

Debating the Causes of the 2007-09 Financial Crisis
Monopoly Capital versus the Tendency of the Rate of Profit to Fall

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ABSTRACT

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The objective of this thesis is to assess the comparable strengths and weaknesses of the explanations that monopoly capital theory and the falling-profit-rate theory have provided for the 2007–09 financial crisis. Furthermore, insofar as the existence of large joint-stock companies (i.e. monopolies) has been an undeniable fact since the late nineteenth century, I study whether or not it is viable to argue that the ascent of these large companies altered the crisis tendencies inherent to capitalism and, ultimately, helped produce the 2007–09 financial crisis.

Monopoly capital theory highlights the transformational impact of large joint-stock companies on the *modus operandi* of capitalism in the sense that these large companies abolish price competition and give rise to excess productive capacity and stagnation. The members of the monopoly capital school refer to these factors in their interpretation of the causes of the 2007–09 financial crisis as well. Conversely, the falling-profit-rate theory argues that large joint-stock companies have introduced no qualitative rupture in capitalist crisis tendencies, and that the 2007–09 financial crisis was generated by social processes and mechanisms related to the tendency of the rate of profit to fall, albeit indirectly.

My argument is that the falling-profit-rate theory provides a more viable explanation for the 2007–09 financial crisis and a stronger framework for studying capitalist crises than monopoly capital theory because the former moves methodologically from relations of production towards market relations, whereas the latter does the opposite. The production-centred methodological approach allows the falling-profit-rate theory to consider the full impact of the offshoring of manufacturing from the U.S. to the periphery of the world economy since the 1980s which, in turn, generated demand for consumer debt and supply and demand for new financial products in the United States. Ultimately, these social processes, which operated on the global scale, led to the 2007–09 financial crisis.

Keywords: financial crisis, monopoly capital, rate of profit, crisis theory, capitalism

TIIVISTELMÄ

Kyyrönen, Otto. 2021. Väittely vuosien 2007–2009 finanssikriisin syistä: monopolipääoma vastaan voiton suhdeluvun laskutendenssi. Valtio-opin pro gradu -tutkielma. Yhteiskuntatieteiden ja filosofian laitos. Humanistis-yhteiskuntatieteellinen tiedekunta. Jyväskylän yliopisto. Ohjaaja: Sergei Prozorov. Kevät 2021. 102 sivua.

Tämän tutkielman tarkoitus on vertailla monopolipääomateorian ja voiton suhdeluvun laskutendenssin teorian esittämiä selityksiä vuosien 2007–2009 finanssikriisille ja paikantaa näiden selitysten suhteelliset vahvuudet ja heikkoudet. Koska suurten osakeyhtiöiden (ts. monopolien) olemassaolo on ollut kiistämätön tosiasia 1800-luvun lopulta lähtien, tutkin myös, missä määrin on pätevää argumentoida, että näiden suuryhtiöiden synty muunsi kapitalismin kriisitendenssejä ja johti lopulta vuosien 2007–2009 finanssikriisiin.

Monopolipääomateoria korostaa suurten osakeyhtiöiden mullistavaa vaikutusta kapitalismin *modus operandiin*: suuryhtiöt hävittävät hintakilpailun ja synnyttävät liiallista tuotantokapasiteettia ja stagnaatiota. Monopolipääomakoulukunnan jäsenet rakentavat tulkintansa vuosien 2007–2009 finanssikriisin syistä juuri näiden tekijöiden varaan. Tätä vastoin voiton suhdeluvun laskutendenssin teoria argumentoi, että suuret osakeyhtiöt eivät ole muuntaneet kapitalistisia kriisitendenssejä laadullisesti ja että voiton suhdeluvun laskutendenssiin epäsuorasti liittyvät yhteiskunnalliset prosessit ja mekanismit aiheuttivat vuosien 2007–2009 finanssikriisin.

Argumenttini on, että voiton suhdeluvun laskutendenssin teoria tarjoaa sekä pätevämmän selityksen vuosien 2007–2009 finanssikriisille että vahvemman viitekehyksen kapitalististen kriisien tutkimiseksi kuin monopolipääomateoria, koska edellinen liikkuu metodologisesti tuotantosuhteista markkinasuhteisiin ja jälkimmäinen toimii päinvastoin. Tuotantokeskeinen metodologinen lähestymistapa sallii voiton suhdeluvun laskutendenssin teorian tarkastella kokonaisvaltaisesti niitä ilmiöitä, joita tuotannon ulkoistaminen Yhdysvalloista maailmantalouden periferiaan 1980-luvulta alkaen on luonut. Kyseiset ilmiöt synnyttivät Yhdysvalloissa sekä kysyntää kulutusluotolle että tarjontaa ja kysyntää uusille rahoitustuotteille. Lopulta nämä globaalilla tasolla operoivat yhteiskunnalliset prosessit johtivat vuosien 2007–2009 finanssikriisiin.

Asiasanat: finanssikriisi, monopolipääoma, voiton suhdeluku, kriisiteoria, kapitalismi

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This thesis is dedicated to my grandfather, Risto Ilonen, the kindest person I have ever had the privilege of knowing, who passed away in June 2020.

Berlin, 08/04/2021

Otto Kyyrönen

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1 INTRODUCTION

In October 2020, the House Judiciary Committee of the United States released a 449-page report, demanding stronger regulation over U.S. tech giants due to these companies charging high fees, forcing small customers into unfavourable contracts, and using “killer acquisitions” to tackle competition (BBC 2020). The report, backed by Democratic lawmakers, reflects a wider political impulse that identifies monopoly power as one of the main causes of economic, social, and political problems. This same discussion has been taking place in Finland as well, partly due to Caruna and Elenia, two distributors of electricity, abusing their “natural” monopoly power by drastically raising transfer prices (Yle 2020). In this sense, the ascent of large joint-stock companies during the course of the twentieth century is an undeniable fact, but it is less clear how such companies affect the *modus operandi* of the capitalist economy and society.

In addition to the two world wars, the twentieth century was ridden with economic crises, which raised the question whether the advent of monopolies has had an adverse impact on the world economy. The same question can, and should, be posed with respect to the twenty-first century as well, which has already witnessed at least three severe economic crises on the global scale. Prior to the current COVID-19 pandemic, still ongoing, the crisis with the most economic, political, and cultural impact of the early twenty-first century was the 2007–09 financial crisis, which both exacerbated social, economic, and political problems and undermined a lot of people’s trust in the long-term sustainability of capitalism. Therefore, I will study whether or not monopolies should be understood as having qualitatively altered the crisis tendencies of the capitalist mode of production, especially those crisis tendencies that gave rise to the 2007–09 financial crisis.

1.1 Research Questions and Traditions

The first research question of my thesis is:

(1) Should the 2007–09 financial crisis be explained with reference to crisis tendencies related to monopolies, or was the financial crisis rather caused by crisis tendencies that existed already prior to the twentieth century?

In order to provide a comprehensive answer to the first research question, I will pose another:

(2) Should the ascent of large joint-stock companies (i.e. monopolies) be seen as having altered the crisis tendencies of capitalism, or is it more viable to argue that monopolies have introduced no qualitative transformations to the capitalist mode of production?

In order to answer these two questions, I will concentrate on two competing strands of crisis theory, both of which have presented explanations for why the 2007–09 financial crisis happened. The first of these strands is the monopoly capital school, founded by Paul Baran and Paul Sweezy¹, which underlines the transformational effect of monopolies on the capitalist mode of production. Baran and Sweezy argue that the creation of large joint-stock companies initiated a qualitative transition from “competitive capitalism” to “monopoly capitalism” in the U.S. in the late nineteenth century. Due to the lack of perfect competition and effective demand for consumer goods, it is claimed, monopoly capitalism has an intrinsic tendency to give rise to economic stagnation and crises, which it cannot mitigate without transcending its capitalist limits. Accordingly, some of the later members of the monopoly capital school, particularly John Bellamy Foster, have argued that the 2007–09 financial crisis was also caused by these same problematic trends and dynamics inherent to monopoly capitalism.

The second explanation for the financial crisis that I will study in this thesis is provided by the falling-profit-rate theory.² This strand of crisis theory is based on Karl Marx’s theorisation in volume three of *Capital* (1894/1991), where the tendency of the rate of profit to fall is granted a central role. The falling-profit-rate theory is far less impressed with the power of monopolistic companies to radically alter the crisis tendencies of the capitalist mode of production, which is why such figures as Anwar Shaikh and Paul Mattick critique monopoly capital theory by arguing that the capitalist mode of production underwent no qualitative rupture between the nineteenth and twentieth centuries; the rise of monopolies affected mainly market relations, not relations of production. This is why the contemporary capitalist system continues to be a competitive one. Moreover, the supporters of the falling-profit-rate theory, such as Shaikh, Fred Moseley, Michael Roberts, and Esteban Maito, consider the movement of the rate of profit, especially its downward trend, as one of the most crucial structural phenomena of capitalism, which is why

¹ Baran and Sweezy’s influential book *Monopoly Capital* (1966/1968) was published in the 1960s, but both writers developed ideas regarding the capitalist economy and monopolies a few decades prior to the book’s publication.

² It should be mentioned here that what I have chosen to call the “falling-profit-rate theory” is partially my construction in the sense that there are differences of opinion between figures who refer to the tendency of the rate of profit to fall.

the declining rate of profit ought to also explain the 2007–09 financial crisis, even if indirectly.³

Insofar as my goal is to discover comparative advantages held by one explanation over the other, my research methodology is comparative. Let us briefly mention some of the main differences between these two strands of crisis theory. Firstly, whereas the monopoly capital school emphasises the effects of monopolistic market structures, the falling-profit-rate theory undermines them. Secondly, the monopoly capital school rejects the tendency of the rate of profit to fall and substitutes it with the tendency of surplus to rise, adding fuel to the fire between these two strands of crisis theory. Finally, the monopoly capital school argues that the financial crisis was caused by the lack of effective demand and the high degree of stagnation in the U.S. economy prior to the crisis,⁴ whereas the falling-profit-rate theory asserts that the falling tendency of the U.S. rate of profit until the late 1970s incentivised profit-seeking companies to initiate the offshoring of manufacturing to the periphery of the capitalist world economy, giving rise to other processes that ultimately resulted in the 2007–09 financial crisis. As both of these strands of crisis theory base their theoretical apparatuses on historical events and processes, the superiority of one over the other depends on how they perceive the relations between these historical events and processes. This means that the two research questions must be answered with reference to both theory and practice.

Abiding by Marx's methodology of moving from relations of production towards market relations, I will argue that the falling-profit-rate theory provides a more compelling explanation for the 2007–09 financial crisis. Although large joint-stock companies have affected capitalism, I will assert that their impact seems to have not been so significant as to alter the capitalist mode of production in any qualitatively significant way. This undermines the monopoly capital school's claims regarding both the rupture between competitive capitalism and monopoly capitalism *and* the causes of the financial crisis.

I should highlight that I have chosen to concentrate mainly on the U.S. economy and society in this thesis. This is due to two reasons. Firstly, Baran and Sweezy's (1968, 6–7) own object of study, from which they derive their conception of monopoly capitalism, is the U.S., meaning that the conversation around their framework focuses mainly

³ One disagreement within the falling-profit-rate theory concerns whether the falling rate of profit affected the 2007–09 financial crisis directly or whether its impact was mediated by other economic and social processes. In this thesis, I will concentrate on the latter interpretation, as it is, in my view, much stronger.

⁴ These two phenomena are the same ones which Baran and Sweezy see as being created by large joint-stock companies in monopoly capitalism.

on the U.S. as well. Secondly, the U.S. is, in many regards, still the most powerful country on the global scale, which is why understanding how it works can tell much about the rest of the world. However, it is also true that the global power of the U.S. has been declining, at least when it is measured in economic terms. This state of affairs will be reflected in the third chapter where I will discuss the offshoring of manufacturing from the U.S. to the Global South; a process which played a crucial role in the run-up to the financial crisis.

The approach that I have chosen to apply in my thesis falls within the discipline of Global Political Economy, which strives to explain the workings of global political economy, understood as a sphere of social relations and phenomena. Theodor Cohn provides a definition of this subfield of Political Science, while also explaining its topical significance:

The global political economy has a major effect on people, societies, and states today. A country's economic growth depends on its productivity, and production has become increasingly global. [...] With the globalization of production, we have become more dependent on multinational corporations (MNCs) for our employment. Many Americans work for MNCs, and U.S. MNCs locate some of their production in other countries to take advantage of lower wages and taxes. The global political economy also affects us as consumers. [...] In sum, the increase of global interdependence is affecting our most important economic activities, including production, employment, and consumption. Politics and economics are intertwined because of the importance of these economic activities to individuals, governments, and states. Thus, international political economy (IPE) is an important area of study. (Cohn 2016, 24)

A more specific definition of my approach is to describe it as Critical Political Economy, which provides 'a critical commentary both on the way the world works and on alternative interpretations of this' (Dunn 2009, 1). This research tradition draws from critical political thinkers and heterodox economists, such as Marx and John Maynard Keynes.

The even narrower area of Critical Political Economy within which my thesis is located is called crisis theory. Underlining the historical specificities of particular crises, this tradition is interested in explaining the crisis tendencies of capitalism that give rise to regularly recurring economic and social crises. Thus, crisis theory concentrates on certain social structures, relations, and practices which are inherent to the capitalist mode of production. This does not mean that economic, social, and political phenomena are studied within a vulgar base–superstructure dualism, but that the power of certain historically specific social structures is considered and recognised. Jan Rehmann writes:

Many debates on determinism, overdetermination, and co-determination are too much fixated on the relationship between already fixed instances of society (economy, politics, culture, etc.) and forget that these instances are in fact institutionalized and ossified forms of social practices. A praxeological approach would need to distinguish for example between concrete activities of people, which are never completely determined but surrounded by a certain space of possibilities, and the respective fields of activities, in which these activities take place. Determination is a quality not of the

singular action, but of the structured field, because it contains “switches” that determine what is considered to be successful or unsuccessful activity and thus give regular feedback to the acting subjects. Diverging actions thus coalesce around converging experiences, which are then repeated again and again, become fixed habits and are then handed down as such. [...] In this sense one could say that determination is a result of indetermination. (Rehmann 2018, 215)

Similarly, Bill Dunn (2009, 1) explains that ‘the appropriate alternative to determinism requires not simply recognising multi-causality, but working out the relative importance of the interacting parts. Determinism is not an either/or question, but one of degree’. As I will investigate which of the two strands of crisis theory is able to provide a more compelling account of the crisis tendencies inherent to capitalism, Rehmann’s and Dunn’s insights will be central to this thesis.

Since the tradition of crisis theory will be discussed more thoroughly in the second chapter, we can now examine how income and wealth inequalities have developed during the post-Second World War era. Doing so will provide historical context for this research and help us understand some of the real-life effects of capitalist economic and social structures.

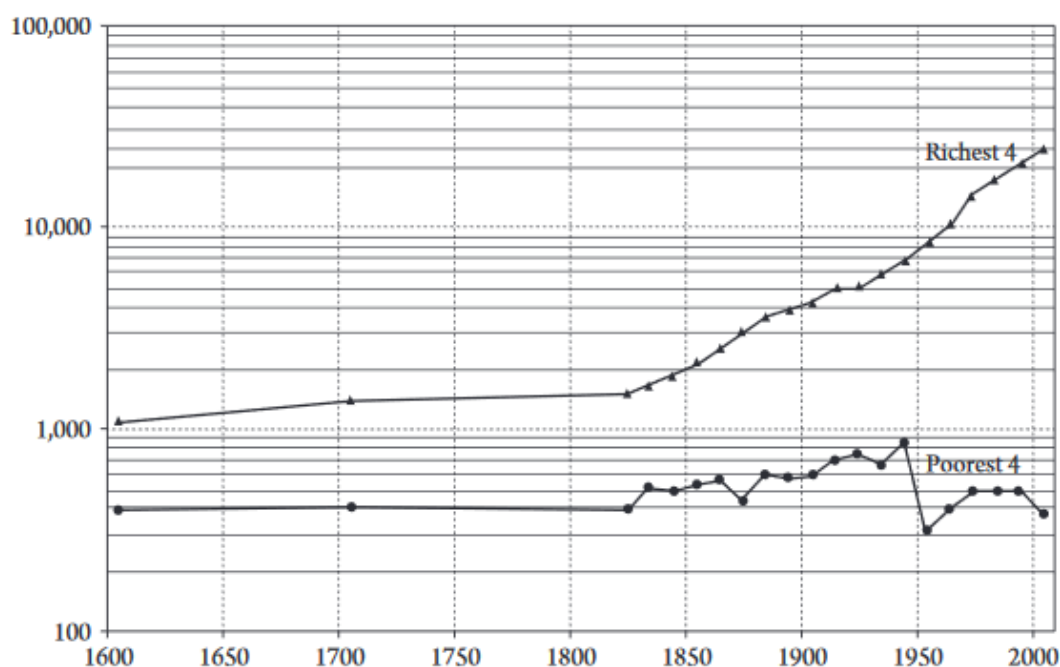
1.2 Capitalism and Inequality

In this section, I will discuss the social and economic phenomena – namely, the exacerbation of inequality and the concentration of wealth since the 1980s – which led me to research the crisis tendencies and crises of the capitalist mode of production. These developments suggest that the capitalist system is getting neither more equal nor more just. Rather, the opposite seems to be happening.

Firstly, we must consider how the relation between human agency and capitalism ought to be grasped. In their widely read book, *This Time Is Different* (2009), Carmen Reinhart and Kenneth Rogoff study eight centuries of financial crises in 66 countries. However, the implausibility of Reinhart and Rogoff’s (2009, xxviii) theoretical framework becomes explicit when they claim that ‘financial crises follow a rhythm of boom and bust through the ages. Countries, institutions, and financial instruments may change across time, but human nature does not’. Reinhart and Rogoff put forth three highly questionable claims: the universal and ahistorical nature of *homo economicus*; economic phenomena (i.e. booms and busts) as based on this nature of *homo economicus*; and a fatalistic conception of the behaviour of *homo economicus* as the root cause of booms and, ultimately, busts. This rudimentary narrative is all about human nature, understood through the notion of an economic individual who never changes.

Conversely, the theoretical framework that I have chosen to apply in this thesis, crisis theory, does not base itself on a universal and ahistorical conception of human nature, but focuses on historically changing social relations, structures, and practices, which cause humans within such relations, structures, and practices to behave and think differently in different places at different times. Historically and socially speaking, it does not simply make sense to say, like Reinhart and Rogoff seem to be claiming, that there has been no qualitative transformation in the manner in which humans behave and think across the globe during the last eight hundred years.

FIGURE 1.1 GDP per capita of the richest four and poorest four countries, International Geary-Khamis Dollars (log scale). Source: Shaikh 2016, 71.



Shaikh (2016, 70–74) underlines that the capitalist era has witnessed a miraculous rate of economic growth, an unprecedented exacerbation of global inequality, and many socio-economic crises (see Figure 1.1). These phenomena distinguish capitalism from previous eras and modes of production. This also means that, as social beings, humans living under capitalism behave and think differently from humans living under other modes of production because social relations, structures, and practices are different in capitalism than in, say, feudalism. Human agency is agency embedded in social structures. Shaikh explains this point in the context of capitalism:

Agency and law coexist within a multidimensional structure of influences. But this structure is itself deeply hierarchical, with some forces (such as the profit motive) being far more powerful than others. *The stage on which history plays out is itself moving, driven by deeper currents.* (Shaikh 2016, 5)

Let us now examine the more recent developments of the global capitalist system. Branko Milanović (2016, 18–26) has noticed that, in absolute terms, 44 percent of the additional income created during the 1988–2008 period, also known as neoliberal globalisation (see Harvey 2007), was reaped by the richest 5 percent of the world, whereas the emerging middle class of “developing economies” earned 12 to 13 percent of the additional income and the lower-middle class of rich countries profited almost nothing during this same period.⁵ Milanović’s findings show that the global capitalist system is not driven automatically towards greater equality. Rather, the question is much more complex.

One crucial aspect that needs to be considered while discussing income inequality is that income from labour is vastly different from income from capital. In his influential work *Capital in the Twenty-First Century* (2013/2014), Thomas Piketty explains this point:

the upper 10 percent of the labor income distribution generally receives 25–30 percent of total labor income, whereas the top 10 percent of the capital income distribution always owns more than 50 percent of all wealth (and in some societies as much as 90 percent). Even more strikingly, perhaps, the bottom 50 percent of the wage distribution always receives a significant share of total labor income (generally between one-quarter and one-third, or approximately as much as the top 10 percent), whereas the bottom 50 percent of the wealth distribution owns nothing at all, or almost nothing (always less than 10 percent and generally less than 5 percent of total wealth, or one-tenth as much as the wealthiest 10 percent). Inequalities with respect to labor usually seem mild, moderate, and almost reasonable (to the extent that inequality can be reasonable – this point should not be overstated). In comparison, inequalities with respect to capital are always extreme. (Piketty 2014, 244)

This means that, whereas income inequality is generally less severe in the case of labour income, capital income is, conversely, reaped by a very small share of society. Moreover, one’s ability to receive capital income and survive solely on it is often an inherited position – and the same goes for one’s inability to do so. These structural differences between labour and capital will be central to this thesis.⁶

⁵ It is important to highlight that the highest income earners are usually excluded from household surveys (used by Milanović) due to tax havens, their unwillingness to disclose their income level, and other similar issues. It is therefore likely that Milanović’s data underestimates these phenomena.

⁶ It is necessary to mention, like Éric Toussaint (2021; see also Kunkel 2014) does, that Piketty’s definition of capital differs quite drastically from that of Marx (see section 2.3.2). Not only does Piketty (2014, 48) include such untraditional things as residential real estate in his concept of capital, but he also argues capital to have existed far earlier than capitalism: ‘Historically, the earliest forms of capital accumulation involved both tools and improvements to land (fencing, irrigation, drainage, etc.) and rudimentary dwellings (caves, tents, huts, etc.). Increasingly sophisticated forms of industrial and business capital came later, as did constantly improved forms of housing’ (*ibid.*, 213). However, despite these ambiguities, Piketty provides some useful points of reference regarding the most recent trends related to income and wealth inequality.

Although today's economies are highly connected, it is important to understand how inequality has developed in individual countries, which is why we will look at the cases of the U.S., France, Sweden, and Finland. Piketty (2014, 292–294) provides a summary of economic inequality in the U.S. during the 1910–2010 period. Although the U.S. was economically more egalitarian than Europe as a whole at the start of the twentieth century, it had become more inegalitarian than Europe by the early 2010s. The top decile of the U.S. income hierarchy received a little over 40 percent of total national income in 1900–1910, after which income inequality worsened until the late 1920s. By the 1929 crash, more than 50 percent of national income in the U.S. went to the top decile. The Great Depression and Second World War evened income differences, but, in terms of egalitarian income distribution, the real “heyday” of the U.S. society, at least for white citizens, took place between 1950 and 1980, during which time the top decile received around 30 to 35 percent of U.S. national income.

A drastic change in socioeconomic policies commenced in the U.S. in 1980 when Ronald Reagan was elected president and the neoliberal reforms began (Harvey 2007, 24–26). ‘The upper decile’s share increased from 30–35 percent of national income in the 1970s to 45–50 percent in the 2000s – an increase of 15 points of national income’ (Piketty 2014, 294). From these 15 points, the top percentile received 11, half of which went to the top 0.1 percent. Piketty (*ibid.*) warns that ‘if change continues at the same pace, for example, the upper decile will be raking in 60 percent of national income by 2030’. Although the rise of “supersalaries” in the U.S. has altered the top percentile’s income composition from the 1970s onwards (*ibid.*, 298–300),⁷ the highest income earners receive mainly capital income (*ibid.*, 306).⁸ Today the U.S. is one of the most inegalitarian societies in the world.

France provides a contrast to the events that have been taking place in the U.S. from the early twentieth century onwards. Whereas the level of inequality in the U.S. had by 2010 ascended higher than what it was right before the Second World War, a third of the relative share of total national income received by France’s top decile prior to the Second World War went to the lowest ninety percent in 2010 (Piketty 2014, 271–272). ‘Note,

⁷ Piketty (2014, 299) highlights that the increase in wage inequality has not been compensated by higher wage mobility over the course of a person’s career in the United States. This is important because the claim of higher wage mobility is often used as an argument as to why wage inequality ought to be viewed as a positive phenomenon. Since wage mobility has not increased in the U.S., worsening wage inequality is an even more serious problem.

⁸ Like Milanović, Piketty (2014, 294–295) also underlines that it is likely that his data includes underestimations, since the highest incomes often evade data sets due to legal and illegal cases of tax evasion.

too, that this is roughly equivalent to three-quarters of what the bottom half of the population received in the Belle Époque and more than half of what it receives today' (*ibid.*, 272). The reason why the level of income inequality has dropped in France has mostly to do with the fact that the top incomes from capital have decreased significantly. 'To sum up: the reduction of inequality in France during the twentieth century is largely explained by the fall of the rentier and the collapse of very high incomes from capital' (*ibid.*, 274). In France, only the top 0.1 percent of the income distribution received more income from capital than from labour in 2005 (*ibid.*, 277).

Thirdly, Göran Therborn (2017; 2019) shows how neoliberal reforms have affected the state of inequality in Sweden. This is particularly interesting because Sweden is, or at least was, a Nordic welfare society, which made it one of the most equal societies of the twentieth century. Strikingly, Therborn (2019, 53–59) argues that financialisation⁹ began in Sweden as early as the 1980s when Olof Palme's single-party minority cabinet, consisting only of the Swedish Social Democratic Party (*Sveriges Socialdemokratiska Arbetareparti*), started to deregulate the financial sector. The Swedish tax system has also undergone serious alterations: in 1991, capital income tax rate and corporate tax rate were reduced to 30 percent (the latter was cut by twenty points); in 2003, income from subsidiary companies was made tax free; in 2004, inheritance and gift taxes were removed; and, in 2007, property taxes were also removed. Moreover, corporate tax rate was further reduced to 22 in 2018 and will be lowered to 20.6 in 2021. These and other changes in Sweden's social and economic policies have allowed the number of billionaires in Sweden to grow from 35 in 1997 to 187 in 2017. A third of this group has inherited their billionaire status. (*ibid.*, 93–94.)¹⁰ Therborn (*ibid.*, 143) also uses the Gini coefficient¹¹ to show that, whereas income inequality fell in Sweden prior to 1980, it has been rising since then.

⁹ The concept of "financialisation" will be defined and discussed more thoroughly in the third chapter (see section 3.1). Generally, it refers to the growing role of finance and financial profits in the economy at the expense of the real economy.

¹⁰ However, it seems that Therborn measures the number of billionaires in Sweden in Swedish *krona* because, according to Forbes (2020), Sweden has 31 billionaires measured in U.S. dollars (total net worth of \$106.6 billion).

¹¹ Gini coefficient is a measure of statistical dispersion which is used to represent the income inequality or wealth inequality within a country or a region. A Gini coefficient of 0 (or 0 percent) represents perfect equality, whereas a Gini coefficient of 1 (or 100 percent) represents maximal inequality. It should be noted, however, that Tuomala (2019, 100–107; see also Piketty 2014, 266–267) criticises this coefficient for downplaying the level of inequality.

Finally, Matti Tuomala (2019, 313–321) has discovered that, from the early 1990s onwards, inequality has worsened quite remarkably in Finland. This is mostly due to tax policy changes: in 1993, Esko Aho’s bourgeois-right cabinet¹² separated the taxation of unearned income (i.e. capital income) from that of earned income, cutting the former significantly. The pre-1993 tax policies were a central reason as to why Finland was able to establish a Nordic welfare society of its own, a system based on redistributing resources from the rich to the poor within society. Such practices made it possible for Finland to enjoy, globally speaking, relatively low rates of poverty and unemployment as well as comparatively small differences in income and wealth. In this sense, one could say that Aho’s cabinet removed some of the barriers that had, until then, partly restricted the concentration of wealth in Finland. Today wealth is allowed to “trickle” upwards with less intrusions, as it were.¹³

In order to summarise how income inequality has developed in different countries, Piketty (2014, 249) constructs four levels of inequality: “low inequality” existed in Scandinavian countries in the 1970s and 80s; Europe as a whole had “medium inequality” in 2010; the U.S. in 2010 and Europe as a whole in 1910 are examples of “high inequality”; and, finally, if current trends continue, the U.S. will have “very high inequality” in 2030. The fact that three of the four countries discussed above have experienced the exacerbation of inequality after the 1970s points towards the existence of a clear trend. Whereas France’s case is explained by the declining roles of the rentier and very high incomes from capital, the contrary seems to be true for the U.S., Sweden, and Finland. It is important to be aware of this trend and to try to understand it.

Before moving on, we need to briefly consider the political nature of the economy. In contrast to the orthodoxy of economics, Piketty describes how income inequality, and other economic processes and phenomena, should be grasped:

the history of inequality has not been a long, tranquil river. There have been many twists and turns and certainly no irrepressible, regular tendency toward a “natural” equilibrium. In France and elsewhere, the history of inequality has always been chaotic and political, influenced by convulsive social changes and driven not only by economic factors but by countless social, political, military, and cultural phenomena as well. [...] All these dimensions of analysis are inextricably intertwined.

¹² Aho’s cabinet consisted of the Centre Party of Finland (*Suomen Keskusta*), the National Coalition Party (*Kansallinen kokoomus*), Swedish People’s Party of Finland (*Suomen ruotsalainen kansanpuolue*), and the Christian Democrats (*Suomen kristillisdemokraatit*). Aho’s cabinet was in power between 1991–95, during which time Finland underwent one of the worst economic recessions of its history. Aho and his ministers framed their social and economic policy changes as ways to battle the negative effects of the recession, although now it seems that these policy changes have increased inequality in Finland.

¹³ For example, Tuomala (2019) illustrates the increasing level of income inequality in Finland in terms of real disposable incomes (97), the Gini coefficient (absolute and relative), the mean log deviation (absolute and relative), and the Atkinson index (absolute and relative) (111).

Hence the history of the distribution of wealth is one way of interpreting a country's history more generally. (Piketty 2014, 274–275)

The economy does not exist in a vacuum – rather, it is inherently related, traversed, and penetrated by other kinds of social and political relations and phenomena. This same point is explicit in Reinhart and Rogoff as well, but, in a highly interesting fashion, they do not seem to realise it themselves when they write:

Most government investments directly or indirectly involve the long-run growth potential of the country and its tax base, but these are highly illiquid assets. Suppose, for example, that a country has a public debt burden that seems manageable given its current tax revenues, growth projections, and market interest rates. If the market becomes concerned that a populist fringe candidate is going to win the next election and raise spending so much that the debt will become difficult to manage, investors may suddenly balk at rolling over short-term debt at rates the country can manage. A credit crisis unfolds. (Reinhart & Rogoff 2009, xli)

In other words, in today's capitalism, investors hold both economic and political power over entire countries. If a country elects, for example, a political leader who is not liked or trusted by investors, the latter can cause economic, social, and political problems for the country in question. Clearly, economic relations, structures, and practices are inherently political,¹⁴ and this insight will be central to my thesis.

1.3 Overview of Chapters

In total, this thesis is divided into four chapters. The second chapter will examine on a general level the comparable advantages of the falling-profit-rate theory over monopoly capital theory, the third chapter will assess the explanatory powers of these frameworks *vis-à-vis* the 2007–09 financial crisis, and the concluding chapter will summarise the most important research findings of my thesis.

More specifically, section 2.1 will introduce the tradition of crisis theory by providing a summary of its four strands: underconsumptionism (monopoly capital theory), the disproportionality theory, the falling-profit-rate theory, and the profit-squeeze explanation. At the end of section 2.1, I will present a fourfold table in order to illustrate the similarities and differences between these four strands of crisis theory.

Section 2.2 will be devoted in its entirety to the monopoly capital school. I will start my analysis from the general changes that, according to monopoly capital theory, large

¹⁴ I understand the term “political” not only as something that refers to the government or public affairs of a country, but in a more general sense as relating to power relations and struggles between different social groups in a hierarchical society.

joint-stock companies have introduced to capitalism, including the rise of management, the new role of profit-maximisation, and an attitude of live-and-let-live adopted by large companies. Then, I will examine the economic model of imperfect competition, which the monopoly capital school uses in order to explain why monopolies cause price levels to have a remarkable upward bias. The final theme discussed in section 2.2 will be the tendency of surplus to rise, which gives rise to stagnation and crises in monopoly capitalism and counters the tendency of the rate of profit to fall. However, I will argue throughout this section that monopoly capital theory's methodology is opposed to Marx's; the former starts from changing market relations, whereas Marx moves from production towards the market. This point raises doubt about the monopoly capital school's claim regarding the transformational impact of changing market relations on the crisis tendencies of the capitalist mode of production.

Section 2.3 will deal exclusively with the falling-profit-rate theory. I will first argue that capitalism operates less on the basis of consumption (monopoly capital theory) and more on the basis of profit (falling-profit-rate theory). Then, I will introduce the labour theory of value constructed by Marx which describes the basic "laws of motion" of the capitalist mode of production, such as the private ownership of the means of production, wage-labour, and exploitation. The labour theory of value will serve as an essential foundation for understanding, thirdly, the tendency of the rate of profit to fall which, according to Marx, is caused mainly by the rising organic composition of capital (i.e. mechanisation of production). I will argue that the tendency of the rate of profit to fall is still important for today's capitalism, although this tendency should be understood as mediated by other social processes. I will finish section 2.3 by examining the economic model of real competition, which explains why capitalist companies adopt new methods of production that end up reducing their rates of profit. This model is constructed by Shaikh as a more realistic replacement for the theory of imperfect competition.

The third chapter will centre around the main theme of this thesis, the 2007–09 financial crisis. In section 3.1, I will first provide a general narrative of how the financial crisis unfolded, in which the phenomenon of financialisation plays a crucial role. Then, section 3.2 will focus on the interpretation of the financial crisis given by the monopoly capital school, which rightly emphasises the growing indebtedness of the U.S. society, but wrongly underscores the lack of effective demand for consumer goods and the impact of excess productive capacity. I will also critique the monopoly capital school's adherence to Hyman Minsky's financial instability hypothesis, which cannot be used to explain

the financial crisis because Minsky's hypothesis is premised on the institutions and practices typical to the pre-1980s U.S. economy. Finally, in section 3.3, I will argue that the tendency of the U.S. rate of profit to fall from the Second World War until the 1970s incentivised capitalist companies to commence the offshoring of manufacturing to the periphery of the capitalist world economy from the 1980s onwards. This, in turn, created huge amounts of profit without productive investment channels in the U.S. and led to the stagnation of real wages of domestic workers relative to the growth rate of the productivity of labour. Together, these processes, which ended up feeding off each other, produced both a massive demand for new financial products and surging indebtedness in the U.S. economy, thus undermining its stability. In this sense, the falling rate of profit put in motion phenomena in the 1970s and 80s that resulted in the 2007–09 financial crisis.

2 CRISIS THEORY

Crisis theory pursues to explain recurring crises of capitalism with reference to the contradictions inherent to this particular mode of production (Clarke 2012, 90).¹⁵ Researchers within crisis theory make use of a variety of different theoretical sources, the most important of which are the writings of Karl Marx and John Maynard Keynes. By studying how historically specific social and political relations traverse and co-constitute economic ones, a central objective of crisis theory is to question the conception, typical to the orthodoxy of economics, of the economy as a self-sufficient, self-contained, and ahistorical social sphere. This allows the study of both why capitalist crises continue to happen and why they provoke certain kinds of responses from the ruling groups.

Anwar Shaikh (1978; see also Basu & Vasudevan 2013, 58) distinguishes between four different strands of crisis theory: underconsumptionism, the disproportionality theory, the falling-profit-rate theory, and the profit-squeeze explanation. I will use section 2.1 to introduce these strands, after which I will present a fourfold table that I have constructed in order to clarify the similarities and differences between these theories.

Then, in section 2.2, I will concentrate more specifically on one strand of crisis theory, that of monopoly capital theory. This section is further divided into three subsections, each of which focuses on one important aspect of monopoly capital theory: the development of large joint-stock companies (i.e. monopolies), the transformation of economic competition from perfect to imperfect competition, and the tendency of surplus to rise. These three aspects explain why the monopoly capital school sees the lack of effective demand for consumer goods and stagnation as the main causes of crises.

The third and final section of this chapter is devoted to the falling-profit-rate theory, which is another strand of crisis theory. In order to introduce this theory, I have divided the section into four subsections. Firstly, I will discuss whether capitalism functions on the basis of consumption (monopoly capital theory) or profit (falling-profit-rate theory), after which I will present the labour theory of value constructed by Marx. This will allow us to, thirdly, analyse why Marx sees the rate of profit as expressing a falling tendency in capitalism due to the growing mechanisation of production. Finally, I contrast the theory of imperfect competition, adhered to by the monopoly capital school, to the theory of real

¹⁵ Crisis theory is always more or less Marxist, but, in this thesis, I refer to this tradition simply as “crisis theory”.

competition, presented by Shaikh. Real competition can be understood as a “complimentary” construction to the falling-profit-rate theory, as it explains why capitalists implement production methods and machinery that end up reducing their rates of profit.

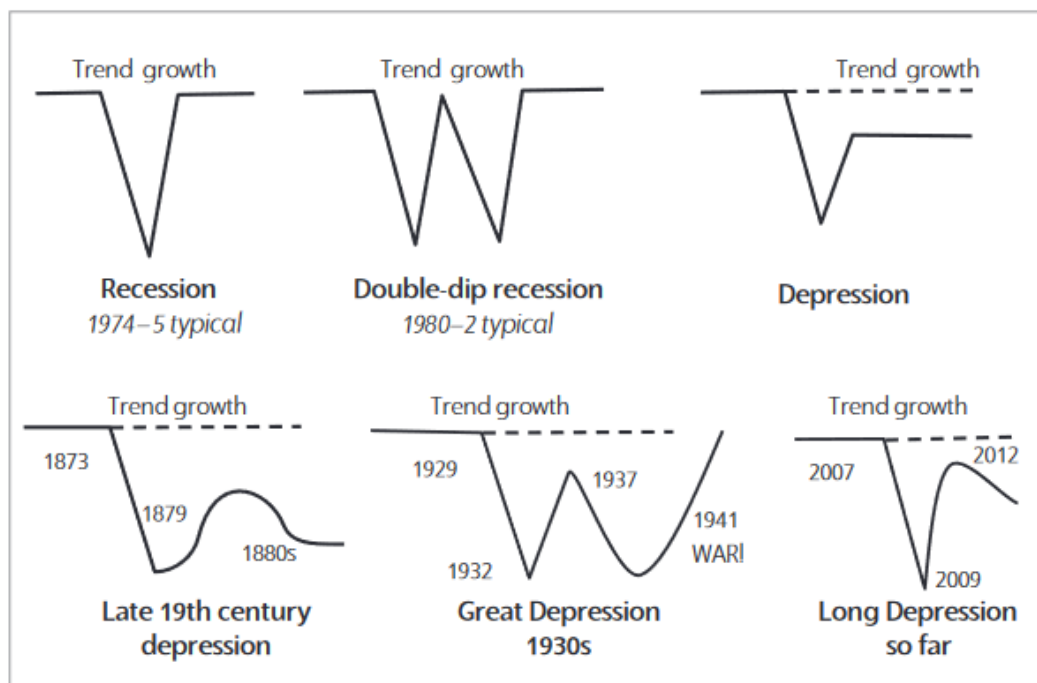
I will argue in this chapter that the falling-profit-rate theory presents a more viable interpretation of the crisis tendencies inherent to today’s capitalist economy than monopoly capital theory. The latter’s shortfall is related to the exaggeration of the role of conjunctural and cyclical phenomena, whereas the falling-profit-rate theory, like Marx, starts from the notion that, in order to understand crises, we must look at the relations of production. This observation regarding the comparable advantages of the falling-profit-rate theory over monopoly capital theory is reiterated and reinforced in the third chapter, where I will show that the falling-profit-rate theory provides a more convincing explanation of the processes that resulted in the 2007–09 financial crisis than the monopoly capital school.

2.1 Four Strands of Crisis Theory

Different strands of crisis theory emphasise different processes and phenomena that undermine the long-term stability of capitalism. These processes and phenomena are called “crisis tendencies”. By no means should this be interpreted in the sense that all crises ought to follow strictly the same sequence of events. Figure 2.1 shows the distinct trend growth rates related to each major crisis of capitalism, starting from the depression of the late nineteenth century and ending with the long depression of the late 2000s and early 2010s (i.e. “Great Recession”).¹⁶ Rather, the historically specific developments that precede each crisis should be understood as being affected by certain recurring social processes and dynamics inherent to the capitalist mode of production, which manifest in different ways in each crisis. It is possible to divide the tradition of crisis theory into four strands, all of which identify and underline crisis tendencies that differ from those identified by other strands.

¹⁶ Roberts (2016, 9–12) defines a recession as two consecutive quarters of contraction in real gross domestic product, whereas a depression is a significant contraction after which the pre-crisis trend growth path either takes several years to reattain or is never reached again.

FIGURE 2.1 A schematic view of recessions and depressions. Source: Roberts 2016, 12.



Firstly, underconsumptionists argue that the most serious inefficiency of capitalism is that it is incapable of generating enough *effective demand* for consumer goods in order to account for the sum of *genuine social need*.¹⁷ Capitalism is contradictory, and the point of contradiction lies in having society organised on the basis of consumption without the ability to generate enough effective demand in order to reach a sufficient level of consumption. As people do not – and cannot – buy enough consumer goods, the economy stagnates, poverty persists, and crises recur. Therefore, the concept of “demand gap”, which refers to the gap between too much supply and too little demand, is central to the underconsumptionist tradition. (Cogoy 1987, 13–15; Shaikh 1978, 222–226; 1987, 121–122.) Three famous underconsumptionists are Friedrich Engels, Karl Kautsky, and Rosa Luxemburg (Clarke 2012, 92–93), on top of which monopoly capital theory holds an underconsumptionist conception of capitalist crises as well (Shaikh 2016, 328–329).

While underconsumptionists see capitalism as an inherently stagnant social system, Shaikh (1978, 223–224) points out that ‘the study of history makes it abundantly clear

¹⁷ “Effective demand” stands for demand backed by purchasing power (see Keynes 2013, 25), and “genuine social need” equals effective demand plus “ineffective demand”, that is, demand regardless of it being backed by purchasing power or not (see Marx 1991, 289–290). Although the notion of effective demand is typically credited to Keynes, Marx discussed the operation of effective demand prior to Keynes, *avant la lettre* (see Shaikh 1981, 276–278).

that these cycles are accompanied by tremendous secular growth in actual capitalist economies'. Underconsumptionists retain their position about capitalism's inability to produce growth internally by arguing that growth is in fact caused by external factors. One example in this regard is imperialism which makes it possible to find more effective demand for the metropole's consumer goods. 'Thus trade between capitalist and non-capitalist spheres is a prime necessity for the historical existence of capitalism, and imperialism necessarily arises as capitalist nations struggle over control of these all important sources of effective demand' (*ibid.*, 228). Once all non-capitalist nations are turned into capitalist ones, underconsumptionists expect the capitalist mode of production to face an insurmountable crisis (Clarke 1994, 53–58; 2012, 93).

Secondly, the disproportionality theory of capitalist crises has been supported by writers such as Rudolf Hilferding, according to whom capitalist crises result mostly from the disproportional relations between different branches of production. Since effective demand consists mostly of demand for producer goods, the lack of effective demand for consumer goods is not as severe for the reproduction of the capitalist society as underconsumptionism claims. The most central contradiction of capitalism has to do with the uncoordinated nature of productive capacity utilisation in different branches of production, the disproportionality theorists argue. (Clarke 2012, 94–95; Shaikh 1978, 227–230.) In this sense, the disproportionality theory's conception of crises also centres around the lack of effective demand, but their understanding of the problem is that effective demand is not distributed co-ordinately between different branches of production. As the capitalist mode of production functions on the basis of unplanned production for exchange, crises recur.

Thirdly, the falling-profit-rate theory draws heavily from what Marx wrote in his *Economic Manuscripts of 1857–1858* (1939–41/2010) and the third volume of *Capital*

(1894/1991).¹⁸ In short, Marx (1991, 244–245) defines the “organic composition of capital” as the ratio of constant capital to variable capital.¹⁹ He holds that the antagonistic relations of production cause the organic composition of capital to rise, which means that a larger share of capital goes to employing capital equipment, as opposed to hiring human labour-power. And since Marx also holds that in the capitalist production process only living human labour-power adds more value than what it itself is worth (Caffentzis 1997), the growing ratio of constant capital to variable capital ends up reducing the ratio of profit to aggregate investment.²⁰ Since the capitalist mode of production is based on capitalists²¹ making profit and accumulating more capital, the falling rate of profit gives rise to economic, social, and political crises. Therefore, Marx (1991, 358) writes that ‘[t]he *true barrier* to capitalist production is *capital itself*’.

Finally, the profit-squeeze explanation modifies the falling-profit-rate theory by highlighting that the rate of profit falls not due to the rising organic composition of capital, but due to a declining profit–wage ratio (Clarke 2012, 94; Shaikh 1987, 122–123). Profit-squeeze explanations have been put forth by Andrew Glyn, Bob Sutcliffe, and Robert Rowthorn (Shaikh 1978, 237). Robert Brenner can also be included in this tradition (see Shaikh 1999, 135–137), although his work contains elements which are typical to the disproportionality theory as well (see Clarke 2012, 95).

Shaikh (1978, 238–239) opposes the profit-squeeze explanation by underlining that its supporters confuse Marx’s categories with those of neoclassical economics – in other words, the value of labour-power is equated with the sum of money wages, and the value

¹⁸ For some reason, the place of this theory in Marx’s overall argumentation is heavily debated. Baran and Sweezy (1968) as well as Heinrich (2011) claim that the tendency of the rate of profit to fall is crucial neither to Marx’s conception of the capitalist mode of production nor to crisis theory. Reuten and Thomas (2011), on the other hand, see the notion of the falling rate of profit as playing an essential role in Marx’s writings, but they conceive of it as a cyclical phenomenon. Carchedi and Roberts (2013; 2018) view the falling-profit-rate theory as the culmination of Marx’s argumentation about a process that leads to the ultimate crisis of capitalism. Finally, Shaikh (1978; 1987; 1999; 2010) and Moseley (1991; 1992; 1997) underline that the falling rate of profit is a dynamic phenomenon that provokes complex responses in different conjunctures.

¹⁹ Here I refer to the organic composition of capital as the ratio of constant capital to variable capital for simplicity. We will see in section 2.3.3 that there are various competing definitions of the organic composition of capital in research literature.

²⁰ This can also give rise to situations where some capitalists are able to reap higher profits in *absolute* terms, while the ratio of profits to the total capital advanced falls in *relative* terms.

²¹ In general, I understand a capitalist as a person who uses their wealth to invest in trade and industry for profit, and who is able to continue doing business with capital income. Of course, some people receive both labour and capital income, but, as Piketty (2014, 244) points out, inequalities with respect to capital are extreme. For instance, Piketty (*ibid.*, 257) refers to the Federal Reserve’s data for the U.S. in 2010–2011 when he writes that ‘the top decile own 72 percent of America’s wealth, while the bottom half claim just 2 percent’. It is also likely that the Federal Reserve’s study underestimates the largest fortunes (*ibid.*, 257–258).

of surplus-labour is equated with profits expressed in money. This leads the profit-squeeze theorists to see the rate of surplus-value and the profit–wage ratio as identical, meaning that a decline in the profit–wage ratio should cause a decline in the rate of surplus-value (and in the rate of profit), which then results in a crisis. Conversely, Shaikh’s main point is that what neoclassical economics counts as profit and wages are, respectively, net corporate income (which is net of selling expenses and taxes) and the sum of wages in the economy (i.e. productive wages plus unproductive wages). This distinguishes them from the Marxist concepts of the value of surplus-labour and the value of (productive) labour-power.

Shaikh (1978, 238–239) illustrates this with a brief example. If total sales amount to \$100,000, of which capitalists have used \$40,000 for the means of production (c) and \$20,000 for the wages of productive workers (v), the remaining amount, \$40,000, is the money-form of surplus-value (s), which capitalists call gross profits on sales. Therefore, the rate of surplus-value (e) is

$$e = \frac{s}{v} = \frac{\$40,000}{\$20,000} = 2 = 200\%$$

Now, if selling expenses amount to \$25,000 and taxes to \$5,000, then the resulting net corporate income (TT) is \$10,000 (i.e. gross profits on sales minus selling costs and taxes). Selling expenses also include unproductive wages for the sales personnel (worth \$10,000), which is why neoclassical economics adds unproductive wages to productive wages in order to get the sum of wages (W) in the economy (worth \$30,000). Hence, the profit–wage ratio (w) is

$$w = \frac{TT}{W} = \frac{\$10,000}{\$30,000} = 1/3 = 33.33\%$$

If one is not careful, the rate of surplus-value gets confused with the profit–wage ratio; 200 percent is concealed behind 33.34 percent. Such incoherencies regarding the relation between Marxist and neoclassical categories lie at the heart of the profit-squeeze school.²² Although Shaikh (1999, 119–120) agrees that rising real wages hamper the level of profits and the accumulation of capital, making the secular crisis tendencies of capitalism worse, high wages do not create such tendencies. Similarly, Marx (1991) writes that ‘[n]othing is more absurd, then, than to explain the fall in the rate of profit in terms of a rise in wage

²² Furthermore, once one accepts that crises are caused by high wages, it does not take a big step from there to claim that wages should be kept low in order to guarantee the stability of the capitalist system.

rates' (347), and that '[t]he rate of profit does not fall because the worker is less exploited, but rather because less labour is generally applied in relation to the capital invested' (354).

I have constructed a fourfold table to express the similarities and differences between these four strands of crisis theory. Table 2.1 consists of two conceptual pairs: the vertical axis depicts the “locus of crises” (either “market” or “production”); and the horizontal axis represents the most central “cause of crises” (either “lack of effective demand” or “lack of profits”). By bringing together one concept from the vertical and one from the horizontal axis, it is possible to construct all of the four strands of crisis theory that I introduced above.

TABLE 2.1 The fourfold table of crisis theory. Source: author's elaboration.

Cause of crises → Locus of crises ↓	Lack of effective demand	Lack of profits
Market	Underconsumptionism	Profit-squeeze explanation
Production	Disproportionality theory	Falling-profit-rate theory

Underconsumptionism sees crises to occur due to the lack of effective demand for consumer goods in the market. The disproportionality theory agrees that crises have to do with the lack of effective demand, but the problem is that it is distributed unevenly between different branches of production due to the uncoordinated nature of the capitalist mode of production. The profit-squeeze explanation argues that the rate of profit tends to fall because workers are able to raise their wages in the labour market, causing a falling profit–wage ratio. The falling-profit-rate theory, on the other hand, underlines that it is the rising organic composition of capital – namely, the implementation of labour-saving production methods and machinery – that leads to the tendency of the rate of profit to fall.

That said, I want to highlight that neither Marx nor crisis theory separate markets from production, or *vice versa*, but analyses the complicated relations between these two institutional “spheres” of society. For instance, although underconsumptionism identifies the marketplace as the locus of crises, it is based on a conception about capitalist *production* which fails to secure the smooth operation of market exchange. Furthermore, this

fourfold table is a theoretical abstraction; as such, its purpose is to illuminate the similarities and differences between various traditions of crisis theory from *one* point of view. It is good to remember that reality is always much more complex than what any fourfold table can ever express.

Let us next focus our attention on monopoly capital theory, which is premised on the idea that the earlier competitive capitalist system was allegedly surpassed by monopoly capitalism in the late nineteenth century. The monopoly capital school claims that the contemporary monopoly-capitalist economy is marked by the lack of effective demand for consumer goods, the absence of perfect competition, and a growing level of stagnation, all of which result from the existence of large joint-stock companies.

2.2 Monopoly Capital Theory

The term “monopoly capital” is used to describe the form of capital that began evolving in the late nineteenth century when large joint-stock companies replaced small corporations and households as the main units of the economy, allegedly transforming “competitive capitalism” into “monopoly capitalism”.²³ According to the theorists of monopoly capital, Marx and Engels considered the rise of monopolies more as the necessary groundwork for socialism and less as a new stage of capitalism, which is why it was the responsibility of later writers to examine the issue of how monopolies affect the workings of the capitalist mode of production. (Foster 2014, 65; 2018, 56–57; Sweezy 1981, 23; 1984b, 30.) The first writers after Marx and Engels to discuss the nature of monopolies were Thorstein Veblen, Hilferding, and V. I. Lenin: Veblen concentrated on the amalgamation of sales and manufactures as well as the roles of corporate finance, monopolistic profit margins, and excess capacity; Hilferding studied the new market for industrial securities, the expanding power of banks, and the wider effects of monopolisation; and Lenin identified imperialism as the monopoly stage of capitalism. (Baran & Sweezy 1968, 4–5; Foster 2016, 2; 2018, 57–58.)

²³ It should be noted that what the theorists of monopoly capital call “monopoly” is referred to by neoclassical theory as “oligopoly”. Baran and Sweezy (1986, 6) write that ‘we use the term “monopoly” to include not only the case of a single seller of a commodity for which there are no substitutes, but also the much more common case of “oligopoly,” i.e., a few sellers dominating the markets for products which are more or less satisfactory substitutes for one another’. This conception of monopolies will be critiqued in section 2.3.4.

From the 1930s until the 60s, it was the turn of Michał Kalecki, Josef Steindl, and Hyman Minsky to analyse the effects of monopolies. Kalecki combined a “Marxist” conception of crises and a “Keynesian” understanding of the inefficiencies of capitalism, which led him to argue that the monopolistic market structure had altered both the capitalist accumulation mechanisms and the functioning of competition in the economy. Steindl saw monopolies as one of the major reasons as to why the Great Depression of the 1930s occurred: since monopolistic companies had started to protect their profit margins not by adjusting prices (and selling more for less), but by reducing the use of capacity utilisation (and selling less for more), the price level remained high. Furthermore, since excess capacity hampered the growth rate of new investment, monopoly capitalism created slow economic growth, mounting unemployment, and idle productive capacity – in other words, *stagnation*.²⁴ Finally, Minsky emphasised that real sectors cannot grow without the financial sector growing as well: as long as the productive sectors and profits grow, the financial sector can grow without major problems; but as soon as the rate of economic growth slows down, a debt bubble bursts and the economy faces a crisis. According to Minsky, this explained why modern states had become lenders of the last resort. (Foster 2018, 57–58; Foster & Magdoff 2009, 17.)

The influences of Marx, Engels, Veblen, Hilferding, Lenin, Kalecki, and Steindl²⁵ led Paul Baran and Paul Sweezy, the founders of the monopoly capital school²⁶, to study the mode of operation of monopoly capitalism, especially in the context of the United States. In their influential book, *Monopoly Capital* (1966/1968), Baran and Sweezy underline a need for a theoretical update, writing:

we cannot be content with patching up and amending the competitive model which underlies his [Marx’s] economic theory. We must recognize that competition, which was the predominant form of market relations in nineteenth-century Britain, has ceased to occupy that position, not only in Britain but everywhere else in the capitalist world. Today the typical economic unit in the capitalist world is not the small firm producing a negligible fraction of a homogeneous output for an anonymous market but a large-scale enterprise producing a significant share of the output of an industry, or even several industries, and able to control its prices, the volume of its production, and the types and amounts of investments. The typical economic unit, in other words, has the attributes which were once thought to be possessed only by monopolies. It is therefore impermissible to ignore monopoly in constructing our model of the economy and to go on treating competition as the general case. (Baran & Sweezy 1968, 5–6)

²⁴ Stagnation means that the economy remains far from its potential rate of growth; the economy grows, but just slower than it should. An economy ridden with stagnation has significant amounts of excess productive capacity as well as high rates of unemployment and underemployment.

²⁵ Minsky’s work influenced monopoly capital theory later on.

²⁶ Other members of the monopoly capital school are, for example, Harry Magdoff, John Bellamy Foster, Fred Magdoff, and Robert McChesney.

The birth of large joint-stock companies alters the capitalist social system in at least four crucial ways. Firstly, large joint-stock companies give rise to a new kind of management, other objectives besides mere profit-maximisation, and a live-and-let-live attitude amongst monopolies. Secondly, the previously existing free, or perfect, competition ceases to exist. Thirdly, large companies are no longer forced to lower prices in order to maximise profits. And, fourthly, the monopoly-capitalist economy produces more and more surplus-product which cannot be realised in its money-form, thus creating the tendency of surplus to rise which, it is claimed, counters the tendency of the rate of profit to fall. Together, these features supposedly create economic and social stagnation in monopoly capitalism. I will deal, respectively, with the first characteristic in section 2.2.1 and the remaining three in sections 2.2.2 and 2.2.3.

2.2.1 Large Joint-Stock Companies

Baran and Sweezy (1968, 28) write that ‘[t]he big corporation came into its own in the second half of the nineteenth century, first in the fields of finance and railroads, spreading to industry around the turn of the century, and later invading most other branches of the national economy. In the typical case, the early corporate giants were organized by – or, as a result of merger, failure, or other emergency, soon fell under the control of – a class of financier-promoters’. It is central to understand how Baran and Sweezy conceive of these large joint-stock companies that sprung up in the second half of the nineteenth century. We will do so briefly.

Baran and Sweezy (1968, 15–16) state that, in monopoly capitalism, the board of directors and chief executive officers, who constitute management, have come to hold most of the power. Management is no longer liable to shareholders, since the former has become a self-perpetuating group. In addition, large joint-stock companies achieve financial independence by way of internal funds which remain at the use of management, meaning that these companies can no longer be subjected to any meaningful financial control.²⁷ Therefore, ‘[t]he real capitalist today is not the individual businessman but the corporation’ (*ibid.*, 43), which is also why CEOs make up the most important faction of the ruling class. However, although managers have ceased to be liable to investors, they

²⁷ Baran and Sweezy (1968, 29–31) contrast the contemporary CEOs, who they call “company men”, to the early-twentieth-century American “tycoons” in the sense that, whereas the tycoons stood outside and above the firm, the company men stand inside it. ‘The loyalty of the one [tycoon] was to himself and his family’ and ‘the loyalty of the other [manager] is to the organization to which he belongs and through which he expresses himself. [...] The one stole from the corporation, the other steals for it’ (*ibid.*, 30).

themselves are often amongst the most powerful shareholders of their companies, which is why their interests can hardly be called antagonistic with respect to shareholder value.

While discussing the norms of conduct that financially independent large companies follow, Baran and Sweezy (1968, 22) observe that formal economic theory has largely ignored this issue and clung on to the simple conception of a profit-maximising individual entrepreneur. Conversely, Baran and Sweezy (*ibid.*) question this notion by reference to sociological studies, writing that ‘the maximization of profits has ceased to be the guiding principle of business enterprise. Corporate managements, being self-appointed and responsible to no outside group, are free to choose their aims and in the typical case are assumed to subordinate the old-fashioned hunt for profits to a variety of other, quantitatively less precise but qualitatively more worthy, objectives’. This does not mean that firms have altogether ceded the goal of profit-maximisation; in fact, the number of resources used by large companies to acquire ever-expanding amounts of profit proves that profit-maximisation is still important for large joint-stock companies. Rather, Baran and Sweezy (*ibid.*, 26–28, 39–40) argue that, in monopoly capitalism, profit-maximisation is only an intermediary goal in the pursuit of the new primary goals, namely, the company’s strength (e.g. credit rating and the price of securities), rate of growth, and size. Their general point is that capitalist profit-maximisation is always embedded in historically specific social structures which cause profit-maximisation to adopt different kinds of forms.

Finally, Baran and Sweezy (1968, 47–51) claim that the larger scale of operations causes monopolies to have a longer time horizon and become more rational calculators than individual capitalists. This, in turn, gives rise to behaviour marked by the avoidance of risk-taking and a live-and-let-live attitude. This point is central to the monopoly capitalist school’s conception of imperfect competition between monopolies, discussed in the next subsection.

Clearly, the picture depicted by Baran and Sweezy of the monopoly-capitalist economy consists of a relatively stagnant corporate life controlled by large joint-stock companies. The economy is defined by social and economic immobility, as it were, and capitalist enterprises seem to have lost interest in the most crucial motive driving them forward, the profit motive, at least as their primary objective. However, my argument is that this picture is not the full truth of capitalism of the post-nineteenth century because it exaggerates the role of changing market relations, which are conjunctural, over relations of production, which are structural or secular. This explains why Baran and Sweezy start

their analysis from the rising price level²⁸ on which they build their theory of the tendency of surplus to rise (which counters the tendency of the rate of profit to fall); in other words, they start from market phenomena from which they infer arguments about the restructuring of the capitalist mode of *production* as a whole.

This is evident when Baran and Sweezy (1968, 53) write that ‘[t]he big corporations relate to each other, to consumers, to labor, to smaller business primarily through the market. [...] And since market relations are essentially price relations, the study of monopoly capitalism, like that of competitive capitalism, must begin with the workings of the price mechanism’. Similarly, in his earlier work, Sweezy (1962, 17) writes that ‘the study of the capital–labor relation must begin with an analysis of the general phenomenon of exchange’. This methodological procedure goes directly against Marx’s methodology as I understand it, which starts from relations of production and moves towards market relations.²⁹ One possible reason for this misunderstanding is that Baran and Sweezy confuse the order of presentation, constructed by Marx, with his order of inquiry; that is, although Marx starts his presentation in the first volume of *Capital* (1867/1990) from exchange, from the market, the inquiry itself starts from production. In this regard, in the ‘Preface to the First Edition’ of the first volume of *Capital*, Marx discusses and warns about the grave effects of applying inadequate methodology:

The value-form, whose fully developed shape is the money-form, is very simple and slight in content. Nevertheless, the human mind has sought in vain for more than 2,000 years to get to the bottom of it, while on the other hand there has been at least an approximation to a successful analysis of forms which are much richer in content and more complex. Why? Because the complete body is easier to study than its cells. (Marx 1990, 89–90)

Applying Marx’s phraseology, it seems that Baran and Sweezy’s order of inquiry causes them to construct theories about the complete body without considering its cells, namely, the relations of production that manifest in market relations. As I will discuss Marx’s methodology, in the form of his labour theory of value, more thoroughly in section 2.3.2, we can now move on to examine what kind of a role the economic model of imperfect competition plays in monopoly capital theory.³⁰

²⁸ The rising price level and its effects, according to Baran and Sweezy, will be discussed in the next two subsections.

²⁹ For example, Marx (2010, 17) begins the introduction to his *Economic Manuscripts of 1857–1858* (1939–41/2010) by writing that ‘[i]ndividuals producing in a society – hence the socially determined production by individuals is of course the point of departure’. The first to highlight this difference between Marx and monopoly capital theory was Mattick (2007, 188–189).

³⁰ The reader should note that even the structure of presentation in this section moves from the market towards production, whereas the next section moves from production towards the market. This alone makes

2.2.2 Imperfect Competition

In order to understand the model of imperfect competition to which monopoly capital theory adheres, we must first discuss the economic model of perfect competition.³¹ John Bellamy Foster (2014, 53; see also Shaikh 1999, 120–121) defines perfect competition through four features: there must be a sufficient number of small households and firms in the economy so that no economic agent can influence others in the market; commodities must be so homogeneous that their categorical differences do not affect prices; agents need to have perfect information about prices and price differences; and households and firms are free to choose where to invest and what to produce. The problem is that this is a highly idealised view of economic competition, which is why George Stigler³² tries to provide a more realistic conception of what he calls “perfect market competition”, referring to the absence of monopoly power:

Perfect market competition will prevail when there are indefinitely many traders (no one of which controls an appreciable share of demand or supply) acting independently in a perfect market. A perfect market is one in which the traders have full knowledge of all offer and bid prices. [...] Market competition can exist even though resources or traders cannot enter or leave the market in question. (Stigler 1957, 14–15)

Stigler sees perfect market competition as taking place within one industry, to which he adds “industrial competition” that takes place between industries:

Industrial competition requires (1) that there be market competition within each industry; (2) that owners of resources be informed of the returns obtainable in each industry; and (3) that they be free to enter or leave any industry. In addition, the resources must be infinitely divisible if there is to be strict equality in the rate of return on a resource in all uses. (Stigler 1957, 15)

The supporters of monopoly capital theory argue that one major difference between competitive capitalism and monopoly capitalism is that monopolistic companies do not relate to each other like small firms do; that is, perfect competition has become imperfect competition (Sweezy 1984b, 31–32).³³ One difference found by Baran and Sweezy (1968, 53–54) in this regard is that ‘under competitive capitalism the individual enterprise is a “price taker”, while under monopoly capitalism the big corporation is a “price maker”’.

a crucial point about how differently monopoly capital theory and the falling-profit-rate theory approach capitalism.

³¹ More specifically, the theory of perfect competition is a neoclassical construction, whereas the model of imperfect competition has been used to both mend and criticise the theory of perfect competition.

³² Although Stigler’s influential article was written as long ago as in the 1950s, it provides a good overview of the discussions that were taking place when Baran and Sweezy wrote their *Monopoly Capital* (1966/1968).

³³ Two early figures who brought attention to imperfect competition are Joan Robinson and E. H. Chamberlin (Baran & Sweezy 1968, 55).

This means that one cannot take the existing price level for granted but needs to study how monopolistic companies choose one price level over another.

According to Baran and Sweezy (1968, 57), it is misleading to define a monopolistic company as a seller of a commodity without substitutes,³⁴ since a monopolistic company ‘is one of several corporations producing commodities which are more or less adequate substitutes for each other’. Due to this state of affairs, monopolies cannot choose freely what to charge for their products, since if one company chooses to cut its prices, others might go even further, resulting in price warfare. Since the effects of such price warfare are almost equally bad for all monopolies, large joint-stock companies will generally try to avoid cutting prices. Therefore, one company has no way of testing which price level would maximise its profits, since altering prices might initiate price warfare. (*ibid.*, 57–59.) Foster describes the effects of this by writing that

the nature of competition is radically transformed, with price competition, in particular, playing a much smaller role. Under conditions of oligopolistic rivalry, competition is, to use Schumpeter’s term, “corespective,” each firm carefully taking into account the price, output, and investment strategies of its major oligopolistic (or monopolistic) competitors. This leads to a situation, in highly concentrated markets, which is roughly analogous to that of a single firm monopoly. (Foster 2014, 69)

Baran and Sweezy (1968, 60–62) argue that, instead of price warfare, large U.S. joint-stock companies follow the practice of price leadership, which means that the largest and most powerful firm in each industry serves as the price-leader. One monopoly’s price leadership is accepted by others due to the fact that the largest company is most likely to survive any potential price warfare. ‘So long as all firms accept this convention [...] it becomes relatively easy for the group as a whole to feel its way toward the price which maximizes the industry’s profits’ (*ibid.*, 61). Such behaviour is far from perfect competition.

The effect of these kinds of market structures is that the price level in the monopoly-capitalist economy has a remarkable upward bias. Firstly, the fear of disturbing the existing price balance causes large joint-stock companies to be highly cautious of appearing aggressive towards one another, creating the tendency of rising prices (Baran & Sweezy 1968, 62–63). Secondly, instead of adjusting their prices, monopolistic companies can react to declining demand by adjusting the level of capacity utilisation (Despain 2017,

³⁴ If a monopolistic company sold commodities without substitutes, raising the price charged for their commodities would not cause consumers to replace that commodity with other commodities, since there would be no substitutes in the market. In such situations, the range of choice for the price level would be rather wide, meaning that monopolies could test different price levels.

386–387). In other words, monopolies do not need to sell more for less, since they can sell less for more. Once the level of demand for their products rises again, monopolistic companies can simply restore the original level of capacity utilisation, thus reaping higher profits. In effect, prices either stay the same or rise.

However, the monopoly capital school does not simply argue that monopolies do not compete against one another, but that competition is no longer executed by means of price warfare. The most typical means of imperfect competition, or “non-price competition”, is to have the largest gap between production costs and profits because, in addition to higher profits, it also brings various other benefits³⁵ which allow the company with the highest production cost–profit gap to increase its market share. (Baran & Sweezy 1968, 67–70.) This dynamic causes an endemic tendency for costs of production to fall in the monopoly-capitalist economy which both feeds the producer goods industries and causes methods of production to become more efficient (Baran & Sweezy 1968, 70–71; Sweezy 1984b, 33–35). Therefore, Baran and Sweezy conclude:

The whole motivation of cost reduction is to increase profits, and the monopolistic structure of markets enables the corporations to appropriate the lion’s share of the fruits of increasing productivity directly in the form of higher profits. This means that under monopoly capitalism, declining costs imply continuously widening profit margins. And continuously widening profit margins in turn imply aggregate profits which rise not only absolutely but as a share of national product. If we provisionally equate aggregate profits with society’s economic surplus, we can formulate as a law of monopoly capitalism that the surplus tends to rise both absolutely and relatively as the system develops. (Baran & Sweezy 1968, 71–72)

In other words, imperfect competition between monopolies causes a surging price level and larger market shares for large joint-stock companies, which, in turn, lead to higher aggregate profits and the tendency of surplus to rise. We will discuss this tendency next, but first it is important to underscore that, once again, we notice an emphasis on the market relations between monopolies, as opposed to the relations of production. The theory of imperfect competition, like its predecessor, perfect competition, is a model of market behaviour.

2.2.3 Tendency of Surplus to Rise

One of the main claims of monopoly capital theory is that monopoly capitalism replaces the tendency of the rate of profit to fall with the tendency of surplus to rise (Foster 2010, 2). Baran and Sweezy write:

³⁵ These benefits include the ability to survive potential price warfare, more resources to be put in advertising, research, product development, and extra services, as well as more appeal in the eyes of potential customers, executive personnel, and the most promising graduate students.

By substituting the law of rising surplus for the law of falling profit, we are therefore not rejecting or revising a time-honored theorem of political economy: we are simply taking account of the undoubted fact that the structure of the capitalist economy has undergone a fundamental change since that theorem was formulated. What is most essential about the structural change from competitive to monopoly capitalism finds its theoretical expression in this substitution. (Baran & Sweezy 1968, 72)

Before we can fully grasp this claim, we must first understand what the concept of “surplus” means. Baran and Sweezy (1968, 76) write that ‘[u]nder certain assumptions this [surplus] will be equal to aggregate profits: but, as already noted, in the actual economy of monopoly capitalism only part of the difference between output and costs of production appears as profits’. It is evident that Baran and Sweezy’s concept of surplus is both complex and ambiguous, which is why it has been heavily criticised (see Cogoy 1987, 11–13, 30–34).³⁶

Foster (2014, 33–45) replies to this criticism by underlining that the critics have not understood the methodology used by Baran and Sweezy because the concept of surplus passes through three approximations. At first, Baran and Sweezy define economic surplus as aggregate profits (also “property income”), which equals sales revenue net of production costs, or the difference between what a society produces and the costs of producing it. Then, the second approximation of surplus considers, in addition to aggregate profits, waste in the business process, government expenditure, and the penetration of the sales effort into the production process. It can thus be defined as the difference between total social output and the socially necessary costs of producing it. These two approximations of surplus necessitate the full utilisation of productive capacity, whereas the final approximation also considers existing unemployment, underemployment, and excess capacity. Foster (*ibid.*, 43) writes that ‘the category of economic surplus can be considered fully developed in a qualitative sense only insofar as it explicitly recognizes the harsh reality of underemployment, and the didactic device of assuming near full employment must obviously be abandoned in any statistical endeavor to measure potential surplus product’. In other words, the third approximation moves beyond monopoly capitalism, as it were, because it considers resources *potentially* available in monopoly capitalism that remain unused due to the contradictions inherent to the monopoly-capitalist system.

³⁶ Against their critics, Sweezy (1984a; 1984b, 34; 1987, 38–41) emphasises that Baran and him intended not to reject Marx’s labour theory of value, but to build their theoretical apparatus on it. However, their claim that the capitalist mode of production has been transformed qualitatively due to monopolistic market relations seems to depart from Marx’s conception of the capitalist relations of production as the most central characteristic of capitalism.

As we just saw, monopolistic market structures create a rising price level due to price leadership and the adjustment of capacity utilisation, as opposed to adjusting prices, on top of which monopolies tend to extend their control over larger market shares over time. Together, these processes cause surplus to surge, which gives rise to the “realisation problem”, understood as referring to the lack of effective demand which makes it impossible to realise the whole value of surplus-product in its money-form. At its worst, this undermines the capability of the capitalist system to reproduce itself.³⁷ Therefore, in line with the underconsumptionist strand of crisis theory, the monopoly capital school sees the lack of effective demand for consumer goods as the main crisis tendency (Shaikh 1978, 229–230). As the share of unrealised surplus grows and excess capacity increases, the monopoly-capitalist economy faces stagnation. I will explain this idea next.

Baran and Sweezy (1968, 79–82) note that the only ways for the monopoly-capitalist economy to absorb the soaring amount of surplus would be by way of waste, consumption, or investment. Wasting³⁸ all surplus is not a realistic option, as Foster explains:

[Baran and Sweezy] examined how capitalist consumption and investment were supplemented as surplus absorbers by civilian government spending, military/imperialist expenditures, and the sales effort. However, growth of civilian government spending was strictly limited by the fact that it tended to intrude on areas of private accumulation. Military spending needed to be justified in terms of some external threat, and hence could only go so far. The sales effort was only rational at the level of the firm insofar as it translated into additional sales and increased market share. In general, Baran and Sweezy argued, there was a lack of symmetry between stagnation and those factors combating it. While the stagnation tendency was deeply rooted, powerful and persistent, the countervailing tendencies were more superficial, weaker and self-limiting. (Foster 2010, 3)

Insofar as waste does not provide a solution to the problem of surging surplus, we are left with the options of consumption and investment. In this regard, Keynes discusses the relation between what he calls the “propensity to consume” and the “inducement to invest” in his famous work *The General Theory of Employment, Money and Interest* (1936/2013):

the richer the community, the wider will tend to be the gap between its actual and its potential production; and therefore the more obvious and outrageous the defects of the economic system. For a poor community will be prone to consume by far the greater part of its output, so that a very modest measure of investment will be sufficient to provide full employment; whereas a wealthy community will have to discover much ampler opportunities for investment if the saving propensities of its wealthier members are to be compatible with the employment of its poorer members. If in a potentially wealthy community the inducement to invest is weak, then, in spite of its potential wealth, the working of the principle of effective demand will compel it to reduce its actual output, until, in spite

³⁷ The rising level of “potential” surplus, related to the third approximation of surplus, convinced Baran and Sweezy (1968, 76) that the most crucial contradiction of monopoly capitalism relates to the realisation problem. Of course, the easiest way to solve this problem would be to cut prices, but such a logic goes against the *modus operandi* of the monopoly-capitalist system (*ibid.*, 110–111).

³⁸ Here “waste” refers to realisation costs and unproductive labour.

of its potential wealth, it has become so poor that its surplus over its consumption is sufficiently diminished to correspond to the weakness of the inducement to invest. (Keynes 2013, 31)

Keynes argues, firstly, that a richer community will be prone to consume only a small share of its total output. Baran and Sweezy (1968, 79–81) also claim that, while capitalists' consumption tends to rise in the absolute sense, its relative share of total surplus diminishes, meaning that consumption cannot solve the problem of surplus absorption either. Secondly, Keynes notes that the capitalist economy, when left to itself, hampers the level of new investment, which causes stagnation and crises.³⁹ Again, Baran and Sweezy also assert that neither is investment able to absorb the surging surplus. There are two reasons for why this is so.

In short, under monopoly capitalism, either too much productive capacity is used, which brings about overproduction and crises due to the lack of effective demand for consumer goods, or the economy has idle productive capacity, which hampers the level of new investment and induces stagnation (Foster 2014, 78). When productive capacity is fully utilised, the best case scenario is that a rising ratio of investment to total output and a falling ratio of consumption to total output lead to an unrealistic situation in which larger and larger amounts of producer goods are produced only to produce more producer goods in the future. This is the only available outlet for the ever-increasing investment-seeking portion of surplus if everything goes perfectly, although such economic behaviour would make no sense.⁴⁰ The same tendency is equally bad when productive capacity is only partially utilised and unemployment remains high (i.e. normal state of monopoly capitalism) because then productive capacity, and excess capacity, grows faster than the total output. This causes investors to lose their psychological inducement to invest, which reduces both employment and surplus. 'In other words, this investment pattern is self-limiting and ends in an economic downturn – the beginning of a recession or depression' (Baran & Sweezy 1968, 82).⁴¹

³⁹ In this sense, the problem of stagnation, according to Keynes, relates mainly to psychological expectations. Similarly, Baran and Sweezy apply the psychological explanation about the aggravating effect that excess capacity allegedly has on capitalists' inducement to invest, but they also see excess capacity as being caused by capitalism's increasing inability to realise the value of surplus-product. In other words, their framework is a mixture, as it were, of "Marxist" and "Keynesian" conceptions.

⁴⁰ Baran and Sweezy (1968, 81–82) write: 'Quite apart from the fact that such an explosive growth process would sooner or later exceed the physical potentialities of any conceivable economy, there is simply no reason to assume that anything like it has ever occurred or is likely to occur in the real world. Manufacturers of producer goods do not provide each other with an infinitely expanding market for each others' output, and they know it'.

⁴¹ Baran and Sweezy (1968, 87–88) see this point as highly important for explaining business cycles. When actual surplus declines due to investment outlets failing and effective demand falling, a downturn is initiated. But since this ultimately causes the ratio of consumption to total output to rise, the contraction is

However, Baran and Sweezy's framework differs from that of Keynes regarding whether the state is seen as capable of mitigating the deficiencies of capitalism or not. Whereas Keynes holds that the psychological problem of undershooting and overshooting expectations can be solved by increasing the degree of government spending, Baran and Sweezy think that such means merely worsen the situation. Foster (2014, 101) writes that '[i]f unproductive expenditures (backed up by government financing) cause demand to rise to a certain point [...] this sets in motion a sharp increase in productive capacity as business hurriedly builds ahead of demand; but the expectations are soon disappointed and a condition of chronic overcapacity reappears, with further injections of unproductive expenditures becoming necessary in consequence'. Therefore, for Baran and Sweezy, the problem of effective demand cannot be solved within monopoly capitalism because productive capacity will always grow faster than the effective demand for consumer goods. And since such excess capacity hampers the level of investment, stagnation results. Baran and Sweezy conclude:

Twist and turn as one will, there is no way to avoid the conclusion that monopoly capitalism is a self-contradictory system. It tends to generate ever more surplus, yet it fails to provide the consumption and investment outlets required for the absorption of a rising surplus and hence for the smooth working of the system. Since surplus which cannot be absorbed will not be produced, it follows that the normal state of the monopoly capitalist economy is stagnation. With a given stock of capital and a given cost and price structure, the system's operating rate cannot rise above the point at which the amount of surplus produced can find the necessary outlets. And this means chronic underutilization of available human and material resources. [...] Left to itself – that is to say, in the absence of counteracting forces which are no part of what may be called the “elementary logic” of the system – monopoly capitalism will sink deeper and deeper into a bog of chronic depression. (Baran & Sweezy 1968, 108)

In sum, Baran and Sweezy, together with the rest of the monopoly capital school, claim monopoly capitalism, defined by altered market relations between large joint-stock companies, to be unable to overcome its inherent limits – most importantly, the lack of effective demand for consumer goods and excess productive capacity – which drives it towards either stagnation or crises. We will see in the third chapter (see section 3.2) how monopoly capital theory has been applied to explain the 2007–09 financial crisis.

However, not everyone agrees with this picture. Shaikh (1978, 231–232) writes that 'rising “monopoly,” declining rates of accumulation and deepening class struggles can be

stopped at a point where the investment-seeking portion of surplus finds available investment outlets. Such a point of temporary equilibrium is characterised by high levels of excess productive capacity and unemployment. Conversely, an upturn creates a speedy rate of growth, which reaches its limits when available investment outlets fall behind the investment-seeking portion of surplus. 'And it should be remembered that this upper turning point may be reached long before full utilization of capacity or full employment of labor is achieved' (*ibid.*, 88). Hence, business cycles, characterised by alternating periods of downturn and upturn, recur.

explained as consequences of the basic laws of capitalist development, rather than as factors giving rise to new laws – as is attempted by Baran and Sweezy’. In this sense, the monopoly stage of capitalism, as it were, is less a qualitatively new phase of capitalism than a natural result of capitalist dynamics. These dynamics, which have existed since the nineteenth century, give rise to new conjunctures that periodically replace the old ones. Paul Mattick (2007, 187) makes a similar point by noting that value relations in production are primary to price relations in the market, which means that the restructuring of market relations – that is, from small entrepreneurs to monopolies – does not introduce a qualitative rupture to the capitalist mode of production. Moreover, Mattick (*ibid.*, 188) emphasises that Marx’s ‘theory of capital competition is at the same time a theory of monopoly, and monopoly, in this sense, always remains competitive’. These concepts and arguments used by Shaikh and Mattick will be explained and discussed in the next section along with the falling-profit-rate theory.

2.3 The Falling-Profit-Rate Theory

The falling rate of profit was an important point of reference in classical political economy. For example, Adam Smith (1981, 266) writes in *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776/1981) that ‘the rate of profit does not, like rent and wages, rise with the prosperity, and fall with the declension of the society. On the contrary, it is naturally low in rich, and high in poor countries’. Smith (*ibid.*, 106–107) explains this peculiar phenomenon, at least in part, with reference to two causes: higher demand for labour-power which raises wages; and greater competition between capitalists which decreases prices. Smith grants these processes the power to make capitalism – or “commercial society”, as he calls it – a fairly equal social system, allowing even workers to live better lives (see Saastamoinen 2011). However, as we saw above (see section 1.2), capitalism produces not only economic growth, but also drastic differences in income and wealth, the latter of which can take effect through wage reductions. As income and wealth inequality has only worsened since the 1980s, especially in the Global North, Smith’s theory seems to have failed to capture the full nature of capitalist dynamics.⁴²

⁴² It should be noted, however, that Tsoulfidis and Paitaridis (2012) argue this conventional interpretation of Smith’s explanation of the falling rate of profit to be misleading. According to them, Smith’s exposition rather starts from the profit motive which leads capitalists to implement capital-intensive methods of production that allow the further division of labour, higher productivity, and lower unit costs. Then, due to capitalists increasing the part of surplus that is used for depreciation, the relative share of profits falls.

Marx, on the other hand, gives the phenomenon of a falling rate of profit another explanation; it is, in short, a result of the rising organic composition of capital (i.e. mechanisation). This point gets directly at the root of the capitalist mode of production, as it captures both the profit motive as well as the class struggle between capital and labour. In this section, we will not only discuss what Marx means by this idea, but also see that his hypothesis has stood the test of time quite well. In effect, I will follow writers such as Shaikh (1978; 1987; 1999; 2010) and Fred Moseley (1991; 1992; 1997) in arguing that Marx's theory of the falling rate of profit is crucial to crisis theory.

The falling-profit-rate theory is in conflict with monopoly capital theory, since the latter claims that the lack of effective demand for consumer goods, the absence of perfect competition, and the economic stagnation introduced by monopolies to the capitalist economy counters the tendency of the rate of profit to fall (Baran & Sweezy 1968, 72; Sweezy 1984b, 34–35). In this regard, Sweezy's own observation that the remarkable rate of growth of the financial sector from the 1960s onwards transformed the U.S. economy in significant ways is particularly interesting: Sweezy seems to have had suspicions that the picture depicted by Baran and him of a stagnant corporate life and private sector ruled by monopolies was not the full truth about the contemporary workings of the capitalist mode of production (see Foster 2006, 3–5). In a similar vein, Cédric Durand writes:

Up until the 1970s, big, diversified conglomerates predominated. [...] However, the 1980s and 1990s saw a major reconfiguration process. Out of the fifty-four US firms who featured among the world's leading 100 firms in 1912, only seventeen still appeared on this list in 1995, and only twenty-six had a greater capitalisation in 1995 than in 1912. This decline did not result mainly from the rise of the digital economy's new giants (Microsoft and Apple were at this point still far from these heights, and Google and Facebook did not yet exist). Rather, it owed more to a phenomenon linked to a progressive loss of the advantages of integration as well as a tendency toward specialisation. The continual reduction of transport and communication costs improved market fluidity and the robustness of transactions. It thus diminished the problems of technical and commercial interdependence associated with specific assets, which had hitherto justified vertical integration. Moreover, with rising living standards, demand itself evolved, turning away from standardised products and toward differentiated goods and services. (Durand 2017, 128–129)

I will argue in this section that the monopoly capital school's conception of monopoly capitalism as a new "stage" of capitalism overemphasises phenomena that are merely conjunctural, not structural or systemic. I will assert that the capitalist mode of production is still based on the same "laws of motion", as it were, as it was in the nineteenth century,

Finally, the growing capital–output ratio results in a falling rate of profit. In this sense, following Tsoulfidis and Paitaridis' reading, the intensification of competition between capitalists is actually an effect of a falling rate of profit, not its cause. This reading of Smith comes strikingly close to how Marx understands the falling rate of profit.

although these laws have given rise to an astonishing variation of different kinds of conjunctures. It will also follow that capitalist crisis tendencies seem to have not changed in any qualitatively meaningful way.

Firstly, I will discuss whether capitalism functions on the basis of consumption (monopoly capital theory) or profit (falling-profit-rate theory). Then, I will introduce the most important concepts and insights of Marx's labour theory of value, which will, thirdly, allow us to understand the tendency of the rate of profit to fall. Finally, I will present the model of real competition constructed by Shaikh, which questions the validity of the theory of imperfect competition constructed by Baran and Sweezy and explains why capitalists choose to implement new production methods and machinery that end up reducing their rates of profit. Real competition will also help us understand that monopolies, understood as the only "non-competitive" supplier or seller of a commodity, have actually not played a very central role in the U.S. economy after all.

2.3.1 Consumption or Profit?

The underconsumptionist strand of crisis theory is premised on the notion that the capitalist economy functions on the basis of consumption needs (Shaikh 1978). The idea is simple: enterprises, who produce goods and services, go bankrupt when an insufficient number of consumers buy their products, that is, when there is not enough effective demand for their goods and services (see Foster & Magdoff 2009, 27–28). This conception, adopted by the monopoly capital school, is also expressed by Keynes (2013, 104): 'Consumption – to repeat the obvious – is the sole end and object of all economic activity'.

However, in the context of Keynes' theory, the argument that capitalism pursues to fulfil consumption needs is in conflict with a passage found in the beginning of *The General Theory of Employment, Interest and Money* (1936/2013):

When employment increases, aggregate real income is increased. The psychology of the community is such that when aggregate real income is increased aggregate consumption is increased, but not by so much as income. Hence employers would make a loss if the whole of the increased employment were to be devoted to satisfying the increased demand for immediate consumption. Thus, to justify any given amount of employment there must be an amount of current investment sufficient to absorb the excess of total output over what the community chooses to consume when employment is at the given level. (Keynes 2013, 27)

It seems that herein lies a contradiction, since if capitalism truly functioned to fulfil consumption needs, there would be neither excess product nor a mismatch between aggregate real income and consumption. Mattick (1971, 12) puts forth a similar point by writing that, insofar as Keynes thinks that the level of effective demand in a "mature" society can

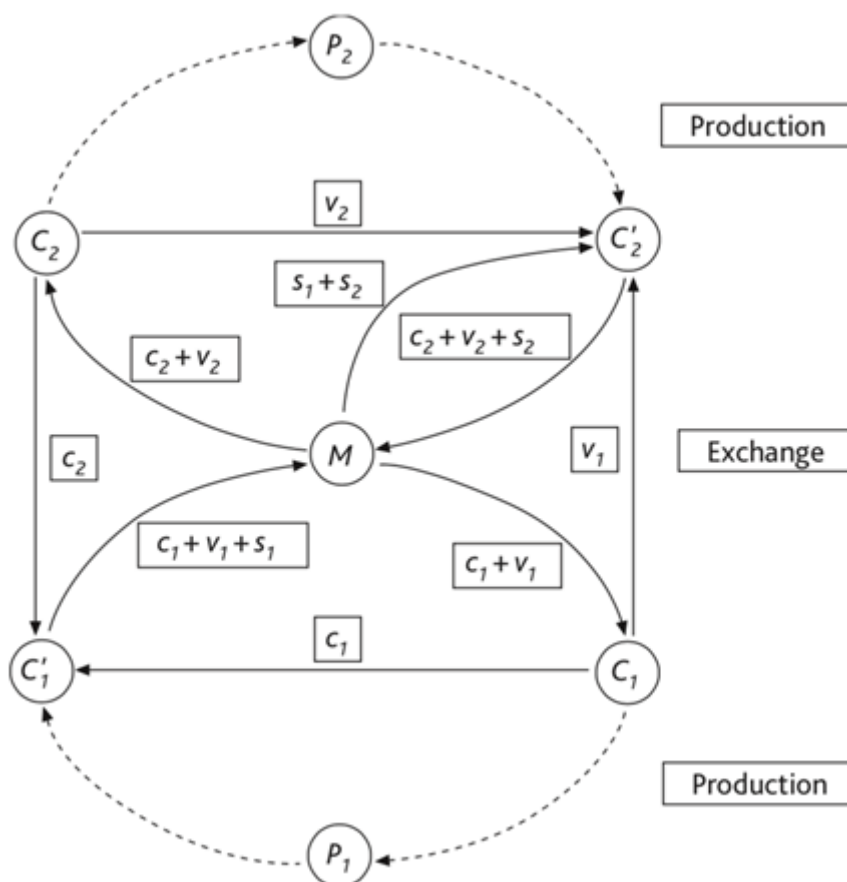
be raised by increasing consumption, '[h]e thus admits to a difference between what he considers the community's chosen propensity to consume and the actually existing social consumption needs. This admission implies, of course, that consumption is not the end of economic activity in capitalism'. On some level, Keynes (2013, 27–32) seems to realise this as well when he argues that the two psychological characteristics of humans – namely, propensity to consume and inducement to invest – determine the level of effective demand and employment in the capitalist economy; that is, the supply of investment plays a great role.

If it is not consumption that drives capitalism, what does? Marx provides an answer to this question in the third volume of *Capital* (1894/1991):

It is that capital and its self-valorization appear as the starting and finishing point, as the motive and purpose of production; production is production only for *capital*, and not the reverse, i.e. the means of production are not simply means for a steadily expanding pattern of life for the *society* of the producers. The barriers within which the maintenance and valorization of the capital-value has necessarily to move – and this in turn depends on the dispossession and impoverishment of the great mass of the producers – therefore come constantly into contradiction with the methods of production that capital must apply to its purpose and which sets its course towards an unlimited expansion of production, to production as an end in itself, to an unrestricted development of the social productive powers of labour. (Marx 1991, 358)

Capitalist production is carried out with the intent of making profit, which is reinvested in production in order to make more profit, resulting in the accumulation of capital goods. In this sense, consumption is only one intermediary step towards realising profit, which is why Mattick (1971, 13) writes that 'capitalist production is oriented not towards consumption needs but towards the production of capital. Capitalism must produce in order to consume, it is true; but in order to produce it must first see the green light of profitability'.

FIGURE 2.2 Economic reproduction in capitalism. Source: Fine & Saad-Filho 2016, 55.



Like Mattick, Shaikh (1978) adopts Marx's conception of capitalist production and uses it to critique the underconsumptionist strand of crisis theory. As we saw above (see section 2.1), underconsumptionists are sceptical of the ability of capitalism to produce steady growth without obtaining the source of such growth from outside capitalism. Marx rejects this view by differentiating between two departments of the capitalist economy: Department I (i.e. $M_1 - C_1 \dots P_1 \dots C'_1 - M'_1$) depicts the production of producer goods (i.e. means of production); and Department II (i.e. $M_2 - C_2 \dots P_2 \dots C'_2 - M'_2$) represents the production of consumer goods.⁴³ Figure 2.2 expresses the relations between Department I and Department II and how economic reproduction happens in the capitalist economy.⁴⁴ It is clear that the level of effective demand depends not only on the workers' demand of

⁴³ Marx discusses Department I and Department II in the second volume of *Capital* (1885/1992).

⁴⁴ Figure 2.2 represents simple reproduction in the sense that all the surplus-value ($s_1 + s_2$) is used to buy consumer goods (C'_2). In the real world it is far more common that a large share of the surplus-value is invested, which results in the accumulation of capital. In section 3.3 we will see, however, that the level of investment has been declining in the U.S. from the late twentieth century onwards.

consumer goods ($v_1 + v_2$), but also on the distribution of money used for purchasing producer goods ($c_1 + c_2$) and money received as profits ($s_1 + s_2$). Building on this distinction, Shaikh assumes a one-year production process in order to make a crucial point:

Capitalists decide the level of production they would like for the current year. They therefore buy a certain amount of producer goods, and hire a certain number of workers; the workers in turn use their wages to buy consumer goods. At the same time, capitalists also must buy a certain amount of consumer goods for their own personal consumption over the year. Notice that the effective demand originates entirely with the capitalist class: workers' wages are part of the year's gross investment expenditures by capitalists. [...] At the beginning of the year, therefore, it is the capitalist class through its consumption and investment expenditures which determines effective demand. But who sells the commodities? Why, the capitalist class, of course! The beginning of this year is also the end of the last year; it is therefore also the time when the finished product of the last year's production process becomes available. Last year's production provides the capitalist class with the commodity supply available for sale during this year; this year's expenditures by the capitalist class on gross investment and personal consumption determine the effective demand for that commodity supply. (Shaikh 1978, 226–227)

By emphasising that the demand for consumer goods dictates capitalist production, the underconsumptionist strand is blind to the fact that the profit-seeking activities of capitalists are the ones which generate the demand for consumer goods by regulating the levels of production and effective demand. Therefore, as the effective demand originates within the capitalist class, steady growth is by no means impossible in capitalism, especially when the element of time is considered. Moreover, Shaikh (1978, 230) points out that monopoly capital theory is not really able to explain why monopolies would over-expand productive capacity when they are faced with insufficient demand. Since the monopoly capital school gives no explanation for why monopolies would do so, there is no reason to assume that the effective demand generated by capitalists this year would be insufficient to meet the demand for last year's consumer and producer goods. The capitalist economy is organised to create profit, and the demand for consumer goods is only one intermediary step in doing so.

2.3.2 Labour Theory of Value

To understand Marx's argumentation regarding the tendency of the rate of profit to fall, we need to start from his labour theory of value.⁴⁵ Marx (1991, 927; 1992, 120; see also Shaikh 1977, 110) is interested in studying the kinds of social relations through which each social formation reproduces its own existence. One difference between earlier modes

⁴⁵ Marx introduces his labour theory of value in the first volume of *Capital* (1867/1990).

of production and the capitalist one is that resources are largely allocated through different types of markets,⁴⁶ which leads Marx (1990, 127–128) to examine how the widescale exchange of products of labour is even possible in capitalism. It is insufficient to simply state that two products of labour are exchangeable with each other – namely, that they have the same price – because then the real question remains unanswered. That is, why do two products of labour have the same price? Marx’s answer is that different kinds of products of labour are exchangeable with each other because they all contain the same amount of *value*.

Marx (1990, 125–127; see also Shaikh 1977, 112–113) differentiates between use-value and exchange-value: the former stands for the usefulness of each product of labour; and the latter refers to the relation that one product of labour has to other products of labour in exchange, namely, its price.⁴⁷ Related to this, Marx (1990, 131–137) introduces his notion of the “dual character of labour” which refers to two dimensions of labour: *concrete* labour produces use-values; and *abstract* labour produces values, which are expressed in exchange-values. Before explaining what value means, it is important to understand that concrete labour and abstract labour are not two different acts of labour, but two dimensions of one act of labour that a worker carries out when she uses her body in the labour process.

For Marx, products of labour become *commodities* in a mode of production where one act of labour includes both concrete and abstract labour. In such a mode of production, products of labour thus contain use-values, values, and exchange-values, which makes them commodities. Even human labour-power is a commodity in capitalism because it is allocated in the labour market; labour-power is exchanged in the market for money, for a wage (Marx 1990, 270–272). Conversely, in a mode of production where workers own their means of production, they do not have to sell their labour-power as a commodity in order to survive, as they can just sell the products of their own labour.⁴⁸

⁴⁶ In this sense, neoclassical and Keynesian economics are based on the bartering of equals in the market; according to them, exchange is always, notwithstanding some special circumstances, carried out between equally valuable goods. This means that, whereas Marxists study the social relations through which new value is created, neither neoclassical nor Keynesian economics ponder upon the question of what, or who, produces the additional value when equivalents are bartered. The latter two concentrate exclusively on market exchange and subjective valuations, which is why their conceptions of value can be understood as “subjective” theories of value, as opposed to Marx’s “objective” theory of value (see Pilling 2012a; 2012b).

⁴⁷ Every product of labour has use-value, but not all products of labour have exchange-value. Moreover, the use-value of some products is their exchange-value (e.g. banknote).

⁴⁸ It is important to understand that, as a social relation, wage-labour is rather young, and that it becomes a prevalent social relation only in capitalism. For instance, the feudal mode of production was largely based

Marx defines value, as distinct from use-value and exchange-value, as follows:

A use-value, or useful article, therefore, has value only because abstract human labour is objectified (*vergegenständlicht*) or materialized in it. How, then, is the magnitude of this value to be measured? By means of the quantity of the “value-forming substance”, the labour, contained in the article. This quantity is measured by its duration, and the labour-time is itself measured on the particular scale of hours, days etc. [...] The total labour-power of society, which is manifested in the values of the world of commodities, counts here as one homogeneous mass of human labour-power, although composed of innumerable individual units of labour-power. Each of these units is the same as any other, to the extent that it has the character of a socially average unit of labour-power and acts as such, i.e. only needs, in order to produce a commodity, the labour time which is necessary on an average, or in other words is socially necessary. Socially necessary labour-time is the labour-time required to produce any use-value under the conditions of production normal for a given society and with the average degree of skill and intensity of labour prevalent in that society. (Marx 1990, 129)

As Marx explains here, value is *socially necessary labour-time* that has been objectified or materialised in a product of labour. In each moment, every social formation has general social conditions of forces and relations of production under which it takes some average amount of labour-time to produce one commodity. The more socially necessary labour-time is objectified in one commodity, the more value it has, which means that, under normal conditions, the commodity tends to have a higher price as well.⁴⁹ Furthermore, whereas the means of production merely transfer value objectified in them, human labour-power creates new value, which makes it an essential part of the production process in capitalism (Caffentzis 1997).

Marx (1990, 340–344) argues that the capitalist working day has two parts: during necessary labour-time, workers produce output that equals the value of their labour-power; and, during surplus labour-time, workers produce surplus-product that equals surplus-value. Workers receive the amount of value produced during necessary labour-time as wages, whereas surplus-value produced during surplus labour-time is appropriated by capitalists. When capitalists realise the value of total output – that is, when they exchange total output for money in the market – they realise the total value of means of production, labour-power, and surplus-product, leaving them with revenue (Shaikh 1981, 274). When production costs are subtracted from revenue, profit – namely, the money-form of surplus-value – remains. The same point can be expressed as follows: the difference between

on the exploitation of peasants who owned and farmed their own lands and were therefore relatively independent in the reproductive/economic sense – that is, they owned the means of production. Landlords did not appropriate the products of peasants’ labour by means of wage-labour, but peasants were, in the form of tax, obliged to either work on the lord’s lands or deliver a portion of their product to the lord. Peasants were aware that they were doing labour for someone else’s benefit, whereas in capitalism the wage relation conceals this fact. (Comninel 2012; Hilton 1976; Meiksins Wood 2012.)

⁴⁹ Another important point of Marx’s labour theory of value is that the average amount of socially necessary labour-time, which is objectified in a commodity, serves as the centre around which prices gravitate. If prices deviate too much from the average amount of socially necessary labour-time, it causes problems for the economy.

the value of human labour and the value of labour-power equals surplus-value, on which profits are based (Fine & Saad-Filho 2016, 32–36). Marx discovers unpaid surplus-labour at the heart of profit, which structurally causes wealth to “trickle” upwards in capitalism. Engels (1990, 111) explains the importance of this discovery by writing that ‘classical political economy never went beyond the received notions of profits and rents, never examined this unpaid part of the product (called by Marx surplus product) in its integrity as a whole, and therefore never arrived at a clear comprehension, either of its origin and nature, or of the laws that regulate the subsequent distribution of its value’.

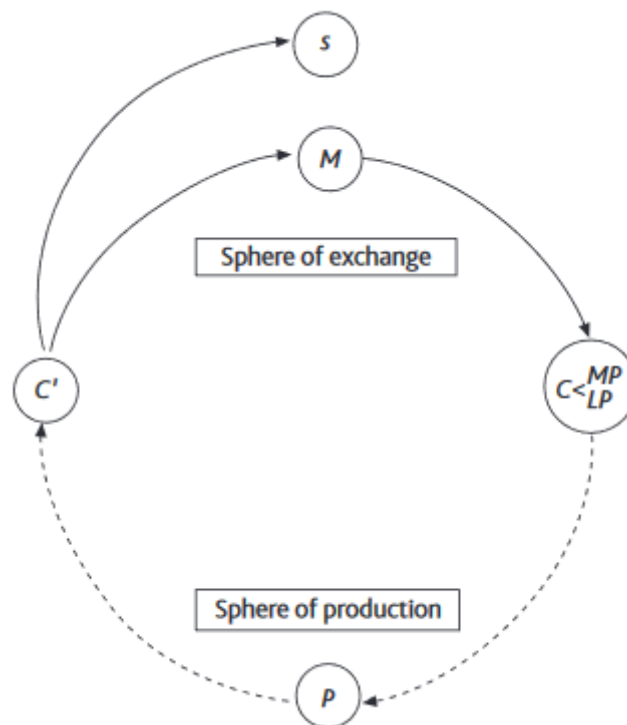
Marx (1990, 932) writes that ‘capital is not a thing, but a social relation between persons which is mediated through things’, which functions in the sense that ‘a sum of value is cast into circulation in order to extract a greater sum’ (Marx 1991, 132).⁵⁰ Different things take on the role of capital during the course of the circulation of capital: the circulation of capital is initiated by the capitalist who uses money-capital (M) to buy commodities (C)⁵¹; then, these commodities are used in the production process (P) in order to produce more commodities ($C' = C + \Delta C$); and, finally, the capitalist realises the value of total output in the market for more money ($M' = M + \Delta M$) (Marx 1992, 109–139). Therefore, Marx (1990, 247–257) depicts the circulation of industrial capital as: $M - C \dots P \dots C' - M'$ (see Figure 2.3).⁵²

⁵⁰ This definition is in sharp contrast to the way in which the orthodoxy of economics understands capital, that is, as a thing, as a mere factor of production (see Foster 2014, 25).

⁵¹ More specifically, the commodities that money-capital purchases are fixed and circulating means of production and human labour-power. The share of money-capital used to buy the means of production is called “constant capital” and the share used to buy human labour-power “variable capital”.

⁵² Especially in the case of capitalists, the production process seems intuitively as nothing more than capital growing by itself, the circulation of capital being reduced to mere: $M - M'$. Marx (1990, 169) calls these kinds of intuitive, and also practical, conceptions of the capitalist mode of production “objective thought-forms”, which should not be equated with ideology, per se (see Kyyrönen 2020, 68–73).

FIGURE 2.3 The circuit of capital. Source: Fine & Saad-Filho 2016, 49.



Marx formulates two formulae in order to illuminate the workings of the capitalist mode of production. The first formula is the rate of surplus-value⁵³ which expresses the ratio of surplus-value (s) to variable capital (v) (Marx 1990, 320–329). Shaikh (1978, 232) explains that, ‘[o]ther things being equal, the greater the rate of exploitation the greater the amount of surplus value and hence the greater the profit’. The rate of surplus-value (e) is thus written as:

$$e = \frac{s}{v}$$

Let us assume that ten workers produce commodities worth \$1,600 during an eight-hour working day at a given level of technology and work intensity, and that these ten workers are each paid a wage worth \$10 per hour, adding up to \$800 per working day for all ten workers. Additionally, the capitalist has to invest in the circulating and fixed means of production, which in this example are worth \$200 per one working day. Once production costs are subtracted from the total product, surplus-value amounts to \$600 per working day, which means that the rate of surplus-value is:

⁵³ The rate of surplus-value is the form obtained by the rate of exploitation in capitalism (Sweezy 1962, 64).

$$e = \frac{s}{v} = \frac{\$600}{\$800} = 0.75 = 75\%$$

Marx (1990, parts 3 & 4) distinguishes between absolute and relative surplus-value, which refer to two ways in which the production of surplus-value can be increased. Absolute surplus-value can be increased in the *absolute* sense either by lengthening the duration of the working day or by forcing workers to work with higher intensity. However, this approach has natural limits because workers need sleep and they cannot work at an ever-quicken pace. Relative surplus-value, on the other hand, is not as limited: the production of surplus-value can also be increased in the *relative* sense by lowering the value of the products that workers need for their reproduction; without lengthening the working day as such, this makes it possible to reduce the part of the working day during which workers reproduce their own existence.⁵⁴ Necessary labour-time is shortened by increasing the productivity of labour which is, in turn, achieved by virtue of improving the efficiency of the means of production. ‘The tendency towards mechanization is therefore the dominant capitalist method of raising the social productivity of labor’, as Shaikh (1978, 233) writes.

The second formula constructed by Marx (1991, 132–162) is the rate of profit⁵⁵, which expresses the ratio of surplus-value (s) to the total capital, which consists of constant capital (c) and variable capital (v). Thus, the rate of profit (r) is written as:

$$r = \frac{s}{c + v}$$

This rate comes closest to the ones in which capitalists are most interested because it tells them how successful their money-capital has been in its quest to grow. Applying the numbers of the previous example, the rate of profit for one working day is:

$$r = \frac{s}{c + v} = \frac{\$600}{\$200 + \$800} = \frac{\$600}{\$1,000} = 0.60 = 60\%$$

This means that the capitalist invested an amount of \$1,000 in a one-day process of production and was able to appropriate revenue worth \$1,600 and profit worth \$600, which

⁵⁴ The products consumed by workers are usually called “wage goods”. In this sense, increasing the production of relative surplus-value is the same as increasing workers’ real wages, which then makes it possible to cut workers’ money wages, leaving the capitalist with more surplus-value and profit.

⁵⁵ Marx formulates the rate of profit as well as the tendency of the rate of profit to fall in the third volume of *Capital* (1894/1991).

is 60 percent of the initial investment.⁵⁶ We will see next why Marx thinks that the rate of profit has a tendency to fall in capitalism.

2.3.3 Tendency of the Rate of Profit to Fall

Marx's (1991, 318–319; see also Cogoy 1987, 18–20) argument is that, since capitalist relations of production drive capitalists to implement labour-saving production technology, which not only helps capitalists increase the production of relative surplus-value, but also allows them to beat other capitalists competing against them, the ratio of constant capital (c) to variable capital (v) increases. In other words, greater mechanisation creates the rising tendency of the “organic composition of capital” (c/v) which, *ceteris paribus*, causes the rate of profit to fall.

Before discussing the tendency of the rate of profit to fall as such, we should define what the concept of the organic composition of capital means. In general, the composition of capital expresses the ratio of constant capital to variable capital. Marx (1991, 244–245) identifies three different types of composition of capital. The first is called the *technical* composition of capital, and it refers to the number of workers and the mass of means of production used in different branches of production at a certain moment. However, Marx (*ibid.*, 244) also notes that ‘[c]ertain operations in copper or iron, for example, may involve the same proportion between labour-power and means of production. But because copper is dearer than iron, the value relationship between variable and constant capital will be different in each case, and so therefore will the value composition of the two capitals taken as a whole’. Thus, the *value* composition of capital considers the composition of capital in value terms, as opposed to physical quantities. Finally, Marx (*ibid.*, 245) defines the *organic* composition of capital as the ‘value composition, in so far as this is determined by its technical composition and reflects it’. Therefore, the organic composition of capital considers both the technical and value side of the composition of capital.

The brief exposition of the three types of composition of capital provided by Marx has spurred a variety of further definitions within research literature. Ben Fine and Alfredo Saad-Filho (2016, 89–93) follow Marx in defining the technical composition of

⁵⁶ It is important to understand that profit-maximisation is not a question of (un)ethical decision-making, but an objective requirement of the capitalist social system. Without capitalists striving to make profit, every small economic fluctuation would cause businesses to go bankrupt, in which case the capitalist social system would fail at reproducing itself. ‘Profit is the excess of price over operating costs, and no capital is assured of any profit at all, let alone the “normal” rate of profit. Indeed, all capitals face losses at some point, and a certain number drown in red ink in every given interval’ (Shaikh 2016, 260).

capital as the physical ratio of the material inputs to the living labour socially necessary to transform these inputs into the output, and the value composition of capital as this same ratio expressed in value terms, that is, in terms of socially necessary labour. However, Fine and Saad-Filho interpret the organic composition of capital as a measurement of the technical composition of capital in value terms when the differences created by the larger or smaller value of the raw materials used is disregarded. This means that the organic composition of capital measures changes in production methods and machinery in value terms; even if the value composition of capital varies, the organic composition does not change if the technical composition does not either.

Fred Moseley (2015, 337–339), on the other hand, argues that the value composition of capital should be defined in money terms, namely, as the ratio of money constant capital to money variable capital. Moreover, Moseley defines the organic composition of capital as the value composition with the exception that the denominator is an index of the number of workers employed, assuming an equal wage rate across industries. This allows Moseley to exclude the effects that unequal quantities of labour and unequal wage rates across industries would have on the organic composition of capital. However, it is unclear how this definition relates to Moseley's (1991, 3–4, 65) previous definition of the organic composition of capital as the value composition of capital which is affected only by technological change. In this earlier, applied study, Moseley operationalises the organic composition of capital as the ratio of the stock of constant capital to the annual flow of new value, the last of which equals the sum of variable capital and surplus-value. This way of defining the organic composition excludes the effects of the average real wage, the distribution of labour and capital across industries, the turnover time of capital, and the incidence of multiple shifts in the utilisation of production facilities.⁵⁷

Finally, Moseley (1991, 3) notes that '[m]any writers simply ignore the distinction between the organic composition and the value composition and define the organic composition as the ratio of constant capital to variable capital without qualification, i.e. as the value composition'. This road seems to have been taken by Michael Roberts (2016; see also Carchedi & Roberts 2018) who describes the organic composition of capital simply as the ratio of constant capital to variable capital, thus dismissing what the differences

⁵⁷ In section 3.3 below, the presentation of Moseley's research findings regarding the organic composition of capital in the U.S. economy will be based on Moseley's earlier definition of the organic composition of capital.

between technical, value, and organic compositions of capital might entail for the operationalisation of Marx's terms.

The rate of profit has a tendency to fall under capitalist social relations due to the rising tendency of the organic composition of capital (i.e. mechanisation of production). Shaikh (1978, 233) makes this point by elaborating on the profit-rate formula. Surplus-value equals the difference between the value of human labour (L) and the value of labour-power (v). In an ideal situation for capitalists, the value of labour-power is zero, meaning that no wages need to be paid.⁵⁸ When we place this condition in the profit-rate formula, we get:

$$r = \frac{L - v(= 0)}{c + v(= 0)} = \frac{L}{c}$$

The organic composition of capital (c/v) is inversely proportional to this version of the profit-rate formula (L/c); the tendency of the organic composition of capital to rise leads to the tendency of the rate of profit to fall. This is, according to Marx, one of the most serious deficiencies of capitalism. Capitalism is based on capitalists making profit, but the inherent tendency of capitalist social relations to mechanise production causes the ratio of profits to total investment to fall. This leads to the intensification of the crisis tendencies inherent to capitalism due to the fact that now capitalists either go out of business or must resort to unstable means of profit-maximisation.

In addition, Simon Clarke (1994, 65–66) and Mario Cogoy (1987, 19) use a third way to express the profit-rate formula:

$$r = \frac{s/v}{c/v + 1}$$

Here the ratio of constant capital to variable capital serves as the denominator. This underlines that the organic composition of capital is inversely proportional to the rate of profit: when the organic composition rises, the rate of profit falls; and *vice versa*. We also notice that the rate of surplus-value (s/v) is now the numerator, which means that a rising rate of surplus-value has the power to counter the effects of the rising organic composition of capital – a rising rate of surplus-value can keep the trend of the rate of profit constant or even upward all the while the organic composition of capital rises. This is an important observation for the final chapter where I will discuss how the falling rate of profit impacted the 2007–09 financial crisis (see section 3.3).

⁵⁸ I.e. if $s = L - v$ and $v = 0$, then $s = L$.

It is important to underline that, logically speaking, the tendency of surplus to rise, as it is defined by Baran and Sweezy (see section 2.2.3), does not necessarily contradict the tendency of the rate of profit to fall, since profits can both grow in *absolute* terms and fall in *relative* terms. That is, as long as the total capital grows faster than the amount of surplus-value, the rate of profit can fall concurrently with a growing amount of surplus-value. It is therefore somewhat unclear why Baran and Sweezy are so vehemently against the falling-profit-rate theory.

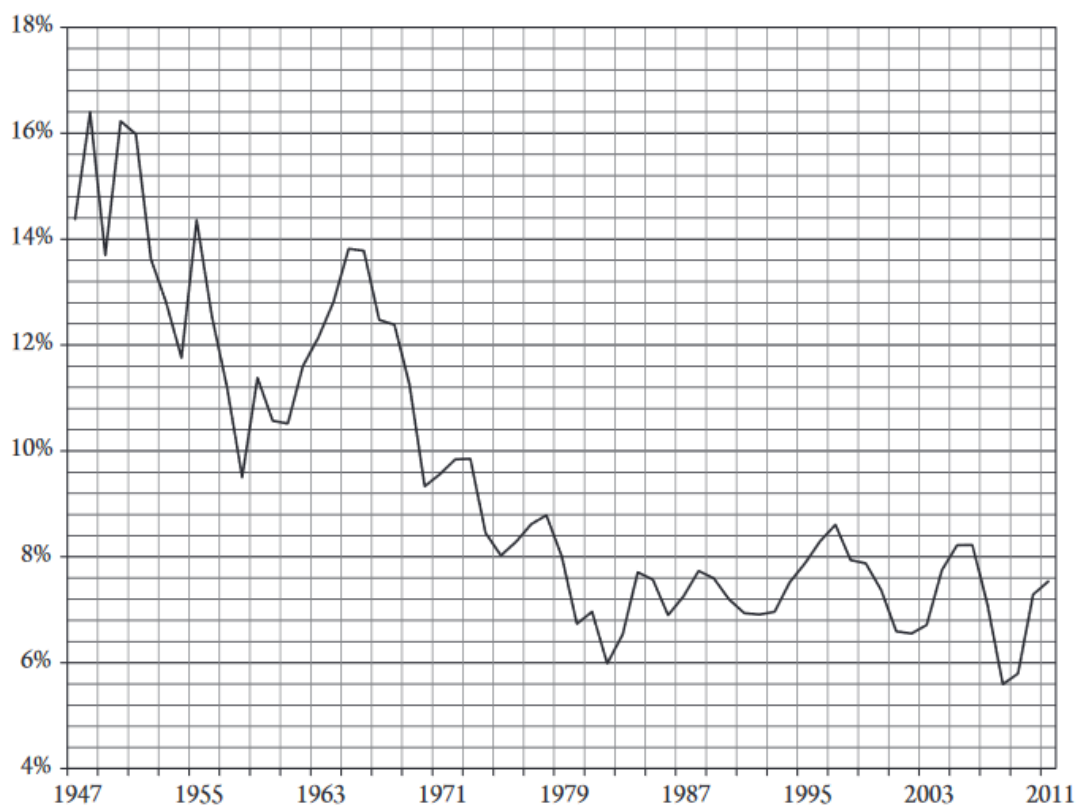
Although Marx defines the rate of profit as the ratio of surplus-value to the total capital, the last of which equals the sum of fixed and circulating constant capital and variable capital, it seems that, in research literature, there is a tradition of operationalising the rate of profit by reducing surplus-value to net operating surplus⁵⁹ and the total capital to mere constant capital, which excludes variable capital. Both the numerator and the denominator are measured in current cost, which means that the resulting profit rate is also the real profit rate. (Shaikh 2016, 243–244.) Moreover, Moseley (1991, 75–76) argues that surplus-value should be considered as an annual flow measure and the total capital as a stock measure. Moseley thus excludes variable capital from the denominator of the rate of profit, since the stock of variable capital is close to zero. This also makes sense when Marx’s argument about the growing role of constant capital relative to variable capital is considered. Furthermore, Shaikh (1999, 106–107) argues that one should use the gross stock of capital as the denominator in the profit-rate formula, and not the net stock, since the net stock creates an upward bias in the estimates of age-related changes in profitability.⁶⁰ Nonetheless, Shaikh (2016, 65–66) also shows that the U.S.

⁵⁹ “Net operating surplus” equals ‘the excess of conventionally measured value added over indirect business taxes and wages, and comprises corporate profits, the income of unincorporated enterprises, net interest, and net business transfers’ (Shaikh 1999, 106). That is, net operating surplus is ‘the sum of corporate profits, non-corporate business income, net interest paid by businesses, and net business transfers’ (*ibid.*, 108).

⁶⁰ Shaikh (1999, 106–107) mentions the following example. Assume a set of production machinery costing \$1000 with a four-year lifetime, which has an annual depreciation cost of \$250. This means that the capital tied up in the machinery will be \$1000 in the first year, \$750 in the second, \$500 in the third, and \$250 in the fourth, and the accumulated depreciation will be, respectively, \$0, \$250, \$500, and \$750. This means that during these four years the capital value returns to its money-form due to the depreciation of the fixed capital assets. Shaikh (*ibid.*, 106) writes that these accumulated depreciation allowances ‘count just as much as part of total capital value as does the depreciated value of the machines, for it is the recovery of the sum of the two which allows for the continuation of the enterprise’. This measure, which includes both the depreciated value of the machines and the accumulated depreciation allowances, is called the “gross stock of capital”, as opposed to the “net stock of capital”, which includes only the capital tied up in machines. If the annual profit flows during the four-year lifetime of the production machinery were to be, respectively, \$100, \$75, \$50, and \$25, then the gross capital stock measure would produce a rate of profit of, respectively, 10 percent, 7.5 percent, 5 percent, and 2.5 percent, whereas the net capital stock measure would produce a stable rate of profit of 10 percent for each year. Shaikh (*ibid.*, 107) concludes that ‘[t]he issue here is not the existence of a measure of net stock, since that is merely the dual of a measure of depreciation, but of its

corporate rate of profit expresses a falling tendency between 1947 and 2011 even when the rate of profit is defined as the aggregate net operating surplus divided by the net capital stock (see Figure 2.4).

FIGURE 2.4 U.S. corporate rate of profit, 1947–2011. Source: Shaikh 2016, 66.



In order to separate conjunctural/cyclical influences from secular/systemic processes, Shaikh (1999, 107–108; 2016, 824) distinguishes between the “normal” rate of profit and the “actual” rate of profit. The normal rate of profit, which is used to examine structural/systemic trends, is derived from adjusting the actual rate of profit to the rate of capacity utilisation. The actual rate of profit is then the one that shows conjunctural/cyclical phenomena as well.⁶¹

A crucial aspect of the falling tendency of the rate of profit consists of studying the “counteracting factors” of this tendency. Marx (1991, 339–348) identifies six such factors, which are more intense exploitation of labour, reduction of wages below the value

use in estimating the rate of return on capital. Businesses prefer gross stock precisely because it enables them to assess the changing profitability of an asset over its lifetime, and for the same reason, I will use gross stock throughout’.

⁶¹ For mathematical expressions of the normal and actual rates of profit, see Shaikh (1999, 108; 2016, 824–826).

of labour-power, cheapening of the elements of constant capital, the relative surplus population, foreign trade, and the increase in share capital. Marx assesses the power of these counteracting factors over the tendency of the rate of profit to fall:

We have shown in general, therefore, how the same causes that bring about a fall in the general rate of profit provoke countereffects that inhibit this fall, delay it and in part even paralyse it. These do not annul the law, but they weaken its effect. If this were not the case, it would not be the fall in the general rate of profit that was incomprehensible, but rather the relative slowness of this fall. The law operates therefore simply as a tendency, whose effect is decisive only under certain particular circumstances and over long periods. (Marx 1991, 346)

Marx sees the counteracting factors as powerless to overcome the tendency of the rate of profit to fall in the long run; they can only cause momentary delays to, and recoveries of, the falling rate of profit. The complex dynamics of the falling rate of profit and the counteracting factors is the reason why the fall in the rate of profit was an incomprehensible question for classical political economy.⁶²

Apart from the increase in share capital which concerns how the rate of profit is calculated⁶³, I have listed the counteracting factors identified by Marx in Table 2.2. In addition, I have included other forces mentioned by Marx (1990) and Sweezy (1962, 106–108) which also affect capitalist social relations and/or the rate of profit. In total, there are thirteen forces in Table 2.2, seven of which are Marx's, and six of which are Sweezy's. I have defined each force based on whether it can be considered pro-labour or pro-capital, and I have also mentioned what kind of an effect each force has on the organic composition of capital (c/v), the rate of surplus-value (s/v), and the rate of profit (s/C).⁶⁴

⁶² Inasmuch as the methodological point of departure of classical political economy was misleading, that is, since classical political economy did not grasp the most elementary features of its object of study, it could not understand the capitalist society as a whole (Marx 1990, 89–90; see also Engels 1990, 111).

⁶³ This is, in any case, the role that Marx (1991, 347–348) seems to grant the increase in share capital in his very brief discussion of it in the third volume of *Capital* (1894/1991). In *The Theory of Capitalist Development* (1942/1962), Sweezy (1962, 97–98) reiterates this view. Today it is clear that the role played by dividends as well as those social groups who live off dividends and reinvest them across industries is not only a matter of calculation, but it would require too much space to discuss it here in all its complexity.

⁶⁴ However, it should be emphasised that the question of the effects of the counteracting factors on the organic composition of capital, the rate of surplus-value, and the rate of profit is very complex. I have included in Table 2.2 only the most common/general effects that these forces have on these three ratios – other possible outcomes exist.

TABLE 2.2 Forces related to the falling tendency of the rate of profit and their effects on the organic composition of capital (c/v), the rate of surplus-value (s/v), and the rate of profit (s/C). Forces mentioned by Marx (1990; 1991) are without a mark, and forces added by Sweezy (1962) are followed by an asterisk. These forces either have no effect (-), a downward effect (\downarrow), or an upward effect (\uparrow). Source: author's elaboration.

Effects → Forces ↓	Pro-la- bour	Pro- capital	Effect on c/v	Effect on s/v	Effect on s/C
(1) Increasing the accumulation of capital	No	Yes	$-\downarrow$	$-\uparrow/\downarrow$	$-\uparrow/\downarrow$
(2) Increasing the productivity of labour	No	Yes	\uparrow	\uparrow	\downarrow
(3) Cheapening the elements of constant capital	No	Yes	\downarrow	-	\uparrow
(4) More intense exploitation of labour	No	Yes	\uparrow	\uparrow	\uparrow
(5) Reduction of wages below the value of labour-power	No	Yes	\uparrow	\uparrow	\uparrow
(6) Relative surplus population	No	Yes	\uparrow	\uparrow	\uparrow
(7) Foreign trade	No	Yes	\downarrow/\uparrow	$-\uparrow$	\uparrow
(8) Employers' organisations*	No	Yes	\uparrow	\uparrow	\uparrow
(9) Export of capital*	No	Yes	\downarrow	\uparrow	\uparrow
(10) Formation of monopolies*	No	Yes	-	-	-
(11) State action designed to benefit capital*	No	Yes	\uparrow	\uparrow	\uparrow
(12) Trade unions*	Yes	No	\downarrow	\downarrow	\downarrow
(13) State action designed to benefit labour*	Yes	No	\downarrow	\downarrow	\downarrow

In short, (1) increasing the accumulation of capital, without increasing the productivity of labour, either has no effect, introduces benefits of scale that help reduce production costs, or reinforces the negotiation power of labour relative to that of capitalists.⁶⁵ (2) Increasing the productivity of labour means the implementation of labour-saving production methods and machinery, which raises the organic composition of capital and the rate of surplus-value while reducing the rate of profit. (3) Cheapening the elements of constant capital decreases the ratio of constant capital to variable capital, has no effect on the rate of surplus-value, and raises the rate of profit due to lower production costs. (4) More intense exploitation of labour can take place by cutting money wages, prolonging the absolute duration of the working day, or increasing productivity – in all of these cases, the organic composition of capital grows, the rate of surplus-value grows, and the rate of

⁶⁵ In other words, the increasing accumulation of capital (without increasing the productivity of labour) reduces the supply of labour-power relative to demand, which tends to raise wages.

profit grows. (5) The same happens when wages are reduced below the value of labour-power. (6) The existence of the relative surplus population puts pressure on those employed to comply with the demands of capitalists. (7) Foreign trade can mean the purchasing of less expensive production machinery and raw materials or the employment of cheaper labour-power, which will, respectively, either reduce the organic composition of capital and raise the rate of profit or increase the organic composition of capital, the rate of surplus-value, and the rate of profit. (8) Employers' organisations strive to reduce production costs and increase profits, which usually takes place by exerting downward pressure on wages. (9) The export of capital helps prevent the negotiation power of labour from growing too strong; it counters the effects that the increasing accumulation of capital would otherwise have on employment. (10) Against Sweezy's claim, monopolies seem to have little impact on these three ratios.⁶⁶ (11) State action designed to benefit capital has the same effects as employers' organisations. (12) Trade unions can help raise the negotiation power of labour, which lowers the organic composition of capital, the rate of surplus-value, and the rate of profit. (13) State action designed to benefit labour does the same.

Finally, it should be highlighted that the falling-profit-rate theory is not a divine prophecy about the predetermined endpoint of capitalism. Rather, the theory expresses the dynamics of capitalist social relations to which humans must submit while living and operating within the capitalist mode of production. The tendency of the rate of profit to fall does not express the movement of capitalism towards its inevitable doom, but it explains why the capitalist mode of production, as it were, requires crises; Marx concludes that, through crises and the devaluation of fixed capitals, the organic composition of capital is lowered and the rate of profit raised (Butovsky & Smith 2012, 48). This means that, for the capitalist class, crises are not merely negative events (Clarke 2012, 91–92). Geert Reuten and Peter Thomas (2011, 88) conclude that 'Marx's articulation of the fall in the profit rate with increases in productivity and the exploitation of labor takes us to the verge of properly political analysis. By focusing on the concrete analysis of each individual conjuncture, it provides us with knowledge of the limits within which capital and therefore *a fortiori* labor are forced to operate in the capitalist mode of production'. Agency

⁶⁶ Although this topic will be discussed more thoroughly in section 2.3.4, it must be mentioned that, in contrast to Baran and Sweezy's claim, the rates of profit of "monopolies" (as Baran and Sweezy define them) seem not to be positively influenced by higher levels of concentration – that is, larger market shares do not correlate positively with higher rates of profit (Shaikh 2016, 373–377, 379).

and, thus, politics should not be understood as being fully predetermined by economic processes in capitalism. Instead, one must recognise how agency is embedded in historically specific social structures and practices.⁶⁷

Let us now move on to the final subsection of this chapter, which will concentrate on the theory of real competition. This theory, constructed by Shaikh, explains why capitalists would choose methods of production which reduce the rate of profit. However, the relation between Shaikh's model of real competition and Baran and Sweezy's theory of imperfect competition is complicated.

2.3.4 Real Competition

Foster (2014, 53) writes that the reason why 'orthodox economists insist so strenuously on the importance of absolutely *perfect* and *pure* competition in their base level of analysis' is that 'general equilibrium theory, and thus the notion that all factors of production receive an income equal to their marginal product, is entirely dependent on perfect and pure competition as an a priori assumption'. The overall thrust of general equilibrium theory is that free markets – that is, the free interplay of supply and demand – tend towards a Pareto optimal general equilibrium, implying heavily that collective intervention in the market by, for example, the state or trade unions is unwarranted. Moreover, general equilibrium theory includes the premise that all "factors of production" – namely, land, labour, and capital – contribute to producing output as much as they receive remuneration for doing so. This means that the wage rate, determined by the laws of supply and demand in the free market, represents a full compensation for the whole labour performed by workers. If there is no perfect competition between economic agents, however, then this construction falters, which provides at least one explanation for why the orthodoxy of economics holds so tightly onto the notion of perfect competition.

Although Foster's point is crucial, it is unclear why he and the rest of the monopoly capital school end up building their own model of imperfect competition on that of perfect competition. If perfect competition is an overly idealised model, then it should by no means be a valid solution to slightly alter its premises in order to arrive at a model that is

⁶⁷ Economic crises can also be conceived of as events which open new possibilities for political and social agency. In this sense, Gramsci (1992, 184) writes that '[i]t may be ruled out that immediate economic crises of themselves produce fundamental historical events; they can simply create a terrain more favourable to the dissemination of certain modes of thought, and certain ways of posing and resolving questions involving the entire subsequent development of national life'.

allegedly better equipped to deal with reality.⁶⁸ This is exactly why Shaikh constructs his model of real competition not on the theory of perfect competition, but on the real functioning of the capitalist economy, on top of which he uses his model to argue that no qualitative rupture in the logic of the capitalist economy has taken place since the nineteenth century, including an alleged transition from competitive capitalism to monopoly capitalism. In this regard, it is highly interesting that Baran and Sweezy's theory of imperfect competition and Shaikh's model of real competition seem to share some attributes. I will first look at the similarities and then the differences between these two theories of competition.⁶⁹

Baran and Sweezy (1968, 67) write that '[t]he abandonment of price competition does not mean the end of all competition: it takes new forms and rages on with ever increasing intensity' – that is, monopoly capitalism is still competitive. Shaikh (2016, 259–260) also highlights the competitive nature of contemporary capitalism, but rejects the idea that large joint-stock companies have altered the dynamics of competition. Furthermore, according to both imperfect competition and real competition, today's companies are price setters (Baran & Sweezy 1968, 53–54; Shaikh 1987, 115–117; 1999, 120–124; 2016, 261–262), practice price leadership (Baran & Sweezy 1968, 60–62; Shaikh 2016, 268), and pursue the reduction of production costs and, thus, the development of production methods and machinery⁷⁰ (Baran & Sweezy 1968, 67–70; Shaikh 2016, 259).

However, whereas Baran and Sweezy seem to think that the theory of perfect competition was somewhat accurate until the late nineteenth century, Shaikh dismisses this view by stating that, firstly, perfect competition has never existed in capitalism and, secondly, today's capitalist economy is not less competitive than the one in the nineteenth century. I argue that the differences between the two models of imperfect and real competition can be located in the realisation problem, in how monopolies are defined, and in

⁶⁸ It is Shaikh's (2016, 355, 367) point that the theory of imperfect competition is based on the idealised model of perfect competition, which is why the former identifies every phenomenon that does not follow the latter as "less competition". Interestingly, Foster (2014, 59–60) agrees that, 'where the *specific* issue of the relative importance of firm size and numbers is concerned, Baran and Sweezy's perspective on competition and monopoly is much closer to the neoclassical approach than it is to the currently popular neo-Ricardian, and fundamentalist Marxist, view'. That said, it should be noted that Shaikh, let alone his theory of real competition, can be called neither "neo-Ricardian" nor "fundamentalist Marxist" (see Shaikh 1981).

⁶⁹ In this section, I will refer to Baran and Sweezy's theory of imperfect competition simply as "imperfect competition".

⁷⁰ Baran and Sweezy discuss this last point in terms of maximising the production cost–profit gap, and Shaikh talks about minimising unit costs.

the role that is granted to the rate of profit. I will explain my argument in the rest of this section, which will also allow us to look more closely at the workings of real competition.

It is clear by now that the monopoly capital school emphasises the severity of the realisation problem (i.e. the inability of the capitalist economy to generate enough effective demand for consumer goods), which is questioned by Shaikh. This disagreement manifests itself in how the effects of competition are understood. Whereas the monopoly capital school argues that, together, the realisation problem as well as the reduction of production costs and the development of production methods and machinery cause plunging investment levels and greater stagnation, Shaikh identifies no such problem (see sections 2.2.3 & 2.3.1).

Moreover, monopoly capital theory defines monopolies as large joint-stock companies who hold significant market shares (i.e. high levels of concentration), but Shaikh (2016, 379) seems to argue that monopolies should actually be understood as holders of monopoly power, that is, as the sole supplier or seller in the market. Caruna and Elenia, two distributors of electricity in Finland, are examples of firms with “natural” monopoly power because they can charge higher prices without reducing demand (Yle 2020). One of Shaikh’s main points is that the phenomena which the monopoly capital school sees as evidence of monopoly power are caused by real competition. This will become clearer once we have considered how real competition affects profit rates.

Since the monopoly capital school assumes surging prices and replaces the tendency of the rate of profit to fall with the tendency of surplus to rise, they do not consider how profit rates react to competition. Shaikh, on the other hand, does this. He starts from the fact that price-setting companies also cut prices because they try to sell as much as they can (Shaikh 2016, 261–262).⁷¹ This is why prices tend to gravitate towards the lowest level – Shaikh calls this the “Law of Correlated Prices”. In the competitive struggle, those who have the lowest unit costs have an advantage over their competitors, since firms with the lowest unit costs have the capability to reduce their prices most, which drives the profit rates of their competitors below their own. Therefore, firms are highly incentivised to adopt new production methods and machinery that reduce their unit costs. Shaikh (*ibid.*, 355) writes that ‘firms are always price-setters and larger scale is the immanent means of reducing costs in the competitive battle’.

⁷¹ This, of course, goes against Baran and Sweezy’s (1968, 62–63) view of rising prices.

When firms with older production methods and machinery (i.e. higher unit costs) cut their prices, their profit rates decline below the profit rates of firms with newer production methods and machinery (i.e. lower unit costs). Despite every profit rate falling in *absolute* terms, the profit rates of firms with the lowest unit costs rise in *relative* terms, which explains why firms choose lower profit rates in absolute terms. The goal is to win against competitors in the long run with a higher “relative” rate of profit. Consequently, the theory of real competition asserts profit rates to express a declining tendency.⁷²

Shaikh (2016, 262–264) also argues that, within an industry, real competition equalises prices and, therefore, disequalises profit margins and profit rates. Since technical change is ongoing, the fixed capitals (i.e. plants and equipment) at use at each moment have different cost structures. As newer fixed capitals tend to be more cost-efficient than the older ones, firms use different combinations of old and new fixed capitals. And when prices gravitate towards the lowest point, firms with more cost-efficient fixed capitals obtain a higher profit rate and firms with less cost-efficient fixed capitals a lower one. In addition, Shaikh (*ibid.*, 264) asserts that, ‘[i]nsofar as lower unit costs are associated with larger plant size (output, capital) and/or capital intensity, [...] price equalization within an industry will produce a positive correlation between profit margins (profits per unit output) and output, capital, and/or capital intensity’. Whereas Shaikh sees such concentration of productive power and market shares as a natural result of real competition, the models of perfect and imperfect competition misunderstand it to be caused by the lack of perfect competition between monopolies.

Despite price equalisation leading to profit rate disequalisation within an industry, the mobility of capital (i.e. investment) across industries tends to equalise the profit rates of those fixed capitals which Shaikh (2016, 264–268) calls the “regulating capitals” (also “regulating conditions of production”). Investors are attracted by industries with higher rates of return, which raises the level of investment in such industries. Investors do not target new investment towards all fixed capitals, but towards fixed capitals with the lowest reproducible costs in the industry. In effect, supply grows relative to demand, which causes a decline in prices and profits. And since *vice versa* is true in industries with lower rates of return, the mobility of capital across industries tends to equalise the profit rates

⁷² In other words, the model of real competition underlines firms’ profit-maximising behaviour in anticipation of a lower price level *vis-à-vis* an uncertain future, which causes firms to adopt new methods of production that reduce their rates of profit. Conversely, the theory of perfect competition assumes profit rates to rise because it does not consider that firms would set their own prices and adopt methods of production that cut, in absolute terms, their profit rates with the current price level.

of regulating capitals in different industries. Consequently, the regulating capitals are the price-leaders and non-regulating capitals the price-followers within one industry. This equalisation process is far from the state of equilibrium that perfect competition implies.

With reference to these mechanisms, Shaikh (2016, 270) explains his critique of the monopoly capital school's conception of monopolies. Inasmuch as the rate of profit (r) expresses the ratio of profit (P) to capital (K), it can also be expressed as the ratio of the profit margin (P/X) to the capital intensity (K/X), where X signifies total output. In other words,

$$r = \frac{P}{K} = \frac{(P/X)}{(K/X)} = \frac{m}{k}$$

where m is the profit margin and k the capital intensity. Now, if the mobility of capital equalises the profit rates of regulating capitals across industries, then profit margins should be higher in industries where capital–output ratios are higher.⁷³ Shaikh identifies this as a necessary consequence of real competition, but the monopoly capital school sees it as proof of imperfect competition and monopoly power because such cases cannot be explained with reference to the theory of perfect competition.

Shaikh (2016, 270–272) also points out that industries with higher initial investment costs have higher entry and exit costs, which restrict the mobility of capital in such industries. The result is that, when production fluctuates, investors do not relocate their assets to another industry (which would also cause prices to fluctuate), but, depending on the direction of production fluctuation, firms react by reducing or increasing the utilisation of productive capacity. In effect, industries with higher initial investment costs (i.e. large-scale industries) tend to have more stable prices and a higher range of reserve capacity. As we saw above, high price levels and reacting to falling demand by adjusting capacity utilisation are exactly the phenomena that lead Baran and Sweezy to argue that the monopoly-capitalist economy is governed by imperfect competition and monopolies.

Shaikh (2016, 377–378) states that, in industries with a somewhat common selling price, firms with lower production costs have higher profit margins. And since lower unit costs correlate positively with capital intensity, and capital intensity correlates positively with entry scale and concentration, we can expect regulating profit margins to correlate positively with concentration. The same goes for industries where new firms with lower

⁷³ In other words, since the profit rates of regulating capitals are (almost) equal in different industries, the relation between the numerator (profit margin) and denominator (capital intensity) has to remain constant. In effect, in industries where capital intensity is high, profit margins must also be high.

costs cut prices in order to win more market share, although the correlation is weaker in such industries. This means that the positive correlation between higher profit margins and concentration does not prove the existence of monopolies. Rather, it is a consequence of real competition between cost-cutting firms.

Another important research finding to which Shaikh (2016, 370–372) refers is that administered prices are not incompatible with competitive conditions. One study shows that both frequently and infrequently changing prices have existed in the U.S. economy since the 1830s, that is, long before the alleged advent of monopoly capitalism. As we just discussed, in industries with more stable prices, the competition is carried out by cutting unit costs.

Finally, perhaps the most striking finding is that, in the long run, concentration does not correlate positively with higher profit rates (Shaikh 2016, 373–377). This questions the monopoly capital school's argument that the tendency of surplus to rise has replaced the tendency of the rate of profit to fall. We will see in the next chapter that the falling rate of profit seems to have played a major role, albeit indirectly, in how and why the 2007–09 financial crisis happened.

The first goal of this chapter has been to provide a general introduction to crisis theory. I started this chapter by dividing crisis theory into four strands and stating that each of these strands emphasises “market” or “production” as the locus of crises and “lack of effective demand” or “lack of profits” as the main cause of crises. I expressed this point in the fourfold table.

My second objective has been to argue that the falling-profit-rate theory's conception of capitalist crisis tendencies has comparable advantages over monopoly capital theory's conception. The monopoly capital school, which belongs to the underconsumptionist strand, moves methodologically from market and price relations towards relations of production, which is why its members claim that the live-and-let-live attitude of large joint-stock companies and the absence of perfect competition between them lead to the tendency of surplus to rise. This, in turn, gives rise to the realisation problem that cannot allegedly be solved by means of waste, consumption, or investment. Another problem is that there is too much productive capacity in monopoly capitalism, which hampers new investment and induces stagnation. My main argument has been that the monopoly capital

school's methodology is misleading in the sense that it exaggerates the role of market relations and undermines the significance of relations of production.

I then questioned monopoly capital theory's premise that the point of contradiction of capitalism concerns the lack of effective demand for consumer goods, since effective demand seems to originate within the capitalist class. This point weakens the monopoly capital school's arguments about the realisation problem and the growing tendency of excess capacity, the latter of which allegedly causes stagnation in monopoly capitalism. Following Marx, I defined value as socially necessary labour-time and introduced the tendency of the rate of profit to fall. This tendency is caused by the profit motive which leads capitalists to implement labour-saving production methods and machinery that reduce the ratio of surplus-value to the total capital. I also introduced the counteracting factors (discussed by Marx) and other forces (mentioned by Sweezy) which give the tendency of the rate of profit to fall its dynamic nature. However, it seems that these counteracting factors and forces are not powerful enough to fully prevent the fall of the rate of profit in the long run, which explains why crises recur – that is, crises allow the devaluation of producer goods. Finally, I examined Shaikh's model of real competition which shows that the capitalist economy remains as competitive as it was in the nineteenth century, and that the phenomena which the monopoly capital school defines as proof of monopoly power can be explained with reference to the model of real competition and the behaviour typical to competitive and efficient firms (despite their large size and market shares).

Now that we have identified some of the potential deficiencies of monopoly capital theory as well as the comparable advantages of the falling-profit-rate theory, we can move on to study whether or not these deficiencies and advantages are present in the explanations provided by these two theories for the 2007–09 financial crisis. This will allow us to understand how and why the financial crisis happened as well as which of these two strands of crisis theory provides a more viable conception of capitalist crisis tendencies.

3 THE 2007–09 FINANCIAL CRISIS

Most researchers, writing after the 2007–09 financial crisis had occurred, tend to argue that the signs of the crisis were visible quite early on. For example, Carmen Reinhart and Kenneth Rogoff (2009, 200) claim that ‘from a purely quantitative perspective, the run-up to the U.S. financial crisis showed all the signs of an accident waiting to happen’.

Yet, the consensus among the leading mainstream figures in the early 2000s – right before the financial crisis – seemed to be that the issue of economic crises had finally been solved. In 2001, Ben Bernanke, the Chair of the Federal Reserve from 2006 to 2014, argued that the Federal Reserve (Fed) should not worry about rising housing prices (Reinhart & Rogoff 2009, 212). A year later, Bernanke (2002) replied to Milton Friedman and Anna Schwartz’s criticism about the harmful role played by the Fed in causing the Great Depression of the 1930s by stating that ‘I would like to say to Milton and Anna: Regarding the Great Depression. You’re right, we did it. We’re very sorry. But thanks to you, we won’t do it again’. In a similar vein, Alan Greenspan, who was the Chair of the Fed before Bernanke, from 1987 to 2006, claimed regularly in the early 2000s that new financial innovations allowed more efficient ways to spread risk. Since these financial innovations made it possible to turn illiquid assets (e.g. houses) into liquid ones, they justified climbing prices for risky assets. (Reinhart & Rogoff 2009, 208.) For instance, in 2003, Greenspan ‘praised derivatives, saying their benefits materially outweighed the risks and had insulated the financial system from the stock market crash and economic downturn’ (New York Times 2003). Another famous economist who made similar remarks during the same year as Greenspan was Robert Lucas, a Nobel laureate in economics in 1995. He said that the ‘central problem of depression-prevention has been solved’ (quoted in Krugman 2009). It took a little over five years for the capitalist economy to prove Bernanke’s, Greenspan’s, and Lucas’ statements wrong.⁷⁴

⁷⁴ This contradiction between the diagnoses made before and after the financial crisis points, I believe, towards a more comprehensive problem within the contemporary orthodoxy of economics – that is, it is less of a rigorous theory and more of a way to legitimise what is going on economically, socially, and politically (see Milonakis 2012). Durand offers one example of the unrealistic nature of neoclassical financial theory:

Neoclassical financial theory [...] stipulates that there is no possibility of arbitrage on the financial markets. To put it another way, the level of financial remuneration is always identical to the degree of risk and the maturity of the asset concerned; or, in more simple terms, there is no “money machine” for guaranteeing self-enrichment, for example by borrowing at a lower rate and lending at a higher one. And yet that is exactly what carry trade entails, for it consists of borrowing at low rates

These false diagnoses made by the leading orthodox figures motivates us to depart from the orthodoxy, which is why this chapter will concentrate on comparing two competing explanations within the tradition of crisis theory for the 2007–09 financial crisis.⁷⁵ First, I will frame the financial crisis in its historical context by defining what is meant by “financialisation”. Then, I will compare the explanations given by, respectively, the monopoly capital school and the falling-profit-rate theory which, I argue, are both superior to the orthodoxy of economics. My main conclusion will be that the monopoly capital school’s emphasis on the lack of effective demand and excess productive capacity is misleading, since it was the falling rate of profit, and the structural changes with which it was accompanied on a global scale, that best explains why the financial crisis took place. However, the impact of a falling rate of profit should not be understood as operating directly because it is mediated by other social processes.

3.1 Financialisation and the 2007–09 Financial Crisis

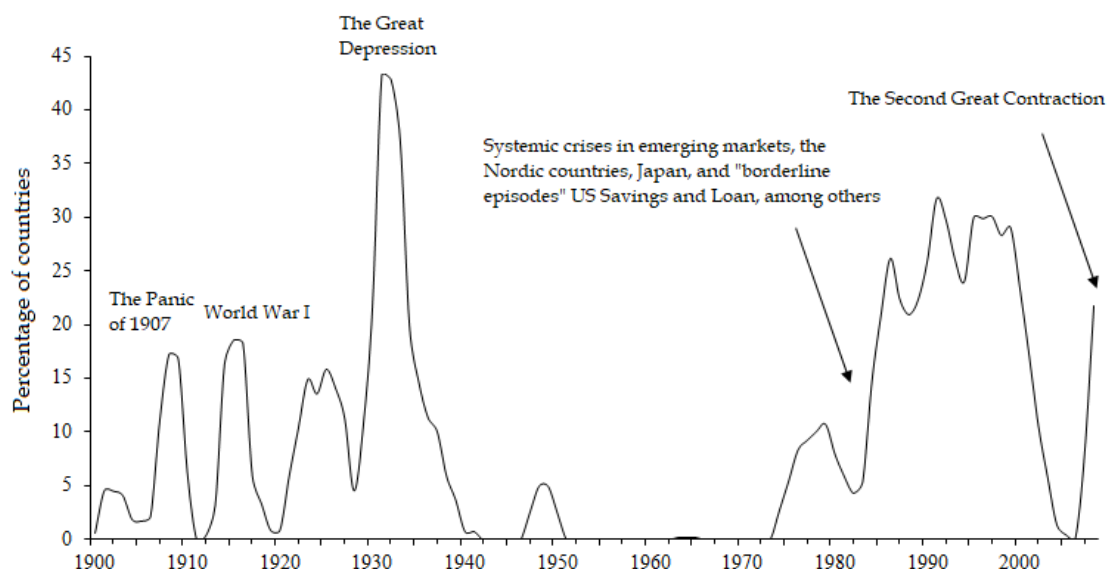
The twentieth century can generally be described as prone to crisis (see Figure 3.1), but the period from the Second World War to the early 1970s is a clear exception to this rule. Reinhart and Rogoff (2009, 205) propose that ‘[t]his calm may be partly explained by booming world growth but perhaps more so by the repression of the domestic financial markets (in varying degrees) and the heavy-handed use of capital controls that followed for many years after World War II’.⁷⁶ As the deregulation of financial markets and capital controls commenced in the 1970s and accelerated afterwards, the world economy returned once again to its crisis-prone state. However, we will see in the rest of this chapter that the modification of (de)regulatory policies was not the sole or even main reason as to why the recurrence of crises became once again more common in the world economy.

in one currency in order to invest at higher rates in another. This practice, as lucrative as it is widespread, represents a mystery that standard financial theory is incapable of explaining. (Durand 2017, 8; see also Crotty 2009, 564)

⁷⁵ Overall, Basu and Vasudevan (2013, 59–61) identify six competing explanations within the tradition of crisis theory for the 2007–09 financial crisis: stagnation under monopoly-finance capital; overcompetition and overaccumulation; overinvestment; profitability and debt; liquidity trap and disproportionality; and the crisis of financial hegemony. In this chapter, I will emphasise and compare the first and fourth explanations – namely, stagnation under monopoly-finance capital as well as profitability and debt – which, nevertheless, provide a good overview of the debate regarding the financial crisis due to the fact that these six ‘accounts of the causal mechanisms of crisis fall very broadly into those focusing on aggregate demand [stagnation under monopoly-finance capital] and those focusing on profitability [profitability and debt]’ (*ibid.*, 59).

⁷⁶ In line with their general perspective, Reinhart and Rogoff (2009, 205) hurry to add that ‘[w]e are not necessarily implying that such repression and controls are the right approach to dealing with the risk of financial crises’. Crotty (2009, 563–564) argues the contrary.

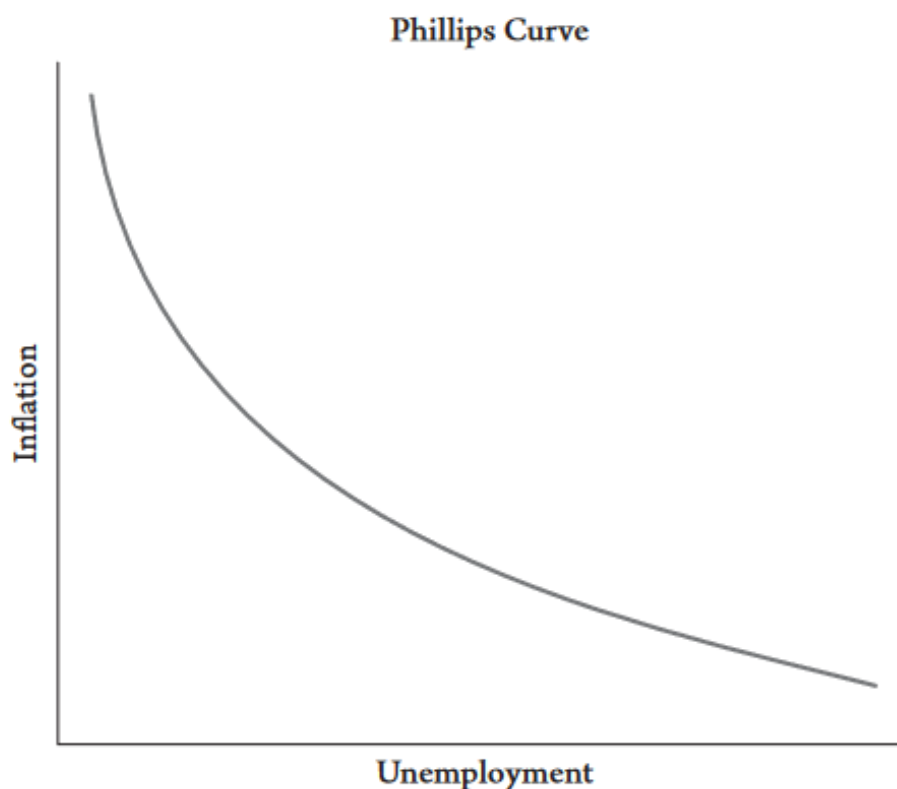
FIGURE 3.1 The proportion of countries with banking crises, 1900–2008, weighted by their share of world income. Source: Reinhart & Rogoff 2009, 205.



One reason why the 1970s experienced such significant changes in economic policies is the “stagflation” crisis⁷⁷, which started in 1969 and ended in 1982. Until then, the main “Keynesian” economic doctrine was summarised in the Phillips curve (see Figure 3.2), according to which reducing unemployment would increase inflation, and *vice versa*. However, the stagflation crisis saw both inflation *and* unemployment grow, which served as a trigger for rejecting the post-Second World War socioeconomic paradigm. (Blyth 2013, 40–41.) Most mainstream economists and politicians in power interpreted the crisis as being caused not by stagnation, but by inflation. During this same time period, the teachings of Friedrich Hayek, Milton Friedman, and other similar figures gained more influence. (Foster 2010, 3–7.) In effect, the neoliberal bloc became hegemonic and financialisation commenced. On a general level, these events happened in accordance with how Antonio Gramsci (1992, 184–185, 275–276) argues economic crises to affect the relations of force in capitalism: first there is an economic crisis which triggers the hegemonic crisis and, consequently, a new hegemonic order results from hegemonic struggles between different social groups.

⁷⁷ The concept of “stagflation” is a combination of the words “stagnation” and “inflation”.

FIGURE 3.2 The Keynesian Phillips curve. Source: Blyth 2013, 40.



How should we understand concepts such as “neoliberalism” and “financialisation”? Ben Fine (2013, 57–59) uses the former term to refer to the post-1970s era, that is, the current period of capitalism that promotes the practices and ideas of individuality, free markets, (re-)commodification, and night-watchman state.⁷⁸ And, still, neoliberalism has always based itself on authoritarian state practices; it is not the absence of the state, but just a different, and more authoritarian, way of using it for the benefit of an affluent minority – this is reflected in how inequality has developed and exacerbated since the 1970s (see section 1.2). Sam Gindin and Leo Panitch (2013) emphasise this point on the global level. In this context, the term “authoritarian” refers not only to the exercise of explicit force, but also to ‘the reconfiguring of state and institutional power in an attempt to insulate certain policies and institutional practices from social and political dissent’ (Bruff 2014, 115).⁷⁹ One aspect of authoritarian neoliberalism is termed “new constitutionalism”,

⁷⁸ For a historical narrative of how neoliberalism came to exist and became hegemonic, see Harvey (2007) and Kyyrönen (2020, 124–132). We will see in the rest of this chapter, particularly in section 3.3, what kinds of socioeconomic modifications neoliberalism has introduced to contemporary capitalism.

⁷⁹ The concept of authoritarian neoliberalism is partly based on Hall’s notion of “authoritarian populism” (see Hall 1979; 1985), on top of which it can also be seen as an application of what Gramsci writes about the relation between the state and *laissez-faire* liberalism:

since in actual reality civil society and State are one and the same, it must be made clear that *laissez-faire* too is form of State “regulation”, introduced and maintained by legislative and coercive means.

which refers to (1) the emergence of a constitutional system of governance promoting the world market, (2) the neoliberal restructuring of forms of state and political subjectivity via constitutional and legal means in order to extend the reach of the commodity-form and strengthen the power of market forces in social and political life, (3) the “locking-in” of mechanisms that promote and secure neoliberal patterns of accumulation, and (4) the expansion of “double” legal standards for, on the one hand, states and, on the other, private enterprises (Cutler & Gill 2014, 7).⁸⁰

Financialisation can be understood as the economic core of neoliberalism. Fine (2013, 55) defines the former as ‘the intensive and extensive accumulation of fictitious capital or, in other words, the increasing scope and prevalence of IBC [interest-bearing capital] in the accumulation of capital’. Karl Marx uses the notion of interest-bearing capital in the third volume of *Capital* (1894/1991) to refer to money that is lent and borrowed for the expansion of capital accumulation, as opposed to money that is lent and borrowed for other purposes, such as private consumption. Capitalists who lend interest-bearing capital receive surplus-value in the form of interest prior to the provision of surplus-value as profits amongst capitalists who organise production. (Fine 2013, 49.) The proliferation of interest-bearing capital opens new possibilities for the movement of money-capital:

once there is an obligation to repay, especially with interest, the debt can take on a market life of its own. Indeed, the money has departed its original owner, for whom some sort of acknowledgment of debt remains instead, whether in the form of interest or dividend payments, for example. Consequently, this paper claim on the value of the loan (and the interest payments due) can itself be bought and sold at a monetary value that may or may not correspond to the potential to realize that value in the application of the money advanced as capital by whoever took the loan. (Fine 2013, 49–50)

That is, interest-bearing capital can circulate relatively independently in relation to the circulation of industrial capital (in which the former, after being borrowed, has been invested). Marx defines this independent circulation of interest-bearing capital as *fictitious*

It is a deliberate policy, conscious of its own ends, and not the spontaneous, automatic expression of economic facts. Consequently, *laissez-faire* liberalism is a political programme, designed to change – in so far as it is victorious – a State’s leading personnel, and to change the economic programme of the State itself – in other words the distribution of the national income. (Gramsci 1992, 160)

⁸⁰ Instead of authoritarian neoliberalism, Gill (2014) uses the term “disciplinary neoliberalism”. Moreover, Cutler and Gill (2014, 15) view new constitutionalism less as an instance of bourgeois hegemony than as an expression of bourgeois supremacy, the latter of which ‘involves rule by a bloc of forces that clearly serves partial or particular interests, and that is experienced by subordinates as involving coercive, corrupt forms of rule that lack legitimate appeal and credibility. Supremacy can continue to exercise dominance over politically fragmented or atomized populations until a coherent form of opposition emerges that might provoke a crisis of authority and a challenge to supremacist leadership’.

*capital*⁸¹ (Fine 2013, 50), and, in this sense, financialisation marks the growing role of interest-bearing capital and fictitious capital in the operation of capitalism. Stefano Di Bucchianico (2020, 3) summarises the main features of financialisation: (1) it is a regime of accumulation, marked by flexible labour markets and credit expansion, that came to exist as a response to falling profitability in the late 1960s; (2) non-financial enterprises have become independent of direct banking mediation; (3) a large share of banks' profits comes from transactions in financial markets and lending to households; (4) households have become increasingly financialised via borrowing and saving; (5) financialisation leads to a surge in debt, a shift towards capital income, a higher profit share of the financial sector, and corporate behaviour becoming subjugated under financial markets; and (6) it enforces the redistribution of wealth and power from workers to shareholders.

Fine further distinguishes between the *intensive* and *extensive* accumulations of interest-bearing capital, which have played essential parts in the neoliberal restructuring of both the global economy and individual nation states. The intensive accumulation of interest-bearing capital refers to 'the growth and proliferation of financial assets themselves with increasingly distant attachments to production and exchange of commodities themselves, and the second [extensive accumulation] involves the extension of interest bearing capital to new areas of economic and social life in hybrid forms with other types of capital' (Fine 2013, 49). A telling example of the intensive accumulation of interest-bearing capital is given by the derivatives markets. Costas Lapavitsas (2013, 5) defines a derivative as 'a contract that establishes a claim on an underlying asset – or on the cash value of that asset – which must be executed at some definite point in the future. The underlying asset could be a commodity, such as wheat; or another financial asset, such as a bond; or a financial price, for example the value of a currency; or even an entirely non-economic entity like the weather'. Depending on the nature of the contract, derivatives are further divided into over-the-counter and exchange-traded ones. After the option of cash settlement of the contract was established, which releases the counterparties from delivering the underlying asset, the derivatives markets have grown greatly (*ibid.*, 6).

⁸¹ However, as Fine (2013, 51) highlights, it should be understood that, in reality, the different uses of money (e.g. interest-bearing capital, private consumption) always get mixed with one another, which is why 'Marx used the term loanable money capital [...] to describe the workings of money markets as a whole, in which the distinct underlying functions of money as money and money as capital come together in a single market determining the rate of interest (at least abstractly considered)'.

An example of the extensive accumulation of interest-bearing capital is that large corporations, whose line of business should lie within the manufacturing and retail sectors, nowadays make a large part of their profits in finance – such corporations can even lose money on their “primary” line of business. Here we can mention the examples of General Motors Corporation and Walmart: prior to the financial crisis, in 2005, General Motors lost money on cars and earned 2.9 billion U.S. dollars on financing operations (Foster & Magdoff 2009, 54); and Walmart, originally a retail business, has been trying to join the banking business for a while now (Armstrong 2021).

Due to financialisation, the U.S. financial sector more than doubled in size between the mid-1970s and 2007, from 4 percent to 8 percent of gross domestic product (Reinhart & Rogoff 2009, 210). But while the financial sector was undergoing an unprecedented boom, the ratio of household debt to gross domestic product grew and the personal saving rate decreased in the U.S. (*ibid.*, 212). The U.S. also had massive trade balance and current account deficits, asset price inflation, growing household leverage, and a slowing rate of output, which pointed towards the fact that the real economy, at least the domestic one, was not doing so well (*ibid.*, 200).

A vast real estate market bubble was growing within the U.S. economy. It was caused by ascending housing prices, the stagnation of real wages, an enormous foreign capital inflow to the U.S., and twisted (de)regulatory policies that made the whole situation worse (Ivanova 2011; 2012; Reinhart & Rogoff 2009, 207). Due to the almost blind trust in the efficiency of the markets, ‘[w]hat could in retrospect be recognized as huge regulatory mistakes, including the deregulation of the subprime mortgage market and the 2004 decision of the Securities and Exchange Commission to allow investment banks to triple their leverage ratios (that is, the ratio measuring the amount of risk to capital), appeared benign at the time’ (Reinhart & Rogoff 2009, 213–214).

One of the problems was that the booming financial sector was organised in such a way that such derivatives as mortgage-backed securities and collateralised debt obligations, which included high-risk loans (i.e. subprime loans), were rated above their actual value by financial institutions (Blyth 2013, 27–31). Whereas mortgage-backed securities had been used since the 1970s, collateralised debt obligations became popular only in the 1990s (Foster & Magdoff 2009, 94). James Crotty explains how the latter kind of derivative works:

A mortgage-backed CDO converts the cash flows from the mortgages in its domain into tranches or slices that have different risk characteristics. Banks sell the tranches to investors. Several thousand mortgages may go into a single MBS and as many as 150 MBSs can be packaged into a single CDO. A CDO squared is a CDO created by using other CDO tranches as collateral. Higher power CDOs are particularly difficult to value because many mortgages appear in more than one of the underlying CDOs. (Crotty 2009, 566–567)

Subprime loans were structured so that borrowers with insufficient income and savings would pay low initial “teaser” rates, after which the rates would be reset – in many cases, no down payments were required. This led to a significant part of the debtors not being able to meet their mortgage obligations once the initial rates ended. (Reinhart & Rogoff 2009, 213; see also Foster & Magdoff 2009, 50–51.) Although subprime mortgages were highly volatile, they received the highest credit ratings due to perverse incentives within the financial sector. As credit rating agencies earn a bulk of their profits from the fees paid by the investment banks, the former are pressured into providing the ratings demanded by the latter. (Crotty 2009, 566.)

Why did this cause a banking crisis? The deregulation of financial markets in the 1980s gave the repurchase agreement market (i.e. repo market) a more central role in the economy.⁸² This is when large corporations began lending directly to each other, thus bypassing the mediation of commercial banks which undermined the banks’ profits. The commercial banks who provided households with credit realised that they would be able to compensate for this loss of profits by selling the debts in financial markets for a commission. What added insult to injury was that, after selling the loans, the original creditors no longer had to worry about debtors failing to repay their loans. (Blyth 2013, 23–24.) The estimates of total fees received from home sales and mortgage securitisation in 2003–08 are around two trillion U.S. dollars (Crotty 2009, 565).

The reason why banks were so excited to distribute subprime loans in the first place had to do with problematic incentives and practices of profit-maximisation within the financial sector.⁸³ Crotty describes this well:

Top investment bank traders and executives receive giant bonuses in years in which risk-taking generates high revenue and profits. Of course, profits and bonuses are maximised in the boom by maximising leverage, which in turn maximises risk. In 2006, Goldman Sachs’ bonus pool totaled \$16 billion – an average bonus of \$650,000 very unequally distributed across Goldman’s 25,000 employees. Wall Street’s top traders received bonuses of up to \$50 million that year. In spite of the investment bank disasters of the second half of 2007, which saw Wall Street investment banks lose over \$11 billion, the average bonus fell only 4.7%. In 2008 losses skyrocketed causing the five

⁸² The repo market is meant for the exchange of short-term loans between large corporations; one company borrows cash from another in exchange for assets, which the company then buys back the next day. The repo market belongs to a system called the “shadow banking”, which distributes finance without accepting deposits. (Blyth 2013, 23–24.)

⁸³ Furthermore, in the U.S., the financial sector paid 1.7 billion dollars for federal election campaign contributions and 3.4 billion dollars to lobby federal officials between 1998 and 2008 (Crotty 2009, 577).

largest independent investment banks to lose their independence: two failed, one was taken over by a conglomerate, and two became bank holding companies to qualify them for bailout money. Yet Wall Street bonuses were over \$18 billion – about what they were in the boom year of 2004[...] [...] These examples show that it is rational for top financial firm operatives to take excessive risk in the bubble even if they understand that their decisions are likely to cause a crash in the intermediate future. Since they do not have to return their bubble-year bonuses when the inevitable crisis occurs and since they continue to receive substantial bonuses even in the crisis, they have a powerful incentive to pursue high-risk, high-leverage strategies. (Crotty 2009, 565)

Banks bundled together many loans, including mortgages, because then they could be sold as income-generating contracts, also known as mortgage-backed securities. This practice, named “securitisation”, allowed banks to get rid of the default risk and earn more money. In the U.S., it led to the proliferation of NINJA loans (i.e. “No Income, No Job, No Assets” loans) in the 2000s because distributing credit became detached from exposure to credit risk. Of course, the default risk did not disappear but was only relocated in the repo markets. (Blyth 2013, 24–25; Durand 2017, 14.)

Repo-market investors receive collateral equivalent to the money lent as a form of securing their investment. In the early 2000s, mainly Treasury bills were accepted as high-quality collateral, but, as these bills became scarcer, it turned into a common practice to use AAA-rated mortgage-backed securities as collateral. In 2006, when real estate prices fell and mortgage defaults grew in number, large investment banks, such as The Bear Stearns Companies Inc., found the value of their assets falling, thus forcing them to increase the amount of assets used as collateral in order to borrow the same amount of money as before. This was problematic, since basically all large banks were running high leverages (i.e. ratio of assets to equity), meaning that the loss of value of mortgage-backed securities caused large investment banks to lose their main source of funding, that is, the loans from the repo markets. (Blyth 2013, 24–26; see also Crotty 2009, 574.)

When the default rate for low-income housing mortgages spiked in mid-2007, the severity of the issue came to the fore. Since the subprime mortgage-backed securities and collateralised debt obligations had seemed so attractive, the largest investment banks had hoarded massive amounts of them (Crotty 2009, 568–569). The rising default rate for low-income housing mortgages revealed this arrangement for the wider public in 2007; the U.S. subprime mortgage crisis started in the spring. ‘US asset-backed commercial paper outstanding fell from \$1.2 trillion in July 2007 to \$840 billion by the year’s end’ (*ibid.*, 570). Retrospectively, it is no surprise that the subprime crisis turned quickly into a financial one; once the first domino of the highly volatile system fell, other pieces did as well.

The very same public institutions which were deemed redundant by many orthodox experts of finance prior to the crisis were asked to bail out the financial ones. Estimates of the total cost of bailouts by the summer of 2009 range significantly, from 12.8 trillion to 23.7 trillion U.S. dollars (Ivanova 2012, 70). Crotty (2009, 569–570) casts doubt on the motives behind these bailouts, since not only were they mostly hoarded by investment banks, but large chunks of them were also distributed as bonuses for high-rank executives and employees. Fine (2013, 58) explains in an insightful manner that ‘the massive state rescues of finance following the crisis, followed by austerity, are indicative of the contradictory hegemony of the material of finance interests over its own neoliberal ideology of free markets without state interference’.

Here we should underline, in contrast to those who put the blame on lower-income households for causing the crisis, that these dodgy financial arrangements originated within the capitalist class. ‘Since the traditional channels of credit were saturated and institutional investors were hungry for derivatives products’, Cédric Durand (2017, 14) writes, ‘the banks set out in search of new clients. [...] Credit was issued imprudently on the basis that a continual rise in prices would in any case allow for its reimbursement in cases of default, i.e. via foreclosures’. It is now known that some of the biggest investment banks, such as JPMorgan Chase & Co., knew the risks before the subprime crisis started but did not mind them due to the massive economic benefits of their actions (*ibid.*, 15–16).

Initially, money lent and borrowed for buying houses in the form of mortgages is not interest-bearing capital, since the debtor does not use that money in the production process in order to make a profit. However, when these same mortgages are ‘bundled up into an asset and sold, possibly combined with other sets of assets, and sold again, and so on’, the money used in them then becomes a part of interest-bearing capital (Fine 2013, 55). The reason why such interest-bearing and fictitious capital have become so widespread in the Global North during the neoliberal era has to do with the fact that the growth rates of all high-income countries have been slowing down ever since the 1960s (Durand 2017, 3), while the level of non-financial investment in these same countries has also declined drastically (Ivanova 2012, 67–68). As the profitability of domestic investments in productive assets falls, the financial sector begins to look more attractive.

Durand (2017, ch. 6) has developed a theoretical framework that explains the three kinds of socio-political processes which together constitute the source of financial profits. The first socio-political process is *dispossession*, which includes profits upon alienation

and political profits: the former refers to direct deductions from households' disposable income (e.g. mortgage interest); and the latter stands for the income which derives from either interest on public debt or the operations conducted by public institutions in financial markets.⁸⁴ The second process is called *parasitism*, which means the deduction of revenues from company profits in the form of interests and dividends by agents and institutions who are not part of the production process. Therefore, parasitism is dependent on increasing the rate of surplus-value and enforcing unequal exchange on the global scale, especially between the Global North and the Global South.⁸⁵ Finally, we have the *innovative* element; insofar as financial profits provide an incentive to distribute unused funds for financing private enterprises, it enables the innovation of new kinds of producer and consumer goods, which will create larger profits in the future.⁸⁶

Furthermore, Durand (2017, 151–155) highlights that, since the sustainability of the financial system is ultimately based on future profits appropriated from the productive sectors⁸⁷, financialisation reinforces the power of capital over not only the economy, but also the whole society in the sense that the implementation of pro-labour policies, for instance, might cause the highly fragile system to collapse. This partly explains why policymaking has been, and still is, extremely sensitive to the interests of fictitious capital. In other words, '[t]hrough the free-market neoliberal project, societies abandon mastery over time to the impersonal mechanisms of finance. The latter thus gains a disciplinary power to which both public and private economic agents have to submit' (*ibid.*, 151).

⁸⁴ For instance, Durand (2017, 89) notes that the share of government bonds owned by the top 1 percent in the U.S. grew from 16 percent in 1970 to over 40 percent in 2010. This means that surging public indebtedness has the effect of increasing income and wealth inequality, which questions the "Keynesian" strategy of relying mostly on the stimulating effect of public debt. It thus seems that there is a need for a more thorough institutional restructuring in today's economy.

⁸⁵ In fact, increasing the rate of surplus-value and enforcing unequal exchange are complementary practices: the unequal exchange between large retail businesses in the Global North forces suppliers in the Global South to increase the rate of surplus-value for their employees.

⁸⁶ This final process is overemphasised at the expense of the previous two by orthodox theorists of finance.

⁸⁷ Foster and Magdoff (2009, 53, 56–60) use the word "gimmicks" to describe the kinds of mechanisms with which the financial institutions have come up in order to appropriate surplus-value from the rest of the economy. "Short selling" consists of betting that the price of a stock will go down; one sells a borrowed stock, while agreeing to buy it back in the future. A "call option" is when one purchases the right to acquire a stock for a set price in the future, and a "put option" is the same but for selling a stock. A "cash settlement of a future" allows the counterparties to basically bet on the future value or index of almost anything. Finally, "mergers and acquisitions" of corporations by private investment groups are often funded with new debt taken by the acquired corporations themselves, a large part of which is then transferred to the new owners in the form of dividends and fees. Such gimmicks explain partly, but not fully, why the ratio of financial profits to all domestic profits in the U.S. grew from around 15 percent in the 1960s and 10 percent in the early 1980s to 40 percent in 2006 (Crotty 2009, 575–576; Foster & Magdoff 2009, 54).

Thomas Piketty (2014, 297) points out the striking fact that the share of the upper decile in U.S. national income peaked in 1928 and 2007, the eves of two of the worst economic crashes of the U.S. history.⁸⁸ Piketty writes:

In my view, there is absolutely no doubt that the increase of inequality in the United States contributed to the nation's financial instability. The reason is simple: one consequence of increasing inequality was virtual stagnation of the purchasing power of the lower and middle classes in the United States, which inevitably made it more likely that modest households would take on debt, especially since unscrupulous banks and financial intermediaries, freed from regulation and eager to earn good yields on the enormous savings injected into the system by the well-to-do, offered credit on increasingly generous terms. (Piketty 2014, 297)

Since 1980, the poorest 90 percent of the U.S. population has transferred 15 points of their income to the richest decile, on top of which the richest decile appropriated three quarters and the top percentile 60 percent of the total increase of U.S. national income between 1977 and 2007 – '[h]ence for the bottom 90 percent, the rate of income growth was less than 0.5 percent per year' (Piketty 2014, 297).⁸⁹ As these developments were not accompanied by remarkably strong growth of the U.S. economy, the economy became highly unstable.⁹⁰

Heterodox economists and crisis theorists tend to underline that the structural tendencies which led to the financial crisis followed from the internal contradictions of the capitalist economy. This position is adopted by both the monopoly capital school and the falling-profit-rate theory, but, as we will see in the rest of this chapter, their explanations differ significantly from one another. Let us next discuss the explanation proposed by the monopoly capital school.

⁸⁸ The current COVID-19 pandemic should be added to this list, but it is still too early to say anything definitive about all the economic effects and dimensions of the present crisis.

⁸⁹ This 15-point internal transfer from the lowest 90 percent to the top decile is nearly four times larger than the U.S. trade deficit in the 2000s. Piketty (2014, 298) underlines that 'it is important to be aware of the fact that the United States' internal imbalances are four times larger than its global imbalances'.

⁹⁰ In this light, it is remarkable how effectively the events leading up to the financial crisis were turned into a discussion about the popular classes and nation states having, allegedly, lived beyond their means. This strategy proved itself extremely successful, for example, within the European Union, where leading politicians began talking about a "sovereign debt crisis", despite the fact that it was always a banking crisis (Blyth 2013, 5). In general, the 2010s was marked by drastic cutbacks in government budgets basically all over the U.S. and Europe. As is well known, these budget cuts, and austerity measures in general, impact low-income groups the worst, because such groups are more dependent on essential services and social security benefits provided by the public sector than high-income groups. The latter need, directly, neither essential services nor social security, as they can buy services from private providers.

3.2 Stagnation and the 2007–09 Financial Crisis

Paul Sweezy (1981, 28–35; see also Foster & Magdoff 2009, 18–19) argued in the early 1980s that a rise in the price of oil in 1973 and the economic downturn which ensued in 1974 revealed that the U.S. economy had accumulated too much productive capacity. Sweezy also claimed that the significant increase in consumer, corporation, and public debt was the reason why the U.S. economy was able to recover from the downturn as quickly as by the end of 1976. In other words, Sweezy claimed that the tendency of the monopoly-capitalist economy to create excess productive capacity and surplus as well as insufficient levels of effective demand for consumer goods, available investment channels, and economic growth forced institutions and people to incur massive amounts of debt from the 1960s onwards. Even worse, the financial sector had replaced the real economy as the motor of the U.S. economy, which manifested as the growing ratio of debt to gross domestic product and as the falling ratio of consumer goods output to gross domestic product. In this sense, the monopoly capital school underlined the role played by stagnation, as opposed to inflation, in causing the stagflation crisis.

The latest generation of the monopoly capital school emphasises that the same debt trajectory, which led to the stagflation crisis, continued until the 2007–09 financial crisis. John Bellamy Foster (2006; 2010; see also Foster & Magdoff 2009, 19–21, 84) discusses the new form of monopoly capital – namely, *monopoly-finance capital* – which refers to the efforts of the monopoly-capitalist economy to alleviate its inherent tendency to create stagnation by incurring debt. According to Foster’s view, the stagnation of the real economy resulted in the financial crisis in three ways: the stagnation of real wages caused people to take on massive amounts of debt; productive stagnation forced money-capital, in the form of fictitious capital, to invest in the financial markets from the 1960s onwards; and the economic downturn of the early 2000s triggered a chain of events that ultimately burst the expanding real estate bubble, causing a global recession.

In explaining the high indebtedness of the U.S. of the early 2000s, Foster and Fred Magdoff (2009, 27–28) highlight the more general contradiction within the capitalist economy that exists between, on the one hand, capital accumulation based on wage stagnation and, on the other, the fact that economic growth and investment necessitate wage-based consumption. To the extent that profit-making depends on effective demand for consumer goods, the economy cannot function effectively with high income and wealth differences. Yet, in the U.S. of the late twentieth and early twenty-first centuries, this is

exactly what happened; real wages stagnated, while overall consumption grew. ‘U.S. economic growth is ever more dependent on what appears at first glance to be unstoppable increases in consumption. Between 1994 and 2004 consumption grew faster than national income, with the share of personal consumption expenditures in GDP rising from 67 to 70 percent’ (Foster & Magdoff 2009, 28; see also Crotty 2009, 576).

It is evident that this increase in consumption was funded with consumer debt. For instance, the household debt-to-income ratio (i.e. ratio of outstanding household debt to household disposable income) more than doubled from 62 percent in 1975 to over 130 percent in 2007 (Foster & Magdoff 2009, 29; Shaikh 2016, 735). This is expressed in Figure 3.3.

FIGURE 3.3 Household debt-to-income ratio in the United States, 1975–2011. Source: Shaikh 2016, 735.

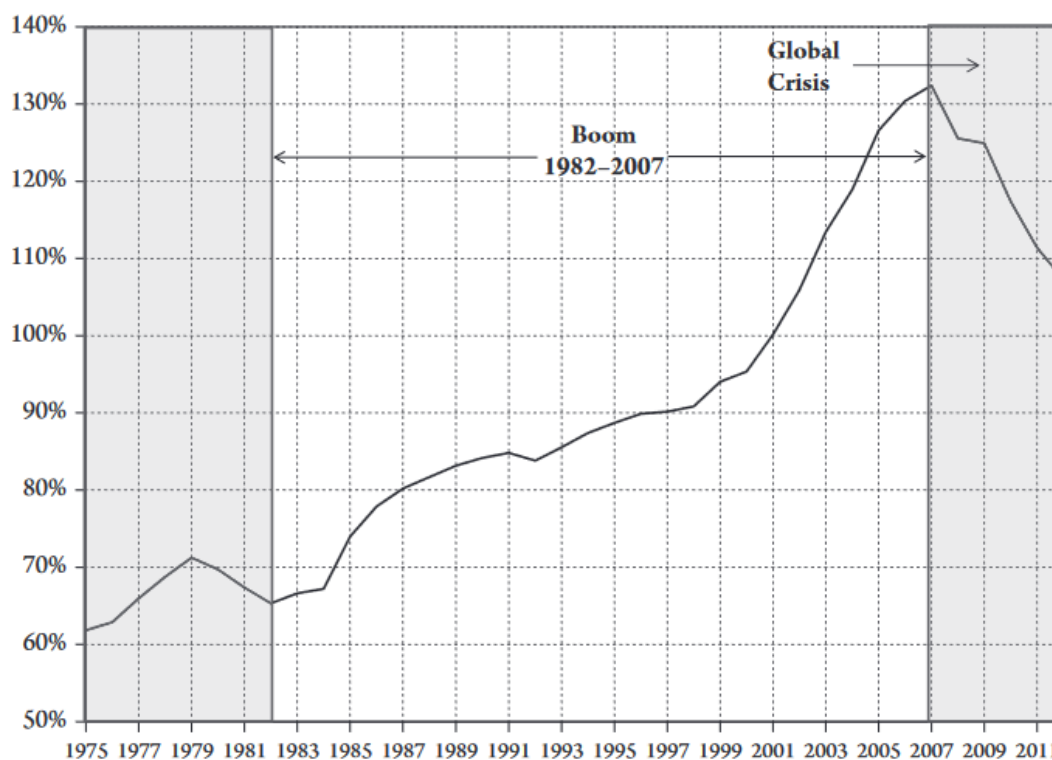
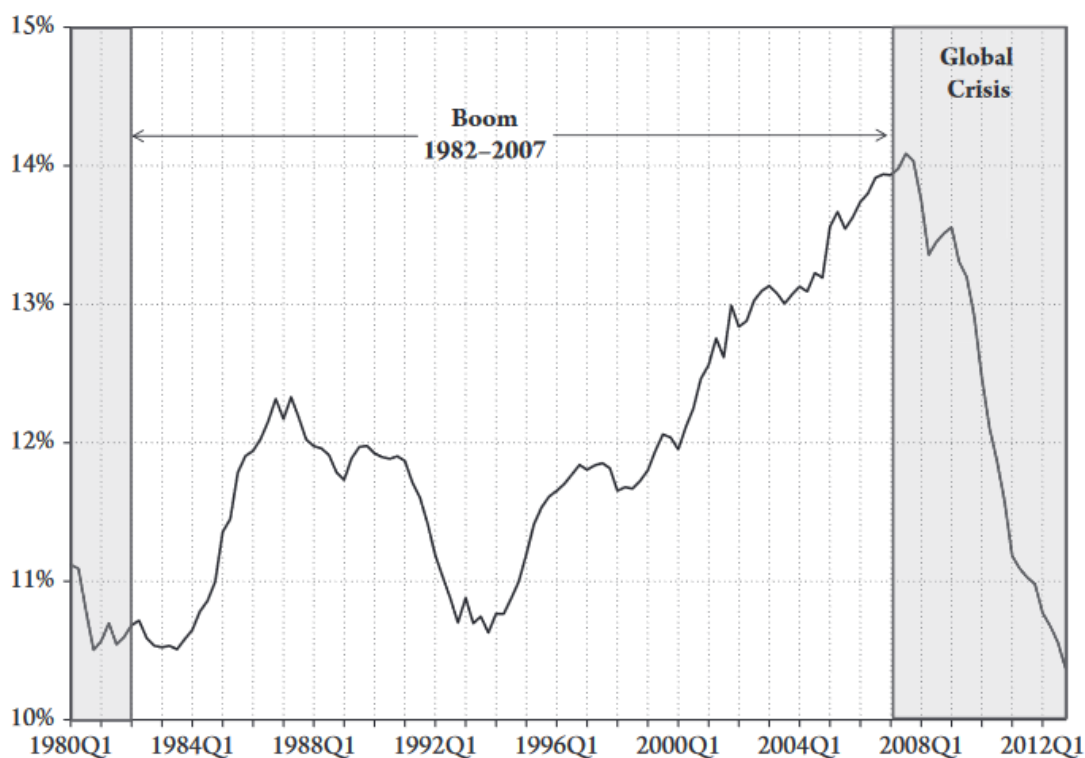


Figure 3.4 shows the development of household debt service ratio (i.e. ratio of total required household debt payments to total disposable income). Despite growing indebtedness, low interest rates allowed the household debt service ratio to retain the same level in 2000 as in 1985, but due to the massive surge in the debt load in the early 2000s this ratio began to rise sharply (Shaikh 2016, 736).

FIGURE 3.4 Household debt service ratio in the United States, 1980–2012. Source: Shaikh 2016, 736.



It is telling that, between 1995 and 2004, the family debt burden (i.e. debt service payments as a percentage of disposable income) was lowest amongst households belonging to the top decile of U.S. income distribution, while more than a quarter of families in the poorest quintile of income distribution had family debt burdens above 40 percent in 2004. Furthermore, the percentage of debtor families whose debt service payments are sixty days or more past due on any debt service payment grew between 1995 and 2004 in all income brackets with the sole exception of the top quintile. (Foster & Magdoff 2009, 29–33.) Together, low interest rates, the business lever of banks to make money with predatory lending (i.e. subprime mortgages), and inflation in the real estate sector allowed consumers to use the rising prices of their houses to take higher mortgages with which to finance their consumption (*ibid.*, 50–51). Unsurprisingly, the amount of U.S. companies buying and collecting unpaid debts soared from roughly 12 in 1996 to over 500 in 2005 (*ibid.*, 34–35).

Although it is true that debt can also boost the economy, as John Maynard Keynes argues, Foster and Magdoff underscore the difference between consumer and corporate borrowing:

When people borrow to purchase consumer goods, the purchase itself provides an immediate stimulus. Those who made and transported and sold the goods get money that they can use in turn, and usually do so immediately. There may even be a small ripple effect in the economy. However, when corporations borrow to build more physical plant, purchase durable machinery, or start a business in the services, the effect of the spending of borrowed money continues for years as economic activity is expanded and jobs are created. (Foster & Magdoff 2009, 44–45)

However, the effects of corporate borrowing for the economy as a whole differ drastically depending on whether it takes place in the real economy or in the financial sector.⁹¹ As we saw in section 2.3.2, Marx defines the circuit of industrial capital as $M - C \dots P \dots C' - M'$, where M stands for money, C for commodities, P for the production process, C' for more commodities (i.e. $C + \Delta C$), and M' for more money (i.e. $M + \Delta M$). Conversely, the circuit of fictitious capital is $M - M'$; when money-capital, having obtained the form of fictitious capital, invests and speculates in the financial markets, at no point is there any necessity for such funds to be distributed for the production of goods and services – although the whole financial system is based on future profits from the real economy (see Durand 2017, 151–155). And since financial institutions were among the most debt-ridden institutions in the U.S. economy of the early 2000s, Foster and Magdoff write:

This debt undertaken by financial institutions for the purpose of speculation has little to no stimulatory effect on production. Relatively few people are employed in the process of speculation (say, per billion dollars borrowed and speculated with) compared to other more productive uses for that capital. Profits resulting from these debt-financed transactions rarely are turned into investment in factories or service sector firms that create jobs. Rather, such speculative profits are normally used to generate even more profits through various other speculation schemes, or for high living by the rich. As a result, stagnation in employment in recent years has gone hand in hand with a new opulence among the main beneficiaries of the financial expansion. (Foster & Magdoff 2009, 45)

In the U.S., total debt – namely, debt owed by households, government, non-financial businesses, and financial institutions – was approximately 150 percent of U.S. gross domestic product in the 1970s, then 200 percent in 1985, and finally almost 350 percent in 2005. It is possible to identify two clear surges in total debt. In 1981–88, debt owed by financial institutions and government grew the most – respectively, from 22 to 42 and from 44 to 69 percent of gross domestic product. Then, in 1997–2005, debt owed by

⁹¹ The term “real economy” refers to the non-financial side of the economy, meaning the production, purchase, and flow of goods and services. Conversely, the “financial economy” stands for transactions of fiat money and other financial assets, understood as claims to real-sector goods and services. One of the characteristics of crisis theory is to study how different social systems reproduce themselves, in which sense we can also say that the difference between the real economy and the financial one has to do with how essential these sectors of the economy are for the reproduction of a particular social system. For example, a social system consisting of only the financial economy has never existed, but a social system without a financial economy is by no means a rarity in human history. This is not to say that the financial economy in contemporary capitalism would be “unreal”, as it certainly has very tangible effects and consequences for the whole society, but it is still clear that the real, or productive, sectors are more important in terms of reproduction.

financial institutions and households experienced the highest growth – respectively, from 66 to 100 and from 67 to 92 percent of gross domestic product. By late 2008, debt owed by the financial sector had risen to 117 percent and debt owed by households to over 100 percent of gross domestic product. Annual borrowing by U.S. financial institutions grew from 6.9 percent to 12.8 percent of gross domestic product between 1997 and 2007. In the 1970s, every dollar of increased debt added roughly 60 cents to U.S. gross domestic product, whereas the effect of one extra dollar of debt for U.S. gross domestic product was only 20 cents in the early 2000s. (Crotty 2009, 574–576; Foster & Magdoff 2009, 46–49.)

As we saw in section 2.2.3, the monopoly capital school argues that the tendency of surplus to rise generates crises because this tendency happens concurrently with the decline in effective demand for consumer goods and productive investment channels. In this same vein, Foster and Magdoff (2009, 53) see excess productive capacity as the main reason for why capitalists started investing more and more in the financial markets from the early 1980s onwards. On average, roughly 81 percent of U.S. industrial capacity was utilised from the mid-1970s to the mid-2000s – in the early 2000s alone, the number was 77 percent. There is also reason to suspect that the unemployment rate of 4.8 percent in July 2006 was not the full story of U.S. unemployment. (*ibid.*, 39–40.) In this sense, the monopoly capital school interprets neoliberalism and financialisation to have stemmed from the stagnation of the real economy.

However, this explanation does not seem completely viable, although it rightly highlights the surging level of indebtedness. First of all, the general plausibility of monopoly capital theory is undermined by the fact that the lack of effective demand for consumer goods was not the reason why the financial crisis escalated, since the growing debt load did not allow the level of personal consumption to fall. Michael Roberts (2016, 19) underscores that ‘personal consumption as a share of GDP rose in advanced economies throughout the postwar period and stayed high even during the start of the Great Recession, while profits dropped before the Great Recession and investment plunged. Consumption only fell afterward and was clearly a consequence of the slump’.⁹² One would assume Foster and Magdoff to have an answer to this, but they do not even mention the

⁹² This observation is in line with the idea that effective demand originates with capitalists (see section 2.3.1).

lack of effective demand for consumer goods, which is so heavily underlined by monopoly capital theory.

Secondly, Foster and Magdoff's explanation of the financial crisis is built on somewhat vague Keynesian notions, which is clear in their reliance on Hyman Minsky's "financial instability hypothesis" (see Foster & Magdoff 2009, 17, 72, 96–97, 115, 118, 125). Minsky was an economist highly influenced by Keynes, Michał Kalecki, and Alvin Hansen, and he famously argued that every capitalist boom period contains the danger of a surge of speculative finance, which absorbs available liquidity and moves the economy towards asset price deflation and, thus, depression (Keen 2013, 223–224). Minsky's own solution to this problem was "Big Government" and "Big Bank" who would apply countercyclical spending and a low-interest-rate policy, while also serving as the lender of last resort, in order to avoid another Great Depression of the 1930s. Minsky thought that these policies, which secured the level of corporate profits above all else, would also stimulate domestic employment and benefit the society at large in critical moments. (Ivanova 2012, 62–63, 70.)

Maria Ivanova (2012, 65–70) highlights that Minsky's theory is based on a past version of the U.S. economy where investment demand was the key determinant of corporate profits (which were mostly reinvested) and where commercial banks lent mainly to businesses (who channelled these funds in investment-related activities). Hence, Minsky did not foresee the economic architecture of the U.S. of the early 2000s, marked by the offshoring of manufacturing, stagnant or falling trends of the rate of net investment (since the late 1960s), and households becoming increasingly entwined with speculative and Ponzi financing. Consequently, the financial instability hypothesis is not applicable as such to the contemporary situation, which is why the measures proposed by Minsky in terms of Big Government and Big Bank were able to neither stimulate domestic employment nor benefit the society at large during and after the financial crisis, despite the fact that corporate profits were saved by Big Government and Big Bank. Ivanova writes:

The official strategy was to prevent deflation of asset values and collapse of corporate profits at all costs. However, contrary to what Minsky (and others) thought, propping up corporate profits does not necessarily sustain wage levels or preserve employment. Companies have behaved more along the lines that Marx would have predicted; they attempted to weather the crisis by cutting wages and laying off workers. (Ivanova 2012, 70)

Furthermore, we saw already in section 2.2.3 that the whole idea of excess productive capacity hampering capitalists' inducement to investment is a psychological explanation

proposed by Keynes.⁹³ Foster and Magdoff (2009, 79) write that ‘[t]he consequent buildup of excess productive capacity is a warning sign for businesses, indicating that there is little room for investment in new capacity’, but it is unclear how excess productive capacity takes effect on capitalists in aggregate. It might play some role, but, in any case, Foster and Magdoff do not provide any data or proof. When we also remember that this psychological mechanism is a part of a larger argument according to which the rate of profit is no longer significant, it is valuable to consider how the rate of profit has developed. In this sense, Anwar Shaikh (1987, 121–122) looks at the rate of profit from the Second World War until the 1980s and adjusts it to capacity utilisation. He writes that ‘[t]he adjusted rate of profit falls strongly throughout the postwar period [...] even in the boom phase from 1947–1967 when demand is strong and capacity utilization is rising’ (*ibid.*, 122). This implies that the stagflation crisis of the 1970s was caused by neither excess productive capacity nor the lack of effective demand for consumer goods because, if it had been, adjusting the rate of profit for capacity utilisation should have given a stable or rising rate of profit for the post-Second World War period. This not only counters monopoly capital theory’s argument that the falling rate of profit plays no role in contemporary capitalism, but also points towards the possibility that a more valid explanation for the stagflation crisis and the 2007–09 financial crisis has to do with the falling rate of profit. I will examine this explanation next.

3.3 Unprofitability and the 2007–09 Financial Crisis

Like the monopoly capital school, Shaikh argues that the real estate bubble of the early 2000s and the ensuing 2007–09 financial crisis should be seen as problems caused by systemic trends that had developed for many decades prior to the financial crisis. However, whereas the supporters of monopoly capital theory identify the issue to have lied in excess productive capacity and stagnation, Shaikh (2010, 44–46, 48–50) underscores that first the stagflation crisis, ending the post-Second World War compromise between capital and labour, and then the financial crisis were related to the movements of the rate of profit.⁹⁴

⁹³ The emphasis on psychological factors suits the general framework of monopoly capital theory in the sense that such factors play a more crucial role in the market sphere than in the sphere of production.

⁹⁴ As we saw above (see section 2.3.3), Marx defines the rate of profit as the ratio of surplus-value to the total capital. Total capital equals the sum of constant capital, consisting of fixed constant capital and circulating constant capital (i.e. means of production) and variable capital (i.e. wages of productive workers).

Esteban Maito (2018, 140) has discovered that the rate of profit of “core countries” (i.e. Netherlands, United Kingdom, United States, Germany, Japan, and Sweden) had a steadily falling trend from the nineteenth century to the early stages of the Great Depression, which was when the rate of profit declined even more sharply. This decline was followed by a recovery period that lasted until the Second World War, after which the rate of profit returned once again to its steadily falling trend.

Fred Moseley (1991, 76) shows that the rate of profit fell 18 percent in 1947–77, from 0.39 in 1947 to 0.32 in 1977. The rate of profit fell because the organic composition of capital (i.e. ratio of constant capital to variable capital) grew faster than the rate of surplus-value (i.e. ratio of surplus-value to variable capital). The organic composition of capital is inversely proportional and the rate of surplus-value directly proportional to the rate of profit. This means that an increase in the organic composition of capital causes the rate of profit to fall, and that an increase in the rate of surplus-value causes the rate of profit to grow.

The rate of surplus-value increased 17 percent in 1947–77, from 1.40 in 1947 to 1.63 in 1977. Assuming an eight-hour working day, necessary labour-time was roughly three and one-third hours and surplus labour-time four and two-thirds hours in 1947, whereas the former was around three hours and the latter five hours in 1977. (Moseley 1991, 50–52.) Moseley (*ibid.*, 54) states that the cause of this increase in the rate of surplus-value was that the productivity of productive labour increased faster than real wages. This explains why the rate of surplus-value grew more in 1947–65 than in 1965–77; productivity rose faster than real wages during the former period, whereas both followed the same trend after 1965.

Marx argues that the organic composition of capital has a tendency to rise in capitalism (see section 2.3.3).⁹⁵ Moseley (1991, 65) finds that the organic composition of capital grew 28 percent in the U.S. in 1947–77, from 1.49 in 1947 to 1.91 in 1977. It was exactly Marx’s argument that the capitalist tendency towards greater mechanisation – namely, replacing labour-power with labour-saving production methods and machinery

Writers use different estimations of the rate of profit and other central concepts as well as refer to different data sets, which explains why their numbers might differ from each other.

⁹⁵ Moseley (1991, 65) operationalises the organic composition of capital as the ratio of the stock of constant capital to the annual flow of new value.

– would create the tendency of the rate of profit to fall. In this sense, Moseley’s results for the period of 1947–77 are consistent with what Marx argues.⁹⁶

In contrast to the profit-squeeze theory, which is one of the four strands of crisis theory (see section 2.1), this decline in the rate of profit was not caused by a decrease in the rate of surplus-value (i.e. higher wages), because the rate of surplus-value actually grew during this period. This case shows that it is possible for both the rate of surplus-value and real wages to increase simultaneously (see Moseley 1991, 58; Shaikh 1978, 234–239), which is a significant finding, as the period of 1950–80 is often considered the “golden era” of the U.S. in terms of economic development and income distribution amongst the white population (Piketty 2014, 294). Even during such a remarkable period in the U.S., the rate of surplus-value grew.

However, the tendency of the rate of profit to fall was countered in 1977–87; the rate of profit increased from 0.32 in 1977 to 0.41 in 1987 (Moseley 1991, 98–99). The rate of surplus-value increased more sharply in this period, from 1.63 in 1977 to 2.22 in 1987⁹⁷, while the organic composition of capital fell significantly, from 1.91 in 1977 to 1.70 in 1987. The reason for the sharp increase in the rate of surplus-value was the stagnation of real wages and the continuing growth trend of the productivity of productive labour, whereas the fall of the organic composition of capital was mostly caused by the decline in the price ratio (i.e. ratio of the price index for constant capital to the price index for wage-goods), which means that the cost of constant capital became cheaper relative to the cost of variable capital. (*ibid.*, 96–100.) As the rate of surplus-value increased sharply and the organic composition of capital declined, the rate of profit fell. As we saw in section 2.3.3, this counteracting factor to the tendency of the rate of profit to fall was already identified by Marx.

In retrospect, Moseley’s decision to study the period of 1977–1987, though understandable in the context of the early 1990s, loses its significance once we look at longer trends. Table 3.1 expresses how the U.S. rate of profit developed in different periods after the Second World War. During the whole post-war period, from 1946 to 2012, the rate of profit fell 20 percent in current cost and 29 percent in historic cost. The period of 1965–

⁹⁶ Moseley (1991, 76–79) adds that his estimates of the rate of profit might actually contain an upward bias, meaning that, instead of 18 percent, the real rate of profit probably fell 20–25 percent in 1947–77.

⁹⁷ The rate of surplus-value increased more than 25 percent in this decade, whereas the increase was only 16 percent during the previous thirty years (Moseley 1991, 96).

82, which includes the stagflation crisis of 1969–82, saw the rate of profit fall by 36 percent in current cost and 14 percent in historic cost, whereas the “golden era” of neoliberalism, from 1982 to 1997, was marked by an increase in the rate of profit by 35 percent in current cost and 12 percent in historic cost. Maito (2018, 141) also points out that the rate of profit fell far more dramatically in 1970–82 than during the longer period from the nineteenth century until 1970. In other words, Moseley’s choice to study the periods of 1947–77 and 1977–87 skews the results of his study.

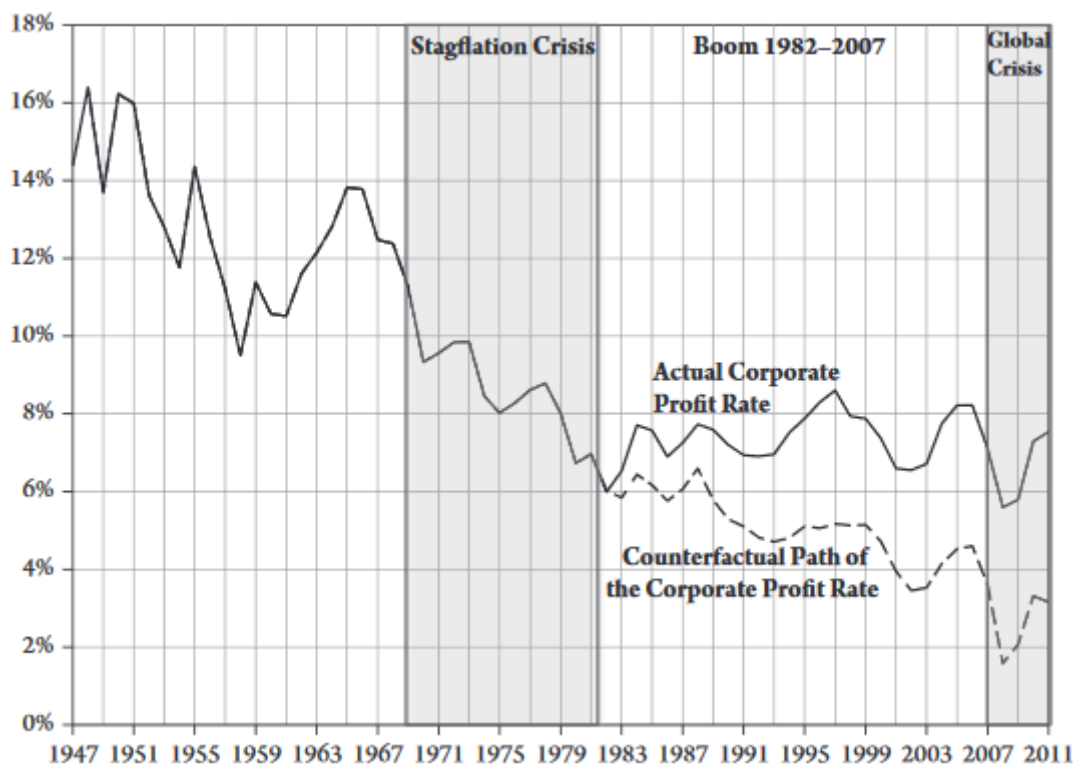
TABLE 3.1 The change in the U.S. rate of profit (as fraction of 1), 1946–2012. Source: Roberts 2016, 24.

Period → Cost ↓	1965– 1982	1982– 1997	1997– 2012	1946– 2012	1965– 2012	1982– 2001	2001– 2008
Current cost	0.64	1.35	0.99	0.80	0.86	1.24	0.89
Historic cost	0.86	1.12	1.00	0.71	0.96	1.02	0.94

The rate of profit returned to its longer-term, falling trend during the highly debt-ridden and finance-driven period of 2001–08; the rate of profit fell by 11 percent in current cost and 6 percent in historic cost. On average, the rate of profit fell by roughly 0.6 percent annually during the whole post-war period of 1946–2012, despite the momentary counteracting increases (Roberts 2016, 25).

Figure 3.5 shows how the U.S. rate of profit developed between 1945 and 2011. As we just saw, the rate of profit expressed an obvious tendency to fall during the post-Second World War boom, but this tendency was countered from the early 1980s onwards, when the power of capital was reinforced relative to that of labour in the United States.

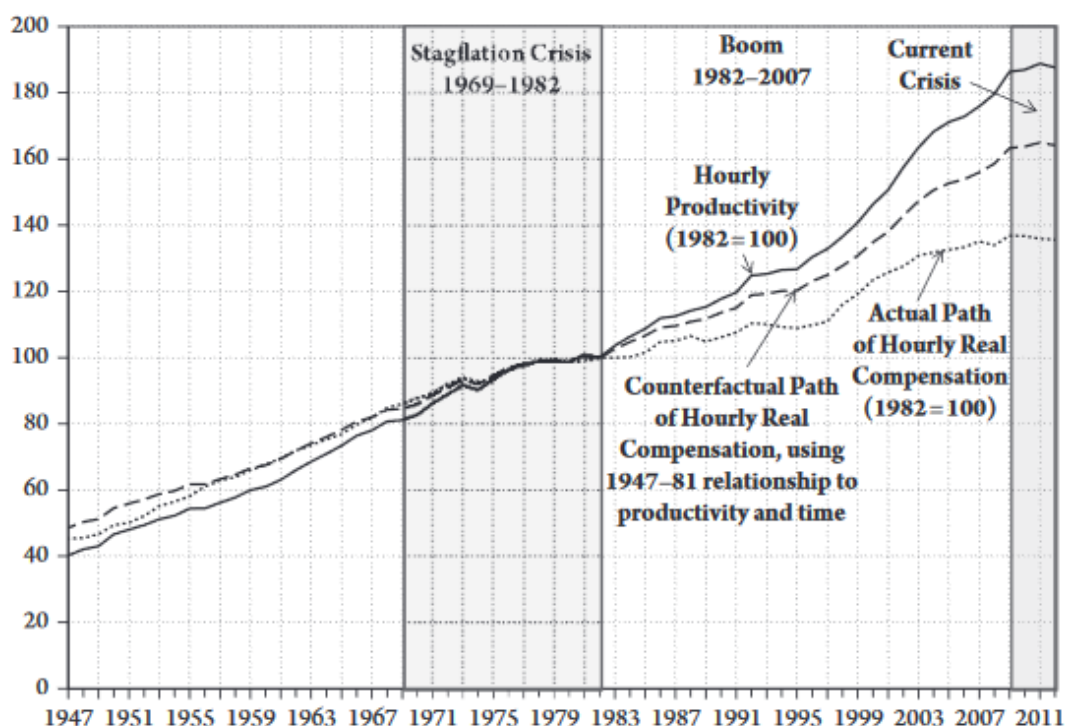
FIGURE 3.5 Actual and counterfactual rates of profit of U.S. corporations, 1947–2011.
Source: Shaikh 2016, 732.



In other words, starting from Ronald Reagan’s presidency, the rate of profit stabilised, because the rate of surplus-value increased sharply. This was due to the stagnation of real wages relative to productivity, which was caused by ‘attacks on private and public institutions that supported labor and a surge in globalization which brought the world’s large pool of cheap labor into more direct competition with labor markets in the developed world’ (Shaikh 2016, 730). Such measures as anti-trade union legislation, the privatisation of state companies, cutbacks in pensions and government services, the reduction of taxes on the corporate sector, a raise in taxes on spending, and the deregulation of the financial sector were implemented (Roberts 2016, 61). Di Bucchianico (2020) argues that the implementation of these kinds of socio-political changes, which undermine labour’s negotiation power, is the most effective means at capital’s disposal to increase profit share and reduce wage share, which raises the rate of profit. In Figures 3.5 and 3.6, the dotted line shows, respectively, the trends that the rate of profit and the hourly real wages would have followed if the rate of growth of real wages had not stopped – that is, if the rate of surplus-value had not been increased – during and after Reagan’s time in office.⁹⁸

⁹⁸ Piketty (2014, 299) writes that, in the U.S., ‘from the mid-1970s on, the top 10 percent and, even more, the top 1 percent began to claim a share of labor income that grew more rapidly than the average wage. All

FIGURE 3.6 Hourly real wages and productivity, U.S. business sector, 1947–2012 (1982=100). Source: Shaikh 2016, 731.



Shaikh (2016, 725–726) recalls that a new economic boom commenced in all major capitalist countries once the stagflation crisis had passed in the early 1980s. This was also the time when interest rates started falling after the “Volcker Shock” of 1979–81. Shaikh uses the term “net rate of return on capital” to refer to the net difference between the rate of profit and the interest rate. Shaikh’s argument is that it is the net rate of return on capital that drives the accumulation of capital and, therefore, the capitalist economy: when profits are high and interest rates low, the capitalist economy undergoes a boom; but when profits are low and interest rates high, the economy experiences stagnation. Applying his framework, Shaikh explains how lower interest rates have affected the post-1970s era:

Falling interest rates also lubricated the spread of capital across the globe, promoted a huge rise in consumer debt, and fueled international bubbles in finance and real estate. Deregulation of financial activities in many countries was eagerly sought by financial businesses themselves, and except for a few countries such as Canada, this effort was largely successful. At the same time, in countries like the United States and the United Kingdom, there was an unprecedented rise in the attacks on labor, manifested in the slowdown of real wages relative to productivity. As always, the direct benefit was a great boost to the net rate of profit. The normal side effect to a wage deceleration would have been a stagnation of real consumer spending. But with interest rates falling and credit being made ever easier, consumer and other spending continued to rise, buoyed on a rising tide of debt. All limits seemed suspended, all laws of motion abolished. And then profit rates began to fall, and

told, the upper decile’s share rose from 25 to 35 percent, and this increase of ten points explains approximately two-thirds of the increase in the upper decile’s share of total national income’. When this fact is taken into consideration, it is likely that the average development of hourly real compensation since the early 1980s, expressed in Figure 3.6, includes social groups whose wages also fell.

the whole edifice came crashing down. The mortgage crisis in the United States was only the immediate trigger. (Shaikh 2016, 726)

In other words, the post-1970s boom – and the neoliberal era – was based on capital gaining the upper hand over labour (manifested in the stagnation of real wages relative to the growth rate of productivity), the deregulation of finance, the stabilisation of the rate of profit, low interest rates, the high net rate of return on capital, and sharp increases in the debt load, the last of which was a structural effect of the aforementioned systemic trends. These phenomena increased the volatility of the economy.

Another reaction by U.S. corporations to the falling domestic rate of profit was the offshoring of manufacturing from the mid-1980s onwards, which intensified greatly in the 1990s due to the disintegration of the Soviet bloc. By 2000, the global labour supply had doubled from roughly 1.5 to 3 billion due to the workers of China, India, and the former Soviet bloc having been added to the global labour pool (Durand 2017, 142). This made things worse for the domestic labour pool, inasmuch as it undermined labour's negotiation power, causing domestic real wages to stagnate relative to the growth rate of productivity. Instead of the more traditional channel of international trade, developing economies were included in the capitalist world economy through firm-level concentration in the form of commodity chains, value chains, and global production networks, which undermined the power of individual nation states. Ivanova (2012, 66) writes that '[f]alling profitability in the core and the desire to capitalize on the low labor cost in the periphery were among the prime motives behind this strategy of industrial restructuring'. The rate of surplus-value is usually higher and the organic composition of capital lower in the Global South, which provide two counteracting factors to the tendency of the rate of profit to fall.⁹⁹

An important aspect of the offshoring of manufacturing is that a massive proportion of the revenue earned from it by the export-oriented areas has been used to invest in U.S. debt. Ivanova (2011; 2012, 65) argues that the remarkable inflow of foreign capital into Treasury securities has kept the yields and, therefore, key interest rates low in the U.S., while foreign demand for financial instruments has greatly amplified securitisation. This situation is exacerbated by the fact that the profits made by U.S. corporations in the periphery have been used to bolster shareholder value instead of investing in productive assets (Ivanova 2012, 68). Therefore, 'financialization of the U.S. economy cannot be

⁹⁹ One effect of the offshoring of manufacturing has been that the productivity of labour is declining in the Global North and increasing in the Global South (Villanueva & Jiang 2018).

properly understood in separation from the outward expansion of U.S. productive capital and the organic linkages and mutually reinforcing feedback effects between these two processes' (*ibid.*, 66).

In this sense, the birth and intensification of financialisation in the U.S. seems to be related to the indirect effects of the falling rate of profit operating on the global scale. U.S. corporations responded to the falling rate of profit, manifested as the stagflation crisis in the 1970s, by offshoring manufacturing to the periphery of the world economy, which resulted not only in the stagnation of real wages of domestic workers, but also in larger profits for U.S. corporations and export-oriented areas. The latter happened concurrently with the decline of productive investment channels in the Global North. Together, these processes caused a surge in U.S. indebtedness as well as the securitisation of this very same debt, expressed as the booming financial sector. Ultimately, these dynamics faced their limits when a surge in housing prices triggered the 2007–09 financial crisis. The crisis was caused not by a simple failure of regulatory policy, but by the wider, structural trends in the capitalist world economy, which remain outside the grasp of the monopoly capital school due to the fact that its members concentrate on market relations and reject the notion of the falling rate of profit. We can conclude that the explanation for the 2007–09 financial crisis which is provided by the falling-profit-rate theory seems more convincing.

Nevertheless, it is necessary to underline that the falling-profit-rate theory should not be understood as a “monocausal” explanation according to which the falling rate of profit always translates directly into an economic crisis. In this regard, Shaikh’s (1987, 117–118; 1999, 107–111) separation between secular trends (i.e. falling rate of profit), cyclical fluctuations (i.e. booms and busts), and conjunctural events (e.g. crises of underconsumption and overproduction) is highly useful; the tendency of the rate of profit to fall is a structural or secular tendency that gives rise to cyclical and conjunctural phenomena. The reason why the tendency of the rate of profit to fall gives rise to different kinds of capitalist crises is that capitalists try to maximise their profits in historically dissimilar situations, while profit-maximisation becomes increasingly more difficult. As Shaikh (2016, 259) writes, ‘[c]apital is a particular social form of wealth driven by the profit motive. With this incentive comes a corresponding drive for expansion, for the conversion of capital into more capital, of profit into more profit’. As a mode of production founded on capital, capitalism is based on profit-making. The more difficult it is to make profits, the more crisis-prone capitalism becomes.

TABLE 3.2 Five crises of capitalism. Source: Duménil & Lévy 2011, 20; updated by author.

Crisis	Cause	Following conjuncture
Crisis of the 1890s	Falling rate of profit	First financial hegemony
Great Depression of the 1930s	Crisis of financial hegemony	Keynesian compromise
Crisis of the 1970s	Falling rate of profit	Neoliberalism/financialisation
Crisis of neoliberalism	Crisis of financial hegemony	Central-bank capitalism
COVID-19 pandemic	COVID-19 virus	?

Table 3.2 clarifies the above point by summarising the main causes of the five most severe crises of capitalism and the conjunctures that followed them since the late nineteenth century. The depression of the 1890s and the stagflation crisis of the 1970s were caused directly by the falling rate of profit, whereas the Great Depression of the 1930s and the 2007–09 financial crisis (i.e. “crisis of neoliberalism”) resulted from financial expansions reaching their limits. We also know now that the indirect cause of the 2007–09 financial crisis was the falling rate of profit, which incentivised the offshoring of manufacturing and, thus, financialisation.

The conjuncture that followed the financial crisis can be called “central-bank capitalism” (Ahokas 2019), and it is marked by the normalisation of unconventional monetary policies exercised by central banks whose primary goal is to retain the high level of asset values (Ivanova 2018). The striking effect of such policies was that the rate of profit managed to surge even during the global recession triggered by the financial crisis (see Figure 3.5); the decision to pour money into the financial sector in the form of bailouts ended up enriching the top 7 percent of U.S. households during the first two years of the crisis, while the bottom 93 percent became poorer (Shaikh 2016, 737). This same dynamic has continued since then (Ivanova 2018, 275–277).

Finally, we are now experiencing the fifth major crisis of capitalism, although this time the crisis was triggered by a global pandemic caused by the spread of the COVID-19 virus. It is still too early to say what kinds of modifications the present crisis will provoke within the capitalist institutional structures, or beyond them, but the way in which central banks and governments have responded to the crisis has not yet departed from the agenda sensitive to the needs and interests of fictitious capital.¹⁰⁰ For example, the Fed’s

¹⁰⁰ For instance, although the profits of the whole economy have fallen drastically since the beginning of the pandemic, the profits of the financial sector have retained their pre-pandemic level (U.S. Bureau of

portfolio of securities held outright increased from 3.9 trillion U.S. dollars in mid-March to 6.6 trillion dollars in early December, on top of which the Fed now offers low interest rate loans (up to 90 days) to twenty-four large financial institutions called “primary dealers”. Moreover, the Fed started lending to banks who buy collateral from prime money market funds, and it began buying vast amounts of securities from the repo markets. Prior to the COVID-19 pandemic, the Fed offered 100 billion dollars in overnight repo and 20 billion in two-week repo, but now it offers 1 trillion dollars in daily overnight repo, 500 billion dollars in one-month repo, and 500 billion dollars in three-month repo. The Fed also lowered the rate for which banks can borrow from its “discount window”, from 1.75 to 0.25 percent – this is a larger reduction than during the Great Recession – on top of which these loans were turned from overnight loans into ninety-day ones. The Fed has also encouraged banks to “relax” their leverage ratio requirements, which were implemented as a response to the financial crisis. (Cheng et al. 2021.)

It is crucial to ask whether this is what should be done, and whether these funds could instead be channelled to consumers and non-financial businesses. This would not only boost the economy, but also ameliorate the problems experienced by ordinary people. In general, the stimuli could be distributed in two ways: the U.S. government could direct money towards businesses and banks, hoping that they increase employment; or the government could employ people directly through public-sector employment, thus stimulating demand. Shaikh (2016, 741–742) questions the efficacy of the first mode of stimuli in moments of crisis, which is why he writes that,

if the second mode were to be employed, the matter is likely to be very different. The income received by those previously unemployed has to be spent, for they must live. The second mode therefore has two major advantages: it would directly create employment for those who need it the most; and it would generate a high trickle-up effect for businesses who serve them. (Shaikh 2016, 742)

The historical example of what the U.S. government did during the Great Depression of the 1930s supports Shaikh’s point. Although it is true that the COVID-19 pandemic is, in a sense, an unprecedented moment, public-sector employment could be implemented after people have been vaccinated. There is no real reason, notwithstanding the profit motive, why this option should be off the table.

Economic Analysis 2020a; 2020b). Additionally, while the U.S. lost around 10 million jobs between the start of the pandemic and December 2020 (CNBC 2020), the number of U.S. billionaires increased by 56 persons in 2020 (NBC News 2020). There is reason to believe that the Fed’s actions in financial markets since the start of the pandemic have contributed greatly to this situation (see Brenner 2020).

I started this chapter by arguing that the 2007–09 financial crisis was directly related to the neoliberal conjuncture and its economic motor, financialisation, understood as the intensive and extensive accumulations of interest-bearing capital and fictitious capital. Due to the offshoring of manufacturing, the deregulated U.S. financial sector experienced an unprecedented boom relative to real sectors in the 1990s and 2000s, which made the whole economy highly unstable. The bubble started to deflate in 2006, and the financial crisis began in 2007. What is nowadays called the Great Recession ensued.

Next, I looked more carefully into the explanation provided by the monopoly capital school as to why the financial crisis occurred. I argued that, although the supporters of monopoly capital theory correctly highlight the role played by the growing level of indebtedness in the U.S. economy, their silence regarding the lack of effective demand for consumer goods as well as their emphasis on excess productive capacity and Minsky's financial instability hypothesis deems their argument vague. And since the level of effective demand for consumer goods was not insufficient prior to the financial crisis and the rate of profit adjusted to capacity utilisation fell throughout the post-war period, I turned my attention to the falling-profit-rate theory.

I analysed how, after the Second World War, the rate of profit did indeed fall rather steadily until the late 1970s, which was when the neoliberal bloc became hegemonic. From the early 1980s onwards, the tendency of the rate of profit to fall was countered by sharp increases in the rate of surplus-value, caused by reductions in real wages relative to productivity, and the offshoring of manufacturing to the Global South, where the rate of surplus-value was higher and the organic composition of capital lower. These events are expressions of the counteracting factors to the falling rate of profit which were already mentioned by Marx. In this sense, the reaction that capital had against the falling rate of profit from the late 1970s onwards explains the structural context within which consumers and financial institutions started amassing more debt and the demand and supply of new financial instruments surged. This trajectory, exacerbated by the inflow of foreign capital into Treasury securities, culminated in the 2007–09 financial crisis.

4 CONCLUSION

In the ‘Preface to the French Edition’ of the first volume of *Capital* (1867/1990), Karl Marx writes: ‘There is no royal road to science, and only those who do not dread the fatiguing climb of its steep paths have a chance of gaining its luminous summits’. We may now examine the view that the climb has uncovered by returning to the two research questions that I posed in the beginning of this thesis. Let us first examine the second research question:

(2) Should the ascent of large joint-stock companies (i.e. monopolies) be seen as having altered the crisis tendencies of capitalism, or is it more viable to argue that monopolies have introduced no qualitative transformations to the capitalist mode of production?

Based on the findings of this study, the falling-profit-rate theory’s argument that the capitalist economy still follows the same “laws of motion” as in the nineteenth century seems more plausible than what the monopoly capital school proposes. In this regard, I have argued that, firstly, Paul Baran and Paul Sweezy’s theoretical framework leads to misleading conclusions because it starts from the market, secondly, underconsumptionism is premised on the questionable idea that the effective demand for consumer goods drives capitalism, and, thirdly, concentration does not correlate positively with higher profit rates. Once these aspects are considered, the monopoly capital school’s claim about the qualitative rupture between the nineteenth and twentieth centuries seems less realistic, and we are faced with the option that the economic and social problems that we see today are caused not by monopolies, but by other, more structural processes.

I have asserted that the falling-profit-rate theory is able to grasp the crisis tendencies inherent to capitalism because it starts from value relations in production that give rise to the falling rate of profit and its market expressions. The model of real competition explains why firms are induced to implement labour-saving production methods and machinery that reduce their rates of profit. Although counteracting factors can periodically slow down the fall of the rate of profit or restore it to its previous level, it is questionable whether this will be possible in the long run. The tendency to implement labour-saving production methods and machinery is too powerful, which is why crises tend to take place in order for the devaluation of producer goods to happen. This is a social dynamic that existed already in the nineteenth century.

Now we are in a position to consider the first research question:

(1) Should the 2007–09 financial crisis be explained with reference to crisis tendencies related to monopolies, or was the financial crisis rather caused by crisis tendencies that existed already prior to the twentieth century?

Both the monopoly capital school and the falling-profit-rate theory see financialisation as undermining the long-term sustainability of the U.S. economy. The disagreement lies in how these frameworks explain the advent of financialisation. I have argued that the monopoly capital school cannot consider all the important aspects related to financialisation and the 2007–09 financial crisis because its framework emphasises the lack of effective demand for consumer goods. Furthermore, the monopoly capital school's explanation of the financial crisis relies on the notion of excess productive capacity and on Hyman Minsky's financial instability hypothesis. As the level of effective demand for consumer goods did not drop prior to the financial crisis and Minsky's hypothesis is premised on an outdated version of the U.S. economy, we should search for a more viable explanation.

On the other hand, the falling-profit-rate theory, as I have constructed it here, explains the financial crisis with reference to the reaction that the U.S. capitalists had on the falling rate of profit in the 1970s. In the 1980s, the offshoring of manufacturing to the periphery of the world economy commenced, which produced two mutually reinforcing processes: the global labour supply caused the real wages of domestic workers to stagnate, which generated more demand for consumer debt in the U.S.; and the offshoring of manufacturing meant larger profits for the U.S. companies and capitalists without productive investment channels in the domestic economy, which created a massive demand for new financial products. Together, these two processes resulted in risky derivatives, which were constructed of consumer debt in order for capitalists to invest in and speculate with them. The inflow of foreign capital into Treasury securities further exacerbated the situation. This whole arrangement came crashing down, although it seems that not much, or at least not enough, has changed since then. In conclusion, I argue that, in contrast to monopoly capital theory, the falling-profit-rate theory provides a more viable explanation of the 2007–09 financial crisis and a stronger framework for studying capitalist crises.

Clearly, one potential project for future research along these lines would be to study the COVID-19 crisis from the perspective of crisis theory, especially the falling-profit-rate theory. Such a study has the potential to discover how the contemporary crisis differs from previous crises, what similarities it shares with them, and what possibilities the future holds.

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