, but … it is not an objective property of anything'.[68] For 'objective' we can substitute 'observable'; for its antonym Hodges uses 'subjective', but it would be clearer to speak, as Marx does, of 'social existence'.[69] There is also (as we saw in the previous chapter) a physical reality involved: the concrete labour of production of different sorts of goods and services. And there are the actual quantities of money for which these goods and services are exchanged at any moment. What connects the two is an ideology, a social belief system. As Hodges puts it, 'commodity values are the alienated mental constructs cor-

66 Marx, *Contribution*, in MECW 29, p. 302; for Engels's paraphrase, see Marx, *Capital* II, p. 101.

67 Marx, 'Economic Manuscript', in MECW 32, p. 273.

68 Hodges, 'The Value Judgment in *Capital*' (1965), p. 299.

69 '[T]he objectivity of commodities as values is the purely "social existence" of these things …' (*Capital* I, p. 159); 'As values, commodities are *social* magnitudes, that is to say, something absolutely different from their "properties" as "things". As values, they constitute only relations of men in their productive activity. Value indeed "implies exchanges", but exchanges are exchanges between men …' (Marx, 'Economic Manuscript', in MECW 32, p. 316).

responding to the unscientific and irrational character of capitalist relations of production'.[70] A non-fetishistic analysis would involve eliminating reference to 'value':

> To say that only labour creates value is a highly elliptical expression that needs to be filled in before any formal translation can be accurately made. In this statement the term 'labour' needs to be replaced by the term 'labourers'. Thus translating and changing the tenses, we have 'only labourers create and preserve the [technically] standard labour expended on products'.[71]

The value analysis of capitalist production depicts the fetishistic character of the regulation of production and distribution by monetary exchange.

The Marxian analysis connects the distinctive features of capitalism noted (though not as such) by economists – that goods are produced as commodities and that profit is the *sine qua non* of production – with this society's class structure, interpreted in terms of the control by some people of other people's life-activity.

> Although on the basis of capitalist production the social character of their production confronts the mass of immediate producers in the form of a strict governing authority … – though this authority accrues to its bearers, however, only as the personification of the conditions of labour vis-à-vis labour itself, not to them as political or theocratic rulers as in earlier forms of production – the most complete anarchy reigns among the bearers of this authority, the capitalists themselves, who confront one another simply as owners of commodities, and within this anarchy the social interconnection of production prevails over individual caprice only as an overwhelming natural law.[72]

It is the connection between class structure and the organisation of the process of social reproduction that explains the puzzles of value: why social labour is representable not as such but only in the form of quantities of money, and why nevertheless money prices are not equal to labour-time contents. What such puzzles indicate is not the disappearance of social labour as the sub-

70 Ibid., p. 305.
71 Ibid., p. 302.
72 That is, the fetishistic 'law of value'; K. Marx, *Capital* III., p. 1021.

stance of production, but only the peculiar character of a system in which, while 'labour is valid only as social labour', on the other hand, 'the division of this social labour and the reciprocal complementarity or metabolism of its products, subjugation to and insertion into the social mechanism, is left to the accidental and reciprocally countervailing motives of the individual capitalist producers'.[73]

The analysis of interfirm competition as the struggle over shares of a given social surplus value also explains the 'constantly operating tendency … to reduce the labour-time needed to produce a commodity, i.e., to reduce the commodity's value, below the existing social average at any given time'.[74] At the same time, it explains the recurrent bizarre combination of overproduction and mass misery as a result of this tendency, which, historically peculiar to capitalism, translates the sociological class division into a material impossibility of production outside of capitalist control. The cutting of costs, in price terms, by raising the productivity of labour through the use of machinery appears a simple and obvious manoeuvre in the competitive struggle between capitalist firms. As long as the increase of production, at a lower price per item, makes possible increased sales and profit for the individual capitalist company, this seems the soundest of operations from the economic standpoint and not to exert the least influence on the general rate of profit and the average rate of profit.

> What the capitalist sees, and therefore the political economist as well, is that the part of the paid labour that falls to each item of the commodity changes with the productivity of labour, and so too therefore does the value [as price] of each individual article; he does not see that this is also the case with the unpaid labour contained in each article, and the less so, as the average profit is in fact only accidentally determined by the unpaid labour absorbed in his own sphere.[75]

The decrease in surplus labour, although invisible at the level of the firm due to the deviation of price from value, is visible on the social level in the tendency for the average rate of profit to fall, itself visible first of all in a declining rate of accumulation. Thus, the attempt to increase profitability is connected with capitalism's crisis tendency, while the evident healing power of crisis can also

73 Ibid., p. 1020.
74 Ibid., p. 1021.
75 Ibid., p. 272.

be explained in value terms as an effect of the devaluation of capital and its accordingly increased profitability. (This will be discussed in Chapter 10.)

Ultimately, therefore, the intuitive plausibility of Marx's use of the concept of value is confirmed by his success in explaining (and so predicting) the system's developmental trends. As a theory of the cultural representation ('value') of material realities ('labour') – and herein lies its character as a critique of economic theory – it also explains the difficulties of those who submit to the laws of economics, and of their theoretical representatives, the economists, to understand those laws. The continual confusion of phenomenon and explanation in the classical analysis of value, as well as the vulgar economists' abandonment of that analysis, is shown to derive from the characteristic of capitalism which lies at the centre of the category of value, that while production is carried out for society at large, it is controlled by individual firms. If this seems the 'normal' or 'natural' way to organise society, then it is an easy slide to the depiction of the private owners as agents *of* society. With this comes the identification of *price* – the conditions of production as experienced by the firm – with *value* – these conditions as envisioned from the point of view of society as a whole. Keeping these levels of analysis separate would also involve a clear distinction between surplus value and the income categories of profit, interest, and rent. Even with respect to profit alone, once the profit of a particular capital is seen as a share of the total social surplus value, it can no longer be seen as that capital's recompense for its contribution to production. And indeed, Ricardo was unable to distinguish between the two concepts, alternatively speaking of profit as a deduction from the worker's product and as a just reward for capital's contribution. The analytical superiority of Marx's treatment of value was made possible by his resistance to the use of theory to justify the modern class structure.

CHAPTER 7

Ricardo Redux

As the difficulties of classical economics were not accidental, neither was the economists' failure to work through them. Why were the followers of Ricardo not interested to adopt and develop Marx's recasting of their master's theory? Despite the ill repute of vulgar marxism, one is forced to the conclusion that it is sometimes a match for reality. Marx's own analysis of the matter seems correct: having arrived at an analysis of capitalism that pointed to incompatible class interests, economists could either accept this or abandon the theory. Acceptance was rendered difficult precisely by the rising tide of class struggle during the second half of the nineteenth century. The labour theory of value and surplus value was duly abandoned, in order to preserve the vision of a system in which the pursuit of 'individual self-interest' produces the greatest happiness of the greatest number.[1] Once the shift in theory had occurred, outspokenly political opposition to the labour theory gave way to the view of Marx as, at best, a minor member of a discredited school, or to the (quite correct) feeling that he was not really an economist at all. Until recently it has been left to marxists to claim membership in the dismal profession.

As a result, discussion of the value-price problem petered out by the end of the nineteenth century, carried on in the twentieth century only by a small handful of economists, most, like Maurice Dobb, Ronald Meek, and Paul Sweezy, politically involved with marxism. Interest flared up in the early 1970s. This

1 See Marx, *Capital* I, pp. 96–8. For an extended version of this argument, see Routh, *The Origin of Economic Ideas* (1977), pp. 22–211. The assertion I make in the next sentence is borne out by this interesting book. A scathing attack on the whole tradition of economics from Petty to Keynes, it leaves Marx entirely undiscussed, although quoted as a critical ally. R.K. Kanth approaches the sudden decline of the intellectual authority of classical economics with a view to the concept of laissez-faire: 'But just at the moment of final triumph over the older vested interests, the new economic order was to be threatened by the ominous stirrings of the working classes. Ricardo and Mill had hoped that the threat from below could be blunted by education and political socialization, but by the time of John Stuart Mill this wishful optimism had to give way to a more realistic perception of the nature of the threat and the ways to circumvent it … [T]he chief raison d'être of laissez-faire economics was its scathing indictment of the precapitalist and mercantilist past; once the dismantling of these institutions had been achieved, it had outlived its theoretical utility. Certainly, classical economics was of little use in countering the new threat from postcapitalist forces. For this a new school of economics was to be better suited' (*Political Economy and Laissez-Faire* [1986], p. 174).

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reflected not only the academic residue of 1960s activism, but an internal crisis of academic economics. On the one hand, the reigning orthodoxy, the 'neoclassical synthesis' of post-classical price theory and Keynesian macroeconomics, foundered with the failure of Keynesian policy marked by the onset of stagflation in the 1970s. At the same time, controversy over the microeconomic foundations of Keynesian theory broke out in the form of the 'Cambridge capital controversy' that pitted English neo-Ricardians against leading American champions of the neoclassical theory of income distribution as determined by the contribution of technology to production. Strongly influenced by Piero Sraffa's critique of neo-classical theory, which demonstrated that 'justification of the distribution of income by reference to technology and technique had lost its theoretical underpinning', this tempest in the academic teapot made 'possible the reintroduction of power and social relations into academic economics; it [made] possible a return to political economy'.[2] The new interest in marxist economics and so in the value-price transformation problem thus had its origin, not in problems suggested by Marxian theory, but in the limitations of policy-oriented academic economics. Subsiding again during the asset-bubble-stimulated 1990s, it is once again rising to attention in response to the Great Recession of 2008 and the apparent powerlessness of economic theory to explain it or to allay its continuing effects.

Within the marxist tradition the transformation problem was first raised by Marx's greatest champion as a challenge to bourgeois economists. In his preface to the second volume of *Capital*, Engels replied to charges that Marx had plagiarised the economist Rodbertus. Echoing Marx's classification of the difficulties of the Ricardian school Engels identified two central issues: first, 'the impossibility of bringing the mutual exchange of capital and labour into accordance with the Ricardian law of the determination of value by labour' and, second, the problem of 'how an average rate of profit can and must come about, not only without violating the law of value, but precisely on the basis of this law …'[3] Since Marx had solved the problem of the apparently unequal exchange of labour with capital, by introducing the concept of labour power in Volume I of *Capital*, that left the value-price problem. 'Hence those economists who claim to have discovered in Rodbertus the secret source and a superior pre-

2 Lebowitz, 'The Current Crisis in Economic Theory' (1973–4), p. 387. Lebowitz's penetrating critique of Sraffian marxism coexists oddly with his opinion that 'Sraffa provided the basis for a correct solution to the transformation problem' (p. 388). For an extended discussion of this 'renaissance of the Marxian system', see Kühne, *Economics and Marxism* (1979).

3 Marx, *Capital* II, pp. 101–2.

decessor of Marx have now an opportunity to demonstrate what the economics of a Rodbertus can accomplish' in solving it.[4]

As it turned out, a number of the economists who rose to this challenge did not do too badly in anticipating Marx's treatment of the transformation.[5] However, this was probably due not so much to the inspiration of Rodbertus as to their understanding of the earlier volumes of *Capital* – an understanding notably higher than that of more recent entrants to the competition, who throw the challenge back, basing the need for a new formulation of the relation between price and value on Ladislaus von Bortkiewicz's 1906 critique of Marx's conception.

It is exactly the determination of the average profit rate by value relations that Bortkiewicz claimed to undermine in the two articles with which he founded the neo-Ricardian approach to the value-price question.[6] In the longer of these papers, 'Value and Price in the Marxian System', he cites the passage from Marx quoted on p. 144 of the present text, to claim that in its opening sentences Marx himself shows that his 'whole construction of prices is useless'. Marx's argument that the various divergences of price from value compensate each other in the aggregate is pronounced incorrect:

> The fact that the positive divergences … match the negative ones, or, in other words, that total value equals total price, is merely the consequence of Marx's having equated certain prices – namely those relating to constant and variable capital and to total profit – to the corresponding values. Marx himself admits, however, that this equation represents an inaccuracy – at least with regard to constant and variable capital – and there would seem to be no reason why this inaccuracy should fail to have an effect on the reliability of the numerical expression of the total price.[7]

Independently of this argument, Bortkiewicz claimed that, even 'without entering into a discussion of the details of the transformation of values into prices, it is possible to bring positive proof that the theory of the equality of total value

4 Ibid.

5 See Marx, *Capital* III, pp. 98–111.

6 Bortkiewicz's work, in turn, was based on that of the Russian economist V.K. Dmitriev, whose 1904 collection *Economic Essays on Value, Competition and Utility* (1974) was subtitled 'Attempt at an organic synthesis of the labour theory of value and the theory of marginal utility'.

7 Bortkiewicz, 'Value and Price in the Marxian System' (1952 [1907]), p. 10.

and total price … is generally wrong'.[8] For Marx, gold, considered as the money commodity, exchanges against other commodities 'subject to the general laws of value and price'.[9] If we assume that capital producing G (gold) has a lower organic composition than the average,

> the transition from value-calculation to price-calculation should result in all goods being exchanged for more units of G than formerly, in other words, all prices would be higher than their corresponding values.[10]

Bortkiewicz has forgotten that if G is counted among the other commodities, its price must be included in the price totals, as its value in the value totals. In Marx's conception – which Borkiewicz claims to follow, so as to refute the author of *Capital* on his own ground – as the prices of all other commodities are measured in quantities of G, so the 'price' of G can only be measured in terms of the commodities that it will buy.[11] Obviously, this 'price' of G would fall, under Bortkiewicz's assumption, to the same degree that the prices of all non-G commodities would rise. Total price – of G as well as of the other commodities – would still equal total value.

Bortkiewicz's own solution to the alleged transformation problem is better known through his shorter paper, 'On the Correction of Marx's Fundamental Theoretical Construction in the Third Volume of *Capital*'. His procedure is essentially the same in both papers, however, and in what follows I will refer to both. For Marx's table with five (unspecified) industries, Bortkiewicz substitutes a system of three industries, producing means of production, wage-goods, and luxury goods respectively. This model, in other words, is a simple reproduction scheme like those in *Capital*, Volume II, in which all surplus value is spent for capitalists' consumption, and variable and constant capital are reconstituted unchanged in use value as in value terms. Values are defined as the exchange-ratios, measured in quantities of labour-time, necessary to maintain this system in equilibrium, assuming equal rates of surplus value for all three departments. 'The problem now is to convert these value expressions into

8 Bortkiewicz, 'Value and Price' (1952 [1907]), p. 10.

9 Ibid., p. 11.

10 Ibid., p. 10.

11 Marx, *Capital* I, p. 161. As Marx also expresses this idea: 'money has no price' because '[i]n order to form a part of this uniform relative form of value of the other commodities, it would have to be brought into relation with itself as its own equivalent' (*Capital* I, p. 189). Since the price of a commodity is the quantity of the money commodity equal in value to that commodity, the 'price' of gold would be … an equal amount of gold.

price expressions which conform to the law of the equal rate of profit'. Marx's solution (supposedly) to this problem is rejected, as we saw above, 'because it excludes the constant and variable capitals from the transformation process, whereas the principle of the equal profit rate, when it takes the place of the law of value in Marx's sense, must involve these elements'.[12] The correct solution is a wholly new set of prices simultaneously satisfying the conditions of simple reproduction and the equal profit rate condition.

This set of prices, however, will not be congruent with the values earlier defined. Value and price aggregates will not be equal, and as a result the rate of profit in price terms will differ from the rate of profit in value terms. This is important, because Marx 'was misled by his wrong construction of prices into an incorrect misunderstanding of the factors on which the rate of profit in general depends'.[13] Furthermore, it follows from Bortkiewicz's analysis that, given the real wage, prices and the rate of profit can be determined, without reference to labour-time values, directly from the technical conditions of production represented here by the reproduction scheme, but more generally by an input-output table. Finally – to complete the list of themes with which Bortkiewicz anticipated the current neo-Ricardians – the general equilibrium theory is held to provide a standpoint superior to the mathematically naive position of Marx for the criticism of the concept of the productivity of capital.[14]

Bortkiewicz's critique of Marx results from a misinterpretation amounting to total incomprehension of the latter's concept of value, confusing abstract with concrete labour. In Bortkiewicz's attempted reconstruction of the Marxian theory Marx's concept of value as social-labour-in-a-price-system plays no role at all. It is replaced by the idea of 'labour content' interpreted as a technical datum – i.e., in concrete terms. Exchange values, on the other hand, are here not representations of social labour-time but 'indexes of exchange relations'. While Bortkiewicz describes them as quantitative expressions of value in Marx's sense, they are in fact defined as the equilibrium set of prices determined by production coefficients and the rate of surplus value. Production prices are determined by a different set of equilibrium conditions, including the equal-profit-rate principle; hence the necessary incongruity between the two.

The use of the reproduction schema as a framework for the discussion of value and price is another manifestation of Bortkiewicz's misunderstanding of Marx. These schemas represent an answer to the question, 'How is the *capital*

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12 Borkiewicz, 'On the Correction of Marx's Fundamental Theoretical Construction in the Third Volume of *Capital*' (1949 [1906]), p. 201.

13 Ibid., p. 200.

14 Bortkiewicz, 'Value and Price' (1952 [1907]), p. 54.

consumed in production replaced in its value out of the annual product, and how is the movement of the replacement intertwined with the consumption of surplus value by the capitalists and of wages by the workers?' Marx feels free to assume for this purpose that all products exchange at their values, because 'in as much as prices diverge from values, this circumstance cannot exert any influence on the movement of the social capital'.[15] The Volume II schemas represent relations among capitals as idealised in the first volume's Model I, not among actual capitals, or even Model II capitals. That is, they abstract from the division of the social surplus among the profits of productive capitals (and interest and rent, as well as the profits of nonproductive capitals), to analyse market phenomena as phases in the circuit of social capital. For Marx, the reproduction schemas illustrate not the physical and technical structure of the economy as a system of goods production, but the reproduction of *capital*, of *value*, as embodied in different kinds of goods. Thus, workers' consumer goods enter the picture only as the material substrate of variable capital; any difference between their value and their price is here irrelevant. With respect to this analysis, nothing would be gained by presenting these inter-capital relations in price rather than in value terms.

What lurks behind this Bortkiewiczian confusion is well explained by Paul Samuelson:

> Although this was not brought out by Marx and his pre-1957 commentators, it is absolutely necessary to pick up from somewhere the physical and technical data of the model. Without them no formulation of equilibrium is possible and no valid comparison between the two regimes [of values and of prices]. Bortkiewicz recognized that if we happen first to have given the value totals for the industries, we can use them to calculate information about the [technical conditions], after which the values are indeed abandoned in the computation of prices.[16]

Samuelson draws from this the conclusion that the value quantities are an unnecessary detour: prices can be calculated directly from the technical conditions of production, as in the Sraffian approach.

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15 Marx, *Capital* II, p. 469. For further discussion of the reproduction schemas, see Chapter 8 below.

16 Samuelson, 'Understanding the Marxian Notion of Exploitation: A Summary of the So-called Transformation Problem between Marxian Values and Competitive Prices' (1971) p. 426.

But this is to look at the matter exactly backwards. The focus on the reproduction schema for the discussion of value and price has nothing to do with the role of this *tableau économique* in Marx's theory. The schema (or, generally, an input-output analysis of the economy) is important for Bortkiewicz as the source of an equation set that determines a set of equilibrium prices. In contrast, a set of prices of production simply cannot be mathematically derived from Marx's five-industry table. As the neo-Bortkiewiczian Alfredo Medio reminds us,

> prices and the rate of profit cannot be determined only by a knowledge of values, that is, only by a set of numbers which designate the amounts of labour-time embodied in various commodities. Obviously, in these terms, the transformation problem is not solvable. However, it seems to me clear that Marx always assumed that the technical conditions of production were a datum of the problem.[17]

The technical conditions for the production of a commodity – its labour and means-of-production requirements – seem to Medio to be implied by the definition of 'value' as 'socially necessary labour time'. While Marx's definition of *value* does refer to the existence of technical norms (as factors affecting the productivity of labour), these, however, play no role in the determination of *price* except as represented by cost-price. But, when we speak of cost-price, the sought-after transformation has already occurred! To repeat, for Marx there is *no* direct relation between individual prices and values. Medio is wrong to assert that 'in this context, the first proposition due to Marx to be tested is that prices of production and the associated rate of profit can be fully determined as functions of values of commodities'.[18] This proposition is due, not to Marx, but to Bortkiewicz. For Marx, 'the problem' is *not* 'to convert value expressions into price expressions', because (*pace* Bortkiewicz) 'the principle of the equal profit rate' does *not* 'take the place of the law of value' but constitutes its mode of operation. The problem discerned by Marx at the bottom of the Ricardian transformation problem is that of explaining how price formation masks the source of surplus value, so that the profitability principle expresses the ideological fiction of 'fair exchange'.

17 Medio, 'Profits and Surplus Value: Appearances and Reality in Capitalist Production' (1972), p. 331.

18 Ibid.

Bortkiewicz and others who have presented similar critiques of Marx's theory are thus wrong to interpret Marx's 'derivation' of price from value as a mathematical relation between two systems, one of prices and one of values, each interpreted as a general equilibrium or linear production model of the economy. There is only one system, of prices *and* values, in Marx's account, since abstract labour time is defined only by the production and sale of commodities at prices of production. (Hence both what I call Models I and II are framed in terms of values *and* prices, with the two coinciding in the first, focused on the system as a whole, with the individual capital treated as a representative of the total social capital.) Or, rather, the word 'system', stemming from general-equilibrium and linear-production analysis, does not belong here. Marx's derivation is conceptual, not mathematical (this is why he remarks, at the conclusion of his brief explanation of the divergence of cost-prices from the values of commodity inputs into production, that 'Our present investigation does not require us to go into further detail on this point'). A mathematical description is particularly ill-suited, of course, to a domain like that of capitalist production, in which 'it is only in a very intricate and approximate way, as an average of perpetual fluctuations which can never be firmly fixed, that the general law [of value and surplus value] prevails as the dominant tendency'.[19] The absence of the mathematical model-building apparatus of linear production theory marks not the limitation but the superiority of Marx's value theory as an analysis of the real world. By constructing his theory of capitalism on the basis of concepts defined in dynamic terms, he is able to make sense of a social system in which fluctuating value relations determine continuous change in technical conditions and income distribution alike.[20]

After Sraffa

It is in their devotion to equilibrium analysis and their attendant failure to deal with capitalism as a dynamic, disequilibrated surplus value-accumulating system that today's neo-Ricardians most clearly appear to share the general fate of the bourgeois ideology that they attack so roundly in its neo-classical form.[21]

19 Marx, *Capital* III, p. 261.

20 This is not to say that a mathematical version of Marx's Model II is impossible; but it is unnecessary, and would aid the understanding of the theory only for a very small minority of people.

21 In fact, as Daniel Hausman demonstrates, 'Everything Sraffa shows is consistent with a suitably restricted general equilibrium model. Indeed, Sraffa's production equations

Piero Sraffa's *Production of Commodities by Means of Commodities* 'is concerned exclusively with such properties of an economic system as do not depend on changes in the scale of production or on the proportions of factors'.[22] Prices are defined (in abstraction from the nature of capital as self-expanding value) as exchange values making possible the reproduction of a given structure of use values. Like the classical economists, Sraffa begins his analysis with the conception of a subsistence economy, which produces for exchange but in which the demand for profit has not yet raised its complexifying head. Then a rate of profit, 'which must be uniform for all industries', appears.[23] This raises the problem noted earlier by Ricardo, that the resulting transformation of zero-profit price ('value') into positive-profit price seemingly makes impossible the choice of a commodity to serve as a 'standard of value', i.e., in terms of which the changes in relative value of all other commodities could be measured.

Sraffa expends much ingenuity on the framing of a theoretical standard commodity, and on its use in calculating the effect on the price system of variation in the distribution of the national income. This yields the major goal of Sraffa's work, a critique of neoclassical capital theory, for he is able to show, using a model compatible with that theory, that the quantity (in money terms) of capital cannot be defined prior to the distribution of income between the owners of capital and the sellers of labour that the quantity of capital owned is supposed to justify.

The analysis of price as a structure of exchange-ratios permitting the reproduction of a given physical input-output system entails, in the words of a Sraffa enthusiast, that 'the functions of money other than the medium of exchange function are not discussed'.[24] Among the undiscussed functions is that of money as a store of value, that is, money that can serve as capital. We have thus in the Sraffian system an analysis of capitalism in which capital, self-expanding value, plays no role at all! The basic error lies exactly in 'the

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appear to be a fragment of a general equilibrium model' (*Capital, Profits, and Prices* [1981], p. 167).

22 Sraffa, *Production of Commodities by Means of Commodities* (1966), p. v. Sraffa thus conforms to Marx's dictum that classical economics 'has always liked to conceive social capital as a fixed magnitude of a fixed degree of efficiency … This dogma in fact renders the commonest phenomena of the production process, for instance its sudden expansions and contractions, and even accumulation itself, absolutely incomprehensible' (*Capital* I, pp. 758–9).

23 Sraffa, *Production of Commodities* (1966), p. v.

24 Steedman, *Marx After Sraffa* (1977), p. 20.

procedure of starting an analysis from relations between physically specified inputs, amounts of labour-time, and physically specified outputs'.[25] This is to start with an ahistorical conception of 'production' – despite its title, Sraffa's book actually describes the production of use values by means of use values – ignoring the specific social forms of the processes of production and distribution under different historical conditions. Most fundamentally, as the first sections of *Capital* demonstrate, this leads to ignoring the fact that capitalist production is the production of commodities, exchanged goods, only in so far as this makes possible the production and accumulation of surplus value. In capitalism, use value exists for the sake of value, and value for the sake of surplus value.

Sraffa's work differs strikingly from its Ricardian ancestor in dispensing entirely with the labour theory of value. Value appears in Sraffa's system, as in Bortkiewicz's, only in the form of relative value or price. 'Labour' appears only in the form of what Marx called labour power, the commodity bought from workers; in the classical sense of 'substance of value' it plays no role. The interest of Sraffa's work thus lies within modern economic theory, in its rehabilitation of *distribution* as a fundamental analytical category. It marks a return to the interests of classical theory in a manner less confused than Ricardo's, but achieved at the cost of abandoning the latter's finer appreciation of the nature of capitalist society.

In the light of this, it is disappointing to find marxists looking to Sraffa for a solution to the ever-resurrected transformation problem. Alfredo Medio and Mario Cogoy, for instance, both attempt to solve the difficulty diagnosed by Bortkiewicz with the aid of Sraffa's standard commodity. They follow Bortkiewicz's example in defining an equilibrium set of values, determined by input-output data, homologous to the Sraffian price system. The two sets are shown to coincide for the case where the profit rate equals zero ('in that early and rude state of society which precedes both the accumulation of stock and the appropriation of land') and to diverge with a positive profit rate. The standard commodity (or the standard industry in which it is produced) ties these Siamese twins together by representing the features of the system as a whole in a subsystem for which value equals price.

Mario Cogoy interprets the nonequivalence of input values and prices that follows from the Bortkiewiczian analysis as a critique of 'Marxian capital theory' parallel to Sraffa's critique of neoclassical theory. But he finds the value concept essential to provide a link between Sraffa's price theory and the social

25 Ibid., p. 17.

organisation of the labour process. In this regard he attempts to demonstrate that the value analysis, 'with the help of the Sraffian instrumentarium', yields laws regulating 'the divergence of the average profit rate from the value relation between surplus value and capital'.[26] In a later work, Cogoy amplified this defence of Marx, arguing that the value set of equilibrium prices can be construed as an 'inner structure of price', in the sense that 'it changes only with alteration of the production-conditions, while the price structure changes with the alteration of distribution-conditions and criteria, even with unchanging technology'.[27] On the other hand, he shows that under certain conditions 'joint production' (i.e., the production of heterogeneous output) may rule out the applicability of value analysis. Marx's lack of appreciation of the limits of value theory has the same root cause as his faulty value-price transformation procedure: the lack of adequate mathematical concepts and tools. Marx's error is not a simple error of reckoning, which could be corrected as Bortkiewicz intended, but originates in Marx's failure to deal with 'the economic problem of the complex structure of interdependence between the commodities used as means of production in various technologies'.[28]

All this stands or falls with the adequacy of the treatment of Marx's theory of value and price. Like Bortkiewicz, Medio and Cogoy follow Dimitriev in defining value as a set of equilibrium prices. In order to do this, labour input is treated as directly abstract.[29] This has, as we have seen, only the use of a

26 Cogoy, 'Das Dilemma der neo-Ricardianischen Theorie' (1974), p. 231.

27 Cogoy, *Wertstruktur und Preissstruktur* (1977), p. 33.

28 Ibid., p. 151.

29 See, for instance, ibid., pp. 23, 30. This matter is discussed more explicitly by Ian Steedman, whose argument offers a striking combination of bluster and naiveté. Referring to another toiler on the transformation problem, Steedman comments that 'Gerstein … actually makes the mistake of asserting that abstract labour, as such, never appears in the Sraffa-based critique, which, he says, considers only concrete labour. This assertion could hardly be more wide of the mark'. In response, Steadman cites the measurement of the labour contained in a car as the sum of the various kinds of labour required for its construction. 'The very fact that these different labour-times … are added together means that they are treated as abstract labour-time' (Steedman, *Marx After Sraffa* [1977], p. 19n). For another example, 'in summing the various labour-times performed in … three different industries, one *evidently* treats those labour-times as equal, ignoring the different, concrete activities which they perform' (ibid., p. 39n). But *calling* concrete labour abstract does not make it so. One *evidently* can add concrete labour-times, but this operation, useful though it may be to an auto manufacturer, has no self-evident connection with Marx's concept of abstract labour. This concept is based not on the direct con-

certain terminology in common with Marx. The implication of the Dimitriev value equations is that values, calculated in quantities of abstract labour time, can be defined independently of the realities of the price system. But as we saw above, 'abstract labour' in Marx's sense is *undefined* except in relation to a system of prices. It is this which, while making a value-price transformation of the Bortkiewiczian type impossible, also makes it completely unnecessary.

The sympathy of many of these writers to Marx's work makes their difficulty in escaping the categories of economic theory all the more striking. As Meghnad Desai, himself approaching Marx from the standpoint of modern economics, has aptly observed,

> Modern interpretations of Marx, whether by economists hostile to his ideas or by his champions, seem to rely on a technological determinism based on a physical input-output system … Having thus shorn Marxian theory of its historical and social content, having stripped it of its qualitative dynamics, an emasculated version of his model is retained to be criticised or worshipped, but not to be used as a tool for advancing our understanding of the real world.[30]

Between the Devil and the Deep Blue Sea

This is true even for writers who have sought alternatives to the Bortkiewiczian framework for the discussion of the value-price problem. For example, Duncan Foley sees quite clearly that Marx's version of value theory involves the idea of 'a strict relation in a commodity-producing economy between the monetary unit … and abstract social labour time': The capitalist economy must be understood, to begin with, not as a physical input-output system but as dominated by the form of value, money, as the chief goal of productive activity.[31] This allows him to see that v, the variable portion of total social capital, represents 'the fraction of the total abstract social labour time claimed by workers in the form of the wage', rather than the labour-time socially necessary for the production

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junction of concrete labour-times – which as we have seen it rules out – but on the market exchange of the goods produced.

30 Desai, *Marxian Economic Theory* (1974), p. 74.

31 Foley, 'The Value of Money' (1982), p. 37. Similar arguments were presented independently at the same time by Gérard Dumenil and Alain Lipietz; along with Foley's, these have come to be known as the New Solution, or New Interpretation, of Marx's value-price transformation procedure.

of workers' consumption goods,[32] and to accept Marx's equation of total value with total price (value represented in money terms) and the equality of total profit with total surplus value.

On the other hand, he does not see that the same argument applies – as Marx explicitly says it does – to the total constant capital *c* of society, insisting instead, without discussion, that as a result of the fact that 'the prices of non-labour inputs to production can deviate from their labour values', the 'price rate of profit' will be, as in the Bortkiewiczian account, different from the 'value rate of profit', whereas for Marx there is only one rate of profit, in which value relations are represented by relations between sums of money.[33] Foley sees Marx's analysis of capitalist production and exchange as framed in terms of 'two economies' – one in which goods exchange at monetary equivalents of their values, and another, 'after the accumulation of stock', in which goods exchange at prices differing from their values.[34] But this is a misunderstanding; for Marx, as we have seen, there is only one commodity-producing society, capitalism, in which the 'law of value' dictates the exchange of goods at prices differing from their values.

The residual Ricardianism in Foley's treatment of constant capital appears as well in another idea of his, that with the 'value of money' defined as 'the ratio of aggregate direct labour time to aggregate value added', we are enabled

32 Ibid., p. 42. 'The value of labour power is the claim on abstract labour time workers receive for their labour power in the form of a money wage, not an actual physical quantity of commodities embodying some particular quantity of labour' (p. 43). Correct as far as it goes, this idea unfortunately misses the point, fundamental to Marx's theoretical construction, that the wage must suffice to reproduce the working class; instead 'the value of labour power is simply an amount of money with no links whatsoever with the prices of the goods forming the reproductive consumption of the labourer' (Giussani, 'Orthodoxy in Marxian Price Theory' [1998–9], p. 14).

33 Ibid., p. 45. This inconsistency was early noted by Fred Moseley: see his 'Marx's Logical Method & the Transformation Problem' (1993), p. 180 and his in-depth discussion of the New Interpretation in *Money and Totality* (2016), Chapter 8.

34 Ibid., p. 44. Foley sees his interpretation as improving on Marx by escaping the recourse to two systems, with its attendant transformation problem, while holding fast to Marx's chief insight, the origin of profit in unpaid labour. It should be noted that at least one critic has argued that 'the "new solution" unwittingly assumes a proportionality or equation between prices and values, with the consequence that it is idle to regard it as a solution of the transformation problem despite its claim to be just this' (Stamatis, 'On the "New Solution"' [1998–9], p. 23); and see Sotirchos and Stamatis, 'A Note on Foley's Article "The Value of Money, the Value of Labour Power, and the Marxian Transformation Problem"' (1998–9).

'to operationalize the concepts of the labour theory of value in terms of the income statements of capitalist firms', whose 'gross profit' is the money translation of Marx's surplus value.[35] Since, according to Marx, we can know neither the aggregate (abstract) labour time nor – therefore – the aggregate value added, Foley can only have in mind that by summing the gross profits acknowledged by businesses we would get a total more or less corresponding to total social profit in Marxian theory.[36] It's hard to see how this would 'operationalise' the theory, however; we would just know the total profits earned by capital – which we could know all the time without the theory – without being able to relate it to the analysis in terms of abstract labour time. Apart from this fundamental point, the attempt to check Marxian theory against statistical reality in this way, as we will see in a later chapter, amounts to a collapsing of economic observables into the abstract value-representation of capitalism's dynamics in a manner closer to the 'insufficient abstraction' of Smith's and Ricardo's accounts than to Marx's careful distinction between the abstractions of theory and the concrete phenomena of economic experience.[37]

A particularly peculiar attempt to save the reputation of Marxian theory among economists is to be found in the approach called by its inventors the 'Temporal Single-System Interpretation'. One of the founding articles of this approach, Andrew Kliman's and Ted McGlone's 'The Transformation Non-Problem and the Non-Transformation Problem', begins (after some definitionless kerfuffle about Marx's 'dialectical method') with an excellent criticism of the Bortkiewiczian mode of Marx-critique. When it comes to presenting

35 Foley, 'The Value of Money' (1982), pp. 41, 42.

36 In his book, *Understanding Capital: Marx's Economic Theory* (1986), Foley clarifies: 'If we were to try to find operational equivalents for the concepts of the labour theory of value, we would have to devise practical methods to measure abstract, simple, social, and necessary labour time. As is often the case in theoretical-empirical work, many different methods can be proposed to accomplish this … Only if it were impossible to find *any* useful interpretation of these concepts of labour in terms of practically measurable quantities would the labour theory of value lose its scientific interest' (p. 17). He notes that Marx 'does not propose any particular method for the measurement of labour time' (ibid.) without remembering that Marx explicitly claims that abstract labour time cannot be measured otherwise than in its representation by money prices. Marx did not, however – as I have argued throughout this book – therefore think that the concept of abstract labour had no scientific interest.

37 'Ricardo … consciously *abstracts* from the form of competition … in order to comprehend the *laws as such*'. But 'one must reproach him for regarding the phenomenal form as *immediate and direct* proof or exposition of the general laws …' (Marx, 'Economic Manuscript', in MECW 31, p. 338).

their own analysis of the value-price relation, however, we find an interpretation of the transformation of values into prices as an actual event, a 'real process' which transforms the cost-price of inputs into output prices.[38] As we have seen, in Marx's conception input prices are already production prices, not monetarily-expressed values; the 'transformation' he has in mind goes on in the socially-institutionalised consciousness of economic actors, not in the formation of prices: it is the fetishistic misdescription of productive activities in terms of the exchange values of commodities, while profitability is equalised among firms without regard to the actual production processes that differentiate them. In line with this misunderstanding of Marx's argument is Kliman's later (Foley-like) suggestion that in speaking of the difference between value and price of production, Marx might have in mind a contrast between two kinds of economy, one 'in which commodities exchange at values' and one 'in which they exchange at prices of production'.[39] But, as we have seen, central to Marx's critique of classical political economy is his insistence on the idea that the labour theory of value applies exclusively to capitalism, in which goods exchange at prices differing systematically from values.

Similarly, Alejandro Ramos M., realising that this sort of argument suggests that 'values are determined by production prices, not the opposite' (as Marx maintained), argues that the social labour time represented by the prices of inputs to production can be equated to values, as quantities of social labour time required for specific production processes. Thus '[w]hen workers' living labour *consumes* the use value of the means of production, the labour time rep-

38 Kliman and McGlone, 'The Transformation Non-Problem and the Non-Transformation Problem' (1988), p. 71. This follows the view of Guglielmo Carchedi, 'The Logic of Prices as Values' (1984) who considered that 'it is necessary to consider the transformation process as a real process' (p. 442). As with the view of Ramos mentioned in the following paragraph, this leads to a paradoxical determination of values by production prices: 'the value of c as an input is determined by the [production price] of c in the preceding period … as modified by the change in the average conditions of production of c in the present period' (p. 444). While this view may seem identical to Marx's, as presented above (p. 150), it is not. For Marx *c* is not 'an input' but the sum of money (mis)representing the value of means of production utilised; the value of this input, from which its price diverges, remains unchanged by this representation.

39 Kliman, *Reclaiming Marx's 'Capital'* (2007), p. 109. Moseley has shown that the Temporal Single-System Interpretation is, with regard to its quantitative results, mathematically equivalent to Bortkiewicz's dual-system transformation procedure: 'Thus the iterative method [followed by Kliman and McGlone] does not yield an alternative solution, but instead is merely an alternative method of calculating the *same solution* as the simultaneous determination method' (*Money and Totality* [2016], p. 299).

resented by their monetary *production prices* (constant capital) is *transferred* to the value of the new commodities'.[40] But this makes little sense. In Marx's conception, true in this to the classical value theory, the value of means of production are transferred to the product in the actual process of production: The social labour expended in making tools and raw materials is part of the process of making the final product, a continuous one technically despite the distinct ownership of the different spheres of activity; as a result the abstract labour as which the former figures when represented by money reappears as the value of the latter. The price of means of production, in contrast, includes a quantity of surplus value produced elsewhere in the economy, or has lost some of the surplus value produced in the means-of-production-producing industries. The fact that the capitalist using those means counts its price as part of his costs and produces only on the condition that this cost is recouped does not magically make the labour-time represented by the price of the one 'reappear' in the price of the other.

Once again, such attempts to save Marx's theory in the face of criticism have led to a conflation of value and price categories: to the insufficiency of abstraction Marx diagnosed as a source of Ricardo's theoretical difficulties. As Foley put it in a review of a collection of articles, 'from this single-system perspective, there is no need to calculate a separate accounting system of "labour values" … expressing the amount of labour time embodied in individual commodities'

40 Ramos M., 'Value and Price of Production: New Evidence on Marx's Transformation Procedure' (1998–9), p. 69. Moseley takes a similar view: 'The prices of the means of production *re-appear* in the price of the product *because* the means of production enter the valorization process with existing prices'. In order to claim that this idea is in accordance with Marxian theory, he is forced to assert, contradictory to Marx's explicit indications, that '[c]onstant capital and variable capital in Volume I do *not* refer to hypothetical quantities of money capital, which are assumed to be equal to the *values* of the means of production and means of subsistence … Instead, constant capital and variable capital … refer to actual quantities of money capital, which tend to be equal to the *prices of production* of the means of production and means of subsistence …' (Moseley, *Money and Totality* [2016], pp. 130, 7–8). For Marx, as we have seen, the Volume I model cannot be identified with the actual capitalist system, as is evident in his definition of all of its basic magnitudes in value terms. The inadequate abstraction of Moseley's version of marxist economics can be seen clearly in his equivocal use of the concept of 'value' in his explanation of the 'total value-price of commodities produced by the total social capital' (p. 31): it is the sum of constant capital, 'which tends to be equal to the *price of production* of the means of production, and which is not equal to the labour time required to produce the means of production' (p. 30) plus 'the "new value" (in money terms) produced by the labour of the current period' (p. 31) and thus equal to the labour time required for production.

because this approach 'immediately identifies the observable price based categories with Marx's'.[41] It is not surprising, therefore, that (as we shall see in a later chapter) writers like Kliman and Moseley share with Foley the wish to jump across the explanatory chasm between the value analysis and empirical economic data, to appeal, for instance, to business statistics to verify Marx's 'law of motion' of the capitalist system.

Classical political economy distinguished principles of distribution as factors governing economic phenomena alongside technical conditions of production. Marginalism ascribed the distribution of income to the operation of the price system, which supposedly functions to allocate scarce resources among competing ends in compliance with human wishes. Common to economics throughout its history has been a tendency Marx diagnosed in classical political economy, 'to ignore the specifically capitalist form of the production process, and to present production as such as the purpose of this process – to produce as much and as cheaply as possible'.[42] Value is not recognised as the form in which class power over social labour is accumulated, but is treated as the principle of a structure of exchange relations whose function is the organisation of the material production process.

The essential point of the Marxian critique of economics is that value relations are not primarily means of regulating the production of use values; rather the latter is a means of producing surplus value, as is shown by the fact that when insufficient surplus value is produced the production of use values comes to a halt. That is, labour power will be allocated by capitalists among possible branches of production in such a way that each achieves (tendentially) the average rate of profit on capital value advanced in the form of the prices of means of production and labour power. This allocation, in turn, is constrained by the productivity of different kinds of labour, on the one hand, and the demand for different kinds of product at different prices, on the other, dynamic factors which together define socially necessary abstract labour time.

The adventures of recent radical economics and academic marxism only confirm Marx's judgment that already in Ricardo's time, 'the bourgeois science of economics had reached the limits beyond which it could not pass'.[43] The endless wrestling with the value-price problem on the basis of Bortkiewicz's

41 Foley, review of Freeman and Carchedi (eds.), *Marx and Non-Equilibrium Economics* (1996), p. 493. Of course, for Marx also there is no 'separate accounting system of "labour values"' because these manifest themselves only in the altered form of production prices; but there is a clear conceptual distinction between the two.

42 Marx, *Capital* II, p. 172.

43 Marx, *Capital* I, p. 96.

work, the attempt to develop the value theory in a general equilibrium framework, and the inability to escape from the identification of abstract and concrete labour – such theoretical toils link the proponents of that odd hybrid 'marxist economics' to the tradition of bourgeois economy. Despite the best wishes of the radical economists, their discipline, even in the form of a revived political economy, remains (as Korsch put it) 'first and foremost an enemy country' for those who seek to abolish, and therefore to understand, the laws of motion of capitalist society.[44]

44 Korsch, *Karl* Marx (1963 [1938]), p. 90.

CHAPTER 8

Economic Form and Social Reproduction

Interest in the second volume of *Capital*, assembled by Engels out of Marx's manuscripts and published in 1885, was first focused on a minor element of Marx's text, the reproduction schemas with which Marx modelled the capitalist process of social reproduction. This interest derived from a question not directly connected to Marx's aims in the volume, but important to marxists at the turn of the century, namely the question whether a crisis-free development of capitalism is possible. The schemas were of particular importance to Russians – Lenin as well as the less revolutionarily-inclined Legal Marxists – who were seeking arguments against the Narodniks' insistence that Russia need not follow the example of Western Europe in the development of a full-fledged capitalism. Marx's model of equilibrated accumulation seemed to explain how a continuous development of capitalism was possible, even in an industrialising economy such as Russia. While Lenin was concerned to argue that Russia, like Europe, would develop a bourgeoisie and a potentially revolutionary proletariat, the Legal Marxists – most importantly Michael Tugan-Baranowsky – used Marx's schemas to argue against the idea of an inevitable breakdown of the system as the basis for radical change.[1] The interpretation of Marx's schema of expanded reproduction as an equilibrium growth model of the capitalist economy was facilitated by Tugan's abandonment of the labour theory of value, with its implication of a tendency for the rate of profit, source of capital for accumulation, to fall.[2] It was only consistent for Tugan to stress, in his 1905 book on the foundations of Marxism, that 'the whole breakdown theory must be unconditionally rejected'.[3]

Such views provoked an angry response in Rosa Luxemburg's *The Accumulation of Capital*. Tugan, as she put it, 'with the crude joy of a barbarian destroys all objective economic arguments in support of socialism …'[4] But, according to Luxemburg, the limitless accumulation depicted in Marx's schemas is illusory, apparently possible 'merely because mathematical equations are easily put

1 Tugan-Baranowski, *Studien zur Theorie und Geschichte der Handelskrisen in England* (1901), p. 26.
2 See ibid., p. 18, n. 1.
3 Tugan-Baranowski, *Theoretische Grundlagen des Marxismus* (1905), p. 236.
4 Luxemburg, *The Accumulation of Capital* (1951 [1913]), p. 236.

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on paper …'[5] Marx's schema of enlarged reproduction, which seemed to show how a continuous process of accumulation was possible, contradicts both 'the actual course of capitalist development' and 'the conception of the capitalist total process and its course as laid down by Marx in *Capital*, Volume III',[6] with its emphasis on 'the deep and fundamental antagonism between the capacity to consume and the capacity to produce in a capitalist society'.[7] Luxemburg's critique of the reproduction schemas was in essence an expansion of the assertion in her 1899 polemic against Eduard Bernstein, unexceptional in the Marxist tradition, that 'crises appear as a result of the contradiction existing between the capacity of extension, the tendency of production to increase, and the restricted consumption capacity of the market …'[8] Her critique of Marx's second volume was meant as a defence of the first and third.

A first problem to be confronted, if we are to reconsider Volume II of *Capital* today, is the status of the text itself. Even while honouring Engels's achievement in creating the canonical text of *Capital*'s second volume out of the mass of manuscripts Marx left at his death, Maximilien Rubel remarks on 'the grave error of presenting Book II as a work fundamentally complete, with only its form requiring revision'.[9] Despite the fact that Marx worked on this material until his death, he did not succeed in developing it beyond the stage of drafts of phases of the argument, on the one hand, and quantities of illustrative material, on the other. Nevertheless we have enough to understand Marx's intentions and follow his argument.

Capital began life as 'the first book' of an examination of 'the system of bourgeois economy' in six books: 'capital, landed property, wage-labour, the State, foreign trade, world market'.[10] The book on capital, as an 1857 outline made clear, was itself intended to have four sections, dealing with capital in general, and then with particular forms of capital visible in competition, the credit

5 Ibid., p. 119.

6 Ibid., pp. 343, 342.

7 Ibid., p. 347.

8 Luxemburg, *Reform or Revolution* (1937 [1899]), p. 10. For a discussion, see my 'Economics, politics and crisis theory: Luxemburg, Bukharin and Grossmann on the limits of capital' (2009).

9 Rubel (ed.), *Oeuvres de Karl Marx. Économie*, Vol. II (1968), pp. 501–2. See also the discussion of Engels as editor on pp. cxxi ff. The same goes for Volume III, of course; an analogous error can be seen, for instance, in Rosdolsky's description of Engels's edition of the last volume as 'the final version of Marx's work' (Rosdolsky, *The Making of Marx's 'Capital'* [1977], p. 40).

10 Marx, *Contribution to the Critique of Political Economy* [1859], in MECW 29, p. 261.

system, and share-capital.[11] The first section was conceived as having three subsections: production process of capital, circulation process of capital, and profit and interest. In a letter to Friedrich Lassalle (22 February 1858) Marx described the first of these subsections as containing 'several introductory chapters'.[12] These were originally chapters on value and money; the former later became 'The Commodity'. They would prepare the theoretical ground for the business of the first section, the analysis of 'capital in general'.

This 'chapter on capital' was outlined in a draft plan drawn up after the publication of the *Contribution to the Critique of Political Economy*, which contained the chapters on commodities and money. Here we find again, now elaborated in some detail, the three subsections described in the letter to Lassalle: production, circulation, capital and profit. What became Volumes II and III of *Capital*, that is, grew from material originally conceived of as part of the first section of the first of six books!

As we know, the story of the next thirty years of Marx's life, with respect to his scientific authorship, is a story of continual growth of the material. By 1862, a moment when Marx imagined himself ready to publish the continuation of the *Contribution*, 'the third chapter of the first part, that is "Capital in General"', under the title *Capital*, he was already able to see the unrealisability of his grand scheme. He still hoped to complete the treatment of capital, by writing the chapters on competition and credit, but he seemed resigned to limiting himself to 'what Englishmen call "the principles of political economy" … "the quintessence"', which would make possible the completion by others of the 'critique of economic categories' he had undertaken.[13]

In reality, the publication of *Capital* was still six years in the future. In 1867, Marx intended that the first volume, containing the book on the production process of capital, should be swiftly followed by a second, containing the books on circulation and profit (that is, what we now know as Volumes II and III), together with a third on the history of economic theory. Book II (like Book III) of *Capital* was imagined as a part of an arc of thought, an element in an analysis conceived of as an 'artistic whole'.[14] In the face of his evident tendency towards expansion, Marx saw the task facing him as one of reducing the mass of materials he had written to a volume's worth. Since he never did this, one can understand Engels's refusal to do it for him. But it is important to remember

11 See the outline in the introduction to the *Grundrisse* (which still includes as a planned first section a general introduction, later dropped), MECW, 28, p. 45.

12 Marx to F. Lassalle, 22 February 1858, in MECW 40, p. 270.

13 Marx to L. Kugelmann, 28 December 1862, in MECW 41, p. 435.

14 See Marx's letter to Engels, 31 July 1865, in MECW 42, p. 173.

that Volume II collects material intended for the second book of a three-book analysis of 'capital in general', or as Marx also put it, 'the general nature of capital', as opposed to the (relatively) 'concrete forms of capitalist production' that would have been studied in the sections to come on 'the credit system and competition on the world market'[15] (together with a study of share-capital as a 'transition to socialism').[16] It is a highly idealised representation of the social relationships constituting capital, not a depiction of the actual relations that obtain in any particular place and at any particular time between firms and between firms and their employees, with regard to either use value or price relationships. Further specifying the idealised model of capitalist production and exchange advanced in Volume I of *Capital*, it is an explanation of the way the many firms that constitute the total social capital structure a dynamic system, and as such part of an account of the way the nature of this system both demonstrates and explains the scientific failure of political economy.

Capital

The analysis of capital must be the starting point of Marx's 'critique of economic categories' because this concept provides a representation of the aspect of social structure most important for Marx's goal of understanding the possibility of a revolutionary transformation of modern society. While its analysis

15 Marx, *Capital*, Vol. III, p. 205.

16 It is evident that I am not convinced by Roman Rosdolsky's discussion of Marx's concept of 'capital in general' and of the transformation of Marx's plan for his study of capital (see Rosdolsky, *The Making of Marx's 'Capital'* [1977], Ch. 2). First of all, as discussed in Chapter 3, Marx dropped the concept 'capital in general' in the production of *Capital*, for good reasons. In addition, without going into the matter at the length it deserves, we can note, first, that while some of the topics Marx intended to discuss in his Book on Wage Labour were integrated into Volume I of *Capital*, the treatment of rent in the third volume can be distinguished from the planned analysis of landed property. Second, more to the present point, the discussion of competition necessary to any analysis of capital, and in particular to a theory of the tendential increase in labour productivity and as the principle of the equalisation of profit rates, must be distinguished – as Marx does distinguish it, at various points – from an analytic and historical analysis of the phenomena of competition itself. For perhaps the clearest statement of this distinction, see *Capital*, Vol. III, the penultimate paragraph of chapter 48, pp. 969–70. (There is a useful collection of references in the section, 'Was bleibt von der Konkurrenz übrig ausserhalb des Rahmens des "Kapital"?', in Kuruma (ed.), *Marx-Lexikon zur politischen Ökonomie*, Vol. I, *Konkurrenz* [1973], pp. 37 ff.)

requires an understanding of wage labour and landed property, the other main forms of modern property (representing claims to the social product), it is the dominant category in the sense that its dynamic regulates the history of the social system as a whole. The living and working conditions of wage labourers are determined by a struggle between the employing and employed classes within limits set by the profitability requirements of capital; and the rent claimed by the owners of landed property (and analogous natural resources) is derived from the surplus labour appropriated by capital in the form of surplus value, and is thus also limited by capital's requirements.

'The specific economic form in which unpaid surplus labour is pumped out of the direct producers', Marx writes in an already cited passage in the third volume of *Capital*, 'determines the relationship of domination and servitude, as this grows directly out of production itself and flows back on it in turn as a determinant'.[17] In capitalism that 'specific economic form' is surplus value, the increment of value newly produced over the capital invested in the production process, which forms the fund out of which are paid all claims to income other than the payment for labour power. The understanding of surplus value – of its origin and the conditions of its size – is the main accomplishment of Volume I of *Capital*.

That volume begins with the statement, 'The wealth of societies in which the capitalist mode of production prevails appears as an "immense collection of commodities"'.[18] This appearance is due to the fact that the production and distribution of goods, necessary in capitalism as in any other society for the reproduction of human life, is in this society regulated by market exchange, while the labour that produces goods for the market is itself treated as a good to be bought and sold. However – to summarise Volume I in a sentence – wealth in this society is not to be identified with commodities in general, but with the ownership of capital, and capital is not just money that purchases the ability to perform labour, as one commodity among others, but the means by which unpaid labour time is extracted when the employee is set to work for a time period longer than that necessary to reproduce the wage.

A commodity is something produced that is exchangeable for money. That is, it has a use value (as a particular type of good or service answering a particular human need) and a strictly economic value measured by the amount of the money commodity for which it exchanges. More correctly, its having an exchange value is its exchangeability, its having a place in the social practice of

17 Marx, *Capital* III, p. 927.

18 Marx, *Capital* I, p. 125, quoting the opening of the *Contribution*.

the exchange of commodities serving to represent and realise the social character of the labour producing them (the fact that they are produced as elements of a social product, to be consumed by whoever is given access to it by way of the institution of market exchange). The classical political economists had already recognised that the apparent independence of commodity-owners disguised their mutual dependence as participants in a social labour process. Economic value, the representation of social labour-time as exchange value, is the form in which the social character of productive activity appears; and, conversely, that social character can only take the form of value because there is no practice other than that of market exchange in which it can be given explicit form (as there would be in a society in which decisions about production and distribution were collectively and directly made by its members).

What political economy could not see, because of its failure to understand the historically specific character of such categories as 'capital', 'labour', and 'value' itself, was that the institutional separation of the producers from the means of production, thus the existence of capital as the dominant social institution, is the premise of generalised commodity exchange. It is when it becomes impossible for most people to produce the goods they need, because they do not have access to land or other means of production – that is, when their ability to work becomes labour power to be purchased by the owners of capital, money and the means of production it can buy – that the bulk of goods constituting the 'wealth of nations' become commodities. But, therefore, when labour power, with its potential for the production of surplus labour, is purchased, 'the two people who face each other on the marketplace, in the sphere of circulation, are not just a *buyer* and a *seller*, but *capitalist* and *worker* who confront each other as *buyer* and *seller*. Their relationship as *capitalist* and *worker* is the precondition of their relationship as *buyer* and *seller*'.[19]

The commodity is the fundamental modern form of wealth – the social cell form – because 'as the *product of capital*' it 'can be said to contain both paid and unpaid labour'.[20] The outcome of a labour process constituted by the employment of labour power and means of production purchased as commodities by a capitalist, it represents a form of capital's existence, embodying the value expended in its production along with the surplus value created in the process. Furthermore, the commodity character of the product indicates that the labour process in question, though it is localised in the activities carried on within individual capital units, is at the same time a social one. This is as true

19 Marx, 'Results of the Immediate Process of Production', in *Capital* I, p. 1015.
20 Ibid., p. 954.

of the surplus value product as of the value that represents the reproduction of the animate and inanimate conditions of production. Conversely the treatment of social labour as the property of individuals explains why labour time (as argued in the previous two chapters) is not representable directly in capitalism, but appears only in the form of prices shaped by the competitive struggle of capitalist firms for shares of the social surplus.

Both aspects of the phenomenon are crucial to an understanding of the social system: the commodity form that structures economic transactions, and the social class relation presupposed and reproduced by those transactions. For this reason, the analysis of capital cannot conclude with the revelation of the class relation that had been occluded by the economists' description of the economic system as structured by commodity exchange. This would be to fail to give its due to 'the specific economic form in which unpaid surplus labour is pumped out of the direct producers' and would therefore conflict with the aim of Marx's work, to provide both a description of capitalist society and a critique of its self-understanding.

'Capital exists and can only exist as many capitals, hence its own character appears as their reciprocal action on each other', Marx explains in the *Grundrisse*.[21] But Marx's initial goal is to explain the origin of surplus value in unpaid labour, the mode of class exploitation historically specific to capitalism. Accordingly, the theory of capital constructed in Volume I focuses on the relation between capitalists and wage-labourers by abstracting from features differentiating particular industrial capitals – with respect to use value, the various products and methods of production; with respect to value, differing proportions of variable to constant capital and differing turnover times; with respect to competitive position, degrees and forms of monopoly and oligopoly. More particularly, 'capital' in what I have called Model I designates what in Volume II Marx distinguishes as productive capital (industrial capital), in contrast to commodity and money capital.

The 'General Formula for Capital' examined in Chapter 4 of the first volume of *Capital* has the form *M-C-M*: a sum of money (*M*) is exchanged for commodities (*C*) in turn exchanged for money. More accurately, it is *M-C-M'*, a circuit of

21 Marx, 'Economic Manuscripts of 1857–58', in MECW 29, p. 341. 'Appears' here has the same significance as in the first sentence of Volume I of *Capital*: it signals the form in which a social reality is represented in the categories of economic thought and action. Marx uses the word in its Hegelian sense: appearance is not illusion. Capitalists (and those who deal with them) experience real systemic constraints on their activities in the form of the activities of other capitalists, just as it is only in this form that these constraints make themselves felt.

value leading to an increase in money (M'), without which the process would lack a point. As Marx argues (in Chapter 5, 'Contradictions in the General Formula'), the increase of value can only be explained in terms of the surplus value added by wage labourers in the production process. Thus the General Formula must be expanded to the form studied in Volume II: $M\text{-}C\ (LP + MP) \ldots P \ldots C'\text{-}M'$. Here the initial conversion of money into labour power (LP) and means of production (MP) makes possible the creation of a surplus value in the production process (P), realised when the product is sold.

Since the production of value and surplus value, their realisation through market exchange, and their reinvestment in another round of production are (when all goes well for capital) a continuous process, the circuit of capital can be usefully examined, Marx shows, as a cycle starting from any of its three formally distinct elements, M, C, and P. What this makes clear is that the circuit of value through all three forms is necessary to the existence of capital, as opposed to the simple existence of money or commodities, which have existed (as well, of course, as production) in non-capitalist societies. 'The capital that assumes these forms in the course of its total circuit, discards them again, and fulfills in each of them its appropriate function, is *industrial capital* – industrial here in the sense that it encompasses every branch of production that is pursued on a capitalist basis'.[22] Industrial capital must move through the money and commodity forms. Given its existence, however, firms can specialise in the advancing of money or the selling of commodity products, in exchange for a portion of the surplus value generated by an industrial concern. 'Money capital and commodity capital, in so far as they appear and function as bearers of their own peculiar branches of business alongside industrial capital, are now only modes of existence of the various functional forms that industrial capital constantly assumes and discards within the circulation sphere, forms which have been rendered independent and one-sidedly extended through the social division of labour'.[23] Thus only industrial capital possesses all the necessary features of capital as a social relation of production and distribution.[24]

22 Marx, *Capital* II, p. 133.

23 Ibid., p. 136.

24 The existence of industrial capital, Marx explains, 'includes the class antagonism between capitalists and wage-labourers. To the degree that it takes hold of production, the technique and social organization of the labour process are revolutionized, and the economic-historical type of society along with this. The other varieties of capital which appeared previously, within past or declining conditions of social production, are not only subordinated to it and correspondingly altered in the mechanism of their functioning, but they

In a social system in which the relations between entities (persons and firms) have the form of commodity exchanges, individual economic decision-making is constrained by the system as a whole, in the form of mutually-determining supply and demand conditions expressed in the form of prices. An understanding of the system requires recognition of the '*real* existence' of capital '*distinct* from particular real capitals', that is, of the total social capital as an actual quantity of value and a set of social relationships.[25] To begin with, the social capital can be considered as constituted by 'the totality of the movements of [its] autonomous fractions, the [circuits] of the individual capitals'.[26] This totality is not simply a sum; 'the circuits of the individual capitals are interlinked, they presuppose one another and condition one another, and it is precisely by being linked in this way that they constitute the movement of the total social capital'.[27] Money advanced in one industry purchases means of production from another, while the workers employed buy their means of existence from yet other firms.

The unity of the social capital has a reality beyond the interaction of individual firms; it is visible in the money form that all capitals periodically take on, and that makes it possible for capital to flow from one sphere of investment to another. The value given form in money, as already noted, is a representation of the productive labour of society as a whole. Thus the connection between (industrial) capital conceptualised as a set of common features and the social capital as unitary entity may be seen in the necessity of considering the system as a whole in order to understand the nature of value and the origin of surplus value. Conversely the social capital's magnitude in value terms, and the magnitude of the total surplus value produced collectively by its constituent parts, together with its character as a set of particular use values, set the conditions of decision-making imposed on each firm as an exemplar of capital in general. Marx brings this out in Volume II by reference to the effects on individual capitals of the changes in value conditions brought about by capital movements between spheres of investment and alterations in the labour process:

> The movements of capital appear as actions of the individual industrial capitalist in so far as he functions as buyer of commodities and labour,

now move only on its basis, thus live and die, stand and fall together with this basis' (ibid., p. 136).

25 Marx, 'Economic Manuscripts', in MECW 28, p. 378.

26 Marx, *Capital* II, p. 427.

27 Ibid., p. 429. Here we return explicitly to the mode of analysis Marx identified as appropriate for the study of social systems, with their organism-like internal complexity.

> seller of commodities and productive capitalist, and thus mediates the circuit [of value functioning as capital] by his own activity. If the social capital value suffers a revolution in value, it can come about that his individual capital succumbs to this and is destroyed, because it cannot meet the conditions of this movement of value.[28]

Again, what defines capital as a class concept is that the competitive struggle among capitals for shares of surplus value is – beyond their immediate conflicts with employees – the form in which they individually experience the social character of the exploitation process, the fact that in a system structured by commodity exchange the extraction of surplus labour takes place between capital and wage labour as social totalities.

In Volume III, in which Marx's concern is 'to discover and present the concrete forms which grow out of the *process of capital's movement considered as a whole*', a process constituted of alternating episodes of production and commodity exchange, the 'configurations of capital … approach step by step the form in which they appear on the surface of society, in the action of different capitals on one another, i.e. in competition, and in the everyday consciousness of the agents of production themselves'.[29] Volume II lays its part of the groundwork for this analysis by developing a description of 'the process of capital's movement considered as a whole' – as social capital – on the basis of the idealised representation of capital achieved in Volume I.

This is accomplished by a reinvestigation of the process of commodity exchange with which the first volume opened, but now on the basis of an understanding of commodities as the products of capitals. 'And in this respect', Marx wrote in the manuscript originally intended as the final, transitional chapter of the Book I of his plan, 'their circulation, which is simultaneously the reproduction process of capital, entails further determinations alien to the abstract description of the circulation of commodities' (most importantly, the concept of turnover time – the total time required for production, sale of the product, purchase of new elements of production, and renewed productive activity – which sets limits to the amount of surplus value producible by a given quantity of capital). Marx thus concluded this chapter with the thought that 'our next task is to turn to an examination of the *circulation process of capital*'.[30]

28 Ibid., p. 185.

29 Marx, *Capital* III, p. 117.

30 Marx, 'Results', p. 975.

Circulation and Reproduction

Having devoted Volume I to the revelation of the class relation obscured from view by the market relations structuring economic activity, Marx turns in his second volume to the way in which the social class system is constituted by way of those same market relations. An interesting manuscript variant opening of this book, not utilised by Engels for his edition, presents a parallel to the opening of Volume I (as well as a link to its manuscript conclusion): 'The immediate result of the process of capitalist production is a *mass of commodities*'.[31] As products of capital, these commodities are intended for sale, transformation into money. To continue to function as capital, that money (which, if all has gone well, includes an increment over the initial investment) must be reinvested in the elements of production, which must be set to work in the creation of new value- and surplus value-bearing commodities. Where the *circulation of commodities*, with which Volume I began, implies relations among buyers and sellers, or producers and consumers, the *circulation of capital* in the commodity form implies relations between capitals, on the one hand, and capital and the owners of labour power, on the other. It thus clarifies the connection between the class character of modern society and the relations among the capitals that constitute the social capital.

Circulation is, according to Marx, the 'first totality among economic categories', since it provides the form for the interaction of all economic units. That interaction has a particular character. 'The totality of the social process, circulation is also the first form in which not only the social relation – as is the case with a coin or with exchange value – but also the movement of society itself can be seen as a fact independent of individuals'.[32] The transformation of produced commodities into money requires an effective demand for those commodities; the retransformation – on a larger scale – of this money into the

31 I translate, in the absence of access to the original, from the French translation in Marx, *Oeuvres: Économie*, Vol. II, edited by M. Rubel (1968), p. 509. Compare *Capital*, Vol. I, p. 125: 'The wealth of societies in which the capitalist mode of production prevails appears as an "immense collection of commodities"; the individual commodity appears as its elementary form'; and 'Results': 'The result of the process [of capitalist production] is not individual goods, but a *mass of commodities* … each one of which is the incarnation of both the value of the *capital* and of the surplus value it has produced' (ibid., p. 954).

32 Ibid., p. 506. Marx observes that this was already noted by Quesnay, in whose *Tableau Économique* '[t]he numberless individual acts of circulation are … immediately grouped together in their characteristic social movement as a mass circulation between major economic classes of society that are defined by their function' (*Capital* II, p. 435).

elements of production presupposes the existence of the requisite means and materials of production, on the one hand, and of a sufficient quantity of labour power (embodied in workers), on the other.

It is this role of circulation in the social reproduction process that gives rise to the idea of 'the economy' as an autonomous system of forces, to be studied by a science of economics. Though the individual exchanges that constitute circulation 'originate from the conscious will and particular purposes of individuals', wrote Marx in the *Grundrisse*, 'nevertheless the totality of the process appears as an objective relationship arising spontaneously; a relationship which results from the interaction of conscious individuals, but which is neither part of their consciousness nor as a whole subsumed under them'.[33] The economy, experienced – in the absence of conscious social regulation of production – as a set of constraints independent of individual wills, seems a general condition of human existence rather than a feature of a particular form of social life.

Social capital, constituted by the interlinked circuits of individual capitals, cannot be conceptualised simply as a quantity of value expanded by embodiment, in turn, in money, the factors of the production process, the product of that process, and money again. The social totality has a class structure. The surplus value whose appropriation means that a sum of value has functioned successfully as capital is the economic representation of surplus labour performed by wage labourers, and is measured by the excess of the value of their product over the value of their labour power, itself equivalent to that of the commodities needed for their personal reproduction.[34] Of the commodity factors of production, one, means of production, is the property of capital, the other, labour power, is the property of labour. The employment of these elements in a new round of production, again on a larger scale than the first round, brings to the fore the class relation of exploitation, in which the worker's activity of today makes possible the expansion of the scale of that activity tomorrow. The overall dominance of capital in the system shows up in the fact that in both cases purchase and sale is ultimately a relation between capitals, for in the case of the purchase of labour power, the wage flows through the worker's hands to the capitalist producer of means of consumption.

Considered without regard for its historical specificity, as an example of ongoing social life, the reproduction of this social totality is (like that of every other) a matter of producers' transformation of raw materials into culturally

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33 Marx, 'Economic Manuscripts', in MECW 28, pp. 131–2.

34 It should be remembered that it is only with the finer differentiation of individual capitals undertaken in Volume III that the value of labour power is reconceptualised (as discussed in Chapter 6 above) as equal to the *production price* of workers' means of consumption.

determined forms of use value. Considered with regard to its specifically capitalist form, this reproduction process is organised by a relation between capitals producing production goods and those producing consumption goods. Here we see the dual nature of the commodity, as use value and exchange value, reappearing in the dual character of social reproduction as a renewal of both the physical requirements of life and value relations.[35] The physical requirements – means of production and consumption – are produced as commodities, products of capitals. Hence social reproduction takes the economic form of an interaction between what Marx calls two departments of capital, in which the actual producers figure only as an element of the productive form of capital.

Social class is thus reproduced by way of commodity-exchange relations. Paradoxically, in consequence of this, the categories of the market with which Marx's investigation began lose their independence as explanatory of the state of the social system at any time. For Marx's analysis of social reproduction in terms of the two departments of capital demonstrates that market categories are just, as he might say in an Hegelian moment, forms of appearance of capital. This must be the case since, as Marx observes, 'the circuits of the individual capitals … when considered as combined into the social capital, i.e. considered in their totality, do not encompass just the circulation of capital, but also commodity circulation in general'.[36] The circulation of commodities is the circulation of capital.

The demand for means of production at a given time is obviously equal to that portion of capital investment used to purchase them.[37] But the workers' demand for consumption goods is also equal to a portion of capital, namely the variable capital that purchases labour power.

> In so far as the capitalist simply personifies industrial capital, his own demand consists simply in the demand for means of production and labour power … In so far as the worker converts his wages almost wholly into means of subsistence … the capitalist's demand for labour power is indirectly also a demand for the means of consumption that enter into the consumption of the working class.[38]

35 See Marx, *Capital* II, p. 470.

36 Ibid., p. 428.

37 A certain amount of money will also have to be set aside for the eventual replacement of fixed capital, used up only over time. It will figure as demand for means of production produced at a later moment – so long as the reproduction process is not interrupted.

38 Marx, *Capital* II., p. 197.

Finally, the demand for luxury goods is equal to that amount of surplus value not accumulated as capital but devoted to capitalist consumption. Thus demand is constituted entirely by the value of the product of capital, as successfully realised in exchange and then reinvested or spent for capitalists' consumption; its growth is therefore determined by the rate of profit of the social capital and the conditions determining that profit's reinvestment.

One important consequence of this is the untenability of underconsumption explanations of economic crisis. As Marx observes, 'it is a pure tautology to say that crises are provoked by a lack of effective demand or effective consumption'.[39] The important question is, rather, what determines effective demand, and the answer to this must be capital accumulation, itself limited by the profitability of capital. It follows from this – and this is a point of great significance – that economic crisis raises, not the issue of a maldistribution of income (to be overcome by some redistributive mechanism), but that of the existence of capital as a class relation.

A related matter is the misunderstanding, shared by various distinguished commentators on Marx's work, that Marx intended the reproduction schemas that are the centrepiece of the third part of Volume II to model equilibrium conditions for capitalism, so that major crises of accumulation could be explained as due to divergences from the paths they represent.[40] For one thing, Marx's schemas cannot depict the exchange relations constituting the actual circulation of commodities, since these relations are organised in price terms, not the value terms utilised in the schemas. For another, Marx assumes no tendency on the part of the economic system towards interdepartmental (or

39 Ibid., p. 486.

40 Partisans of disproportionality explanations of crisis, from Tugan-Baranowski and Rudolf Hilferding to Ernest Mandel, should join the builders of equilibrium growth models in pondering Marx's assertion that '[c]apital is just as much the constant positing of, as it is the constant transcendence of, proportionate production. The existing proportions must constantly be transcended through the creation of surplus values and the increase of productive forces. But to demand that production should be expanded *instantaneously, simultaneously*, and in *the same proportions*, is to impose external demands on capital, which in no way correspond to anything arising from capital itself' ('Economic Manuscripts', in MECW 28, p. 341). Already in his critique of Proudhon Marx had observed that proportionality is 'nothing but the pious wish of an honest man who would like commodities to be produced in proportions which would permit their being sold at an honest price. In all ages good-natured bourgeois and philanthropic economists have taken pleasure in expressing this innocent wish' (*The Poverty of Philosophy* [1847], in MECW 6, p. 136). For a critique of underconsumption and disproportionality readings of Marx's crisis theory, see Mattick, *Economic Crisis and Crisis Theory* (1981), Ch. 3.

any other) equilibrium: in his view, the 'conditions for the normal course of reproduction, whether simple or on an expanded scale' represented by the reproduction schemas 'turn into an equal number of conditions for an abnormal course, possibilities of crisis, since, on the basis of the spontaneous pattern of this production, this balance [between departments in the schemes] is itself an accident'.[41]

By 'crisis' Marx means here what elsewhere he calls 'particular crises (*particular* in their content and extent)' in which 'the eruptions are only sporadical, isolated, and one-sided', in contrast with 'world market crises', in which 'all the contradictions of bourgeois production erupt collectively'.[42] In a system in which goods are produced as commodities offered for sale by individual capitals, 'too much may be produced in individual spheres and *therefore* too little in others; partial crises can thus arise from disproportionate production (proportionate production is, however, always only the result of disproportionate production on the basis of competition)'.[43] Interdepartmental disproportionalities, like economic disequilibria generally, are normal to capitalist reproduction. As Paul Mattick explains, because such disproportionalities

> can also in turn be overcome by way of these same crises, the process of reproduction can be represented [in the schemas] as crisis free, just as an equilibrium of supply and demand, which in real life does not exist, can be imagined. Crises of this kind, arising exclusively from the disproportionalities of the system, are only an expression of the anarchy of capitalism and not of the exploitative character of the relations of production that underlie this anarchy; they are resolved, therefore, by the redistribution of surplus value, without the production of additional surplus value.[44]

To explain 'world market crises', the system-wide economic convulsions in which the duality of use value and exchange value becomes visible in the form of a conflict between human needs and the demands of capital accumulation, calls in contrast for an analysis focusing on the conditions of surplus value pro-

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41 Marx, *Capital* II, p. 571. See also K. Marx, 'Economic Manuscript of 1861–63', in MECW 32, p. 124: 'all equalizations are *accidental* and although the proportion of capital employed in individual spheres is equalized by a continuous process, the continuity of this process itself equally presupposes the constant disproportion which it has continuously, often violently, to even out'.

42 Marx, 'Economic Manuscript', in MECW 32, p. 163.

43 Ibid., p. 150.

44 Mattick, *Economic Crisis and Crisis Theory* (1981), pp. 101–2.

duction (treated in Volume I) and the relations between surplus value produced and the quantity required for accumulation (discussed in Volume III).

The function of the reproduction schemas, as of the argument in Volume II generally, is to demonstrate how the economic forms of value (and so surplus value) condition the reproduction of society as the organisation of the human production and consumption of use values. In this way the second volume of *Capital* opens the way to the investigation, carried out in the third, of the rate of profit as determinant of accumulation and so of crisis.

CHAPTER 9

Class and Capital

> The concept of class has never remained a harmless concept for very long.
>
> RALF DAHRENDORF[1]

Dahrendorf gave a common view dramatic form when he wrote, 'Marx postponed the systematic presentation of his theory of class until death took the pen from his hand. The irony has often been noted that the last (52nd) chapter of the last (third) volume of *Capital*, which bears the title "The Classes", has remained unfinished. After a little more than one page the text ends with the lapidary remark of its editor, Engels: "Here the manuscript breaks off"'.[2] Unfortunately, the colourful picture this suggests, of the pen dropping from the hand of the dying Marx as he was on the point of completing his masterwork, isn't ours to keep: the draft containing this chapter was completed, as is fairly well known, before Marx turned to the preparation of Volume I for publication. Nevertheless, some have taken Marx's delay in returning to the chapter – until it was too late – as an admission *in actu* of failure, attesting to a basic flaw in his theory. Engels's explanation is less dramatic: Marx liked to leave conclusions 'for the final editing, shortly before printing, when the latest historical events would supply him, with unfailing regularity, with illustrations of his theoretical arguments, as topical as anyone could desire'.[3] Reopening the question of the relation of Marx's final page and a half to the rest of *Capital*, I wish to explore what Marx's willingness to leave the matter in so sketchy a state might indicate about the nature, or even the existence, of a Marxian theory of class.

The matter is of importance, since Marx's critique of political economy stands from the start under the sign of class. The preface to *Zur Kritik*, the publication that began the examination of 'the system of bourgeois economy', promises an analysis of 'the economic conditions of existence of the three great

1 Dahrendorf, *Class and Class Conflict in Modern Society* (1959), p. 3.

2 Ibid., p. 8.

3 Marx, *Capital* III, p. *97*.

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classes into which modern bourgeois society is divided'. This was to be carried out in the first three of the six books which Marx proposed to write, those on capital, landed property, and wage labour.[4] In this plan Marx echoed Ricardo's identification of 'the principle problem in Political Economy' as to 'determine the laws which regulate' the distribution of 'the produce of the earth' among 'three classes of the community', the proprietors of land, the owners of the capital employed in cultivating it and the labourers who work it.[5] The nature of Marx's critique of political economy may be indicated elliptically by pointing to the replacement of 'distribution' by 'conditions of existence' as analytical focal point. The former conceptualisation takes the existence of the 'three great classes' for granted as a feature of society, asking only how the social product is shared out between them. Marx, in contrast, is interested in the historically specific conditions under which society can be characterised in terms of these three groupings: both the mechanism of their historical production and (as discussed in the previous chapter) that of their continuous reproduction.

Marx's early studies of the dismal science reflected his discovery of the centrality of economic categories to the ideological terms in which bourgeois society represents itself. His serious reengagement with economic theory after the 1848 revolutions was more directly provoked by his perception of a relation between the rise and fall of radical mass movements on the Continent and the (inverse) movements of the economy. In the 'Review' of events he wrote with Engels, from exile in London, for the *Neue Rheinische Zeitung*, Marx discussed in detail the correlation of crisis and revolt, arguing that the prosperity sure to return to Germany and France in response to renewed expansion in England would rule out any rapid revival of the movement.

> With this general prosperity, in which the productive forces of bourgeois society develop as luxuriantly as is at all possible within bourgeois relationships, there can be no talk of a real revolution. Such a revolution is only possible in the periods when both these factors, the modem productive forces and the bourgeois forms of production, come in collision with each other … A new revolution is possible only in consequence of a new crisis. It is, however, just as certain as this crisis.[6]

4 Marx, *Contribution to the Critique of Political Economy* [1859], in MECW 29, p. 261.
5 Ricardo, *On the Principles of Political Economy and Taxation* (1966 [1817]), p. 5.
6 Marx and Engels, 'Review: May to October' [1850], in MECW 10, p. 510.

At the time these words were written, Marx was essentially a follower of Ricardo in economics; a particular motive for a return to his economic studies was the incompatibility of Ricardian theory with the course of economic events in the late 1840s.[7] These studies, which eventually resulted in the writing of *Capital*, would lead (as we have seen) to a fundamental break with Ricardian theory, and in fact with classical political economy as a whole. Nonetheless, the statement quoted above can stand as a summary of the central underlying idea of the work which was to occupy Marx for the 30-odd years that followed its writing. Its basic elements reappear, for instance, in the summary of 'the guiding principle of my studies', reached by 1845, with which Marx introduced the first instalment of his study of capital in 1859. Here Marx describes human social existence as a matter of 'relations of production appropriate to a given stage in the development of their material forces of production'. While 'no social formation is ever destroyed before all the productive forces for which it is sufficient have been developed', that development produces a conflict between 'the material productive forces of society' and 'the existing relations of production' which have turned 'into their fetters. Then begins an era of social revolution'.[8] In such an era, as Marx envisioned it, what he described with the theoretical abstractions of 'forces' and 'relations' would take practical form in the struggle between classes which he had identified in the *Communist Manifesto* as the central drama of history.

Again, in a letter to Engels of 1868, Marx discussed the theoretical advances at the heart of the third volume of *Capital* as a matter of relations between economic entities: the distribution of surplus value, the differentiation of forms of capital, the equalisation of profit rates, and the tendency of the rate of profit to fall. Yet he promised that, at the end of it all, he will show that economic theory constitutes only a set of appearances of a reality to be analysed, ultimately, in terms of 'the class struggle, as the conclusion in which the movement and disintegration of the whole shit resolves itself'.[9]

But if *Capital*, with all its three (or four) volumes, was intended only as the first book of a study of the 'three great classes', why does the chapter on classes appear at its conclusion? Roman Rosdolsky suggested one answer in his study of the development of Marx's theory. Rosdolsky argued that while writing his magnum opus Marx found that the intended books on landed property and wage labour 'had to be incorporated into' the study of capital because the lat-

7 See the discussion in Schrader, *Restauration und Revolution* (1980), pp. 15–23.

8 Marx, *Contribution*, pp. 262–3.

9 Marx to Engels, 30 April 1868, in MECW 43, p. 25.

ter 'would have been inconceivable without a treatment of the questions which they deal with'.[10] This seems a mistake, however.[11] For one thing, the treatment of rent in *Capital* should be distinguished, as Marx himself put it, from 'the analysis of landed property in its various historical forms', which 'lies outside the scope' of *Capital*.[12] As we know, Marx occupied himself to a great extent during his last years in collecting information for such an analysis (even learning Russian to read documents relevant to the history of landed property in Russia). In *Capital*, however, he studied, under the heading of rent, not a form of property but a form of revenue – a claim to income rather than a social relation mediated by claims to ownership of natural resources; he was concerned with the former 'only in so far as a portion of the surplus value that capital produces falls to the share of the landowner'.[13]

Second, the discussion (in the first volume of *Capital*) of wages, the market-representation of the value of labour power, is similarly to be distinguished from an analysis of wage labour as a social institution – that is, of the waged working class, with a variety of characteristics in different periods and locations, and internally differentiated at every time and place by the distinction between employment and unemployment, by job status and wage differentials, and by gender, age, and 'racial' inequalities. It is true that Volume I contains a great deal of historical and analytical material bearing on the historical conditions of appearance and the development of waged labour, notably in Chapter 10, 'The Working Day'; Chapter 15, 'Machinery and Large-Scale Industry'; Chapter 25, on the effects of capital accumulation on the working class in the form of unemployment and immiseration; and Part Eight, which discusses the creation of the preconditions for capitalist production by the separation of producers from land and other means of production. But all this

10 Rosdolsky, *The Making of Marx's 'Capital'* (1977), p. 23.

11 I leave undiscussed Rosdolsky's contention that Marx integrated into *Capital* not just the books on landed property and wage labour but also the sections of his study of capital devoted to competition, the credit system, and the stock market, originally planned for separate books following the analysis of 'capital in general'. In this I take advantage of Winfried Schwartz's essay, 'Das "Kapital in allgemeinen" und die "Konkurrenz" im ökonomischcn Werk von Karl Marx' (1974). Schwartz argues convincingly that, contrary to Rosdolsky's interpretation, the treatment of what Marx originally called 'capital in general' concludes with Part One of the third volume, the rest of which contains material for the remaining sections of the analysis of capital.

12 Marx, *Capital* III, p. 751. For a discussion of Marx's unwritten book on landed property, see Shortall, *The Incomplete Marx* (1994), pp. 170 ff.

13 Marx, *Capital* III, p. 751.

material considers the working and living conditions of wage-earners primarily as presupposition for and function of the accumulation of capital. Marx is concerned above all to destroy (as he put it in the unfinished 'Sixth Chapter' of *Capital*) 'the last vestiges of the illusion … that … in the marketplace, two equally matched *commodity owners* confront each other, and that they, like all other commodity owners, are distinguished only by the material content of their goods …' He wishes to demonstrate as well that wage labour is 'one of the *essential* mediating forms of capitalist relations of production, and one constantly reproduced by those relations themselves'.[14]

The existence of wage labour is in fact a socio-historical requirement for the production of surplus value and so for the existence of capital. To explain this, however, is not to provide an analysis of wage labour as a distinct category of social relations. Marx observes in a brief chapter (22) on national wage differentials that to compare wages in different parts of the world we must 'take into account all the factors that determine changes in the amount of the value of labour power: the price and the extent of the prime necessities of life in their natural and historical development, the cost of training the workers, the part played by the labour of women and children, the productivity of labour, and its extensive and intensive magnitude'.[15] Some fragmentary remarks on trade unionism in the 'Sixth Chapter' suggest the topic of workers' oppositional activity as a determining factor of the value of labour power.[16] Such matters, considered at once historically and analytically, would no doubt have provided the content of the third book of Marx's critique of political economy.

If *Capital* was not meant to absorb the unwritten books on the labouring and landowning classes, it is all the more remarkable that Marx's chapter on classes concludes it. For the chapter begins in Ricardian fashion with the listing of 'the owners of mere labour power, the owners of capital, and the landowners' as 'the three great classes of modern society based on the capitalist mode of production'.[17] Why then did Marx embark on a theory of class structure before the books to be devoted to the other two class categories, wage labour and landed property? The answer is to be found in the context: Part Seven, the concluding section of Volume III, deals with 'Revenues and Their Sources', that is, with 'the estranged and irrational forms' in which the capitalist production process appears to those who live by its laws.[18] To explain how this section and the

14 Marx, 'Results of the Immediate Process of Production', in *Capital* I, pp. 1062, 1064.

15 Marx, *Capital* I, p. 701.

16 Ibid., pp. 1069–70.

17 Marx, *Capital* III, p. 1025.

18 Ibid., p. 969.

chapter on classes fit into Marx's argument requires a recapitulation of that argument, the critique of political economy, as a whole.

Economic Appearances and Social Reality

Capital begins, as it ends, with appearances: the appearance that wealth in 'societies in which the capitalist mode of production prevails' is an 'immense collection of commodities'. Wealth seems to crystallise in the marketplace, as the accumulation of commodities (including the money commodity). But, as Marx quickly demonstrates, wealth in modern society is specifically the accumulation of *capital*, of money invested in the means of production and labour power required to produce goods saleable for a larger sum of money. Capital requires the existence on the market of the commodity labour power, owned by people unable to employ it themselves because of their lack of access to means of production. Indeed, it is only when such people exist that the commodity becomes the general form of wealth, since only then must the producers purchase a portion of their product, made for the owners of the means of production, with the wages paid for their ability to work.

If Marx thereby shows that wealth consists in the control of other people's labouring, he emphasises that control is exercised in a particular way in this particular society: 'The specific economic form in which unpaid surplus labour is pumped out of the direct producers determines the relationship of domination and servitude' in different types of society. In capitalism, surplus labour, work performed in addition to that which provides for the consumption of the producers, is appropriated as surplus value, through the medium of market exchanges between employers and employees, in which first the latter and then the former appear as sellers of commodities to each other. Since the social relation of domination between them is represented in a roundabout way by the circulation process, the exploitative relationship is hidden behind the equality of market partners. Hence it is that wealth appears to be a matter of commodity ownership, or the possession of money, a means to ownership, rather than a relationship between people *manifested* in differential access to goods.

In so far as capital takes the form of produced goods and means for producing them, it is wealth whose use yields an income. The owner of capital, as just observed, is in a position to appropriate that part of the product made with it – translated into money terms – that exceeds the reproduction requirements of the producers. 'Capital thereby becomes a very mystical being, since all the productive forces of social labour appear attributable to it and not to labour as such'.[19] Alternatively expressed, each capitalist ascribes to the productive virtue of his individual capital the amount he manages to obtain from the surplus labour of employed workers. This appearance is all the more convincing because the amount of profit extracted by each capital does not in fact depend on the surplus production of the workers it employs but is drawn in a complex way from the surplus labour performed for the totality of capitalist employers.

It is only in the process of circulation – the totality of market exchanges that mediate, on the one hand, the relation between productive labour and the extraction of surplus value, and, on the other, the relation between capital investment and producers' consumption – that surplus labour is crystallised in a form (money) utilisable for future investment. Surplus labour in capitalism (unlike non-capitalist forms of society) is therefore a phenomenon definable only in relation to total social labour, and not firm by firm. Just as the labour engaged in at an individual workplace only counts as a part of social labour in so far as its product takes the form of a commodity sold on the market, so the surplus labour performed at that workplace exists as surplus value – in a form (money) utilisable for capital accumulation – only as market exchange makes it a portion of the social surplus produced under the dominance of the totality of capital. This is why that totality (what Marx calls 'social capital') is not just a conceptual aggregate of individual firms, but a fundamental unit in the functioning of the social system.

We will return to this aspect of the economic system below, because it is the society-wide character of exploitation that, in Marx's view, provides the basis for class as the peculiarly modern mode of social stratification. From the capitalist's viewpoint, however, the ratio of the total surplus value produced to the amount of value required for the worker's consumption – the socially specific measure of work done for employers relative to that done for the producers themselves – is unimportant. What counts is the rate of profit, the ratio of surplus value appropriated by the individual firm to the capital it has invested in means of production and labour power.

Of course, as Marx restates in Volume III a point demonstrated (in other terms) in the fifth chapter of Volume I, 'the capital value advanced cannot form surplus value simply by means of its having been used up and forming therefore the cost price of the commodity' produced.[20] But the ability of a capitalist's investment to bear fruit seems to depend just on the willingness of the market to buy his product at a sufficiently high price. His investment counts for him as

19 Marx, *Capital* III, p. 966.
20 Marx, *Capital* III, p. 126.

an individual gamble, rather than as a contribution to the social production process, the product of which includes the social surplus that is distributed among individual firms. A sufficient demand for his goods allows him to collect a sum causally linked to his investment, since it represents money in excess of that needed to pay for labour power: 'surplus value itself does not appear as having been produced by the appropriation of labour time but as the excess of the sale price of commodities over their cost price …'[21] The latter 'appears to each capitalist as a given quantity',[22] the price he must pay for the inputs consumed in his production process, so that the relation between surplus value and the labour power set in motion as labour disappears from view. Surplus value is therefore conceptualised as profit, a 'return to capital'.

In Part Two of *Capital*, Vol. III, as discussed in Chapter 6 above, Marx traces the further obscuring of the relation between profit and surplus labour as a result of competition between the individual firms that constitute social capital. The attempt by firms to maximise profits through various manners of adjustment between quantities of product and prices involves a shifting of claims on the social surplus value among firms that conceals any relation between profits earned by firms and surplus labour performed by their workers. This effect is redoubled by the fact that some capital is invested in economic activities – such as commerce and banking – that are themselves unproductive of surplus value but that claim a share of the social surplus. A special category, one of great social and political importance in the eighteenth and nineteenth centuries, is that of rent, a share of surplus value demanded by the owners of natural resources for the use of their property. The process that obscures the source of profits, interest, and rent is basic to the operation of the system; the redistribution of surplus value effected by price competition is an aspect of the mechanism that effectively socialises the labour performed for various employers. It is because of this socialisation of their labour by way of its uniform representation by money in the marketplace that, despite the fact that workers are hired by individual firms, they may be more properly said to be exploited as a group by capitalists as a group.

The last part of Volume III examines forms in which the social organisation of surplus value extraction appears 'on the surface of society … in the everyday consciousness of the agents of production themselves'.[23] This 'everyday consciousness' provides the material for what Marx calls 'vulgar economics', the

21 Ibid., p. 135.

22 Ibid., p. 1010.

23 Ibid., p. 117.

direct ancestor of the dominant economic theorising of the last hundred years, which 'actually does nothing more than interpret, systematize and turn into apologetics the notions of agents trapped within bourgeois relations of production'.[24] The annual social product seems to arise through the cooperation of three factors of production, the trinity of land, labour, and capital. Stand-ins for natural resources, human activity, and products of previous human activity, these are historically specific forms of the universal constituents of the labour process[25] masquerading as transcultural universals. Their historically specific character appears in the asserted link between them as forms of property and the corresponding forms of revenue – rent, wages, and interest – sums of value from which seem to arise the prices of commodities.

> Capital-profit (or better still capital-interest), land-ground-rent, labour-wages, this economic trinity as the connection between the components of value and wealth in general and its sources, completes the mystification of the capitalist mode of production, the reification of social relations, and the immediate coalescence of the material relations of production with their historical and social specificity: the bewitched, distorted, and upside-down world haunted by Monsieur le Capital and Madame la Terre, who are at the same time social characters and mere things.[26]

But if the social character of the production process is invisible in the marketplace, where relations between individuals are on view, it makes itself felt not only in the despotic domain of the workplace but in the impersonal economic dynamics of the social system as a whole. Throughout the history of capitalism, as Marx explains at the start of his study, value 'magnitudes vary constantly, independently of the will, knowledge, and actions of the exchangers'.[27]

The social rate of surplus value and the general rate of profit determine the possibilities for capital accumulation; experienced by capitalist entities in the form of inter-firm competition, the constraints set on the activities of individuals by social relationships unknown to them are represented as the workings of 'the economy', as if this were a structure or mechanism independent of human action. The 'law of value' that Marx claims to have discovered regulating mod-

24 Ibid., p. 956.
25 See the discussion in Marx, *Capital* I, Chapter 9.
26 Marx, *Capital* III, pp. 968–9.
27 Marx, *Capital* I, p. 167.

ern society makes itself known in daily life 'the same way that the law of gravity asserts itself when a person's house collapses on top of him'.[28]

This conflict between the social character of production and the individual character of property 'impresses itself most strikingly on the practical bourgeois in the changes of the periodic cycle through which modern industry passes, the summit of which is the general crisis'.[29] At a time of economic crisis, the relation of value – the representation of the social character of labour by the exchangeability of all capitalist products against money – to labour as actual human activity manifests itself in the form of the existence of unsaleable products. Produced for sale at a profit, capitalist commodities cannot be consumed (at least within the framework of the market-exchange system) if this condition cannot be met; the abstract social labour-time they contain is revealed to be equal to zero. It is then the (historically specific) social nature of the labour involved in commodity production that renders its products unusable by society, a paradox that exposes the limits capitalism sets to people's ability to use their ability to work to meet their needs. Such moments clarify the choice that exists as soon as capitalism has reached a relatively high stage of development, between the preservation of the existing society and its transformation into one more adequate to people's needs.

It is for this reason that Marx devotes much of the argument in Volume III to demonstrating that the accumulation of capital, the form of exploitation mediated by commodity exchange, leads to a tendential fall in the rate of profit, which limits accumulation and, by way of economic crisis, increases the potential for social upheaval. Economic crisis brings to light the fact that 'it is the appropriation of unpaid labour, and the proportion between this unpaid labour and the objectified [previous] labour [owned as capital] … that determines the expansion or contraction of production, instead of the proportion between production and social needs …'[30] It points towards a generalised social crisis because it is, according to Marx, 'the direct relationship of the owners of the conditions of production to the immediate producers … in which we find the innermost secret, the hidden basis of the entire social edifice, and hence also the political form of the relationship of sovereignty and dependence', the state.[31]

28 Ibid., p. 168.
29 Ibid., p. 103.
30 Ibid., p. 927.
31 Marx, *Capital* III, p. 367.

Economic Class and Social Structure

Just as the value of commodities is the representation in money terms of social labour in capitalism, the rate of profit is the money representation of 'the proportion between unpaid labour and objectified labour'. As such it represents in a pair of economic quantities the relationship between the interests of the producers and those of their employers, for 'unpaid labour' is the work the producers must perform in addition to that necessary for their own reproduction. Groups defined by such a relationship are what Marx, using the terminology that developed gradually during the late eighteenth and early nineteenth centuries, called classes.[32] The category of class was produced by bourgeois society as a means of stating its distinction from the earlier European system of juridically-recognised social stratification, conceptualised in terms of 'ranks' and 'orders' ('*états*', and '*Stände*' in French and German). The increasing use of the term reflected 'not only increased individual mobility, which could be largely contained within the older terms, but the new sense of a [society] or a particular *social* system which actually created social divisions, including new kinds of division'.[33] Unlike pre-capitalist hierarchies, class is not a permanent attribute of individuals but is carried by money, whose possession confers control over social labour. Class itself thus appears as social power abstracted from relations between people, incarnated in the symbol of value, something individuals can acquire and lose, like the commodities with which it is often equated.[34]

According to Marx, the 'historical tendency of capitalist accumulation' includes 'the dissolution of private property based on the labour of its owner',

32 For a brief history of the concept 'class', see Williams, *Keywords. A Vocabulary of Culture and Society* (1985), pp. 60 ff. An extended historical survey, by an East German historian, is Herrnstadt, *Die Entdeckung der Klassen* (1965).

33 Williams, *Keywords* (1985), p. 62. Rudolph Schlesinger emphasises an important aspect of this development: 'Historically, the concept of class arose from the realization that the mere abolition of legal discriminations did not establish social equality, which had been demanded by the ideology of the bourgeois-democratic revolutions: the first explanations of the course of the French revolution in terms of class coincide with the realization that the expectations of the urban poor, who had borne the main burden of the struggle, were disappointed by the result, the access of the *bourgeoisie* to power' (*Marx, His Time and Ours* [1950], p. 213).

34 'The two people who face each other on the marketplace, in the sphere of circulation, are not just a *buyer* and a *seller*, but *capitalist* and *worker* who confront each other as *buyer* and *seller*. Their relationship as *capitalist* and *worker* is the precondition of their relationship as *buyer* and *seller*' (Marx, 'Results of the Immediate Process', in *Capital* I, p. 1015).

such as that of the peasant, artisan, and small shopkeeper who emerged out of feudal society, and the transformation of the majority of people into sellers of labour power to capitalist employers.[35] Capitalist social structure is experienced both as a complex system of social differences and, thanks to the gradual weakening or extinction of legal rank ('estate') differences, as involving a trend towards social equality.[36] The salience of equality derives from the fact that, in contrast to pre-capitalist societies, 'the domination of the exploiters loses the form of a power relationship and makes an indirect appearance, on the basis of the equality of commodity exchange, which mystifies the capitalist exploitation relation in an economic form, but also thereby legitimates it'.[37] The apparent homogenisation of social personality was clearly stated by Adam Smith, despite his acute recognition of the persistence of social hierarchy: 'every man … lives by exchanging, or becomes in some measure a merchant …'[38] Because the social character of production is only indirectly acknowledged, by the exchange of commodities for money, the relations between commodity exchangers – capitalists and workers alike – are represented in the form of contracts (explicit and implicit) between legal equals.

This kind of equality, understood as legal equivalence or the abstract uniformity of civil or human rights, is compatible with the existence of myriad

35 Marx, *Capital*, Vol. I, p. 927. This view – basic to Marx's critique of the classical economists' labour theory of value – should not be confused with a mythical doctrine, often ascribed to Marx, of the disappearance of the middle classes in capitalism. See the discussion in Draper, *Karl Marx's Theory of Revolution*, Vol. II, 'The Politics of Social Classes' (1978), pp. 613 ff.

36 'In this sense, the equality of employers and employees before the law was genuine. The distinction between them was now based only on their private faculties and resources, rather than on an enduring juridical privilege; if a wage earner accumulated enough private property to become an employer, he became an employer with the same rights as any other. Employers were no longer', as under the guild system, 'a permanent body of privileged masters, but simply the most successful competitors in a free and open market at any particular point in time' (Sewell, Jr., *Work and Revolution in France: The Language of Labour from the Old Regime to 1848* [1980], p. 141).

37 Mauke, *Die Klassentheorie von Marx und Engels* (1970), p. 22. Mauke's book remains the best introduction to Marx's conception of class.

38 Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, Volume I (1979 [1776]), p. 37. It is this homogenisation, in contrast to the pre-modern essentialisation of status differences, to which Smith gave expression in his theory of the 'impartial spectator', the 'man within' each person who adjudicates conflicts of interest between individuals conceived of as fundamentally equal. See Smith, *The Theory of Moral Sentiments* (1976b [1759]), pp. 135 ff.

forms of inequality, both those defined in noneconomic terms, such as gender and 'race', and those defined in terms of level of wealth, the particular good or service brought to market, or position in the complex hierarchy of production. The resulting conceptual (and even practical) conflict is typically resolved by locating the origins of inequality outside social relations proper. For example, the concept of race, which emerged in Europe in the eighteenth century to become a durable peculiarity of modern thought, serves to explain social inferiority as a function of biological difference, as do explanations of social success as due to personal characteristics like 'talent' or 'drive', and of failure as due to the lack of these characteristics or to participation in social group characteristics like 'family dysfunction' and 'the culture of poverty'. Specifically economic inequality is seen as the result of differential access to goods rather than as a product of the functioning of the market-exchange system (thus it can appear as a 'problem' to be solved, by the extension of educational opportunities or other state action),[39] The ability to buy others' labour power appears due to the possession of money, rather than to the existence of a form of society in which social labour is represented by money and in which society is divided into economically-determined classes.

Thus, Marx says in the fragment on classes that closes Volume III of *Capital*, the question 'what makes wage-labourers, capitalists, and landowners the formative elements of the three great classes?' seems 'at first sight' to find an answer – where John Stuart Mill, most famously in the early nineteenth century, found it – in 'the identity of revenues and revenue sources'.[40] The classes are defined by the commodities they own, whose economic utilisation yields

39 A central argument of classical economics was that the operation of 'commercial society' had the effect of redistributing wealth; thus, in his *Theory of Moral Sentiments* (1976b [1759]), Smith asserted that in satisfying their taste for luxury the rich 'are led by an invisible hand to make nearly the same distribution of the necessaries of life, which would have been made, had the earth been divided into equal portions among all its inhabitants ...' (iv, i.10). For a discussion of this theme in classical political economy, sec Winch, *Riches and Poverty. An Intellectual History of Political Economy in Britain, 1750–1834* (1996), Chapter 2 and *passim*. A modern statistically-based version of this idea was advanced with great success by Simon Kuznets ('Economic Growth and Income Inequality' [1955]). Thomas Piketty, who contests this (obviously unrealistic) expectation in his *Capital in the Twenty-First Century* (2014) sees inequality of wealth and income as due not to historically specific features of capitalism but to the eternal nature of human production, which makes '[e]conomic growth ... quite simply incapable of satisfying this democratic and meritocratic hope, which must create specific institutions for the purpose and not rely solely on market forces or technological progress' (p. 89).

40 Marx, *Capital* III, p. 1026.

a particular form of income. The even more 'vulgar' conception of class as income level – probably, in combination with a conception of class as social status, the dominant folk and social-scientific concept of class in the United States at the present time[41] – abstracts from type of resource brought to market to simply compare revenues quantitatively, the differences between which can then be explained as a function of kinds and amounts of property owned.

As this example suggests, while Marx's analysis is primarily focused on the 'classical' and 'vulgar' economics of the nineteenth century, it remains applicable to current conceptions of class. A striking case in point is what is probably the best-known late twentieth-century attempt to produce a marxist theory of class, that of Eric Olin Wright. Highly elaborated in the form of a sociological research programme as well as an abstract economic argument, Wright's position is only a recent example of a longstanding tendency within marxism to distinguish 'class analysis' from 'economic theory'.[42] Wright defines class in terms of exploitation, itself defined following the 'analytic marxist economics' of John Roemer, who abandoned Marxian value theory in favour of a combination of neo-Ricardian economics and game theory.[43] In this analysis, one class

41 This folk concept appears both in the replacement of the concept of 'working class' by that of 'middle class' and in the contrast between the '1%' and the '99%' made prominent by the Occupy movement of 2011 in the US. Adam Theron-Lee Rensch provides an elegant critique: 'To say that class is the difference between income brackets is to again beg the question of how such a difference is possible … The problem is that … an emphasis on the abstract quantity of wealth one might have usually does nothing to criticise the social relations that make such inequality possible in the first place. I may be envious of professors at my university for living more comfortably than I do, but unless they are using their money as capital – which is to say, to produce profit, and not merely to consume – my envy misses the point. I am critiquing privilege, not class, and while these things often go together they should not be conflated' ('What We Talk About When We Talk About Class' [2016]).

42 In the strictly economic literature we may remember, from Chapter 3 above, Joseph Schumpeter's division, in his *History of Economic Analysis* (1954), of 'the pieces' into which Marx's theoretical structure decomposes: 'two groups, one sociological and one economic', with no essential connection between them (p. 389); Schumpeter's pupil Paul Sweezy argued that Marx's value theory, while unnecessary (given the development of neoclassical equilibrium economics) for the derivation of his economic results, is worth saving because in its qualitative dimension it spotlights capitalist class structure (see *Theory of Capitalist Development* [1942], p. 129). Thirty years later, Mario Cogoy, responsible earlier for a devastating critique of Sweezy's work, came to roughly the same conclusions on the similar but then more fashionable grounds of neo-Ricardian theory (see 'Das Dilemma der neoricardianischen Theorie' [1974], pp. 204–63).

43 See Roemer, *A General Theory of Exploitation and Class* (1982).

is said to exploit another when, *ceteris paribus*, consumption would increase and toil decrease for the latter if the former did not exist. That is, class exploitation consists in the taking of the surplus produced by the exploited class. Although this seems close to Marx's analysis, it conceptualises exploitation (in terms curiously reminiscent of the position of J.S. Mill) as the appropriation of a produced surplus through the process of distribution. In Marx's understanding of capitalism, as in reality, the surplus – by definition – belongs to capital as soon as it has been produced; successful capitalist production *is* the production of surplus value. For Wright, in contrast, exploitation is 'market based'.[44]

According to Roemer and Wright, 'there is complete symmetry in the structure of exploitation in a system in which capital hires wage labourers and in a [hypothetical] system in which workers rent capital …' and thereby exploit capital owners.[45] Labour and capital are, that is, here conceived of as two types of 'asset', and classes are defined 'by the productive assets which [they] control'.[46] The kinship of this conception with the vulgar economics Marx criticises in *Capital* is evident in the ahistorical understanding of 'labour' and 'capital' as 'factors of production', common to all social systems. This is why Wright can imagine that feudal exploitation can be analysed in the same theoretical terms as the extraction of surplus value in capitalism, despite the earlier nonexistence of the system of generalised commodity production that alone makes the concepts of value, labour power, surplus value, and capital significant.[47]

As in this case, so generally in bourgeois thought, the reality of class is hidden behind economic categories; or rather, it appears only in the form of economic interest groups, classes of agents defined by their relation to sources (or quantities) of revenue rather than by their relations to each other in the performance of social labour and surplus labour. Seen in this way, as a collection of interest groups (or of income levels), a population can be classified into an indefinite number of classes and subclasses, in a rather arbitrary manner.[48] Asking 'What makes a class?', Marx observes at the very end of Volume III of *Capital* that the

44 Wright, 'A General Framework for the Analysis of Class Structure' (1989), p. 10.

45 Ibid.

46 Wright, *Classes* (1985), p. 73.

47 For a thorough criticism of Wright's argument, see Guglielmo Carchedi, 'Classes and Class Analysis' (1989); for another, showing the drawbacks of Wright's approach from a sociological point of view, see Clarke, *New Times and Old Enemies. Essays on Cultural Studies and America* (1991), pp. 44ff.

48 For an interesting study of the way in which differing conceptions of class structure produce different categories of statistical information in use by social scientists, see Donnelly, 'Statistical Classification and the Salience of Class' (1997).

answer at first sight seems to be the 'identity of revenues and revenue sources'. For these seem indeed to identify the 'three great classes' of Ricardian theory. But 'the same would hold true for the infinite fragmentation of interests and positions into which the division of social labour splits not only workers but also capitalists and landowners – the latter, for instance, into vineyard-owners, field-owners, mine-owners, fishery-owners, etc'.[49]

'At this point the manuscript breaks off', Engels noted. This is because the essential theoretical point had already been made: that class structure, in the sense of interest to Marx, cannot be adequately theorised from the standpoint of political economy – or, more generally, from that of bourgeois ideology, in which economic thinking has such a central place. 'Class' is an unavoidable category in a culture pervaded by the inequality whose systemic centre is the relation between worker and capitalist defined by the extraction of surplus value. But since this relation is represented ideologically by the generalisation of commodity relations, as one of market exchange between legal equals who may possess differing assets, class is (so to speak) dispersed throughout the social system rather than localised at the point of exploitation.

This dispersal of class can be seen in its most sophisticated form in the thinking of Pierre Bourdieu, whose book *Distinction* offers a particularly valuable contemporary analysis of class difference.[50] Bourdieu locates a chief failing of what he calls the marxist theory of class – the dominant political framework among those of his fellow French intellectuals whose tradition was shaped over the past half-century by a range of relationships to the Communist Party – in its inability to explain 'all those oppositions which structure the social field and which are not reducible to the opposition between owners and non-owners of the means of economic production', such as the ambiguous class position of intellectuals and other cultural producers.[51] In contrast to the two-class system imagined by marxists, 'the social space is a multi-dimensional space, an open set of relatively autonomous fields', such as the field of culture, within which we might distinguish the academic field, the artistic field, etc., 'fields which are more or less strongly and directly subordinate, in their functioning and their transformations, to the field of economic production'.[52] Social class position is therefore multidimensional, as individuals occupy locations in more than one such field; in each a person's position can be defined in terms of a relation to a type of social power, which Bourdieu calls a mode of capital on the

49 Marx, *Capital* III, p. 1026.

50 Bourdieu, *Distinction. A Social Critique of the Judgment of Taste* (1984).

51 Bourdieu, 'Social Space and the Genesis of "Classes"' (1991), p. 244.

52 Ibid., p. 245.

model of the dominant form of social power. For instance, university professors possess 'cultural capital', in the form of degrees, institutional connections, mastery of certain jargons, etc., which allow them to dominate others, both in their particular field of action, the university, and outside it, say, as experts on television or advisors to trade unions or governments. Successful exercise of this power yields 'cultural profits' in the form of increased prestige, higher positions, etc.; and cultural capital can be converted into economic capital, yielding above-average salaries and other privileges. This model explains why 'cultural capitalists', who share power and therefore interests with the monied upper class but base their social advantages on a competing social principle, both serve the bourgeoisie in various ways and have traditionally seen themselves as to some degree at odds with it, and even, on occasion, behaved accordingly.

As this example shows, Bourdieu's theory stays within the explanatory logic of modern understandings of social classes as 'sets of agents who occupy similar positions and who, being placed in similar conditions and submitted to similar types of conditioning, have every chance of having similar dispositions and interests, and thus of producing similar practices and adopting similar stances'.[53] Unlike the comparative study of positions and attributes practised by bourgeois class analysis, Marx is interested in examining the positions themselves. Hence 'class' in Marx's use is not analysed with a set of sociological descriptions, but with an idealised model (like his value theory) framed to expose a dynamic structure hidden by the complexity of 'economic' and 'sociological' phenomena. This structure, he believed, emerges to view (like and with the law of value) at moments of extreme social crisis, but is normally obscured by more immediate interests.

Under 'normal' conditions – conditions of relative economic prosperity – the bourgeois discourse of class is the dominant one, because it corresponds to the immediate problems faced by all sectors of society.[54] As Marx and Engels wrote already in *The German Ideology*, 'separate individuals form a class only

53 Ibid., p. 231.

54 As sociologist G. William Domhoff explains, in his excellent study of American class structure, 'The opinions of the majority on a wide range of issues have differed from those of the corporate elite for many generations without major consequences for public policy. To assume that differences in opinion will lead to political activity does not give due consideration to the fact that people's beliefs do not lead them to opposition or disruption if they have stable roles to fulfill in the society. Routine involvement in a daily round of activities, the most important of which are a job and a family, probably is a more important factor in social stability and acquiescence in corporate-supported policies than any attempt to shape public opinion' (*Who Rules America? A View for the '80s* [1983], p. 83).

insofar as they have to carry on a common battle against another class; in other respects they are on hostile terms with each other as competitors'.[55] The fact that intra- and inter-class conflict coexist limits the use of the class concept to focus attention on the relation between capital and wage-labour. Workers organise their mutual competition by means of craft, industry, ethnic, gender, national, and other groupings – as well as on a purely individual basis – groupings that effectively obscure the commonalities in which Marx was interested. Similarly, although the shared class interest of capital is expressed in a general insistence on the basic rightness and even necessity of the existing social order, capitalists compete with each other by all convenient means, forming interest-group coalitions where this is helpful.[56] Inter-class struggle, the mutual competition for the stakes defined by capitalist property relations, seems to be just another form of the generalised struggle between individuals and 'interest groups', and does not in itself call society's conceptions of property into question.[57]

This duality of class awareness and obfuscation can be seen in the way in which the localisation, spatial and social, of class conflict – kept small scale by geography, union jurisdictions, and other factors – cohabits with the systematically maintained unity of the ruling class. The latter is, as Domhoff explains, discussing the American case,

> a business class based in the ownership and control of large corporations … The fact that the upper class is … intertwined with the corporate community adds a second dimension to the nature of its cohesiveness. This cohesion is not only social, based on school and club affiliations [traced in

55 Marx and Engels, *The German Ideology*, in MECW 5, p. 77.

56 Hal Draper identifies this as one of the features of capitalism that produces a tendency towards autonomisation of the state: 'No other ruling class [in history] is so profoundly criss-crossed internally with competing and conflicting interest groups, each at the other's throat – the dog-eat-dog pattern. Competing national groups (countries) are split by regional group interests, different industrial interests, antagonisms within an industry, rivalry between producers of consumers' and producers' goods, light and heavy industry, and so on, aside from religious, political, and other ideological differences. Internally, capitalism is a snake-pit' (*Karl Marx's Theory of Revolution*, Vol. I: *State and Bureaucracy* [1977], p. 323).

57 It may be remembered that by his own account Marx first became aware of the centrality of economic categories to modern politics when, as a journalist in the early 1840s, he covered disputes in the Rhineland over 'thefts of wood and the division of landed property': see Marx, *Contribution* [1859], in MECW 29, p. 262.

> detail in Domhoff's book], but economic, rooted in common stock ownership and most visibly manifested in the complex pattern of interlocking directorships that unites the corporate community and creates a dense and flexible communication network.
>
> [Their economic powers] give them a direct influence over the great majority of Americans, who are dependent upon wages and salaries for their income. They also give the corporate rich indirect influence over elected and appointed officials, for the growth and stability of a city, state, or the country as a whole can be jeopardized by the lack of business confidence in the government.[58]

This is why, as Engels suggested in his editorial note, Marx would have been able to illustrate his conclusion to *Capital*, in which the application of economic categories points to their systematic inadequacy, from reports in any week's newspapers.

The correctness of Marx's understanding of the ideological structure here in play is demonstrated by the history of social politics since his time, in which right and left alike have tended to couch their programmes by reference to a general (classless) social interest and at the same time to conceive of the organisational basis of politics in terms of interest-group formations.[59] The bourgeois discourse of class has thus moved historically between economic apologetics, which discover in the operation of the market the principle of fair rewards for each of the factors of production (and, as in such different frameworks as Smith's political economy and modern general equilibrium economics, the optimisation of social welfare), and left-wing demands for a fairer (re)distribution of social wealth. Revolutionary movements, in contrast, represent not the definition of a new group interest but the calling into question of a form of society. The abolition of capitalism, though certainly in the interest of the working class, would mean not the achievement of specifically working-class

58 Domhoff, *Who Rules America?* (1983), p. 77. The turn of the twenty-first century has brought more directly exercised influence of business over government, by way of the gigantic sums of money transferred in the form of campaign contributions.

59 Cf. Domhoff's view that 'an analysis of Marxist books and articles on the nature of the state demonstrates that the Marxist view does not differ greatly in practice from that of non-Marxist [pluralist] social scientists … For the Marxists, there are two basic 'interest groups' underlying the many interest groups that pluralists emphasize … Marxists, then, start out with definitions that sound very different from those of pluralists, but they end up saying that the state apparatus does what pluralists say it does' (*Who Rules America?* [1983], pp. 213–14).

interests but the abolition of that class itself – the elimination of the institutional separation between the owners of social means of production and those who operate them productively – and with it the disappearance of its socio-historically specific interests.

Moishe Postone has expressed this aspect of Marx's analysis in an agreeably provocative way in the statement that, in that analysis, 'social domination in capitalism does not, on its most fundamental level, consist in the domination of people by other people, but in the domination of people by abstract social structures that people themselves constitute'.[60] As Marx himself puts it, while he does not 'by any means depict the capitalist and the landowner in rosy colors … individuals are dealt with' in his theory 'only in so far as they are the personifications of economic categories …' The employer who responds to a business downturn by laying off workers is caught up in the same abstract mechanism of value-production as the employees he fires. As this example suggests, however, the 'abstract social structure' in question here does involve 'the domination of people by other people', which is why Marx's passage continues by specifying the economic categories in question as structured by 'particular class-relations and interests'.[61] And it is indeed people who constitute (as Postone says) the social structures that dominate them, so that it is only their fetishistic attitude towards their own constructions that maintains that domination.[62]

It is to illuminate not the existence of conflicting social interests, which are indeed legion, but the question of fundamental social transformation that Marx's analysis abstracts from the myriad occupational groupings and income

60 Postone, *Time, Labour, and Social Domination. A Reinterpretation of Marx's Critical Theory* (1993), p. 30.

61 Marx, *Capital* I, p. 92.

62 This fetishisation of the economy is visible in Postone's own account, when he asserts that 'the form of social domination that characterises capitalism is not ultimately a function of private property, of the ownership by the capitalists of the surplus product and the means of production; rather, it is grounded in the value form of wealth itself, a form of social wealth that confronts living labour (the workers) as a structurally alien and dominant power' (ibid.). For Marx, as we have seen, the value form of wealth only came into dominance historically with the expulsion of pre-capitalist producers from the land and the shift in ownership of manufacturing workshops from artisans to capitalist employers. The structural dominance of the value form depends on the maintenance of the social relationship between those who do and those who do not control the means by which social wealth is produced. Postone's fetishism of the value form, consistently, leads him to the conclusion that the working class 'does not embody a possible future society' (p. 357), just as 'overcoming class society is not the abolition of a set of property relations – hence of a class of private expropriators' (p. 366).

levels to focus attention on the distinction between the producers and appropriators of surplus value. With respect to these groups – employees and owners of industrial capital, enterprises producing capitalist commodities – 'the class relation between capitalist and wage-labourer is … already present, already presupposed, the moment the two confront each other' in the employment contract, for 'although in the act [of exchanging money for labour] the possessor of money and the possessor of labour power relate to each other only as buyer and seller … the buyer appears right from the start as the possessor of the means of production which form the objective conditions for the productive expenditure of labour power by its possessor'.[63]

The power of this approach is visible in its ability to assimilate social groupings outside the definitions basic to the theory of surplus value; this is an essential aspect of the concretisation of the idealised model of capitalist society with which Marx begins in *Capital*. Surplus value is appropriated not only by the industrial capitalists in whose enterprises it is produced but also by commercial and financial capitalists, owners of natural resources, and the state. Commerce and money-dealing are, Marx explains, necessary aspects of capitalist activity, involving as it does the sale of commodities and the handling of money; just as 'money capital, commodity capital, and productive capital … do not denote independent varieties of capital' but 'simply particular functional forms of industrial capital, which takes all three forms in turn',[64] the specialisation of these functions in specific enterprises does not create new social classes, but further divisions (in addition to those due to industrial competition) within the class of exploiters. Workers employed by these non-surplus value-producing forms of capital encounter the structure of exploitation, since they are wage earners, participating, along with their employers, in reproducing industrial capital.[65] While they create no surplus value, 'their unpaid labour … does create [their employer's] ability to appropriate surplus value, which, as far as this capital is concerned, gives exactly the same result; i.e. it is its source of profit'.[66]

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63 Marx, *Capital* II, pp. 114–15.

64 Ibid., p. 133.

65 See Marx, *Capital* II, pp. 210–11.

66 Marx, *Capital* III, p. 407. Marx's prescience here is quite striking: 'The commercial worker belongs to the better-paid class of wage-labourer; he is one of those whose labour is skilled labour, above-average labour. His wage, however, has a tendency to fall, as the capitalist mode of production advances, even in relation to average labour, Firstly, because the division of labour within the commercial office means that only a one-sided development of ability need be produced … Secondly, because basic skills, knowledge of commerce and languages, etc., arc reproduced ever more quickly, easily, generally, and cheaply, the more

In other words, Marx's analysis of surplus value production as an operation carried out on the level of society as a whole, rather than firm by firm, appears again in the understanding of class as the social relation of wage-labourers to capitalists. This is clear from the way the concept of 'labour power' is introduced in Volume I of *Capital*, as embodied not in the actual employees of any moment, but in their families, from which both the individual and his or her eventual replacement must come.[67] Necessary labour, the value of labour power, is represented by the money required to buy consumption necessities for the worker's family as a whole (and by extension, even for the currently unemployed, in so far as money is advanced to keep them alive).

Similar considerations apply to the economics of the state, a topic not treated in *Capital* but reserved for the last of Marx's intended six books. It is easy to see how his analysis could be extended, on the one hand, to the members of the capital-owning elite who take on state functions, or who enter the ruling class by way of governmental careers, performing tasks necessary for capital and rewarded with a share of surplus value;[68] and, on the other, to state employees, also paid out of surplus but with wages and working conditions appropriate to those paid for their labour power. The specific character of bureaucratic work, the efficiency of which is not measured by the profitable production of saleable output, suggests an at least partial explanation of the peculiarly ineffective and slow nature of governmental labour.

We can now understand Marx's placement of the critique of class discourse at the end of his treatment of capital, before the projected books on landed

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the capitalist mode of production adapts teaching methods, etc. to practical purposes' (ibid., pp. 414–15).

67 'Hence the sum of means of subsistence necessary for the production of labour power' – whose price determines the price of labour power – 'must include the means necessary for the worker's replacements, i.e. his children, in order that this race of peculiar commodity-owners may perpetuate its presence on the market' (Marx, *Capital* I, p. 275).

68 Similarly, Bourdieu's description of the academic and cultural intelligentsia as 'the dominated fraction of the dominating class' may be justified in Marxian terms by reference to its activity as a sort of class-wide household servitors of the bourgeoisie. The homology between their position and that of bourgeois housewives might be taken to explain their traditional gendering as feminine by comparison to the masculinity of business and financial managers, on the one side, and factory workers, on the other. It also goes far to explain the relation of cultural to economic capital: it is not their incomes, high in relation to those of most wage earners but mostly not based on capital ownership, that set cultural producers in the dominant class; it is their class function that is signalled by the award of relatively high income or, when this is not convenient (as with an increasing majority of academics), of status.

property and wage labour. While from the point of view of 'everyday life' – or its theoretical representative, vulgar economics – three factors, each rewarded by its own form of revenue, cooperate equally in production, according to Marx capital has theoretical, because practical, primacy over landed property and wage labour. Labour power takes the form of a commodity because both the means of labour and the product of past labour confront the worker in the form of capital. And 'the transformation of these conditions of labour into capital also involves the expropriation of the immediate producers from the land, and hence a specific form of landed property'.[69]

This last form is theoretically secondary to capital in that its revenue is a portion of the surplus value extracted from the labour force by the social capital; the burden of Marx's theory of rent is just to demonstrate that this is the reality measured by the appearance of rent as a 'return' to land employed in production. Here the distinction of classes, in part a residue of the central economic importance of land-ownership in pre-capitalist society and in part a mode of inter-capitalist competition, hides the unitary origin of rent and profit (and interest) alike in surplus value.

As this in itself suggests, things are somewhat different with respect to the relation between capital and wage labour. As Marx explains in Chapter 26 of the first volume of *Capital* ('The Secret of Primitive Accumulation'), 'in themselves, money and commodities are no more capital than the means of production and subsistence are. They need to be transformed into capital'. For this to happen, there must be

> the confrontation of … two very different kinds of commodity owners; on the one hand, the owners of money, means of production, means of subsistence, who are eager to valorize the sum of values they have appropriated by buying the labour power of others, and therefore the sellers of labour … [W]ith the polarization of the commodity-market into these two classes, the fundamental conditions of capitalist production are present.

Even though it is one process 'which operates two transformations, whereby the social means of subsistence and production are turned into capital, and the immediate producers arc turned into wage-labourers', Marx specifies the resulting social relation as the 'capital-relation'.[70] Labour is 'the universal condition for the metabolic interaction between people and nature … and it is

69 Marx, *Capital* III, p. 1018.

70 Marx, *Capital* I, p. 874.

therefore … common to all forms of society in which human beings live'. Specifically, 'the general character of the labour process' – the transformation of elements of the environment into forms assimilable by human beings – 'is evidently not changed by the fact that the worker works for the capitalist instead of for himself …'[71] What is changed is that the means of production and subsistence confront the worker as capital, the property of an employer. It is this that forces him or her to become an employee, and the labour performed to become wage labour.

In everyday parlance it is the capitalist who is the producer of a product; from the capitalist point of view, as Marx says, 'the labour process is a process between things the capitalist has purchased, things which belong to him', as therefore the product will also belong to him.[72] *Capital* is a study of the production system as seen from this viewpoint, that of political economy (and economics), because this is the dominant viewpoint in a society in which capital is the dominating social category. Accordingly, the category of class arises at the conclusion of Marx's study – as in historical reality – as an attribute of society dominated by capital, and so as it is conceptualised in everyday life and its social-scientific theorisations, defined by source of revenue. The division of the social product among the three forms of income both reflects and reproduces the distribution of property (and propertylessness) that in reality defines the 'three great classes'. 'The so-called relations of distribution' that Ricardo identified as 'the principle problem in political economy' thus 'correspond to and arise from historically particular and specific forms of the production process'.[73] This is what Marx had substituted for Ricardo's problem: that of the 'conditions of existence' of the modern classes, whose solution is (the analysis of) the capital relation.

Class Struggle and Revolution

A deeper – more abstract – understanding of class than that embodied in the Trinity Formula is required only for theoretical reflection on the possible replacement of capitalism by a form of society not based on the exploitation of one social group by another. According to Marx, it is capitalism itself that generates this possibility, giving the abstraction of class phenomenal reality by

71 Ibid., pp. 290–1; translation amended.

72 Ibid., p. 292.

73 Marx, *Capital* III, p. 1023.

'the concentration of the means of production in a few hands', by 'the organization of labour itself as social labour: through cooperation, division of labour, and the association of labour with natural science', and by the 'establishment of the world market', which by globalising capitalism creates the preconditions for a general transformation of social relations.[74] Under conditions of acute economic crisis, he believed, with the growing inability of commodity exchange to provide for the needs of large numbers of people, the conflict between the two aspects of modern society, as a mode of human reproduction and as a mode of exploitation, would lead to a reconfiguration of the category of class in thought and action.

The phenomenon Marx called fetishism, the identification of relations between human beings with relations between commodities, including the ascription of social powers of production to the capital owned by employers, is a particular and central case of what seems to be a general human tendency to view historically specific institutions as inescapable features of social life. It was Marx's early view that the dynamism of capitalism would be sufficient to overcome this tendency. As a result of the 'constant revolutionizing of production', according to *The Communist Manifesto*, 'man is at last compelled to face with sober senses, his real conditions of life, and his relations with his kind'.[75] Specifically those 'real conditions' would be faced in the form of 'the commercial crises that by their periodical return put on its trial, each time more threateningly, the existence of the entire bourgeois society'.[76]

In the decades between the writing of the *Manifesto* and *Capital* it became clear to Marx that the end of this process would not arrive as rapidly as he had once hoped it would. He also, in the meantime, rethought the nature of crisis. While the *Manifesto* still spoke in classical accents of crises of overproduction, the theory first worked out in the 1850s and spelled out in detail in *Capital* located the origin of recurrent crises in the tendency of the social rate of profit to fall. The latter was explained as an effect of the process of capital accumulation, which by its tendency to increase the productivity of labour decreases the proportion of value-producing labour power within the invested capital against which the rate of profit is measured. Thus accumulation itself generates a process that 'would entail the rapid breakdown of capitalist production,

74 Marx, *Capital* III, p. 375; compare Vol. I, p. 929.

75 Marx and Engels, *The Communist Manifesto* [1848], in MECW 6, p. 487.

76 Ibid., p. 489. These crises are described as outstanding exemplars of 'the revolt of modern productive forces against modern conditions of production, against the property relations that are the conditions for the existence of the bourgeoisie and its rule'.

if counteracting tendencies were not constantly at work …'[77] Given these counteracting tendencies – to be discussed, along with Marx's idea of a tendentially falling profit rate, in the next chapter – the historical phenomenon of crisis must be distinguished from the idea of a self-propelled breakdown of the capitalist system. Yet Marx made crisis the focus of his theory of capitalism because it embodied, he believed, the idea of an internal limit to capitalist development.

This limit would be encountered by the working class, organised by capitalism in workplaces and industries ever more interconnected by the development of the world market and the centralisation of capital, in the course of its efforts to improve its conditions of work and life – the normal class struggle that is an integral part of the workings of the political economy. The built-in limitation of profit-extraction, leading to recurrent depressions, mass unemployment, and the degradation of working and living conditions, means that the growth of capitalism inevitably spells the growth of 'misery, oppression, slavery, degradation and exploitation …' But 'with this there also grows the revolt of the working class, a class constantly increasing in numbers and trained, united and organized by the very mechanism of the capitalist process of production' until 'the monopoly of capital becomes a fetter upon the mode of production that has flourished alongside and under it'. With these words – nearly the last of *Capital* that Marx prepared for publication[78] – Marx returned to the formulation of the 'guiding thread' enunciated in the introduction to the *Contribution*, stating his subject as the theoretical analysis of the conditions of class struggle.

A revolutionary abolition of capitalism, as the abolition of the 'capital relation', would mean the radical transformation of both poles of that relation. Means of production, products of past labour, would remain, though they would no longer be the property of a distinct class of owners; they would pass, that is, into the possession of their creators and users. These would for that very reason no longer represent 'labour' as a social category. Just as 'labour' appeared historically as a concept for understanding social reality only when the advent

77 Marx, *Capital* III, p. 357.

78 Marx, *Capital* I, p. 929. This passage comes near the end of Chapter 32, 'The Historical Tendency of Capitalist Accumulation', which is clearly the conclusion of Marx's text; Chapter 33, 'The Modern Theory of Colonization', was most likely placed at the end of the volume in order to lull the German and Russian censors, who notoriously read only the first and last chapters of books (see Marx, *Oeuvres*, Vol. 1, edited by M. Rubel [1963], p. 1224, n. 2).

of capitalism produced labour power as a 'factor of production' bought and consumed by capital, this concept would require radical reconfiguring in a society in which the totality of individuals would be free to arrange their collective and private activities as they wished.

While such radical transformations lie in the future, the contemporary development of capitalism itself has undermined the earlier structure of class positions. The continuing mechanisation of productive activity, as Marx predicted, has produced a smaller value-producing working class, relative to the total capital, now a global matter. Increasing portions of the labouring class are occupied not with producing value but with moving it around (in commerce or 'financial services' or in employment by the state) or guarding it, or simply with serving its possessors.[79] Finally, the greater integration of women into the global working class, along with the casualisation of an increasing percentage of the global workforce, has undermined the conception of 'workers' as a distinct body of individuals (traditionally male, with a long-term involvement in particular production processes) within the Marxian working class as a whole. The self-description of the contemporary proletariat achieved by the American Occupy movement, as the '99%' of the population at war with the ruling '1%', despite its formulation on the basis of income and wealth distribution, rather than class position, represents a profound understanding of this new reality, which interestingly transcends classical notions of class as a congeries of interest groups.

To comprehend both the status quo and its possible revolutionary transformation does not require a distinct theory of class. This is a consequence of the fact that the exploitation relation exists in the historically specific form of the capital-wage labour relation; an understanding of its *modus operandi* is given by the system of economic categories and its critical analysis. In Mauke's words, 'Marx's social theory, the critique of political economy, as such already contains a general theory of class in capitalism'.[80] 'Class' is the name under which the social forces that brought capitalism into being conceptualised, in however confused a way, their mutual relations and their relations to other

79 With the accumulation of capital, '[t]hose classes and sub-classes who do not live directly from their labour become more numerous and live better than before, and the number of unproductive workers increases as well'. While the bourgeois earlier 'had to lay out more of his product in productive labour', with the development of mechanization 'he can now lay out more in unproductive labour, [so that] servants and other workers living on the unproductive class increase in number' (Marx, 'Economic Manuscript', in MECW 32, pp. 188, 196).

80 Mauke, *Die Klassentheorie* (1970), p. 8.

social systems. 'Class' therefore naturally constitutes a conceptual pole around which the exploited organise opposition to their domination by capital. But any revolutionary implications of such conceptualisations will be grasped not by (let us say, sociological) theorising about classes but by the critical examination of 'the system of bourgeois economy' commenced by Marx in *Capital*.

CHAPTER 10

Trend and Cycle

Marx's theory of capitalist accumulation, as Henryk Grossmann was the first twentieth-century writer to point out, both proposes an explanation of the business cycle as a normal feature of capitalism and predicts an inherent limit to this social system's development – a 'breakdown (*Zusammenbruch*)', in Grossmann's vocabulary. On the one hand, thanks to factors counteracting the tendency of the rate of profit to fall that Marx put at the centre of his theory of capitalist dynamics, every crisis is a means to producing a new prosperity. On the other, Marx clearly suggests that the 'historical tendency of capitalist production' points to an end of the system and its replacement by a new form of society. While stressing that the abolition of capitalism would have to be the conscious act of a revolutionary working class, Grossmann was maintaining an essential element of Marxian theory when he insisted that the work of revolution cannot be expected from a rejection of capitalism on ethical or rational grounds, but is comprehensible only as a response to the actual difficulty of capitalism's self-reproduction – its breakdown. But how can this idea coexist, within one consistent theory, with that of a regular alternation of prosperity and depression?

During the long period since the Second World War, both these elements of Marx's outlook largely disappeared from the centre of attention within marxist theorising.[1] With the decline of the Socialist and Communist left, the issue of capitalism's end receded from political discussion. Above all, the economic Golden Age that followed the war, and the apparent taming of the business cycle by Keynesian manipulations, resulted in a loss of interest in Marx's focus on breakdown and crisis, as well as in earlier bourgeois cycle theory. The dramatic financial collapse of 2008 and the continuing global stagnation, however, have provoked a revival of attention to such issues. The course of economic affairs seems likely to continue stimulating such attention, as well as to provide tests of various ways of understanding that course.

The idea of a breakdown of the economic system is fundamental because, as Grossmann explained in the article on Marxism that he wrote for the *Wörter-*

1 There have been a number of exceptions to this rule, such as the German 'Krisis' and 'Wertkritik' grouplets, and the occasional writer in English (David Yaffe, Fred Moseley) and German (Tilla Siegel, Mario Cogoy, and others) inspired by Paul Mattick, who himself was an exception that proved the rule, being a survivor from prewar marxism.

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buch der Volkswirtschaft in the early 1930s, Marx's theory of capitalism 'starts from the view that human history exists in incessant and always renewed change', so that capitalism, which came into existence through the transformation of an earlier, quite different, form of society, would in turn lead to the creation of a new form of social life. 'This progressive process of transformation is however a matter not of chance, but of specific laws'; accordingly, the end of capitalism 'can only arise out of the development [of that system] itself'.[2]

According to Marx, capital accumulation, once set in motion on a large scale, leads both to the global extension of modern socialised production and distribution and, over time, to 'a constant decrease in the number of capitalist magnates, who usurp and monopolize all the advantages of this' system of production, so that 'the mass of misery, oppression, slavery, degradation, and exploitation grows ...'[3] This is what he called the 'historical tendency' of capitalist development. Marx's expectation, or at least hope, was that the negative aspect of this tendency would produce a growing revolt of the working class, which would finally put an end to its sufferings by 'expropriating the expropriators' and creating a new social system based on conscious social cooperation.

The chief force driving this process, in Marx's view, was what he called 'the most important law of modern political economy', the law of the tendency of the rate of profit to fall.[4] This law is a consequence of the requirement to expand imposed upon every capital entity by the need competitively to appropriate as much as possible of the surplus value produced by the system as a whole. Expansion – capital accumulation – would involve, Marx predicted, a tendential increase of capital invested in means of production relative to that invested in labour power. From the point of view of the individual firm, this is a means to lower costs; with regard to the system as a whole, it (directly or indirectly) decreases the value of labour power and so raises the rate of exploitation, increasing the quantity of value appropriable by capital entities as profit. The long-term effect must, however, Marx argued, be a decline in the surplus value produced per unit of capital invested, since value is produced only by labour and 'the compensation for the reduced number of workers provided by a rise in the level of exploitation of labour has certain limits that cannot be overstepped ...'[5] Thus 'the rise in the rate of surplus value and the fall in the rate of profit are

2 Grossmann, 'Die Fortentwicklung des Marxismus bis zur Gegenwart' (1971 [1931–1933]), pp. 274, 279.

3 Marx, *Capital* I, p. 929.

4 Marx, 'Economic Manuscript of 1861–63', in MECW 33, p. 104.

5 Marx, *Capital* III, p. 356.

simply particular forms that express the growing productivity of labour in capitalist terms'.[6] In Marx's view, this process is self-reinforcing: even apart from the competitiveness inherent in a system of independent firms each of which is striving to maximise profitability, the tendential decline, relative to total capital investment, of the total surplus value available for division between those firms exerts pressure on each of them to increase profitability by cost-cutting.

Marx's law follows from assumptions basic to the highly idealised theory of capitalism that I have called Model I (and maintained in Model II), the terms of which are not derived from empirical data, such as historical price series, but are theoretically-defined abstract labour-time values. Of course, Marx intended his assumptions to correspond to experienced features of capitalist society and its development. But the model of the capitalist system formulated in these terms – as, again, Grossmann was the first theorist (after Marx himself, of course) to point out – is intended not as a depiction of the actual historical process of economic development but as a simplified representation of forces operating throughout that process, the 'law of motion' governing capitalism. This is not just because of the enormous complexity of the economic system, which in itself calls for simplifying assumptions in any attempt to represent it, but specifically because commodity exchange is the cell-form of capitalist society. Since social relations are represented by the value relations between commodities – so that the primary elements of social reproduction, the labour and the worked-up natural resources utilised to produce the use values required to maintain human life – have the form of commodities, the regularities governing the history of this society must be stated as relations between values, labour-time represented as quantities of money. And, even if we assume commodity money, as Marx does (in conscious contradistinction to reality), 'there are', as Grossmann insisted, 'no … constant reference points for gold as the measure of value', so that 'there is no exact measure possible of the value fluctuations of commodities'.[7] Thus in order, for example, to be able to determine the influence of alterations in the productivity of labour on the formation of value and surplus value, Marx was forced to carry out his investigation under the idealising presupposition of a 'constant value of money'.[8]

6 Ibid., p. 347.

7 Grossmann, *Das Akkumulations- und Zusammenbruchsgesetz des kapitalistischen Systems* (1929), p. 88, In reality, of course, especially since the official end of the gold standard in 1970, but *de facto* even before that date, the interconvertibility of national currencies was regulated by no principle more scientific than exchange-market conditions modified by government manipulations.

8 Ibid., p. 89.

Grossmann described Marx's procedure as one of 'approximation': first, 'applying numerous simplifying assumptions' to create an abstract representation that is then made more phenomenally descriptive by the addition of more specific features, such as the difference between mercantile and industrial capital.[9] The theory of the tendency of the profit rate to fall also needs to be concretised, to give it purchase on the unfolding history of the social system. In particular, as we will see, this was accomplished by its transformation into a theory of the crisis cycle. The full statement of a theory of crisis Marx reserved for his planned but unwritten sixth book of the critique of economics, but elements of the argument are to be found in the manuscripts Engels edited into Volume III of *Capital* and in the 1861–3 'Economic Manuscript', and it was these that Grossmann used as the basis of a Marxian crisis theory.

Concretisation requires the introduction into the theoretical description of elements of the system theorised from which abstraction was originally made. For example, to recall an example discussed in Chapter 2 of this work, the two-body model of a Newtonian system can be made more concrete – and more accurate as a predictor – by incorporating the gravitational effects of other bodies, or by replacing the assumption of point masses by more realistic descrip-

9 Grossmann, 'The Value-Price Transformation in Marx and the Problem of Crisis' (2016 [1932]), p. 107. It would probably be better to translate Grossmann's '*Annäherung*' as 'approach' rather than 'approximation', because the latter word, without a clear definition in this context, misleadingly suggests that for Marx the value calculations employed in *Capital* are numerical approximations of the price calculations that structure real-life economic affairs. This problem arises particularly for Leszek Nowak, just because he attempts, in *The Structure of Idealization* (1980), in particular in Chapter 10, an exact definition of approximation relevant to Marxian theory, in order to argue that values approximate prices. But, apart from the unknowability of values, values cannot be approximations of prices, because the 'transformation' relating the two, as we saw in Chapter 6, is not a direct relation between individual values and prices. Nowak may have believed that value theory would have to be understood in terms of approximation to guarantee its significance for the description of economic reality. But the inapplicability of these terms is far from peculiar to Marxian theory. In physics as well 'many idealizing assumptions are made with no independent standard of comparison between the model and the physical system. For instance, current physics has verified that the weak and electromagnetic forces converge at high energies, but the theory only works if one introduces a highly idealized assumption about the nature of the vacuum … The idealizing assumptions about the vacuum and broken symmetries cannot be properly judged as approximations since … we have no way of knowing the degree to which the properties attributed to the vacuum by the Higgs mechanism approximate its actual structure, yet the electroweak theory is considered highly confirmed' (Margaret Morrison, 'Approximating the Real: The Role of Idealizations in Physical Theory' [2005], p. 151).

tions of the shapes of the bodies involved. Similarly, in his discussion of declining profitability in *Capital*, Marx mentions, without much elaboration, a list of factors counteracting his law: the temporary effects of productivity increases, the reduction of the value of labour power, the cheapening of constant capital, foreign trade, and even the unproductive use of capital in speculation. Marx's treatment of the 'counteracting factors' shows little sign of careful reworking; indeed it seems to have been largely taken over from J.S. Mill's discussion of bars to declining profitability.[10] Thus under the heading of 'foreign trade', we find both the cheapening of constant capital and an increase in the rate of surplus value, already discussed under those headings. On the other hand, the discussion here clarifies the concretisation of the idealised model required to bring its representation of social development closer to historical actuality. Thus, to the idealised unitary capitalism that generates the law of declining profitability corresponds in reality a world economy in the form of diverse nations, at different levels of capitalist development. The pressure on profitability operating in a relatively developed area may be eased by sales to and purchases from relatively undeveloped areas, in which 'the labour of the more advanced country is valorized … as labour of a higher specific weight' – that is, 'labour that

10 To my knowledge, Grossmann was the first to identify Mill as the (unacknowledged) source of the list of counteracting factors in Volume III of *Capital*. See J.S. Mill, *Principles of Political Economy* (1994 [1848]), Book IV, Part IV, secs. 5–8, pp. 110–16.

In this connection it is of interest that Mill argued, in a discussion of the method of political economy, that what 'is true in the abstract, is always true in the concrete, with proper *allowances*. When a certain cause really exists, and if left to itself would infallibly produce a certain effect, that same effect, *modified* by all the concurrent causes, will correctly correspond to the result really produced' (J.S. Mill, 'On the Definition of Political Economy and on the Method of Investigation Proper to It' [1967 (1836)], pp. 326–7). Mill did not think that the social sciences differed from the natural sciences in this regard, though he argued that, given the impossibility of experimentation, the social sciences have 'no other method than the *a priori* one, or that of "abstract speculation"' (p. 327). In his *Logic* he argued that *all* 'laws of causation are liable to be … counteracted, and seemingly frustrated, by coming into conflict with other laws …' (1975 [1843], p. 443). For this reason he held that causal laws 'require to be stated in words affirmative of tendencies only, and not of actual results' (p. 445). In political economy, too, Mill held, a theorist will err in predicating 'an actual result, when he should only have predicated a *tendency* to that result – a power acting with a certain intensity in that direction' ('On the Definition' [1967 (1836)], p. 337). That Marx had, for good reasons, a low opinion of Mill's work in political economy makes the shared elements in their methodological pronouncements all the more striking. I owe this reference to Nancy Cartwright, *Nature's Capacities and Their Measurement* (1989).

is not paid as qualitatively higher is nevertheless sold as such'.[11] This increases the average profitability (while concentrating the higher profits in the more developed area). To take another example, Marx notes that paying wages below the value of labour power, which 'has nothing to do with the general analysis of capital, but has its place in an analysis of competition', is 'one of the most important factors in stemming the tendency for the rate of profit to fall'.[12] When we add such factors to 'the general analysis of capital', we see why the 'law of motion' that Marx thought explained the experienced pattern of capitalist development 'operates … as a tendency, whose effect is decisive only under certain circumstances and over long periods'.[13]

In speaking of 'long periods' Marx meant that the counteracting factors cause the developmental path of capitalism to fluctuate around the trend defined by the tendential fall of the profit rate. That trend should still lead, therefore, to what Marx called 'an absolute overproduction of capital', which would be reached at the moment when the mass of surplus value produced at the new low rate of profit would be insufficient for further accumulation given the existing scale of investment. At this point, therefore, 'no further capital could be employed for the purposes of capitalist production', i.e., of producing accumulable surplus value. This moment would mark the end of capitalism as a social system governed by the drive to accumulate.

But this picture of the future of capitalism still involves a high degree of idealisation. Marx de-idealises further by depicting this trend as inflected not only by Mill's counteracting factors but by systemic crises. Mill too, despite his Ricardianism, saw recurrent crisis as a feature of the capitalist economy. For him also, 'the waste of capital in periods of over-trading and rash speculation, and in the commercial revulsions by which such times are always followed', is both 'a consequence of the … tendency of profits' to fall and chief among the circumstances counteracting that tendency.[14] Mill derives the fatal tendency from a Ricardian argument that the growth of capital leads inevitably to an increase in wages, which, by the supposed laws of distribution, drives down profits.[15] Accordingly, he explains the return of prosperity as aided by speculat-

11 Marx, *Capital* III, p. 345.
12 Ibid., p. 342.
13 Ibid., p. 346.
14 Mill, *Principles* (1994 [1848]), pp. 110–11.
15 Ibid., pp. 108–9. Hence for Mill all the counteracting factors are economic phenomena offsetting a process which is based on extra-economic facts, in particular the fertility of the soil and population growth, just as he derives the inducements to save and invest, Keynes-style, from human psychology.

ive losses or foreign investment 'sweeping away from time to time a part of the accumulated mass by which they are forced down'.[16] These factors, however, would be insufficient to restore adequate profitability without increasing productivity, which will bring higher profits so long as it does not 'raise, to a proportionate extent, the habits and requirements of the labourer'.[17]

For Marx, in contrast, there is no inherent conflict between profitability and stable or even increasing real wages. This, in fact, is why he presented his law on the counterfactual assumption of a constant rate of surplus value, so as to derive the decrease in profitability endogenously from the process of accumulation itself. The rate of profit falls because the portion of social capital invested in labour power falls relative to total capital. It requires the restructuring of this relationship in order for accumulation to proceed. Looked at in abstraction from the complexity of the economic system, this process leads to the long-term 'historical tendency' discussed above. Within this long term, 'certain circumstances' under which the process takes place produce near-term manifestations of the tendency.

These 'circumstances', which will be different at different historical moments, have in common, in Marx's analysis, that they are manifestations of a conflict between the development of labour productivity, to which capital is driven in the struggle for surplus value, and the need to maintain the capital value already invested, even while it is being devalued as a result of the continuing progress of productivity. The ongoing devaluation of capital 'disturbs the given conditions in which the circulation and reproduction process of capital takes place, and is therefore accompanied by sudden stoppages and crises in the production process'.[18] Some firms continue to make sufficient profits under these circumstances, while others, unable to meet demands from creditors or to sell produced goods at sufficiently high prices to continue operations, go under. 'The portion of capital that exists simply in the form of future claims on surplus value and profit … is devalued simultaneously with the fall in revenues on which it is reckoned'. Money 'lies idle and does not function as capital'. The sale of commodities at prices below their original sales prices likewise represents a destruction of the capital value that produced them, since it cannot be reconstituted. And in the same way 'the elements of fixed capital are devalued'.[19] All this, by lowering the composition of capitals, makes possible an increase

16 Ibid., p. 111.

17 Ibid., p. 112.

18 Marx, *Capital* III, p. 358.

19 Ibid., pp. 362–3.

of profitability and a resumption of capitalist growth. (At the same time, typically, rising unemployment leads to a fall in the value of labour power and so to a rise in the rate of exploitation, which also increases profitability.) A crisis, although experienced by capitalists and workers alike as a calamity, is thus a solution (however temporary) to the underlying problem of insufficient profitability, at least for those firms that survive.

The latter point is particularly significant, as can be seen if we consider the same subject in terms of the concept of 'organic composition' of capital. Marx defines the 'technical composition' as the relation between quantities of use values – specific types of means of production, on the one hand, and particular types of labour, on the other – involved in the production process, and the 'value composition' as the relation between the value of production goods and that of labour power. To capture the close historical relationship between the two, he calls 'the value-composition of capital, in so far as it is determined by its technical composition and mirrors the changes in the latter, the organic composition of capital'.[20] To the extent that a period of depression, through such phenomena as bankruptcy sales, lowers the cost of means of production (along with that of produced goods) it decreases the value composition of capital independently from the technical composition. This can occur because value is a socially constructed, not a natural, property of commodities: the labour expended in producing them *as represented by the price system*. Just as commodities for which there is no effective demand have zero value – contain no socially necessary labour time – even in good times, so commodities for which the advent of bad times has brought decreased demand lose value, so that, *ceteris paribus*, their prices decrease.

This, so to speak, resets the value relations of capital, so that the tendential increase in the organic composition (which continues to occur in depression periods, normally characterised by technologically induced – and fear-induced – increases in the productivity of labour) starts again from a lower level. In this way, as Grossmann puts it, 'the breakdown as the natural "basic tendency" of the capitalist system decomposes into a series of cycles apparently independent of each other, in which the breakdown tendency sets in anew only *periodically*, like the natural growth process of wool, which is broken by every shearing only to begin again'.[21]

Grossmann's metaphor is not in accord with the diagram of the crisis cycle included in his book, in which the starting-point of each upturn from a level

20 Marx, *Capital* I, p. 763.

21 Grossmann, *Das Akkumulations- und Zusammenbruchsgesetz* (1929), p. 140.

of capital investment lowered by crisis-induced devaluation is nevertheless higher than the one before. This is a question of importance, for the diagram, unlike the metaphor, suggests a trend working its way through a cyclical process. But must things be in accord with the diagram? A negative answer to this question is proposed, for example, by Andrew Kliman:

> The destruction of capital value through crises is a recurrent phenomenon. The restoration of profitability that this destruction brings about is therefore a recurrent phenomenon as well. Because of this, the rate of profit does not have a determinate secular trend throughout the entire history of capitalism, and efforts to deduce or predict such a trend are futile.

Specifically, if 'capital value has been destroyed on a massive scale, the peak rate of profit in the boom that follows is likely to be *higher* than the previous peak'.[22] From this point of view, the cyclical process can disrupt – and Kliman believes, has disrupted – the supposed secular trend.

Since Kliman offers no evidence to support his opinion, it seems to be pure speculation on his part. One might just as well guess that the continual rise in the technical composition of capital since the inception of the industrial revolution has been so gigantic, in all major industries, that periodic devaluations, even on the large scale of recent depressions, could hardly return the total capital investment, against which the rate of profit must be measured, to the levels holding at the start of the previous upswing. Kliman suggests that 'if major slumps become increasingly frequent, the tendency for the rate of profit to fall between slumps has less and less time in which to operate, so it is as likely that trough rates of profit rise over time'.[23] But, apart from the fact that no argument is offered here relating depth of devaluation to length of slump, an increasing frequency of slumps may also suggest an insufficiency of slump-induced devaluation – in fact, I believe something like this is likely to have been true in the years since the mid-1970s – and so a failure of the profit rate to recover significantly.

The growth of the composition of capital over the first three-quarters of the nineteenth century seemed to Marx so obvious that, as he put it, what had to be explained is not a fall in the profit rate but 'why this fall is not greater or faster'.[24] Grossmann also noted, in an unpublished manuscript, that 'the experience of

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22 Kliman, *The Failure of Capitalist Production* (2012), p. 25.

23 Ibid.

24 Marx, *Capital* III, p. 339. As Marx expressed this conviction in the 1861–3 manuscript, 'It

more than one hundred years … teaches that the *value* of constant capital … in relation to variable capital grows *more quickly* than variable …'[25] It is perhaps more significant that the numerous non-marxist researchers who have attempted to trace changes in what economists call the capital/labour ratio, despite the inherent limitations of economic statistics and the particular problem of defining a standard of price measurement holding over long periods and across different national currencies, have come to analogous conclusions, in terms of prices rather than values. One authoritative example can be seen in Table 2.2., 'Stock of Machinery and Equipment and Non-Residential Structures per Person Employed, Six Countries, 1820–1992', in Angus Maddison's *Monitoring the World Economy, 1820–1992*. Maddison concludes from his data that there 'seems no doubt that high rates of capital accumulation, and high and increasing levels of capital per worker, were a necessary condition for the productivity increases achieved in the capitalist epoch'.[26] The empirical data, such as they are, are clearly at least compatible with Marx's prediction of a tendential increase in the value composition of capital.

Of course, if capitalism's history had not taken the course prescribed for it by Marx's 'law of motion' – if the increasing productivity of labour due to mechanisation had not been accompanied by crisis phenomena, the concentration and centralisation of capital, and the generation of a reserve army of labour – we would have had good reason to believe that the available data for the capital/labour ratio did not echo, at whatever distance, the changes Marx expected in the organic composition of capital. But so far, at least, history seems in accord with Marx.

Theoretical Issues

Nevertheless, Marx's theoretical explanation of the tendentially falling profit rate as a result of a rising composition of capital has long been criticised on

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is an incontrovertible fact that, as capitalist production develops, the portion of capital invested in machinery and raw materials grows, and the portion laid out in wages declines … For us … the main thing is: does this fact explain the decline in the rate of profit? (A decline, incidentally, which is far smaller than it is said to be.)' (in MECW 33, p. 288).

25 Grossmann ms. starting 'Die Entwertung sollen die Zusammenbruchstendenz aufheben …', cit. Kuhn, *Henryk Grossman and the Recovery of Marxism* (2007), p. 141; Grossmann had earlier presented statistics bearing on this question in *Das Akkumulations- und Zusammenbruchsgesetz*.

26 Maddison, *Monitoring the World Economy* (1995), p. 36.

logico-mathematical grounds. The commonest objection is what seems the common-sense observation that if the rate of surplus value is the ratio of surplus value to the value of labour power $\frac{s}{v}$, and the rate of profit is the ratio of surplus value to total capitalist investment $\frac{s}{c+v}$ then the downward pressure on profitability caused by an increase in the organic composition of capital, $\frac{c}{v}$, can be effectively counteracted by an increase in $\frac{s}{v}$, despite Marx's description of these changes as facets of the same process.[27] (This is obvious once we rewrite $\frac{s}{c+v}$ as $\frac{\frac{s}{v}}{\frac{c}{v}+1}$.)

The distinguished line of objectors in this vein includes Joan Robinson and Paul Sweezy;[28] a recent reviver of this critique is Michael Heinrich, who follows his illustrious forebears in insisting that it is impossible to prove that the rate of profit must fall, because 'there exists no general relationship between a determinate increase in productivity and the magnitude of the increase in the value composition necessary to accomplish it'.[29] As he makes the same point elsewhere:

> In order to prove that the rate of profit necessarily falls, it is not sufficient to prove that $\frac{c}{v}$ increases. One must also show that $\frac{c}{v}$ increases *by a certain degree*; namely so strongly, that the condition [that the value composition increases faster than the rate of surplus value] is fulfilled. And here lies the fundamental difficulty for every proof of the 'law of the tendency of the rate of profit to fall': A general statement about the *degree of increase* for $\frac{c}{v}$ is not possible.[30]

Mario Cogoy has given a particularly clear explanation of the error involved in this argument. As he pointed out in an article first published in 1974, in the pas-

27 I ignore criticisms based on the Okishio Theorem, which some have taken to prove the impossibility of an increase in investment leading to a decrease in profitability, because it is based on a neo-Ricardian variant of equilibrium price theory in direct conflict with Marx's theory of value and price. As Michael Heinrich has observed, it is 'highly controversial' whether the model on which Okishio's argument is based 'can be accepted as a corrected version of Marx's production price theory' ('Begrundungsprobleme. Zur Debatte über das Marxsche "Gesetz vom tendenziellen Fall der Profitrate"', [2008], p. 75). Nobuo Okishio himself, while finding his theorem valid given his assumptions, ultimately decided that those 'assumptions were inappropriate' (Okishio, 'Competition and production prices', *Cambridge Journal of Economics* 25 [2000], p. 493).

28 See Robinson, *An Essay on Marxian Economics* (1966), Ch. 5; Sweezy, *The Theory of Capitalist Development* (1946), Ch. 6.

29 Heinrich, 'Begrundungsprobleme' (2008), p. 70.

30 Heinrich, *An Introduction to the Three Volumes of Marx's* Capital (2012), pp. 151–2.

sages that are the basis for everyone's discussion of this question Marx uses $\frac{c}{v}$ to symbolise the organic composition of capital because he is assuming a constant rate of surplus value; under this assumption, because v represents a given number of workers, an increase in $\frac{c}{v}$ will always mirror a change in the technical composition of capital, which is how Marx defines the 'organic' composition (to distinguish such changes, representing a long-term trend, from the effect on the value composition of momentary increases or decreases of raw materials costs). 'If, on the other hand, one begins with a rising rate of surplus value', as Marx believes typifies the capitalist long term,

> *one can no longer express the organic composition by* $\frac{c}{v}$. This is because an increase in this ratio can express not only an increase of constant capital relative to the quantity of labour, but also a simple reduction in the value of labour power, or both at the same time. If we assume a rising rate of surplus value then only the ratio $\frac{c}{v+s}$ is of significance for the organic composition … because an increase of this ratio *is not affected by a decrease in the value of labour power but only by an increase of constant capital relative to the quantity of labour* … All the contradictions that Sweezy and Robinson have found in Marx's treatment of the law of the tendency of the rate of profit to fall are thus easily resolved and attributable to these authors' incomprehension of Marx's method.[31]

And on the basis of this representation of the organic composition, in fact, Cogoy demonstrates mathematically that 'the increase in the rate of surplus value cannot ultimately compensate for the rise in the organic composition'.[32]

As has been pointed out by various authors,[33] Marx anticipated the Robinson-Sweezy objection, especially because he held that the nature of capital accumulation compels continual efforts to raise the rate of surplus value. In Volume I of *Capital* he stresses that '[t]he absolute limit of the average working day – this being by nature always less than 24 hours – sets an absolute limit to the compensation for a reduction of variable capital by a higher rate of surplus value, or for the decrease of the number of workers exploited by a higher degree of exploitation of labour power'.[34] Further, within the absolute limit set by the working day, the advance of labour productivity makes it increasingly

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31 Cogoy, 'The Falling Rate of Profit and the Theory of Accumulation. A Reply to Paul Sweezy' (1987 [1974]), p. 61 (footnote omitted).

32 Ibid., p. 64.

33 See, notably, Rosdolsky, *The Making of Marx's 'Capital'* (1977 [1968]), pp. 398–411.

34 Marx, *Capital* I, pp. 419–20.

difficult to increase the rate of surplus value by decreasing the part of the day in which the labourers work for themselves. As Marx expanded on this idea in the *Grundrisse*,

> The greater the surplus value of capital *before the increase in productivity*, i.e. the greater the quantum of surplus labour or surplus value of capital presupposed, or the smaller the fraction of the working day which constitutes the equivalent of the worker and expresses necessary labour, the smaller is the growth of surplus value accruing to capital from increased productivity … The self-valorization of capital becomes more difficult to the extent to which it is already valorized.[35]

Thus 'the compensation for the reduced number of workers provided by a rise in the level of the exploitation of labour has certain limits that cannot be overstepped; this can certainly check the fall in the profit rate, but it cannot cancel it out'.[36]

Heinrich believes he has located a fatal flaw in Marx's reasoning: 'A declining mass of surplus value s only indicates a fall in the rate of profit with certainty when the total capital $c + v$ required for the production of this surplus value has not also fallen, but has at least remained constant'. And this, given the decline in v, implies that 'it is not sufficient for the constant capital c to increase, rather, it must increase by a certain amount; namely, it must increase by the same amount that the variable capital has been reduced'. But 'we don't know whether the productivity increase has been implemented with a lot or a little additional constant capital'.[37]

35 K. Marx, 'Economic Manuscripts of 1857–58', in MECW 28, pp. 265–6. This argument is restated at length in the 'Economic Manuscript of 1862–63'; see MECW 33, pp. 110 ff.

36 Marx, *Capital*, III, p. 356. Tilla Siegel has provided a useful mathematical formulation of this argument, demonstrating that capital 'in its constant drive for higher productivity and accumulation creates its own limits. Productivity does increase the rate of surplus value, if wages fall accordingly. But when productivity reaches a level where the mass of surplus value approaches its limit in the value product of the whole working period, the rate of profit depends on how much constant capital is advanced per worker. Then the profit rate can only be increased if the amount of constant capital per worker is decreased. As increases in productivity and accumulation go hand in hand, the latter would then reach its limit in the size of the working population available as "free" labour. At this point capital can only continue to accumulate when more capital per worker is advanced, which in turn must … lead to a fall in the rate of profit' ('Politics and Economics in the World Market: Methodological Problems of Marxist Analysis' [1984], p. 89).

37 Heinrich, *An Introduction to the Three Volumes of Marx's* Capital (2012), p. 153. Fred Mose-

This is an interesting argument, because the situation it evokes is precisely that typical of crisis situations in Marx's conception: a decline in variable capital accompanied by an increase of constant capital by a smaller amount than that decline. (It is conceivable in this situation for both *c* and *v* to decline.) Heinrich has, in fact, identified a case central to Marx's account of capitalist dynamics, the temporary countering of the tendency of the composition of capital to rise which makes possible a revival of profitability. The continuation of this state of affairs, with declining (or, for that matter, constant) capital investment, would mean a stagnating economy, marked by a failure of capital to accumulate. As Marx emphasized,

> The capitalist production process is essentially, and at the same time, a process of accumulation … [W]ith the progress of capitalist production, the mass of value that must simply be reproduced and maintained rises and grows with the rising productivity of labour, even if the labour-power applied remains constant. But as the social productivity of labour develops, so the mass of use-values produced grows still more, and the means of production form a portion of these.[38]

This is reasonable to expect both because increased productivity of labour involves increases in the quantity of raw materials utilised, as well as in the size of fixed capital, and because a given level of capital investment requires expansion not at any rate, but at a technically determined one (one cannot simply add one welding station to a car factory).

Breakdown

While declining profits, market gluts, and bankruptcies are the real-life forms in which capitalists experience Marx's value-theoretic breakdown tendency most sharply, that tendency affects the working class directly in the form of what Marx calls 'the progressive production of a relative surplus population'. Both sets of effects are aspects of the continuing accumulation of capital, which involves 'a progressive qualitative change in composition, i.e. … a continuing increase of its constant component at the expense of its variable component'.[39]

ley earlier provided a detailed mathematical version of this argument in *The Falling Rate of Profit in the United States Economy* (1991), pp. 11–20.

38 Marx, *Capital* III, p. 324.

39 Marx, *Capital* I, p. 781.

Despite the continuous increase of the employed population, its numbers fall relative to total capital investment. This process is most visible at moments of crisis, as 'the path characteristically described by modern industry … [with] periods of average productivity, production at high pressure, crisis, and stagnation, depends on the constant formation, the greater or less absorption, and the re-formation of the industrial reserve army or surplus population'.[40] But this cycle of employment and unemployment itself is the manifestation of a trend, towards the increase of the 'industrial reserve army' of unemployed:

> The same causes which develop the expansive power of capital also develop the labour power at its disposal. The relative mass of the industrial reserve army thus increases with the potential energy of wealth. But the greater this reserve army in proportion to the active labour army, the greater is the mass of a consolidated surplus population, whose misery is in inverse ratio to the amount of torture it has to undergo in the form of labour. The more extensive, finally, the pauperized sections of the working class and the industrial reserve army, the greater is official pauperism. *This is the absolute general law of capitalist accumulation*.[41]

While a crisis is 'a *healing process* from the standpoint of capitalist production',[42] it is only a momentary break in the movement towards breakdown. The long-term prospect of capitalism, from this point of view, is one of increasing severity of crisis and increasing difficulty in overcoming it, as lower profit rates make it difficult to accumulate the increasingly larger sums of value necessary for expansion. If at some time the counter-tendencies should be weakened or cease to operate, in Grossmann's words, 'the breakdown tendency would win the upper hand and achieve *absolute* recognition as the "final crisis"'.[43] In this situation, the only way out for capitalism would be the absolute immiseration of the working class, a lowering of wages so far below the historically achieved value of labour power that the reproduction of the working population would be called into question. The development of capitalism would have led to 'the unfolding and sharpening of the inner contradictions between capital and labour, which can only be overcome by the *struggle* between the two'.

40 Ibid., p. 785.

41 Ibid., p. 798.

42 Grossmann, *Das Akkumulations- und Zusammenbruchsgesetz* (1929), p. 187.

43 Ibid., p. 140.

The capitalist offensive against the working class would be 'a symptom that capitalism has overstayed its time …'[44]

Marx's theory, making neither specific quantitative nor temporal predictions, does not forecast a timespan for capitalism; it does, however, imply that the 'historical tendency' should make itself felt over a long enough span of time. How long is long enough? In the early 1850s Marx expected a new economic crisis, leading to a new upsurge of proletarian revolt; while he soon saw that neither was imminent, he expected big things from the worldwide downturn that came in 1857, going so far as to forecast a socialist revolution on the Continent. In fact, he thought for a moment that the crisis-spawned revolt might make his critique of capitalism obsolete – or at least not of immediate importance – before he finished it: he wrote to Friedrich Lassalle,

> Now that I am at last ready to set to work after 15 years of study, I have an uncomfortable feeling that turbulent movements from without will probably interfere after all. Never mind. If I finish too late and thus find the world no longer attentive to such subjects, the fault is clearly my own.[45]

That is, Marx identified the 1857 crisis as a climactic example of the series that in his view began in 1825, and which he explained – in the rough draft on which he was working at this time – as manifestations of the tendency of the rate of profit to fall.

On the other hand, on a different day Marx thought that expectations for the abolition of capitalism were most likely premature; eight months after the letter just quoted, Marx wrote to Engels:

> There is no denying that bourgeois society has for the second time experienced its 16th century, a 16th century which, I hope, will sound its death knell just as the first ushered it into the world. The proper task of bourgeois society is the creation of the world market, at least in outline, and of the production based on that market. Since the world is round, the colonisation of California and Australia and the opening up of China and Japan would seem to have completed this process. For us, the difficult question is this: on the Continent revolution is imminent and will, moreover, instantly assume a socialist character. Will it not necessarily be crushed

44 Ibid., p. 599.
45 Marx to Lasalle, 22 February 1858, in MECW 40, p. 268.

> in this little corner of the earth, since the movement of bourgeois society is still in the ascendant over a far greater area?[46]

A year later Marx generalised this thought in the Preface to the *Contribution*, in the now-famous statement that 'No social formation is ever destroyed before all the productive forces for which it is sufficient have been developed, and new superior relations of production never replace older ones before the material conditions for their existence have matured within the framework of the old society'.[47] While this may seem to accentuate a different aspect of capitalist development than the falling tendency of the profit rate, the full development of the productive forces of which capitalism is capable is for Marx the same as the over-accumulation of capital. In fact, even the maturation of the material conditions for new, superior relations of production, seemingly a distinct question, is an aspect of the strictly economic limits of capital accumulation, since by this Marx has in mind the creation of a working class organised by the structure of capitalist production itself into a socialised agent of social production.[48] Marx was careful to state not that the social revolution for which capitalism was establishing the preconditions was inevitable but only that capital created both 'the problem' faced by modern humanity and 'the material conditions for its solution'.[49]

It was Grossmann's opinion that the falling rate of profit, a phenomenon of the global capitalist system, manifested itself serially in different countries, with its effects visible in the eighteenth century in Holland, in the 1820s in England, and in the 1860s also in France.[50] The United States was, in his view, sim-

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46 Marx to Engels, 8 October 1858, in MECW 40, p. 345.

47 Marx, *Contribution*, in MECW 29, p. 263.

48 To take up one central aspect of this process, Marx stresses that the 'most important corollary' of the law of the declining rate of profit is 'a constantly increasing concentration of capitals', which means '[t]hat production loses its private character and becomes a social process, not formally … but in actual fact. For the means of production are employed as communal, social means of production and therefore not [determined] by [the fact that they are] the property of an individual, but by their relation to production, and the labour is likewise performed on a social scale'. This concentration of capital – 'that is, a constantly increasing decapitation of the smaller capitalists' – while a constant tendency is naturally sped up in crisis periods ('Economic Manuscript', in MECW 33, p. 368).

49 Marx, *Contribution*, in MECW 29, p. 263.

50 Grossmann, *Das Akkumulations- und Zusammenbruchsgesetz* (1929), pp. 530 ff. It is obviously true that the geographical expansion of capitalism into a world system was not a process of simple repetition but one of the enfolding of ever more people into a complex dynamic of nationally-organised competition for surplus value.

ilarly affected after the First World War, and surely Grossmann saw the Great Depression, which broke out in the US in the very year his magnum opus was published, as a confirmation of this judgment. This idea of what we could call a 'rolling breakdown' of capitalism merits further examination.[51] At the same time, given the ever closer integration of the world's nations into what gradually emerged as a world market for commodities and capital investment, the international character of crises became stronger.

The idea that world capitalism entered a period of decline in the course of the twentieth century was not peculiar to marxists: Werner Sombart wrote of contemporary capitalism as declining into 'late capitalism' in 1927,[52] and in 1952 Josef Steindl, focusing on the United States, saw lower rates of accumulation after 1899.[53] The theme of stagnation as characteristic of the American economy reappeared in heterodox economic literature after the 1970s, with the advent of 'stagflation' and relatively low growth rates following the recession of 1974–5.[54] At one time it was fashionable to contrast the poor performance of the American economy with the dynamism of the Japanese, but the depression gripping Japan since the 1990s has put an end to that.

The prosperity made possible by the economic and physical destruction effected by the Great Depression and the Second World War was even at its highest point, the late 1950s, insufficient to obviate the need for government stimulus to maintain something approaching full employment. Government spending, on the other hand, was not able to eliminate 'official pauperism', as the failure of the American 'War on Poverty' demonstrated. Exactly as Marx's value-theoretic model suggests, the increased productivity of labour making possible the post-war growth of private capital continued to involve a displacement of workers from employment, and in particular from industrial employment. This feature of capitalist development was accentuated when the post-war prosperity came to a definitive end in the mid-1970s, leading to a durable increase in unemployment in Europe and a tendential weakening in the American labour market. As a specialist on the topic observed more than

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51 It is suggestive that while '[a]dvanced economies were the engines of previous global recoveries … the emerging market economies have accounted for the lion's share of global growth since the 2009 global recession …' (Kose and Terrones, *Collapse and Revival: Understanding Global Recessions and Recoveries* [2015], p. 76).

52 Cf. Sombart, *Der Moderne Kapitalismus, Dritter Band. Das Wirtschaftsleben im Zeitalter des Hochkapitalismus* (1927), pp. xi–xii.

53 Steindl, *Maturity and Stagnation in American Capitalism* (1952), p, 156.

54 See, for example, Coates, *Models of Capitalism: Growth and Stagnation in the Modern Era* (2000).

a decade ago, the 'perceptible rise in [European] unemployment in the mid-1970s marked the beginning of a new phase' in which 'elevated unemployment rates are the reflection … of the definite decline of the [post-war] epoch of full employment'.[55] The current downturn has brought these conditions to the United States, as well as raising levels of unemployment throughout the world.

If we attend specifically to the workers involved in Marx's theoretical model, which focuses on those whose labour is given social definition as value and surplus value, 'the last 30 years have witnessed a global stagnation in the relative number of industrial workers'. It is only 'a low-wage service sector' that 'has made up the difference in the high GDP countries alongside an unparalleled explosion of slum-dwellers and informal workers in the low GDP countries'.[56] As the authors of the text just cited also observe, this so-called deindustrialisation – which has involved not so much a decline in industrial production as in the numbers of workers, relative to capital investment, needed to perform it – has been an international tendency, operating in the underdeveloped as well as the developed countries.[57] To take the most spectacular example, 'the latest statistics show that *China did not create any new jobs in manufacturing between 1993 and 2006*', both because the development of its new export-oriented sector was accompanied by the dismantling of older state industries and because Chinese industrialisation, like that elsewhere in the developing world, has involved 'the incorporation of existing labour-saving innovations'.[58]

55 Pugliese, 'The Europe of the Unemployed' (1993), p. 15.

56 *Endnotes* and Benanav, 'Misery and Debt' (2011), p. 34. To cite a recent academic account, '[f]or example, in the United States manufacturing industries' share of total employment has steadily fallen since the 1950s, coming down from around a quarter of the workforce to less than a tenth today' even though 'manufacturing value-added … has remained a constant share of GDP at constant prices – a testament to differentially rapid labor productivity growth in this sector' (Rodrik, 'Premature Industrialization' [2015], pp. 1–2).

57 Rodrik too notes a 'pattern of deindustrialization in low- and middle-income countries', which, with some Asian exceptions, 'have experienced falling manufacturing shares in both employment and real value added, especially since the 1980s'. As a result, '[t]hese developing countries are turning into service economies without having gone through a proper experience of industrialization' (Rodrik, 'Premature Deindustrialization' [2015], pp. 2, 3; see also Levinson, 'U.S. Manufacturing in International Perspective' [2013]).

58 *Endnotes* and Benanav, 'Misery and Debt' (2011), p. 48, citing Erin Lett and Judith Bannister, 'Chinese Manufacturing Employment and Compensation Costs', *Monthly Labour Review* 132 (April 2009), p. 30. See the interesting report, 'Official Statistics Understate Chinese Unemployment Rate', National Bureau of Economic Research *Digest*, 18 April 2016 (http://www.nber.org/digest/oct15/w21460.html; last accessed 18 April 2016). The Federal Reserve Board's *International Finance Discussion Papers* 1072 (January 2013) explained the

At the same time, the economic growth made possible by the increase in the rate of exploitation achieved by the combination of lowered global wage levels and technologically enhanced labour productivity has clearly not involved a growth in profits sufficient to employ increasing numbers of the masses of people being thrown onto the mercies of the labour market or to satisfy their needs unproductively. In the words of a recent survey,

> Between 1973 and the present, economic performance in the U.S., Western Europe, and Japan has, by every standard macroeconomic indicator, deteriorated, business cycle by business cycle, decade by decade (with the exception of the second half of the 1990s). Equally telling, over the same period, capital investment on a world scale, and in every nation except China, even including the East Asian [Newly Industrialised Countries] since the middle 1990s, has been growing steadily weaker.[59]

As a result, according to the United Nations' *Human Development Report 2004*, 'an unprecedented number of countries saw development slide backwards in the 1990s' – before the current downturn. 'In 46 countries people are poorer today than in 1990. In 25 countries more people are hungry today than a decade ago'.[60] To take only one example of this trend, the mass pauperisation of the population in the formerly 'socialist' countries after 1989 led, by one estimate, to an increase of those living in extreme poverty from 14 to 168 million.[61]

Alongside these surplus people we find surplus capital – that is, capital that cannot be profitably invested in the production of new surplus value. Here again, Grossmann's development of Marxian theory, formulated on the basis of economic history up to the early twentieth century, has been strikingly vindicated by developments of the most recent period. Speaking of 'unemployed capital', unable to find investment opportunities, he observed that 'because it cannot be utilized within the sphere of production, capital is exported or – from

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rapid pace of Chinese economic growth as largely due to 'higher labour productivity, while growth of employment has diminished along with a slower rate of increase in the working-age population'. The author, Jane Haltmaier, expects the capital-labour ratio to continue to rise, with a decline in labour force participation and a shift of workers towards the service industries (http://www.federalreserve.gov/pubs/ifdp/2013/1072/ifdp1072.htm; last accessed 18 April 2016).

59 Brenner, 'What's Good for Goldman Sachs is Good for America: The Origins of the Current Crisis' (2009), p. 62.

60 Cited in Davis, *Planet of Slums* (2006), p. 163.

61 Ibid., p. 106.

the viewpoint of production – directed towards "internal export", the streaming of unemployed money into speculation'.[62] This function of financial speculation – to create 'a profitable "investment" for over-accumulated capital'[63] – is typically accompanied by speculation in real estate,[64] to which we can now add all the other asset classes on the basis of which bubbles can be developed, from commodity futures and more arcane derivatives to fine art. And just as capital flowed into speculation instead of into productive investment, producing the effect of temporary prosperity by means of a series of bubbles, working-class living standards were maintained only by the massive growth of consumer debt, culminating in workers' participation in the mortgage bubble of the early twenty-first century.

Like the growth of state debt and the welfare state, the difficulty we see today in doing away with them registers the decline of the private-enterprise economy. Despite its dynamism and the gigantic increases in the productivity of human labour that it has achieved since the early nineteenth century, and despite the disappearance of political and social barriers to its spread in the course of the twentieth, capitalism has not been able to generate the quantities of profit required to incorporate much of the world's population into its modern industrial form. The failure of the non-financial parts of the economy to expand sufficiently showed itself in 2008 in the near collapse of the whole Rube Goldberg device of cantilevered finance. For the same reason, the massive increase in government spending that avoided a return to depression conditions after the mid-1960s led not to a steady flow of profits from a now-primed pump but to today's increasingly problematic state deficits.

Is this to say that the current crisis cycle has moved capitalism to the point of breakdown, in the sense of self-destruction? No, because today as at all earlier moments, capitalism's fate ultimately depends (as Grossmann himself insisted)[65] on the willingness of human beings to engage in the difficult struggles needed to overthrow existing relations of social power and create new forms of production and consumption – a new mode of life. In the absence of revolutionary action on a scale sufficient to wrest control of the means of production from their current owners – and in the absence of the destruction of the material conditions for its existence by ecological catastrophe – capital can

62 Grossmann, *Das Akkumulations- und Zusammenbruchstheorie* (1929) pp. 536–7.

63 Ibid., p. 543; Grossmann adds that, of course, 'these profits do not arise from actual production, but are transfers of capital from one hand to another', whence the inevitable bursting of all such bubbles.

64 Ibid., p. 541.

65 Ibid., pp. 601–2.

in principle gain yet another lease on life through the radical restructuring of capital ownership, on the one hand, and its relationship to the owners of labour power on the other – a process likely to involve suffering and death for millions on the gigantic scale initiated in the previous century by two world wars.

On the other hand, in its current condition capitalism promises economic difficulties for decades to come, with increased assaults on the earnings and working conditions of those who are still lucky enough to be wage earners around the world, waves of bankruptcies and business consolidations for capitalist firms, and increasingly serious conflicts among economic entities and even nations over just who is going to pay for the system's survival. The mass unemployment and material deprivation that Marx predicted as the long-term outcome of capitalist development have become features of the world economy that if not permanent will clearly be with us for an extended time. Like its predecessors, today's crisis makes visible, for anyone who cares to see, the historical tendency of capitalist accumulation.

CHAPTER 11

Value Theory and Economic Events

> It should of course always be remarked that as soon as a concrete economic phenomenon comes into question, general economic laws can never be applied simply and directly.
>
> – K. MARX[1]

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> Clearly the histories of prices are at present quite wretched. And they can be nothing but wretched until theory shows what needs to be examined.
>
> – K. MARX[2]

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> [R]ational hypotheses are the best guides of statistical research, and theoretical significance is the ultimate test of statistical results.
>
> – W.C. MITCHELL[3]

The ongoing economic downturn (I am writing this in winter 2016) has, quite reasonably, induced renewed interest in Marx's theory of capitalist dynamics, and in particular in the use of that theory to understand the business cycle. Such an interest brings with it important and difficult questions about how to bridge the gap between the high level of abstraction on which Marx conducted his theorising and the particular phenomena represented in national income and business statistics. For instance, a decades-long concern among *marxisant* economists about empirical measurement of such central Marxian concepts as

1 Marx, 'Economic Manuscript of 1861–63', in MECW 33, p. 383.

2 Marx, 'Economic Manuscript', in MECW 31, p. 342. That the situation has not improved in the century and a half since Marx wrote this, is argued by Bagus in 'Morgenstern's Forgotten Contribution' (2011), pp. 546–8.

3 Mitchell, *Business Cycles, The Problem and Its Setting* (1927), p. 190.

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the rate of surplus value and the rate of profit has recently produced a number of articles and books debating this topic, on the assumption that such measurement is a prerequisite to deciding, for example, whether the current sorry state of economic affairs can be causally explained by Marx's law of the tendency of the rate of profit to fall.

Robert Brenner's *The Economics of Global Turbulence* (2006) is one of the best-known contributions to the understanding of the current difficulties of the capitalist economy from within the amalgam of classical political economy, modern economics, and marxist ideas that goes by the name of 'marxist economics'. In his introduction to a recent Spanish translation of this work, 'What Is Good for Goldman Sachs Is Good for America: The Origins of the Present Crisis', Brenner gives a good description of the course of events leading up to the Great Recession of 2008. In this new text as in the volume it updates, Brenner explains the end of the economic boom that followed the Second World War as due to a decline in the profit rate for the G-7 economies (the United States, Germany, Japan, the United Kingdom, France, Italy, and Canada), which in turn caused a decline in the rate of growth of investment. The increase in debt levels facilitated by monetary authorities and the surge of speculation encouraged by deregulation served to maintain something like boom times in a process Brenner names well as 'asset bubble Keynesianism'. Eventually, however, the insufficient profitability of capital undermined this artificial prosperity.[4]

As the editors of *New Left Review* wrote in introducing the original publication of Brenner's work, his 'is an original Marxism that has little in common with what has often passed for orthodox deductions from *Capital*. No axioms of crisis based on a rising organic composition, and therewith falling profitability of capitalist investment, are to be found here'.[5] Instead, Brenner utilises statistics drawn from a wide range of official and unofficial studies as the basis for an analysis framed in terms of concepts taken over from economics and business journalism without any conceptual criticism, such as 'profitability', 'productivity of labour', 'productivity of capital', etc.

As a result, while his argument like that in *Capital* stresses profitability as the determinant of capitalist prosperity or recession, it differs radically from Marx's in making no reference to the theory of value and surplus value. Brenner makes no distinction between the profits produced by industrial capital and those of commercial and financial capital, in which labour produces neither commodities nor, therefore, as Marx sees it, surplus value; he treats taxes and interest

4 See Brenner, 'What's Good for Goldman Sachs is Good for America' (2009).
5 Brenner, 'The Economics of Global Turbulence' (1998), p. ii.

as costs of business without investigating the relations among these forms of surplus value.[6] In Brenner's view, as in Adam Smith's, profit is a manufacturer's mark-up over costs, limited by the pressure of market competition. Thus he explains the post-1965 fall of manufacturing profitability in the G-7 countries, in remarkably Smith-like terms, as determined by 'the inability of manufacturers to mark up sufficiently over costs due to international manufacturing over-capacity and over-production'.[7] To quote Marx's critique of such views in eighteenth- and nineteenth-century economics, this is profit as it appears 'in the everyday consciousness of the agents of production themselves',[8] as an addition to the cost of production of a commodity, coming into existence when the commodity is sold. The question as to the possibility of this addition as an increase in social wealth – the topic of Marx's argument in Chapter 5 of the first volume of *Capital*, where he points out that such a gain must be another's loss – is one that Brenner raises no more than does the ordinary capitalist. He discusses only the limit set to any individual capital's share of it by competition.

As Marx asked, however, if competition determines an average rate of profit across the economy, why is that rate 'now 10 per cent or 20 per cent or 100 per cent?'[9] Contesting Ricardo-like explanations of the decline of profitability by reference to increased wages, Brenner asserts that it is due to 'a system-wide problem of over-capacity and over-production, resulting from intensified international competition',[10] which forced rival manufacturers to increase productivity while limiting the extent of possible mark-up. But 'over-capacity' has meaning only in relation to a given level of effective demand; as Marx observed in the course of a critique of post-Ricardo explanations of crisis, references to a 'plethora of capital' are only a disguised way of talking about over-production, which itself can mean only a shortage of effective demand, since there is clearly no over-production of goods relative to human needs.[11] Brenner himself furnishes the solution to this riddle, though he is unaware of it, when he observes that '[w]ith the growth of profits – and thus of investment and wages – sup-

6 See ibid., p. 252.

7 Ibid., p. 136. See ibid., p. 252.

8 Marx, *Capital* III, p. 117.

9 The only answer to this question, Marx continued, is 'to declare that the rate of profit and hence profit itself is a surcharge, determined in an incomprehensible way, on the partial price of a commodity as determined by wages. The only thing competition tells us is that this rate of profit must be at a given level. But we already knew that …' *Capital* III, p. 1005.

10 Brenner, 'The Economics of Global Turbulence' (1998) p. 128.

11 See Marx, 'Economic Manuscript', in MECW 32, pp. 129 ff.

pressed, aggregate demand grew more slowly' after 1973.[12] That is to say, it is not that over-capacity limited profitability, but that the decline in profit rates, leading (as Brenner says) to a declining rate of accumulation, set limits to demand which appeared to manufacturers in the form of over-capacity. To explain declining profitability requires a theory of profit – as opposed to a description of it as an addition to cost-price – and so a theory of value.

This is the tack taken by marxist economist Andrew Kliman in *The Failure of Capitalist Production*, in which he claims to provide an explanation of the Great Recession in terms of Marx's value-theoretical 'law of the tendency of the rate of profit to fall'.[13] Kliman argues against readings of business statistics, like that offered by fellow marxist economists Gérard Duménil and Dominique Lévy, that find an upturn in profitability preceding the 2007 financial collapse.[14] On the other hand, despite his claim to orthodoxy, Kliman's book directly attends not to what Marx calls the rate of profit, which is the relation between the value-theoretical categories 'surplus value' and 'invested capital' in the world economy, but various phenomena that can go by this name in data drawn from US business statistics.

Kliman, like everyone else in this debate, conducts his argument on the basis of US data because, as he correctly points out, 'reliable profitability data for the world economy do not exist'.[15] It is well known that most national income accounts contain elements of uncertainty and even fraud, apart from the untraceability of the trillions of dollars moving through offshore financial networks. In addition to the fact that the desire to analyse capitalism on the basis of 'a detailed analysis of data' left him no choice but to focus on the United States, Kliman also argues that the latter was 'the epicenter of the latest crisis'.[16] This, however, hardly matches his argument that the roots of that crisis are to be found in the difficulties of post-1973 world capitalism, as well as the evident fact of the global nature of the downturn.

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12 Brenner, 'The Economics of Global Turbulence' (1998) p. 148.

13 Kliman, *The Failure of Capitalist Production* (2012).

14 See Duménil and Lévy, 'The profit rate: where and how much did it fall? Did it recover? (USA 1948–2000)' (2002), pp. 437–61. The same authors analyse the Great Depression as occurring in 'an intermediate period between two downward trends' in profitability and so, 'unlike the crises of the 1890s and 1970s … not the outcome of a fall in the profit rate', and argue that the Great Recession, 'as [*sic*] the Great Depression, cannot be interpreted as a profitability crisis' (Duménil and Lévy. *The Crisis of Neoliberalism* [2011], p. 270).

15 Kliman, *The Failure of Capitalist* Production (2012), p. 96.

16 Ibid., pp. 2–3.

At any rate, his procedure is to substitute observational categories bearing on one national economy for Marx's abstractions.[17] In Kliman's view, because 'the task of theory is to account for *observed* phenomena[,] … the purpose of a study of profitability should be to account for movements in what businesses and investors mean when they talk about the rate of profit or rate of return, rather than to account for movements in a theoretical construct'. Specifically, for instance, 'there is a sizeable discrepancy between surplus value as defined by Marx and profit as defined by the BEA [the US Department of Commerce's Bureau of Economic Analysis], my main source of data'. In his own way Kliman as much as Brenner is focusing on profit as it appears 'in the everyday consciousness of the agents of production themselves'. Unlike Brenner, however, he claims at the same time that an analysis 'conducted in terms of the processes actually' causing changes in profit rates can be one in which 'the causal processes are those of Marx's theory'.[18]

Kliman attempts to link business data to Marxian theory through what he calls the Monetary Expression of Labour Time (MELT), calculated by dividing BEA figures for the net value added of the business sector of the U.S. economy by the total hours of labour performed by private-sector employees.[19] Apart from the fact that, on Kliman's own account, the relevant labour time is a global rather than a national matter, such a calculation is completely foreign to Marx's value concept, which is defined in terms of abstract labour time, not the hours of concrete labour time visibly expended by workers. In Marx's account, the transformation of concrete labour into abstract value is, as we have seen, effected by the totality of market exchanges of products at money prices that systematically obscure labour-time values, rendering a calculable MELT in principle impossible.

To take another example, Kliman argues that a theoretical construct like 'a rise in the technical composition of capital', held by Marx to explain declining profitability, plays 'a role in analysis but not a causal role in the real world'. It therefore should be replaced by a (supposedly) non-theoretical category like 'the process of technical innovation'. But Kliman does not explain the relation between theoretical 'analysis' and 'real-world causal determination'. It is difficult to see how 'the causal processes [appealed to in Kliman's analysis] are

17 In this Kliman, along with his theoretical opponents, is replaying an earlier debate over the empirical evaluation of Marx's ideas made by Joseph Gillman in *The Falling Rate of Profit: Marx's Law and its Significance to Twentieth-Century Capitalism* (1957): see Rolhausen (ed.) *Kapitalismus und Krise: Eine Kontroverse um das Gesetz des tendenziellen Falls der Priftrate* (1970).

18 Kliman, *The Failure of Capitalist Production* (2012), pp. 96, 97.

19 Ibid., p. 101.

those of Marx's theory' when in fact the Marxian theoretical constructs, from 'rising organic composition of capital' to '(Marxian) rate of profit' have been abandoned (even apart from the constraints forced on him by his dependence on national income data, Kliman's 'rate of profit' is defined quite differently from Marx's).[20]

This unclarified approach to the relation between theory and observational data ultimately dooms Kliman's attempt – the goal of his book – to show that Marx's law of the tendency of the rate of profit to fall (LTRPF) 'fits the facts'.[21] Thus he explains the declining rate of return on investment in post-World War II capitalism by the slower increase of employment relative to the growth of fixed capital during this period: 'This is how Marx's LTRPF explains the tendency of the rate of profit to fall, and it is what is implied by the facts …'[22] But of course Marx's tendency law is implied not by 'the facts' but only by the changing structure of capital *as interpreted in the terms of the labour theory of value*, which plays no role in Kliman's account.

A more serious attempt to bring economic statistics in line with Marxian concepts is to be found in Fred Moseley's 1991 volume, *The Falling Rate of Profit in the Postwar United States Economy*.[23] According to Mosley, '[t]he first issue involved in the estimation of the Marxian variables is whether the observable

20 Ibid., pp. 96, 97. As Kliman says, 'the variables I employ in this book are based on the BEA's concepts, not Marx's concepts' (pp. 128–9). Kliman defines the rate of profit not, like Marx, as the relation between surplus value and constant plus variable capital but as that between 'private sector income' (his substitute for surplus value) and fixed assets, because 'information on the turnover of circulating capital' (including variable capital and expenditures for raw materials) 'is not available' (p. 80). Thus his measure is as distant from Marx's, even apart from the distance between U.S. business data and global value quantities, as that derived more conventionally by other marxist economists from the ratio of corporate profits to fixed assets (fixed capital plus inventory). It seems to have become a habit of marxist economists to identify such measures with Marx's; thus Duménil and Lévy describe the profit rate measured as the ratio between the net product minus total labour compensation and fixed capital as 'appropriate in an analysis *à la Marx* of the trend in the profit rate …' though bizarrely they also, like Kliman, admit that they 'do not attempt to account for the movements of the profit rate using Marxian categories …' ('The profit rate: where and how much did it fall?' [2002], p. 442).

21 Ibid., p. 123.

22 Ibid., p. 136.

23 Moseley too, it is to be noted, is not actually concerned with Marx's rate of profit, but with 'the ratio of the annual flow of surplus value to the stock of constant capital' (p. 75). Since he attempts to estimate empirical quantities of variable capital, this should be easily correctible, were there not other problems with the analysis.

reality to which Marx's concepts of constant capital, variable capital, and surplus value refer are quantities of money or quantities of labour'. Quite correctly, Moseley points out that Marx defines the quantities of labour relevant to his formulation of capitalism's law of motion 'in units of homogeneous *abstract labour*, which is not directly observable as such'.[24] As we have seen, capitalist abstract labour exists only by way of the representation of actual labour – time spent making things – by sums of money. But it does not follow from this that the 'Marxian concepts refer to observable quantities of money'.[25] It has not occurred to Moseley, apparently, that some of Marx's concepts might refer to non-observables.

With respect to observables, there is again the central problem that – as Moseley himself notes – 'Marx's theory most rigorously applies to the world capitalist economy as a whole, not to an individual national economy …' But 'the task of deriving estimates of the Marxian variable[s] for the entire world economy is overwhelming and perhaps impossible (because the necessary raw data may not exist)'.[26] Moseley argues, however, that 'there would appear to be little or no bias in the trend of the rate of profit due to this level of aggregation error'. Because surplus value flows from areas with low organic concentrations of capital to areas with high organic concentration, such flows would offset a decline (or an increase) in the rate of growth of organic concentration that might differentiate the United States economy from the rest of the world.[27] This is to confuse Marx's Model II, the analysis of capitalism developed in the third volume of *Capital*, with the real world, in which surplus value does not flow between regions only to equalise profit rates on industrial capital. With respect to the actual world, as a knowledgeable analyst points out,

> it is difficult to pinpoint the location of the investment that generated the profit when giant corporations supply their own global networks with their own transfer prices, or when they get cheap inputs from other companies in low-wage countries. In addition, a key distinction in Marxist value theory, between operations that are productive and those that are unproductive, cannot be easily be determined when using economic data. Many companies have both kinds of operation that are not distin-

24 Moseley, *The Falling Rate of Profit in the Postwar United State Economy* (1991), pp. 27, 30.

25 Ibid., p. 27.

26 Ibid., p. 49.

27 See ibid., pp. 182–3.

> guished in the statistics. Furthermore, a company may be able to register a large profit or a loss on its financial investments, which may have little connection to any production at all.[28]

Thus the mechanisms of surplus value redistribution are likely to rule out taking one national economy, even the most important one, as a model for the world economy. The business data for a single country – and the United States is certainly the country with the most, and most reliable, statistics – cannot be relied on to provide an estimate for the rate of profit in Marx's sense.

Even if profitability statistics for the world economy existed, they could not settle the question of the correctness of Marx's law of the tendential fall in the profit rate. Marx's 'profit' is surplus value produced by industrial capital as measured against invested constant and variable capital. In the real world, however, this surplus value exists in such distinct forms as profit on all types of investment, interest, rent, property income, and taxes.[29] Furthermore, Tony Norfield usefully reminds us, 'the total surplus value available for distribution … must cover the costs of both commercial capital and financial capital' – the costs of wages and equipment utilised in these sectors as well as the profits extracted from them by commercial and money capitalists.[30]

As Marx says in a draft of *Capital*,

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28 Norfield, *The City: London and the Global Power of Finance* (2016), pp. 152–3. Moseley, it must be said, makes a valiant effort to distinguish productive from unproductive labour; see *The Falling Rate of Profit in the Postwar United States Economy* (1991), pp. 176–7.

29 And this is not even to consider the issues raised by the fact that in contemporary capitalism portions of variable capital, part of the denominator of the rate of profit, exist in the form of government-controlled healthcare, unemployment, and pension funds, while payroll and consumption taxes represent portions of surplus value 'paid' to workers before being taken back; see, for theoretical and empirical investigations of these matters, Bartelheimer and Wolf, 'The Income of Wage Earners is Declining: On the Influence of State Activity on Total Wage Earners' Income and its Redistributive Effect' (1992), and Guerrero, 'Labor, Capital, and State Redistribution: The Evolution of Net Taxes in Spain (1970–1987)' (1992).

30 Norfield, 'Value Theory and Finance' (2013), p. 177. As he summarises, 'However necessary [the functions played by such businesses] may be for the operation of the capitalist market system, and whatever profits the labourers in these occupations may bring to their capitalist employer, via mark ups, fees, or interest payments, workers in the sphere of circulation do not produce new value (hence, no surplus value) for the system as a whole. Neither are the costs of these operations transferred to the values of commodities. Their work is not part of the production by capital of use values as commodities' (p. 164).

> when speaking of the law of the *falling rate of profit* in the course of the development of capitalist production, we mean by profit, the total sum of surplus value which is seized in the first place by the industrial capitalist [irrespective of] how he may have to share this later with the money-lending capitalist (in the form of interest) and the landlord (in the form of rent) … The rate of profit in this sense may fall, although, for instance, the industrial profit rises proportionately to interest or vice versa …[31]

For example, the increase in US corporate profitability observable in business data for the late 1980s–early 1990s was certainly in part due to 'progressively lower nominal and inflation-adjusted interest rates' based on 'a reduction of the previous very high interest rates that followed the tightening of US monetary policy … in the early 1980s, on the success of capital in attacking the US working class, on the low cost of imports, and on Asian countries accumulating huge foreign exchange reserves (buying US securities and so reducing their yields) as an insurance against financial trouble after the crisis of 1997–98'.[32] An increase in the profitability of American capital tells us nothing determinate about the Marxian rate of profit.

But couldn't we, if the statistical material were available, and if we had an agreed-upon system for the interconversion of different currencies, at least in principle construct some empirical equivalent for surplus value at a given time by numerically reassembling the parts into which it is divided when split among the various fractions of the exploiting class? This is not possible, fundamentally because of the fact that value is represented only by prices, which move independently of values. '[C]apitalist production is … marked by a continuous change in value relations, if only because of the constant change in the productivity of labour that characterizes it',[33] but also because of alterations in the distribution of capital among and within branches of social production, and as a result of changing economic relations between regions of the world with distinct levels of investment and labour productivities. Although they can be expected to have long-run consequences for price relations, these changes need not be reflected in any short-run or direct way by price changes.

Value relations are also rendered uncertain by the tendency of investment to expand beyond demand in prosperous times and to shrink below social requirements in periods of depression, while 'value' is defined, in Marx's sys-

31 Marx, 'Economic Manuscript', in MECW 32, p. 94.

32 Norfield, *The City: London and the Global Power of Finance* (2016), p. 156.

33 Marx, *Capital* II, 153.

tem, in terms of a supply-demand equilibrium only accidentally realised in the real world. As a result, it would be impossible to say, even if the statistics existed, how much of what we might count at any given moment in actual price terms as the value of total capital, variable capital, and surplus value is real, meaning by 'real', corresponding to the constructs of Marx's theory. Both new investment and ongoing operations are commonly financed by debt – debt that cannot be repaid if the economy fails to grow at the anticipated rate and that therefore represents only a hoped-for quantity of value.[34]

Value relations are further obscured by the florescence of financial instruments. In Marx's theoretical model, at least as far as he developed it in Volume III of *Capital*, the revenue of money capital is a portion of the social surplus value generated by industrial capital. In reality, 'financial sector revenues involve more than a redistribution of the existing surplus value produced in the rest of the national economy (or even from other countries)'.[35] The prices of what Marx, borrowing from the bankers' discourse of his time, termed 'fictitious capital' – equities, bonds and other more exotic 'financial products' like derivatives and collateralised debt obligations – are determined by discounted future cash flows, hence by interest rates and the demand of purchasers for particular kinds of investment.[36] As a result, to quote a one-time manufacturer of such 'products', 'the security's price does not have a direct relationship to the surplus value currently being exploited from the productive workforce', so that it is even possible 'that while the underlying conditions for capital accumulation might worsen (implying a lower rate of profit) the price of securities

34 An analogous phenomenon can develop in a largely state-controlled economy; thus the recent rapid growth of China's public debt is 'the result of the government deliberately leveraging China's domestic balance sheet to achieve its policy goal of high GDP growth' (Walter and Howie, *Red Capitalism: The Fragile Financial Foundation of China's Extraordinary Rise* [2011], p. 203). Despite the fact that there is no way 'that offshore speculators, investors, hedge funds or others can get at China's domestic debt obligations and challenge the Party's valuation of these obligations', eventually 'a heavy interest burden arising from increasing amounts of debt will limit the government's ability to invest in new projects and grow the economy' (ibid., pp. 206, 208).

35 Norfield, *The City: London and the Global Power of Finance* (2016), p. 145.

36 As nineteenth-century English banker Leatham noted, even with the trade in such relatively straightforward instruments as bills of exchange '[i]t is impossible to decide what part passes out of real *bona fide* transactions, such as actual bargain and sale, or what part is fictitious, a mere accommodation paper, that is, where one bill of exchange is drawn to take up another running, in order to raise a fictitious capital by creating so much currency' (cited in Marx, *Capital* III, p. 526).

could still *rise*'.[37] These items circulate as things of value, and can, for instance, be used as security for loans, further obscuring the actual values in play at any given time.

A related problem is posed by the increasingly large role played by the state in economic affairs. Since national governments (at least in the 'West') are not, for the most part, owners of investible capital, their economic activities, like their other activities, are financed out of the surplus value created in the private-enterprise economy. The money they use comes either from taxes – levied directly on business profits, interest, and rent, or indirectly on money paid in the form of wages and then removed, as payroll or consumption taxes, from the variable capital actually received by the labour force – or is borrowed and must theoretically be paid back. As a result, the value of a government bond is doubly fictitious, as it 'only represents the net present value of future coupon and principal repayments, based on the financing of these payments from future tax receipts'.[38] And products sold to governments, like weapons or steel for bridges, are exchanged for surplus value already produced in the capitalist production process; what appear as profits for vendors to governments are in reality redistributed portions of the total social surplus value. In business statistics and national economic accounts, however, they appear as newly produced profits like any others.[39]

All of these factors make even an imaginable calculation of Marx's rate of profit an impossibility. As a result, the fact that as calculated by Duménil and Lévy the rate of profit in the United States rose sharply from 2001 to 2006 disproves the Marxian theory no more than Kliman's alternative calculation that it did not proves it.[40] The quarrel between these economists over the utilisation of business data for the evaluation of Marx's theory of the business cycle is pointless from the outset. Both sides of the argument fail to take into account

37 Norfield, *The City: London and the Global Power of Finance* (2016), p. 145.

38 Norfield, 'Value Theory and Finance' (2013), p. 172.

39 In the words of an insightful student of the 'problem in calculating national income statistics', however, one 'could even make the case that government expenditures should … be subtracted from national income, because the government withdraws resources from the productive private sector and uses them for its purposes. As an example of the absurdity of adding government services positively into national income statistics, consider the case of a government that builds a bomber and a bomb and destroys a newly built house in its own country. In today's national income statistics, the costs of building the bomber and the bomb are added into the national income, as is the house' (Bagus, 'Morgenstern's Forgotten Contribution' [2011], p. 549).

40 See Kliman, *The Failure of Capitalist Production* (2012), Chapter 6.

the idealised character of Marx's theorising as well as the global scope of his theory; as a result they also fail to consider the full difficulty of the intermediate steps required for application of the theory to particular historical circumstances, in addition to trying to apply it to the wrong object.[41]

One advantage of Marx's approach is precisely his recognition of the difficulty for theory posed by the impossibility of normal observational methods – in this case, statistical ones – for isolating basic aspects of such a complicated system of phenomena: 'in the analysis of economic forms neither microscopes nor chemical reagents are of assistance. The power of abstraction must replace both'. In *Capital*, to repeat once again, Marx abstracts not only from all non-capitalist economic activities but also from the existence of nation-states, the

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41 Of course, all such attempts ignore Oskar Morgenstern's fundamental observation that '"profits" as reported in balance sheets and operating statements of corporations' are a prime example of '*meaningless statistics*'. Profits 'are computed by comparing purchase prices and sales prices, both of which may be of dubious statistical character … When prices rise, repurchase prices of factors may have to be compared with sales prices and a significantly different "profit" will result … Some widely used statistics … are produced by means of the inappropriate procedure, neglecting the change in the framework into which the concepts must be embedded. Furthermore, the incorrect methods used differ widely from one corporation to another as well as for different industries. Aggregations of such figures produce statistics that may be full of errors of this particular brand, if not wholly devoid of meaning'. Furthermore, in profit and loss statements 'some receipts and transfers of money such as interest received and monies transferred to surplus are again of the highest accuracy, but what a "profit" or "loss" is … depends on some theory which can never claim to be as convincing as a statement of the hard facts that certain sums of money were received and others were paid out. Specifically, the notion of "cost" does not fall into the … category of immediate physical observations … [I]t is clear that in the absence of a convincing and complete theory there is no unique and objective way of accounting for costs when overhead, amortization, and joint costs have to be taken into consideration; of course, this is the case everywhere … The idea that "profits" are an automatic consequence of costs of production and sales on the one hand and receipts from sales on the other is naïve and has nothing to do with business reality'. With respect to international accounting, 'It suffices to point out that international comparisons of profitability of invested capital, return to investment, ratio of price per share to earnings, etc., cannot be made with confidence on the basis of the published records'. In sum, 'Business is transacted in the illusion of dealing with "accuracy" where there is none in an ordinary or scientific sense; nor does there exist a substitute notion. We know far less about the economy as a whole even in the financial field than one imagines when the nature of the financial figures … is considered' (*On the Accuracy of Economic Observations* [1963], pp. 66, 78–9, 80, 86). For an amusing recent example, see Morgenson, 'Fantasy Math is Helping Companies Spin Losses into Profits', *New York Times*, 22 April 2016.

economic and noneconomic activities of governments, effects on economic activity of the credit system, and specific features exhibited by business cycles – all phenomena to have been taken up in later volumes of his projected multipart study. As he described his procedure in the 1861–3 draft of *Capital*, 'The real conditions within which the actual process of production takes place are … not analyzed'. Not only is it 'assumed throughout [the first two volumes, as we can now specify] that the commodity is sold at its value',[42] but the production prices introduced in the third are still quite far from the actual prices encountered in economic reality.

But this is in order to delineate clearly what he considered the basic features of capital as an historically specific set of social relationships. Hence his theory gains its initial plausibility from its systematic treatment of these features of the economy – the centrality of commodity exchange, money, the social relation of wage-labour and capital, and the characteristic dynamic of growth of productivity via mechanisation. These are all features recognisable without a significant statistical apparatus; in Marx's own work, historical data for the most part function to illustrate, not to test, theoretical ideas. Marx's case is strengthened by the success with which his theory predicted long-term trends: the worldwide expansion of the system, its continual mechanisation, its cycling between prosperous and depressive periods, the concentration and centralisation of capital, and the expansions of unemployment and the tendency towards immiseration of the mass of the population that regularly accompany the long-term growth of the labour force. These trends are clearly recognisable despite the conceptual fuzziness produced by the complexity of the system, with its attendant ill-defined significance of quantitative data. Similarly, the Marxian theory explains the failure of the classical arc of capitalist development to be generalised across the world – as various theories of economic 'growth' expected – as declining profitability has come to hinder global accumulation. With respect to historically more limited phenomena, to take two examples, Marx's theory explained the failure of the 1844 English Bank Act and, on a larger scale, allowed the prediction of the failure of Keynesian interventions to end the business cycle, certainly one of the few successes in large-scale prediction by any social science.[43]

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42 Marx, 'Economic Manuscript', in MECW 32, p. 124.

43 I refer here to the analysis in Mattick, *Marx and Keynes: The Limits of the Mixed Economy* (1969), to be discussed further below; I speak of 'prediction' because the analysis was made and published (in advance of the book) well before the stagflation of the 1970s and the mid-seventies downturn made its accuracy visible.

As is obvious – and it is this that forms the basis of all the attempts to prove (or disprove) Marx's 'law of motion' by statistical means – the phases through which the capitalist economy cycles are dominated by changes in the rate of profit in the ordinary sense, the return to capital investment collected by capitalists over time.[44] This allows us to pose the question of the utility of the Marxian theory at a less general level, for the understanding of particular phases or even episodes of economic history – specifically, the question of the relation of empirical profitability to the unobservable, theoretical, systemic rate of profit.

A useful concept here is that of *ceteris paribus* laws, a typical feature of idealising theories. *Ceteris paribus* laws, in Nancy Cartwright's explanation, are 'generalizations that hold only under special conditions, usually ideal conditions'.[45] She gives the example of Snell's Law governing the refraction of light as it crosses media, which appears in elementary physics textbooks but actually holds only under special conditions (when the two media involved are optically isotropic). In fact, these conditions rarely obtain, but physics students must still learn Snell's Law because it signals 'that the same kind of explanation can be given even for some anisotropic media. The pattern of explanation derived from the ideal situation is employed even where the conditions are less than ideal; and we assume that we can understand what happens in nearly isotropic media by rehearsing how light rays behave in pure isotropic cases'.[46]

Similarly, in application to real-world situations, Marx's theoretical model provides a 'pattern of explanation' than can be instantiated by historically specific constellations of economic phenomena, in which the value relations fundamental to Marx's 'law of motion' – in particular, the relation of surplus labour performed to the labour necessary to reproduce capital investment – can be identified conceptually, though not in terms of quantitative data.[47] Thus Marx's law of the tendency of the rate of profit to fall does not directly refer to what is

44 Though obvious, this has of course been the subject of controversy among economists. For seemingly definitive treatments of this question from widely different political and theoretical points of view, see Tapia, 'Profits encourage investment, investment dampens profits, government spending does not prime the pump – A DAG investigation of business-cycle dynamics', (2015) and Blanchard, Rhee, and Summers, 'The Stock Market, Profit, and Investment' (1993).

45 Cartwright, *How the Laws of Physics Lie* (1983), p. 45.

46 Ibid., p. 48.

47 Philosophers of science will note that 'instantiation' here is logically weaker than the deductive relationships central to the once-dominant Hypothetico-Deductive account of scientific theorising. In view of the discrediting of that account, this is hardly a disadvantage. Nowak suggests the useful analogy of caricature: 'Let us see what a cartoonist does: he

conventionally called the rate of profit in business statistics. It refers, as we have seen, to the relation between global capital investment and the quantity of surplus value produced by it and available at any given moment for a multitude of ruling-class purposes (which at the present time include such unprofitable uses as organised killing through war and limiting deaths from starvation and natural disaster through support of relief agencies). But since the mass of surplus value available constitutes an absolute limit to its appropriation by individual capitalists as profit, the tendency to the decline of this (unobservable) rate is clearly related, given the centrality of business profits to the society, to a *tendency* for conventional profitability to decline, even though this tendency may be offset at a given time by, for example, decreasing the amount of surplus value taken by the state. A declining rate of profit, in the Marxian sense, may manifest itself in a perceivable conflict between conventional profitability and the use of tax revenues for various government purposes. In this way, the concretisation of the abstract model makes possible the utilisation of empirical data (whatever their underlying limitations) to explore relations between such variables as profit, interest, and wage rates in economic history, such questions as the economic effects of changing oil prices, and even – integrating the specifically economic into the generally social – the relation between economic fluctuations and human health.[48]

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leaves out some details of the person presented, thus stressing what he considers important. That is, he employs the method of exaggeration: he does not present everything but distorts a person or a situation by neglecting some features he thinks minor ones. Science … does the same. When a physicist constructs the concept of a material point, he does not present physical objects but distorts them – he assumes that they have zero dimensions and focuses on other properties of these bodies (e.g., mass) which he considers more essential for physical magnitudes he investigates. In short: science consists in the same method we find in caricature' (*The Structure of Idealization* [1980], p. 134).

48 To take two examples from one author, see Tapia, 'Oil Prices and the world business cycle: A causal investigation' (2016) and Tapia, 'Increasing mortality during the expansions of the US economy, 1900–1996' (2005). The general point is well stated by Ian Hacking:

"The relations of models to theory and to phenomena are various and complex. Approximation seems more straightforward. Cartwright shows that they are not. Our usual idea of an approximation is that we start with something true, and, to avoid mess, write down an equation that is only approximately true. But although there are such approximations *away* from the truth, there are far more approximations *towards* the truth. In many a theory of mathematical physics we have a structural representation with some equations at a purely hypothetical level, equations which are already simplifications of equations which cannot be solved. In order to make these fit some level of phenomenological law, there are endless possible approximations. After a good deal of fiddling someone sees that

In this way, as Henryk Grossmann expressed the point, the examination of 'the concrete circumstances under which capital accumulation in fact proceeds' makes it possible to see 'to what extent the results of our abstract theoretical analysis are in agreement with the phenomena of concrete reality'.[49] The *ceteris paribus* character of its laws hardly means that Marx's theory is not an empirical one. But the comparison with physics requires recognising the differences between the two domains. If we are to understand the relevance of the theory in *Capital* to understanding social reality, we must abandon the idea of deriving measurable consequences from Marx's 'law of motion' of capitalist society. In the absence of what philosophers of science call 'bridge laws', connecting the abstract relationships of the value theory to regularities discoverable in empirical data – such laws are impossible in cases like the one just discussed, because the complexities of social practice mean that the relation between the Marxian rate of profit and empirical business profitability is not statable as a regular function – the Marxian theory cannot provide specific time-governed predictions or explain individual events other than by providing a general pattern in which they may be situated. (Of course, other theoretical approaches to the economy can't do this either.)

To take a central question, the nature of recurring crisis, Marx claimed that 'the examination of the general nature of capital, even without going further into the actual relations which all constitute prerequisites for the real process of production, reveals [the possibility of crisis] … clearly'.[50] Further, his theory of capital accumulation as the dominant dynamic of the economic system provides a general explanation for the link between declining profitability and depression, though each depression has individual features explainable only by reference to specific historical conditions. And the theory of credit, even in the undeveloped state in which Marx left it, provides materials for understanding the role of financial crises in the unfolding of business downturns. In this way, while not himself achieving the theory of the crisis mechanism he originally promised for the last volume of his *opus* ('world market and crises'), Marx provided materials for the construction of such a theory – one first worked out, as we saw in the previous chapter, by Henryk Grossmann. Marx's abstract schema of the tendential fall of the profit rate and its countering by the

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one approximation tallies nicely with the phenomena. Nothing in the theory says that this is the approximation we shall use. Nothing in the theory says that it is the truth. But it is the truth, if anything is" (*Representing and Intervening* [1983], p. 218).

49 Grossmann, *Das Akkumulations- und Zusammenbruchsgesetz* (1929), pp. 288, 289.

50 Marx, 'Economic Manuscripts' in MECW 32, p. 124.

devaluation of capital (and labour) produced by depressions provided a framework for understanding the historically observed alternation of prosperity and depression. But the theoretical distance between the abstract value analysis and the range of historical phenomena forbids an immediate identification of the two, both setting a limit to the explanatory (and so predictive) power of Marxian theory and constituting a strength: The very distance between theory and phenomena opens a way to understanding changes in the nature of crisis phenomena.

Categories and Data

This requires some way of bridging the categories framing the Marxian idealisation and the categories of everyday economic life. To take a crucial example, how are the familiar phenomena of the business cycle – crises, depressions, recoveries, prosperities – to be associated with the elements of Marx's conceptualisation of it? Writing before the development of business cycle theories and the systematic collection of data, Marx found his subject-matter in the empirical experience of crises as breakdowns in the process of social reproduction: 'On the one hand there is a superabundance of all kinds of unsold commodities on the market. On the other hand bankrupt capitalists and destitute, starving workers'.[51] Typical phenomena included bank panics, credit contractions, halts of production in the face of contracting markets, attendant mass unemployment, and contractions of international trade.[52] While in 'particular crises', affecting only one segment of an economy or one geographical area,[53] 'the eruptions are only sporadical, isolated and one-sided', in 'world market crises, all the contradictions of bourgeois production erupt collectively …'[54]

51 Marx, 'Economic Manuscript', in MECW 32, p. 153.

52 See Marx's interesting articles on the international crisis of 1857, written at the time for the *New-York Daily Tribune*, in MECW 15, pp. 379–91 and 400–18. A confirmation of his idea of crisis as a recurrent feature of capitalism, it was (as Maximilien Rubel notes) 'the American and international crisis of 1857, which he had expected for seven years' that led Marx to return to the project of writing a critique of capitalist economics (M. Rubel [ed.], *Oeuvres de Karl Marx: Économie*, Vol. II [1968], p. lxxxix).

53 These are what he also identified as 'partial crises', which can 'arise from disproportionate production', i.e. production in excess of social demand and thus involving a wastage of social labour-time that appears in the form of prices too low to yield acceptable profits (Marx, 'Economic Manuscript', in MECW 32, p. 150).

54 Marx, 'Economic Manuscript', in MECW 32, p. 163.

As the last-quoted phrase suggests, Marx's conception of crisis was framed in terms of the categories developed in his idealised model of capitalist society. While he insisted that the world market crisis, as 'the most complicated phenomenon of capitalist production', must be explained 'from the real movement of capitalist production, competition and credit' – and ultimately from the particular circumstances of individual occurrences – it 'must be regarded as the real concentration and forcible adjustment of all the contradictions of bourgeois economy'.[55] While Marx shows that the possibility of crisis is inherent in the practice of commodity exchange against money, he demonstrates the necessity of crisis in the course of the three volumes of *Capital*:[56] only with the derivation of the tendency of the rate of profit to fall does he explain that crisis recurs as a regular feature of capitalism because it is 'a *disturbance in the reproduction process* due to the increase in the value of that part of constant capital which has to be replaced out of the value of the product'.[57] The crisis is necessary, as we saw in the previous chapter, because it is the condition for the restoration of the conditions of adequate profitability.[58]

In Marx's time, when the concept of the business cycle (or trade cycle, as it was called then) was coming to be recognised as an expectable aspect of the modern economy,[59] the collecting of business statistics was still in its relative infancy, and sophisticated methods for manipulating them were still to be constructed. Today's profusion of national income data, as well as massive collection of business statistics, has naturally attracted marxists wishing to test Marxian theories and predictions.[60] There are, however, problems with this.

One has to do with the nature of the data themselves. It is of the nature of business-cycle data that their interpretation is not univocal. Business and national income statistics are not used in this context as found, but must be considerably massaged with filters and other means to remove fluctuations deemed irrelevant to fundamental trends. Even then, in the words of Wesley Mitchell, the great pioneer of business-cycle studies,

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55 Ibid., pp. 132, 143, 140.

56 See ibid., p. 143.

57 Ibid., p. 146.

58 For an outstanding précis of Marx's crisis theory, see Besomi, '"Marxism Gone Mad": Tugan-Baranovsky on Crises, their Possibility and their Periodicity' (2006), pp. 150–7.

59 See Besomi, 'Clement Juglar and the transition from crises theory to business cycle theories' (2005).

60 See, for examples produced by the first generation of post-Sixties American marxist economists, the articles collected in 'Empirical Work in Marxian Crisis Theory', *Review of Radical Political Economy* 18: 1–2 (1986).

> Statistics provide no direct evidence of the existence of 'the' business cycle; what they provide is evidence of cyclical fluctuations in hundreds of time series. Indeed, it is difficult to construct from the data, or even to conceive of constructing, any single index of 'the general trend' in business activity.[61]

Not waiting for the postmodernist critique of economic science, Mitchell described the term 'business cycle' as 'a synthetic product of the imagination – a product whose history is characteristic of our ways of learning'.[62] This is as true today as when Mitchell wrote those words in 1927; the NBER explicitly combines two methods, statistical and judgmental, to identify business-cycle turning points.

The statistical method is straightforward, though it must be remembered that it involves the interpretation, not a simple reading, of data. As the authors of an IMF study of global economic collapses and revivals put it, 'In deciding when a particular country is in recession, economists often use statistical procedures to date the peaks and troughs of a key indicator of economic activity, such as the country's real GDP'.[63] What may seem to be a simple decision actually depends on such choices as that of what constitutes a 'normal' rate of growth: Applying the method globally, '[i]f one assumes that a global recession takes place when world GDP growth (with purchasing-power-parity weights) is less than 3 percent, the world economy was in recession for 14 years during 1960–2012, and 20 years using market weights over the same period. If one … assumes the threshold is 1 percent, there were nine' or '13 years of global recession' since 1960.[64] Hence recourse is made to the judgmental method.

This is based on Arthur Burns's and Wesley Mitchell's definition of a national business cycle as 'consist[ing] of expansions occurring at about the same time in many economic activities, followed by similar general recessions, contractions, and revivals which merge into the expansion phase of the next cycle'.[65] Following this model, the NBER and its euro-area homologue, the CEPR, 'date

61 Mitchell, *Business Cycles* (1927), p. 454.

62 Ibid., p. 2. See his conclusion from a review of statistical techniques that '[i]nability to measure the net effects of secular, seasonal, and random factors separately, or in combination, means that we cannot isolate the cyclical fluctuations of time series by eliminating the three other sets of changes …' (ibid., p. 255).

63 Kose and Terrones, *Collapse and Revival: Understanding Global Recessions and Recoveries* (2015), p. 29.

64 Ibid., p. 38.

65 Burns and Mitchell, *Measuring Business Cycles* (1946), p. 30.

business cycle peaks and troughs by looking at a broad set of economic indicators and reaching a judgment on whether a preponderance of the evidence points to a recession'.[66] For example, when the NBER cycle turning-point Dating Committee announced that a recovery from the Great Recession had begun in June 2009, their report explained that this date was chosen on the basis of 'weighing the behavior of a large number of economic indicators'. Their judgment 'that any future downturn of the economy would be a new recession and not a continuation of the recession that began in December 2007' was similarly based on their sense, based on weighing a number of indicators, of 'the length and strength of the recovery to date'.[67]

Business cycle and similar data, then, are what Mohammed H.I. Dore has called 'stylized facts', whose construction reflects the conventions of ongoing statistical practices and 'also in part … a priori theoretical considerations'.[68] In this, economic facts do not differ in principle from facts in other areas of science, where they are also governed – though, of course, not determined – by research practices and theoretical considerations. It works out differently here than in the natural sciences, however, because of the theoretical and explanatory weakness of economics as a discipline.

One result is that the phenomena which theory is supposed to explain are not well-defined. Most commentators (though not, it must be said, many marxist theorists) accept NBER's judgment that the American economy moved from recession to recovery in mid-2009, however dubious this judgment may seem

66 The indicators used by the NBER are 'GDP, industrial production, retail sales, employment, disposable income, and initial claims for unemployment insurance' (Kose and Terrones, *Collapse and Revival: Understanding Global Recessions and Recoveries* [2015], p. 30).

67 See http://www.nber.org/cycles/sept2010.html (accessed 3/17/13). Strikingly, the NBER explains in another document that the Dating Committee 'does not have a fixed definition of economic activity'. See http://www.nber.org/cycles/recessions.html. It is not surprising that the Dating Committee ignored Morgenstern's warning that 'only the broad tendency of an increase of national income over longer periods of time can be asserted with confidence', something that casts 'serious doubts on the usefulness of national income figures for business cycle analysis. The idea that quarterly, let alone *monthly*, figures of gross national product, national income, etc. could be obtained, even with the most modern recording devices, without appreciable error, is nothing short of grotesque'. Even '[c]hanges persisting for several quarters are seldom significant'. And '[w]hen the time series are formed of large aggregates, such as Gross National Product or national income, it is impossible to determine any particular month as a turning point …' (*On the Accuracy of Economic Observations* [1963], pp. 268, 58).

68 Dore, 'Stylized Facts' (1997), p. 662.

to the nonprofessional newspaper-reader, not to mention the still-unemployed worker. But there is, oddly, disagreement about the dating of the Great Depression of the 1930s, even though this is farther in the past and so would seem more solidly established as a matter of historical fact. According to the NBER, the United States economy was in a period of contraction from 1929 to 1933; a period of expansion led to a new contraction in 1937, which ended in 1939. The director of an earlier incarnation of the NBER, Arthur F. Burns, gave a different chronology, writing of 'the chasm in economic activity between 1929 and 1937 and the valley between 1937 and 1939'.[69] Other writers simply date the depression 1929–38 or 1939; thus Broadus Mitchell asserted in his magisterial history of the Depression that 'economic revival in the United States dated from the outbreak of war in Europe in September [1939]'.[70]

Moreover, it is not enough to accept that cyclical turning points are fuzzy, given the complexity of the economy and the iffy character of economic data. Their identification is not independent of theoretical decisions. The German economic recovery of 1932–8 provides a good example. As one study explains, 'At one level … it is possible to argue that the recovery was part of the normal business cycle'. This author concludes, however, that 'public investment, or private investment under government control, came to play a key part in the expansion and reconstruction of the domestic economy'. In fact, 'The bulk of all investible income after 1933 went towards financing state expenditures and not into the private capital market'.[71] The distinction between recovery in a 'normal business cycle' and a government-induced expansion has definite theoretical implications, though they are not explored in this text.

The same holds for variant interpretations of the post-1933 upturn in the United States. In the words of *Wikipedia*, '[t]here is no consensus among economists regarding the motive force for the U.S. economic expansion that continued through most of the Roosevelt years (and the 1937 recession that interrupted it). The common view among many economists is that Roosevelt's New Deal policies either caused or accelerated the recovery',[72] and that the nation fell back into contraction when the government reduced its stimulus efforts in 1937. In a well-known article, in contrast, E. Cary Brown argued that fiscal policy was 'an unsuccessful recovery device in the thirties – not because it did

69 Burns, 'Economic Research and the Keynesian Thinking of Our Times' (1954a), p. 11.

70 Mitchell, *Depression Decade: From New Era through New Deal, 1929–1941* (1947), p. 371.

71 Overy, *The Nazi Economic Recovery, 1932–1938* (1982), pp. 28–9, 36, 45–6.

72 http://en.wikipedia.org/wiki/Great_Depression#Turning_point_and_recovery (accessed 3/18/13).

not work but because it was not tried', so that 'it took the massive expenditures forced on the nation by the second world war to realize the full potentialities of fiscal policy'.[73]

On both the 'common view' and Brown's perspective, shared by a devoted Keynesian like Alvin Hansen, the stimulus of the 1930s was not great enough to 'prime the pump' and return the economy to 'full-employment equilibrium'. Interestingly, such a conclusion is also suggested by a third view: Christina Romer has argued that the high rates of growth during 1933–7 and 1937–42 were due not to fiscal or monetary policy but to the stimulus of an inflow of gold into the American system from Europe, which lowered interest rates and so led to increased investment and consumption. Because the GDP growth resulting from this stimulus, though numerically large, still led to growth well below the pre-1929 norm, however, the economy did not return to 'normal' – with, for example, full employment – until the war spending of the early 1940s.[74]

Like Overy's analysis of the Nazi recovery, such analyses of the US recovery from the Great Depression, while allowing that governmental interventions can function as an element of the macroeconomic mechanism, distinguish between a state of the economy proper, on the one hand, and the effects of government spending, on the other, even though the difference between something we could call 'capitalist growth' and something else, 'state spending-induced growth', is elided in the Keynes-inspired concept of 'national income', as measured and analysed by such institutions as the BEA and NBER, and the concept of 'growth' lying behind such statements as Burns's assertion that 'our economy has moved steadily forward since 1938'.[75] The same issue arises with regard to the 2009 'recovery': to what extent was this an effect of state-financed stimulus efforts, and to what extent was it a result of developments in the private-property economy itself? In the case of a purported 1938 (or 1939) end to the Great Depression, as in that of the German recovery, the case for government spending as the primary causal agent is stronger, since the war brought a massive transfer of resources from civilian industry to government-funded war production. But even here, if we are to avoid the confusion of correlation

73 Brown, 'Fiscal Policy in the Thirties: A Reappraisal' (1956), pp. 857–79, pp. 863–6, 869.

74 Romer, 'What Ended the Great Depression?' (1992), pp. 757–84. And what are we to say about the fact that '[i]n 1946 real GDP declined by 19 percent, the largest single decrease of the century according to official statistics. Government data indicates a Great Depression in 1946 while conventional wisdom regards the transition from war to peace as relatively smooth or even prosperous' (Bagus, 'Morgenstern's Forgotten Contribution' [2011] p. 552).

75 Burns, 'Business Cycle Research and the Needs of Our Times' (1954b), p. 177.

with causation, characterising the contribution of government spending to the economy requires a theory explaining the economic turning points on which the description of the depression is based. The problem is, of course, that this theory must be accepted on grounds other than the data which it is to be used to interpret; otherwise it is merely, as Dore puts it, an *a priori* one.

Prosperity as Depression

The wealth of statistical data analysed by the NBER and similar institutions are, in other words, in themselves of not much use in understanding the capitalist crisis cycle, and may even constitute a factor of confusion. Certainly, to apply the Marxian conceptual system – framed, let us remember, without the aid of such data and without the modern macroeconomic concepts of 'growth' and GDP – to this history requires a clear distinction between prosperity or depression as states of the capitalist system and the phenomena of high, low, or negative growth chronicled in business and national-income data.

The modern concept of 'growth' as change in GDP is a dynamised form of the 'appearance' that '[t]he wealth of societies in which the capitalist mode of production prevails appears as an "immense collection of commodities" …' The form of wealth historically specific to capitalism is in reality, as Volume I of *Capital* demonstrates, capital itself: the control over other people's labour materialised sequentially in money, means of production, and produced commodities whose sale yields a surplus value. The concept of growth relevant to such a social system is therefore the accumulation of (industrial) capital: it is the growth of surplus value-producing capital that constitutes the health of the system and its slowdown or interruption that is experienced as crisis and depression.[76] This is dimly recognised in the use of the 'judgmental method' of business-cycle analysis alongside tracking changes in *per capita* GPD, as measures of 'industrial production, unemployment, trade and capital flows, and energy consumption'[77] are indirect indicators of the progress of accumulation. But of course such measures are too indirect, since they do not distinguish

76 It is worthwhile pointing out that an individual national economy can 'grow' by appropriating surplus value from other parts of the world, even if it has not produced or accumulated much surplus value domestically; a prime example, well analysed by Tony Norfield in *The City: London and the Global Power of Finance* (2016), is the UK.

77 Kose and Terrones, *Collapse and Revival: Understanding Global Recessions and Recoveries* (2015), p. 29.

productive (of surplus value) from unproductive activities, just as changes in GDP do not reveal the profitability and accumulation of capital in the Marxian sense.

On the one hand, then, the fact of recurrent economic crisis is apparent even through the fog of bourgeois theory and the data it structures; on the other, the analysis of crisis and the changes in its mode of manifestation over time requires 'the power of abstraction'. If we start from Marx's idealised model of capitalism, it is possible not only to explain the alternation of depression and prosperity but also to distinguish capitalist prosperity proper, so to speak, from a condition of growth produced in part by non-productive economic activity. Since the government (apart from whatever productive resources it controls) has at its disposal only quantities of surplus value taxed or borrowed from its original capitalist appropriators, the profits earned by particular enterprises paid out of public spending represent the reallocation of surplus value already produced by the system as a whole, so that the valorisation of capital in these cases is illusory. During World War II, for instance,

> the American government purchased roughly half of the national product. Under these conditions, however, the rate of investment was 2.9 per cent of gross national product – a rate below that of the depression years, with the sole exception of 1932, when the rate was 1.5 per cent.[78]

From the Marxian point of view, therefore, the Great Depression can only be said to have ended by the late 1940s, when capital accumulation revived in the US and abroad. Broadus Mitchell comes surprisingly close to this view in saying that 'in the crucial aspect of a waste of economic resources, human and physical, the war was, particularly for the United States, a deepening of the depression'. A state of affairs in which thirty-odd million people laboured in war production or in the armed services, he points out, cannot be described as the prosperity of 'a normal economy'.[79] And indeed the war continued the work, normally done by a depression, of destroying capital values – and means of production themselves, thus clearing the way for new, more productive means of production – rendering credit holdings and other claims on surplus value null and void, lowering the cost of labour power, and hastening the concentration and centralisation of capital on an international scale.

78 Mattick, *Marx and Keynes* (1969), p. 189.

79 Mitchell, *Depression Decade* (1947), pp. 396–7.

It is not surprising that a depression of the length and depth of that of the 1930s, combined with the physical and economic destruction of capital effected by the world war, led to an exceptionally long prosperity. In Angus Maddison's words, 'The years 1950 to 1973 were a "golden age"' which saw 'a growth of GDP and GDP per capital on an unprecedented scale in all parts of the world economy ...'[80] The exceptional length of the Golden Age was due also to the continuation into the post-depression period of what had come to be called Keynesian methods. As Maddison observes, 'a major feature of the golden age was the substantial growth in the ratio of governmental spending to GDP', which 'rose from 27 per cent of GDP in OECD countries in 1950 to 37 per cent in 1973'.[81] In most countries this largely involved increases in welfare-state spending on such matters as social security, education, and healthcare. In the United States it included sizeable sums spent on war and preparations for war. In the words of economist Philip A. Klein, writing for the conservative American Enterprise Institute, 'America's "longest peacetime expansion" – from 1961 to 1969 – was influenced greatly by the redefinition of the term "peacetime" to include the Vietnam war and the increase in defence spending from $50 billion in fiscal year 1965 to $80 billion in fiscal year 1968 ...'[82] These numbers were, of course, below the levels of government spending during World War II itself, but they show that the capitalist economy proper – the private enterprise system – was, even after the profit-restoring effects of a crisis lasting from 1929 to 1945, not by itself able to produce a level of well-being sufficient, in the eyes of social decision-makers, to achieve a politically desirable level of social contentment. Thus, for example, when a Republican government, acting on its anti-New Deal, pro-free enterprise ideology, cut defence spending after the end of the Korean War in 1953 without adding offsetting increases in domestic expenditure, the United States experienced a sharp drop in production and a correspondingly sharp increase in unemployment. Despite its initial wishes, the Eisenhower administration quickly acted to lower interest rates and increase government spending, including on public works (on the scale of the interstate highway system) as well as on directly military projects. In the United States, in fact, political economist Joyce Kolko noted in 1988, 'roughly half of all new employment after 1950 was created by state expenditures, and a comparable shift occurred in the other OECD nations'.[83]

80 Maddison, *The World Economy in the 20th Century* (1989), p. 34.

81 Ibid., p. 69.

82 Klein, *Business Cycles in the Postwar World: Some Reflections on Recent Research* (1976), pp. 2–3.

83 Kolko, *Restructuring the World Economy* (1988), p. 19.

While from the conventional point of view the growing burden of debt, public and private, since the war is a problem to be mastered, in Marxian terms it constitutes a new manifestation of insufficient profitability. Looked at from the other side, it is the refusal of capitalist governments to allow any post-war recession to run its course as a full-fledged depression that has prevented the restoration of the conditions for a full-bore prosperity. Since the economy remains a 'mixed' economy, combining a larger privately-owned sector with a growing but still smaller state-financed sector, the stagnating capitalist economy continues to experience the ups and downs of the business cycle, though in a dampened form. Even so, the continuing low level of accumulation due to low profitability produces a susceptibility to moments of severe disruption such as that experienced in 2008.

We began this discussion, in Chapter 2, with a glance at such a moment of disruption, the Asian Crisis of 1997–8. It should by now be possible to see how a plausible explanation of this event can be worked out, on the basis of Marx's theoretical model of capitalism, by tracing the appearance of tendencies predicted by that model – such as declining profitability and the growth of speculation under low-profitability conditions – in empirical phenomena of a particular period. In the same way, we can see that the Great Recession represented not a sudden shift in conditions but a deepening of the difficulties of capital accumulation that had manifested themselves in various forms – stagflation, international debt crises, stock market crashes, bank failures, and the post-1990 depression in Japan – since the mid-1970s, when the first major crisis since the Great Depression was prevented by state action from deepening into a full depression.[84] These are all recognisable as symptoms of an inadequate level of systemic profitability, which cannot be directly observed or measured empirically, but which the Marxian theory of capitalism explains. Despite the intuitions of the NBER Dating Committee, the economic lift provided by stim-

84 In Europe, 'public expenditure rose from 38 percent [of GDP] in 1967–69 to 46 percent in 1974–76', with spending – above all on transfer payments and social programmes – 'especially rapid in Germany, the Netherlands, Denmark, and Sweden' (Eichengreen, *The European Economy Since 1945: Coordinated Capitalism and Beyond* [2007], p. 271). In Japan, government spending rose from 19.3 percent of GDP in 1970 to 27.3 percent in 1975 and 32.2 percent in 1980. In the United States, spending increased from $264.8 billion in 1973 to $356.9 billion in 1975 (it had been $40.8 billion in 1950). The financial aspect of the crisis – the 1974 failure of the Franklin National Bank and the serious difficulty of other banks – was contained by swift action by the Federal Reserve Bank (see Minsky, *Stabilizing an Unstable Economy* [2008 (1986)], pp. 17–31).

ulus programmes in 2009, together with the destruction of fictitious capital values and the forced reorganisation of capital, only marked an episode in a continuing period of depression.

Marx's model also casts a grim light on another disturbing phenomenon of contemporary capitalism – the evident inability of the global ruling class to stem the global warming that is ineluctably producing a series of catastrophic events progressively threatening the reproduction of social life. Diminishing the carbon-dioxide emissions producing climate change would necessitate the destruction of enormous quantities of capital invested not only in the fossil-fuel extraction industries but in the generally fossil-fuel-based industrial infrastructure. This would bring an unprecedented disruption not just of the structure of capital ownership, with the bankruptcy of some of the world's largest corporations, but of the pattern of social reproduction that rests upon this structure. A social system governed by the imperative of profit production is not quickly going to sacrifice the basis of its existence, even if this is necessary to preserve the existence of the world's major cities, threatened by sea-level rise before the end of the present century, not to mention the lives of millions of people due to be displaced or killed by rising water levels, increased heat and humidity, and failing agriculture. In this we can literally see how capital accumulation – the expansion of materialised labour-time by the extraction of surplus-labour – takes practical precedence over all other aspects of social reality, represented by their absence from the theoretical model. Paradoxically, Marx's idealised abstraction clarifies both the concrete peril humanity finds itself in, and the concrete action required – no less than the abolition of the 'cell form' of capitalist social relations, the production of commodities by waged labour subordinate to capital – if we are to survive into a more desirable future.

Bibliography

Apostel, Léo 1961, 'Toward the Formal Study of Models in the Non-Formal Sciences', in *The Concept and the Role of the Model in Mathematics and Natural and Social Sciences*, edited by Hans Freudenthal, Dordrecht: Reidel.

Apostel, Léo 1967 'Logique et dialectique', in *Logique et conaissance scientifique*, edited by Jean Piaget, Encyclopédie de la Pléïade, Paris: Gallimard.

Apostel, Léo 1979 *Logique et dialectique*, Ghent: Communication & Cognition.

Arthur, Christopher J. 1993, 'Hegel's *Logic* and Marx's *Capital*', in *Marx's Method in* Capital. *A Reexamination*, edited by Fred Moseley, Atlantic Highlands: Humanities Press.

Arthur, Christopher J. 2002, 'Capital in General and Marx's *Capital*', in *The Culmination of Capital: Essays on Volume III of Marx's* Capital, edited by Martha Campbell and Geert Reuten, New York: Palgrave.

Bagus Philipp 2011, 'Morgenstern's Forgotten Contribution: A Stab to the Heart of Modern Economics', *American Journal of Economics and Sociology*, 70, 2: 540–62.

Banaji, Jairus 1979, 'From the Commodity to Capital: Hegel's Dialectic in Marx's "Capital"', in *Value: The Representation of Labour in Capitalism*, edited by Diane Elson, London: CSE Books.

Barbon, Nicholas 1905, *A Discourse of Trade* [1690], edited by Jacob H. Hollander, Baltimore: Lord Baltimore Press.

Bartelheimer, Peter and Harald Wolf 1992, 'The Income of Wage Earners is Declining: On the Influence of State Activity on Total Wage Earners' Income and its Redistributive Effect', *International Journal of Political Economy*, 22, 3: 29–45.

Basu, Deepankar and Ramaa Vasudevan 2015, 'Technology, Distribution and the Rate of Profit in the US Economy', unpublished ms.

Besomi, Daniele 2005, 'Clement Juglar and the transition from crises theory to business cycle theories', accessible at http://www.unil.ch/files/live//sites/cwp/files/users/neyguesi/public/D._Besomi_ (last accessed 9/13/2016).

Besomi, Daniele 2006, '"Marxism Gone Mad": Tugan-Baranovsky on Crises, their Possibility and their Periodicity', *Review of Political Economy*, 18, 2: 147–171.

Blanchard, Olivier, Changyong Rhee, and Lawrence Summers 1993, 'The Stock Market, Profit, and Investment', *The Quarterly Journal of Economics* 108, 1: 115–36.

Böhm-Bawerk, Eugen 1949 [1896], 'Karl Marx and the Close of His System', in *Karl Marx and the Close of His System and Böhm-Bawerk's Criticism of Marx*, edited by P.M. Sweezy, New York: Augustus M. Kelley.

Bortkiewicz, L. von 1949 [1906], 'On the Correction of Marx's Fundamental Theoretical Construction in the Third Volume of *Capital*', in *Karl Marx and the Close of His System*, edited by Paul M. Sweezy, New York: Augustus M. Kelley.

Bortkiewicz, L. von 1952 [1907], 'Value and Price in the Marxian System', translated by J. Kahane, *International Economic Papers*, 2: 5–60.

Bourdieu, Pierre 1984, *Distinction. A Social Critique of the Judgment of Taste*, translated by Richard Nice, Cambridge: Harvard University Press.

Bourdieu, Pierre 1991, 'Social Space and the Genesis of "Classes"', in *Language and Symbolic Power*, translated by Gino Raymond and Matthew Adamson, Cambridge: Harvard University Press.

Brenner, Robert 1998, 'The Economics of Global Turbulence', in *New Left Review*, 229.

Brenner, Robert 2006, *The Economics of Global Turbulence*, London: Verso.

Brenner, Robert 2009 'What's Good for Goldman Sachs is Good for America: The Origins of the Current Crisis', accessible at http://escholarship.org/uc/item/0sg0782h; last accessed 10 November 2010.

Brown, E.C. 1956, 'Fiscal Policy in the Thirties: A Reappraisal', *American Economic Review*, 46, 5: 857–79.

Burns, A.F. 1954a, 'Economic Research and the Keynesian Thinking of Our Times', in *The Frontiers of Economic Knowledge*, Princeton: Princeton University Press.

Burns, A.F. 1954b, 'Business Cycle Research and the Needs of Our Times', in *The Frontiers of Economic Knowledge*, Princeton: Princeton University Press.

Burns, A. and W. Mitchell 1946, *Measuring Business Cycles*, New York: National Bureau of Economic Research.

Campbell, Martha 1993, 'Marx's Concept of Economic Relations and the Method of *Capital*', in *Marx's Method in* Capital. *A Reexamination*, edited by Fred Moseley, Atlantic Highlands: Humanities Press.

Campbell, Martha 2002, 'The Credit System', in *The Culmination of Capital. Essays on Volume III of Marx's* Capital, edited by Martha Campbell and Geert Reuten, London: Palgrave.

Campbell, Martha 2003, 'Marx's Explanation of Money's Functions: Overturning the Quantity Theory', accessible at https://www.mtholyoke.edu/courses/fmoseley/conference/campbell.pdf, (last accessed 2/15/2015).

Carchedi, Guglielmo 1984, 'The Logic of Prices as Values', *Economy and Society*, 13, 4: 431–55.

Carchedi, Guglielmo 1989, 'Classes and Class Analysis', in *The Debate on Classes*, edited by Erik Olin Wright et al., London: Verso.

Cartwright, Nancy 1983, *How the Laws of Physics Lie*, Oxford: Oxford University Press.

Cartwright, Nancy 1989, *Nature's Capacities and Their Measurement*, Oxford: Clarendon Press.

Cartwright, Nancy and Henry Mendell 1984, 'What Makes Physics' Objects Abstract?', in *Science and Reality*, edited by J.T. Cushing, C.F. Delaney, and G.M. Gutting, Notre Dame: University of Notre Dame Press.

Clarke, John 1991, *New Times and Old Enemies. Essays on Cultural Studies and America*, London: HarperCollins.

Coates, David 2000, *Models of Capitalism: Growth and Stagnation in the Modern Era*, Cambridge: Polity.

Cogoy, Mario 1974, 'Das Dilemma der neo-Ricardianischen Theorie', in *Gesellschaft: Beiträge zur Marxschen Theorie*, edited by Hans Georg Backhaus et al., Frankfurt: Suhrkamp.

Cogoy, Mario 1977 *Wertstruktur und Preisstruktur: Die Bedeutung der linearen Produktionstheorie für die Kritik der politischen Ökonomie*, Frankfurt: Suhrkamp.

Cogoy, Mario 1987a [1972], 'Neo-Marxist Theory, Marx, and the Accumulation of Capital', in *International Journal of Political Economy*, 17, 2: 11–37.

Cogoy, Mario 1987b [1974], 'The Falling Rate of Profit and the Theory of Accumulation. A Reply to Paul Sweezy', in *International Journal of Political Economy*, 17, 2: 54–74.

Condorcet, A.-N. de 1955 [1794], *Sketch for a Historical Picture of the Human Mind*, translated by June Barraclough, London: Weidenfield and Nicholson.

Cooper, Leon N. 1981, *An Introduction to the Meaning and Structure of Physics*, Providence: Peleu Press.

Corsetti, G., P. Pesentu, and N. Roubini 1999, 'What Caused the Asian Currency and Financial Crisis?', *Japan and the World Economy*, 11:3: 305–73.

Dahrendorf, Ralf 1959, *Class and Class Conflict in Modern Society*, Stanford: Stanford University Press.

Davis, Mike 2006, *Planet of Slums*, London: Verso.

Desai, Meghnad 1974, *Marxian Economic Theory*, London: Gray-Mills.

Domhoff, G. William 1983, *Who Rules America? A View for the '80s*, New York: Simon & Schuster.

Dmitriev, V.K. 1974 [1904], *Economic Essays on Value, Competition and Utility*, translated by D. Fry, Cambridge: Cambridge University Press.

Donnelly, Michael 1997, 'Statistical Classification and the Salience of Class', in *Reworking Class*, edited by John R. Hall, Ithaca: Cornell University Press.

Dore, M.H.I. 1997, 'Stylized Facts', in *Business Cycles and Depressions*, edited by David Glasner, New York: Garland.

Draper, Hal 1977, *Karl Marx's Theory of Revolution. Part 1: State and Bureaucracy*, New York: Monthly Review Press.

Draper, Hal 1978, *Karl Marx's Theory of Revolution*, Vol. II, 'The Politics of Social Classes', New York: Monthly Review Press.

Duménil, G. and D. Lévy 2002, 'The profit rate: where and how much did it fall? Did it recover? (USA 1948–2000)', in *Review of Radical Political Economics*, 34: 437–61.

Duménil, G. and D. Lévy 2011, *The Crisis of Neoliberalism*, Cambridge: Harvard University Press.

Eichengreen, Barry 2007, *The European Economy Since 1945: Coordinated Capitalism and Beyond*, Princeton: Princeton University Press.

Ekeland, I. 1988, *Mathematics and the Unexpected*, Chicago: University of Chicago Press.

Endnotes and Aaron Benanav 2011, 'Misery and Debt', *Endnotes* 2.

Feynman, Richard P. et al. 1965, *The Feynman Lectures on Physics*, Vol. 3: Quantum Mechanics, Palo Alto: Addison-Wesley Publishing Company.

Firth, Raymond 1972, *The Sceptical Anthropologist? Social Anthropology and Marxist Views on Society*, reprinted From *Proceedings of the British Academy*, 63, London: Oxford University Press.

Foley, Duncan 1982, 'The Value of Money, the Value of Labor Power, and the Marxian Transformation Problem', *Review of Radical Political Economics*, 14, 2.

Foley, Duncan 1986, *Understanding Capital: Marx's Economic Theory*, Cambridge: Harvard University Press.

Foley, Duncan 1996, Review of *Marx and Non-Equilibrium Economics*, edited by Alan Freeman and Guglielmo Carchedi, *Eastern Economic Journal*, 23, 4.

Foley, Duncan 2011, 'The Long-Period Method and Marx's Theory of Value', in *The Evolution of Economic Theory: Essays in Honour of Bertram Schefold*, edited by Volker Caspari, Abington: Routledge: 15–38.

Freudenthal, Gideon 1997, 'Marx's Critique of Economic Reason', in *Science in Context*, 10, 1: 171–98.

Giere, R. 1984, 'Towards a Unified Theory of Science', in *Science and Reality*, edited by J.T. Cushing, C.F. Delaney, and G. Gutting, Notre Dame: Notre Dame Press.

Gillman, Joseph 1957, *The Falling Rate of Profit: Marx's Law and its Significance to Twentieth-Century Capitalism*, London: Dennis Dobson.

Giussani, Paolo 1998–9, 'Orthodoxy in Marxian Price Theory', *International Journal of Political Economy*, 28, 4: 6–22.

Godfrey-Smith, Peter 2009, 'Abstractions, Idealizations, and Evolutionary Biology', in *Mapping the Future of Biology: Evolving Concepts and Theories*, edited by A. Barberousse, M. Morange, and T. Pradeau, New York: Springer.

Grossmann, Henryk 1929, *Das Akkumulations- und Zusammenbruchstheorie des kapitalistischen Systems* (*zugleich eine Krisentheorie*), Leipzig: C.L. Hirschfeld.

Grossmann, Henryk 1971 [1931–3], 'Die Fortentwicklung des Marxismus bis zur Gegenwart', in Henryk Grossmann and Carl Grünberg, *Anarchismus, Bolschewismus, Sozialismus*, Frankfurt/Main: Europäische Verlagsanstalt, 1971.

Grossmann, Henryk 1943a, 'The Evolutionist Revolt against Classical Economics I', *Journal of Political Economy*, 51, 5.

Grossmann, Henryk 1943b, 'The Evolutionist Revolt Against Classical Economics II', *Journal of Political Economy*, 51, 6.

Grossmann, Henryk 2007 [1941], 'Marx, Classical Economics, and the Problem of Dynamics', translated by Paul Mattick, in *International Journal of Political Economy*, 36, 2.

Grossmann, Henryk 2016 [1932], 'The Value-Price Transformation in Marx and the Crisis Problem', translated by David Meienreis, in *Historical Materialism*, 24, 1: 105–34.

Guerrero, Diego 1992, 'Labour, Capital, and State Redistribution: The Evolution of Net Taxes in Spain (1970–1987)', *International Journal of Political Economy*, 22: 3, 46–71.

Hacking, Ian 1983, *Representing and Intervening: Introductory Topics in the Philosophy of Natural Science*, Cambridge: Cambridge University Press.

Han, Seungwan 1997, 'Die Metapher der Zelle. Zur Rekonstruktion Marxscher epistemischer Kontexte', in *Karl Marx – zwischen Philosophie und Naturwissenschaften*, edited by Anneliese Griese and Hans Jörg Sandkühler, Frankfurt: Peter Lang.

Harvey, David 1999, *Limits of Capital*, London: Verso.

Hausman, Daniel 1981, *Capital, Profits, and Prices, An Essay in the Philosophy of Economics*, New York: Columbia University Press.

Hegel, G.W.F. 1969 [1812–16], *The Science of Logic*, translated by A.V. Miller, London: George Allen & Unwin.

Hegel, G.W.F. 1970 [1830], *Hegel's Philosophy of Nature*, translated by A.V. Miller, Oxford: Clarendon Press.

Hegel, G.W.F. 1991 [1830], *The Encyclopedia Logic*, translated by T.F. Geraets, W.A. Suchting, and H.S. Harris, Indianapolis: Hackett.

Heinrich, Michael 2008, 'Begrundungsprobleme. Zur Debatte über das Marxsche "Gesetz vom tendenziellen Fall der Profitrate"', in *Marx-Engels-Jahrbuch*.

Heinrich, Michael 2012, *An Introduction to the Three Volumes of Karl Marx's* Capital, translated by Alexander Locascio, New York: Monthly Review Press.

Herrnstadt, Rudolf 1965, *Die Entdeckung der Klassen*, Berlin: VEB Deutscher Verlag der Wissenschaften.

Hilferding, Rudolph 1949 [1904], 'Böhm-Bawerk's Criticism of Marx', in *Karl Marx and the Close of His System and Böhm-Bawerk's Criticism of Marx*, edited by Paul Sweezy, New York: Augustus M. Kelley.

Hodges, D.C. 1965, 'The Value Judgment in *Capital*', in *Science & Society* 29, 3: 296–311.

Jones, Martin 2005, 'Idealization and Abstraction: A Framework', in *Idealization XII: Correcting the Model – Idealization and Abstraction in the Sciences*, edited by M.R. Jones and N. Cartwright, Poznan Studies in the Philosophy of the Sciences and the Humanities 86, Amsterdam: Rodopi.

Kant, Immanuel 1998 [1781], *Critique of Pure Reason*, translated by Paul Guyer and Allen W. Wood, Cambridge: Cambridge University Press.

Kanth, Rajani K. 1986 *Political Economy and Laissez-Faire: Economics and Ideology in the Ricardian Era*, Totowa: Rowman & Littlefield.

Klein, P.A. 1976, *Business Cycles in the Postwar World: Some Reflections on Recent Research*, Domestic Affairs Study 42, Washington: American Enterprise Institute.

Kliman, Andrew 2007, *Reclaiming Marx's 'Capital'. A Refutation of the Myth of Inconsistency*, Lanham: Rowman & Littlefield.

Kliman, Andrew 2012, *The Failure of Capitalist Production: Underlying Causes of the Great Recession*, London: Pluto Press.

Kliman, Andrew and Ted McGlone 1988, 'The Transformation Non-Problem and the Non-Transformation Problem', *Capital & Class*, 35.

Kolko, Joyce 1988, *Restructuring the World Economy*, New York: Pantheon.

Korsch, Karl 1963 [1938], *Karl Marx*, New York: Russell and Russell.

Kose, M. Ayhan and Marco E. Terrones 2015, *Collapse and Revival: Understanding Global Recessions and Recoveries*, Washington: International Monetary Fund.

Krahl, Hans-Jürgen 1970 'Bemerkungen zum Verhältnis von Kapital und hegelscher Wesenslogik', in *Aktualität und Folgen der Philosophie Hegels* edited by Oskar Negt, Frankfurt: Suhrkamp: 113–45.

Krugman, Paul 2014, 'Fire Sale FDI', accessible at http://web.mit.edu/krugman/www/FIRESALE.htm (last accessed 11/26/2014).

Kuhn, Rick 2007, *Henryk Grossman and the Recovery of Marxism*, Urbana and Chicago: University of Illinois Press.

Kühne, Karl 1979, *Economics and Marxism*, translated by Robert Shaw, New York: St. Martin's Press.

Kuruma, Samezo (ed.), 1973, *Marx-Lexikon zur politischen Ökonomie*, Vol. I, 'Konkurrenz', Berlin: Oberbaumverlag.

Kuznets, Simon 1955, 'Economic Growth and Income Inequality', *American Economic Review*, 45: 1: 1–28.

Labrinidis, George 2014, 'International Reserves in the Era of Quasi-World Money', accessible at https://mpra.ub.uni-muenchen.de/59963/1/RMF-46-Labrinidis.pdf (last accessed 4/26/2016).

Lange, Oskar 1968 [1935], 'Marxian Economics and Modern Economic Theory', in *Marx and Modern Economics*, edited by David Horowitz, New York: Monthly Review Press.

Lebowitz, Michael A. 1973–4, 'The Current Crisis in Economic Theory', in *Science and Society*, 38, 4: 385–403.

Lenin, V.I. 1967 [1913], 'The Three Sources and the Three Component Parts of Marxism', in *Selected Works*, Vol. I, New York: International Publishers.

Lenin, V.I. 1976, 'Conspectus of Hegel's Book *The Science of Logic*', in *Collected Works*, 4th ed., Moscow, Vol. 38.

Levinson, Marc 2013, 'U.S. Manufacturing in International Perspective', Washington: Congressional Research Service.

Lloyd, G.E.R. 1979, *Magic, Reason, and Experience. Studies in the Origins and Development of Greek Science*, Cambridge: Cambridge University Press.

Locke, John 1690, *Second Treatise on Civil Society*.

Lukács, Georg 1971 [1923], *History and Class Consciousness*, translated by Rodney Livingstone, London: Merlin.

Luxemburg, Rosa 1937 [1899], *Reform or Revolution*, translated by Integer, New York: Three Arrows Press.

Luxemburg, Rosa 1951 [1913], *The Accumulation of Capital*, translated by A. Schwarzschild, New York: Monthly Review Press.

Lwoff, André 1962, *Biological Order*, Cambridge: MIT Press.

Maddison, Angus 1989, *The World Economy in the 20th Century*, Paris: OECD.

Maddison, Angus 1995, *Monitoring the World Economy, 1820–1992*, Paris: OECD.

Marcuse, Herbert 1941, *Reason and Revolution: Hegel and the Rise of Social Theory*, London: Routledge and Keegan Paul.

Mariña-Flores, Abelardo 1998–9, 'Market Price of Production: A Structural Interpretation of Disequilibrium in the Framework of the Law of Value', in *International Journal of Political Economy*, 28, 4: 82–118.

Marx, Karl 1963 [1867], *Le capital*, translated by Joseph Roy, in Karl Marx, *Oeuvres*, Vol. I., 'Économie', edited by Maximilian Rubel, Paris: Gaillimard/La Pléïade.

Marx, Karl 1968, *Oeuvres. Économie*, Vol. II, edited by Maximilien Rubel, Paris: Gallimard/La Pléïade.

Marx, Karl 1976 [1867], *Capital*, Vol. I, translated by Ben Fowkes, Harmondsworth: Penguin.

Marx, Karl 1978 [1884], *Capital*, Vol. II, translated by David Fernbach, Harmondsworth: Penguin.

Marx, Karl 1981 [1895], *Capital*, Vol. III, translated by David Fernbach, Harmondsworth: Penguin.

Marx, Karl and Friedrich Engels, *Collected Works*, 1975–2005, New York: International Publishers.

Mattick, Paul 1967, 'Reflections on Input-Output Economics', in *Science and Society*, 31, 2: 202–21.

Mattick, Paul 1969, *Marx and Keynes: The Limits of the Mixed Economy*, Boston: Porter Sargent.

Mattick, Paul 1981, *Economic Crisis and Crisis Theory*, translated by Paul Mattick, Armonk: M.E. Sharpe.

Mattick, Paul [Jr.] 1982–3, 'Rudolph Hilferding, *Finance Capital*', in *Telos* 54: 199–212.

Mattick, Paul [Jr.] 1986, *Social Knowledge. An Essay on the Nature and Limits of Social Science*, Armonk: M.E. Sharpe.

Mattick, Paul [Jr.] 2003, *Art in Its Time: Theories and Practices of Modern Aesthetics*, London: Routledge.

Mattick, Paul [Jr.] 2009, 'Economics, politics and crisis theory: Luxemburg, Bukharin and Grossmann on the limits of capital', in *Rosa Luxemburg and the Critique of Political Economy*, edited by Riccardo Bellofiore, London: Routledge.

Mattick, Paul [Jr.] 2011, *Business as Usual: The Economic Crisis and the Failure of Capitalism*, London: Reaktion.

Mauke, Michael 1970, *Die Klassentheorie von Marx und Engels*, Frankfurt: Europäische Verlagsanstalt.

Mayer, François 1967, 'Situation épistémologique de la biologie', in *Logique et connaissance scientifique*, edited by Jean Piaget, Encyclopédie de la Pléïade Paris: Gallimard.

Medio, Alfredo 1972, 'Profits and Surplus Value: Appearances and Reality in Capitalist Production', in *A Critique of Economic Theory*, edited by E.K. Hunt and J.G. Schwartz, Harmondsworth: Penguin.

Mepham, John 1979, 'From the *Grundrisse* to *Capital*: The Making of Marx's Method', in *Issues in Marxist Philosophy*, Vol. I, edited by D. Ruben and J. Mepham, Atlantic Highlands: Humanities Press.

Mill, John Stuart 1967 [1836], 'On the Definition of Political Economy and on the Method of Investigation Proper to It', in *The Collected Works of John Stuart Mill*, edited by John M. Robson, Vol. IV, Toronto: University of Toronto Press.

Mill, John Stuart 1974 [1843], *A System of Logic Ratiocinative and Inductive. Being a Connected View of the Principles of Evidence and Methods of Scientific Investigation*, in *The Collected Works of John Stuart Mill*, edited by John M. Robson, Vol. VII, Toronto: University of Toronto Press.

Mill, John Stuart 1994 [1848] *Principles of Political Economy*, Oxford: Oxford University Press.

Minsky, Hyman P. 2008 [1986] *Stabilizing an Unstable Economy*, New York: McGraw Hill Education.

Mitchell, Broadus 1947, *Depression Decade: From New Era through New Deal, 1929–1941*, New York: Holt, Rinehart and Winston.

Mitchell, W.C. 1927, *Business Cycles, The Problem and Its Setting*, New York: NBER.

Morange, M. 2009, 'Articulating Different Models of Explanation: The Present Boundary in Biological Research', in *Mapping the Future of Biology*, edited by A. Barberousse et al., Dordrecht: Springer.

Morf, Otto 1970, *Geschichte und Dialektik in der politischen Ökonomie*, Frankfurt am Main: Europäische Verlagsanstalt.

Morgenstern, Oskar 1963, *On the Accuracy of Economic Observations*, second edition, Princeton: Princeton University Press.

Morrison, Margaret 2005, 'Approximating the Real: The Role of Idealizations in Physical Theory', *Idealization XII: Correcting the Model. Idealization and Abstraction in the Sciences*, edited by M.R. Jones and N. Cartwright, Poznań Studies in the Philosophy of the Sciences and the Humanities 86, Amsterdam: Rodopi.

Moseley, Fred 1991, *The Falling Rate of Profit in the United States Economy*, New York: St Martin's Press.

Moseley, Fred 1993, 'Marx's Logical Method & the Transformation Problem', in *Marx's Method in* Capital, edited by Fred Moseley, Atlantic Highlands: Humanities Press.

Moseley, Fred 2008, 'Some Notes on the Crunch and the Crisis', in *International Socialism* 119, available at http://www.isj.org.uk/index.php4?id=463&issue=119.

Moseley, Fred 2014, 'The Universal and the Particular in Hegel's *Logic* and Marx's *Capital*', in Fred Moseley and Tony Smith (eds.), *Marx's* Capital *and Hegel's* Logic (2014): 115–39.

Moseley, Fred 2016, *Money and Totality. A Macro-Monetary Interpretation of Marx's Logic in* Capital *and the End of the 'Transformation Problem'*, Leiden: Brill.

Moseley, Fred and Tony Smith (eds.) 2014, *Marx's* Capital *and Hegel's* Logic, Leiden: Brill.

Nersessian, Nancy J. 1984, *Faraday to Einstein: Constructing Meaning in Scientific Theories*, Dordrecht: Martinus Nilhoff.

Norfield, Tony 2013, 'Value Theory and Finance', in *Research in Political Economy*, 28: 161–195.

Norfield, Tony 2016, *The City*: *London and the Global Power of Finance*, London: Verso.

Nowak, Leszek 1980, *The Structure of Idealization. Towards a Systematic Interpretation of the Marxian Idea of Science*, Dordrecht: Reidel.

Okishio, Nobuo 2000, 'Competition and production prices', in *Cambridge Journal of Economics*, 25.

O'Malley, J. and F. Schrader (eds.) 1977, 'Marx's Précis of Hegel's Doctrine of Being in the Minor Logic', *International Review of Social History*, 22: 423–43.

Overy, R.J. 1982, *The Nazi Economic Recovery, 1932–1938*, London: Macmillan.

Petry, Franz 1916, *Der soziale Gehalt der marxschen Werttheorie*, Jena: G. Fischer.

Piketty, Thomas 2014, *Capital in the Twenty-First Century*, translated by Arthur Goldhammer, Cambridge: Harvard University Press.

Postone, Moishe 1993, *Time, Labour, and Social Domination. A Reinterpretation of Marx's Critical Theory*, Cambridge: Cambridge University Press.

Pugliese, Enrico 1993, 'The Europe of the Unemployed', in *International Journal of Political Economy*, 23, 3: 13–36.

Ravetz, Jerome R. 1971, *Scientific Knowledge and Its Social Problems*, New York: Oxford University Press.

Rabinbach, Anson 1990, *The Human Motor. Energy, Fatigue, and the Origins of Modernity*, New York: Basic Books.

Radelet, S. and J. Sachs 1998, 'The Onset of the East Asian Financial Crisis', National Bureau of Economic Research Working Paper No. 6680.

Ramos M., A. 1998–9, 'Value and Price of Production: New Evidence on Marx's Transformation Procedure', in *International Journal of Political Economy*, 28, 4.

Rauner, Robert M. 1961, *Samuel Bailey and the Classical Theory of Value*, Cambridge: Harvard University Press.

Rensch, Adam Theron-Lee 2016, 'What We Talk About When We Talk About Class', http://www.brooklynrail.org/2016/09/field-notes/what-we-talk-about-when-we-talk-about-class, last accessed 9/12/2016.

Ricardo, David 1966 [1817], *On the Principles of Political Economy and Taxation*, edited by Piero Sraffa, Cambridge: Cambridge University Press.

Robinson, Joan 1962, *Economic Philosophy: An Essay on the Progress of Economic Thought*, New York: Doubleday.

Robinson, Joan 1966, *An Essay on Marxian Economics*, second edition, London: Macmillan.

Rodrik, Dani 2015, 'Premature Deindustrialization', Institute for Advance Studies Economics Working Papers 107.

Roemer, J. 1982, *A General Theory of Exploitation and Class*, Cambridge: Harvard University Press.

Rolhausen, Claus (ed.) 1970, *Kapitalismus und Krise: Eine Kontroverse um das Gesetz des tendenziellen Falls der Profitrate*, Frankfurt am Main: Europäische Verlagsanstalt.

Romer, C.D. 1992, 'What Ended the Great Depression?' in *The Journal of Economic History*, 52, 4.

Rosdolsky, Roman 1977 [1968], *The Making of Marx's 'Capital'*, translated by Pete Burgess, London: Pluto Press.

Rosenthal, John 1998, *The Myth of Dialectics*, New York: St Martin's Press.

Roubini, Nouriel and Stephen Mihm 2011, *Crisis Economics*, New York: Penguin.

Routh, G. 1977, *The Origin of Economic Ideas*, New York: Vintage.

Routley, Richard 1979, 'Dialectical Logic, Semantics, and Metamathematics', *Erkenntnis*, 14.

Rubel, Maximilien 1974a, 'La légende de Marx, ou Engels fondateur', in M. Rubel, *Marx critique du marxisme*, Paris: Payot.

Rubel, Maximilien 1974b, 'Plan et méthode de l'Économie', in *Marx critique du marxisme*, Paris: Payot.

Rubin, I.I. 1972 [1924], *Essays on Marx's Theory of Value*, translated by Milos Samardija and Fredy Perlman, Detroit: Black and Red.

Samuelson, Paul 1971, 'Understanding the Marxian Notion of Exploitation: A Summary of the So-called Transformation Problem between Marxian Values and Competitive Prices', in *Journal of Economic Literature* 9:2.

Sayer, Derek 1983, *Marx's Method: Ideology, Science and Critique in* Capital, Sussex: Harvester.

Schlesinger, Rudolf 1950, *Marx, His Time and Ours*, New York: Augustus M. Kelley.

Schmidt, Alfred 1981 [1971], *History and Structure. An Essay on Hegelian-Marxist and Structuralist Theories of History*, translated by Jeffrey Herf, Cambridge: MIT Press.

Schnädelbach, Herbert 1970, 'Zum Verhältnis von Logik und Gesellschaftstheorie bei Hegel', in *Aktualität und Folgen der Philosaophie Hegels*, edited by Oskar Negt, Frankfurt: Suhrkamp.

Schrader, Fred E. 1978, 'Kritik des Geldsystems zu dem Manuskript "Reflection" von Karl Marx (1851)', in *Économies et Sociétés*, Cahiers de l'Institut de sciences mathématiques et économiques appliquées, Série S, 19–20: 276–90.

Schrader, Fred E. 1980, *Restauration und Revolution. Die Vorarbeiten zum 'Kapital' von Karl Marx in seinen Studienhaften 1850–1858*, Hildesheim: Gerstenberg.

Schrader, Fred E. 1984, 'Marxens Abstraktionskritik: Differenzierung und Funktionswandel 1843–1858', in *Économies et Sociétés*, Cahiers de l'I.S.M.E.A., Série S, N. 23–4: 57–92.

Schumpeter, Joseph 1942, *Capitalism, Socialism, and Democracy*, New York: Harper and Brothers.

Schumpeter, Joseph 1954, *History of Economic Analysis*, edited from the manuscript by Elizabeth Boody Schumpeter, New York: Oxford University Press.

Schwartz, Winfried 1974, 'Das "Kapital in allgemeinen" und die "Konkurrenz" im ökonomischcn Werk von Karl Marx', in *Gesellschaft. Beiträge zur Marxschen Theorie* 1, Frankfurt: Suhrkamp: 222–47.

Sewell, William H. Jr. 1980, *Work and Revolution in France: The Language of Labour from the Old Regime to 1848*, Cambridge: Cambridge University Press.

Shortall, Felton C. 1994, *The Incomplete Marx*, Aldershot: Avebury.

Siegel, Tilla 1984, 'Politics and Economics in the World Market: Methodological Problems of Marxist Analysis', in *International Journal of Sociology* 14, 1.

Smith, Adam 1976a [1776], *An Inquiry into the Nature and Causes of the Wealth of Nations*, edited by R.H. Campbell et al., Vol. I, Oxford: Clarendon Press.

Smith, Adam 1976b [1759] *The Theory of Moral Sentiments*, edited by D.D. Raphael and A.C. Macfie,

Smith, Tony 1993, 'Marx's *Capital* and Hegelian Dialectical Logic', in *Marx's Method in* Capital. *A Reexamination*, edited by Fred Moseley, Atlantic Highlands: Humanities Press.

Smith, Tony 1997, 'Marx's Theory of Social Forms and Lakatos's Methodology of Scientific Research Programs', in *New Investigations of Marx's Method*, edited by Fred Moseley and Martha Campbell, Atlantic Highlands: Humanities Press.

Sombart, Werner 1927, *Der Moderne Kapitalismus, Dritter Band. Das Wirtschaftsleben im Zeitalter des Hochkapitalismus*, Munich and Leipzig: Duncker und Humblot.

Sotirchos, George and G. Stamatis, 'A Note on Foley's Article "The Value of Money, the Value of Labour Power, and the Marxian Transformation Problem"', *International Journal of Political Economy* 28, 4: 47–54.

Sraffa, Piero 1966, *Production of Commodities by Means of Commodities*, Cambridge: Cambridge University Press.

Stamatis, Georg 1998–9 'On the "New Solution"', *International Journal of Political Economy*, 28, 4: 23–46.

Steedman, Ian 1977, *Marx After Sraffa*, London: New Left Books.

Steindl, J. 1952, *Maturity and Stagnation in American Capitalism*, Oxford: Blackwell.

Sweezy, Paul 1942, *The Theory of Capitalist Development. Principles of Marxian Political Economy*, New York: Oxford University Press.

Tapia, J.A. 2005, 'Increasing mortality during the expansions of the US economy, 1900–1996', in *International Journal of Epidemiology*, 34: 1194–202.

Tapia, J.A. 2015, 'Profits encourage investment, investment dampens profits, government spending does not prime the pump – A DAG investigation of business-cycle dynamics', accessible at http://mpra.ub.uni-muenchen.de/64698/ (last accessed 4/6/2016).

Tapia, J.A. 2016, 'Oil Prices and the world business cycle: A causal investigation', MPRA Paper 68978 accessible at https://mpra.ub.uni-muenchen.de/68978 (last accessed 9/13/2016).

Taylor, Charles 1975, *Hegel*, Cambridge: Cambridge University Press.

Thomas, Paul 1991, 'Critical reception: Marx then and now', in *The Cambridge Companion to Marx*, edited by Terrell Carver, Cambridge: Cambridge University Press.

Tugan-Baranowski, Michael von 1901, *Studien zur Theorie und Geschichte der Handelskrisen in England*, Jena: G. Fischer.

Tugan-Baranowski, Michael von 1905, *Theoretische Grundlagen des Marxismus*, Leipzig: Duncker und Humblot.

Walter, Carl E. and Fraser J.T. Howie 2011, *Red Capitalism: The Fragile Financial Foundation of China's Extraordinary Rise*, Singapore: John Wiley & Sons.

Weisberg, Michael 2013, *Simulation and Similarity: Using Models to Understand the World*, New York: Oxford University Press.

Williams, Raymond 1985, *Keywords. A Vocabulary of Culture and Society*, revised edition, New York: Oxford University Press.

Winch, Donald 1996, *Riches and Poverty. An Intellectual History of Political Economy in Britain, 1750–1834*, Cambridge: Cambridge University Press.

Witt-Hansen, Johannes 1960, *Historical Materialism: The Method, the Theories. Exposition and Critique*, Book One, Copenhagen: Munksgaard.

Wolff, Robert Paul 1988, *Moneybags Must Be So Lucky. On the Literary Structure of* 'Capital', Amherst: University of Massachusetts Press.

Wolfson, Murray 1966, *A Reappraisal of Marxian Economics*, New York: Columbia University Press.

Wright, Erik Olin 1989, 'A General Framework for the Analysis of Class Structure', in *The Debate on Classes*, edited by Erik Olin Wright et al., London: Verso.

Wright, Erik Olin, Andrew Levine, and Elliott Sober 1994, 'Historical Materialism: Theory and Methodology', in *Science and Society*, 58, 1.

Zelený, Jindřich 1980 [1968], *The Logic of Marx*, translated by Terrell Carver, Oxford: Basil Blackwell.

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