

# **Environmental decision-making within the EU: the dynamics between neoclassical economics and limits to growth**

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## **Abstract**

Since knowledge about humans' impact on the environment became available in the late 19<sup>th</sup> century, it took some time for this to become of political concern. Only at the end of the 1960s did this topic emerge on political agendas in various parts of the world. In the governmental bodies of the just-founded European Union (EU), environmental concerns started to become part of policy around this time as well. At this moment, decision-making by the EU institutions had developed to become almost solely underpinned by neoclassical economic theory. Consequently, the environmental strategy of the EU has grown to adopt a green growth approach, as opposed to the advice of environmental scientists who argue for an approach considering the limitations of the Earth.

In my thesis, I aim to get an indication of whether a change from a growth-pursuing ideology to a limits-to-growth ideology is possible by applying the theory of path dependence on the historical development of the EU's environmental strategy. I hypothesise that, if any openings for change have occurred in the past, these openings occurred due to exogenous shocks such as economic and social pressures.

I conclude that it will be rather difficult for the EU to change their environmental strategy to a less growth-driven one. First, a limits-to-growth alternative appeared to be not present during the critical juncture at which the EU was founded. Second, none of the limits-to-growth principles has been present during the development of the EU's environmental strategy. Third, the self-reinforcing mechanisms underlying the neoclassical economic ideology in the EU's environmental strategy appear to be very strong. Not only are they suggesting that the institutional pattern of the EU needs to serve the overall economic system on which the EU was initially founded; they also indicate that the growth-enhancing beliefs of the EU are fuelled by the sustainable growth ideology from influential parties such as the United Nations and the Brundtland Commission.

## **Table of contents**

Chapter 1 – Introduction	p. 3
Chapter 2 – Theoretical framework	p. 8
Chapter 3 – The Foundation of the EU	p. 12
Chapter 4 – The development of the EU’s environmental strategy	p. 14
Chapter 5 – Conclusion	p. 18

# 1. Introduction

It has been recognised by scientists for the first time already at the end of the 19<sup>th</sup> century: humans affect the environment (Crutzen, 2002). This human impact took a crucial turn during the Industrial Revolution, a period marked by the rapid expansion of the world population and the escalation of natural resource exploitation (Crutzen, 2006; Ellis, 2018; Stensrud & Eriksen, 2019, p. 1). The Anthropocene, as this human-dominated epoch that started during the Industrial Revolution has been termed, has brought on increasing greenhouse gas emissions and human-driven alternations to the Earth system (Crutzen, 2006; Ellis, 2018; Stensrud & Eriksen, 2019).

It took some time for the environmental effects of human activity to become of political concern (Kirchhof & Meyer, 2022). Only at the end of the 1960s and the beginning of the 1970s, this topic started to emerge on political agendas in different parts of the world. The first time that environmental issues were internationally addressed was at the United Nations (UN) Conference on the Human Environment in Stockholm in 1972 (Seefried, 2022, p. 394). Since this conference, human-induced climate change has become an increasingly debated topic in world politics. The definitions of and perspectives on concepts such as “sustainable development”, “climate change” and “environmental policies” have been subject to historical change. However, three underlying political-economic systems shaping those concepts have seemed to be rather persistent over time: capitalism, neoclassical economics and globalisation (Barry et al., 2011, p. 131). The three systems are interdependent and interrelated to each other. They are embedded so deeply in our society that they affect decision-making regarding pressing issues such as climate change policy, thereby sustaining and pursuing orthodox economic growth.

Because of the persistence of these growth-oriented political economic systems in decision-making, the dominant environmental strategy in the West seems to have evolved towards a “green growth” approach over the past several decades (Barry et al., 2011; Foxon, 2022; Ossewaarde & Ossewaarde-Lowtoo, 2020; Paganetto & Scandizzo, 2020; Seefried, 2022; Stensrud & Eriksen, 2019). Such an approach is aimed at decoupling economic growth from greenhouse gas emissions, thereby rapidly reducing emissions through the use of technology and innovation while achieving high levels of global economic growth (Barry et al., 2011; Foxon, 2022; Hickel & Kallis, 2020). Even though an increasing body of scientific evidence implies that the urge for growth itself is the main cause of climate change and environmental issues, it remains to exist in environmental policymaking.

## 1.1. Problem statement

In 1972, Meadows et al. (1972) published the influential report *The Limits to Growth*. It was the first time that both the general public and politicians were warned about the planetary boundaries and the problems economic and population growth can bring. Based on this report, an increasing number of scholars have been arguing for a more radical approach to reducing greenhouse gas emissions, thereby aiming for an economic system that considers the limits to growth (e.g., Akbulut, 2021; Barry et al., 2011; Escobar, 2015; Foxon, 2022; Hickel & Kallis, 2020; Hobson & Lynch, 2016). Such an economic system is one that is less growth-oriented, and which recognises the existence of a threshold beyond which economic growth becomes unhealthy and unsustainable (Barry et al., 2011; Foxon, 2022). Therefore, it views economic growth as potentially harmful rather than it being perceived as a self-evident good or a permanent ideology to be unquestionably sought after.

While the knowledge about the limits to growth has already existed for more than half a century, some scholars believe that it has never had a substantial impact on governmental decision-making (e.g., Barry et al., 2011; Seefried, 2022). According to them, this is also true for the European Union (EU), where substantial aspects of a limits-to-growth approach do not seem to be present in its environmental decision-making, both in the past and in the present. Thus, it appears that the scientific evidence about the limits of the Earth clashes with the environmental approaches and capitalist ideology of the EU.

## 1.2. Historiography

I have explored three domains of research within my thesis, two of which are historically focused. The first domain combines the historical and political sciences, and specifically focuses on the historical development of environmental thinking and acting within EU institutions. The second domain combines the historical, economic and political sciences, and is aimed at investigating the dynamics between neoclassical economics, growth and environmental decision-making. The third domain combines the political economic and environmental sciences and entails scientific evidence about environmental concerns and political economic models considering the limits to growth. Combining these three domains of research gives my thesis a rather unique character.

The first domain includes work of Seefried, Lorek, Spangenberg and Lenschow. Elke Seefried has focused her research on the development and formation of sustainability concepts in relation to European politics, thereby claiming that “sustainability” and “sustainable development” are political concepts and fields of action subject to historical change (Seefried, 2022, p. 390). She argues that it was in the 1990s that both concepts began to shape the environmental policies of the EU, but she does not mention a potential influence of either the green growth or limits-to-growth movement in this policy-shaping.

Lorek and Spangenberg (2014) have studied how the development of the EU perspective on sustainable development relates to the EU’s policy implementation since the 1970s. They have analysed this development on the basis of its alignment with the green growth approach, thereby focussing on the gaps between the EU perspective and the ultimate desired sustainable development approach as described in the Brundlandt report. Lorek and Spangenberg (2014) argue that the EU has been striving for the efficient consumption of resources and energy thereby making use of technology and innovation, rather than respecting resource and planetary boundaries. The latter would have fit a limits-to-growth approach. According to the scholars, not only have EU policymakers historically been focussing on stimulating economic growth using technology to increase efficiency; they are currently also promoting such an approach as necessary to reduce environmental impact (Lorek & Spangenberg, 2014, p. 36). Lenschow and Sprungk (2009) complement this analysis by showing how the historical evolution of the EU’s environmental policy and its promotion has resulted in the EU enjoying a green reputation among a large share of both its own EU citizens and foreign states (Lenschow & Sprungk, 2009, p. 147).

The second domain includes the work of Jackson, Barry and Koch. Koch (2018) has made a historical analysis of environmental policy development within the EU and aligns this development to three different approaches to tackle climate change: irrational optimism, green growth and degrowth. The last one adopts a limits-to-growth perspective. Koch (2018, p. 38) agrees with Lorek and Spangenberg (2014) and Lenschow and Sprungk (2009) that the EU mainly follows a green growth strategy, as it does not

regard economic growth to be conflicting with sustainability targets. He highlights the EU's use of Emission Trading Schemes (ETS) as a policy instrument to reach climate targets, which is considered a means to pursue business as usual while potentially reducing emissions (Koch, 2018, pp. 39, 40). However, Koch does argue that several attempts have been made on the EU level and the national level of several Member States (e.g. Germany and Norway) focused on creating a sustainable welfare state (Koch, 2018, p. 41). While these efforts have fallen short, it shows policy attempts that fit aspects of a limits-to-growth strategy as it aims to satisfy basic needs of all citizens in the present and future rather than distributing resources only to the richest few (Koch, 2018, p. 42).

Jackson (2009) has dedicated his research to the ambiguity that is brought on by a limits-to-growth ideology in decision-making. On the one hand, he argues that the green growth strategy as pursued by the EU is not able to overcome environmental pollution and resource scarcity. On the other hand, he illustrates the infeasibility of a limits-to-growth approach to compete with the growth-driven neoclassical economic systems of today (something also illustrated by Barry et al. (2011) and Koch (2018)). However, even as does Barry et al., (2011) Jackson (2009, pp. 62–63) concludes it is essential for the EU to lower their emissions and achieve a sustainable and prosperous future, even though the underlying growth-driven systems have historically been driving decision-making. To overcome this ambiguity, Koch (Koch, 2018, p. 44) recommends a dual strategy in which principles of the EU's current green-growth strategy and principles of a limits-to-growth approach are combined to make it more realistic to achieve climate targets.

### **1.3. Non-historical literature survey**

The third domain involves non-historical literature and combines the political economic and environmental domains. This domain involves scholars that argue for a limits-to-growth model in decision-making, all taking *The Limits to Growth* as a starting point for their claims. To start with, Daly (1972) defines argues for a “steady-state economy” in which capital, consumption and population patterns are constant and maintained by a consistent flow of resources. As a result, waste is minimized, and the ecological limits are not exceeded. In his concept, Daly works with Gross Domestic Product (GDP) to measure economic activity.

Foxon (2022) argues for a post-growth society, in which growth as a concept is abandoned. Whereas Daly (1972) claimed the economy should be in a steady state, Foxon argues it does not matter whether growth becomes steady or whether a form of degrowth is achieved. He compares the dominant green growth approach with the post-growth approach to explain why change in political economics is needed. The work of Foxon is for a large part based on the work of Jackson (2009) and Hickel and Kallis (2020), who all argue that green-growth models are too optimistic about technology, as in these models it is expected that radical innovations will be able to decrease greenhouse gas emissions and overcome resource scarcity. Additionally, Jackson, Hickel and Kallis claim that economic growth should be decoupled from well-being, meaning that GDP should not be the value to measure the quality of life. Whereas Jackson (2009) does not take a standpoint on what kind of limits-to-growth model is required, Hickel and Kallis (2020) opt for a degrowth model in which capital and population are decreasing to limit resource use and stay within the planetary boundaries. A last influential model is proposed by Raworth (2018) who explains the limits of the planet and its resources through a visual framework shaped like a doughnut in which the planetary boundaries are combined with the social boundaries. This

framework represents the “doughnut economy”, representing a social foundation and an ecological ceiling that should both not be exceeded.

#### **1.4. Aim of the research**

Rather than arguing for one of the beforementioned models considering the ecological limits, I will combine these models into one by underpinning the principles they share. These principles combined I will call the “limits-to-growth” framework.

What has been missing from the current scientific debate is the studying of the presence of limits-to-growth principles in the historical evolvement of the EU’s perspective on sustainable development. Additionally, what lacks in current research is an investigation of the mechanisms that are pursuing the neoclassical economic ideology in the EU’s environmental strategy. A combination of these dimensions will provide insights into the reasons as to why it is difficult to switch from a growth-pursuing ideology to a limits-to-growth ideology in environmental decision-making, while at the same time indicating whether possibilities for change towards a limits-to-growth model have been present. According to both Mahoney (2000) and Crouch and Farrell (2004), it is highly useful to explore the hidden pathways of institutional development (i.e., a potentially hidden limits-to-growth pathway indicated by the presence of limits-to-growth aspects) to create an idea for the potential for radical change. A theory of path dependence will help to explore these pathways.

The aim of my thesis is to get an indication of whether a change from a growth-pursuing ideology to a limits-to-growth ideology is possible by applying path dependence on the historical development of the EU’s environmental strategy. To achieve this aim, I will answer the following three sub-questions:

- (1) Was a limits-to-growth model considered to be an alternative environmental decision-making approach as opposed to the green growth approach (informed by a neoclassical economic ideology) during the foundation of the EU?
- (2) What limits-to-growth principles have been present in the environmental strategy of the EU since its foundation?
- (3) What mechanisms have been reinforcing the neoclassical economic ideology in the environmental strategy of the EU?

By relating the answers to these three sub-questions to each other, I hope to obtain insights into the reasons for the persistence of a neoclassical economic ideology in environmental decision-making and for openings for change to a limits-to-growth political-economic model to occur. I hypothesise that, if any openings for change have occurred in the past, these openings occurred due to exogenous shocks such as economic and social pressures.

#### **1.5. Theoretical framework**

A basic explanation of the theoretical framework will be given in this section, but a more elaborate and detailed theoretical framework can be found in the second chapter of this thesis. The theoretical framework of this thesis has three goals. The first one is to explore the dynamics between capitalism, green growth and limits to growth. Scholars important for this part fall under the second domain of

research I explained in the historiography. These include amongst others Jackson (2009), Koch (2018) and Barry et al. (2011).

The second aim of the theoretical framework is to define the principles of a limits-to-growth model. The four principles are mainly derived from Jackson (2009), Koch (2018) and Barry et al. (2011) and Hickel and Kallis (2020). The four principles are 1) the recognition that a conscious departure from monetarily and material growth is required; 2) the acknowledgement that growth should be decoupled from well-being; 3) the rejection of conventional optimistic ideas about the contribution that technology can deliver in addressing climate change; and 4) the recognition of the need for global distributive justice and long-term viability.

The third aim of the theoretical framework is to explain path dependence and to decide on an approach to apply to my analysis. Path dependence is used to evaluate whether openings for change have occurred in the past during the development of the EU's environmental strategy. With openings for change, I mean the (although relatively small) gaps in history in which an alternative to neoclassical economics could have entered as a political-economic model informing decision-making. Such openings for change would have allowed one or more of the principles of limits to growth to enter and can therefore be indicated by the presence of these principles. The scholars that will be discussed are Mohoney (2000), Thelen (1999), Crouch and Farrell (2004), North (1990) and Pierson (2000).

## **1.6. Method**

The analysis of my thesis is divided into two parts. The first part will cover a time period starting in 1952 when the governments of Belgium, Luxembourg, the Netherlands, France, Italy and (former) West Germany founded the European Coal and Steel Community (ECSC) (Vetter-Schultheiß, 2022, p. 310). This moment indicated the beginning of the EU. The period of analysis in the first part ends in 1967. The time period from 1952 to 1967 is called the “critical juncture”, a concept used in path-dependence theory and explained in section 2.2. The second part of my analysis covers the period from 1967 to 2019. The period ends right after the EU's implementation of the Green Deal in 2019, as it is the last important moment in the environmental decision-making strategy of the EU (European Commission, 2019). In this period, the mechanisms reinforcing neoclassical economics in environmental decision-making and openings for change will be sought and explained.

The approach to conducting both parts of my analysis consists of an in-depth historical literature review combined with a review of policy documents published by the EU. Both are aimed at defining the presence of limits-to-growth principles in the EU's environmental strategy and at explaining the mechanisms reinforcing the development of the environmental strategy to follow a neoclassical economic ideology. The historical literature review uses secondary literature by amongst others Seefried (2022), van de Grift and van Meurs (2022) and Vetter-Schulzhei (2022). The primary literature used in the policy review is derived from the database of the EU (EUR-Lex, 2023), supplemented with amongst others reports from the United Nations (UN). The primary literature includes all Environmental Action Programmes (EAP's) of the EU, all EU treaties, the report *Our Common Future* by the Brundtland Commission (World Commission on Environment and Development, 1987) and documents that resulted from UN conferences (e.g., the Rio Declaration, the Paris Agreement and Agenda21).

## 2. Theoretical Framework

The theoretical framework of this thesis has three goals. The first one is to explore the dynamics between capitalism, green growth and limits to growth. The second one is to define the principles of limits to growth. The third is to explain path dependence and to decide on an approach to apply to my analysis.

### 2.1. The dynamics between neoclassical economics under capitalism, green growth, and limits to growth

Over the past centuries, capitalism has become dominant across the world. Whereas several varieties of capitalism exist, all structurally require growth and rely on consumerism to achieve this (Jackson, 2009, p. 11). This dominant capitalistic ideology has become deeply locked into the global political-economic system, being the result of a still ongoing process that has been reinforced by two interrelated phenomena. First, an accumulation of historical events affecting economic decision-making and power relations has enhanced the tenacity of the capitalistic system, thereby reducing the possibility of the system being replaced by another. Secondly, the natural dynamics of capitalism push the system towards either expansion or collapse (Jackson, 2009, p. 46). Accordingly, growth has become a necessity for stability, eliminating the possibility of a steady-state position in which the stock of physical capital is held constantly while being maintained by low and sustainable rates of material and energy throughput (Daly, 1972, p. 945; Jackson, 2009, p. 77; Koch, 2018, p. 43).

Due to capitalism becoming increasingly entrenched in the global political-economic system, models of political economics have historically been pursuing growth (Barry et al., 2011, p. 132). Consequently, growth has been normalized and promoted as something to unarguably seek after, resulting in governments encouraging individualistic and materialistic consumerism (Barry et al., 2011; Jackson, 2009, p. 132). As neoclassical economics (which over the past century has evolved to become the dominant political-economic model) under capitalism has been able to structurally embed itself within decision-making, it now does not only act as an agenda setter but additionally determines the manner arguments should be expressed by those regulating or wishing to influence policymaking (Barry et al., 2011, pp. 129, 134). Neoclassical economics is known for aiming to bring equilibrium in the market, pursue growth and opt for full employment.

The same holds for environmental decision-making. The conventional (and thus neoclassical economic) response to environmental and socioeconomic challenges is to decouple growth from pollution and resource and energy use (Jackson, 2009, p. 8). However, the phenomenon of climate change indicates that the Earth system is not able to provide for all resources required by the growing human population in a just and equitable way (Foxon, 2022, p. 41; Steffen et al., 2015). While economic activity as required by a capitalist economic system has become dependent on natural energy and resource flows, this has imposed several implications, such as global warming and biodiversity loss (Barry et al., 2011, p. 129; Daly, 1972; Foxon, 2022, p. 41). Even though this provides reasons to question the imperative of growth itself, the necessity of growth within the current political-economic system makes it one of the most demanding challenges. This illustrates a fundamental contradiction between the existing growth-driven paradigm and the natural boundaries of the Earth. It seems that any decision-making around climate challenges should be informed by a non-growth-driven political-economic model. Nonetheless, as it is



already hard to imagine switching from such an embedded model under capitalism to another under capitalism, it is even harder to imagine switching to an alternative not pursuing growth.

This explains the global emergence of green growth approaches at times when environmental issues became of political concern (Koch, 2018, p. 38). In line with the neoclassical orthodoxy, environmental decision-making has been embedded in the requirement of growth immediately at the start. This growth is justified by the optimistic belief that technological solutions will allow for such high efficiency and low resource intensity that growth can be absolutely decoupled from carbon emissions (Barry et al., 2011, p. 129; Foxon, 2022, p. 42; Jackson, 2009, p. 53). In response to the green growth approaches, scholars have come up with alternative theories and frameworks that acknowledge the limits of the Earth system but that do not vindicate capitalism such as degrowth, a-growth and post-growth. Thus, as such alternative models do not fit under the current capitalistic system, these scholars argue for a radical system transition in which the growth-pursuing paradigm is replaced by a paradigm acknowledging the limits to growth (Barry et al., 2011, p. 135).

## **2.2. The four principles of limits-to-growth**

Whilst scholars have given various interpretations (e.g., degrowth, post-growth, steady-state etcetera) to the content of and process towards a limits-to-growth model as an alternative to the current dominant political economy model, four main principles similar in each of the theories and approaches can be identified.

First, the model recognizes that the necessity of growth itself in a political-economic system is the major cause of climate and socioeconomic challenges (Barry et al., 2011, p. 129). It, therefore, advocates for a conscious departure from conventional monetarily and material growth (Schulz & Bailey, 2014, p. 282). The model argues that an infinite continuation of growth is not socially and ecologically rational and that there are limits to decoupling economic growth from emissions and pollution (Foxon, 2022, p. 7). Instead of assuming economic growth can be unreflectively viewed and left to be regulated by the economic system itself, a limits-to-growth model acknowledges that it should be consciously monitored and regulated (Barry et al., 2011, p. 133). Thus, a limits-to-growth model proposes growth should be viewed with the idea it has a threshold beyond which it becomes unsustainable and unhealthy.

Secondly, a limits-to-growth model argues for the decoupling of growth from well-being (Jackson, 2009, pp. 89–91). As evidence suggests, consuming less can improve well-being that is not possible to measure in monetary terms. A less materialistic society would then become a happier one. At the same time, the model argues for increased attention to community participation to reduce loneliness and strengthen the well-being of groups of people.

Thirdly, a limits-to-growth model rejects the conventional optimistic ideas of the contribution that technology can deliver in addressing climate change (Barry et al., 2011, p. 129). Technological progress and efficiency drive consumption and growth and are consequently contradicting the main objective of a limits-to-growth perspective (Jackson, 2009, p. 56). Additionally, it is not wise to expect a technological breakthrough massively reducing emissions will occur soon. Nonetheless, the model does recognize the essentialness of currently existing technology, as it allows for enhancing energy efficiency and providing renewable energy.

Lastly, global distributive justice and long-term viability are considered in a limits-to-growth model (Schulz & Bailey, 2014, p. 282). This means going beyond only redistributing wealth in the form of money

towards encompassing equal distribution of opportunities, quality of life, well-being and economic security (Barry et al., 2011, p. 133; Schulz & Bailey, 2014, p. 282).

### 2.3. Path dependence

Path dependence is used to provide insights into how historical events have shaped the current political-economic system and to define the potential for change. The theory allows to identify underlying mechanisms reinforcing the persistence of neoclassical economics under capitalism in the environmental decision-making process. This creates a better understanding of environmental decision-making being informed by green growth approaches rather than a limits-to-growth approach, while at the same time providing insights into potential moments of change (although rather small) towards a less growth-driven approach to address environmental and socioeconomic challenges.

The path dependence theory as used in the historical social and political sciences is deduced from economic literature in which it serves to comprehend technological trajectories (North, 1990). The theory was first introduced in this domain by Douglas North in 1990 and has since then been debated and adapted by scholars such as James Mahoney, Colin Crouch, Kathleen Thelen, Paul Pierson and Henry Farrell. While initially discussing the use, definition and various elements of path dependence in institutional patterns, scholars are now debating the potential of the theory in explaining institutional change. Thus, path dependence has grown to become a theory used to understand institutional trajectories of persistence and change.

In essence, path-dependent theorists<sup>1</sup> within the political sciences share similar understandings of path dependence; that is, a path-dependent sequence is an institutional pattern established during a critical-juncture period in which initial choices or events put the institution on a self-reinforcing trajectory (Mahoney, 2000). Once such a trajectory is taken the possibility to change to an alternative path decreases and the current path becomes locked in, resulting in a bounded set of actions for actors to follow and adjust to. Arguments of scholars differ on the contingency of early events and decisions in critical juncture periods; the self-reinforcing mechanisms underlying institutional patterns; the deterministic properties of path-dependent sequences; and the potential of exogenous and endogenous shocks on institutional change. Each of these four aspects and related divergent arguments will be discussed briefly.

In his work, Mahoney (2000, p. 513, 2001) lays substantial focus on the contingency of the historical events that set institutional patterns into motion (Mahoney, 2000, p. 513). He defines contingent events as occurrences that do not logically follow prior historical conditions and stresses the importance of indicating such contingency when identifying path-dependent trajectories. Following Mahoney's logic, path-dependent trajectories cannot be explained by theory. Crouch and Farrell (2004, p. 13) refer to the same kind of randomness when implying that an actor chooses its first decisions without necessarily knowing the environment it is facing. On the contrary, Thelen (1999, p. 385) argues that such explanations of the early choices within a path-dependent trajectory are too contingent to be applicable in politics. I agree with this statement, as politics often involves complex dynamics including multiple actors with varying beliefs and power disparities. This makes politics less susceptible to being affected by small chance events.

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<sup>1</sup> The path-dependence theorists referred to here only include the scholars mentioned earlier: Douglas North, James Mahoney, Colin Crouch, Kathleen Thelen, Paul Pierson and Henry Farrell. The work of these scholars is used to build up the theoretical framework.

Pierson (2000, p. 265), North (1990), Mahoney (2000), Thelen (1999, p. 385), Crouch & Farrell (2004, p. 6) all argue that path dependence in its pure form is too deterministic as it does not allow for the possibility of actors within institutions to successfully search for alternative paths when endogenous or exogenous shocks demand to do so – something that has occurred in practice more often than not. Based on the case studies and theories the latter three scholars provide, I also acknowledge the potential for change in path-dependent trajectories. (North, 1990) and Pierson (2000, p. 265) acknowledge this deficiency but do not provide a method on how to overcome it. Crouch and Farrell (2004) have developed a theoretical model to analyse path-changing possibilities in path-dependent sequences. They argue for the identification of alternative paths that existed during the critical juncture but that have been forgotten afterwards before it is possible to determine whether a certain institutional trajectory allows for change (Crouch & Farrell, 2004). According to them, these paths remain in existence (although hidden) and could provide seeds for new paths when institutions need to adapt because of a changed environment.

Mahoney (Mahoney, 2000, p. 517) provides a framework of what he calls “mechanisms of change” to reverse self-reinforcing path-dependent sequences. He argues that the mechanisms of change depend on the “mechanisms of reproduction” sustaining a path-dependent sequence, thereby implying that it is important to first understand the mechanisms of reproduction. Similarly, Thelen (1999, pp. 388–400) provides case studies from various scholars which show the necessity of identifying the self-reinforcing mechanisms sustaining institutional patterns to understand what exogenous and endogenous events could potentially produce openings for institutional change. This suggests that institutional stability and change are closely related (Thelen, 2002, p. 100). Pierson (2000, p. 265) adds to Mahoney (2000) and Thelen (1999) by explaining that openings for change occur when existing reproduction mechanisms are overwhelmed and can therefore not sustain the current path anymore. In further work, both Thelen and Mahoney explore the properties of institutional patterns that allow for change (e.g., Mahoney & Thelen, 2009; Thelen, 1999).

Based on the mentioned insights in the literature on path dependence, I have deduced three main arguments that will be used as the founding elements of my analysis. First, I will identify the various elements of a path-dependent sequence within the development of environmental decision-making within the EU. For this, I will use the model of reinforcing path-dependent sequences provided by Mahoney (2000, 2001). Even though I am critical of the emphasis he puts on the contingent properties of events within critical junctures, he provides the most comprehensive framework. While North (1990) also provides a rather elaborate framework, I argue that his insights are too economically focused and provide little explanation for political dynamics sustaining institutional patterns. For instance, he ignores aspects of power disparities between relevant actors.

Second, I will investigate the mechanisms reinforcing the role of neoclassical economics within the environmental decision-making of the EU since its foundation. According to Thelen (1999, 2002), Mahoney (2000) and Pierson (2000), this is necessary to find the potential openings for change.

Third, as suggested by Crouch and Farrell (2004), I will investigate whether a limits-to-growth model has been an alternative model to inform decision-making by bringing to light any presence of limits-to-growth principles during the early stages of the EU foundation. In case limits-to-growth can be identified as an alternative path, this path could potentially be rediscovered if relevant actors within EU institutions decide such a path might be more efficient or functional. At the same time, the presence of any of the limits-to-growth principles in the period following the EU foundation will be identified as this would make the path a more viable alternative as it is not so “hidden”. It is then important to understand why these principles were present at the time and how they relate to mechanisms sustaining the dominant decision-making pattern to indicate whether they presented openings for change.

### **3. The foundation of the EU**

This chapter will explain the foundation of the EU as the critical juncture period of my analysis. It will first go over the characteristics of the critical juncture, after which an analysis of alternative paths will be done.

#### **3.1. The critical juncture**

In 1952, the governments of Belgium, Luxembourg, the Netherlands, France, Italy and (former) West Germany founded the European Coal and Steel Community (ECSC) (Vetter-Schultheiß, 2022, p. 310). Its major aim was to provide equal access to energy resources (Kirchhof & Meyer, 2022, pp. 113–114). In 1957, the same governments signed the Treaties of Rome, which created the European Economic Community (EEC) and the European Atomic Energy Community (EAEC). These three communities combined merged into the European Communities in 1967, which formed the institutional base of the EU. Therefore, the period from 1952 to 1967 is defined as the critical juncture that set into motion the path-dependent process of decision-making informed by a capitalist ideology.

During this period, the foundation of the EU's ideology, principles and beliefs was created. Originally, the EU was founded on the principles of economic integration and promoting peace and stability between countries within Europe (European Parliament, 2018). During the critical juncture, the communities that now form the EU were primarily focused on economic cooperation and the establishment of a single market, which involved the removal of trade barriers and the free movement of goods, services, capital and labour. These policies were rooted in a market-oriented approach, influenced by neoclassical economic theories commonly associated with capitalism. The EU recognizes three institutions that are important in the decision-making process: the European Parliament, the Council of the European Union and the European Commission (European Parliament, 2018). I will focus the rest of my analysis on these three institutions.

#### **3.2. The alternative paths of development**

Before the foundation of the ECSC in 1952, the six countries forming the community had various dominant political-economic models. These included neo-liberalism, social democracy, Keynesianism and neoclassical economics (Barry et al., 2011). In theory, either one of these models could have formed the base for the beliefs and principles institutionalised within the EU. However, neoclassical economics was the one adopted by the EU as the dominant policy-informing model.

Several reasons can be attributed to this. For once, neoclassical economics, with its emphasis on market mechanisms, competition, and efficiency, aligned well with the objective of creating a common market and promoting economic integration among member states (Seefried, 2022). Additionally, it gained widespread acceptance and support from influential scholars. It became associated with mainstream economic thinking and policymaking in Western countries.

At the end of 1960, only after the genesis of the European Communities, environmental policy was developed conceptually in West Germany (Seefried, 2022, pp. 391–393). From this moment on, environmental issues started to become of concern within the European Communities. During this period,

neoclassical economics in combination with Keynesianism informed decision-making in the European Communities. As a result, early environmental decisions were based upon a model pursuing economic growth and competition, creating weak environmental regulations. However, it's important to note that the development of environmental policy during this time was still in its early stages. The recognition of environmental issues as significant policy concerns was growing, but the institutionalization of comprehensive environmental policies and frameworks took time to evolve within the European Communities.

## 4. The development of environmental decision-making within the EU

At the end of the 1960s, environmental activism driven mainly by students and the counterculture arose in the countries forming the European Community<sup>2</sup> at that time (Seefried, 2022, pp. 395–414). This in combination with the first United Nations (UN) environmental conference of June 1972 (called “the Stockholm Conference”) and environmental concerns at the national level led to the adoption of the first environmental regulations by governments of Member States. Consequently, the risks of trade barriers, market fragmentation and distorted competition within the European Communities increased, potentially threatening the functioning of the European Common Market. It was a key reason for the EEC to take upon the task of developing a common environmental policy. This translated into environmental discussions within the EP and the foundation of an environmental working group within the EC in 1971. The first official notion of the need for environmental policy dates back to the Paris Summit held by the Government of the European Communities in October 1972 (Bulletin of the European Communities, 1972, p. 5).

As a result of the publication of *The Limits to Growth* (Meadows et al., 1972) by a group of scientists in 1972, debates about the interdependence between economic growth and environmental issues arose globally. The concern that poverty, overpopulation and environmental destruction seemed to be interlinked was at the heart of the Stockholm Conference (United Nations, 1972, pp. 46–64). In addition, environmental activists within the Member States of the European Communities upheld strong anti-capitalist ideas, critiqued consumerism, and questioned the economic growth imperative (Seefried, 2022, p. 393). Clearly, exogenous pressures demanded the European Communities to rethink the way they judged their success, which was through economic growth measured in GDP.

Within the European Commission itself criticism against the growth paradigm rose as well. One of the main actors behind this criticism was Sicco Mansholt (Seefried, 2022, p. 393)<sup>3</sup>. Mansholt advocated for a more sustainable use of resources, already before the publication of *The Limits to Growth* (van de Grift & van Meurs, 2022, p. 16). In 1968, he presented *The Mansholt Plan* which aimed to decrease agricultural production to prevent overproduction and environmental pollution (Bulletin of the European Communities, 1969). This meant fewer farmers would be needed. The plan received substantial criticism from farmers, leading to the implementation of a highly adapted plan to reform the CAP in 1972 (CVCE, n.d.).

After the publication of the conceptual version of *The Limits to Growth* in 1971, Mansholt gave a speech during a congress in September 1971 to again express his concerns about the environmental effects of the increasing population and the environmental growth paradigm (van Merriënboer, 2006, p. 160). He stressed the urgency to cease the consumerist behaviour on which EEC market thrives. To support these anti-capitalist claims, Mansholt used the scientific evidence presented in *The Limits to Growth* (van Merriënboer, 2006, p. 10). However, his ideas were largely rejected within the EC, amongst others because people feared a disbalance of the market economy and decreased employment (Seefried, 2022, p. 393). It was expected that economic growth would result in technologies helping to overcome resource

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<sup>2</sup> At this time, the European Community still only consisted of Italy, France, West Germany, Belgium, Luxembourg and the Netherlands. The first enlargement of the European Community took place in 1973 when Denmark, the United Kingdom and Ireland joined. In 1981 Greece joins, followed by Spain and Portugal in 1986.

<sup>3</sup> Mansholt was the Vice-President of the EU from 1958 to 1972, whereafter he became its fourth president until 1973 (SOURCE). Additionally, he was the European Commissioner of Agriculture (from 1958 to 1972) and the founder of the Common Agricultural Policy (CAP).

scarcities and environmental pollution. Moreover, his claims were being perceived as at odds with the main economic and social concerns on which the European Communities were founded.

The rejection of Mansholt's ideas and the concerns about the malfunctioning of the Common Market show a neoclassical economic thought in the environmental perspective of the EC and the EP. This thought is also visible in the Paris Summit Statement of 1972 and the First Environmental Action Programme (EAP) published by the Council of the European Communities in 1973. The former argues for the need of an environmental policy and states that economic growth should not be viewed as an end in itself but needs to improve the quality of life (Bulletin of the European Communities, 1972, p. 5). The latter is thus an outcome of the Paris Summit and confirms that economic growth shouldn't be solely measured by GDP (The Council of the European Union, 1973, p. 8). Whilst this shows that the European Communities adopt a broader definition of economic growth than was initially the case, none of the limits-to-growth principles was present at the time (i.e., growth and wellbeing remain coupled). Additionally, the first EAP shows that consumerism is still being vindicated, as no attempt is being made to decrease it whilst the document does pursue stress the importance of recycling (Bulletin of the European Communities, 1972, p. 41).

All in all, it seemed that two mechanisms were reinforcing neoclassical economic aspects in the EEC's environmental strategy throughout this period of time. First, a functional mechanism seemed to be at play. The initial concerns of the EC about the disruption of the Common Market when individual Member States started to adopt national environmental regulations show that the market's functioning was a top priority in the environmental strategy of the EEC. This indicates that the environmental strategy served a function for the overall EEC's economic system requiring that the strategy should follow the neoclassical economic line of thought on which the system was based.

Secondly, a legitimization mechanism was reinforcing the dominant pattern within the development of the environmental strategy. This is shown by the fact that Mansholt's ideas did not fit with the main concerns of the EC. Additionally, it is visible when looking at the thrust that the EC put in economic growth and technology to reduce environmental pollution. Both show that the EC and EP seemed to believe that economic growth was required to solve environmental problems.

At the end of the 1970s, the International Union for the Protection (formerly Conservation) of Nature (IUCN)<sup>4</sup>, the World Wildlife Fund (WWF)<sup>5</sup> and the United Nations Environment Program (UNEP)<sup>6</sup> established a *World Conservation Strategy* in which they conceptualized sustainability (Seefried, 2022, p. 396). The strategy accepted growth as long as it does not exceed the regenerative capacities of the Earth and its benefits are distributed to all people (International Union for Conservation of Nature and Natural Resources (IUCN) et al., 1980, pp. 14–15).

In 1963, UNEP had founded a World Commission on Environment and Development (WCED) in order to propose environmental strategies for the longer-term aimed at achieving sustainable development

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<sup>4</sup> The International Union for the Protection of Nature (IUCN) was already founded in the late 1940s by a group of nature conservation scientists and experts with the aim to maintain the entirety of life and resources in the environment (Schelper, 2019).

<sup>5</sup> The World Wildlife Fund (WWF) is a transnational organization founded in 1961 to fund projects aiming to protect the environment (Wöbse & Ziemek, 2022, p. 89).

<sup>6</sup> The United Nations Environment Programme (UNEP) is an international expert group from the UN that first met in 1971 (Seefried, 2022, p. 396). This group discusses alternative models of (sustainable) development with the aim to reconcile tensions between the environment and development.

beyond the year 2000 (Seefried, 2022, p. 396). The Commission (also called the Brundtland Commission) had brought together scientists and politicians from developing countries, the socialist states, the Member States from the European Communities and other Western countries. In 1987, the WCED published *Our Common Future*, a report that would become of high influence in the development of environmental strategies around the world. The report states that economic growth is needed to meet the fundamental needs of all people and to eliminate widespread poverty (World Commission on Environment and Development, 1987, p. 16). More specifically, it states that “what is needed now is a new era of economic growth – growth that is forceful and at the same time socially and environmentally sustainable.” (World Commission on Environment and Development, 1987, p. 17). Moreover, the report argues that technology is required to achieve sustainable growth, but it does mention the risks that technology can bring.

The conceptualization of sustainable growth by the Brundtland Commission is mirrored in the fourth EAP. The EAP argues for a “continuing access to natural resources” (European Community, 1993, p. 16) and couples quality of life with economic activity (as would be opposed when a limits-to-growth model was followed). Additionally, whilst the programme does mention the need for significant changes in consumption and behaviour patterns, it does not specify how these changes are met except for that resource scarcity and shared responsibility will be taken into account when developing economic and political policy. Even though the EAP does mention a global equitable redistribution of resources is needed to eliminate poverty and reduce the income gap, this distribution is measured monetary and material values.

In 1992, the United Nations Conference on Environment and Development (UNCED) or the so-called Rio Earth Summit was held (Seefried, 2022, p. 299). One of the aims of the Rio Earth Summit was to achieve a commitment of the Western countries to provide foreign aid to developing countries. However, the EC representatives disagreed on the aid target that was said. An additional aim of the Conference to initiate a European CO<sub>2</sub> tax was refused as well. According to the representatives, both measures would disrupt the internal European market.

The *Rio Declaration* and *Agenda 21* that were a result of the Rio Earth Summit followed a sustainable growth ideology as well (General Assembly United Nations, 1992, p. 3; United Nations Sustainable Development, 1992, p. 9). Whereas both documents mention the need for consumption patterns to change, none of them mentions specific measures on how to do so. What is remarkable is that the Rio Declaration stipulates an equal global distribution of quality of life, for the first time acknowledged by the UN as something not only expressible in monetary and material values. It has not been approached by the European Communities like this yet. Following the objectives of Agenda 21, the EEC has adopted the idea of sustainable growth in Article 2 of the Maastricht Treaty<sup>7</sup> of 1992 as well, thus officially institutionalizing the concept as part of the environmental strategy (European Parliament, n.d., p. 5).

To conclude, in between 1980 and 2000 several influential reports and strategies have been developed by amongst others the UN, the UNEP and the Brundtland Commission. The strategies are all aimed at creating sustainable growth and development, expecting a rise of technologies enabled by economic

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<sup>7</sup> The Maastricht Treaty or the Treaty on European Union was signed in 1992 by all Ministers of Foreign Affairs and Finance of the EU Member States. The treaty contains several important aspects, such as the institutionalization of sustainable growth in environmental policies and the increase of supervisory and legislative powers of the EP. Additionally, after this treaty entered into force in 1993, the European Community officially became the European Union and EU policies will stretch further than only touching upon the EU Common Market.



growth and able to overcome resource scarcity to happen. These ideas are reflected in the fourth and fifth EAP, indicating that sustainable development and the need for economic growth in environmental policies is being institutionalized by the EU as well. As is stated in the fourth EAP, the EC foresees that environmental protection policies can contribute to enhanced economic growth and levels of employment and that growth in turn can reduce environmental pollution (Commission, 1986, p. 2). That growth, technology and the economic market are all dominant elements of the EU's environmental policies seems to be reinforced by the believe that this is morally appropriate as it is also normalized by non-EU governments. Thus, a legitimation mechanism is present here.

## 5. Conclusion

The aim of my thesis was to get an indication of whether a change from a growth-pursuing ideology to a limits-to-growth ideology is possible by applying path dependence on the historical development of the EU's environmental strategy. To achieve this aim, I created three sub-questions. I will answer each of the questions to come to a conclusion for my thesis.

- (1) Was a limits-to-growth model considered to be an alternative environmental decision-making approach as opposed to the green growth approach (informed by a neoclassical economic ideology) during the foundation of the EU?

During the period of the EU's foundation between 1952 and 1967, the EU's ideology, principles and beliefs were developed. In my thesis, this period of time has been defined as the critical juncture. During this period, the EU institutions were primarily focused on economic cooperation and the establishment of a single market. These policies were rooted in a market-oriented approach, influenced by neoclassical economics. Alternatives to this approach did exist but all vindicated a variation on capitalism and pursued growth (e.g., Keynesian economics, neo-liberalism and social democracy). No limits-to-growth alternative was available during the critical juncture, something that is a requirement to be able to change paths after the institutional pattern is set into motion according to Crouch and Farrell (2004)). Thus, path dependence theorists would argue that changing to a limits-to-growth approach is not possible – unless another critical juncture occurs (Mahoney, 2000).

- (2) What limits-to-growth principles have been present in the environmental strategy of the EU since its foundation?

Throughout the development of the EU's environmental strategy, no principles of limits to growth were found. In fact, often principles opposite to the ones of limits to growth were found. These included, for instance, the optimistic idea that technology will overcome resource scarcity and environmental population, and the idea that well-being can be measured by economic growth in GDP. Whilst the EU did widen their conceptualisation of economic growth from purely GDP focused to including the idea that growth should stimulate the quality of life, the latter aspect is still measured in GDP per capita. All in all, using a path-dependence perspective the answer to this sub-question means that the openings for change are rather nihil, unless – again – a critical juncture occurs.

- (3) What mechanisms have been reinforcing the neoclassical economic ideology in the environmental strategy of the EU?

Since environmental issues became of concern to the EU institutions, strategies and programmes such as the *World Conservation Strategy* and the Sustainable Development Goals have been influencing its environmental strategy. As these strategies all justify growth (although they're attaching differing definitions to it), the EU's growth-based environmental approach that has the functioning of the Common Market as a main priority is being vindicated by a considerable number of essential international and transnational (environmental) organisations. This only means an extra substantiation of the main principles and beliefs of the EU. Thus, a legitimation mechanism fuelled by exogenous beliefs has been reinforcing the growth imperative in the environmental decision-making of the EU over time.

A second mechanism that was found multiple times throughout the analysis was the functional mechanism. Especially because the European Communities were initially purely founded to serve the functioning of the Common Market, this mechanism had been very influential in reinforcing the institutional pattern of the EU.

All in all, it can be concluded that it will be rather hard for the EU to change their environmental strategy to a less growth-driven one. First, a limits-to-growth alternative was not present during the critical juncture at which the EU was founded. Second, limits-to-growth principles have not been present during the time period following the critical juncture. Third, the self-reinforcing mechanisms underlying the neoclassical economic ideology in the EU's environmental strategy appear to be very strong. Not only are they suggesting that the institutional pattern of the EU needs to serve the overall economic system on which the EU was initially founded; they also indicate that the growth-enhancing beliefs of the EU are fuelled by the sustainable growth ideology from influential parties such as the UN and the Brundtland Commission.

Thus, path dependence theory suggests that changing to a limits-to-growth path is not possible unless a critical juncture occurs. However, as this conclusion is reached from a pure path-dependence perspective, I argue that radical change might still be possible when for instance taking a system transition approach. A system transition approach states that radical transformation can occur when all elements in the system adapt due to pressures on the system (Elzen & Wiczorek, 2005). This would indicate that it is possible that endogenous and exogenous pressures could result in the political economic system of the EU to radically change towards one that considers limits-to-growth. This could be a possibility for future research, although it is not necessarily historically focused.

Additionally, a case study on one of the policy areas could be performed, such as on the CAP. A more systematic incentivisation of limits-to-growth principles in the development of the CAP could provide more clear insights into whether openings for change in the historical decision-making strategy of the EU were visible. This would strengthen the conclusions that can be made when using a path-dependence theory.

My research has two main limitations. First, throughout the analysis, I noticed that it was difficult to get an idea of whether the EU actually believes growth is desirable and a requirement to solve the climate crisis, or whether a growth-pursuing approach just fits better with the overall economic system. If the latter would be the case, it would already be "easier" for the EU's political economic system to change, as actors inside the institutions would believe a growth strategy could be necessary to overcome environmental issues. Secondly, as mentioned before, a more systemic investigation of the presence of the limits-to-growth principles in a policy area of the EU could have been performed.



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