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Ph.D. Summary Dissertation
“Philosophy of Sustainable Finance”

by

Cengizhan Kaptan

B.A, Anatolian University
MSc., Leeds-Beckett University
MBA, Aston Business School, Aston University
Ph.D. candidate, Sofia University

Supervised by

Dr. Alexander Gungov, Sofia University

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The Philosophy of Sustainable Finance

Introduction

The philosophy of finance (or money) has been a subject of study for philosophers. The purpose of this study is to show how philosophy can provide a view of a particular field, namely sustainable finance, in its relation to the whole financial system and capitalism. Philosophy is a collaborator between the sciences, providing a general paradigm of thought. The position of dialectical logic stands out as a sound method that reveals the essential aspects beyond the mere appearance of things. I have therefore applied Marx's dialectic, which has its roots in Hegel, to the analysis of sustainable finance. The aim is to see what it essentially means beyond capitalist paradigms.

Sustainability, and sustainable finance as part of it, is a trend. It is therefore not surprising that more and more books, articles, campaigns, research, and the like are devoted to philosophizing about sustainable finance. Sustainable finance is an inevitable phase of financial capital and a quantum that has emerged as a subcategory of finance from the perspective of historical development. The analysis of sustainable finance should reveal the structure of capital as a whole and define the development of sustainable finance in relation to financial capital. Sustainable finance is thus a dialectical moment of capitalism and a part of finance.

Historically, sustainability has been both an ethical element and a link to profitability, an inescapable goal of business in a capitalist economy. Early Methodist and Quaker sermons show how to promote investment and be ethical at the same time. Today, two major events that put sustainability into action are the Paris Agreement and the Sustainable Development Goals. Climate change is also a burning issue in the financial world. Financial institutions are and will be directly involved in financing green projects. They are also defining their policies on fossil fuels and greenhouse gases to facilitate the transition to a low-carbon economy.

Philosophical insights on science and its limitations

Science has the capacity to improve both the societal and individual well-being of our species while also making our lives easier. There is a belief that stress, illness, cancer, etc. will eventually be fully eliminated by science. However, the methods and procedures used in these scientific procedures are frequently disregarded. To ensure that science is socially and ethically responsible, the philosophy of science is crucial. It would make an excellent partner for it. Beyond factual evidence, dialectical logic can provide us with insights that cover the entire picture. When a whole is embraced, it becomes more rational. This is why philosophy would

interact with the natural and social sciences, offering logical justifications and premises, as well as benefiting from and contributing to them.

Philosophical stance

Karl Marx and Friedrich Engels are the successors of the Hegelian dialectic, although Marx was not able to write a specific work devoted to the dialectic, in spite of his desire and intention to do so. In his letter to Engels dated January 16, 1858, Marx expressed his desire to write about dialectics, especially about Hegel. He wanted to write a pamphlet liberating dialectics from mystical forms.

Hegel believed that contradictions are the means by which the world, history, and consciousness advance. Marx argues that capitalism causes injustice and poverty, and that the accumulation of wealth impedes the growth of both society and the productive forces. Given the connection between sustainability and capital ownership, I looked at the claim of sustainability's legitimacy in light of its position within the capitalist system and talked about whether sustainability in such a system is even possible.

The study consists of six chapters:

Chapter 1 - Methodology - outlines the methodology used in the study and provides a theoretical framework under the Hegelian and Marxian dialectics.

Chapter 2 - Sustainable Finance: Definition and Historical Analysis – provides a series of major historical events related to climate change and discusses them.

Chapter 3 - From Finance to Sustainable Finance - shows the links between finance and Sustainable Finance, explaining how credit and sustainability ratings are used as measures that impose universals throughout the financial system. It also demonstrates how profit is essential for both finance and Sustainable Finance.

Chapter 4 – Limits and Inadequacies of capitalism about sustainability - discusses the major issues within financial capitalism, net zero emissions by 2050 as a sustainability paradigm, regulation-deregulation, and financialization in contemporary capitalism.

Chapter 5 - How to achieve better sustainability? A philosophical discourse - proposes a new term: biopsychopolitics. This chapter provides a critique of Foucault's biopolitics and Byung-Chul Han's psychopolitics. It provides a high-level definition of biopsychopolitics that I believe fits within the Marxian framework. The chapter also provides some examples of

biopsychopolitics' applicability to Marx's framework. Social sciences and social philosophy can provide more insights than psychoanalysis to us; thus, I also linked biopsychopolitics to the social phenomenology of Maria Dimitrova and discussed the role of responsibility in terms of ethics and justice.

Chapter 6 - Concluding remarks and future tasks – summarizes the outcomes of the analyses and concludes with remarks concerning future works in the field. This chapter also distinguishes between philosophy and critical social theory and suggests collaboration between these two fields and other sciences.

Chapter 1. Methodology

Theoretical framework and methodology

Hegel, in his fidelity to German Idealism, was a philosopher of system. He maintained that the system, as an indeterminate being containing the Absolute in its most abstract form, is a circle that should be closed at the point where subject and substance first meet. Hegel used a dialectic of his own, in which moments represent breakthroughs, and the concept is continually being created by each of these moments. He argued for the importance of dialectics and the relevance of temporality and history as the last and most important scholar of German Idealism. His contribution to philosophy is undeniably rich, as he was followed by his successors, the left and right Hegelians, and inspired Karl Marx and Friedrich Engels. The dialectical approach calls for an analysis that goes from the simplest to the most complex. In this study, Hegelian and, more specifically, Marxian dialectics have been taken as the main methodology for analyzing sustainable finance in its relation to the entire financial system and capitalism.

Dialectic

Dialectic is a valuable tool. It can provide insights for a proper critique of the world. How dialectic can provide valuable results is rather immanent in the method itself. Because dialectics deals with the contradictions of a subject, we can develop critical approaches and interpretations on the basis of these contradictions - through our own process and not from the outside. I will argue that dialectics is the supporter of science by observing, investigating, and determining stages, phases, and breakthroughs.

Dialectics in Hegel and Marx

In the dissertation, I presented both Hegelian and Marxian dialectics to memorize their contents, similarities, and differences from each other.

Hegelian dialectics

The mind is a dynamic, living entity that cannot be divided into separate units or faculties, according to the Hegelian system. He devotes almost all his faculties to mind and believes that our culture, habits, customs, political systems, etc. are manifestations and actualizations of mind throughout history. The focus of his dialectic is on the self-conscious mind, which is the divine emanation, and the growth of the human mind, which is its actualization. In short, Hegel presented the effect of history and time in the broadest sense, that is, self-consciousness. This method is made possible by his philosophical system: "Absolute Idealism" and "Speculative Philosophy", which are based on the premise that the most important thing is to achieve the

whole. Hegel is known for his emphasis on dialectical logic and reason, as they are revealed through the intersubjectivity of history. His master-slave dialectic, also known as the dialectic of recognition, was a philosophical breakthrough that has had an impact on philosophers and those who think about the formation and development of society.

Nevertheless, the Hegelian dialectic is not to be taken for granted. This is a key difference between Hegel's system and Marx's framework, as the latter stresses that “it is not the consciousness of human beings that determines their existence, but their social existence that determines their consciousness”.¹

Marxian dialectics

Marx, in his thesis on Feuerbach, stated that philosophers have simply interpreted the world in different ways, but the goal is to transform it. Hegel was a forerunner in the critique of the construction of thought and philosophical inquiry on the basis of an abstract individual and society. As a tool to support his own scientific approach, Marx inverted Hegel's dialectic. He made use of dialectical logic in his political and economic writings. Dialectic is a powerful tool for developing critical views and interpretations based on inconsistencies and can provide insights for a proper critique of the world. This dissertation argues that another social phenomenon that determines social being is finance, as one of the main elements of the political-economic system. We can better understand the true nature of sustainability and gain deeper insights into inequality, injustice, social and psychological problems of individuals and societies through a dialectical analysis of such phenomena.

Marx was also influenced by Hegel's concept of alienation and his Phenomenology of Spirit. Hegel's Phenomenology of Spirit showed the ways to overcome this alienation and achieve unity. Marx proposed a system that included a solution to unity through both practical and theoretical steps. Marxian analysis often emphasizes the importance of understanding these relations. It is often accused of being deterministic, but it does not claim that history is predetermined or that social change is inevitable. Marx predicted that capitalism would eventually give way to socialism. That is why I distinguish between the Marxian and the Hegelian dialectics from the point of view that the Hegelian one is a logical structure that comes to the present and remains there, while the one belonging to Marx uses dialectics for the prediction of the future, which is now applied through the critical theory.

¹ Karl Marx, *A Contribution to the Critique of Political Economy* (Chicago: Charles H. Kerr & Company, 1904), 11-12.

Abstract and Concrete in Hegel and Marx

Both Marx and Hegel regard abstract and concrete as important concepts in their systems of logic. For Hegel, abstract identity is the most abstract, purest form of the Absolute, and becoming is the transition to determinate being. *Aufhebung* in German has two meanings in English that relate to the Hegelian system: to abolish, to cancel, and to preserve. Marx and Hegel both believed that the logic of a system is abstract, but within it an abstract universal can be distinguished from a concrete totality that integrates a diverse complexity.

Hegel's dialectical logic is the process that goes beyond appearances to reach the essence, and Hegel's circle of circles is complete in its most concrete form: The Concept, The Absolute. Marx argued that “The concrete is concrete, because it is a combination of many objects with different destinations, i.e., a unity of diverse elements.”² This unity is a unity made up of particulars, all unique in themselves, but all parts of the whole. Therefore, in the dissertation I showed how Hegel and Marx were far from being totalitarian in the political sense of the word. On the contrary, they both showed that the universal contains the particular in various forms.

Social Ontology and Social Epistemology

Sustainable finance is a concept that has been studied for its social significance in the modern capitalist era. It refers to the financing of companies by financial institutions, which are public and private financial institutions or investment by companies to the products offered by financial institutions -such as green bonds etc.-. To understand the nature and development of sustainable finance assets, such as green bonds, green funds, and responsible investments, one must look at the meaning of these assets in the eyes of stakeholders. Ontology can make the hidden visible, and efforts should be made to find out what is the main driver for, say, the emittance of a green bond from a bank's perspective. A green asset may qualify as a green asset, but it may not be enough for society to live in a better environment or achieve a better quality of life.

Those who have the capacity and power to invest in such assets may become richer, and the purpose of the bond may be too limited to offer social transformation. Marx's ontology and insights are essential for understanding sustainable finance. This dissertation aims to provide a solid foundation on the epistemology of sustainable finance, and then to provide ontological

² Karl Marx, *ibid.*, 293.

insights. It also seeks to re-read and re-interpret the philosophical and political analyses of the initiators of the Marxian framework and to analyze Sustainable Finance accordingly.

The role of immanence and Final Remarks on Methodology

Immanence is essential to both Hegelian and Marxian dialectics. In the dissertation, my main task was to explain sustainable finance through its own process, without the intervention of external parties. We are all prone to bias; however, letting a process explain itself can definitely provide a significant reduction in such bias and make the work more robust and comprehensible. One such effort that is specific to this thesis is therefore the inclusion of a dialectic that would reveal the essence of sustainable finance. Such an analysis is done through immanent critique, which involves an analysis that goes from appearances to more complex structures.

Chapter 2. Sustainable Finance: Definition and Historical Analysis

In this chapter, I have presented the major historical events in sustainable finance. History is essential to understanding the development of sustainable finance because it provides temporal facts, changes, contradictions, and transformations.

Sustainable Finance

Sustainable finance is a generally long-term investment that consists of financing sustainable activities that consider environmental and social issues, with ESG (environmental, social and governance) being the most important component. It is a vehicle for investing in the fight against climate change and social injustice. The European Commission is one of the main stakeholders of sustainable finance and it covers the core of the common points. Green Bonds are the typical and most used investment instrument under Sustainable Finance.

Sustainable Finance is similar to finance in its simple form but focuses on specific goals that address environmental or social issues. The goal of sustainable finance is to address sustainability in a more specific and limited way. The parties to simple finance are the same: the lender (financial institution, a bank) and the borrower (usually a company). However, sustainable finance is financing based on specific purposes, such as environmental or social purposes.

The Concept of Sustainability in History

Quakers' and Methodists' Call for Ethical Investment

The history of Sustainable Finance can be traced back to the late 17th century when responsible investment was a concept among religious groups. Cadbury refers to the Germantown Protest dated 1688, which was published in 1844 as the earliest document in the field of social responsibility. John Wesley's sermon "The Use of Money" of John Wesley called for responsible use of money, which has its roots in the tradition of socially responsible investing (SRI). Sustainable Finance is based on ethical perspective concerning socially responsible investment acts, with environmental issues not of great concern in earlier centuries, while social issues like slavery and injustice were. The term "responsibility" was used as an adjunct to social impact, distinguishing between investment purposes. The historical development of responsibility covered environmental issues at a gradually rising level.

The Environment as a Concern

Svante Arrhenius, based on his paper in 1896, is acknowledged as being the first to realize the potential for human actions to create global warming. Using the notion of radiative forcing, he

computed the effects of different levels of carbon dioxide (CO₂) in the atmosphere on the Earth's temperature. In fact, there seems to have been an awareness and concern about pollution, as we also see in Marx and Engels that they were acutely aware of air -environment in a broader sense- pollution and its consequences. Both emphasized the importance of the issue and linked it to the profit-maximizing principle of capitalism. For example, we can see a reference in their work to Bolton, a very dirty market with dark-colored, polluted water. Marx argued that air pollution had a direct effect on the working class, and that human activity was a major cause of this pollution.

Marx also discussed historical facts that harmed the environment and agriculture, such as factory pollution, the destruction of ships, and the use of water to fertilize the soil. As a result, modern agricultural techniques, the use of water, and the abandonment of once fertile areas have been found to be detrimental to a country's civilization. Marx argues that ancient civilizations operated on the principle of conquering nature, which led to man's first urge for self-gratification and pleasure. He also states that with cultivation, the moisture cherished by the peasants is lost and steppe formation occurs.

Marx goes on to explain how deforestation takes place when things are left to their own natural growth and are kept away from conscious monitoring and control. Marx's statements on deforestation, water misuse, and environmental degradation are linked to the underlying economic and political system of capitalism. Critics argue that Western epistemologies open the door to the empire of man over nature, both organic and inorganic. Engels notes that human triumph over nature can have both positive and negative effects and seems to be aware of this epistemological problem.

Marx also pointed to the irreparable rupture of agricultural areas due to migration to factories. He argued that the metabolic relationship between humans and nature is disrupted by the intensification of industrial capitalism and the expansion of the capitalist mode of production. Engels also discussed environmental degradation and the unexpected consequences of what were initially thought to be good decisions and actions. A contemporary example of this is the Netflix limited series "Unnatural Selection," which discusses whether man-made technological improvements and genetic modifications could change our lives and the life of the planet as a whole.

Reading the literature on sustainability, one can see that the growing concern about climate issues was quite acute, and that the concepts of sustainability, ecologism, and environmentalism

became systematic after World War II. History helps us to see how changes in modes of production change our environment and us.

Post-World War II: Pioneers of the ecological movement

Murray Bookchin's work *Our Synthetic Environment*, under his pen name Lewis Herber, and Rachel Carson's *Silent Spring* are two influential works that have had a lasting impact on the environmental and social aspects of our lives. Both works sought to address the issue of synthetic chemical substances that harm the environment, especially agricultural products, and food. Carson's work focuses on how our environment is being damaged by our species and how pesticides are harmful to the environment. Bookchin's work was influential in the development of social ecology. Today, the springs are even quieter, due to the increasing damage to nature and the barriers erected against those who fight climate change and social problems.

In the history of Sustainable Finance, we should appreciate the role of social ecology. Social ecology is a philosophy and political theory that stresses the interconnectedness of social, environmental, and political issues and the need for an integrated approach to their solution. In "*The Ecology of Freedom: The Emergence and Dissolution of Hierarchy*" published in 1982, Bookchin developed a critique of hierarchy and dominance and argues that these forms of social organization are the root causes of environmental degradation and social injustice. He also proposes a vision of a decentralized, ecological society based on the principles of direct democracy, mutual aid, and social and ecological interdependence. Prior to the publication of this book, Barry Commoner, an American ecologist and socialist, wrote about the dangers of greenhouse gases (GHGs) and argued for a radical social and economic transformation to address them. Subsequently, eco-socialist thinkers such as Andre Gorz and Rudolf Bahro developed these ideas further, prioritizing the needs of people and the planet over profit and economic growth.

In the capitalist camp, on the other hand, the Bretton Woods conference of the 1930s was a major event in the global financial system, establishing the World Bank and the International Monetary Fund (IMF). It enabled relatively stable growth on the Old and New Continents. By the 1970s, however, this stability had faded, and it was time to say goodbye to Keynesian economics. Deregulated, so-called free markets became dominant again. This led to financialization, which saw an enormous increase in the role of finance, which occupied the global economy through the network made possible by US policyholders. This fragility led to the first shattering of the financial markets in the 2008-2009 crisis, the effects of which are still

being felt today. Regarding unregulated financing and its impact on the financing of fossil fuel producers, the increase in greenhouse gases and the financing of such activities has raised questions about the world's response to this danger.

Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) is a term that has been used for decades to describe a company's ethical responsibility to align its behaviors and values with those of its stakeholders. It is distinct from philanthropy, which is based on social, environmental, and economic systems. CSR also includes charity and corporate support for local communities and society at large.

CSR (Sustainability and Social Responsibility) is an important concept for the capitalist camp, as it is the driving force behind the transformation of the planet and society. It is the pursuit of maximizing profits while respecting the values of stakeholders and achieving environmental and social responsibility. In the dissertation, I presented the story of two companies that followed the CSR methods of a so-called visionary. What we see is that the word charisma and its derived forms are used to describe the nature of financial investments. In fact, such illustrated words hide the nature of finance. Profit maximization is the core of the capitalist system, regardless of how management and administration are labeled.

To strengthen the argument, I also referred to the status of CSR during the Covid-19 pandemic. I emphasized the hegemonic background of CSR and how it affects small and medium enterprises, which are forced to adopt this concept despite their scarcity and allocation of funds. Rather, the problem lies in the fact that ethical considerations are the result of their surrounding conditions, which consist of modes of production: CSR, when a catastrophic event occurs, remains a luxury for smaller companies facing survival issues.

In short, the history of Sustainable Finance shows us how the opposition sought alternatives while the capitalist world used abstract paradigms to enjoy profitability.

Important events: From Rio to UN SDGs and the Paris Agreement (1992-2015)

The United Nations Environment Programme Finance Initiative (UNEP FI) was launched in 1992 by the so-called "visionary leaders". These leaders were advocates of finance capital, leaders, innovators, and aspirants to address environmental and social issues that threaten our planet and our lives.

From Rio to Kyoto

The United Nations Framework Convention on Climate Change (UNFCCC) was launched in 1994, following its adoption at the Rio Summit in 1992. The goal was to keep the levels of greenhouse gases in the atmosphere stable enough to avoid dangerous human interaction with the climate system. The key words in the last two decades have been "greenhouse gas emissions" (GHG) and derivatives of "anthropos", including Anthropocene. As a result of the launch of the UNFCCC, the first annual meeting of the UNEP FI was held in Switzerland in September 1994. The theme was "Greening Financial Markets", which initiated avenues for green financing to help businesses and governments achieve their transformation to a green and sustainable planet.

From Kyoto to Paris with Millennium Development Goals (MDGs)

The Kyoto Protocol was adopted by the UNFCCC in December 1997, and the Parties to the Protocol committed themselves to achieving emission reduction targets. Binding greenhouse gas reduction targets were eventually achieved. But the real achievement never materialized.

The UN Millennium Declaration was ratified at the Millennium Summit in September 2000 with eight goals - the Millennium Development Goals (MDGs) - with specific social targets - addressing issues such as education, poverty and gender equality - to be achieved by 2015. The Kyoto Protocol and the Millennium Development Goals (MDGs) were initiatives to achieve sustainability, but they failed due to lack of human resources, organization, cooperation, and others. No doubt, these issues stemmed from the unwillingness of participants. Nevertheless, UNEP FI highlighted its achievements at COP 9 - raising the awareness of financial institutions on climate change. At COP11 in December 2005, the UNEP FI Climate Change Working Group (CCWG) issued a statement calling for certainty to spur medium- and long-term investment in transitioning to a low-carbon economy. The Principles for Responsible Investment (PRI) were launched in April 2006. They encouraged institutional investors to invest in the transition to a low-carbon economy.

In July 2015, UN Environment called for a revolution(!) to mobilize the trillions of dollars needed to transition to a greener, more sustainable global economy. The Positive Impact Manifesto was launched in October 2015, asking for an innovative impact-based strategy that includes an in-depth examination of the three components of sustainable development. The financial system was assessed, not surprisingly, as an inescapable player in the world of sustainability. In fact, the ambition of the financial industry is to ensure the long-term

profitability of financial capital, one way or another, otherwise they would prefer to finance other sectors rather than become saints.

United Nations SDGs and the Paris Agreement in 2015

The UN's 2030 Agenda for Sustainable Development was adopted at the UN Sustainable Development Summit in September 2015. In December 2015, the Paris Agreement was signed, aiming to keep the global temperature rise in the 21st century well below 2 degrees Celsius. In 2017, the UNEP FI Principles for Positive Impact Finance were launched. They intended to help accomplish the Sustainable Development Goals (SDGs). In 2018, the Rethinking Impact to Finance the SDGs report was released. The report explored innovative approaches to reduce costs and promote business and financing solutions. On September 22 and 23, 2019, the Principles for Responsible Banking were launched by 130 banks at the UN General Assembly in New York.

The Sustainable Development Goals and the Paris Climate Agreement have been closely linked since 2015. The SDGs seek to increase the global response to the issue of global warming, while also promoting sustainable growth and combating poverty. The Paris Agreement requires finance flows to be in line with the implementation of the targets to achieve lower greenhouse gas emissions. This integration of finance capital between corporations, states, and their apparatuses makes clear that such changes or failures will be materialized through the involvement of the financial capital only. So, the solution is to be provided by those who created it.

Review of COP26 and COP27 under Sustainable Finance

To come to our present day, I have provided a brief summary of the contents of COP26 and COP27 to make their analysis in line with historical developments and facts.

COP26 in Glasgow

COP26 was a UN climate summit that began with big expectations and ended with disappointment. BBC UK summarized the agreement as consisting of four main points: emissions, coal, developing countries and fossil fuel subsidies. The parties agreed to use further cuts to stop the growth of carbon emissions, as GHG emissions cause warming, but did not agree on a "phase down" commitment regarding fossil fuels. Despite some successes, most pledges were still based on self-policing practices.

COP27 in Sharm el-Sheikh, Egypt

COP27 in Sharm el-Sheikh, Egypt is an important event in the history of COP26, as it marks a breakthrough according to some officials and advocates. It also serves as a reminder of the need for governments to phase out subsidies that make oil, gas and coal prices lower by governments. This agreement is necessary to help developing countries fight the harmful effects of climate change.

The COP26 summit in Glasgow was a critical event for the establishment of the "Loss and Damage Fund". The fund is designed to provide resources to vulnerable countries in their fight and help them recover from climate damage. Finally, the establishment of the fund has been accepted at COP27.

The UK, along with some other governments, wanted a binding agreement to ensure that emissions peaked by 2025: this did not happen. COP26 was a summit where countries agreed to review and improve their 2030 targets by the end of 2022, but few of them did so, so it was largely unfulfilled. Governments, activists, and NGOs have called for the exclusion of all fossil fuel use from the phase-down and for financial institutions to adopt the necessary reforms to ensure easier access to sustainable finance: this did not happen.

Analysis of COP26 and COP27 in connection with the overall historical development

For capitalists, the main drive is profitability and growth, regardless of what they say about politics, rights, ethics, wealth, and sustainability. For them, sustainable finance is a virtue-based form of finance dedicated to the sustainability of financial markets, the expansion of ecological investments, and investments to solve social problems. Today, carbon markets continue to provide camouflage for polluters' continued emissions, taking land from vulnerable communities, and breaches of the rights of people. Social aspects such as water, natural sources, forests, and who do they belong to are often overlooked. In fact, E and S are interconnected and cannot be separated from one another if we want to live on a truly sustainable and just planet; a fact deeply dismissed by capitalists. In fact, COP27 was still far from providing real solutions to environmental problems.

In fact, we should first define the role of finance in our history and how it has evolved into sustainable finance. The analysis of sustainable finance is based on the methodology of Marx in his Grundrisse and Capital - Volume 3, which deals with capital and finance. I have followed the basic tenets of Marx's analysis of finance, taking as my starting point a simple financial operation, just as Marx did in Grundrisse and Capital. Throughout its historical development,

finance capital has sought to maximize its profits, and therefore sustainability should not be a threat to finance capital. The promotion of sustainability and its relation to capital does not necessarily mean that the whole change proposed by the defenders of capitalism is just a lie. However, they want this change to be based on their own rules, determinations, sustainable profitability, and economic growth. We should keep in mind that the signatories of various initiatives are large banks representing tens of trillions of US dollars.

Sustainability goals are determined by the attempt to allow capital to flow freely without changing ownership. Profit and responsibility are presented as components of a company, the former for production and the latter for social aspects. In fact, CSR is not a favor done by companies, but the result of resistance imposed by external forces. Almost no company would engage in CSR if there were no resistance from external parties.

To add precision and strength to my arguments, I also used the example of Pacific Gas and Electric Company (PG&E) in the dissertation. The company has a controversial history of going bankrupt due to its wildfire liabilities that caused fires that killed more than 85 people. In 1952, PG&E, prompting the construction of a compressor station near Hinkley, California, deliberately injected chromium-6-contaminated waste of water into the region's aquifer. The state of California established legislation in 1977 controlling the usage of chromium-6 and restricting its quantity in water to 50 g/L. In 1987, PG&E personnel informed the state of California of chromium-6 levels in groundwater storage tanks that were ten times higher than the threshold. The story of Hinkley, California is a classic tale of how the state of California has been subjected to environmental and social harm.

Consequently, the history of sustainability finance shows that states and finance capital make some multilateral decisions, but these decisions remain at the mercy of their own needs, shaped by competition, reluctance, regulatory frameworks and, most obviously, profitability and growth. Sustainability is not an ethical call of capitalists, but rather a part of the political economy responsible for finding solutions to keep profitability and growth under control. Historical developments show that the development of sustainable finance relies on the large-scale involvement of finance capital.

Chapter 3. From Finance to Sustainable Finance

Following the historical facts and analysis of Sustainable Finance events, this chapter provides a summary of the current situation regarding fossil fuels to show how far governments are from phasing out coal operations. It then focuses on the analysis of finance and sustainable finance in relation to capital.

As seen in the previous chapter, COP27 highlighted the phasing out of coal in the European economy. Coal is still used in large quantities, and its increasing use has an excuse: the war between Russia and Ukraine. In early 2022, Olaf Scholz, the German Chancellor, stated that the increase in coal and oil-fired power plants was due to the war between Russia and Ukraine. Scholz's words "*But only for a very short time*" imply that he and the German government favor the increased use of coal due to its affordability.

In Germany, 31.9 percent of electricity was generated from coal in the third quarter of 2021. The country is one of the largest coal producers in the world and is still the largest producer of lignite. Germany has a goal of phasing out coal power, but it still accounts for 35.3 percent of German electricity generation. Germany is not the only country increasing the use of fossil fuels, the situation is not much different in the UK and the US. Scholz mentioned that the war will end soon, but this is an abstract argument, we understand the enormously growing military investment in Germany: the country already has the 7th best funded military sector with a budget of 50.3 billion euros compared to 32.5 billion euros in 2011. As if that were not enough, a special fund of EUR 100 billion has been announced to finance better equipment for the army.

Germany and other countries are increasing their use of fossil fuels, including coal, and allocating a huge fund for military defense lines. This shows Germany's commitment to polluting the environment and preparing for a third military force. Officials from other countries have proposed setting a year when emissions will peak and suspending the closure of coal plants. Yet new coal plants are being allowed to operate, and those who once defended the coal phase-out are pumping up their coal use. Even Greta Thunberg's paradoxical statement that the German authorities should run nuclear power plants instead of pumping up coal use has not stopped the German government from increasing coal use.

The main reason for the increase in fossil fuels is that capitalist economies are profit-oriented, despite the emphasis on green economy and sustainability. In order to overcome the illusions of capitalist realism, one should try to expose what a paradigm hides, which can be seen in the example of coal use.

Finance and Sustainable Finance

Sustainable finance is a subcategory of finance and differs from finance in that it requires financing based on some environmental or social criteria that are supposed to be in line with a sustainable planet. Today's political economy seems to be somewhat related to sustainable finance. Therefore, a closer look at both finance and sustainable finance is needed.

Finance

Finance is the study of management, movement, and raising of money. It is about understanding the uses and sources of money, as well as the concept of risk-reward trade-offs. It helps both parties - the lender and the borrower - achieve their own specific goals, with the lender enjoying interest-bearing capital while the borrower owns goods or services.

Finance and its credit system

Marx elaborated the credit system in Volume 3 of Capital, which distinguishes between money used for exchange and money used for capital accumulation. Money is used for both exchange and capital accumulation, and it is essential for capitalists to own money as capital. This duality - exchange and accumulation - is inherent in money, and it is essential for capitalists to invest a certain amount of money with the intention of accumulating more capital. This can be demonstrated by the following formulas: $M - C - M'$ and/or $M' > M$.

Marx argued that surplus value comes from the exploitation of workers' labor. Usurer's capital is the archaic form of interest-bearing capital that supported industrial capital, although there was a contradiction between the two. For industrial capitalists, the use of credit is essential. The difference between merchant's capital and industrial capital is that the latter accumulates capital on the basis of the sale of goods, while the former accumulates it by lending money to the producer. Following the historical development of usury capital and interest-bearing capital, a new class was born: money capitalists. Money capital -finance capital- is today the major capital power that controls social power and imposes itself on our lives.

Fictitious capital: tension between the imaginary and the real

Fictitious capital, a term used by Marx, represents the contradiction between the nature of credit money and commodity money, where the financial system makes its profits and accumulates capital while real money follows its own original path. The accumulation of capital in the possession of a minority that has enormous financial power is an inevitable fact of capitalism.

Rating as a measure of creditworthiness in Finance

One of the most important points I made in the dissertation is to show how credit money is lent to industry capital and how the rating model helps the owners of money capital allocate their capital. Ratings are critical to the weight allocations of financial capital under the so-called Basel Principles. The Basel Standardized Approach, which uses standardized risks and allocations, is the methodology for classifying risk-weighted assets (RWAs). This is a version of creating a universal measure in Hegelian and Marxian terms, and it converts each company's exposure to a universal measure. The financial system does not abide by vanishing rules, and it tries to create a continuous mechanism that would help itself to build ever more capital with the least allocation of capital. The subprime mortgage crisis was a terrible example of this, as derivatives and synthetic products such as Asset-Backed Securities (ABS), Collateralized Loan Obligation (CLO) and Mortgage-Backed Securities (MBS) were designed and sold at inflated prices simply to profit from these ratings and weightings with synthetically adjusted weak capital. Poor people were horribly exploited. RWA requirements were manipulated to avoid high capital allocations, and new forms of assets were created to manipulate rating models. The important point is to keep in mind that rating is the universal measure in finance, and it helps us to realize that sooner or later sustainable finance will also use its own ratings as a universal measure - it already does.

Point in common and contradictory points between Finance and Sustainable Finance

Sustainable finance is a subcategory of finance that follows the same basic lines as the main category, but with contradictions. The contradictions stem mainly from the nature of sustainable finance transactions, which are subject to environmental or social criteria. For the sake of brevity, and also to begin the analysis that would go from the abstract to the concrete - from appearance to essence, in Hegelian terms - I have provided an appearance of Sustainable Finance in its simplest form. The aim was to explore the simple appearance and then elaborate further categories and steps to gain a better understanding of the concept in its entire structure.

Sustainable Finance in its simple form

The scientific method of Marx, as he used it in the Grundrisse, is similar to the logic of Hegel. Marx used Hegelian logic and its categories, and his method is almost the same as that which Engels suggested to Conrad Schmidt. Accordingly, I used the same method in the dissertation, which allows a progression from a transaction - credit - (being) to profit (essence). In my scenario, a company produces steel through three means of production: Blast Furnace (BF), Electric Arc Furnace (EAF), or Direct Reduced Iron (DRI) EAF. Blast furnaces are the oldest

technology and emit large amounts of carbon dioxide, while EAFs, for example, typically do not require iron ore and therefore emit smaller amounts of carbon dioxide.

The Bank has a Sustainable Finance Policy for Steel, which allows the company to obtain funds to convert its production to low carbon products - normally a long-term loan - or to sell products through the production of existing eligible production units - normally a short-term loan. The bank advances funds to the company, while the company receives funds and produces steel. The bank advances funds with the goal of receiving payment when the loan matures. Thus, the bank enjoys interest-bearing capital accumulation.

At maturity, the process is complete, and the appearance i.e., the transaction disappears. The creditor and the debtor are presented as actors in a phenomenon, but their single transaction in common does not represent the whole of sustainable finance. To better understand the whole, it is necessary to look at the relationship with capital and what brought them together. The key point is that both the bank and the producer aim to accumulate capital; and the money used in these transactions does not have the sole purpose of exchanging goods or facilitating such an exchange for free.

From the perspective of money capital, ESG ratings, like credit ratings in the financial world, are the universal measure of ESG risk. There is no doubt that they will be increasingly used in the field of sustainable finance. Either they will be embedded in and integrated with traditional ratings, or they will be used separately and combined with credit ratings to produce an overall rating. In either case, ESG ratings will be used as a quantitative and universal measure of creditworthiness.

A new rating system as a measure in Sustainable Finance

This section explores further Sustainable Finance ratings. Sustainable Finance transactions require an appropriate sustainability risk assessment. Rating is the measure of the quality of risk -quantification- and is increasingly in use by Sustainalytics, Moody's and MSCI. According to Hegel's definition of Being, the quantity in such transactions is a single loan, and the measure is the ESG rating. In a single transaction, once the company pays back the loan or the investor purchases the securities, the cycle disappears. Ratings are used to measure the acceptance and effectiveness of ESG compliance.

Poor ratings can indicate that a company is not implementing ESG. Circularity is essential to financial systems because it provides a continuous system rather than one-shot transactions or relationships. As I showed in the dissertation, one-time transactions do not explain the nature

of finance. Banks and their customers come together in the financial arena, so that both can be profitable, and come together again to continue to grow and be profitable. In short, credit and production are mutually dependent on one another for growth and expansion.

Profit as Essence

The dialectical process shows that profit is essential to the financial system, and proponents of sustainable finance aim to advocate for a green planet while their primary goal remains maximizing profitability. In order to exist in the marketplace, companies must have financial creditworthiness, adequate investments, and sustainability ratings to persist in the arena of sustainable finance. No company can survive in the capitalist system without making a profit.

Concluding remarks

This chapter has discussed the principles of Sustainable Finance, which is a subcategory of finance. Historical developments have shown that the involvement of the financial world in the process of Sustainable Finance is inevitable. The world is opening its gates to full domination and geo-control, which was officially designed and approved during COP26 Glasgow. The analysis of a single Sustainable Finance transaction has shown that a mere transaction does not adequately explain the hidden characteristics of Sustainable Finance. There are also components that require us to broaden our analysis, such as rating, which is becoming a universal measure in finance and is used to determine which ESG-compliant companies with sufficiently good ratings still have access to credit. From the perspective of lenders such as banks, financing sustainable transactions or companies is primarily driven by profitability. Therefore, in a capitalist economy, sustainable finance cannot be separated from profitability and growth.

Chapter 4. The Limits and inadequacies of Capitalism about sustainability

The previous chapters have shown that the problem of the financial system is intrinsic. This chapter examines this inherent problem of capitalism, particularly in relation to Sustainable Finance. Proponents of capitalism want to dictate capitalist forms through sensational paradigms, believing that the capitalist economy is the result of the natural tendency of man and society. To transform this reality into a possible real one, we must understand what lies at the root of the problems in the capitalist system itself. In fact, the liberal era of bourgeois society has long since passed. In this chapter, I discuss the illusory aspects of capitalist paradigms such as net-zero, deregulation, regulation, and financialization. It becomes clear that such concepts are the paradigms of the ruling classes.

Net zero carbon by 2050.

The concept of net zero is an ideal state in which the amount of greenhouse gases emitted into the Earth's atmosphere is equal to the amount of greenhouse gases removed. Achieving net-zero requires decarbonization efforts, which are achieved by switching to energy sources or materials that emit less carbon, often from high-carbon-emitting fossil fuels-which account for 83 percent of total CO₂ emissions-and offsetting any carbon that is emitted. Industries and organizations are trying to deal with carbon emissions through a variety of techniques, including renewable energy, the use of hydrogen, carbon capture, carbon storage, and so on. However, since the 1990s, these efforts have failed and the current reliance on net zero is likely to fail. The Network for Greening the Financial System (NGFS) is an alliance of central banks and supervisory organizations dedicated to exchanging best practices, advancing climate and environmental risk management in the financial industry for a successful and timely transition to a sustainable economic and financial system. Based on the scenarios and projections made by the NGFS, this is a delusion to believe that the goal of net-zero will be reached by 2050. On the contrary, if policies are not changed and applied, there will be an even warmer planet. Based on the scenarios and projections of the NGFS, it is an illusion to believe that the net-zero goal will be reached by 2050. On the contrary, if policies are not changed and applied, we will have an even warmer planet. The carbon trading architecture and accounting procedures do not provide a concrete solution for temperature reduction.

Epistemological issue

In the dissertation, I discussed issues related to knowledge. The reason is that inequalities include knowledge and access to knowledge. Knowledge is a big issue in finance, especially in sustainable finance. For retail investors, knowledge about the sustainability of companies

dates back to the 1990s. The first global sustainability benchmark was launched by Dow Jones in 1999, and investors have used this index to find profitable companies that follow ESG principles. However, this type of knowledge tends to be abstract, one-sided, and insufficient. When an investor searches for companies to invest in, the company's annual report, news in the mass media, third-party ESG ratings, and the like will be his or her primary sources of information. If he or she feels comfortable with the existing information about the company, the investor would buy the assets, assuming they are green, if the company promotes ESG through its commitments, advertisements, and campaigns. Investments in ESG securities are expected to reach \$50 trillion by 2025. We can see how knowledge is critical to investing in such a huge area.

To emphasize that adequate knowledge is an important issue, I then gave some examples in the dissertation. One of them was the case of IKEA, which is a reputable company in terms of ESG. However, an Earthsight investigation in 2020 revealed that IKEA used some of the wood from the Carpathian region of Ukraine, which is known for its rich wood resources, to make beech wood chairs. This was permitted and certified by the authorities. Another example is the case of Coca-Cola. In 2022, Coca-Cola promoted a green world through its advertisements featuring animals. Later, the ads were banned by the Advertising Standards Authority (ASA), the independent regulator in the UK. These case studies raise the question of whether an individual investor can invest in ESG assets with sufficient knowledge, given the vulnerability to misinformation, misuse and manipulation.

Investment and recent events

In this section, I cited some events that occurred after the Covid-19 pandemic. I cited them because they give us a picture of the current situation of sustainable finance. UNEP FI and the European Banking Federation published two reports in 2021, "Testing the application of the EU Taxonomy to core banking products: High level recommendations" and "Guidelines for setting climate targets for banks". These reports provided legal analysis of eleven jurisdictions to help investors consider the impact of their activities. The transformation of the planet to a sustainable economy is a transformation of the capitalist system and, in particular, of financial actors. Their expectation is to enjoy growth and profitability in their own version of sustainability.

Growth and distribution of wealth

The Industrial Revolution marked the beginning of economic growth in the modern era. However, this growth had a disastrous component: fossil fuels. The use of coal in the steam engine made the factory system more efficient, and the use of electricity and the internal combustion engine reduced transportation costs. The Suez Canal became operational in 1869 and the Panama Canal in 1914, and the increase in the production of agricultural products based on the application of nitrogen-based fertilizers in the early twentieth century. Trade based on fossil fuels became global. In theory, every inch of the earth has since been vulnerable to exploitation, domination for the sake of profitability and growth. Economic growth is at the heart of capitalism, and it is impossible to convince a capitalist to invest in an industry that does not grow.

Deregulation vs. Regulation – two sides of the same coin

Deregulation vs. regulation is one of the major swings in the financial system and regulations. Proponents of both sides have myriad arguments that can be summarized as follows: proponents of regulation claim that financial activities should be regulated in order to achieve social and environmental goals, while proponents of deregulation claim that financial markets should not be regulated because free markets always balance themselves.

The industrial growth of the advanced nations was interrupted by the First and Second World Wars, resulting in a decline in economic growth and relative success. This was caused by the inability to keep up with inflation, recession, and stagflation. The Bretton Woods agreement was designed to regulate the economic and financial system, favoring Keynesian economics, and using state power when necessary. In the 1980s, emerging economies had to take on huge debts. Saying goodbye to the Bretton Woods Agreement and Keynesian economics, finance as an industry became the main component of the world economic system and grew enormously.

Neoliberalism, or the disregard for regulations in the guise of neoliberalism, gained almost unstoppable momentum. The U.S. enjoyed robust growth, aided by tremendous advances in information technology. However, in the first decade of the twenty-first century, the industrial economies slowed as a result of 9/11 and the U.S. attacks on Afghanistan and Iraq. The text discusses the U.S. response to the terrorist attacks of September 11, 2001, and the resulting financial crisis. On the other hand, this growth was so unstoppable, leveraged, deregulated. In fact, it led to the collapse of the Great Recession of 2007-2009. This was caused by

inadequately regulated market conditions where buyers and sellers met so-called freely in the marketplace.

The U.S., the Anglo-Saxon world, wanted to maintain and expand geographic control while seeking to produce capital beyond production through unregulated financial systems. Deregulation has allowed energy prices to reflect the full cost of supply. Financial incentives for investors allow them to choose conventional thermal power. In addition, low energy prices for consumers have led to increased energy consumption.

We must ask whether current regulations are sufficient for net-zero goals and whether net-zero goals are tangible. Proponents of regulation suggest that a thoroughly regulated financial system is needed to establish liquidity and capital adequacy rules, as well as clear principles and timelines for transformation and implementation of net-zero goals by 2050. In any case, this financial system itself would not ensure a just transition to a zero-carbon economy, but we should admit that deregulation does even more harm.

Financialization and its potential impact on Sustainable Finance

Financialization impacts both macro- and microeconomics, and it has remarkable control on the consumer side. It is a term used in Marxist economics to refer to the expansion of capital beyond the production process. It is mainly represented by capital money, which tends to grow without direct need for the real economy - industrial capital. Financialization became dominant in the early 1980s, when neoliberalism represented a new stage in the capitalist economy. This expansion and growth of finance was fed by the ever-increasing types of financial products such as options, derivatives, futures, asset-backed securities, and mortgage-based securities. The oscillating tension between industrial capital and money capital drives the tendency to accumulate money capital out of money capital itself, without the need to produce anything. David Harvey's work on Marx's Capital provides striking information that would enable us to understand the nature of financialization and how it derives and posits itself as an opponent of industrial capital.

In the dissertation, I referred to both deregulation-regulation and financialization to show their interconnectedness. The more unregulated - or under-regulated - the markets, the more financialized the economy.

The most important details in this text are that financial leverage is a financial management tool used by firms to benefit from externally provided financial capital and then produce more products to sell at a profit. Financial leverage can increase a firm's ability to profit from

increased capital, but it also has two obvious sides: a) the increase in external debt and b) the return on that externally held capital. Empirical evidence shows that retail industry, food industry, utility companies use financial leverage to a large extent and it can be their gate going to bankruptcy due to their excessive use of financial leverage.

Although its proponents claim otherwise, sustainable finance is not a negation of the current financial system. The ownership of capital remains the same, and despite some good efforts, Sustainable Finance in its current form does not represent a major potential for changing the system.

I closed this section of the dissertation with the conclusion that the U.S. has lost the battle of production against China, and its only chance is to promote growth based on financialization at the expense of the people. In other words, the oscillation tends to move toward Chinese productivity, and the financialization coming from the Anglo-Saxon world tries to compensate for this slip. Moreover, it seems that the financialization of nature will be one of the next battles between eco-socialists and capitalists. Although Covid-19 has slowed down this struggle, it is only a matter of time before it resumes.

Summary and conclusion

In this lengthy chapter, I demonstrated the flaws and limitations of the concept of achieving net-zero carbon emissions, the over-reliance on unproven technologies, the use of offsets and greenwashing, and the need for transformative practices to reverse the exploitation of people and nature. The text concludes that capitalism should be negated and replaced by another system that represents this negation and transition and offers thoughts on a transformative approach.

Chapter 5. How to achieve better sustainability? A philosophical discourse

In this chapter I have attempted to rethink the Marxian framework. I propose a systematization that includes the disciplines of biopsychology and social psychology in relation to the philosophical field. I believe that Marx never disregarded the place of the individual in society; however, his work on political economy kept him from focusing on this issue. Therefore, I think it is necessary to revisit the concept of the individual in society, since the social aspect is already the key to understanding the Marxian framework. Some thinkers after Marx tried to use and integrate the status of the individual, among them Adorno, Horkheimer, Marcuse, and Fromm-thinkers who were, at least for a while, part of the Frankfurt School. In their work, however, the individual is largely interpreted through a psychoanalytic framework. We also know of Lacan's influence on French intellectuals and the famous philosopher Slavoj Žižek. My suggestion is that psychoanalysis would still play its part in this field; however, social sciences and psychology among them would contribute more than ever to philosophy and critical theory of society, since both social psychology and biopsychology, although still relatively new fields, provide valuable information and insights for our understanding of society, individuals - including ourselves.

In light of the above paragraph, I propose and use the term "biopsychopolitics" in the dissertation. This term needs to discuss the terms biopolitics and psychopolitics because of their etymological relationship to the proposed term. The reason for discussing these terms is also due to my critical approach to the ideas of the thinkers who coined them, Michel Foucault, and Byung-Chul Han. Thus, on the one hand, I have provided a critical review of biopolitics and psychopolitics, and on the other hand, I have explained the generic meaning and aim of biopsychopolitics.

Biopsychopolitics

Biopsychopolitics draws upon biopsychology which “is the scientific study of the biology of behavior”.³ It is the domain of science, as a subdiscipline of psychology, that studies “*physiological, evolutionary, and developmental mechanisms of behavior and experience*”.⁴ It is a scientific field closer to neuroscience than to biology, as it relates to mind-body issues, epigenetics, and many others. Specifically for finance, the central nervous system is the rules and apparatus of the capitalist system and the state. Financial rules and frameworks condition

³ John P. J. Pinel and Steven J. Barnes. *Biopsychology* 11th Edition (London: Pearson, 2022), 28.

⁴ James W. Kalat, *Biopsychology* 13th Edition (Australia: Cengage, 2019), 5.

society and the individual in oppressive ways. As a result, biologically conditioned society and individuals develop adaptive or reactionary behaviors toward the system. This is where I use biopsychology to work out the societal and individual problems that have been of great concern in the last century and our century. One of my most inspiring philosophers, Herbert Marcuse, dealt with human psychology in his masterpieces such as *Eros and Civilization* and *One-Dimensional Man*; however, I would argue that biopsychology today would provide more comprehensive material for philosophers and critical thinkers because it can be explored for an organismic view of society and the individual. Moreover, biopsychology a) emphasizes the unity of body and mind, and b) offers scientific insights into how biology affects human behavior and psychology.

Accordingly, biopsychopolitics seeks to explore the impact of the central nervous system on behavior and psychology and is a challenge to Foucault's governmentality-based approach. It attempts to explain the shortcomings of Byung-Chul Han's psychopolitics, which the author sees as a contradictory phenomenon to biopolitics.

Foucault's Biopolitics

Foucault introduced biopolitics during his lectures at the College de France in 1975-76 and elaborated on it in 1977-78 and 1978-79. He was a historian and researcher who provided deep information in a given field, and his writings are still considered today. His philosophical framework was a negation of the Althusserian type of Marxism, which was structuralist, and he aimed to design a genealogical framework fed by archaeological methods. For Foucault, the art of governing changed throughout history, and that political economy replaced law in the 18th century. He argued that the shift from mercantilism to physiocratic governance was like a thought and an art, but he did not emphasize the role of changes in the means of production as a game changer.

Foucault argued that sovereign power was mainly based on the right to kill, while neoliberalism was the negation - through better governmentality- of this type of power. He presented biopower and biopolitics as the art of governing with life at its center, but his emphasis on rationality was unwarranted in most cases. He also dismissed the oscillation between democracy and fascism. He seemed to reject the more robust analyses that existed during his lifetime. He assessed neoliberalism as a vehicle of productive subjectivity that tolerates different identities, choices, preferences, and so on, as if it were a kind of governmentality that is in essence opposed to disciplinary governmentality. Foucault could never grasp that

socialism refers to a society, not a state, and his critique of those who criticize the notion of the state misses the basic point: what creates the state?

Foucault's approach to neoliberalism was that it can be a motivator for emancipation from disciplinary sovereignty. He sees the neoliberal subject as a self-interested rational being capable of conducting an adequate analysis of the social domain in order to produce rational results and outcomes. He maintains a position that can provide a critique of such society in order to make reforms in some extreme cases. Foucault considered and promoted neoliberalism as a form of governmentality that can be both opposing and governing, and he does not consider it as the antithesis of the state. His analyses of neoliberalism depict a secured competition that ensures the preservation of the free market and transforms the moral and political environment of society and individuals.

Depicting neoliberalism almost as it is described in contemporary economics textbooks, Foucault praised how individuals, through their multiplicity, would settle into such a system and learn how to entangle life in its various aspects. His view of neoliberal governmentality is that it does not offer a uniform, standardized governmentality, but rather encourages multiplicity, free choice, and rational thought through which we are our own entrepreneurs. For example, Foucault appreciated the ordoliberalists in Germany in the 1930s for their approach to political and social doctrine. The fact is that Foucault was not unaware of the neoliberal catastrophe. As one can remember, neoliberalism was implemented in Chile in the 1970s and was met with resistance from the world at the end of the 1970s. However, it was later strengthened by the emergence of a new type of capitalism that welcomed financialization, deregulation and the neoliberal government. This has since had a profound impact on the lives of the working class, resulting in the capture of economic policy and the cost of the working class. In fact, Foucault disregarded or gave little importance to the myth of the free market and defended the illusory phenomenon through its appearances. Confronting neoliberalism also means denying Foucault's unjustified claims about it.

Byung-Chul Han's Psychopolitics

Byung-Chul Han introduced Psychopolitics, a book of aphorisms mostly fed by rhetoric. He argued that today's capitalism is fundamentally different from the capitalism of the nineteenth century, which operated through disciplinary constraints and prohibitions. This is not a false statement, but it does not explain the causes of this change. The main problem is that Han separates psychology from biology. In any case, power and disciplinary power are focused on

the psyche. Therefore, there is no possibility for psychopolitics without discussing the biological side of the subject. It is no different to discuss a mental problem without discussing its connection to the body and the central nervous system.

For Han, depsychologization is a proposed method of escaping neoliberalism; such ambiguous rhetoric does not do much for the emancipation of society and the individual. Here, too, we face the same problem: once psychology is separated from biology, escape is reduced to the depsychologization of the subject. Simply put, regardless of how the discussion of depsychologization is properly discussed, it is first obvious that the subject and society should abolish the biological weapon that produces psychological effects. Han's work remains inadequate because of this separation and ambiguous proposals. This atomized approach, which discusses the functions and roles of the particular, is the new trend even among the members of the domain of opposition, which makes us think about how to deal with neoliberalism in the midst of internalized neoliberal methods and ways. The greater whole is almost always missing in such approaches, and the subject is like a drowning person discussing in a sinking ship.

How to employ Biopsychopolitics

- a) Foucault challenged Marxism and Herbert Marcuse's efforts to introduce a biological-psychological dimension into the Marxist framework. He rejected this model and instead emphasized the illusory freedom of neoliberalism, despite his concerns about it. Radical thinkers such as Laclau and Mouffe sought to transcend Marxism through radical democracy, replacing demands with desires. Instead of these so-called alternatives, biopsychopolitics focuses on the impact of society on the individual and the self through its central nervous system. Marx's essay "The Eighteenth Brumaire of Louis Bonaparte" states that people "make their own history", but not "under circumstances chosen by themselves, but under circumstances directly encountered, given, and transmitted from the past."⁵ Therefore, biopsychopolitics has two main characteristics: the first is the central nervous system of the human being in its connection with the external world. This external world consists of the state, society, other individuals, culture. And the second is the internal processes of the individual that affect the psyche. Therefore, biopsychopolitics includes both social and individual levels that fit the Marxian framework for analyzing and transforming society. Thus,

⁵ Karl Marx, *Karl Marx, Frederick Engels: Collected Works, Vol. 11, Marx and Engels: 1851-1853* (London: Lawrence & Wishart, 1979), 103.

biopsychopolitics aims to continue the efforts of, for example, Herbert Marcuse, but it does not rely on so-called grand theories or narratives. Instead, the main efforts of biopsychopolitics are based on:

- b) a) The effect of society on the individual - social psychology
- c) b) The impact of the individual on the self through its own central nervous system - biopsychology, along with cognitive psychology where applicable.

Applicability of Biopsychopolitics

My main aim in the dissertation is to distinguish the scientific approach from orthodox Marxism. Orthodox Marxists believe that socialism and communism are inevitable. In fact, Marx and Engels predicted socialist society as the successor of capitalist society, but it was a prediction. They mentioned: “*Communism is for us not a state of affairs which is to be established, an ideal to which reality [will] have to adjust itself.*”⁶ Therefore, one should not idealize communism; to achieve such a society, the very necessity of transformation of society and individuals is inevitable. Messianic interpretations do not help. Therefore, we should follow scientific ways to provide a critique of society and propose a theoretical framework for its transformation. Social phenomena and social sciences require much more elaboration than natural sciences. For this reason, their status as a scientific field has been questioned. Social scientists have to analyze a myriad of variables to develop their theoretical framework, which is not an easy task. The uncertainty of human conditions makes the work of these sciences more difficult. In finance and economics, the use of big data and artificial intelligence is increasing. However, their predictions are currently limited. Therefore, social sciences are prone to failure in terms of prediction. We can calculate when a comet will visit the periphery of our planet, or when the next solar eclipse will occur; but we are not able to accurately predict what the situation in our lives will be next year, or even next few months. However, this should not lead us to the abyss of believing that nothing should be done because there is not enough knowledge about society and individuals. We still know a lot about mental illness and social conditions. It works slowly but intensively, and in the future, there is no doubt that the knowledge of individuals and society will be better known. In light of these remarks, I have given some examples to show how biopsychopolitics can benefit from the empirical sciences and develop a theoretical framework that can be practiced. The examples concern a) ownership of social

⁶ Karl Marx and Friedrich Engels. *The German Ideology* (Prometheus, 1998), 57.

productive forces in relation to discrimination, and b) class consciousness in relation to inequality.

The ownership of the social means of production – discrimination

The issue of ownership of the productive forces of society has been a major concern for centuries. In Marx's framework, the goal is to eradicate private property in order to create a society without oppression. This is because many people do not own the means of production and are deprived of them, which leads to discrimination. I refer to social psychology to see if there is any literature on this subject. Empirical sciences will help us in this regard to check if there exists a link between private property and oppression. In fact, the results of research in social psychology show that the superior group that owns property and enjoys wealth justifies itself by its statement that emphasizes the inferiority of the other. This is exactly how social psychology and biopsychology- can help us develop our philosophical thinking. In this example, the self-justification of the rich is a mechanism that makes the superior aggressor believe that the other - the poor - deserves to suffer. This information provides valuable information about oppression. To abolish private property or not is a question of power and perhaps ideology; but the basis is now solid as we see how the poor and deprived feel inferior while the rich think, they deserve a better life compared to the Other.

Class consciousness and inequality

Class consciousness is an essential component of Marxism. We know from Marxist literature that the working class should achieve such a state of consciousness in order to transform society. However, this concept has been largely overlooked in the field of social psychology. Because mainstream textbooks depict an abstract society and individual, discussion of this and related issues remained weak. Today, there is a growing body of research on the topic. Research shows that once one develops class consciousness, the probability of facing criminalization, prison, and so on is high. In fact, class consciousness is considered a political issue in the eyes of the hegemonic powers, and those who have it are a potential threat to the system, as justified by the findings in the field of social psychology. Social psychologists also note that those who are subject to inequality develop lower levels of interpersonal trust. As this example shows, biopsychopolitics can provide insights and justifications for the field of philosophy.

After these examples of how biopsychopolitics can benefit from psychological research, I connected this to the understanding of class in our time. The underlying idea is that the working class and the others are not the same as they were in the mid- or late 19th century.

Class-related issues

The main point of this section is that concepts change over time, but the components of class struggle and classes remain the same. Marx and Engels argued that the class struggle at that time was a struggle between the bourgeoisie and the proletariat. This proposition is criticized by many people for various reasons, as some see it as a struggle of ideologies and the quest for justice, while others claim that it is no longer valid. We should first consider what class struggle meant in Marx's time and what it meant in our own, in order to distinguish between the social structures and the relevant concepts. The capitalist economy is prone to crises due to the immanent problems discussed in this study. Domenico Losurdo and Matthew T. Huber - just to name a few - and many other thinkers have written about these issues, discussing how capitalism exploits nature and discriminates against women, LGBT+ and the like. First of all, the working class can be the locomotive of the class struggle; but we should not limit our thinking by believing that the working class is the one that works in the mines or the metal industry. Anyone who works on the basis of salary and contract with the owner of products or services can be considered a worker. Thus, class as an idea is not separate from oppression. Those who are oppressed, such as LGBT, oppressed nations, and the like, can be considered allies of class. Furthermore, to be effective in the fight against climate change, opposition forces must accept that the climate struggle is linked to and part of the class struggle. This revisionism is not necessarily a rethinking of "revisionism" in the Leninist sense.

My aim in the dissertation was to emphasize the transformation of the historical working class and to point to the new concepts that can help transform society in a way that includes the other, the oppressed. Those who are discriminated against, deprived of basic rights, and considered inferior by society, are the components of the oppressed class.

Social Phenomenology

This subsection discusses the concept of social phenomenology in relation to sustainability and Sustainable Finance. Drawing on the work of Maria Dimitrova, it draws our attention to morality as responsibility. Dimitrova highlights the abstract features of our current social structure and argues for morality as responsibility, which renders it concrete. When we talk about morality only in terms of its forms - or appearances - we consciously or unconsciously hide its true nature in terms of responsibility, and then we get lost in discussions that consist of particular forms that change from one culture to another. Our aim is to bring concrete aspects of morality into the sunlight. This can be done through its universal characteristic: responsibility.

When it comes to sustainability, we should remember that the concrete universal in sustainability is our responsibility to the Other. Our commitment to sustainability does not only include environmental activities and measures defined by regulations or laws. The environmental struggle is only one side; social aspects and the will to exercise them are the main components, and they are all linked to responsibility. Without taking responsibility into account, a discussion of sustainability based on technological progress or regulations will lead to a dead end. In this respect, social phenomenology should be further developed in relation to sustainability and sustainable finance.

How to form a line of resistance again?

Our time is the time of practice, but it is also the time of thought. To be radical is not only to act; it requires a proper way of thinking that includes what can be preserved even when the situation is negated. Therefore, the opposition movements should focus on achieving net-zero goals by 2050 but avoid two types of extremism: the first is to claim that this goal is unattainable, so it should be rejected in the first place. The second is to lose flexibility and stick to fixed targets. Shortcomings and setbacks are inevitable during a process; they should not make us question what we are doing. We should learn from them and revise our ways based on the lessons we have learned from them. I have quoted two important names that point out that it is not a black and white process. The process cannot be delayed.

The left has suffered two great defeats: 1968 and the collapse of the Soviet Union. On the other hand, neoliberal regimes have encircled our globe. Therefore, it is perhaps more important than ever to have a theoretical framework that can be materialized. On the other hand, the left today is confined to cultural discussions and the enrichment of literature without practice. The essential effort should be given to a praxis that should materialize the theory. In fact, theory is part of the process of praxis.

Our analytical framework requires a detailed analysis of the society in which we live, and the analysis of classes-including the climate struggle-must be done in their relations to capital and their transformative will and capacities. I referred to Rosa Luxemburg in the dissertation: she once said that utopia can be realistic, but it does not represent what will happen in the future in its deepest details. She reminds me of the great philosopher of utopia, Herbert Marcuse. Marcuse emphasized that another reality is possible; it must be actualized. Bhaskar, following Marcuse, used the term 'concrete utopianism' in this sense. Therefore, another reality is

possible, and it requires an appropriate theoretical framework and praxis. Without practice, utopia always remains utopia, even if it is real.

In the dissertation, based on the thoughts reflected above, I emphasized the molecular politics of Deleuze. I take this approach into account because Deleuze and Guattari thought about alternatives after the first major defeat in 1968. They did not give up, even though they admitted defeat. This is exactly what we should do today. Asserting the imperceptibility of movement, every opposition movement is a particular way of achieving transformation. Nevertheless, the case and the interrelation of the universal and the particular are complicated in class struggles. In practice, we should expect a symbiosis to develop; however, despite several lines of resistance, no coordination at the global level has been achieved so far. Nevertheless, we know how Covid-19 has interfered with our lives. We have also seen remarkable new forms of resistance. Today, feminism, minority rights, national struggles and so on are forming lines of resistance that put pressure on the hegemonic power. Their use by mainstream media such as Netflix does not mean that they serve the purposes of capitalism; on the contrary, it shows that the hegemonic power is well aware of them and prevents itself from being opposed on a larger scale.

Identity in difference and difference in identity should not only be words. The universal should consist of different particulars in its universality, while the particulars should exist in their own forms within the universal. Otherwise, it is either abstract universality or totalitarianism. A transformation of unity would be possible if the universal and the particular were connected in their identity and difference, while forming a new unity in their becoming. The task of biopsychopolitics is to reflect on these lines of resistance in relation to the whole, concrete universality.

Mobilities will most likely differ from one another as they reflect the conditions on which they build their movement; agricultural workers in India and peasants in Latin America would develop different forms of resistance that should be taken seriously in their differences. On the other hand, there is still a tendency, particularly in sustainable finance, to underestimate the role of the struggle against climate change and the methods of that struggle. The old-fashioned view that a socialist revolution can really solve the climate crisis would only procrastinate, and our planet should not wait for a revolution for us to act. As such, we should develop social philosophy and social phenomenology in a direction that embraces the inevitable role of morality and responsibility.

Chapter 6. Concluding Remarks and Future Tasks.

In this chapter, I have summarized the dissertation with concluding remarks and suggested some future tasks. The analysis of sustainable finance has been done in terms of philosophical grounds. The main method used is the dialectic of Hegel and Marx and Marx's analysis that goes from simple appearances to the essence. Marx used the Hegelian dialectic in his *Grundrisse* and *Capital*, and my dissertation also discussed sustainable finance from a similar perspective to reveal what lies beyond what sustainability advocates claim. After completing this study, I not only knew what Hegel meant by his remarks, but I also felt what he really meant. When a work is completed, what is done inevitably goes beyond what was intended at the beginning. Since dialectics and the principle of immanence make the subject explain itself, it becomes a journey that can be grasped at the end of the study.

My analysis, especially in Chapter 2, showed that sustainability was initially linked to business ethics and corporate responsibility. The historical facts showed that the ESG concept partly appeared as a phenomenon as early as the late 17th century, mainly as a call for social responsibility in terms of investment. Money, when not used, was also sharply criticized by religious sects. Investing was therefore identified as a virtue when done ethically.

Ecological and environmental concerns have been raised much earlier in history. However, capitalist society as a whole has a two-pillar approach, if we simplify it: if concerns have a direct impact on profitability and growth, and if there is a possibility to postpone them, it prefers to ignore such demands and concerns. On the contrary, if such concerns become visible and it turns out that the current setup is no longer sustainable, then it acts as if it were the visionary who brought such concerns and proposals into the light of day. For example, capitalism was able to burn fossil fuels for centuries, ignoring calls against their use. But now it is advocating and even forcing the phase-out of coal. On the other hand, on the basis of excuses, it can still use it, as we see how the use of coal increases during the war between Ukraine and Russia.

In chapter 3 there was a large analysis of finance and sustainable finance. In this chapter I drew heavily from Volume 3 of Marx's *Capital*. How sustainable finance is a subcategory of finance and how it develops in relation to it and to capital as a whole is analyzed through a dialectical approach. In each step of the analysis of finance and sustainable finance, there has been a negation of each determination of concepts as presented by capitalist economy and society. Through the chain of negations, I have shown what lies beyond the appearances of sustainable finance as a paradigm. The analysis showed that the universal measure for the management of

capital allocation is the system of ratings. Ratings make almost all firms universal and tell us what the level of capital allocation would be regardless of where a firm is located. Chapter 3 ends with the observation that the essence of finance and sustainable finance is also profit. Capitalism would not exist without profit and growth, although this also means that the system is irreparable and prone to crisis.

Although there is a tension between money capital and industrial capital, these two must work together to accumulate their capital, although money capital wants its own independence. This independence, which means the accumulation of capital without participating in production, is our current problem, which we call financialization. Financialization has been discussed further in chapter 4.

I discussed the limits and shortcomings of capitalism in Chapter 4. To make it concise and concrete, I explained the basic principles of sustainable finance and the capitalist system in general. Chapter 4 began with the net-zero paradigm. The net-zero paradigm envisions a world free of greenhouse gas emissions by 2050. The fact is that the decarbonization of the earth was also considered in the 1990s and failed. Now capitalism is working on its new paradigm for a decarbonized world by 2050. Current flexibilities - or deviations - based on the war, scenarios based on the implementations of companies show that net zero by 2050 seems unlikely, although there could be a real chance to achieve it if a real commitment is made.

In Chapter 4, I also discussed the epistemological problems posed by the structure of financial markets. Even an investor who does his due diligence is vulnerable to misrepresentations about the financial assets in which he is investing. Regardless of what is written in textbooks and regulatory texts, there is no transparency in financial markets. Those who promote and generate assets know their true nature, while investors, especially small investors, try to discern the truth based on limited data or information sources.

Chapter 4 also discusses the neoliberal political economy. According to the Keynesian economic model, the deregulation of the financial system was a fact that made the system even more fragile. It is not an exaggeration to say that the crises in the current capitalist system are only financial crises, as we saw in 2007-2008. Because of the unregulated and also independent nature of finance capital, the system will always be prone to such shocks and vulnerabilities. The tension between deregulation and regulation is an oscillation between financial and industrial capitals, but the real problem lies in the heart of the capitalist system.

Another major problem of the current capitalist system is financialization. Chapter 4 also examines financialization in relation to sustainable finance. Financialization has made capitalism a hegemonic power, encompassing both production and consumption. Even nature becomes a resource to be exploited. Nature has a total value and is at the mercy of capital, while capitalists demand a green planet by 2050. The growth and profitability and the expanded exploitation due to financialization are far from offering a green and sustainable planet. On the contrary, it makes our planet vulnerable to suffer more in the hands of those who represent the greediest part of our species.

Chapter 5 discusses the basic principles of a better planet and sustainability. In this chapter I have used the term biopsychopolitics, which includes both biopsychology and social psychology, as a companion to philosophy because they provide philosophers with a good basis for philosophizing. Since the term is related to Michel Foucault's biopolitics and Byung-Chul Han's psychopolitics, I discussed their theoretical frameworks in detail in this chapter. Biopsychopolitics sublates both without any preservation because both frameworks are abstract: the former is based only on governmentality while misinterpreting the art(!) of neoliberalism, while the latter isolates psychological aspects from biological ones. In my intention to work on biological-psychological aspects, I was inspired by Hebert Marcuse. In fact, Marcuse was inspired by the Freudian psychoanalytic framework, while I argue that social psychology and biopsychology can be better components, without necessarily abolishing psychoanalysis.

Chapter 5 also discusses a new conception of class. It reiterates discussions rather than inventing a new definition. My aim, however, is to refer to the broader understanding of class as explained, for example, by Domenico Losurdo. My aim is to draw attention to the fact that there is not much chance of changing society and the planet based on the tenets of orthodox Marxism. What is against capital is, in short, part of the class struggle. It is not a rejection of Marx at all; it is simply a call to rethink what Marx might think about our society today if he were here with us. When I talked about unity in difference, I was referring to the molecular politics of Gilles Deleuze. What I find valuable in Deleuze's work is that it can form a basis, especially at times when the Left is facing major defeats.

The sustainability of our planet is essential. It requires a reintegration of humans with nature, while this integration reflects the abolition of the destruction of nature by humans as a species. However, starting from the analysis of finance and sustainable finance, the study has shown

that the current paradigm of sustainability is based on growth and profitability. Sustainable Finance is different from the sustainability of the planet. The term "sustainable" is an indirect negation of the current capitalist system: it is an acceptance of the reality that capitalism has not been sustainable. Contrary to what many people do not consider or perceive due to propaganda, sustainability is primarily about the sustainability of capital. Sustainability means growth and profit *ad infinitum*.

In any case, the capitalist system, while dominating the world economy and societies, also offers some opportunities due to its immense technological innovations and advances. Here, "*Aufhebung*" plays an important conceptual role that should be realized through practical struggle. Today it is perhaps easier than ever before to plan the needs, logistics and organization of society. Today we can easily point out which countries have a surplus, which countries have a shortage of food or energy, and so on. Therefore, the abolition of capitalist society does not mean that we should completely avoid such benefits. On the contrary, it means a better possible society that preserves such advances and innovations. The same applies to finance. After the 2008 financial crisis, the financial system in the US is better structured and controlled, as we have seen on several occasions. This means that we can subordinate the ownership of capital, while preserving the main contributory role of finance, as Lawrence and Laybourne-Langton put it.⁷ It requires a drastic change in the world system: Corporate and financial governance should be conducted in a way that ensures a fair and equitable distribution of wealth, resources, and climate finance.⁸

This system needs to be fundamentally changed. Herbert Marcuse once again used the term utopia in this context. For Marcuse, utopia is a possible reality. Our lives are fully occupied. Through the effects of financialized capitalism, we are not only exploited and alienated during working hours, but this control and domination continues in other periods of our daily lives. In addition to Adorno's culture industry, we are also captured by mortgages, credit cards, and anything else that pledges our future to the system. So, the problem lies in the atomization of society and individual.

In this respect, the point is to bring back our "concrete utopia," in Bhaskar's words; that is what we need. And second, how the practice of radically transforming society might become possible

⁷ Mathew Lawrence and Laurie Laybourn-Langton. *Planet on Fire: A Manifesto for the Age of Environmental Breakdown* (London, New York: Verso, 2021), 113. The authors mention that the democratization of finance must be essential to the Green New Deal so that social control can be established.

⁸ Chris Saltmarsh. *Burnt* (London: Pluto, 2021), 46.

again. I concluded the dissertation with the conviction that a better society is still possible- it just needs to be justified through practice!

Personal statement – Contribution to the field of philosophy

In this dissertation, my goal was to philosophize about a topic that has become a trend in recent years: Sustainable Finance. Sustainable Finance represents a specific part of the financial domain, and it represents the support provided by financial institutions to industrial capitalists for their transition to a net zero carbon economy by 2050.

I would like to mention that this study is one of the first studies dedicated to Sustainable Finance, if not the first. There are too many sources dedicated to sustainability, the green economy, or finance in general. However, Sustainable Finance has not yet been elaborated in detail in the field of philosophy.

Another contribution I believe I have made has been to bring Hegel and Marx into the field of Sustainable Finance. There are remarkable works on the impact of Hegel's logic on Marx's *Grundrisse* and *Capital*. I applied Hegel's dialectical logic and Marx's dialectical method to this study. I have demonstrated how dialectics is a powerful tool that can be applied to a variety of research topics, and to show how Sustainable Finance emerged and developed in the field of finance in relation to the overall financial system and capital.

Drawing on the psychological and sociological analyses of Herbert Marcuse, which sought to bring a new understanding of the individual into the Marxian framework, I proposed a new term in the dissertation: biopsychopolitics. This new term represents the continuation of Marcuse's efforts - and also those of the Frankfurt School in a broader sense. The main difference is that Marcuse and other members of the Frankfurt School were very much inspired by psychoanalysis and the Freudian framework that inspired many thinkers of that era. Theirs was also the era of grand theories and grand narratives-one fits all, such as the Oedipus complex and repression. Instead, I proposed a framework that is consistent with the ever-evolving fields of psychology, such as biopsychology, cognitive psychology, and social psychology. For a deeper understanding of the individual and society, we should now focus on social science and social philosophy rather than grand narratives. Thus, I have also combined biopsychopolitics with social philosophy in a way that includes Maria Dimitrova's social phenomenology. "Sociality and Justice" is an important theme that includes a largely overlooked feature of morality, which is its association with responsibility.

If postmodernism has made a major contribution to our thinking, it has been in its attack on grand narratives. But this negation was not followed by a positive dialectic that offered a system. It remained fragmented, full of isolated parts that did not communicate with each other. This is where I find the Hegelian and Marxian frameworks too useful for our thinking. Hegel had long ago distinguished between understanding and reason. Postmodernism, in the Hegelian sense, represents brilliant understanding, but lacks reason. This is where philosophy should play its role: to rise again from understanding to higher reason. This would be possible by revisiting the Marxian framework and Marx's scientific approach. In the dissertation, therefore, I aimed to move from simple appearances to more complex structures in order to reach the essential components of sustainable finance. Appearances are undoubtedly part of the whole, but their mere understanding or analysis on a stand-alone basis is illusory. We should always consider them in relation to the whole.

In light of the above paragraphs, my study examined Sustainable Finance from its simplest appearance to its essence. Using Marx's dialectic as a tool of analysis, I have demonstrated that the goal of Sustainable Finance is no different from that of the capitalist economy: profit and growth. In fact, as the dialectical method has revealed its nature, Sustainable Finance means sustainable profit and growth for the capitalists. The sustainability of the planet is not sustainable if the capitalist system continues.

Overall, in Hegelian terms, I have shown in this study that the possible is also real, and it must be made concrete, it must be actualized. Therefore, our task is to replace the abstract universality of capitalism with the concrete universality that encompasses a sustainable planet.

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