Grand Pursuit: The Story of Economic Genius

Sylvia Nasar
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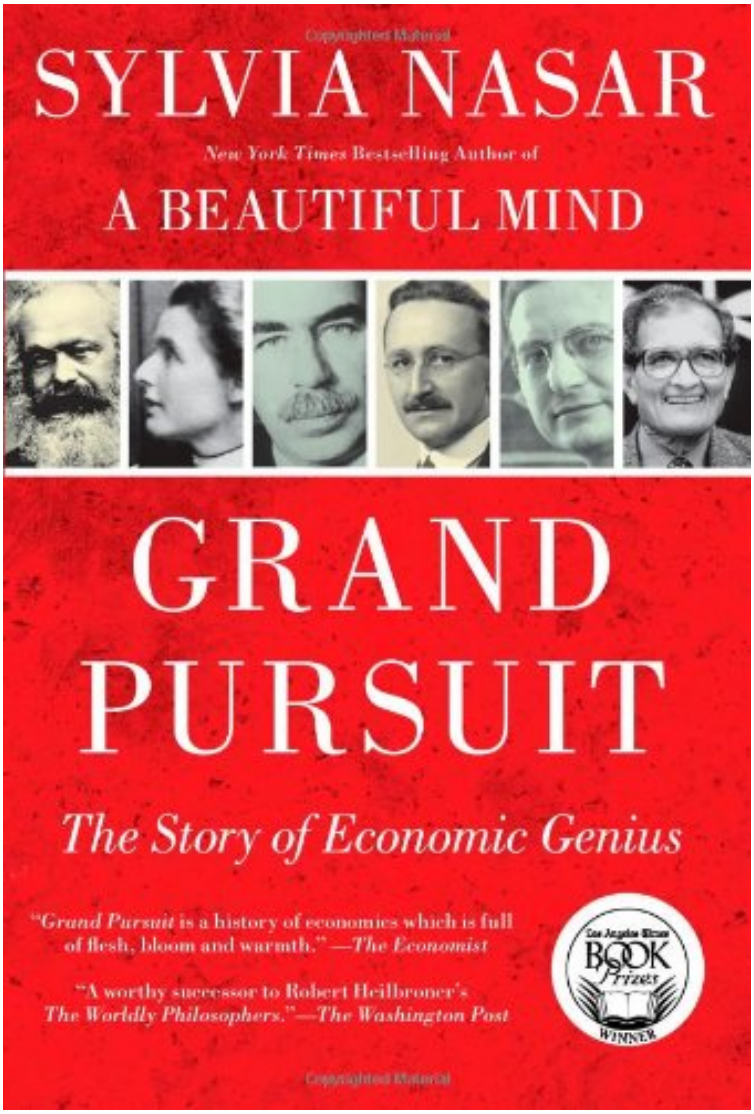

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Sylvia Nasar : Grand Pursuit: The Story of Economic Genius before purchasing it in order to gage whether or not it would be worth my time, and all praised Grand Pursuit: The Story of Economic Genius:

2 of 2 people found the following review helpful. Fascinating and StimulatingBy ByronThe Grand Pursuit is engrossing and for me very stimulating. After reading the reviews, I was prepared to be disappointed that the book does not cover the details of evolving economic doctrine. But what a surprise.I am not an economist. As an undergraduate 45 years ago, I planned to devote my life to the economic history of the Roman Empire and took many courses in Latin, Greek, economics, and mathematics. Instead, I went into law and am now a retired

lawyer.Throughout my life, I have read many economic works merely as a pastime, including the Skidelsky's new biography of Keynes, Milton Friedman's joint autobiography, assorted works of Schumpeter, Joan Robinson, Hayek, and Paul Samuelson. So there wasn't much in the Grand Pursuit that was totally new.But what was new was putting this all together in a continuous narrative that shows interrelationships that I never suspected. Ms. Nasar writes extremely well, and I found the entire book engrossing.It also has stimulated me to read or reread quite a few books. I have now reread Keynes's Economic Consequences and am halfway through the General Theory. Next I'm going to reread one of Schumpeter's books, and then I will tackle some of the works of Lon Walras, beginning with L'conomie politique et la justice (hlas it is cheap on Kindle, but only in French!).The Grand Pursuit provided me with just kind of reading experience I enjoy. A very good book.1 of 1 people found the following review helpful. Economics Isn't All Bad, and This is a Good ReadBy Anne MillsThis book is to economic theory as "Lives of the Great Composers" is to music, but it is still a very good read. The book is billed as an exploration of economic thought since the mid-nineteenth century. Rather than thought per se, however, the book focusses on the people who thought the thoughts, and the times in which they lived.The book is a welcome reminder that economic thought isn't wholly irrelevant. Since 2008, the reputation of economics as a serious discipline has taken a beating. This reflects the failure of most economists to forecast the financial collapse and the enthusiastic collaboration of some as proponents of the policies and practices that led to that collapse. But Ms. Nadler's book reminds us that economics is indeed a serious enquiry into a key question -- assuming that people's material condition has some bearing on their welfare, how can life be made better for humanity as a whole? In examining that question,economics contributes much beyond short-term forecasting. Moreover, the book argues convincingly that economics as a discipline made some real contributions to bettering the human condition, for example by helping policy makers in 1945-47 avoid the mistakes of 1918.Beyond adressing the broad issue of the worth of economics as a discipline, this is a great read. I probably find it more interesting than most, since I am a retired economist, and studied the theories of most of the people she discusses. But she turns the discussion from pure theory (which can bore even retired economists) to a fascinating story about the evolution of the discipline, and to many fascinating stories about some very interesting people. This book is a worthy successor to Robert Heilbroner's "The Worldly Philosophers".The strongest impression I took away from this book wasn't about economic theory, but about economic fact. For 10,000 years, most people spent their lives in misery, caught in the Malthusian trap of limited resources and population pressure. Over the last 200 years, however, most of humanity has escaped the Malthusian trap. Ms. Nadler points out that the average Chinese now lives better than the average English person did in 1950, while her book demonstrates over and over again that the average English person lived many times better in 1950 than they did in 1840. This isn't new news, and it doesn't mean that this is the best of all possible worlds -- far from it. It is, however, a good reminder that our world is a long way from the worst.2 of 2 people found the following review helpful. Good idea, sad executionBy Dan HardWhat an excellent idea, what an unfortunate execution!Read the two- and three-star rated reviews to date. I agree with all of them. I would like to add this:The chosen economists lack a visible concept. She chose whom she thought had an impact. The economists chosen after 1945 are a particularly arbitrary list. She jumps from some gossip to economic theory and right back to personal stories. Keynes was a homosexual, did you know? Marx had a child with the nanny while his wife was pregnant, does it matter? And on it goes. How irrelevant!Her choice of economists shows an Anglo-Saxon bias to free market economists. Why Marx' `Das Kapital' has had such a tremendous impact on history is not explained at all. There is not even an attempt to explain the relevance to current affairs of Keynes' `Road to Serfdom'. These are just two examples to make a point. There are plenty others.But the most important critique of all is that Mrs Nasar makes economic judgments without proper understanding of economics. The most blatant example is in the book's conclusion. In 2011 she writes with regards to the "Great Recession of 2008 to 2009, the most severe economic crisis since the 1930s": "The world financial system did not collapse. There was no second great depression." - The bubble burst between 2007 and 2009 when the Federal Reserve answered with Quantitative Easing I. QEII followed. The Chinese intervened even more than the Americans and the Europeans followed suit to a smaller degree. Debt was loaded from corporates onto sovereign balance sheets and onto inflated central bank liabilities. The European sovereign debt crisis we are currently in, the indebted state of US municipalities, the huge leverage ratio of Chinese state-owned banks are all a direct result of that. How can we already judge that there will not be a "second great depression"? No economist can. We are all trying to avoid it but the outcome remains still uncertain.The book lacks numbers and charts. It is so well researched why not list in an appendix numbers regarding GDP growth, unemployment, inflation and the like? Numbers would support the arguments made by economists at different points in time.A word to Mrs Nasar's journalism students (she is a professor at the Columbia Graduate School of Journalism): This is good and bad journalism. Good because the book is obviously well researched, down to details, particularly the gossipy ones. The bad part is that this is written by a journalist who after so much study still does not master the topic of Economics. In a globalized world this is dangerous. The reporters and editors of our current media have great power. Use it wisely.

An instant New York Times bestseller, in a sweeping narrative the author of the esteemed A Beautiful Mind takes us

on a journey through modern history with the men and women who changed the lives of every single person on the planet. Grand Pursuit is the epic story of the making of modern economics, of how economics rescued mankind from squalor and deprivation by placing its material fate in its own hands.A New York Times bestseller, this sweeping narrative from the author of A Beautiful Mind takes us on a journey through modern history with the men and women who changed the lives of every single person on the planet. Grand Pursuit is the epic story of the making of modern economics, of how economics rescued mankind from squalor and deprivation by placing its material fate in its own hands.

"Nasar is a superb writer. . . . The book is a kind of portrait gallery of economic thinkers, each artfully set down in his or her time and place. . . . You can't help becoming engrossed in their lives."--James Grant, "The Wall Street Journal"""Grand Pursuit "is a worthy successor to Robert Heilbroner's "The Worldly Philosophers. . . . "Nasar's aim is to put the reader into the lives of the characters of a sweeping historical drama that extends from Victorian England to modern-day India. That she largely succeeds reflects the depth and breadth of her research but also the elegance of her prose."--Steven Pearlstein, "The Washington Post""One of the many wonderful things about Nasar's book is that in it, economic genius isn't limited to the usual suspects....Even when exploring famous economic minds, Nasar brings out the humanity in the dismal science by showing their ideas are nearly always rooted in formative experiences." -- TIME Magazine"Nasar brilliantly brings to life game-changing economists from Marx to Hayek and from Sidney Webb to Milton Friedman, tracing the evolution of modern economic thinking through the richly detailed stories of the men and woman who reshaped how we think of life's possibilities. . . . This is an utterly fascinating book on many levels. . . . "A Beautiful Mind, " Nasar's previous book, was about an economist named John Nash, but Nasar's mind is pretty good, too. No lesser mind could have written a book so rich, so compelling, so important, and so much fun." --Mickey Edwards, "The Boston Globe""A fascinating excursion into the economic ideas and personalities that have deposited most of us at a standard of living unparalleled in human history...engrossing...Nasar, who wrote "A Beautiful Mind, " ...is drawn to intellectual giants. They stomp across the idiosyncratic and readable pages of "Grand Pursuit, "which unfurls with a David McCullough-like knack for telling popular history....On these pages, the dismal science shines."--Karen R. Long, "Cleveland Plain Dealer"""[This] is the story of the evolution of a radical, planet-reshaping idea...The canvas is epic...The details are fresh, at times startling...At the same time, gnarly but critical concepts...shine through in all their richness and complexity. If only Econ 101 had been this interesting!""-"Fortune"""Grand Pursuit "is a history of economics which is full of flesh, bloom and warmth. The author demonstrates that there is far more to economics than Thomas Carlyle's "dismal science." And she does so with all the style and panache that you would expect from the author of the 1998 bestseller, "A Beautiful Mind. . . ." A wonderful book. "Grand Pursuit "deserves a place not only in every economist's study but also on every serious reader's bedside table."--"The Economist""A timely reminder of the importance of the so-called dismal science. . . . Written almost as a novel and aimed at those without a background in economics, the book charts capitalism's evolution through the eyes of the people who invented it. . . . It is compellingly written, full of detail and vivid anecdotes, and with a refreshing focus on people rather than prices." --Gregor Hunter, "The Nation""Nasar has written a compelling history of modern economics, a story of the theorists as well as of their theories. . . . "Grand Pursuit" is artfully rendered and a delight to read. . . . One suspects that future economics textbooks will warrant some revisions. All the same, their authors would profit from consulting "Grand Pursuit"."-- Bloomberg BusinessWeek's **FIVE STAR** About the AuthorSylvia Nasar is the author of the bestselling A Beautiful Mind, which won the National Book Critics Circle Award for biography. She is the John S. and James L. Knight Professor at the Columbia Graduate School of Journalism.Excerpt. Reprinted by permission. All rights reserved.Grand Pursuit Chapter I Perfectly New: Engels and Marx in the Age of Miracles The exact point is that it has not gone on a long time. [It is] perfectly new.... Our system though curious and peculiar may be worked safely... if we wish to work it, we must study it. Walter Bagehot, Lombard Street1 See to it that the material youve collected is soon launched into the world, the twenty-three-year-old Friedrich Engels wrote to his corevolutionist, Karl Marx. Its high time. Down to work, then, and quickly into print!2 In October 1844, continental Europe was a smoldering volcano threatening to erupt. Marx, the son-in-law of a Prussian nobleman and editor of a radical philosophy journal, was in Paris, where he was supposed to be writing an economic treatise to prove with mathematical certainty that revolution must come. Engels, the scion of prosperous Rhenish textile merchants, was at his familys estate, up to his eyebrows in English newspapers and books. He was drafting a fine bill of indictment against the class to which he and Marx belonged.3 His only anxiety was that the revolution would arrive before the galleys. A romantic rebel with literary aspirations, Engels was already an embryonic revolutionary and enthusiastic communist when he met Marx for the first time two years earlier. Having spent his adolescence freeing himself from his familys strict Calvinism, the slender, fair, severely nearsighted Royal Prussian artillerist had trained his sights on the twin tyrannies of God and Mammon. Convinced that private property was the root of all evil and that a social revolution was the only way to establish a just society, Engels had yearned to live the true life of a philosopher. To his infinite regret, he was predestined for the family trade. I am not a Doctor, he had corrected the wealthy publisher of a radical newspaper who mistook him for a scholar, adding that he could never become one. I am only a businessman.4 Engels Senior, a fervid

Evangelical who clashed frequently with his freethinking son, wouldnt have it any other way. As a proprietor, he was quite progressive. He supported free trade, adopted the latest British spinning equipment in his factory in the Wuppertal, and had recently opened a second plant in Manchester, the Silicon Valley of the industrial revolution. But as a father he could not stomach the notion of his eldest son and heir as a professional agitator and freelance journalist. When the global cotton trade collapsed in the spring of 1842, followed by the Chartist strikes, he insisted that the young Engels report to work at Ermen Engels in Manchester as soon his compulsory military service was over. Bowing to filial duty hardly meant the death of Engelss dream of becoming the scourge of authority in all forms. Manchester was notorious for the militancy of its factory hands. Convinced that the industrial strife was a prelude to wider insurrection, Engels had been only too delighted to go where the action was and to use the opportunity to advance his writing career. En route to England in November, he had stopped in Cologne, where he visited the grubby offices of the prodemocracy newspaper Rheinische Zeitung, to which he had been contributing occasional articles under the byline X. The new editor was a brusque, cigar-smoking, exceedingly myopic philosopher from Trier who treated him rudely. Engels had taken no offense and had been rewarded with an assignment to report on the prospects for revolution in England. When Engels arrived in Manchester, the general strike had petered out and the troops had returned to their London barracks, but there were unemployed men hanging around street corners, and many of the mills were still idle. Despite his conviction that the factory owners would rather see their employees starve than pay a living wage, Engels could not help noticing that the English factory worker ate a great deal better than his counterpart in Germany. While a worker at his familys textile mill in Barmen dined almost exclusively on bread and potatoes, Here he eats beef every day and gets a more nourishing joint for his money than the richest man in Germany. He drinks tea twice a day and still has enough money left over to be able to drink a glass of porter at midday and brandy and water in the evening.5 To be sure, unemployed cotton workers had had to turn to the Poor Law and private soup kitchens to avoid absolute starvation, and Edwin Chadwicks just-published Report on the Sanitary Condition of the Labouring Population of Great Britain revealed that the average male life span in Manchester was seventeen years, half that of nearby rural villages, and that just one in two babies survived past age five. Chadwicks graphic descriptions of streets that served as sewers, cottages damp with mold, rotting food, and rampant drunkenness demonstrated that British workers had ample grounds for resentment.6 But while Carlyle, the only Englishman Engels admired, warned of working-class revolt, Engels found that most middle-class Englishmen considered the possibility remote and looked to the future with remarkable calm and confidence.7 Once settled in his new home, Engels resolved the conflict between his familys demands and his revolutionary ambitions in a characteristically Victorian fashion. He lived a double life. At the office and among his fellow capitalists, he resembled the sprightly, good humored, pleasant Frank Cheeryble, the nephew of the firm in Dickenss Nicholas Nickleby who was coming to take a share in the business here after superintending it in Germany for four years.8 Like the novels attractive young businessman, Engels dressed impeccably, joined several clubs, gave good dinners, and kept his own horse so that he could go fox hunting at friends estates. In his other, true life, he forsook the company and the dinner-parties, the port-wine and champagne to moonlight as a Chartist organizer and investigative journalist.9 Inspired by the exposs of English reformers and often accompanied by an illiterate Irish factory girl with whom he was having an affair, Engels spent his free time getting to know Manchester as intimately as my native town, gathering materials for the dramatic columns and essays he filed to various radical newspapers. Engels twenty-one months as a management trainee in England led him to discover economics. While German intellectuals were obsessed by religion, the English seemed to turn every political or cultural issue into an economic question. It was especially true in Manchester, a stronghold of English political economy, the Liberal Party, and the AntiCorn Law League. To Engels, the city represented the interconnections between the industrial revolution, working class militancy, and the doctrine of laissez-faire. Here it was forcibly brought to my notice that economic factors, hitherto ignored or at least underestimated by historians, play a decisive role in the development of the modern world, he later recalled.10 Frustrated as he was by his lack of a university education, particularly his ignorance of the works of Adam Smith, Thomas Malthus, David Ricardo, and other British political economists, Engels was nonetheless perfectly confident that British economics was deeply flawed. In one of the last essays he wrote before leaving England, he hastily roughed out the essential elements of a rival doctrine. Modestly, he called this fledgling effort Outlines of a Critique of Political Economy.11 Across the English Channel in St. Germain-en-Laye, the wealthiest suburb of Paris, Karl Marx had buried himself in histories of the French Revolution. When Engelss final piece arrived in the post, he was jolted back to the present, electrified by his correspondents brilliant sketch on the critique of economic categories.12 Marx too was the prodigal (and profligate) son of a bourgeois father. He too was an intellectual who felt trapped in a philistine age. He shared Engelss sense of German intellectual and cultural superiority, admired all things French, and bitterly resented British wealth and power. Yet he was in many ways Engelss opposite. Domineering, impetuous, earnest, and learned, Marx had none of the other mans glibness, adaptability, or cheerful bonhomie. Only two and a half years older, Marx was not only married and the father of a baby girl but also a doctor of philosophy who insisted on being addressed as such. A short, powerfully built, almost Napoleonic figure, he had thick jet-black hair that sprouted from cheeks, arms, nose, and ears. His eyes glowed with an intelligent and malicious fire, and, as his assistant at the Rheinische Zeitung recalled, his favorite conversation

starter was I am going to annihilate you.13 One of his biographers, Isaiah Berlin, identified Marxs belief in himself and his own powers as his single most outstanding characteristic.14 While Engels was practical and efficient, Marx was, as George Bernard Shaw pointed out, without administrative experience or any business contact with a living human being.15 He was undeniably brilliant and erudite, but he had never acquired Engelss work ethic. Whereas Engels was ready at any hour to roll up his sleeves and start writing, Marx was more likely to be found in a caf, drinking wine and arguing with Russian aristocrats, German poets, and French socialists. As one of his backers once reported, He reads a lot. He works with extraordinary intensity... He never finishes anything. He interrupts every bit of research to plunge into a fresh ocean of books... He is more excitable and violent than ever, especially when his work has made him ill and he has not been to bed for three or four nights on end.16 Marx had been forced to turn to journalism when he failed to obtain an academic post at a German university and his long-suffering family finally cut him off financially.17 After just six months at his newspaper job in Colognethe very air here turns one into a serfhe picked a fight with the Prussian censor and quit. Luckily, Marx was able to convince a wealthy Socialist to finance a new philosophical journal, the Franco-German Annals, and appoint him to run it in his favorite city, Paris. Engelss reports from Manchester emphasizing the link between economic causes and political effects made a powerful impression on Marx. Economics was new to him. The terms proletariat, working class, material conditions, and political economy had yet to crop up in his correspondence. As his letter to his patron shows, he had envisioned an alliance of the enemies of philistinism, i.e. all thinking and suffering people, but his goal was reforming consciousness, not abolishing private property. His contribution to the first and only issue of the Franco-German Annals makes clear that Marx meant to hurl criticisms, not paving stones, at the powers that be: Every individual must admit to himself that he has no precise idea about what ought to happen. However, this very defect turns to the advantage of the new movement, for it means that we do not anticipate the world with our dogmas but instead attempt to discover the new world through the critique of the old. He went on, We shall simply show the world why it is struggling... Our program must be: the reform of consciousness... the self-clarification... of the struggles and wishes of the age. The philosophers role was like that of a priest: What is needed above all is a confession, and nothing more than that. To obtain forgiveness for its sins, mankind needs only to declare them for what they are. Marx and Engels had their first real encounter in August 1844 at the Caf de Regence. Engels stopped in Paris on his way home to Germany expressly to see the man who had earlier rebuffed him. They talked, argued, and drank for ten straight days, discovering again and again that each had been thinking the others thoughts. Marx shared Engelss conviction of the utter hopelessness of reforming modern society, and the need to free Germany from God and traditional authority. Engels introduced him to the idea of the proletariat. Marx felt an immediate sense of identification with that class. He saw the proletariat not only, as one might expect, as the naturally arising poor but also as the artificially impoverished... masses resulting from the drastic dissolution of society,18 aristocrats who had lost their lands, bankrupt businessmen, and unemployed academics. Like Carlyle and Engels, Marx seized on hunger and rebelliousness as evidence of the bourgeoisies unfitness for rule: absolutely imperative need will drive the proletariat to overthrow its oppressors, he predicted.19 By abolishing private property, the proletariat would free not only itself but the entire society. As the historian Gertrude Himmelfarb observes, Engels and Marx were hardly the only Victorians who were convinced that modern society was suffering from a terminal illness.20 They differed from Carlyle and other social critics chiefly in their emphasis on the inevitability of the demise of the existing social order. Even as they struggled to free themselves from Protestant dogma, they became convinced that the economic collapse and violent revolution they predicted were fates from which there was no escapeso to speak, predestined. While Carlyles doomsday message was meant to inspire repentance and reform, theirs was meant to urge their readers to get on the right side of history before it was too late. In The Condition of the Working Class in England in 1844, Engels had made a compelling, if not necessarily accurate, case that Englands industrial workforce normally lived in a state of semistarvation and that famine had driven it to violence against factory owners in 1842. What his journalistic account could not establish was that workers precarious existence was immutable and that no solution existed short of the overthrow of English society and the imposition of a Chartist dictatorship. This is the argument that Engels had kept losing with his English acquaintances and the problem he had urged Marx to take up. He explained to Marx that in England, social and moral problems were being redefined as economic problems, and social critics were being forced to grapple with economic realities. Just as the disciples of the German philosopher Georg Hegel had used religion to dethrone religion and expose the hypocrisy of Germanys ruling elite, they would have to use the principles of political economy to eviscerate the hateful English religion of money. When the new friends parted, Engels went home to Germany to pour out his charges of murder, robbery and other crimes on a massive scale against the British business class (and, by implication, Germanys as well).21 Working in his familys cotton thread factory had confirmed Engelss feeling that business was filthy.22 He had never seen a class so deeply demoralized, so incurably debased by selfishness, so corroded within, so incapable of progress, as the English bourgeoisie. These bartering Jews, as he called the businessmen of Manchester, were devotees of Political Economy, the Science of Wealth, indifferent to the suffering of their workers as long as they made a profit and, indeed, to all human values except money. The huckstering spirit of the English upper classes was as repugnant as the Pharisaic philanthropy that they dispensed to the poor after sucking out their very life-blood. With English society

increasingly divided into millionaires and paupers, the imminent war of the poor against the rich would be the bloodiest ever waged.23 As fast and fluent a writer as he was a talker, Engels finished his manuscript in less than twelve weeks. All the while, Engels badgered Marx to Do try and finish your political economy book... It must come out soon.24 His own book was published in Leipzig in July 1845. The Condition of the Working Class in England drew favorable reviews and sold well even before the economic and political crises that the author correctly forecast for 1846 or 1847 gave it the added cache of successful prophecy. Das Kapital, the grandiose treatise in which Marx promised to reveal the law of motion of modern society, took twenty years longer.25 In 1849, when Henry Mayhew, a London Morning Chronicle correspondent, climbed to the Golden Gallery atop St. Pauls Cathedral to get a birds-eye view of his hometown, he found that it was impossible to tell where the sky ended and the city began.26 At nearly 20 percent a decade, the citys growth seemed to obey no known law.27 By the middle of the century, the population had swelled to two and one half million. There were more than enough Londoners to populate two Parises, five Viennas, or the eight next-largest English cities combined.28 London epitomized the 19th century economic miracle.29 The pool of London was the worlds biggest and most efficient port. As early as 1833, a partner in the Barings Brothers Bank observed that London had become the center upon which commerce must turn. Londons wet docks covered hundreds of acres and had become a prime tourist attractionnot least because of a twelve-acre underground wine cellar that gave visitors a chance to taste the Bordeaux. The smellspungent tobacco, overpowering rum, sickening hides and horn, fragrant coffee and spicesevoked a vast global trade, an endless stream of migrants, and a far-flung empire. I know nothing more imposing than the view which the Thames offers during the ascent from the sea to London Bridge, Engels had confessed in 1842 after seeing London for the first time. The masses of buildings, the wharves on both sides, especially from Woolwich upwards, the countless ships along both shores, crowding ever closer and closer together, until, at last, only a narrow passage remains in the middle of the river, a passage through which hundreds of steamers shoot by one another; all this is so vast, so impressive, that a man cannot collect himself.30 Londons railway stations were vaster than the walls of Babylon... vaster than the temple of Ephesus, John Ruskin, the art historian, claimed. Night and day the conquering engines rumbled, wrote Dickens in Dombey and Son. From London, a traveler could go as far north as Scotland, as far east as Moscow, as far south as Baghdad. Meanwhile, the railroad was pushing Londons boundaries ever farther into the surrounding countryside. As Dickens related, The miserable waste ground, where the refuse-matter had been heaped of yore, was swallowed up and gone, and in its frowsy stead were tiers of warehouses, crammed with rich goods and costly merchandise. Bridges that had led to nothing, led to villas, gardens, churches, healthy public walks. The carcasses of houses, and beginnings of new thoroughfares, had started off upon the line at steams own speed, and shot away into the country in a monster train.31 The financial heart of world commerce beat in the City, Londons financial center. The financier Nathan Mayer Rothschild, not given to exaggeration, called London the bank of the world.32 Merchants came there to raise short-term loans to finance their global trade, and governments floated bonds to build roads, canals, and railways. Although the London stock exchange was still in its infancy, the Citys merchants and bill discounters attracted three times the amount of borrowable money as New York and ten times as much as Paris.33 Bankers, investors, and merchants hunger for information helped make London into the worlds media and communications center. Anyone can get the news, a Rothschild complained in 1851 when the advent of the telegraph made his carrier pigeon network obsolete.34 London, not the new industrial towns in the north, boasted the biggest concentration of industry in the world, employing one in six manufacturing workers in England, nearly half a million men and women.35 That was roughly ten times the number of cotton workers in Manchester. The dark satanic mills in William Blakes Jerusalem probably werent in the Coketowns of northern England. Like the monster Albion flour mill, which employed five hundred workers and was powered by one of James Watts gargantuan steam engines, they were more likely on the Thames in London.36 A popular 1850s travel guide refers to water works, gas works, shipyards, tanning yards, breweries, distilleries, glass works the extent of which would excite no little surprise in those who for the first time visited them.37 True, London had no single dominant industry such as textiles, and most of its manufacturing firms employed fewer than ten hands,38 but entire industriesprinting in Fleet Street, paint, precision instruments in Camden, and furniture making around Tottenham Roadwere concentrated in London. The vast shipyards at Poplar and Millwall employed fifteen thousand men and boys to build the biggest steamships and armor-plated warships afloat. But while factory towns like Leeds and Newcastle supplied the bulk of Englands exports, most of Londons manufacturers catered to the needs of the city itself. Wandsworth had its flour mills, Whitechapel its sugar refiners, Cheapside its breweries, Smithfield its cattle markets, and Bermondsey its tanneries, candle and soap makers. Mayhew called London the worlds busiest hive.39 Above all, London was the worlds biggest market. Here one could get at a low cost and with the least trouble, conveniences, comforts, and amenities beyond the compass of the richest and most powerful monarchs.40 In the prosperous West End of London everything shines more or less, from the window panes to the dog collars and the air is colored, almost scented, by the presence of the biggest society on earth.41 Regent Street displayed the greatest collection of watchmakers, haberdashers, and photographers; fancy stationer, fancy hosiers, and fancy stay makers; music shops, shawl shops, jewelers, French glove shops, perfumery, and point lace shops, confectioners and milliners the world had ever seen.42 Mayhew astutely attributed the immensity of... commerce in the city to the unparalleled

prevalence of merchant people in London, and the consequent vastness of wealth.43 The Economist boasted, The richest persons in the Empire throng to her. Her scale of living is most magnificent; her rents highest; her opportunities of money-making widest.44 One in six Britons lived in London, but London accounted for an even bigger share of national income. Incomes were, on average, 40 percent higher than in other English cities, not only because London had more wealthy residents but also because London wages were at least one-third higher than elsewhere. Her huge population and vast income made London by far the greatest concentration of consumer demand in the world. The economic historian Harold Perkin argues that Consumer demand was the ultimate economic key to the Industrial Revolution, providing a more powerful impetus than the invention of the steam engine or the loom.45 Londons needs, passion for novelty, and growing spending power supplied entrepreneurs with compelling incentives to adopt new technologies and create new industries. If London attracted some of the richest individuals on earth, it was also a magnet for a large number of the poorest. When Mayhew referred to the unprecedented multitude of individuals attracted by such wealth to the spot, he meant not only the shopkeepers, tradesmen, lawyers, and doctors who catered specifically to the rich, but also the legions of unskilled migrants from the surrounding rural counties who came to work as servants, seamstresses, shoemakers, carpenters, dockhands, casual laborers, and messengers, or, failing that, as petty criminals, scavengers, and prostitutes.46 The juxtaposition between rich and poor was rendered more striking by the exodus of the middle classes to the suburbs and, more significant in the minds of observers, by the universal assumption that London presaged the future of society. Poverty was not, of course, new. But in the country, hunger, cold, disease, and ignorance appeared to be the work of nature. In the great capital of the world, misery seemed to be man-made, almost gratuitous. Wasnt the means to relieve it at hand, actually visible in the form of elegant mansions, elaborate gowns, handsome carriages, and lavish entertainments? Well, no. It only looked that way to unsophisticated observers who had no idea that letting the poor eat cake for a day or two would hardly solve the problem of producing enough bread, clothing, fuel, housing, education, and medical care to raise most Englishmen out of poverty. Mayhew was not alone in navely supposing that the rows of brick warehouses, vast emporia, contained wealth enough, one would fancy, to enrich the people of the whole globe.47 Journalists, artists, novelists, social reformers, clergymen, and other students of society were drawn to London as an epitome of the round world where there is nothing one cannot study at first hand.48 They came there to see where society was heading. While eighteenth-century visitors were apt to focus on sin, crime, and filth, those who flocked to Victorian London were more often struck by its extremes of poverty and wealth. November was the worst month for air quality in the worlds biggest and richest metropolis, observed Charles Dickens in Bleak House.49 On the twenty-ninth of that month in 1847, Friedrich Engels and Karl Marx struggled up Great Windmill Street toward Piccadilly, heads bowed and trying their best to avoid slipping in the ankle-deep mud or being trampled by the human throng. Their extreme myopia and the sulfurous yellow London fog obscured everything more than a foot ahead. Engels, still as erect as a cadet, and Marx, still with a jet-black mane and magnificent whiskers, were in London to attend a congress of the Communist League, one of many tiny groups comprised of Central European utopians, Socialists, and anarchists, as well as the odd Chartist and occasional Cockney clerk in favor of male suffrage, that flourished in the relative safety of English civil liberties and lenient immigration law. When the recent collapse of a railroad boom spread financial panic in London and on the Continent, the league had hastily convened a meeting to hammer out its hitherto somewhat nebulous goals. Engels had already convinced the league to drop its insipid slogan, All Men Are Brothers, in favor of the more muscular Proletarians of All Countries Unite! He had composed two drafts of a manifesto that he and Marx meant for the league to adopt. They had discussed how they could shoulder aside those in the leadership who were convinced that workers grievances could be addressed without overthrowing the existing order. This time we shall have our way, Engels had sworn in his most recent letter to Marx.50 They finally found their way to Soho and the Red Lion pub. The headquarters of the German Workers Educational Union, a front for the illegal league, was on the second floor. The room had a few wooden tables and chairs and, in one corner, a grand piano meant to make refugees from Berlin and Vienna stranded in unmusical London feel at home.51 The air smelled of wet woolens, penny tobacco, and warm beer. For ten days, Engels and Marx dominated the proceedings, navigating the atmosphere of conspiracy and suspicion like fishes in water. At one point, Marx read Engelss draft manifesto out loud. One delegate recalled the philosophers relentless logic as well as the sarcastic curl of his mouth. Another remembered that Marx spoke with a lisp, which caused some listeners to hear eight-leaved clovers when he actually said workers.52 Some delegates repudiated Engels and Marx as bourgeois intellectuals. At the end of the ten days, however, all opposition... was overcome. The congress voted to adopt their manifesto and agreed to declare itself in favor of the overthrow of the bourgeoisie, the abolition of private property, and the elimination of inheritance rights. Marx, who had already burned through several family bequests but was, as usual, broke again, was commissioned to draft the final version of the leagues call to arms.53 Engels had wanted the pamphlet to be a simple historical narrative and proposed that it be called The Communist Manifesto. He thought it important to tell the story of modern societys origins in order to show why it was destined to self-destruct. He envisioned the Manifesto as a sort of Genesis and Revelation rolled into one.54 Three years after Engels introduced Marx to English political economy, Marx was already calling himself an economist.55 He had also absorbed the evolutionary theories that were beginning to pervade the sciences. Like other left-wing disciples of

Hegel, he viewed society as an evolving organism rather than one that merely reproduced itself from one generation to another.56 He wanted to show that the industrial revolution signified more than the adoption of new technologies and the spectacular leap in production. It had created huge cities, factories, and transport networks. It had launched a vast global trade that made universal interdependence, not national self-sufficiency, the rule. It had imposed new patterns of boom and bust on economic activity. It had torn old social groups from their moorings and created entirely new ones, from millionaire industrialists to poverty-stricken urban laborers. For a dozen centuries, as empires rose and fell and the wealth of nations waxed and waned, the earths thin and scattered population had grown by tiny increments. What remained essentially unchanged were mans material circumstances, circumstances that guaranteed that life would remain miserable for the vast majority. Within two or three generations, the industrial revolution demonstrated that the wealth of a nation could grow by multiples rather than percentages. It had challenged the most basic premise of human existence: mans subservience to nature and its harsh dictates. Prometheus stole fire from the gods, but the industrial revolution encouraged man to seize the controls. Engels and Marx perceived more clearly than most of their contemporaries the newness of the society in which they came of age, and tried to work out its implications more obsessively. Modern society was evolving faster than any society in the past, they believed. The consciousness of change and changeability was a breach in the firmament of traditional truths and received wisdom. In Marxs memorable phrase, All that is solid melts into air.57 Surely the vividness of their perceptions owes something to the fact that they came to England as foreign correspondents, so to speak, and that they came from a country that had yet to go through its industrial revolution. The trips from Trier and Barmen in Germany to London were journeys forward in time. Hardly anyone, except perhaps Charles Dickens, was as simultaneously thrilled and revolted by what they witnessed. They professed to despise Englands philistine commercial culture while envying her wealth and power. Their observations convinced them that in the modern world, political power grew not from the barrels of guns but out of a nations economic superiority and the energy of its business class. England was the colossus astride the modern world. If it is a question of which nation has done most, no one can deny that the English are that nation, Engels admitted.58 Industry and trade had made her the worlds richest nation. Between 1750 and 1850, the value of goods and services produced in Britain every yearher gross domestic producthad quadrupled, growing more in a hundred years than in the previous thousand.59 The Manifesto emphasized the unprecedented explosion of productive power that Engels and Marx believed would determine political power in the modern world: The bourgeoisie, during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have all preceding generations together... It has been the first to show what mans activity can bring about. It has accomplished wonders far surpassing Egyptian pyramids, Roman aqueducts, and Gothic cathedrals; it has conducted expeditions that put in the shade all former Exoduses of nations and crusades.60 Marx and Engels had no doubt that Englands capacity to produce would continue to grow by multiples. But they were convinced that the distributive mechanism was fatally flawed and would cause the whole system to collapse. Despite the extraordinary accession of wealth, the abysmally low living standards of the three-fourths of the British people who belonged to the laboring classes had improved only a little. Recent estimates by Gregory Clark and other economic historians suggest that the average wage rose by about one-third between 1750 and 1850 from an extremely low level.61 True, the laboring classes were now far more numerous, the English population having trebled. And they were not as miserable as their German or French counterparts. But advances in some areas were balanced by retrogressions elsewhere. For one thing, most of the gain in pay occurred after 1820, and the lions share went to skilled craftsmen and factory operatives. Any improvement in the wages of unskilled laborers, including farmworkers, was marginal and was offset, as Malthus had feared, by bigger families. Employment was less secure because manufacturing and construction were subject to booms and busts. Hours were longer, and wives and children were more liable to work as well. Living standards of urban workers were further undermined by the degradation of the physical environment. The mass migration from the country to the city was taking place before the germ theory of disease had been discovered and before garbage collection, sewers, and clean water supplies were commonplace. Despite the greater poverty of rural England, life expectancy in the countryside was about forty-five versus thirty-one or thirty-two in Manchester or Liverpool. Filth and malnutrition simply werent as deadly in less-contagious circumstances. At a time when cities like Liverpool were expanding at rates between 31 and 47 percent every decade, epidemics posed a constant threat. The richest of the rich were not immunePrince Albert, Queen Victorias husband, was carried off by typhoidbut the risks were magnified by poor nutrition and crowding. As the influx of migrants into cities accelerated in the first half of the nineteenth century, the health of the average worker stopped improving with income or actually deteriorated. Life expectancy at birth rose from thirty-five to forty between 1781 and 1851, but raw death rates stopped falling in the 1820s. Infant mortality rose in many urban parishes, and adult heighta measure of childhood nutrition, which is affected by disease as well as dietof men born in the 1830s and 1840s fell.62 Reactionaries and radicals alike wondered if England was suffering from a Midas curse. This successful industry of England, with its plethoric wealth, has as yet made nobody rich; it is an enchanted wealth, thundered Carlyle.63 The economic historian Arnold Toynbee argued that the first half of the nineteenth century was a period as disastrous and as terrible as any through which a nation has ever passed. It was disastrous and terrible, because side by side with a great increase of wealth was seen an enormous increase in

pauperism; and production on a vast scale, the result of free competition, led to a rapid alienation of classes and the degradation of a large body of producers.64 True, as Englands leading philosopher, John Stuart Mill, pointed out, the gradual removal of laws, levies, and licenses that tied the lower orders to particular villages, occupations, and masters had increased social mobility: Human beings are no longer born to their place in life... but are free to employ their faculties and such favorable chances as offer, to achieve the lot which may appear to them most desirable.65 But even Mill, a libertarian with strong Socialist sympathies, could see little improvement in the well-being of most Englishmen: Hitherto it is questionable if all the mechanical inventions yet made have lightened the days toil of any human being.66 Thus, in the second year of the potato famine in Ireland, the authors of The Communist Manifesto repeated Engelss earlier claim that as the nation grew in wealth and power, the condition of its people only worsened: The modern labourer... instead of rising with the progress of industry, sinks deeper and deeper below the conditions of existence of his own class. He becomes a pauper, and pauperism develops more rapidly than population and wealth. And here it becomes evident that the bourgeoisie is unfit any longer to be the ruling class in society.... The proletarians have nothing to lose but their chains. They have the world to win. WORKING MEN OF ALL COUNTRIES, UNITE!67 Having been ejected from France for publishing a satirical sketch of the Prussian king, Marx, his growing family, and the family retainer had been living in Belgium on a publishers advance for his economics treatise. At the end of his month-long stay in London, Marx had returned to his suburban villa in Brussels, where he promptly put off the task of writing the final version and threw himself into a lecture series... on the economics of exploitation. In January, after league officials threatened to hand the assignment to someone else, he finally picked up his pen. Just before news of fighting in Paris between Republicans and the municipal guard reached Great Windmill Street, his partially finished final draft arrived in the mail. On February 21, the league had one thousand copies of the Manifesto, written in German, printed and delivered to the German border with France. All but one copy was promptly confiscated by the Prussian authorities. Marx and Engels waited impatiently for Armageddon. Like many nineteenth-century romantics, they saw themselves as living in a general atmosphere of crisis and impending catastrophe in which anything could happen.68 John of Patmos, the author of the book of Revelation, had supplied them with the perfect finale for modern society and their Manifesto: society splits into two diametrically opposed camps, there is a final battle, Rome falls, the oppressed receive justice, the oppressors are judged, and the end of history comes. History did not end in 1848. The French revolution of that year led not to Socialism or even universal male suffrage, but to the reign of Napolon III. The declaration of the French Republic resulted in Marxs summary ejection from Belgium and, a few weeks after he had found a new bolt-hole in Paris, persecution by the French authorities. When the Paris police threatened to banish him to a swampy, disease-ridden village hundreds of miles from the capital, Marx objected on grounds of health and began to look around for a country that would take him. In August 1849 he moved to London, that Patmos of foreign fugitives and home of the former French king Louis Philippe and countless other political exiles.69 It would be for only a short time, he consoled himself. Marxs arrival in London coincided with one of the worst cholera epidemics in the citys history. By the time it had run its course, 14,500 adults and children had died.70 The outbreak encouraged Henry Mayhew, the journalist, to undertake a remarkable series of newspaper stories about Londons poor.71 A scientist manqu who had a terrible relationship with his father, Mayhew was plump, energetic, and engaging, but absolutely hopeless about money. At thirty-seven, the former actor and cofounder of the humor magazine Punch was still recovering from a humiliating bankruptcy that had cost him his London town house and nearly landed him in jail. After months of grinding out pulp fiction with self-mocking titles such as The Good Genius That Turned Everything into Gold, Mayhew saw a chance for a comeback. Mayhews eighty-eight-part series took Chronicle readers on a house-by-house tour in the very capital of cholera.72 Jacobs Island was a particularly noxious corner of Bermondsey on the south side of the Thames immortalized by Dickens in Oliver Twist. Mayhew promised readers a sensational portrait of the districts inhabitants according as they will work, they cant work, and they wont work.73 He assured the audience that he was no Chartist, Protectionist, Socialist, Communist, which was perfectly true, but a mere collector of facts.74 With a team of assistants and a few cabmen more or less on retainer, he plunged into the houses with crazy wooden galleries... with holes from which to look upon the slime beneath; windows, broken and patched, with poles thrust out, on which to dry the linen that is never there; rooms so small, so filthy, so confined, that the air would seem to be too tainted even for the dirt and squalor which they shelter.75 Mayhew found that Londons working population was by no means a single monolithic class but a mosaic of distinct and highly specialized groups.76 He ignored the citys single biggest occupation150,000 domestic servantswhose numbers demonstrated how large the rich loomed in the citys economy. Nor did he take an interest in the 80,000 or so construction workers employed in building railroads, bridges, roads, sewers, and so on. Instead Mayhew concentrated on a handful of manufacturing trades. As the historian Gareth Stedman Jones explains, Londons labor market was a marriage of extremes. On the one hand, the city attracted highly skilled artisans who catered to the wealthy and who earned one-fourth to one-third more than in other towns, as much as the clerks and shopkeepers who comprised the lower middle class. On the other hand, it thrived on an uninterrupted influx of unskilled labor. Laborers also earned higher wages than their counterparts in the provinces, but their living conditions were apt to be worse because of the overcrowded, decrepit housing in areas like Whitechapel, Stepney, Poplar, Bethnal Green, and Southwark, which had been

exhaustively documented by parliamentary commissions of the 1840s. Clerks, salespeople, and other white-collar workers could afford the new omnibuses or trains and were escaping to the fast-growing suburbs. Unskilled workers had no choice but to stay within walking distance of their places of employment. Competition from provincial towns and other countries was a constant source of pressure to find ways to save on labor costs. The system of sweating or piecework, often performed in the workers own lodging, was tailor-made to keep industries such as dressmaking, tailoring, and shoe manufacturing that would otherwise have migrated out of London on account of its high rents, overheads, and wages. Thus, Stedman Jones concludes, Londons poverty, with its sweatshops, overcrowding, chronic unemployment, and reliance on charity, was, in fact, a by-product of Londons wealth. The citys rapid growth led to rising land prices, high overheads, and high wages. High wages attracted more waves of unskilled newcomers but also created constant pressure on employers to find ways to replace more expensive labor with cheap labor. Londons needlewomen epitomized the phenomenon, and they were the subjects of Mayhews most sensational stories. Never in all history was such a sight seen, or such tales heard, he promised.77 Using census figures, Mayhew calculated that there were 35,000 needlewomen in London, 21,000 of whom worked in respectable dressmaking establishments that ranged from the bespoke to those that catered to the lower middle class. The other 14,000, he wrote, worked in the dishonorable or sweated sector.78 Mayhew contended that piecework rates of the needlewomen generally are so far below subsistence point, that, in order to support life, it is almost a physical necessity that they must either steal, pawn, or prostitute themselves.79 On this occasion, Mayhew was more impresario than observer. In November, with the help of a minister, he organized a meeting of needlewomen forced to take to the streets. He promised strict privacy of the assembly. Men were barred. Two stenographers took verbatim notes. Under dimmed lights, twenty-five women were given tickets of admission. They mounted the stage and were encouraged to share their sorrows and sufferings. The minister exhorted them to speak freely. To Mayhews amazement, they did: The story which follows is perhaps one of the most tragic and touching romances ever read. I must confess that to myself the mental and bodily agony of the poor Magdalene who related it was quite overpowering. She was a tall, fine-grown girl, with remarkably regular features. She told her tale with her face hidden in her hands, and sobbing so loud that it was with difficulty I could catch her words. As she held her hands before her eyes I could see the tears oozing between her fingers. Indeed I never remember to have witnessed such intense grief.80 Mayhews account in the Morning Chronicle confirmed Thomas Carlyles worst fears about modern industrial society, inspiring a choleric rant against economists: Supply-and-demand, Leave-it-alone, Voluntary Principle, Time will mend it; till British industrial existence seems fast becoming one huge poison-swamp of reeking pestilence physical and moral; a hideous living Golgotha of souls and bodies buried alive; such a Curtius gulf, communicating with the Nether Deeps, as the Sun never saw till now. These scenes, which the Morning Chronicle is bringing home to all minds of men, thanks to it for a service such as Newspapers have seldom doneought to excite unspeakable reflections in every mind.81 Among these unspeakable reflections was the image of a volcano on the verge of eruption. Do you devour those marvelous revelations of the inferno of misery, of wretchedness, that is smoldering under our feet? Douglas Jerrold, then editor of Punch and Mayhews father-in-law, asked a friend. To read of the sufferings of one class, and the avarice, the tyranny, the pocket cannibalism of the others, makes one almost wonder that the world should go on.82 Mayhews series in the Morning Chronicle, Labour and the Poor, ran for the entire year of 1850. When about half of the articles had run, he revealed his larger ultimate aim. He wanted to invent, he confessed, a new Political Economy, one that will take some little notice of the claims of labour. He justified his ambition by suggesting that an economics that did justice as well to the workman as to the employer, stands foremost among the desiderata, or the things wanted, in the present age.83 Carlyles friend John Stuart Mill had given precisely the same reason for embarking on his Principles of Political Economy, published in 1848, only two years earlier, and already the most-read tract on economics since Adam Smiths The Wealth of Nations. Claims of Labor have become the question of the day, Mill wrote during the Irish potato famine in 1845, when he conceived the idea for the book.84 At the time, the thirty-nine-year-old Mill had long been in love with Harriet Taylor, an unhappily married intellectual whom Carlyle described as pale... and passionate and sad-looking and a living Romance heroine.85 As Mills frustration over Harriets husbands refusal to grant her a divorce grew, so did his sympathy with her Socialist ideals. In taking up political economy, Mill hoped to overcome Carlyles objection that the discipline was dreary, stolid, dismal, without hope for this world or the next86 and Taylors that it was biased against the working classes. Agreeing with Dickens, Mill saw a particular need to avoid the hard, abstract mode of treating such questions which has brought discredit upon political economists. He blamed them for enabling those who are in the wrong to claim, generally to receive, exclusive credit for high benevolent feeling.87 Mill no doubt had in mind David Ricardo, the brilliant Jewish stockbroker and politician who took up economics as a third career at age thirty-seven. Between 1809 and his untimely death in 1823, Ricardo not only recast the brilliant but often loosely expressed ideas of Adam Smith as an internally consistent, precisely defined set of mathematical principles but also proposed a remarkable number of original ideas concerning the benefits of trade for poor as well as rich nations and the fact that countries prosper most when they specialize. Nonetheless, many potential readers of his On the Principles of Political Economy and Taxation were as repelled by Ricardos tendency to convey his ideas in abstract terms as by his dour conclusions. His iron law of wagesstating that wages may go up or down based on short-run fluctuations in supply and

demand but always tend toward subsistenceincorporated Malthuss law of population and ruled out any meaningful gains in real wages.88 Mill noted that Ricardo, Smith, and Malthus were all vocal champions of individual political and economic rights, opponents of slavery, and foes of protectionism, monopolies, and landowner privileges. He himself favored unions, universal suffrage, and womens property rights. In response to the economic crisis and social strife of the Hungry Forties, he advocated the repeal of the 50 percent tax on imported grain. The typical laborer spent at least one-third of his meager pay on feeding himself and his family. Mill correctly predicted that once the tax on imports was abolished food prices would decline and real wages would rise. Yet even he remained profoundly pessimistic about the scope of improvements in the lives of workers. Like Carlyle, he was convinced that the repeal of the Corn Laws would only buy time, as the invention of the railroad, the opening up of the North American continent, and the discovery of gold in California had. Such developments, while beneficial, could not repeal the immutable laws by which the world was governed. Malthuss law of population and Ricardos iron law of wages and law of diminishing returnsthe notion that using more and more labor to farm an acre would produce less and less extra outputall dictated that population would outrun resources and that the nations wealth could be enlarged only at the expense of the poor, who were doomed to spend the great gifts of science as rapidly as... [they] got them in a mere insensate multiplication of the common life.89 Government could do no more than create conditions in which enlightened self-interest and laws of supply and demand could work efficiently. For Mill, economies are governed by natural laws, which couldnt be changed by human will, any more than laws of gravity can. Happily, Mill wrote as he was finishing Principles in 1848, there is nothing in the laws of Value which remains for the present or any future writer to clear up; the theory of the subject is complete.90 Henry Mayhew, for one, refused to accept this conclusion. By his lights, Mill had failed in his attempt to turn political economy into a gay science, that is, a science capable of increasing the sum of human happiness, freedom, or control over circumstances.91 The fact that Mill had not jettisoned the iron law of wages was all the more reason for trying again. Ultimately, Mayhew did not succeed in mounting a challenge to the classical wage doctrine, and neither did anyone else of his generation. Still, his landmark series on London labor became the unofficial Baedeker for a younger generation of social investigators who were inspired by his reporting and shared his desire to learn how much improvement was possible without overturning the social order. In August 1849, less than two years after Karl Marx had arrived in London amid a cholera epidemic, the whole world seemed to be descending upon his sanctuary to see the Great Exhibition. The first worlds fair was the brainchild of another German migr, Queen Victorias husband, Prince Albert, but Marx, who was by then living with his wife, Jenny, their three young children, and their housekeeper in two dingy rooms over a shop in Soho, wanted nothing to do with it. He fled to seat G7 in the high-domed reading room of the British Museum with its cathedral-like gloom and refreshing quiet. Ignoring breathless newspaper accounts about the construction of the Crystal Palace in Hyde Park, Marx filled notebook after notebook with quotations, formulas, and disparaging comments as he pored over the works of the English economists Malthus, Ricardo, and James Mill, the father of John Stuart Mill. Let the philistines pray in the bourgeois Pantheon, he told himself. He would have no truck with false idols. In May 1851, Karl Marx was no longer the dreamy young university student who spent days holed up in his dressing gown writing sonnets to a barons daughter, or the louche journalist who drank all night in Paris cafs. In the ten years since he had obtained his mail-order doctorate from the University of Jena, he had squandered a surprise inheritance of 6,000 francs from a distant relative. He had started three radical journals, two of which had folded after a single issue. He had never held a job for more than a few months. While his erstwhile protg, Engels, had produced a best seller, his own magnum opus remained unwritten. He had published, but mostly long-winded polemics against other Socialists. At thirty-two, he was just another unemployed migr, the head of a large and growing family, forced to beg and borrow from friends. Luckily for him, his guardian angel, Engels, had promised to pursue a career at his familys firm expressly so that Marx could focus on his book full-time. Meanwhile, as heads of state and other dignitaries swooped into town, Scotland Yard was keeping a close eye on radicals. Judging by a report from a Prussian government spy, the main threat posed by Marx was to Mrs. Beetons standards of housekeeping: Marx lives in one of the worst, therefore one of the cheapest quarters of London. He occupies two rooms. The one looking out on the streets is the salon, and the bedroom is at the back. In the whole apartment there is not one clean and solid piece of furniture. Everything is broken, tattered and torn, with a half inch of dust over everything and the greatest disorder everywhere. In the middle of the salon there is a large old fashioned table covered with an oil cloth, and on it lie manuscripts, books and newspapers as well as the childrens toys, the rags and tatters of his wifes sewing basket, several cups with broken ribs, knives, forks, lamps, an inkpot, tumblers, Dutch clay pipes, tobacco ashin a word everything is topsy-turvy and all on the same table. A seller of second hand goods would be ashamed to give away such a remarkable collection of odds and ends.92 The Exhibition season represented a new nadir in Marxs affairs. Though he adored his wife, he had carelessly gotten Helen Demuth, her personal maid and the family housekeeper, pregnant. Jenny, who was pregnant as well, was beside herself. Three months after she gave birth to a sickly girl, the familys housekeeper delivered a bouncing baby boy. To quash the unspeakable infamies about the affair already circulating around gossipy migr circles, Marx had his newborn son whisked off to foster parents in the East End, never to see him again. The tactlessness of some individuals in this respect is colossal, he complained to a friend.93 The boys mother stayed behind to care for the Marx family as before. With home more

unbearable than ever, Marx hurried to seat number G7 every morning and stayed until closing. By the time the Great Exhibition opened on May Day of 1851, Marx had already begun to doubt that the modern Rome would be overthrown by her own subjects. Instead of Chartists storming Buckingham Palace, four million British citizens and tens of thousands of foreigners invaded Hyde Park to attend the first worlds fair. The human wave helped launch Thomas Cook in the tour business and brought people of all backgrounds together. Never before in England had there been so free and general a mixture of classes as under that roof, crowed one of the many accounts of the fair published at the time.94 For Marx, the fair resembled the games Roman rulers staged to keep the mob entranced. England seems to be the rock which breaks the revolutionary waves, he had written in an earlier column for the Neue Rheinische Zeitung. Every social upheaval in France... is bound to be thwarted by the English bourgeoisie, by Great Britains industrial and commercial domination of the world.95 The Exhibition was meant to encourage commercial competition, which Prince Albert and some of its other sponsors hoped would foster peace. Marx had prayed for war: Only a world war can break old England... and bring the proletariat to power.96 The worse things got, he reasoned, the better the odds of revolution. Still, he was not willing to totally discount the possibility that the great advance in production since 1848 might lead to a new and more deadly crisis. Dismissing the Exhibition as commodity fetishism, he predicted the imminent collapse of the bourgeois order.97 As he and Engels had written in their Manifesto: What the bourgeoisie therefore produces, above all, are its own grave-diggers.98 Racing against time so as not to be overtaken by the inevitable revolutionif not in England, then on the ContinentMarx began working furiously on his own book of Revelation, a critique of what Englishmen call The Principles of Political Economy.99 Marx spent most days scouring the reading room at the British Museum for material for his great work. To the contemporary questions How much improvement in living standards was possible under the modern system of private property and competition? and Could it endure? Marx knew the answers had to be negative. His challenge now was to prove it. When he took up economics in 1844, Marx did not set out to show that life under capitalism was awful. A decade of exposs, parliamentary commissions, and Socialist tracts, including Engelss, had already accomplished that. The last thing Marx wanted was to condemn capitalism on moral (that is to say Christian) grounds, as utopian Socialists such as Pierre-Joseph Proudhon, who claimed that private property is theft, had done. Marx had no intention of converting capitalists as his favorite novelist, Dickens, dreamed of doing with his Christmas Carol. In any case, he had long repudiated the notion of any God-given morality and insisted that man could make up his own rules. The point of his great work was to prove with mathematical certainty that the system of private property and free competition couldnt work and hence that the revolution must come. He wished to reveal the law of motion of modern society. In doing so, he would expose the doctrines of Smith, Malthus, Ricardo, and Mill as a false religion, just as radical German religion scholars had exposed biblical texts as forgeries and fakes. His subtitle, he decided, would be A Critique of Political Economy.100 Marxs law of motion did not spring Athena-like from his powerful, brooding mind, as his doctor friend Louis Kugelmann supposed when he sent Marx a marble bust of Zeus as a Christmas present. It was Engels, the journalist, who supplied Marx with the rough draft of his economic theory. Marxs real challenge was to show that the theory was logically consistent as well as empirically plausible. In the Manifesto, Marx and Engels had offered two reasons for capitalisms dysfunction. First, the more wealth that was created, the more miserable the masses would become: In proportion as capital accumulates, the lot of the laborer must grow worse. Second, the more wealth that was created, the more extensive and more destructive the financial and commercial crises that broke out periodically would become.101 While the Manifesto referred to ever-decreasing wages and ever-increasing burden of toil as matters of historical fact, in Das Kapital, Marx argued that the law of capitalist accumulation requires wages to fall, the length and intensity of the working day to rise, working conditions to deteriorate, the quality of goods consumed by workers to decline, and the average life span of workers to fall. He did not, however, fall back on the second of his arguments about ever-worsening depressions.102 In Das Kapital, Marx specifically rejected Malthuss law of population, which, as it happens, is also a theory of how the level of wages is determined. In formulating his law, Malthus had assumed that pay was strictly a function of the size of the labor force. More workers meant more competition among them, hence lower wages. Fewer workers meant the opposite. Engels had already identified the primary objection to Malthus in his 1844 Outlines of a Critique of Political Economy, namely that poverty could afflict any society, including a Socialist one. Marxs edifice rests on the assumption that all value, including surplus value, is created by the hours worked by labor. There is not a single atom of its value that does not owe its existence to unpaid labor. In Das Kapital, he cites Mill to support his claim: Tools and materials, like other things, have originally cost nothing but labour... The labour employed in making the tools and materials being added to the labour afterwards employed in working up the materials by aid of the tools, the sum total gives the whole of the labour employed in the production of the completed commodity... To replace capital, is to replace nothing but the wages of the labour employed.103 Mark Blaug, a historian of economic thought, points out that if only labor hours create value, then installing more efficient machinery, reorganizing the sales force, hiring a more effective CEO, or adopting a better marketing strategyrather than hiring more production workersnecessarily causes profits to fall. In Marxs scheme, therefore, the only way to keep profits from shrinking is to exploit labor by forcing workers to work more hours without compensating them. As Henry Mayhew detailed in his Morning Chronicle series, there are many ways of

cutting the real wage. It is crucial for Marxs argument, writes Blaug, that trade unions and governmentsorganizations of the exploiting classcant reverse the process.104 A surprising number of scholars deny that Marx ever claimed that wages would decline over time or that they were tethered to some biological minimum. But they are overlooking what Marx said in so many words on numerous occasions. The inability of workers to earn more when they produce moreor more-valuable productsis precisely what made capitalism unfit to survive. By asserting that labor was the source of all value, Marx claimed that the owners incomeprofit, interest, or managerial salarywas unearned. He did not argue that workers did not need capitalfactories, machines, tools, proprietary technology, and the liketo produce the product. Rather he argued that the capital the owner made available was nothing more than the product of past labor. But the owner of any resourcewhether a horse, a house, or cashcould use it herself. Arguing, as Marx does, that waiting until tomorrow to consume what could be consumed today, risking ones resources, or managing and organizing a business have no value and therefore deserve no compensation is the same as saying that output can be produced without saving, waiting, or taking risks. This is a secular version of the old Christian argument against interest. The trouble is, as Blaug points out, that this is just another way of saying that only labor adds value to outputthe very statement that Marx set out to prove in the first placeand not an independent proof. Marx compiled an impressive array of evidence, from Blue Books, newspapers, the Economist, and elsewhere, to show that the living standards of workers were wretched and working conditions horrendous during the second half of the eighteenth and first half of the nineteenth centuries. But he did not succeed in showing either that average wages or living standards were declining in the 1850s and 1860s, when he was writing Das Kapital, or, more to the point, that there was some reason for thinking that they would necessarily decline. Had Marx stepped outside and taken a good look around like Henry Mayhew, or engaged brilliant contemporaries such as John Stuart Mill who were grappling with the same questions, he might have seen that the world wasnt working the way he and Engels had predicted. The middle class was growing, not disappearing. Financial panics and industrial slumps werent getting worse. When the Great Exhibition of 1862 closed, the great festival refused to disband. A businessman bought the Crystal Palace, had it disassembled and carted to Sydenham in South London, and rebuilt it on an even more monstrous scale. Much to Marxs disgust, the new Crystal Palace opened as a kind of Victorian Disney World. Worse, the economy boomed. As Marx had to admit, It is as if this period had found Fortunatas purse. There had been a titanic advance of production even faster in the second ten years than in the first: No period of modern society is so favorable for the study of capitalist accumulation as the period of the last 20 years... But of all countries England again furnishes the classical example, because it holds the foremost place in the world-market, because capitalist production is here alone completely developed, and lastly, because the introduction of the Free-trade millennium since 1846 has cut off the last retreat of vulgar economy.105 More fatal to Marxs theory, real wages werent falling as capital accumulated in the form of factories, buildings, railroads, and bridges. In contrast to the decades before the 1840s, when increases in real wages were largely limited to skilled workers, and the effect on living standards was offset by more unemployment, longer hours, and bigger families, the gains in the 1850s and 1860s were dramatic, unambiguous, and widely discussed at the time. The Victorian statistician Robert Giffen referred to the undoubted nature of the increase of material prosperity from the mid-1840s through the mid-1870s.106 Robert Dudley Baxter, a solicitor and statistician, depicted the distribution of income in 1867 with an extinct volcano that rose twelve thousand feet above sea level, with its long low base of laboring population, with its uplands of the middle classes, and with the towering peaks and summits of those with princely incomes.107 The Peak of Tenerife struck Baxter as a perfect metaphor for describing who got what. Still, his data show that by 1867, labors share of national income was rising. Scholars have since corroborated these contemporary observations. As early as 1963, Eric Hobsbawm, the Marxist economic historian, admitted that the debate is entirely about what happened in the period which ended by common consent sometime between 1842 and 1845.108 More recently, Charles Feinstein, an economic historian on the pessimist side of a long-running debate on the effects of the industrial revolution, concluded that real wages at last started an ascent to a new height in the 1840s.109 Marx never did step outside. He never bothered to learn English well.110 His world was restricted to a small circle of like-minded migrs. His contacts with English working-class leaders were superficial. He never exposed his ideas to people who could challenge him on equal terms. His interaction with economistscommercial travelers for the great firm of Free-trade111 as he called themwhose ideas he wished to demolish, was nonexistent. He never met or conducted a scientific correspondence with the geniusesJohn Stuart Mill, the philosopher; Charles Darwin, the biologist; Herbert Spencer, the sociologist; George Eliot, the writer; among themwho lived (and debated) a mile or two from him. Astonishingly for the best friend of a factory owner and the author of some of the most impassioned descriptions of mechanizations horrors, Marx never visited a single English factoryor any factory at all until he went on a guided tour of a porcelain manufactory near Carlsbad, where he took the waters toward the end of his life.112 At Engelss insistence, in 1859 Marx reluctantly published a preview of his unfinished magnum opus. The thin volume, called A Contribution to the Critique of Political Economy, was greeted with surprise, embarrassment, and virtually no reviews except ones that Engels wrote anonymously at Marxs behest.113 Marx had frequently justified his decision to remain in Englandand even to seek British citizenshipby pointing to the advantages of London, capital of the modern world, for studying the evolution of society and glimpsing its future. But Isaiah Berlin, himself an migr, wrote that he might just as well have spent his

exile in Madagascar, provided that a regular supply of books, journals and government reports could have been secured. By 1851, when he started to work seriously on the critique that he boasted would demolish English economics, Marxs ideas and attitudes were set and hardly changed at all over the next fifteen or more years.114 When Marx took up the idea of providing a complete account and explanation of the rise and imminent fall of the capitalist system,115 his eyesight was so bad that he was forced to hold books and newspapers a few inches from his face. One wonders what effect his myopia had on his ideas. Democritus, the subject of his doctoral dissertation, was said to have blinded himself deliberately. In some versions of his legend, the Greek philosopher is motivated by a desire to avoid being tempted by beautiful women. In others, he wants to shut out the messy, confusing, shifting world of facts so that he can contemplate the images and ideas in his own head without these bothersome distractions. One might think that his familys climb from renters of rooms over a store to rate-paying owners of a London town house would have made Marx uneasy about his theory. In the twenty years since he had set out to prove that capitalism could not work, Marx himself had evolved from bohemian to bourgeois. He no longer favored the immediate abolition of the rights of inheritance in the Communist program.116 The Marxes used one of several legacies to trade their old hole in Soho for an attractive house in one of the new middle-class developments near Hampstead Heath. It was so new that they found there was no paved road, no gas street lights, and no omnibuses; only heaps of rubbish, piles of rock, and mud. Marx often said that there was something rotten about a system that increased wealth without reducing misery, yet it did not seem to strike him that misery can sometimes increase with wealth. He assumed that Londons slums, which were becoming more Dickensian with each passing decade, were proof that the economy couldnt deliver a decent standard of living for ordinary people. On the contrary, explains Gareth Stedman Jones, the housing crisis was an unwelcome by-product of Londons helter-skelter growth, growing prosperity, and voracious demand for unskilled labor. The key fact is that the mid-Victorian building frenzy involved an orgy of demolition. Between 1830 and 1870, thousands of acres in central London were cleared, mostly in the poor districts where land was cheap, to expand the London docks, lay railway lines, build New Oxford Street, dig the sewers and water pipes, and, in the 1860s, excavate the first stretches of the London tube. So, just as tens of thousands of migrants were flocking to the city in search of work, the supply of housing within walking distance of Londons industrial areas was plummeting. As a result, workers were crowded into ever more dilapidated, ever tighter, ever more expensive quarters. Once the demolition stopped and white-collar workers began to commute from the suburbs by rail, the housing crisis began to ease. The Exhibition season of 1862 coincided with another low point in Marxs financial affairs. Horace Greeley, the publisher of the New York Tribune, had dropped his column, which, though entirely ghostwritten by Engels, had supplied Marx with extra cash. At one point, his money woes became so dire that he applied for a job as a railway clerk, only to be rejected for bad handwriting and not speaking English, and briefly considered immigrating to America. Luckily, he was like an oyster that needed a bit of grit to make his pearls. With his mind on money, he was soon writing a long essay on economics and filling up notebooks again, complaining all the while that he felt like a machine condemned to devour books and then throw them, in a changed form, on the dunghill of history.117 He also decided on a title for his great work: Das Kapital.118 The hoopla surrounding the Exhibition continued to depress Marx. He would have sympathized with Fyodor Dostoyevskys reaction; the Russian novelist called the glass palace a Biblical sight, something to do with Babylon, some prophecy out of the Apocalypse being fulfilled before your very eyes.119 Yet within a year or two, Marxs fortunes turned up again. Thanks to several unexpected legacies as well as a 375 annual subsidy from Engels, he was able to move his family to an even bigger and more imposing town house and was soon spending 500 to 600 a year, something that more than 98 percent of English families could not afford to do.120 Marx had almost forgotten about the Day of Judgment when it dawned. The launch of the eleven-thousand-ton warship the HMS Northumberland on April 17, 1866, ought to have been a day of pride, a reminder of Great Britains industrial and commercial domination of the world. Instead it was a fiasco. The Northumberland had been on the slips in the Millwall Iron Works yard for nearly five years. On the day of the launch, her unusually heavy weight caused her to slip off the railinga portent, people understood later, of the precarious condition of the shipping firms and shipbuilders. Less than a month later, on Thursday afternoon, May 10, in the first week of the London boating season, a frightful rumor swirled through the city. The Rolls-Royce of merchant banks, Overend, Gurney Company, considered by the average citizen to be as solid as the Royal Mint, had failed. It is impossible to describe the terror and anxiety which took possession of mens minds for the remainder of that and the whole of the succeeding day, wrote the London Timess financial correspondent. No man felt safe. By ten oclock the following morning, a horde of struggling and half frantic creditors of both sexes and seemingly all stations of life invaded the financial district. At noon the tumult became a rout. The doors of the most respectable Banking Houses were besieged... and throngs heaving and tumbling about Lombard Street made that narrow thoroughfare impassable.121 The New York Times bureau chief dashed off a telegram to his editors to convey that this was a more fearful panic than has been known in the British metropolis within the memory of man. Before an extra battalion of constables could be called out to control the crowd and before the Chancellor of the Exchequer could authorize the suspension of the Bank Charter Act, the Bank of England had lost 93 percent of its cash reserves, the British money market was frozen solid, and scores of banks and businesses that lived on credit were facing ruin. Englishmen have been running mad on speculation... The day of reckoning has arrived and blank panic

and blue dismay sit on the faces of all our bankers, capitalists and merchants.122 Among the first victims of the panic were the owners of the Millwall shipyard. The boom in shipbuilding, fueled by a worldwide arms race and trade, had more than doubled employment in London shipyards between 1861 and 1865.123 The magnates of this trade had not only over-produced beyond all measure during the overtrading time, but they had, besides, engaged in enormous contracts on the speculation that credit would be forthcoming, Marx gloated.124 By the time of the Overend collapse, new orders were drying up. In fact, Overend may have been pushed over the edge because they covered the seas with their ships and were incurring huge losses on their fleet of steamships. Other casualties included the legendary railway contractors Peto and Betts. True, the most immediate victims of the panic were gullible investors and countless swindling companies that had sprung up to take advantage of cheap money. But the crisis of confidence forced the Bank of England to raise its benchmark interest rate from 6 percent to a crushing 10 percent, the classic panic rate,125 which persisted through the summer. A play called One Hundred Thousand Pounds closed after a brief run. The Times didnt even bother to review it. The boom was over. When news of Black Friday reached Marx via his afternoon paper, he was in his study in North London pondering a financial crisis closer to home. One Modena Villas, where he and his family had recently moved, was a pretentious affair of the kind sprouting up all over Londons periphery, far too pricey for an unemployed journalist who had long since stopped accepting assignments in order to finish his book. Marx had rationalized the extravagance as necessary for his teenage daughters to establish themselves socially. Now, alas, he was broke again and his rent was overdue. So, unfortunately, was Das Kapital. For nearly fifteen years, Marx had been assuring his best friend and patron that his grandiose Critique of Political Economy was virtually finished, that he was ready to reveal the law of motion of modern society, that he would drive a stake through the heart of English political economy. Now Engels, who had kept his nose to the grindstone in Manchester for fifteen years to support him, was becoming restive. In truth, the glitter of Englands prosperity had cast a pall on Marxs project. He had written very little since 1863. A series of windfalls had purchased temporary spells of independence, but now he was back on Engelss dole, and, for the first time, the angelic Engels was showing signs of impatience. Marx had been putting him off with graphic descriptions of a series of afflictions worthy of Job: rheumatism, liver trouble, influenza, toothache, impudent creditors, an outbreak of boils of truly biblical proportionsthe list went on and on. In April 1866, Marx confessed, Being unwell I am unable to write. On the day after Christmas, he complained of not writing at all for so long. Around Easter, writing from the seaside in Margate, he admitted to having lived for my healths sake alone for more than a month.126 Engels suspected, accurately as it turns out, that the real source of Marxs troubles was dragging that damned book around for too long: I hope you are happily over your rheumatism and faceache and are once more sitting diligently over the book, he wrote on May 1. How is it coming on and when will the first volume be ready?127 Since Das Kapital was not coming on, Marx retreated into a sulky silence. Like a shot of adrenaline, Black Friday had a galvanizing effect that no amount of nagging by Engels had ever achieved. Within days, the prophet was back at his desk writing furiously. In early July, he was able to report to Engels, I have had my nose properly to the grindstone again over the past two weeks, and to predict that he would be able to deliver the tardy manuscript by the end of August.128 Who can blame the author of an apocalyptic text holding back until the time was right? By the time Marx was composing it, his melodramatic prophecy, The death knell of capitalist private property sounds. The expropriators will be expropriated, sounded almost plausible. Yet when he composed his famous penultimate chapter on The General Law of Capitalist Accumulation, he felt forced to fudge in order to make his case that the poor had gotten poorer. Quoting Gladstone on the astonishing and incredible surge in taxable income between 1853 and 1863, Marx has the liberal prime minister referring to this intoxicating augmentation of wealth and power... entirely confined to classes of property.129 The text of the speech, printed in the Times of London, shows that Gladstone actually said the opposite: I should look with some degree of pain, and with much apprehension, upon this extraordinary and almost intoxicating growth, if it were my belief that it is confined to the class of persons who may be described as in easy circumstances, he said, adding that, thanks to the rapid growth of untaxed income, the average condition of the British laborer, we have the happiness to know, has improved during the last 20 years in a degree which we know to be extraordinary, and which we may almost pronounce to be unexampled in the history of any country and of any age.130 Marxs prediction that his manuscript would be finished by the end of the summer proved wildly optimistic, but fifteen months after Black Friday, in August 1867, he was able to report to Engels that he had put the final set of galleys in the mail to the German publisher. In his note, he alluded in passing to a famous short story by the French novelist Honor de Balzac. An artist believes a painting to be a masterpiece because he has been perfecting it for years. After unveiling the painting he looks at it for a moment before staggering back. Nothing! Nothing! After ten years of work. He sat down and wept.131 Alas, as Marx feared, The Unknown Masterpiece was an apt metaphor for his economic theory. His mathematical proof was greeted by an eerie silence. And in the worst economic crisis of the modern age, the great twentieth-century economist John Maynard Keynes would dismiss Das Kapital as an obsolete economic textbook which I know to be not only scientifically erroneous but without interest or application to the modern world.132