The Puritan wanted to work in a calling; we are forced to do so. For when asceticism was carried out of monastic cells into everyday life, and began to dominate worldly morality, it did its part in building the tremendous cosmos of the modern economic order. This order is now bound to the technical and economic conditions of machine production which to-day determine the lives of all the individuals who are born into this mechanism...with irresistible force. Perhaps it will so determine them until the last ton of fossilized coal is burnt. (Max Weber, Protestant Ethic and the Spirit of Capitalism)

1. Introduction

Industrial capitalism has revealed itself to be the most powerful transformative agent found in the world today. Its appearance in Britain in the second half of the 17th century, powered by access to the new fossil fuels, unleashed astonishing gains in productivity associated with rises in income, so that it was emulated everywhere. Polanyi [1] aptly called this the Great Transformation, in the sense that nothing would be the same again. Capitalism was indeed an amazing invention of humankind. Its appearance in cities led to demands for independence and liberties that today we take for granted in the West, and which are now spreading worldwide. It ushered in the Industrial Revolution which applied fossil fuels to production, along with new mechanical inventions, thus starting the world on a trajectory of industrialization and
modernization that is bringing more and more of the world's people into its orbit. But it has a dark side, as is now also universally recognized. Polanyi called this the 'counter-movement' to the sundering of social bonds, the uprooting of workers to become the commodity 'labor' and the destruction of nature. At the time he was writing, in the 1940s, the process had already reached an advanced stage, and appeared to be bringing down the whole civilized edifice through Nazism and fascism. As we know, a new kind of capitalism was then being fashioned, in the US New Deal and Keynesian economics, and this ushered the system into a new round of development and global expansion in the post-war period. Many commentators regard the turn to market fundamentalism of the late 20th century, and the concomitant rise of financial capitalism, as the outcome of this, and the global financial crisis of 2008–2009 as its end-point. In a new book, Kaletsky [2] outlines what he regards as a new state-centered global system as emerging, focused on the rise of China, which he dubs Capitalism 4.0.

It is the global impact of industrial capitalism on its natural setting, and its breaching of its natural limits, that is of most concern. The sense that industrial capitalism was outgrowing the planet, and destroying not only its own resource base but also the entire biosphere, was becoming palpable by the first decade of the 21st century, as it became clear that while China had achieved astonishing levels of growth over the previous decades, it was also destroying its own environment at a terrible cost to its own inhabitants and to the world as a whole. Now global warming, due to carbon dioxide build-up from the burning of fossil fuels, is the issue that dominates public debate. Yet with few exceptions, the debate remains locked in a conception of the ‘economy’ that ignores its industrial capitalist characteristics and their effects. Books and reports are published, calling urgently for action and for new policies, e.g. in reducing carbon emissions, but in the absence of changes to the underlying rules and procedures that drive forward the industrial capitalist economy, these remain merely rhetorical. Some exceptions have recently appeared, such as the two books published in 2010 and each entitled ‘Climate Capitalism’, and a new study that calls for a redesign of the institutions of property and ownership to take resources out of the ‘commons’. These are welcome departures, which I build on in this study of the underpinnings that drive growth, expansion and destructiveness of the system we call industrial capitalism. My concern is to sketch how this system may be tamed, or ‘naturalized’ in the sense of bringing it into conformity with its natural limits. Is there a ‘spirit of capitalism’ that is inherently destructive, and will continue to destroy the planet and its resources until, as Weber famously put it, ‘the last ton of fossilized coal is burnt’? While some discuss a concept of ‘natural capital’, we may call this emergent system a form of ‘naturalized capitalism’ – or, in deference to Kaletsky, Capitalism 5.0. Whatever we call it, this is clearly the ‘next’ Great Transformation – one which, if it succeeds, will enable global capitalism to co-exist with its natural biospheric limits; and if it fails, it will in all probability mean the end of our industrial civilization.

I choose not to discuss policy issues so much as changes in underlying rules and institutions that could characterize ‘naturalized capitalism’ and enable both producers and consumers to keep within the natural limits laid down by the biosphere. I focus on changes in three sets of markets, which together span the entire industrial capitalist system. Firstly, because energy is so important as the underpinning of the entire industrial edifice, and because the burning of fossil fuels has created such a problem, it is changes in the energy markets bringing about the substitution of renewable energy sources for fossil fuels that are of interest. Utilization of renewable energy sources, where the power has to be ‘won’ through the design and implementation of sophisticated technologies, will lead to an enhanced sense of responsibility and moderation. The shift to renewable energy sources is under way, but it could be accelerated by more potent use of capitalist instruments, such as financial instruments that allow numerous small renewable energy projects to be aggregated. Secondly, it is changes in commodity markets that will drive recirculation of materials, and usher in a Circular Economy where one producer’s wastes become another’s inputs. These changes are being driven by shifts in consumer behavior that are translated into low carbon- and resource-intensive production that is propagated along entire value chains, and by changes in the electronic tagging of commodities traded on the great commodity exchanges. And thirdly it is the finance markets that will develop new targeted investment vehicles, known as Green bonds or climate bonds, which will have the effect of shifting patterns of investment away from projects involving fossil fuels to those with lower resource- and carbon-intensity. It is the interconnections between these trends that will make them self-reinforcing and self-propagating, as the ‘new shoots’ of the green economy grow and connect with each other, through competitive emulation. I argue that this will generate a different kind of growth, intensive rather than extensive, where capitalist operations will generate increasing returns without extending the resource base. This would indeed be a different kind of industrial capitalism.

2. The first Great Transformation

Let us begin with the burning of fossil fuels – since it was the substitution of coal for wood and charcoal in Britain in the 17 and 18th century that was the start of the process of industrialization (and the driver of modernization) and of our
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات