

investment, and this underpins sustainable consumption. But sharply increasing consumption's percentage in GDP cuts investment levels, thereby inadvertently leading to lower GDP and consequently lower consumption growth. This illustrates why the phrase "consumer-led growth" is confusing.

The Chinese Communist Party's Third Plenum²⁸ discussed what to do over the next five to ten years.²⁹ There was no change in the general philosophy of "socialism with Chinese characteristics," and thus the maintenance of the dominance of the state sector. There was no move toward any more democracy or control of even local legal systems and decisions by the people. On the contrary, the leadership is setting up even more repressive state security services to monitor and control the population and curb any dissidence.

There is nothing in the aims and policy proposals agreed on by the Chinese political elite that changes the nature of the Chinese economic, social, and political model. The majority in the leadership will continue with an economic model that is dominated by state corporations directed at all levels by the communist cadres. Markets will not rule, and the law of value will not dominate prices, labor incomes, or domestic trade.

Can the elite continue with this "halfway house" without provoking either a crisis or slump that will force them to follow the "capitalist road" as the World Bank and the procapitalist elements want? Will the elite face an eruption from below as the fast-growing working-class urban population starts to flex its muscles for a say in running the country?

As Ross has pointed out, China's industrial growth remains truly staggering.³⁰ The nation will continue to grow at least 6–7 percent in annual real GDP terms for at least another decade. The working population is still growing, although it will soon peak; there are still hundreds of millions of rural workers and peasants to be incorporated into the industrial machine. China is increasingly sucking up as much of the world's raw materials as it needs to sustain its expansion. The great Chinese economic miracle is not exhausted quite yet.

Chapter 12

Cycles within Cycles

All of you know that, from reasons I have not now to explain, capitalistic production moves through certain periodical cycles.

—Karl Marx to Friedrich Engels, 1865¹

We consider long cycles in the capitalistic economy only as probable.

—N. Kondratiev²

The general economic crisis that was unleashed across the world in 2008 is a Great Depression. It was triggered by a financial crisis in the US, but that was not its cause. This crisis is an absolutely normal phase of a long-standing recurrent pattern of capitalist accumulation in which long booms eventually give way to long downturns.

—Anwar Shaikh³

This chapter looks ahead. It takes the discussion of the nature and causes of the Long Depression to a more theoretical and probably contentious level. It aims to generalize on the historical examination of capitalism's three great depressions into a broader theory of cycles and crises in capitalism.

In many ways, this chapter is really a series of propositions that are not fully confirmed by evidence. The first proposition is that crises are endemic to capitalism and continue to occur, the explanation for which lies in Marx's law of profitability, discussed in a previous chapter. This chapter goes on to argue that these crises occur in regular periods that can be measured and possibly predicted.

In particular, there is a cycle of profitability in each of the major capitalist economies, although its length varies. If we develop a world rate of profit measure, we can develop a cycle of profitability globally. The cycle seems to be completed over a thirty-two- to thirty-six-year period, from trough to trough.

In addition, it is proposed that this cycle of profitability is linked with other cycles operating within capitalism. The first cycle we can

identify is the very short one based on the flow of working capital in capitalist companies, that is, raw materials and inventories built up and run down as production takes place. This inventory cycle, first identified by Joseph Kitchin, usually completes every four years.

The second is the most well known, the business cycle of boom and slump that seems to complete every eight to ten years, sometimes called the Juglar cycle. This cycle is based on the overall motion of a capitalist economy in investment, employment, and output, and not just profitability.

The third is the construction cycle of major plant, infrastructure, and housing. This seems to span a period about double that of the business cycle, about eighteen years. It's usually referred to as the Kuznets cycle after the economist Simon Kuznets.

Finally, there is the most controversial and disputed of all, a cycle that lasts about fifty to seventy years, which is driven by the movement of world trade in the prices of production and commodities and seems to depend on global demographic and resource factors. This is commonly called the Kondratiev cycle after the proponent of its existence, Nikolai Kondratiev.

The main proposition of this chapter is that a depression, as opposed to a recession or slump (Juglar style), comes along at a point when all the cycles are in a certain conjunction, that is, they are all in a downward phase: the Kondratiev cycle is in its downward twenty-five- to thirty-five-year phase, the profit cycle is in its sixteen- to eighteen-year downward phase, and so on.

This conjunction does not happen very often. Indeed, given the duration of the long Kondratiev cycle, it can only happen once every fifty to seventy years. If this is right, then it explains why the start of the nineteenth-century depression in 1873 was only repeated fifty-six years later with the start of the Great Depression in 1929 and with the start of the current Long Depression in 2008, some seventy-nine years after that.

Specifically it explains why the collapse of the property market in 2005 in the United States led to the Great Recession. The previous property slump in the United States took place in the early 1990s in commercial property (the savings and loan scandal), coinciding with the slump of 1991. But there was no Great Recession as the profit cycle was in an up phase. But the next slump in property was timed for 2009–10, exactly at the point of eventual trough in the Great Recession.

Cycles

What is a cycle? It has been described as a “harmonic wave.”⁴ It comes from some sort of restorative force. With a restorative force, being up high is what makes you more likely to come back down, and being low is what makes you more likely to go back up. Imagine a ball on a spring; when the spring is really stretched, all the force is pulling the ball in the direction opposite to the stretch. This causes cycles.

In mainstream economic models, business cycles are not cycles under this definition. They are modeled as shocks to an equilibrium trend. After a temporary shock, the system reverts to the mean (i.e., to the “trend”). This is very different from harmonic motion. In the mainstream economics model, boom need not be followed by bust.⁵

The idea that all deviations from trend growth or equilibrium are simply random shocks or temporary does not hold water. There are plenty of detailed case studies from baseball, elections, climate change, the financial crash, poker, and weather forecasting of significant changes from the norm that are not temporary or insignificant.⁶

Any support for the concept of harmonic cycles in capitalism usually gets dismissed for two main reasons. The first is that statistics or data showing cycles are spurious and really just an expression of random shocks; by extension, there are so few turning points in the longer cycles that no statistical significance can be applied. The second is that there is no theoretical model that can explain apparent economic cycles and, without that, the search for cycles is pointless.

But everything depends on the quality of the “priors” or assumptions, from which statistical techniques can provide degrees of probability for outcomes. The best economic theory and explanation comes from looking at the aggregate, the average, and the outliers. In short, defining and identifying cycles is not impossible and if found can deliver significant explanatory power.

What Marx Said on Cycles

Marx thought there were cycles in capitalism: “Once the cycle begins, it is regularly repeated. Effects, in their turn, become causes, and the varying accidents of the whole process, which always reproduces its own conditions, take on the form of periodicity.”⁷

Marx spent some considerable time and research in trying to identify cycles in the capitalist economy.⁸ He particularly looked for

periodicity in cycles. Right up to the end of his research on the capitalist economy, Marx continued to look for cyclical movements. He wrote to Engels in May 1873 about “a problem which I have been wrestling with in private for a long tim[e].” He had been examining “tables which give prices, discount rate, etc. etc. . . . I have tried several times—for the analysis of crises—to calculate these ups and downs as irregular curves, and thought (I still think that it is possible with enough tangible material) that I could determine the main laws of crises mathematically.”⁹

Marx saw the immobility of fixed capital as a part of the explanation of the periodicity of the cycle. He thought that duration of the accumulation cycle (boom and slump) was about five to seven years, a view he revised to ten years when the expected crisis did not strike in 1852.

So Marx developed the idea that the cycle was connected with the replacement of fixed capital. On this basis, he argued, “there can be no doubt at all that the cycle through which industry has been passing in *plus ou moins* ten-year periods since the large-scale development of fixed capital, is linked with the total reproduction phase of capital determined in this way. We shall find other determining factors too, but this is one of them.”¹⁰

Engels told Marx that it was normal to set aside 7.5 percent for depreciation, which implied a replacement cycle of thirteen years, although he noted twenty- and thirty-year-old machines still working.¹¹ Marx concluded that “The figure of 13 years corresponds closely enough to the theory, since it establishes a unit for one epoch of industrial reproduction which *plus ou moins* coincides with the period in which major crises recur; needless to say their course is also determined by factors of a quite different kind, depending on their period of reproduction. For me the important thing is to discover, in the immediate material postulates of big industry, one factor that determines cycles.”¹²

The key point for Marx was that “the cycle of related turnovers, extending over a number of years, within which the capital is confined by its fixed component, is one of the material foundations for the periodic cycle [crisis] But a crisis is always the starting point of a large volume of new investment. It is also, therefore, if we consider the society as a whole, more or less a new material basis for the next turnover cycle.”¹³ So Marx connected his theory of crisis to cycles in the turnover of fixed capital.

Marx considered that “So far the period of these cycles has been ten or twelve years, but there is no reason to consider this a constant figure.” Indeed, he thought that the cycle of replacement capital would shorten. Later Engels began to argue that “the acute form of the periodic process, with its former ten-year cycle, appears to have given way to a more chronic, long drawn out, alternation between a relatively short and slight business improvement and a relatively long, indecisive depression—taking place in the various industrial countries at different times.”¹⁴ So the cycle could be longer than ten to thirteen years.

The Profit Cycle

Marx and Engels were trying to identify what we now call the business or Juglar cycle. This cycle is driven by the growth and decline of investment in fixed capital: plant, machinery, and new technology.

Modern scholars have also identified a profit cycle, namely upward and downward movement in the trajectory of the overall profitability of capital in any one country or the world economy. Anwar Shaikh found such a profit cycle with seventeen-year up and down waves.¹⁵ Minqi Li and colleagues found that since the mid-nineteenth century there have been four long waves in the movement of the profit rate and rate of accumulation in the major economies.¹⁶ The second half of the late nineteenth-century profit rate long wave, from peak to trough, lasted for twenty-three years or longer from the early 1870s to the late 1890s. The early twentieth-century profit rate long wave lasted for forty-two years from 1897 to 1939, and the mid-twentieth-century profit rate long wave (including the World War II period) lasted for forty-four years. Therefore, each of the previous profit rate long waves lasted for about forty to forty-five years from 1939 to 1983. The current profit rate long wave started in 1983 and peaked in 1997 and presumably to trough by the end of the 2010s.

Basu and Manolakis took this further in their analysis of the postwar US economy.¹⁷ Their analysis is much more sophisticated statistically than any done before. They point out that “most empirical studies have simply examined time series plots and fit a trend to these data. However, existence or nonexistence of a downward trend is not a valid test of Marx’s hypothesis unless the counter-tendencies are appropriately controlled for.” They found that “scholars have speculated that long waves of aggregate economic activity might be related to long

waves of the general rate of profit. A plot of the general rate of profit for the U.S. economy since 1869 indeed displays long waves.”

For Basu and Manolakis, there are four waves or phases, beginning with a contraction during the period 1869–94. This contraction coincides with the depression of the 1890s. In the next phase, which coincides with the period from 1894 until the onset of the Great Depression, there is no strong trend but minor period cycles. In the third phase, there is a substantial contraction coincident with the Great Depression and a substantial expansion coincident with World War II. In the final phase, the rate of profit contracts till about the early 1980s and is followed by an expansion. “Thus, the series displays considerable persistence and it is plausible to suppose that there is a stochastic trend in these data.”¹⁸ In other words, there are cycles.

Why does this profit cycle exist? It is really a product of Marx’s law of profitability as countertendencies play out against the tendency to fall.¹⁹ The evidence suggests, at least for the United States, that there is an upward cycle in profitability driven by countertendencies overpowering the undefying tendency to fall, but after about sixteen to eighteen years that gives way to a fall in profitability as Marx’s law takes over again.

Britain in the Second Half of Nineteenth Century

Can we discern this cycle of profitability in various capitalist economies? Consider two case studies. The first is the British economy when it was the hegemonic capitalist economy during Marx’s time from 1850 to 1914; second is the US economy in the post-World War II period.

I dealt with the first in the chapter on the depression of the late nineteenth century. Now let us consider that period from the point of view of cycles. As we have seen, Marx found it difficult to test any of his hypotheses against empirical evidence available for Britain in his time. We now have better data. We can plot the rate of profit in Marxist terms.

First, the rate of profit for the UK economy between 1855 and 1914 moved in a cycle of about thirty-plus years from trough to trough, or in two phases of about fifteen years each. The up phase of 1885–71 was followed by a down phase of 1871–84, a period noted for frequent and deep recessions—indeed, the 1880s were considered a Great Depression like the 1930s. After 1884 we get another (volatile) up phase in the

rate of profit until 1899. Finally, there was a fall back in profitability from 1900 up to the start of World War I in 1914.

The data show that the main reason for the cycle of profitability under British capitalism between 1855 and 1914 was the movement in the organic composition of capital. There is a significant inverse relationship between the organic composition and the rate of profit.

The US Postwar Cycles

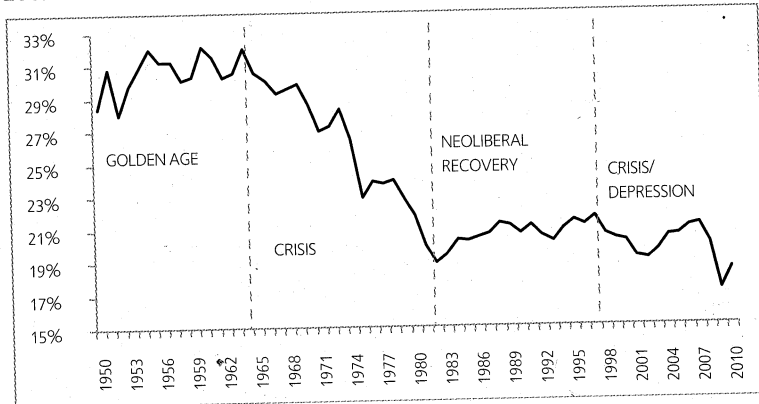
In the second case for the US economy from 1946 to 2007, we find a similar profit cycle with up waves and down waves, each of about fifteen to seventeen years. In the first wave, which has been called the golden age, profitability was very high throughout. After falling back in the 1950s, it rose to reach a peak in 1965. From then, the organic composition of capital rose and the rate of profit fell to reach a low in the economic recession of 1982. The rate fell sharply in the first great postwar economic recession of 1974–75. But the seeds had been planted for these falls by the steady decline in the rate of profitability from 1966. By 1982 after two big economic recessions, such was the reduction in the organic composition of capital, the rate of profit steadily rose, apart from the merest of pauses in the recession of 1990–92, up to a new peak in 1997. After 1997, the rate of profit declined. We are in the down wave of the profit cycle similar to the period 1965–82. These two studies provide a powerful correlation between the cycle of profitability and Marx’s law of profitability.

The postwar profit cycle appears to have been replicated in the other major capitalist economies (see Figure 12.1). In a set of fourteen countries, Maito finds that the golden age of postwar capitalism from 1950 to the mid-1960s, when the rate of profit was high, gave way to a period of falling profitability to 1982. Then there was a recovery in the neoliberal period to the late 1990s. Now the major economies are in a down wave of profitability, culminating in the Great Recession and depression.

Again, the data suggest that this cycle of profitability is driven by Marx’s law of the tendency of the rate of profit to fall and the countertendencies. In the G7 economies, the rate of profit fell secularly between 1950 and 2011 because in that period, the organic composition of capital rose much more than did the rate of surplus value (see Figure 12.2). But in the neoliberal period, when profitability rose, organic composition actually fell slightly while the rate of surplus value rose

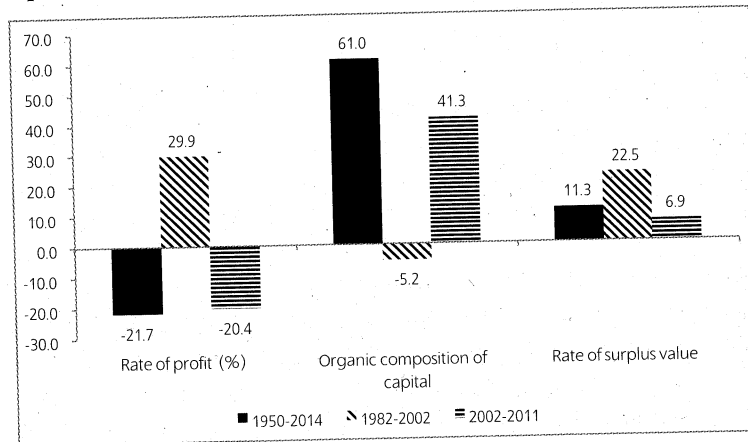
significantly. In the period of the current Long Depression, the rate of profit has fallen over 20 percent because the organic composition has outstripped the rise in the rate of surplus value.

Figure 12.1
A World Rate of Profit (Simple Mean Average) of 14 Countries (%), 1950–2009



Source: E Maito

Figure 12.2
Changes in the Profitability, Organic Composition of Capital, and Rate of Exploitation in Top Seven Capitalist Economies, 1950–2014



Source: Penn World Tables, Author's Calculations

If Marx's law of profitability is cyclical in this way, it can significantly help in the debate about whether it is relevant to the Great Recession or whether that was just a financial crisis. If the cyclical approach is correct, then we are still in a down phase for profitability that began in 1997 and won't trough until the end of the 2010s (or earlier). Another recession would be needed before capital is sufficiently devalued (and, in the case of labor, weakened) to create the environment for rising profitability.

If we extend the data back to 1929 for the US and the G7 economies, we notice a significant rise in profitability from 1938 to 1944. This period covers World War II. War adds a new dimension to "creative destruction." Physical destruction of the stock of capital accompanies value destruction. This produces a dramatic fall in the cost of capital. War is an exogenous event that can sharply interfere in these endogenous profit cycles.²⁰

What would have happened to profitability without World War II? The US rate of profit was turning downward in 1938. Without war, it may have dropped to a cyclical low by, say, 1946, before entering an upward phase up to 1964. If that is accurate, then the 1946–64 period is really an upward phase.

How close were Marx and Engels to being right on their estimate of the replacement cycle? The US Bureau of Economic Analysis provides data on the age structure of replacement for private nonresidential fixed assets. From 1963 the US rate of profit peaked and began to fall. It seems that the age structure fell from about 17 years to 14.5 years at the turning point in US profitability that began after the slump of 1980–82. From 1982, the organic composition of capital fell and investment growth slowed. The age structure rose back toward seventeen years. It is clear that if the replacement of fixed assets is the model for explaining any cycles in capitalist accumulation, the cycle can be expected to be around fifteen to seventeen years.

Profit Cycles and the Stock and Credit Markets

This length in the profit cycle is supported by the stock market cycle in all the leading financial centers. The US stock market cycle appears pretty much the same in length (a bull cycle of eighteen years followed by a bear cycle of a similar length) as the US profit cycle. The stock market seems to peak in value a couple of years after the rate of profit does. This is really what one would expect, because the stock market is

closely connected to the profitability of companies, much more than bank loans or bonds. When the rate of profit enters its down wave, the stock market soon follows, if with a short lag.

That close relationship can be established by measuring the market capitalization of companies in an economy against the accumulated assets. Tobin's Q takes the "market capitalization" of the companies in the stock market (in this case the top 500 companies in the S&P 500 index) and divides that by the replacement value of tangible assets accumulated by those companies (these figures are provided again by the US Bureau of Economic Analysis and by the S&P's data on company accounts). The replacement value is the price that companies would have to pay to replace all the physical assets that they own (plant, equipment, etc.).

Tobin's Q measures the value that speculators on the stock exchange can get over or below the actual real value of the company's assets. As we can see from Figure 12.3, for the period 1948–2013, Tobin's Q starts at about 0.33. The value of stock market shares was approximately only one-third of the real value of the assets owned by the companies—very cheap. It rose to nearly 1.00 in 1968. That was the peak of Tobin's Q then. Afterward it fell back to just 0.30 in 1981. That was the trough. From 1982, it rose to reach 1.70 in 1999. So the stock market value was 70 percent over the real value of the company's assets. From 1999, it fell back to 0.60 in 2009, but then rallied somewhat to near 1.00 in 2014.

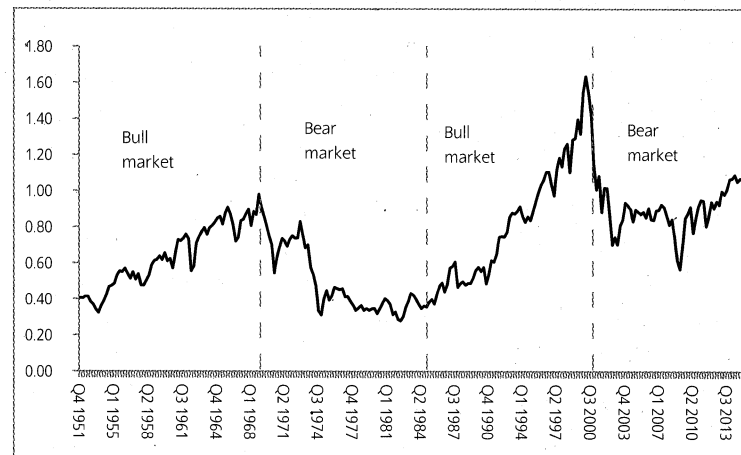
There was a secular bull market from 1948 to 1968, followed by a bear market until 1981 and then another bull market until 1999. The US stock market cycle appears pretty much the same as the US profit cycle, although slightly different in its turning points.

New research has started to identify a credit cycle, at least in the major capitalist economies, with a duration of sixteen to eighteen years. Claudio Borio finds what he calls a "financial cycle" using a composite of property prices (house prices to income) and changes in credit (credit to GDP).²¹ Borio is struck by the fact that the duration is longer than the business cycle. His financial cycle matches the length of the profit cycle. But it appears to run inversely with the profit cycle, at least in the United States—namely, when profitability is in its downward phase, the financial cycle is in its upward phase. This suggests that capitalists look for unproductive investments like property to replace investment in production when profitability in productive assets falls. This is very relevant to understanding the relation between

the productive and financial sectors of capitalism culminating in the Great Recession of 2008–9.

Figure 12.3

Tobin's Q : The Market Capital Value as a Ratio of the Net Stock of Capital in US Corporations



Source: Federal Reserve

Kondratiev Cycles

Let's talk about even longer cycles in capitalist production. Just as the capitalist profit cycle appears to be spread over approximately thirty-two to thirty-six years from trough to trough, and so does the stock market and credit market cycles, there also appears to be a cycle in prices that is about double that size, or around sixty-four to seventy-two years. This cycle was first identified properly by Nicolai Kondratiev, a Russian economist, in the 1920s. He argued that there appeared to be a period when prices and interest rates moved up for about twenty-seven years or so, and then a period when the opposite occurred.

Kondratiev "long cycles" have been critiqued at three levels. First, it is argued that there is no firm statistical evidence that such cycles of fifty years or longer really exist. There are few data points, and the economic series analyzed by Kondratiev have been considered unconvincing.

Second, Kondratiev's argument that cycles should be considered endogenous to the capitalist mode of production has been rejected. The

alternative consensus is that changes in the relative pace of economic growth or in prices of production are caused by external factors like wars, revolutions, disease, weather, or more specifically new stages of capitalist economic organization (imperialism, financialization, etc.).

Third, there is no convincing theory or model to explain these long cycles, if they do exist. Kondratiev defended his theory from all these criticisms. He admitted that the available data were inadequate to "assert beyond doubt the cyclical character of these cycles. Nevertheless, the available data were sufficient to declare this cyclical character to be very probable." In particular, the time series for prices of production and commodities bore the greatest support for cycles "and cannot be explained by external random causes."²²

He reckoned the long duration of the cycles was based on the gestation period of large capital projects that could not be completed in the normal business cycle, and these investments would take place in a series of waves. He rejected criticism that any long cycles were caused by exogenous factors.²³

Later scholars have provided empirical support for endogenous Kondratiev cycles.²⁴ Theoretical and empirical backing has been developed for Kondratiev's suggestion that long cycles are the result of clusters of innovation or long duration capital projects. Ernest Mandel attempted to link long cycles to movements in profitability, although he claimed, rather oddly, that the down phase in such cycles was endogenous to capitalist production but the up phase was exogenous.²⁵

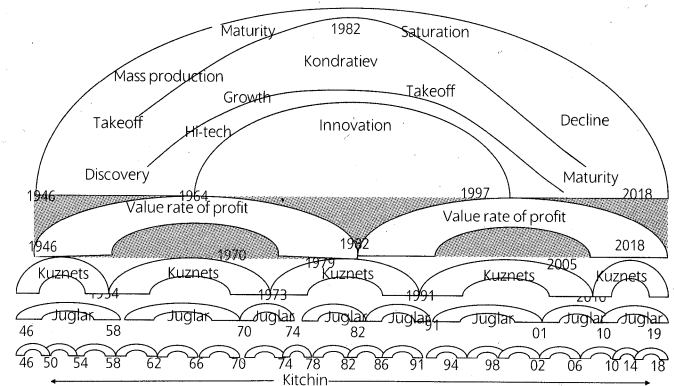
Interest rates are a very good proxy for the Kondratiev prices cycle. The level of the US short-term interest rate (the Fed Funds rate, as set by the Federal Reserve Bank), rose from 1946 to a peak in 1981 and then fell back after that.

Can we bring together the claimed Kondratiev cycle with the cycles of profitability discerned earlier for the United Kingdom in the nineteenth century and the United States in the twentieth century? Figure 12.4 shows K-cycles on the left side, with the phases of the profit cycle. The first K-cycle begins in about 1785, rises to a prices peak around 1818, and then goes to a trough in the early 1840s. The second cycle peaked in the mid-1860s and then troughed in the mid-1880s or early 1890s. The third K-cycle peaked in 1920 and troughed in 1946. The fourth K-cycle peaked in 1980 and will trough around 2018.

The Cycle of Innovation

The graph also depicts the so-called innovation cycle that Joseph Schumpeter identified.²⁶ In this cycle, a scientific discovery is made. Eventually, this leads to the development or growth of a new technology in capitalist production. Later this technology takes off and is applied across sectors or in newly expanding sectors. Then it reaches a period of maturity, where its added value consolidates. Eventually it enters a period of saturation when it has run out of expansion profitably. Finally the technology goes into decline and disappears.

Figure 12.4
Cycles in Capitalism



Source: Author

There are six stages, each of which fits into the change in the phases of the profit cycle. There are two examples. There is the mass production technology of cars, the so-called Fordist industrial model. In 1946, this was in its take-off phase of huge expansion. But by the mid-1960s, it entered a period of maturity where output and sales rose steadily. In the neoliberal period after the early 1980s, auto production found a "saturated" market (at least in the advanced economies) and fell back as one of the leading sectors, at least relatively. In the current profit cycle down phase after 1997, auto production has been in significant decline in the United States, Europe, and even Japan, and has shifted to Asia and Latin America.

The other example is high technology (computers, Internet communications, etc.). The major scientific discoveries here were made in the

postwar period of the 1950s and early 1960s. In the period from the mid-1960s to the early 1980s, these discoveries were turned into applicable new technology (PCs, digital media, etc.). Through the 1980s and 1990s, high tech took off in a big way, culminating in the dot-com boom that busted in 2000. Now high tech and its applications have become the leading technology sector. It is in its mature stage. In this schema, these technologies will enter saturation, perhaps even globally, in the 2020s and 2030s and decline as important profit creators for capitalism by mid-century. The innovation cycle fits into the K-cycle.

The K-cycle has been lengthening in duration from Kondratiev's time, from about fifty-five years to sixty-four years in the third cycle and seventy-two years in the fourth cycle. Various reasons have been proposed for the lengthening of the cycle, including demographics and government debt financing. The K-cycle now follows much more closely the cycle in profitability as the capitalist mode of production has become dominant globally, particularly since the postwar period.

The right side of Figure 12.4 shows how the profit cycle integrates with the K-cycle into what have been called four seasons: spring (rising profitability); summer (falling profitability) alongside the rising phase of the K-cycle; and then autumn (rising profitability) and winter (falling profitability), alongside the declining phase of K-cycle. In the winter phase, the model would expect to reveal a period of depression (falling prices or slowing inflation alongside high or rising unemployment and poor economic growth). Previous winter periods have been the 1840s, the 1880–90s (the first long depression), and the 1930s (the Great Depression)—and we are now in another one (the Long Depression).

More Cycles of Motion

There are three more cycles of motion that operate under modern capitalism: the cycle in real estate prices and construction, the cycle of economic boom and slump (the so-called business cycle), and the inventory cycle.

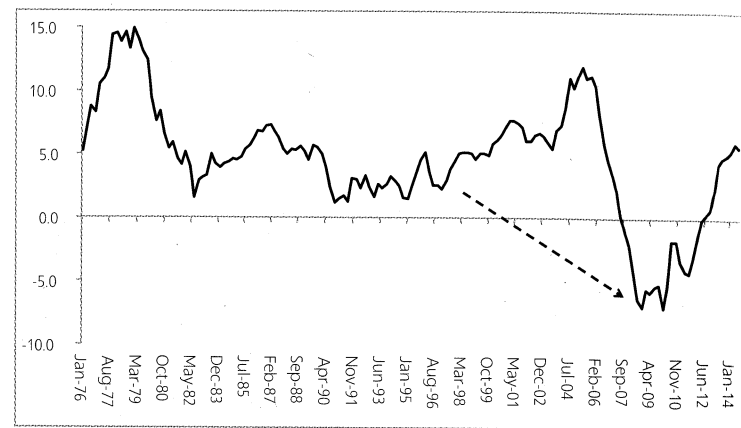
There appears to be a cycle of about eighteen years based on the movement of real estate prices. The US economist Simon Kuznets discovered the existence of this cycle back in the 1930s. We can measure the cycle in the United States by looking at house prices (see Figure 12.5). The first peak after 1945 was in 1951. The prices fell back to a trough in 1958, then rose to a new peak in 1969 before slumping back

to another trough in 1971. The next peak was in 1979–80 and the next trough was in 1991. Assuming an eighteen-year cycle, then the next trough in US house prices should have been around 2009–10.²⁷ It was.

The real estate cycle is not aligned with the Marxist profit cycle, the stock market cycle, or the Kondratiev prices/money cycle. These latter cycles are products of the laws of motion of capitalist accumulation. They operate in the productive sector of the economy. In contrast, the real estate cycle operates mostly in the unproductive sector of the capitalist economy. Housing is a big user of consumer income. So the cycle in house prices reflects the spending behavior of capitalists and workers, not the profitability of capital. For these reasons, the real estate cycle has different timings in its turns than does the profit cycle. The US profit cycle reached a trough in 1982 before rising for fifteen or sixteen years to peak in 1997. The stock market cycle also troughed in 1982 and then ran up to a peak in 2000, eighteen years later. In contrast, the US real estate cycle troughed some nine years later in 1991 and only reached its peak in 2005 before troughing in 2010.

Figure 12.5

US House Prices YOY Change (%)



Source: US BEA

Clément Juglar was the first mainstream economist to notice a business cycle of about ten years. This cycle of economic growth and recession now seems to be about nine to ten years. That is the average

time between troughs of each recession in the recent period. Capitalist economists define a recession as two consecutive quarters of a fall in GDP or annual output, after taking inflation into account. On that basis, there have been seven recessions over the past sixty years, with varying degrees of severity and length. Over two profit cycles since 1946, there have been seven Juglar cycles with one still to come to complete the current profit cycle—implying that there are four business cycles in every full profit cycle.

The Juglar cycle has different turning points from the Marxist profit cycle. The cycle is of the whole economy, the productive and unproductive sectors, including the government sector. Thus the movements in the profit cycle and the productive sectors of capitalism feed through with a lag to the rest of the economy. If profitability declines and the mass of profits start to fall, this will feed through to falling investment and then employment and incomes. The recession (falling output and rising unemployment) will come months, quarters, and even years later.

Finally, there is an even shorter business cycle of about four to five years. Kitchin discovered this in the 1930s. This cycle seems to be the product of even more short-term decisions by capitalists on how much stock to keep to sell. It seems that capitalists cannot see further ahead than about two to four years. They expand production and maximize the utilization of existing production capacity. In the struggle to compete, capitalist producers end up with more stock than they can sell. So production is slowed until stocks are run down.

As Figure 12.4 shows, these cycles can be integrated. In other words, the long Kondratiev cycle of sixty-four to seventy-two years can be divided all the way down to the short Kitchin cycle of four to five years. Thus, there are two profit cycles in the Kondratiev cycle, four Kuznets cycles, eight Juglar cycles, and eighteen Kitchin cycles.

The profit cycle is key. The up wave in the profit cycle from 1946 to 1965 coincided with the up wave in the Kondratiev cycle. Thus the troughs in the Juglar and Kuznets cycles in the mid-1950s did not produce a very deep recession or downturn in economic growth and employment. Because the Kitchin cycle troughed also in 1958, the “pause” was longer than in 1954. But high and rising profitability in an environment of a Kondratiev up wave was generally good news for capitalism.

From 1965 to 1982, the rate of profit fell. The Kondratiev cycle was still

in an up wave of prices, though. What we got was successively worse economic slumps (1970, 1974, and 1980–82) alongside rising prices—in other words “stagflation.” In 1974, the Kuznets, Juglar, and Kitchin cycles troughed together. In an environment of falling profitability, world capitalism suffered its first postwar simultaneous economic slump. The 1980–82 recession was deep and long-lasting because profitability reached lows and the Kondratiev prices cycle peaked. But the real estate Kuznets cycle was also at a peak, so output and employment fell while prices stayed up—the ultimate stagflation crisis.

The next up wave of profitability (1982–97) coincided with the down wave in the Kondratiev prices cycle, which we are still in. Thus rising profitability was accompanied by falling inflation, from 15 percent in 1982 to just 2–3 percent by the late 1990s. Rising and high profitability (by 1997) also meant that the Juglar cycle troughs of 1991 and 2001 were not nearly as deep or severe as in 1974 and 1980–82. The Kuznets cycle troughed again in 1991, making the 1991 economic recession much more severe than the 2001 recession when the housing market in the United States and elsewhere was booming.

The Winter of Discontent

We are now in another profit downwave that should not reach a bottom until around 2018. So output and employment slumps should be at least as severe and long-lasting as they were in 1974–75 and 1980–82. This is because the profit down wave now coincides with the down wave in the Kondratiev prices cycle that started in 1982 and won't reach its trough until 2018 or so.

The three depressions—the one in the late nineteenth century, the Great Depression of the 1930s, and the current Long Depression—coincided with the winter phase of a Kondratiev cycle. They also coincided with different stages of capitalism. The depression of the late nineteenth century was an impulse for the development of imperialism, the expansion of finance capital into the “colonies,” and the battle among imperialist powers to divide up the world, which eventually led to World War I.

The Great Depression led to a new imperialist battle, one that was not resolved by World War I. The hegemonic imperialist power, Great Britain, had been irretrievably weakened by the 1914–18 war, but the rising hegemonic power, the United States, was not ready or willing to assume the mantle of imperialist dominance. The rival imperialist

powers, German and Japan, tried to gain a bigger cut of the spoils. That led to World War II and the eventual inception of Pax Americana after 1945.

The autumn phase of the current Kondratiev cycle from 1982 to 2000 saw the collapse of the Soviet Union. The current Long Depression threatens the hegemony of US imperialism, already in relative decline to new ambitious powers like China, Brazil, India, and Russia. Renewed rivalry threatens to unleash major conflicts in the next decade or so.

Eventually, the winter phase of the current K-cycle will give way to a Kondratiev spring and the start of the fifth K-cycle in modern capitalism. Capitalism will enter a new up phase on the back of the destruction of capital values from the series of slumps in the winter phase (2001 recession, the Great Recession of 2008–9, and probably a final slump in 2016–17?). From the mid-2030s, we would enter another Kondratiev summer, when profitability would fall, capitalism would be in crisis again, and class struggle would intensify. This would last until the 2050s. This is really what we call the long view!

This tentative scenario assumes no exogenous forces cutting across the inherent cyclical motion of capitalism. Those exogenous forces include a new world war (or revolutions in major economies), but also damaging changes in the planet itself. In the final chapter, we examine some of those exogenous forces and the longer-term future of capitalism after the Long Depression.

Chapter 13

Past Its Use-By Date?

In principle, in developed capitalism, any great crisis can become the final crisis. But if it does not, it remains a presupposition for further accumulation. But permanent crisis is just as conceivable in the Marxian system as surmountable crises . . . under present day conditions of world capital, a state of persistent economic and political crisis can arise, just as it is possible that the crisis will give capital a chance of beginning a new expansion.

—Paul Mattick¹

Those who subscribe to the conventional view fail to see that untold millions of competing and collaborating global workers are ultimately likely to be flattened by the major force that will truly shape the century. Globalisation is certainly significant but it is really a mere offshoot of the primary force driving us toward change and the force continues to be technology.

—Martin Ford²

The world economy is in a Long Depression. That has been the main message of this book. However, world capitalism will not stay in this depressed state. Eventually, probably after another slump that will destroy more capital values (the value of means of production, fictitious capital, and employment), profitability for those that survive will rise sufficiently to start an upwave in investment and growth. This assumes, of course, that the class struggle does not lead to the forces of labor triumphing over capital in any major economy.

So the Long Depression is not some final crisis. There are yet more human beings in the world to be exploited, and there are always new technological innovations that can provide a new Kondratiev cycle for expansion of value and surplus value.

In the twenty-first century, capitalism is creating new contradictions for itself that threaten its survival as a dominant mode of production and social organization—and, for that matter, the very existence of a healthy planet.