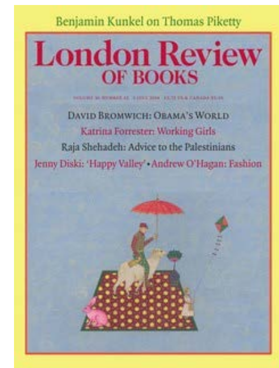
Paupers and Richlings



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Capital in the 21st Century
by Thomas Piketty, translated by Arthur Goldhammer

Capitalist societies today exhibit ‘an arbitrary and inequitable distribution of wealth and incomes’ as bad as or worse than in the 1930s, when Keynes declared this one of ‘the outstanding faults of the economic society in which we live’. (The other – not unrelated – was the failure to achieve full employment.) Thomas Piketty’s *Capital in the 21st Century* is an intelligent, ambitious and above all informative treatment of the problem. This accounts for much of the unusual excitement surrounding a lengthy, often dry economic tract. But there’s something else to the ‘Piketty bubble’: he is one of the very few contemporary economists eager to revive the old-fashioned spirit of political economy. The story of modern economic thought can after all be told as the shift from political economy, as its practitioners thought of it, to the discipline now simply called economics. With the ‘marginal revolution’ of the 1870s (named for Jevons’s theory of ‘marginal utility’), economics acquired a true scientific basis or – in the other extreme of judgment – lent itself to constructing mathematical alibis for capitalism, whose real behaviour it studiously ignored. Either way, prestige and influence migrated from the area of Smith, Malthus and Ricardo’s work as well as Marx’s ‘critique of political economy’ – a space with open borders onto what are today anthropology, sociology, history and political science – to a smaller and better defined territory, with a stricter methodological charter if not always less imperious claims to the explanation of society. Like all stories, not to speak of economic models, this oversimplifies things, but it traces the shape of the change. Did the marginal revolution ever end? In recent decades the marginalist picture of the free market as the vehicle for maximising everyone’s utility – better known around the house as satisfaction or happiness – has become the vision retailed by politicians, and the notion of economic life as a matter of individuals harmonising their preferences, as opposed to classes wrestling for control of shopfloor and government, has filtered into common sense.

The biggest difference between the marginalists and the political economists concerned the question of economic value. Smith, Ricardo and Marx all held that labour, in Smith’s words, constituted ‘the real measure of the exchangeable value of all commodities’. Marx most fully developed the argument that the labour time embodied in commodities, including whatever means of production go into furnishing them, ultimately determines their value; and prices, when they don’t coincide with values, at least oscillate around them. For the marginalists, value was a function of marginal utility. In the famous example, diamonds cost more than water neither because they take more labour to procure (though they do) nor because they are more useful, but simply because where water abounds and diamonds are scarce the representative person anticipates more satisfaction in an ounce of diamonds than in another ounce of water, and pays

accordingly. The same goes for capital of whatever physical or financial kind, and for the hours of workers with or without specific skills: the value of an additional or 'marginal' unit in the eyes of the purchaser sets the going price. Marginalist theories of value better explain price formation in the short run; labour theories are more persuasive about the long-run decline of particular prices (for a book, say, or a beer, compared to what they cost a generation ago) amid the general increase of society's total income so far characteristic of capitalism. Or so I say, never having encountered a completely satisfactory treatment from either point of view.

The difficulty would be more embarrassing if it were only mine. In a lengthy, thorough and generally lucid book, Piketty gives a brief and confused account of the so-called Cambridge capital controversy of the 1960s, which revived the old quarrel over value. Neo-Ricardians in Cambridge, England, who'd given the labour theory associated with the political economists a newly rigorous form in which capital values consisted of 'dated labour inputs', were challenged by sophisticated marginalist or neoclassical counterparts in Cambridge, Massachusetts. The debate was a highly technical airing of differences with unsubtle implications for distributive justice: Piketty's main concern. If marginalism is right and, so far as markets are free, owners of capital and sellers of labour are paid exactly in line with their (marginal) productivity, then the freest markets will yield the fairest distribution of incomes and the most productive combination of labour and capital. If, on the other hand, capital, a.k.a. the means of production, owes its value to past labour on a natural world that bears no title deed – nature being, as Marx wrote, 'just as much the source of use values … as labour' – then all income by rights belongs, one way or another, to labourers or producers. Divergent incomes for capital and labour meanwhile reflect not unequal contributions to production but prior disparities of ownership. (Keynes didn't delve into value theory but did express his sympathy 'with the preclassical doctrine that everything is *produced by labour* … This partly explains why we have been able to take the unit of labour as the sole physical unit which we require in our economic system, apart from units of money and of time.')

For its harshest critics, marginalism is a tautology highly liable to theodicy: *things cost what they do – and so they should!* Opponents of the labour theory can find it equally absurd. Either it's flatly wrong – 'Nobody who has ever had a cake fail to rise could believe in the labour theory of value,' a writer for *National Review* recently declared – or so unwieldy as to be useless: analysing the acquisition of skills and the accumulation of capital as so much heaped-up labour entails excavations of historical labour inputs going back approximately to when Adam learned he must earn his bread from the sweat of his brow. Piketty judges the neoclassicals in Massachusetts to have got the better of the two Cambridges debate but later casually jettisons 'the illusion of marginal productivity': 'It becomes something close to a pure ideological construct on the basis of which a justification for higher status can be elaborated.' Pay, he says, is largely determined by norms, an observation that leaves unresolved the question of what determines the value of the total social product before access to it is parcelled out in the form of incomes.

The substantive dispute over value also implied methodological differences. To argue that value derives from labour is ultimately to consider the successive labours that make up history; conflict and change emerge as the essence of economics as they are of history. To focus instead on the instantaneous balance of one person's wish to sell with another's wish to buy is to abstract a moment of harmony from the ongoing clangour and flux. The divergent approaches have outlasted the old names for them. Today followers of the marginalist tradition dominate economics departments, especially in the English-speaking world, while political economy, often descended from Marx's critique of it, is chiefly the pursuit of social scientists. In general, economists favour mathematical modelling of axiomatised exchange relations over economic and other kinds of history; concentrate on individuals rather than classes or groups as economic agents; emphasise the preferences freely expressed in transactions rather than restrictive social circumstances; and describe self-sustaining equilibria of supply and demand when capitalist economies are striking for their growth and instability.

Piketty wants to recover the scope of political economy without forfeiting the quantitative rigour of contemporary economics. He has hitched his orthodox training to a Marxian research programme: to explain the course of capitalism since the French and Industrial Revolutions, no less, and to glimpse its future itinerary, with special reference to inequalities of income and wealth. By the age of 22, knowing 'nothing about the world's economic problems', as he confesses, Piketty had produced a doctoral thesis consisting of 'several relatively abstract mathematical theorems', on the strength of which he was hired by MIT, where he taught for several years before returning to his native Paris. Over the past decade and a half, he and his colleagues have compiled a mass of information on the historical evolution of inequality from country to country. Piketty's book bristles with graphs – more than eighty of them – and he laments that discussions of inequality are often a 'debate without data'. But he also rebukes his fellow economists for their 'childish passion for mathematics' – 'an easy way of acquiring the appearance of scientificity without having to answer the far more complex questions posed by the world' – and their aloofness from the other social sciences.

To invoke political economy or historical materialism is to recognise that economies can't be explained in economic terms alone. Piketty dwells particularly on the intrusion of warfare: 'To a large extent, it was the chaos of war, with its attendant economic and political shocks, that reduced inequality in the 20th century.' His book is also something of a throwback in its mode of address. A clear and sometimes sarcastically witty writer (noting that the parents of Harvard students make on average about $450,000 a year, he observes that 'such a finding does not seem entirely compatible with selection based solely on merit'), Piketty is both presenting scholarly findings before colleagues and urging political reform on an educated public. This is more like Keynes in the *General Theory* than today's famous economists, who are mainly pundits, or else switch between glib sermons for the laity – the subtitle to *Freakonomics*, the last economics blockbuster, promised to show 'the hidden side of everything' – and scholastic discussions for the priesthood.

In the background to Piketty's wide and admiring reception lie two crises. One is disciplinary. Economists, endowed until a few years ago with more authority than other scholars, now appear in the eyes of many to have produced models of efficiency and harmony whose perfection was won at the cost of reality. The mathematised dream of some future catallaxy – Hayek's lovely word for the spontaneous peaceful order that would result from maximum liberation of the market – bore little resemblance to actually existing capitalism. Since the crash, behavioural economics has generated much of the excitement in the field, but it too is better equipped to make sense of individual economic actors than of the mutually determining trajectories of social classes and national economies. The second crisis is not of economics but the economy: the maldistribution of wealth and incomes visible in every facet of societies today. Piketty's searching investigation of this phenomenon has been met with understandable gratitude. Branko Milanovic, in a symposium titled 'Piketty's Triumph' in the *American Prospect*, hailed 'a monumental book that will influence economic analysis (and perhaps policymaking) in the years to come', and restores economics to its 'roots where it seeks to understand' – in Marx's phrase – 'the "laws of motion" of capitalism'. Martin Wolf in the *Financial Times* wrote that 'in its scale and sweep' *Capital in the 21st Century* 'brings us back to the founders of political economy'. The inadequacy of mainstream economics in the face of the capitalist economy today has clearly produced a hunger for such a book. But the hungry are apt to praise any substantial meal as a feast.

The bulk of *Capital in the 21st Century* consists of four long sections between the programmatic introduction and a conclusion in which Piketty reiterates his call for a 'political and historical economics' that would leave behind 'the bipolar confrontations of the period 1917-89' and, by implication, that era's Marxist political economy. The first three sections are analytic in character. 'Income and Capital' lays out the basic logic of income distribution as it relates to a given economy's growth rate. 'The Dynamics of the Capital/Income Ratio' is above all a case history of inequality across more than two hundred years of industrial capitalism, including its striking mid-20th-century remission. And 'The Structure of Inequality' gives an exhaustive statistical description of the inequality that is mounting across societies today. The fourth section, 'Regulating Capital in the 21st Century', moves from diagnosis to prescription, with a programme to remedy an over-concentration of wealth that jeopardises, as Piketty sees it, not so much capitalism as democracy.

A book about ratios of capital to income must define its crucial terms. Income, conventionally enough, represents all 'goods produced and distributed' over the period of a given year. In principle, this covers not only goods and services in commodity form but also those provided, especially in past societies, outside the market; in practice, Piketty discusses income in money terms. Society's annual flow of income mainly evaporates in consumption; the saved remainder becomes part of its total stock of capital. His 'capital' is a more questionable category for being so generic. It designates wealth of any kind that yields a return or, as with an artwork or a house, can one day be expected to. Piketty doesn't separate already produced capital from the financial or 'fictitious' variety that represents a claim on anticipated production (and bulks so large in today's economy). This capital isn't specific to capitalism. It would describe the property of classical

slaveholders or feudal landowners – who for the most part neither employed wage labour nor produced for the market – just as well as it would private firms marshalling wage labour in a contest for profits. For Piketty, 'wealth' is interchangeable with 'capital', though the former belongs to all societies boasting some baskets and spears. Precapitalist social formations appear here as 'capital-dominated societies in the past'.

Although he declines to say what distinguishes capitalism proper from its predecessors, Piketty proposes that two fundamental laws govern it. The first co-ordinates 'the three most important concepts for analysing the capitalist system'. The capital/income ratio is society's total capital as a multiple of total annual income; the rate of return – not quite the same as the rate of profit, as we will see – is the annual income from capital as a percentage of its size; and the share of capital income is the portion of total output flowing to owners relative to the trickle, in per capita terms, irrigating the lives of workers. Piketty's algebraic formula for his first law expresses capital's share of income as the rate of return multiplied by the capital/income ratio. So a 5 per cent return on capital worth six times society's annual income equals a share of 30 per cent: almost a third of income goes to the owners of wealth. As Piketty acknowledges, the law is 'a pure accounting identity' applying 'to all societies in all periods, by definition'. In earlier societies private wealth consisted mostly of land, and Piketty estimates that 'the average rate of return on land in rural societies is typically on the order of 4-5 per cent.' Knowing the value of landed property as a multiple of a society's yearly income would give you an approximate measure of that society's inequality between classes, given that 'the distribution of capital ownership (and of income from capital) is always more concentrated than distribution of income from labour.' (The socialist programme of collective ownership of the means of production implied this didn't need to be so for ever.)

Statistical evocations of premodern societies are largely guesswork, and Piketty's first law acquires more empirical purchase with the advent of national accounting surveys, first in England around 1700 and later in France. In 1791 Antoine Lavoisier produced estimates of France's income and wealth and, as Piketty points out with a hint of republican pride, 'the new tax system established after the Revolution, which ended the privileges of the nobility and imposed a tax on all property in land, was largely inspired by this work.' The advance of national accounting has followed the radial path, from Western Europe outwards, of full-blown capitalism. The picture of Europe and North America in the 19th century is therefore clearer than what we can see of the rest of the world. By Piketty's calculations, capital/income ratios in Western Europe hovered between six or seven to one by the turn of the 20th century. Inequality between wealth and income was lower in the Anglophone New World, not as a result of egalitarian policies but because the body of newcomers without inherited wealth grew much faster than the established class of owners handing down their property through the generations. On the eve of the First World War, domestic capital in the US was only five times national income. The short 20th century, from 1917 to 1991, saw across most of its span a compression of incomes relative to the divergence Piketty finds in the long 19th century.

He mainly sets the mid-20th-century decrease in inequality down to the destruction of capital caused by two world wars. After the Armistice, the European belligerents inflated away war debts and the capital these represented. In the US, which, 'when it came to progressive taxation ... went much further than Europe', FDR pioneered confiscatory rates on high incomes, and the country 'adopted policies designed to reduce the influence of private capital, such as rent control'. (It's hard to see these measures as consequences of a war on foreign soil that only increased the relative strength of the US, a net creditor.) After the Second World War, imperialist Europe forfeited wealth through decolonisation. Low postwar capital/income ratios also reflected 'a deliberate policy choice aimed at reducing ... the market value of assets and economic power of their owners', as Piketty rather vaguely puts it. Not only did capital shrink in relative size but the return on it, by his calculations historically between 4 and 5 per cent, sank to scarcely half that around 1914 and didn't regain the old range before the end of the 20th century. During the middle of the century, growth of labour incomes matched or outpaced unprecedented growth rates. Then, starting in the 1970s, capital staged a 'comeback' that continues today, with capital/income ratios now approaching those of the Belle Epoque. Thanks in part to relaxed tax regimes, Piketty sees a return of 'patrimonial capitalism' where large fortunes reflect inherited wealth more than the entrepreneurial mettle dear to justifications of capitalism.

The history of inequality under industrial capitalism is therefore a U-shaped saddle rather than a mound: a 19th-century rise, a swoon across the middle two-thirds of the 20th century and a second rise over the past generation. The story may be most surprising to economists. Piketty tells it explicitly to correct the optimistic theory Simon Kuznets proposed in 1955, which was widely accepted in the profession, that inequality lessens as economies mature. If Piketty is correct, the extremes of poverty and wealth seen in 19th-century Europe, far from being growing pains, reflect the capitalist norm. Left alone, the dynamics of the capital/income ratio will generate ever greater inequality.

What drives the polarisation? Piketty's 'second fundamental law of capitalism' promises more analytic power than the first. It states that the capital/income ratio grows according to the divergence between the rate of return or savings rate (for Piketty, these are effectively the same) and the overall growth rate of the economy. Those with high incomes from accumulated wealth or especially well-compensated labour – 'the rise of the supermanager' is the way Piketty describes the trend of recent decades – can save most of this revenue, especially as fortunes balloon to the size that extravagant habits barely dent them. On the other hand, people with little or no wealth, let alone net debtors, spend most or all that they earn. And since the economy as a whole constitutes one gigantic income, average incomes can't exceed the rate of growth (unless returns to capital fall). Piketty formulates his second law of capitalism most simply as 'the inequality $r>g$': the rate of return on capital tends to exceed that of economic growth. Logically, r might just as easily equal g (leading to a steady capital/income ratio) or fall below it, as during the mid-20th century. But the liability of r to exceed g generally holds and in societies obedient to this law capital incomes will account for an ever greater share of income while receipts to labour dwindle by comparison.

Piketty 's final analytic section lays out an incomparable array of data supporting his case that capitalism tends to aggravate inequality. This is the triumph of *Capital in the 21st Century*: nothing about the book is more impressive than the range and richness of its statistical information. (Piketty excuses the inaccuracy of Kuznets's theory on the basis of the incomplete data, going back only a few decades, at his disposal.) Piketty's data sets begin in the historic homelands of capital and gather local precision and geographical scope as he nears the present. Recent decades reveal an almost universal increase in inequality within capitalist countries (even as inequality between rich and poor countries has declined). Some of Piketty's information and the inferences he makes from it have been aggressively questioned, notably by the *Financial Times*, but without altering the outlines of his findings. *Capital in the 21st Century* continually points to imperfections in national accounting statistics, particularly with respect to large fortunes, which they tend to underestimate; Piketty and his colleagues have attempted to redress this failing through their World Top Incomes Database. One merit of the book is that it both insists on the importance of data and, at least where modern societies are concerned, highlights the uncertainties involved in its collection.

The statistical panorama is enlivened and authenticated by local detail. We learn for instance that Britain imposed a progressive income tax on South Africa in 1913 and India in 1922; that profits of German industry increased handsomely under the Nazis; and that in the US, 'in terms of purchasing power, the minimum wage reached its maximum level nearly half a century ago, in 1969, at $1.60 an hour.' But the impressive statistical portrait isn't matched by Piketty's theoretical or interpretative achievement. It's the second of his two fundamental laws of capitalism that promises real dividends. Yet $r>g$ possesses more descriptive than explanatory value.

On the one hand, the law is indisputable: if capital grows faster than output, the proportion of wealth to income necessarily rises. Only a dip in the rate of return, broader capital ownership, or the destruction of capital might retard or reverse the process. But what does the formula explain? Geologists might offer an analogous theorem for the changing elevations of mountain ranges, with the Andes rising as the Appalachians subside. According to the inequality $u>e$, where u gives the rate of upthrust and e the rate of erosion, summits ascend to the extent that upthrust exceeds erosion. Presumably this would be accurate. But a theory of plate tectonics would be needed to account for the rate of upthrust and a further theory for the erosive effect of this climate on that rock. Piketty sets r against g without establishing why either should be what it is. Still, the analogy with geology is flawed. Plate tectonics and climate are independent variables, as the rate of return and the growth rate are not, though Piketty treats them that way. He reiterates that 'pure' returns on capital – prior to any redistribution – average around 4 or 5 per cent across history, regardless of distributive patterns. As for economic growth, here it's essentially a by-product of technological development and demographic growth. (As the French economist Gaël Giraud has observed, Piketty leaves out the credit extension and fossil fuels indispensable to capitalism's unique expansion.)

Politically and intellectually, it may be useful to separate questions of distribution from those of production for a moment. But that is to pry apart indissociable aspects of economic life. As Marx has it in the *Grundrisse*: 'To treat of production apart from the distribution that is comprised in it is plainly an idle abstraction.' The size of total output obviously establishes what there is to distribute, but the prevailing regime of distribution also fundamentally affects the specific nature (more cars than buses, say) and general volume of that output. In the same passage, Marx observes that distribution – not only who owns what, but what prospects of gain are afforded by ownership – even 'seems to antedate and to determine production', as when 'a conquering people turns the conquered people into slaves and thus makes slave labour the basis for production. Or a nation, by a revolution, breaks up large estates ... and by this distribution imparts to production a new character.' These examples – of distribution setting the tempo of production – are not fanciful. The relative economic stasis of classical Greece and Rome had to do with their foundation in slavery, as Perry Anderson pointed out in *Passages from Antiquity to Feudalism*: 'Once manual labour became deeply associated with the loss of liberty, there was no free social rationale for invention.' Slavery 'devalued all labour by precluding any sustained concern with devices to save it'. Alternately, the medieval expansion from the 11th to 13th centuries owed something to shrinking peasant holdings, since smaller plots provoked more intensive cultivation (and population growth hadn't yet courted diminishing returns by pressing onto marginal land). Other historians in the Marxist tradition argue that lordly and state exactions later deprived the peasantry of the cash surplus that might have gone to improving their land, or that the capitalist take-off in 16th-century England came from a productivity revolution unleashed by lordly competition for agricultural rents. You don't need to accept any of these arguments to see how differential claims on the social product might, and sometimes must, modulate its dynamics.

Other evidence for the intimacy of production and distribution lies closer to hand. In the decades after the Second World War – for the French *les trente glorieuses* – the rich countries enjoyed unprecedented growth as well as the unprecedented moderation of inequality that Piketty stresses. To award all credit for higher growth to lower inequality would be foolish: postwar reconstruction, the green revolution, the Cold War boom in armaments and the flood of petroleum all contributed to the surge. But did the compression of incomes play no significant role? Marx suggested and Keynes took pains to argue that a top-heavy income distribution can hamper the investment in production on which growth depends. Too much money in the hands of the rich, who save more of their income than others, may curtail demand for both consumer goods and the capital goods necessary to furnish them (consumption being, as Keynes put it, 'the sole end and object of all economic activity'). By the same token, larger labour incomes tend to increase inflation, reducing the penchant of the wealthy to sit on idle cash as so many corporations are doing today, and to brighten the prospects and expand the payrolls of firms. Stark inequality may be a stipulation of rapid growth during early industrialisation. Later on, a flatter distribution seems to clear the way to faster growth, to judge by the postwar experience of economies both advanced and catching up. Scandinavian economies grew faster than more unequal counterparts along the Mediterranean, just as comparatively egalitarian East Asia outpaced more oligarchic Latin America. The pattern prevails

generally across the 20th century. Mass consumption fed the Roaring Twenties; full employment of labour and price controls on industry fortified FDR's war economy; and the fragile postwar settlement between workers and owners, the result of ruling-class anxiety over organised labour and the left, encouraged labour-saving productivity advances by raising wages which themselves swelled mass consumption.

Piketty makes little connection between the 20th century's atypically low inequality and atypically high growth. If capital/income ratios declined, it's because average incomes tracked economies generally and because non-economic factors, chiefly war, cut down capital stock. The outsize effect of war and the minor role of politics in the book is puzzling enough on its own. Wartime destruction may have wiped out important quantities of fixed capital, especially in France, but hardly as much as the heavy accent on war implies. Nor was all the inflation between the wars the immediate or uniform consequence of hostilities, as witness the vacillations of monetary authorities, well into the 1930s, between deflationary austerity painful to workers and the inflationary expansion feared by rentiers. The option for inflation partly confessed the strength of workers' parties and the menacing example of the Soviet Union, factors scanted by Piketty. After the Second World War, communism abroad and organised labour at home promoted redistribution more than memories of fascism did. But no matter the reasons for it, Piketty doesn't credit greater equality with any causal role in the rapid overall growth that did so much to reduce capital/income ratios.

If high growth accompanied lower inequality in the mid-20th century, what accounts for the complementary pattern across the past forty years? Since the 1970s growth has slowed and inequality accelerated. Explanations advanced by others range from chronic overcapacity in international manufacturing, to the explosion of a financial sector better at inflating short-lived bubbles than committing to long-term investment, to the depressive effect of stagnating working-class incomes. Piketty addresses none of these factors, and from his point of view perhaps there's little reason to. If $r>g$ is the general law, the middle of the 20th century is the anomaly to be explained and our own time simply a reversion to the immemorial trend.

The exceptional character of the period between the First World War and the 1973-74 recession becomes the more striking when Piketty emphasises that his second law of capitalism held long before capitalism: 'The inequality $r>g$ has clearly been true throughout most of human history, right up to the eve of World War One, and it will probably be true again in the 21st century.' In a chart graphing the rate of return against 'the growth rate, at the world level, of world output from Antiquity to 2100', r hovers between 4 and 5 per cent until 1820, by which time the Industrial Revolution has spread beyond England. It plummets nearly as low as 1 per cent around the outbreak of the First World War, and then undertakes a steep climb throughout the 20th century before adjusting to a moderate slope that stretches up to and past our time into the indefinite and enduringly capitalist future. Across the same stretch of history, the global growth rate g ascends a gentle gradient until the mid-18th century, after which new summits beckon. Around the beginning of the 20th century, the growth rate at last overtakes the rate of return, until the 1970s when it resumes its descent towards the old inanition. By Piketty's

estimate, by the end of our present century capitalism will be eking out a 1.5 per cent annual expansion while the rate of return recovers its traditional 4 or 5 per cent. Leaving aside the enormous quotient of speculation in 'data' for societies with far less developed markets or bookkeeping – a suspension of his usual statistical scruples – Piketty's aggrandisement of the historical domain of his second law severely undermines its claim to explain industrial capitalism, which is his principal concern. If industrial capitalism as an international phenomenon is approximately 180 years old, a full third of its lifespan (from 1914 to 1974) evades $r>g$ altogether: an interregnum that Piketty finds in no other epoch. In other words, this law of capitalism is obeyed by capitalism least of all: a remarkable defect.

Piketty's theoretical troubles may start with his definition of capital as wealth in general. Much 'capital' accumulation prior to capitalism – in lordly residences, luxury articles and even such agricultural improvements as vineyards gratifying elite tastes in wine – was indistinguishable from its consumption, being carried out mostly without the aim or even the opportunity of a monetary profit. Had precapitalist saving and investment not in effect consumed wealth as much as amassing it, the unrelieved operation of $r>g$ on slow-growing societies could only have split them at length into sheer paupers and maximum richlings. And Piketty often writes as if all societies outside the 20th century always grew more unequal. But inequality sometimes diminished. To select a single example from his own country, in the 12th and 13th centuries the seigniorial share of income in France fell relative to average peasant incomes.

Only in the late feudal period did a recognisable capitalist dynamic first seize parts of Western Europe as – in a pair of mutually reinforcing developments – the urban bourgeoisie expanded its commercial activities and agricultural production became increasingly commodified. Earlier, when private wealth didn't depend chiefly on markets to reproduce or enlarge itself, the adequacy or otherwise of the rate of return lacked any strictly economic criterion; vaguer and more variable social standards assessed the income from a given fortune. As capitalism has spread across the world, both owners and workers have relied on markets for the bulk or the whole of their income and so delivered themselves up to Marx's 'coercive laws of competition'. Capitalists compete for money profits, which are in turn to be profitably invested in ever larger masses of capital. The systemic imperatives of satisfactory profits and endless accumulation may in the end be at odds. Ricardo, Marx and Keynes each in different ways proposed that accumulating too much capital relative to the economy as a whole would endanger private returns, general expansion, or both. Piketty's refusal to endorse any of these scenarios – a high capital/income ratio may or may not dampen the rate of return, he inconclusively concludes – isn't necessarily a failing. But his concept of the rate of return on wealth is too generic to ground any distinctive laws of capitalism. No theory of capitalist dynamics can do without the implacable logic of profitability and its effect on the interaction of distribution and production.

In his conclusion Piketty promotes $r>g$ to the status of 'the central contradiction of capitalism'. The phrase is meant to evoke Marx and the theory to better him. What was the central contradiction of capitalism for Marx? Perhaps this: 'The working population ...

produces both the accumulation of capital and the means by which it is itself made relatively superfluous; and it does this to an extent that always increases.' The grossly cumulative character of capital and its technically progressive or labour-saving nature together impose a secular decline in the demand for labour that ultimately threatens capital itself. Crises of profitability arise in the short term mainly due to shortfalls of demand from low wages. In the long term, the principal cause is the tendency to employ proportionally less labour than physical capital in production. Since profit emerges from the gap between what labour contributes to production and what it receives as income, the rate of profit will fall, other things being equal, as the ratio of capital to labour rises. Yet neither Marx (who attached many conditions and qualifications to the theory of 'the tendency of the rate of profit to fall') nor later and more systematic expositors expected – as perhaps the most notable, Henryk Grossman, put it – 'that capitalism must "by itself" or "automatically" collapse'. Only political organisation in response to crisis could overcome capitalism. Marx imagined that capital would itself unwittingly carry out much of the necessary organisation by creating an educated industrial proletariat. The reality evident today is more compatible with his theory of a labour force that shrinks in relative size as its productivity swells: far fewer people hold a farm or factory job these days than lack formal employment altogether or are enlisted in the service sector (where, by its nature, productivity has advanced much less than in industry and agriculture).

At a distance Piketty's central contradiction resembles Marx's. Here too capital, 'more and more dominant over those who own nothing but their labour', overaccumulates relative to labour. But at least in formal terms, Marx's theory is clearly superior. It proposes a genuine contradiction – capital accumulation undermines itself – and entails a mechanism specific to capitalism: the drive for profits through the exploitation of wage labour. Piketty's $r>g$ is not, by contrast, the 'fundamental logical contradiction' that he claims. Capital accumulation, left to outrun economic growth indefinitely, would create 'an endless inegalitarian spiral' threatening less to profitability than 'to democratic societies and to the values of social justice on which they are based'.

Capitalism can dispense with democracy more easily than with profits. A question for the century ahead is how far it will minimise the former in seeking to maximise the latter. Some Marxists join Piketty in considering the falling rate of profit illusory; those who support the idea on grounds distinct from Marx's have ascribed the – disputed – fall of profitability over recent decades to factors like industrial overcapacity or the distension of finance capital, which multiplies claims on profits without necessarily corresponding to a proportionate increase in total profits. (Michael Roberts finds that after the early 1960s the rate of profit 'reached a low in 1975 and then rose to a peak in the mid-1990s. Since then, the world rate of profit has been static or slightly falling and has not returned to its peak of the 1990s.') Whatever the ultimate destiny of profits, Piketty and the Marxists agree on this much: only politics can curb or cancel runaway inequality.

The final part of *Capital in the 21st Century* proposes a major political reform. A 'progressive annual tax on individual wealth' levied by national governments and supervised by an international tax authority – Piketty suggests rates from 0.5 to 2 per cent, according to the size of the fortune – would check the accumulation of private

wealth and prevent capital/income ratios from rising without end. Large fortunes would come to represent recent entrepreneurial feats more than the dumb luck of inheritance, and revenue from the tax could address public purposes neglected by private investors. Piketty hazards his 'utopian idea' as contemporary societies approach what he sees as a fork in the road. One way leads to concentrations of wealth incompatible with liberal democracy, the other to a redomesticated capitalism supporting 'a social state for the 21st century'. This would renew two promises of the French Revolution: the 'career open to talent' irrespective of station at birth and, in the epigraph from the *Declaration of the Rights of Man* that heads Piketty's book, the principle that 'social distinctions can be based only on common utility.' Inequality is to be tolerated and even encouraged so far as individual rewards promote the general good; past that point, private riches come at society's expense.

Piketty's proposal entails the possibility of the democratic restraint of capital not just in one or two countries but in such a preponderance of them that governments everywhere will submit their wealthiest and thus most powerful citizens to a measure bound to repel them. Yet in his account of the 20th century 'it took two world wars to wipe away the past and significantly reduce the return on capital'; redistribution was mainly an after-effect of hostilities. If the democratic control of capital has such scant precedent, how plausible can it be in the future? Citizens in the capitalist democracies of the mid-20th century felt strong identifications with starkly different political parties. Depoliticisation over the past generation is understandable, as parties of left and right converge towards the same vacant centre. (Piketty himself stoically supports a French Socialist Party even more cringing and feckless than others in Europe.) A recent study calculated that in the US the top 10 per cent of the income distribution enjoys an effect on political outcomes 15 times that of the remaining 90 per cent. Other countries are plutocratic to similar degrees. How are the executive committees of the ruling class in countries across the world to act in concert to impose Piketty's tax on just this class?

Socialist revolution frankly seems more likely. Suppose a revolution in an advanced country gradually or suddenly transferred to the public all shares of corporations currently in private hands. Investment could thereafter be directed by publicly held mutual funds competing with one another for long-term returns, all of which revenue would flow to the general population or the administration carrying out its will. The size of the capital stock would be unaffected by the change in ownership. A far narrower wage schedule within and among enterprises would be one likely result. But even without it, a rising capital/income ratio would no longer automatically deepen inequality. The notion of such a revolution – first in one country, then gatheringly international but not yet universal – is fanciful right now. But is it more so than a global capital tax requiring the co-ordination of virtually all nations? The longer global capitalism goes unreformed the more likely nations and regions are to reject it.

Piketty, 'vaccinated for life against the conventional but lazy rhetoric of anticapitalism' by the fall of the Berlin Wall, might consider such speculations an ideological relapse. He wants his tax on capital to 'promote the general interest over private interests while preserving economic openness and the forces of competition', and has said in interviews

that the indispensable role of markets in complex economies justifies the persistence of capitalism. But the familiar equation of markets with capitalism lacks a historical or theoretical basis. It ignores the extensive markets in many precapitalist societies and the strong element of monopoly and state interference with markets throughout the history of capitalism. It also overlooks the fact that few leftists since the 1980s have proposed a return to centralised command economies. Visions of a postcapitalist future, from Alec Nove's *Economics of Feasible Socialism* (1983) to David Schweickart's *After Capitalism* (2002), have more often been forms of market socialism. (Schweickart folds 'a capital assets tax' much like Piketty's into a comprehensive transitional programme.) The private accumulation of capital would no longer drive the economy, even as the market still facilitated much private consumption and guided much public investment. Piketty might reject the idea in any or all varieties. For now he shows no awareness of it. The blindspot isn't surprising in a writer who has boasted to the American press, perhaps not entirely disingenuously, of his unfamiliarity with Marx's writing, and who in his book excuses his indifference to Marxist work generally by complaining that 'one sometimes has the impression' in reading Sartre, Althusser or Badiou that 'questions of capital and class inequality are only of moderate interest to them.' He would have done better to consult historians and economists than philosophers.

None of which is to be taken as a smug suggestion that professional economists who slip the confines of their discipline and, perhaps with more difficulty, encroach on the limits of responsible opinion have nothing to learn or teach that Marxists don't already know. Piketty's appetite for and command over data, for one thing, are worth emulating. And surely if intelligent economists start reckoning with Marxian thought not as a historical curio but as a long and living tradition, they won't simply ratify propositions about which Marxists don't agree themselves. Investigated rather than ignored, Marxist ideas would be variously confirmed, refined or rejected. For the moment, however, mainstream economists, including the hero of the hour, seem reluctant to press their discoveries beyond the borders of the respectable. Their journalistic counterparts are if anything more timid. Only this can explain why Piketty's discussion of inequality, a preoccupation on the left for decades, has struck them as such a singular revelation. The book is more exciting considered as a failure than as a triumph. Piketty has bid a lingering goodbye to the latter-day marginalism of mainstream economics but has not yet arrived at the reconstructed political economy foreseen at the outset. His theoretical reach fumbles where his statistical grasp is sure, and he leaves intact the questions of economic value, distributive justice and capitalist dynamics that he raises.