CENTRE DE RECHERCHE
SUR LES STRATÉGIES ÉCONOMIQUES

A "Climate War Economy"? Medium-run Macroeconomic Disequilibrium of the Green Transition

Alexandre Chirat, Basile Clerc

September 2025

Working paper No. 2025 – 10

CRESE
30, avenue de l'Observatoire
25009 Besançon
France
http://crese.univ-fcomte.fr/

UNIVERSITÉ MARIE & LOUIS PASTEUR

A “Climate War Economy”? Medium-run Macroeconomic Disequilibrium of the Green Transition

18 September 2025 | 15. 166 words

Authors: Alexandre Chirat[1] and Basile Clerc[2]

Abstract (162 words):

Drawing on the historical analogy with War Economy, this article investigates the concept of a “Climate War Economy” (CWE) to address the medium run macroeconomic imbalances inherent in the green transition. We argue that, as in war economies, the green transition is likely to generate a structural disequilibrium between constrained supply and rising demand, leading to medium-run inflationary pressures. This article uses the CWE analogy to open a broader discussion on the economic and political relevance of revisiting the macroeconomic stabilization tools deployed during World War II. It first examines how, in response to wartime constraints, governments suspended market mechanisms through price and quantity controls. Then, it explores the parallels with today’s green transition. By tracing the reasoning behind these interventions, the article shows how this historical experience can inform climate policy-makers and enriched ecological macroeconomics. Finally, the paper addresses the limitations of the war economy analogy, while arguing that price and quantity controls can be used to manage the macroeconomic imbalances of the green transition without undermining liberal democratic principles.

Keywords: Green Transition, Inflation, Price control, War Economy, Planning

Codes Jel: Q54 ; P11 ; B00 ; N00

[1] Université Marie et Louis Pasteur, CRESE (UR 3190), F-25000 Besançon, France - chirat.alexandre@gmail.com.

[2] Université Paris Nanterre, EconomiX (UMR 7235), 92 000 Nanterre, France – basileclerc62@gmail.com.

Earlier versions of this article were presented at the CEPOL Seminar 2024 (Lille). We are grateful to the participants for their valuable comments. We also wish to thank Marie-Line Duboz, Antoine Missemer and Emilien Ravigne for their insightful feedback. The usual disclaimer applies.

An imagination fed on the past will come to see the present as a very temporary thing. Wherever routine and convention become unbearable weights, the abundance of the past is a source of liberty. Merely to realize that your way of living is not the only way, is to free yourself from its authority.

Walter Lippman, *Drift and Mastery: An attempt to diagnose the current unrest*, 1914.

Introduction

Looking to the past to shed light on present challenges allows to identify, through selected historical experiences, configurations that may inform public decision-making. Laying the foundations of the concept of a Climate War Economy, this work aligns with the approach initiated by Ernest May and Richard Neustadt (1986) in *Thinking in Time: The Uses of History for Decision Makers*. This perspective has been recently revitalized by the *Applied History Manifesto*, and the affiliated program at Harvard University, which urges scholars and policymakers to "illuminate current challenges and choices by analysing historical precedents and analogues" (Allison and Ferguson, 2016). It is also at the core of ecological economics, which is "not just analysis of the past but applies that analysis to create something new and better" (Costanza, 2010, p. XX), thus expanding the realm of collective imaginaries related to alternative productive arrangements (Franco and Missemer, 2022).

Drawing from these traditions and faced with the challenges of the green transition, we argue that relevant lessons can be learned from analysing historical episodes of massive and rapid restructuring of the productive structure such as war economies. More specifically, studying the economic context and reasonings that led to the suspension of market mechanisms during World War two enables to draw an instructive and historically grounded analogy between wartime economic management and the medium-term macroeconomic challenges of the green transition.[3] This approach is all the more necessary given that "the short-to medium-run macroeconomic implications of climate policies are not yet well understood" (Annicchiarico et al., 2024, p. 178).

This historical analogy serves first to establish the concept of a "climate war economy" (CWE) and thus to shed light on fundamental dynamics of the green transition that have been little highlighted until now. The core idea that we put forward is that the fundamental characteristic of a war economy, and consequently of a climate war economy, is a "disequilibrium system" (Galbraith, 1947). During the war, the substantial reconversion of the productive apparatus from civilian to military sectors resulted in constraints on supply, which became structurally lower than aggregate demand, itself stimulated by the full employment and investment required by the reconversion of the productive apparatus. The trade-off that arises was therefore as follows: how can a high level of investment and employment, which is necessary for the reallocation of

[3] Rockoff (2016) had already drawn the historical parallels between the economic conversion during the Second World War and that of our societies in the face of the ecological crisis. However, he did not explore in depth the causes of the economic imbalance at the heart of both the war economy and the green transition, nor did he examine the reasonings behind the suspension of market mechanisms in this context. Brinn (2022) had studied the compatibility between liberalism and the requirements of ecological transition (see section 4). He uses the example of war economies to show that liberalism has historically been able to adapt to exceptional situations. But the macroeconomic characteristics of the (climate) war economy are not addressed.

productive resources, be reconciled with situations of shortage that constrains the overall level of supply in the medium run? In the absence of public policy interventions, war economies inevitably gave rise to unbearably high inflation.

Second, the concept of climate war economy helps to give substance to the realties behind the "green transition", a widespread but contested concept (Serrano and Zaveri, 2020). In its broadest and most widely accepted meaning, the green transition refers to "a radical structural transformation of production and consumption" (Besley and Persson, 2023, p. 1863) necessary to achieve net-zero carbon emissions by 2050 and to mitigate pressures on planetary boundaries. Although there is no consensus on the precise content, as is illustrated by the use of the competing terms low-carbon transition and ecological transition, or practical implementation of green transition plans, we argue that the macroeconomic imbalances revealed by the concept of the CWE should be integrated in ecological economics reasonings and hence considered by advocates of green growth, post-growth, and degrowth, despite their differences (Magalhaes, 2021; Mastini et al., 2021).[4]

Finally, the climate war economy concept allows to open a discussion on the economic and political advisability of using the macroeconomic stabilization tools favored during the Second World War during the green transition, in response to similar challenges. During World War Two but also World War One, the suspension of market mechanisms through price controls and quantity controls (i.e., rationing,) by public administration has been chosen to meet this type of inflationary challenge for reasons we will discuss in depth. These tools are now either forgotten or have bad reputation, since most economists systematically reduce the use of such controls with "shortage economy" of Eastern countries (Kornai, 1980) or "macroeconomic populism" in Latin America (Dornbusch et Edwards, 1990). A pioneer of ecological economics such as Herman Daly claimed that the market price system is efficient in terms of resource allocation since it "solves the allocation problem by providing the necessary information and incentive" and "does that one thing very well." (Daly, 1991, p. 257). However, in times of war, even economists who were strongly attached to free-market have defended the suspension of market mechanisms to allocate resources. Economic mobilization during the Second World War actually strengthened the intellectual and practical foundations for such policies after the war. Price and quantity controls were hence part of the conventional arsenal of macroeconomic stabilization tools from the 1940s to the 1980s in Western countries (Cayla, 2023; Clerc, 2025).[5]

As the imbalances inherent in wartime economies tend to re-emerge today, it is remarkable to note that this type of policy has resurfaced and gained new legitimacy in the wake of the Covid-19 pandemic and the profit-driven component of the rise in prices in 2021-2023 (Weber and Wasner, 2023; Krebs and Weber, 2024), as well as in the design of environmental policies (Stiglitz, 2019). Recent work in ecological macroeconomics increasingly views the tool as a crucial component of the broader set of instruments required to manage the transition (Olk

[4] We emphasize that the question of the long term is deliberately left aside here in order to focus on the macroeconomic imbalances that will characterize, if it is to take place, the period of the green transition itself, i.e., an approximate time window of 5 to 8 years. The medium-run macroeconomic imbalances associated with the transition period raise the question of how to manage inflation due to both "transition risks" and "physical risks" (Carney, 2015). The paper thus remains deliberately silent and agnostic on feasible and desirable long-term economic paths.

[5] The experience of World War I already fuelled interwar debates on economic planning, from Neurath, Mises and Polanyi to Lange and Hayek, as the war economy convince some economists that an administered economy might be more efficient for allocating resources compared to coordination through market prices (Mardellat, 2020).

et al., 2023) and integrates its impacts into selected modelled scenarios (Jacques et al., 2023). Drawing on historical knowledge about the experience of the transition to a war economy, but also on the theoretical reflections of economists who observed or even participated in it, aims to deepen our knowledge on the stock of policy tools available for managing the green transition, in this case price and quantity controls as well as their relative qualities and limitations.

This paper is related to the growing literature exploring the relationship between the green transition and inflation. Economists conventionally address the problem of medium-term inflation generated by the prospect of the green transition by 1) using macroeconometric models, in particular New Keynesian models; 2) reducing transition policies to a carbon tax; and 3) focusing on the challenges this transition poses to central bank monetary policy (Angeli et al., 2022; Annicchiarico et al. 2024; Batten et al., 2020; Del Negro et al., 2023; Ferrari and Nispi Landi, 2024; Konradt and Weder di Mauro, 2023; Krogstrup and Oman, 2019; Nakov and Thomas, 2023). Many of these works are produced by central banks' economists, which can partially explain some biases in current research (in particular the focus on monetary policy). In these various studies, the medium run inflation likely to arise during the transition is mainly the result of the introduction of a carbon tax, acting as a negative supply shock, or subsidies and investment, as positive demand shock (Mann, 2023). As instructive as this literature is, it overlooks the structural macroeconomic imbalance that the historical analogy with the war economy highlights. Conversely, as we shall see, the stock-flow coherent biophysical modelling proposed by Jacques et al. (2023) put forward a transition scenario that is highly consistent with the lessons learned from the concept of Climate War Economy.

In addition to this literature on inflation and the green transition, this paper, echoes the body of work devoted to ecological planning and the green developmental state on the one hand (Ban and Hasselbach, 2025; Gross and Sorg, 2025), and works in international political economy dealing with the macro financial regimes of the green transition on the other (Babic, 2024; Gabor and Braun, 2025; Kedward et al., 2024). The issue of price and quantity control remains largely unexplored in this literature, which focuses heavily on how to pay for the transition and financial transition risks. While such issue is crucial, it is not sufficient to capture the broader set of economic and social challenges posed by the inflationary disequilibrium system generated by the green transition, nor the full range of potential solutions (Cayla 2025). By focusing on price and quantity controls and addressing this gap, our approach aims to provide a more comprehensive understanding of the macroeconomic imbalances of the green transition and how to alleviate them.

To highlight the medium-term macroeconomic imbalances of the green transition, and then to discuss the implications in terms of economic policy, we begin by presenting the typical economic characteristics of a war economy. We show that it is characterized by a persistent macroeconomic disequilibrium, since aggregate demand outpaces constrained supply, then prompting governments to override market allocation through controls on prices and quantities (section 1). We then highlight the war economy-like constraints that are likely to weigh during the green transition, allowing us to establish the concept of a 'climate war economy' (section 2) and discuss the advisability of incorporating price and quantity controls into the arsenal of conventional macroeconomic stabilization tools (section 3). Finally, conducting a rigorous historical analogy requires acknowledging the inherent limitations of the exercise. While differences exist between the transition to a war economy and the green transition, in particular

related to temporal horizons[6], we argue that these are not disqualifying. Hence, the concept of a CWE is grounded in a robust historical parallel, that calls for extensive planning and public control over the economy. That is why we also address the concern that the green transition may be incompatible with liberal democracy (Section 4).

Section 1: The War Economy

A war economy can be characterized by the combination of two macroeconomic features: 1) the massive reconversion of its productive structure from civilian to military production 2) at the precise moment when aggregate supply tends to become structurally lower than aggregate demand. Consequently, in the absence of policy interventions, this short and medium-run macroeconomic imbalance generates inflation (1.1). To counter inflation and its consequences, economists advocated, and governments resorted to price controls and rationing (1.2).

1.1 Economic mobilization and inflation

Economic historians often refer to three elements to characterize a war economy: the measures needed to legitimize the increased role of the state (through propaganda), increased transfers from individuals to the state (through taxation and debt issuance), and price and quantity controls (through rationing) (Monnet 2022). While all three are important, the fundamental economic characteristic introduced in a war economy, compared to a peacetime economy, remains the suspension of market coordination (Chirat and Clerc, 2024a). To understand why the warring parties resort to such measures, we must first look at the structural macroeconomic imbalances facing war economies.

A war economy is characterized primarily by the massive conversion of its productive structure from civilian to military production. This process of reallocation of resources generates costs, which can have a direct impact on prices. This process also takes time, so that overall supply is constrained, both in the civil sector where factors of production are diverted and in the military sector, where the increase in production following the reallocation of resources requires a delay. This second characteristic, namely a supply limited in the short and medium term by the very process of reallocation of resources, can be further reinforced by the destruction of capital caused by military conflict and the breakdown of value chains.

If these constraints on supply in the context of a transition to a war economy are particularly problematic, it is because they weigh in at the very moment when overall demand is stimulated by the full employment and high investment required by the war effort. The transition stimulates both the level of employment and the level of labor income, so that the increase in aggregate income generates a positive demand shock. This results in a strong disequilibrium in the civilian sector, insofar as the income distributed to households producing for the military sector is intended to be consumed on civilian markets too. Hence, the transition to a war economy mechanically leads to a disequilibrium between (a constrained) supply and (a growing) demand for civilian goods and services, whose consequence, without public intervention, is an adjustment through prices, i.e., inflation.

[6] Although Section 4 highlights the different time horizons between a wartime economy, by nature temporary, and a low-carbon economy, designed to last, this does not undermine the relevance of the analogy with a climate wartime economy. Our focus is on the transition itself, i.e., the years of rapid and large-scale transformation of the productive system. Such a transition is by definition a temporary process. That is why we examine only the medium-term inflationary pressures of the green transition, not the long-term prices regime of a low-carbon economy.

Such an analysis of the inflationary consequences of the macroeconomic imbalance generated by the transition to a war economy does not depend on a particular theoretical framework. It has been defended by “classical/neoclassical” (Taussig, 1919 ; Pigou, 1941), “Keynesian” and “Post-Keynesian” (Kalecki, 1940, Keynes 1940; Hansen, 1941, Lerner, 1949), “institutionalist” (Clark, 1941; Galbraith, 1941) as well as “radical” (Sweezy, 1943) economists.[7] In the midst of the war, Paul Sweezy summarized the problem in these terms:

> “At best the civilian economy must be severely crippled and thrown out of gear [...] the demands upon the civilian economy, expressed in terms of money spending, are raised to new heights because of the greatly increased incomes of those working in the war industries. Thus the problem of the civilian economy has two sides to it: on the one hand curtailment and dislocation of production; on the other hand, stepped-up demand for civilian goods” (Sweezy, 1943, p. 65-66).

Another way of describing the inflation caused by this macroeconomic imbalance is to characterize the situation as "price rationing". This type of rationing in a situation of scarcity is condemned, especially in times of war. Hence, facing such constraints, all economists rallied to the defense of price and quantity controls for the duration of the war at least, even if they disagreed about its effectiveness in peacetime. How can this be possible? The main reason lies in the three qualities that economists attribute to wartime controls: social, productive and allocative efficiency (Laguérodie and Vergara, 2008; Chirat and Clerc, 2024b).

1.2 *War economy and the efficiency of controls*

Social efficiency

In wartime context, price controls and rationing can have a social virtue. For instance, Pigou (1941) emphasis that for essential goods such as food and clothes, the introduction of a price ceiling weighs much less heavily on low-income households than a tax on excessive profits. While price rationing via inflation places a greater burden on the budgets of the poorest households, quantity rationing complementing price controls remains strictly egalitarian. The more the commodity in deficit satisfies basic needs (which are rather uniformly distributed in the population) and the more income inequality, the more efficient administrative controls are compared to the price system to allocate ressources to those who need it the most (Weitzman, 1977).

Of course, this theoretical social efficiency is, practically, conditional to rigorous application of the controls, which implies the existence of a substantial administrative body (Rockoff, 2004). The efficiency of controls is also conditional to market structures. Price control for durable goods in oligopolistic markets, for example, was much easier to implement than price control for perishable foodstuffs in competitive markets (Galbraith, 1952).[8] Price controls also exhibit social efficiency since they limited the realization of “windfall profits” made by “war profiteers”, which were widely denounced at the end of World War One and during World War Two (Litman, 1920; Katona, 1945).

---

[7] We might even add Hayek (1940), who wrote a rather positive review of Keynes' plan of deferred payment, proposed in *How to Pay for the War*, for context of inflationary pressure before reaching full-employment, (i.e., quasi-inflation). Hayek wrote him in a letter: “we agree so completely on the economics of scarcity, even if we differ on when it applies” (Skidelsky, 2007, p. 83).

[8] Even for this type of good, short-term price ceilings can prove effective. Vincent Carret (2024) evaluates for instance that during the Korean War, the price of meat would have been between 8.5% and 12.3% higher in the absence of price controls.

To sum up, price controls are first advocated on the grounds of social justice: the complementary use of quantity rationing and price controls distribute the burden of limited supply in the civilian sector more equitably than price rationing. And this point is essential to ensure public support for the war effort implied by the transition toward a war economy. We shall see that this social efficiency is crucial in the context of green transition too.

Productive efficiency

Administrative control can be associated with productive efficiency for several reasons. The first element concerns the management of agents' expectations. Price controls can anchor short-term inflation expectations, thereby reducing the economic cost of disinflation in terms of employment and output. Indeed, disinflation strategies based on fiscal and monetary tightening take time to influence inflation expectations (David et al., 2025). The announcement of such measures has little impact on expectations (Olsson, 2020; Knotek et al., 2024). If these expectations contribute autonomously to inflation dynamics, then disinflation becomes economically costly, as a significant contraction in demand is required before expectations begin to adjust downward.

In contrast, price freezes can immediately suppress expectations of high inflation, thus lowering the economic cost of disinflation. This idea was once entirely mainstream among economists (Rockoff 1984). Even a staunch defender of the free market such as Milton Friedman (1974) could agree with this. In fact, this rationale especially underpinned the use of price controls in the U.S. during the Korean War (Carret, 2024), and later under Nixon during the Vietnam War (Economic report to the president, 1972).

The second idea is that of a "system of disequilibrium", as theorized by Galbraith (1947, 1952), who headed the Office of Price Administration in the United States from April 1941 to May 1943. The central idea is as follows: by deliberately maintaining a price below the level that would prevail in a free market, given supply constraints and expanding demand, it becomes possible to push firms to operate at 100% of their production capacity. Indeed, in the absence of government intervention, price adjustment would have led to an underemployment equilibrium: a higher price level and a lower level of output. To understand well the role of price controls in stimulating production, a detour through the 1940-1941 debate between Keynes (1940), Hansen (1941) and Galbraith (1941) is valuable. Keynes (1940) advocated a policy of higher taxes and forced savings through a system of deferred wage payments in order to curb inflation. The aim is to freeze consumers' purchasing power to avoid inflationary regulation of civilian markets. He also argues that a non-inflationary equilibrium cannot be achieved through price control and rationing alone.[9] At best, Keynes considered that targeted controls can complement measures aimed at withdrawing purchasing power in order to reduce current demand. Hansen's (1941) discussion of Keynes's plan emphasis that, until full employment is achieved, the main source of inflation lies in bottlenecks, i.e., "localized inflation". If an economy cannot produce or import more to reduce these localized imbalances between supply and demand, rationing becomes a necessity. To control "generalized inflation", i.e., when full employment is approached, consumption must be taxed, which is the aim of Keynes's plan. But Hansen doubted the social acceptability of the forced savings plan, and preferred tax-raising measures.

Yet, this is the incentive effect of controls on production that lead Galbraith to lament the overemphasis Keynes and Hansen put on freezing purchasing power to reduce the

[9] In addition, Keynes argue that the existence of taste for diversity among individuals, and the impossibility of covering all civilian consumer goods through rationing and price controls, make these methods both unfair and inefficient. Keynes is thus opposed to the idea of the social efficiency of controls. His vision was challenged by Kalecki, who emphasize on the contrary the inequitable nature of his plan of deferred payment insofar as the working classes had fewer savings than the rich: « before imposing forced savings on the poor [we must] establish a certain maximum for the consumption of the rich » (Kalecki, 1940, p. 7).

macroeconomic imbalance of the transition to a war economy. Galbraith (1941) argue that the remedies to fight localized inflation (to produce more) and generalized inflation (to consume less) are contradictory. Indeed, timing is of the essence in matter of transition.[10] If available purchasing power is reduced only when full employment is reached, a country will already be experiencing high generalized inflation. But if demand is reduced too soon, incentives to produce decline for private firms in the civilian sector due to falling demand. This effect enters in contradiction with the fighting of localized inflation in sector already operating near or at full capacity. Conversely, price controls precisely make it possible to maintain private incentives to produce while limiting price increases without crushing demand, thanks to the economy being kept in a state of imbalance, with supply remaining below demand (at the fixed price) in the medium term (Lerner, 1949; Galbraith, 1952). To give a rough illustration of the productive efficiency of these controls during World War II, it is useful to compare the evolution of prices and production during the Second World War with that of World War I. In the first 52 months of the World War I, when price controls and rationing were weak, production rose by 25% in the U.S., while prices rose by 77.8%. Conversely, production rose by 131% and prices by just 21.8% in the first 52 months of the World War II (Rockoff, 2004).

Allocative efficiency

In addition to their social and productive efficiency, price controls have been widely used during the transition to the war economy because of their allocative virtue. Economists acknowledge that market prices are dysfunctional in allocating resources efficiently to production objectives in a war economy. The allocative efficiency of price controls can then be understood in terms of the ideal-typical opposition between coordination by the market and coordination by hierarchy. It is the thesis of a defective price signal in a transition situation that highlights the arguments justifying controls.

First, the reallocation of capital and labour by the market takes longer than reallocation under government authority (Pigou, 1941; Galbraith, 1947; Scitovsky et al., 1951). In other words, administrative controls certainly generate administrative costs - the recurrent criticism levelled against them - which must nevertheless be weighed against the reduction in costs and adjustment lag they enable relative to market reallocation. Second, market reallocation can prove to be inefficient to ensure a massive reconversion of the productive apparatus, insofar as higher prices in sectors producing civilian goods have an effect contrary to the objective of the war economy. Indeed, they attract firms to these civilian sectors because of the prospect of profits, rather than to military sectors, thus slowing down or even preventing the transition (Harris, 1945; Galbraith, 1947). In brief, it is utopian to expect a multitude of private initiatives to bring about a massive and rapid transformation of the productive system. Targeted rationing and price controls are more effective instruments for steering a rapid reallocation of resources (Keynes, 1940; Galbraith, 1941).

Section 2: From the War Economy to the Climate War Economy

[10] Galbraith calls for targeted price controls, possibly accompanied by rationing, in sectors prone to bottlenecks - and not just in sectors producing basic necessities, as Keynes (1940) suggested. Even before starting to withdraw purchasing power, consumer credit possibilities should be limited. Only when it is no longer possible to maintain the prices of those goods least dependent on the tensions caused by the war effort, should fiscal measures be taken to withdraw purchasing power. Even though Galbraith's plan called for more control than Keynes's and Hansen's, it proved rather ineffective until price control was generalized in May 1942, which ultimately succeeded in curbing wartime inflation.

We have seen that a war economy seeks to ensure the massive and rapid reconversion of its productive structure from civilian to military production, even though the level of supply is structurally lower than the level of demand. Similarly, a climate war economy seeks to ensure the massive and rapid reconversion of its productive structure from carbon-based production to decarbonized production, even though the level of supply is structurally lower than the level of demand. This section presents the constraints on supply (2.1) and the dynamics of demand (2.2) in the green transition context, and how they are analogous to that of a war economy, in order to then expose the dilemmas posed by medium-term macroeconomic imbalances (2.3).

2.1 The constrains on supply

Tensions in production and supply bottlenecks lie at the heart of both wartime economies and the green transition. First, the green transition requires the destruction of certain carbon-intensive productive assets, i.e., stranded ressources and capital (Daumas, 2024). While the destruction of capital during wartime typically results from bombing and looting, in this case it can be deliberately chosen and strategically planned. Second, the reallocation of productive capital and labor from brown to green sectors will take time. For instance, the need to scale up metal extraction in order to sustain the transition may constrain the pace of renewable deployment, due to both the physical time required to open new mines or master recycling and the potential scarcity of critical materials (Qiu et al., 2024; Shi et al., 2025). Similarly, during World War II, major bottlenecks emerged in intermediate goods for the defence industry (Gropman, 1996) particularly in the case of natural rubber (Field, 2023). Third, global supply chains will be increasingly disrupted by the growing frequency of extreme climate events (Çevik, 2023; Sun et al., 2024). Agricultural production, in particular, is likely to be heavily affected (Heino et al., 2023). This increasing number of physical risks due to climate events have analogous effect to bombing during a war: it is already a source of ressources and capital destruction and it will continue to be during the transition period.

Significant productivity gains, particularly driven by learning effects, helped partially offset these constraints during the Second World War (Lafond et al., 2022) and could similarly contribute to reducing the costs of the transition, for instance toward renewables energy (Way et al., 2022). Yet today, the green transition risks having negative effects on productivity gains. An ECB paper titled *The Impact of Climate Change and Policies on Productivity* notes that in a context in which physical risks "are expected to have an overall negative effect on productivity", "shifting towards a greener economy (...) could temporarily decrease overall labour productivity" (Bijnens et al., 2024, p. 3, p. 60). Similarly, the report *The Economic Impacts of Climate Action*, presented to the French Prime Minister in May 2023, states that "as investments in energy efficiency come at the expense of productivity-enhancing investments" the transition will temporarily result in a productivity slowdown of around a quarter of a percentage point per year (Pisani-Ferry and Mahfouz, 2023, p. 14, p. 86). These are all reasons why production capacity will be reduced *during the transition period*[11] and why, in the absence of public intervention, an inflationary regulation of the green transition is to be expected in the short- and medium-run.

2.2 The stimulation of demand

[11] This does not in any way mean that the green transition is harmful to long-term productivity, particularly given the expected positive effects in terms of reducing physical risks.

At the core of the green transition lies a massive reallocation of productive capacity. Such a reallocation requires important public and private investment[12], but also high levels of labor employment, which steer consumption. Climate policies that subsidize the renovation of homes and the purchase of electric vehicles also aims at stimulating demand. Hence demand toward green sectors is likely to rise significantly in the short term. As in a war economy, the medium-run result is rising demand in the face of limited supply in some sectors, and hence inflation.

The carbon-intensive sector of a climate war economy is especially likely to experience a medium-term macroeconomic imbalance identical to the imbalance in the civilian sector of a war economy. Employment growth and investment in green sectors will lead to an increase in income distribution. If a reduction in the supply from carbon-intensive sectors is inevitable, household lifestyles, which are anchored in persistent consumption patterns, will only adapt slowly and incrementally. In the absence of public intervention, regulating the imbalance in the brown sectors will necessarily be inflationary too. Yet such price rises send out the wrong signal to firms with regard to the objectives of the green transition. The price signal would indeed attract investors, capital and labor to the very places where we do not want to – in the same manner civilian sectors experiencing rising prices disincentives reallocation, thus depriving military sectors of valuable resources in wartime context.

2.3 Green Transition and medium-run inflation

As noted above, there is a broad consensus among economists that carbon pricing (a carbon tax or a cap-and-trade system) is necessary to induce the reallocation of resources from carbon-based to decarbonized sectors required for the green transition (Blanchard et al., 2023). In most scenarios, the rising cost of carbon energy, and hence production costs, is the main explanation for the inflationary nature of the green transition in the medium term. Ferrari and Nispi Landi (2024), modelling the green transition in a New Keynesian framework, explain that the required increase in the carbon tax is similar to a negative supply shock. Based on this analysis, many economists treat the green transition as a business-as-usual scenario. For instance, economists from the Federal Reserve Bank of New-York argue that “the tradeoff due to the green transition is quantitatively not very different from those typically associated with large fluctuations in energy prices: the rise in inflation is sizable, but mostly temporary, in that it does not last past one year” (Del Negro et al., 2023, 3). Yet, the analogy between the war economy and the stake of the green transition allows to highlight other types of inflationary pressures: those arising from a more persistent mismatch between a constrained supply and an increasing demand.

This conclusion is fully consistent with the findings of ecological macroeconomics, in particular the biophysical Stock-Flow Consistent model of the ecological transition proposed by Jacques et al. (2023). In their “energy transition scenario” (where the energy system reaches 100% renewables by 2050), they identify « a large imbalance on the final goods market » due to supply constraints, increased employment, and rising investment. Because of the expected inflationary consequences of this imbalance, the authors introduce in their model a policy measure of price controls: “a ceiling of 10% is imposed by the government on the inflation of the

[12] These investments include capital investment in energy-cleaning and energy-saving technologies, R&D, and public transport infrastructure (Acemoglu et al., 2016).

energy price" (2023, p. 7).[13] Echoing the idea of productive efficiency depicted by Galbraith with his "system of disequilibrium" explained earlier, Jacques et al. (2023) acknowledge that "the mismatch also creates a pressure to increase the utilization rate of the capital stock of final goods firms". Given the very high level of investment required to support their transition scenario, they ultimately conclude that "the energy transition scenario displayed here corresponds to a temporary transition of the global economy to a war economy" (Jacques et al., 2023, p. 8). However, a more comprehensive historical analogy suggests that the relevance of the "climate war economy" concept extends beyond the sole issue of the scale of investment required to ensure the transition. At the core of both wartime economic management and the management of the green transition lies the structural imbalance between supply and demand.

In the past 40 years, the fight against inflation has traditionally and primarily involved a monetary policy of raising interest rates, rather than administrative controls which were widespread during the Second World War and the post-war period. However, as in the case of a war economy, a restrictive monetary policy is at odds with the high level of investment required by the green transition. Higher interest rates reduce the effectiveness of climate policies hinging on subsidies since they penalize the massive and rapid capital accumulation typifying a CWE. To alleviate this problem, inspired by postwar credit policy, Monnet and Jens van't Klooster (2023) propose a special interest rate for green investments to encourage the reallocation of resources while taming inflation. However, such a solution does not address one major component of green transition medium-term inflation, namely the rise in prices due to the structural disequilibrium between supply and demand. This is why the analogy between the war economy and the CWE requires to address a too often disregarded or neglected question: should price controls and rationing be used again, as part of conventional arsenal of macroeconomic policies in the context of the green transition?

Section 3: Price controls and rationing during the Green Transition

After briefly outlining the main instruments of price control and addressing common criticisms (3.1), we will show that a growing number of economists are already advocating various price and quantity control measures to support the green transition. (3.2). Finally, we distinguish between "suffered scarcity" and "chosen scarcity" in order to discuss the usefulness of such administrative tools (3.3).

3.1 Price and quantity control instruments and responses to common criticisms

Price and quantity controls have historically been implemented across a wide variety of contexts. As previously noted, the major belligerents of both world wars resorted extensively to such measures. In the post-war period, price controls continued to be widely used in many OECD countries (OECD, 1972), and particularly in France, where they constituted a conventional macroeconomic policy tool between 1945 and 1986 (Dumez and Jeunemaître, 1989, 1990; Clerc, 2025). Contrary to the common perception that reduces price control to outright price freezes, it is important to emphasize that a broad range of forms can be mobilized: from floor prices aimed

[13] Interestingly, the authors propose to combine a mechanism of forced savings "à la Keynes (1940)" with a system of renewable energy price controls. To limit the structural imbalance resulting from increased consumption, a forced savings plan is implemented, channelled into the purchase of public debt securities. These resources are then used to compensate the losses of green companies caused by the capping of their prices.

at protecting incomes (in particular farmers' one), annual price increase standards, to margin controls (whether in absolute or relative terms), as well as the so-called "dual track price system" whereby a fixed price is applied to a set quantity of a firm's output. Briefly deployed in France in the immediate post-war period (Dubergé, 1947), a dual track price system was mostly used in China during the 1980s to manage the transition towards a market economy (Weber, 2021). Finally, while generalized consumer rationing disappeared after the war, quantity controls remained widely used, most notably through agricultural production quotas (Libecap, 1998; Boinon, 2012), but also in the areas of credit (Monnet, 2018) and imports (Mintz, 1973).

As it is not possible within the scope of this contribution to examine in detail the criticisms raised against all these different forms of intervention, we focus here on those directed at price controls, bearing in mind that such criticisms often closely mirror those raised against quantity-based interventions.[14] Despite the diversity described above, criticisms most often focus on rigid price ceilings, or so-called "price freezes". It is worth outlining the main objections here. First, in the case of large-scale price ceilings, such measures are often said to do nothing more than postpone inflation until the controls are lifted. This was indeed the case in the U.S. after the Second World War, but largely because prices were abruptly liberalized, triggering a strong catch-up effect, despite the warnings of many economists who advocated for a gradual exit strategy (Weber, 2021, 57).[15] To address this problem, an original solution implemented in France between the 1960s and 1980s is worth recalling. This approach linked the lifting of price freezes to negotiated agreements with key sectors, under which firms committed not to exceed a given percentage of price increases over a defined period, and agreed to specific commitments regarding investment, wage increases, and other objectives coherent with indicative planning. In cases of non-compliance, the State retained the authority to reimpose strict and direct price controls. Such credible threat of a return to tight vertical price controls was used to steer economic activity in the desired direction (defined by the five-year indicative plan). This mechanism, commonly referred to as *contrat de programme* ("program contract"), was part of the broader framework of the planned economy of post-war France (Estrin and Holmes, 1984). Thus, it served both as an instrument for exiting price freezes without triggering a catch-up effect and as a tool for guiding industrial activity.

Secondly, it is often argued that price controls inevitably lead to shortages and black markets, the emergence of the latter being assumed to follow from the former. The link between price controls and shortages can be challenged both empirically and theoretically. From an empirical standpoint, i.e., second-best world, there are many counterexamples. In addition to the case of wartime economies, it is worth mentioning the case of France between 1945 and 1986, a period during which price controls were widespread. The country experienced its highest-ever rates of economic growth and an unprecedented rise in living standards (Kuisel, 1983; Dormois, 2004). Thus, the existence of these controls did not in any way prevent France from experiencing the post-war "economic growth miracle" (in economic terms) as other Western nations. In fact, there are good reasons to believe that the regular use of price freezes as a tool to curb inflation expectations contributed to smaller fluctuations in output and employment than in West Germany, which refrained from using price controls and relied exclusively on fiscal and monetary contraction to contain inflation (Dumez and Jeunemaître, 1990). The contrast between China's

[14] See Keynes (1940) for instance.

[15] A similar catch-up effect can be observed in the context of Nixon's price freeze (Blinder and Newton, 1981; Frye and Gordon, 1981). Here again, prices were abruptly liberalised in April 1974.

and Russia's transition to a market economy also provides another example where price controls proved more effective than pure market coordination (Weber, 2021).

Theoretically now, the claim that price controls necessarily result in shortages only holds under the restrictive assumptions of pure and perfect competition. Indeed, basic microeconomics teaches that a firm with market power trying to maximize profit typically produces less and charges a higher price than equilibrium price under perfect competition. Imposing a lower price in such a context can prompt the firm to increase output, thereby reducing allocative inefficiency and bringing the market outcome closer to that of the competitive equilibrium. This insight has long been recognized in microeconomic theory (Pigou, 1924; Robinson, 1933; Bronfenbrenner, 1947). Hence, the idea that price controls would systematically generate shortages is not applicable to economies characterized by high levels of market concentration, such as 21st century economies (Philippon, 2019; Autor et al., 2020). In the case of wartime economies, as previously discussed, price controls (and rationing) are introduced precisely to manage pre-existing shortages, ensuring rationing by quantity rather than by price. The fact that price controls have often been implemented historically in response to scarcity may also partly explain the persistence of the fallacious causal association between price controls and shortages in public discourse.

While price controls do not necessarily lead to shortages, their implementation in a context of supply constraints can naturally raise concerns about the emergence of black markets. This, in turn, highlights the importance of the administrative capacity required to enforce such controls. In the United States during World War II, the bureaucracy dedicated to price control reached nearly 35% of the postal service workforce—the largest federal administration at the time—representing around 65,000 people (Rockoff, 2004). While significant, this administrative effort does not appear excessive given the results achieved. Moreover, as many analysts of price control have noted, the more concentrated an economy, the easier it is to enforce such controls, as fewer firms must be monitored. With market concentration having risen significantly in recent decades (Grullon et al., 2019; Bajgar et al., 2023), a trend that could potentially strengthen during the transition phase (Osório, 2023), this evolution not only strengthens the case for price controls, particularly in light of profit-driven inflation, but also enhances their practical enforceability.

Finally, a third serious concern is related to the use of price controls in open economies, particularly with respect to imported goods. Two scenarios can be distinguished when facing an increase in the price of an imported commodity. On the one hand, *ex-ante* control, i.e., before the price increase is incorporated into the cost structures of domestic firms, raises the issue of distributional conflicts between nations. In this respect, the European Union's capping of Russian oil and gas prices can be seen as an *ex-ante* control mechanism aiming at reallocating energy importations within the framework of a geopolitical confrontation. On the other hand, *ex-post* control, i.e., after the price has already been incorporated into the cost structures of domestic firms, raises questions of distribution between firms operating within the same sector, given the inequalities arising from differences in unit margins. When an increase in the price of an imported input cannot be passed onto final selling prices due to regulatory price controls, companies initially benefiting from higher unit profit margins are better able to withstand this imposed reduction in profitability. Within a same sector, differences in profit margins can stem mainly from variations in productivity, economies of scale, or market power enjoyed by some firms. Temporarily protecting some companies, even those that are relatively less efficient, may be justified to preserve employment and market diversity. Addressing these disparities in unit

margins under a price control regime can be partially managed using subsidies. An alternative approach involves regulating absolute margins rather than final prices. This approach was frequently used in post-war France (Dumez and Jeunemaître 1989). It has the benefit of limiting inflationary pressures that arise when constant margin rates are applied to rising input costs, thereby avoiding "seller's inflation" (Weber and Wasner 2023) without the need to implement a large-scale system of subsidies.

3.2 Price and quantity controls in existing climate policy proposals

During the extraordinary period of the Covid-19 pandemic in France, single-use masks were subject to a ceiling price, while FFP2 masks were requisitioned, without anyone thinking of opposing it out of respect for market mechanisms. Again, these measures were taken in the context of shortages arising from supply constraints and increasing demand. Unsurprisingly, many political leaders resorted to invoking the image of a wartime government. The green transition raises structurally similar challenges, which is why the relevance of resorting to price and quantity controls is once again under consideration. Although price and quantity controls are often viewed unfavourably, it is important to recognize that many economists already support comparable mechanisms, without explicitly acknowledging it, within mainstream climate policy frameworks. Indeed, carbon pricing mechanisms are increasingly being designed in conjunction with price and quantity control tools.

In the theory of resource allocation, the implementation of carbon pricing is presented as a solution to compensate for an allocative market failure.[16] Two main solutions exist to bring about a carbon price, which is consensually considered as a necessary but not sufficient condition for the green transition (Stiglitz, 2019). The first solution is to introduce a carbon tax, i.e., the direct setting of a carbon price by public authorities. A second solution is to set up a carbon market. The European carbon market (EU ETS) is an archetypal example, relying on a cap-and-trade system, i.e., the management of a market through a policy of rationing. The main problem with such a quantity setting approach is the determination of the price of carbon. At the first stage of its implementation, carbon price has been both undervalued and extremely volatile, thus reducing private incentives to invest massively and rapidly in energy saving and energy cleaning technology. To settle the undervaluation problem, rationing was supplemented by a price floor in Great Britain as early as 2013 (Hirst, 2018). To mitigate the volatility problem, thus consequently implementing "fiscal derisking" for green capital investment (Braun and Gabor, 2025), a system of carbon contracts for differences has been proposed. It guarantees that avoided carbon emissions thanks to investments in low-carbon technologies will be paid for at a fixed price (Chiappinelli and Neuhoff, 2020).

Several economists consider that completing a cap-and-trade systems with a mobile carbon price corridor, i.e., a planned path of growth for both the price floor and price ceiling of carbon, could avoid both the problems of undervaluation and volatility. These arguments underlie the proposal for an independent Carbon Board, which Christian Gollier calls the "Central Bank of a Carbon" insofar as this institution would be responsible for controlling both the quantities and the price of CO2, like the Central Bank controlling the quantities and price of money (Delpla and

[16] The Stern-Stiglitz commission has recognized that "'a well-designed carbon price is an indispensable part of a strategy for reducing emissions in an efficient way' but departed from the "single price of carbon in all places, dates, and uses", calling for "explicit price trajectories" (Stiglitz, 2019, p. 595). The main argument is that there are in fact several market failures, and not just the climate change market failure, so that several interventions to regulate and stabilize markets are necessary.

Gollier, 2019; Blanchard et al.,2023). Such examples demonstrate that economists increasingly acknowledge that the combination of rationing and price controls allow to mitigate two problems caused by market failures: the uncertainty about the level of emission typifying a carbon price without quantity control and the uncertainty about prices typifying a quantity approach alone. While carbon price control and rationing are of strategic importance, the allocative efficiency of administrative controls can be extended to other markets (see section 3.3).

Price controls are also already defended on the grounds of social efficiency in the context of the green transition. For example, Joseph Stiglitz (2019) advocates a policy of non-linear income-based pricing in electricity and public transportation to offset the regressive effect of the carbon tax. Besides, inflation in the years 2021-2023, driven by the rise in energy prices following the war in Ukraine and a surge in corporate profits (Storm, 2023; Nikiforos et al., 2024), has renewed interest in the use of price ceilings (Weber and Wasner, 2023; Stanford, 2024). France has experimented price control measures with a "tariff shield", a mechanism using price control and fiscal policy for regulating increases in energy prices.[17] Its overall impact appears significant since inflation in France was more gradual compared to other Euro countries and the inflation peak was lower (Lemoine et al., 2024; Adalma et al., 2025) – even though the targeting of the measure could have been improved to reduce its cost (Ragot 2022).

Framing the green transition through the analytical lens of a climate war economy suggests the need to extend and deepen the price and quantity control mechanisms which are already being considered by economists today. Yet, this requires a clear distinction, from the point of view of public authorities, between two types of shortages that may arise during the transition: those that are involuntary, mainly due to physical risks, and those that are intentionally induced, due to transition risks.

3.3 Suffered shortage vs. chosen shortage

Suffered shortages in the transition years, but also decades ahead, will have two main causes. The first and long-term cause is climate change itself. Increasingly extreme climatic events are generating droughts, floods and hurricanes, which are directly destroying both production and the means of production. As a result, food and freshwater shortages as well as housing shortage will affect increasingly large sections of the world's population. In a situation of shortage and in the absence of public interventions, the result is always the same: inflation, i.e., rationing by price. In the field of insurance services, in addition to inflation, there is even a possibility of certain high-risk market segments disappearing (Boomhower et al., 2024). In the face of this "climateflation" (Schnabel, 2022), price and quantity control measures are justified on grounds of their social efficiency. Indeed, if goods and services subject to sudden shortages are rationed by prices, the resulting social inequalities will give rise to social dissatisfaction that will jeopardize any possibility of securing sufficient political support for the climate policies needed for the green transition.[18] The risk is not limited to "social discontent" but also to "territorial discontent", since less-developed, peri-urban and rural European regions are also highly vulnerable to the green transition (Rodriguez-Posé and Bartalucci 2024). For all these reasons, price control should be considered to mitigate the distributive impacts of "climateflation".

[17] In order not to penalize suppliers, the difference between the frozen tariff and the unfrozen tariff (reflecting the suppliers' average costs) was covered by the state.

[18] On the strong link between climate justice, sense of fairness and support for green transition policies, see Douenne et Fabre (2020), Thaller et al. (2023) or Ogunbode et al. (2024).

A second rational can be put forward in defence of the idea of broad-based price control in the face of a suffered supply side shock due to physical risks: namely, their potential to curb short-term inflation expectations without resorting to contractionary policies, which are, in any case, ill-suited to the imperatives of the green transition. Indeed, the growing number of involuntary supply-side shocks may trigger profit-led inflation, driven by self-reinforcing inflation expectations among firms. Weber and Wasner (2023) argue that rising prices due to supply-side tensions create a tacit coordination mechanism among firms with market power, enabling them to expand their profit margins. If firms expect inflation to persist, and if each firm anticipates that others hold the same belief, they can raise their own prices without fearing immediate customer loss or market retaliation. In this context, firms' inflation expectations become the primary driver of a profit-led inflation. Thus, in situations of involuntary and temporary shortages likely to trigger a surge in such expectations, a short credible broad based price freeze may represent a relevant and effective policy tool.

The second cause of suffered shortages would lie in the bottlenecks generated by the massive reallocation of resources required by the green transition, i.e., transition risks. The aforementioned case of rare metals[19] needed for renewable energy production calls for the use of price and quantity controls because of their allocative efficiency. During the Second World War, federal agencies were created to manage both the allocation of resources between and within the civilian and military sectors, and to determine price levels. Given the macroeconomic imbalances involved by a transition fostering the emergence of a climate war economy, administrative bodies responsible for resource allocation, i.e., the determination of priorities and price levels, would appear to be necessary too. Yet, as we'll highlight later, the effectiveness of conjunctural macroeconomic policies such as price controls and rationing largely depends on the structural characteristics of the economy as well as its complementarity with other planning tools.

The suffered shortages caused by global warming and bottlenecks must be distinguished from the shortages created by the very desire to implement the green transition. In other words, chosen shortages concern those sectors where a community has decided to plan for a reduction in volume (Durand et al., 2024). In this case, regulatory measures such as rationing or even bans can be used. But price controls can also be allocatively efficient in managing the chosen shortages, as their use can modify relative prices, and thus the incentives faced by firms and households, in line with the objectives set by the transition plan guiding policymakers. To implement the desired reduction in certain products, we argue that non-linear pricing based on quantity consumed can accelerate the process of reallocating resources.

Let's take the example of the civil aviation sector, assuming here that air transport has to decline to meet the requirements of the green transition. A quantity-based approach involves rationing by setting individual flight quotas.[20] Another solution, which can be seen as an alternative to such a quantity-based approach, is to increase the price of a plane ticket according to the number of kilometers traveled by an individual, in other words, an upside-down miles system. Such non-linear pricing mechanism affect both the demand and supply sides. Not only it allows demand for air transport service to immediately decline. But since consumers' preferences are endogenous to public policy (Bowles, 1998), it could modify transport

[19] Schnabel labels "greenflation" the rise in prices of materials needed for the "energy transition" (2022).

[20] Jean-Marc Jancovici, Chairman of the think tank The Shift Project, proposed limiting the number of flights per person to four in a lifetime. In 2023, 41% of French people expressed support for this measure, according to a CSA opinion poll published on 28 July 2023.

preferences in the longer term (Mattauch et al., 2022). On the supply side, it incentivizes in the medium-run, without the need for subsidies, the development of alternative services to air transport wherever possible. Completed with a credible commitment that quotas will remain in place until planes are powered entirely by decarbonized energy, it would create a powerful incentive for innovation in the aviation sector.

Non-linear pricing is also a suitable tool to benefit from both the allocative and social efficiency of price control, as illustrated by its potential use in the electricity sector (Borenstein, 2012; Chirat and Clerc, 2024c). Pending a sufficient increase in low-carbon production, part of the electricity production will have to respond to the decline in the thermal car fleet. Implementing a non-linear pricing public policies means charging a household a price per kWh that varies according to its consumption. Let's imagine that for a couple with two children and a given energy performance certificate of its house, the consumption defined as normal is 12,000kWh.[21] The first 12,000 kWh consumed are billed at a fixed amount, which then increases exponentially. Such a measure would encourage all households to save energy, while also having a social impact. Poorer households are already *de facto* limited in their consumption. In contrast, while such a scheme would incentivize energy-hungry households to change their behavior, the possibility that well-off household able to afford such price increase might not reduce their consumption cannot be ruled out. But since any "over-consumption" is taxed more and more severely by the progressive increase in the price per kWh, the amounts thus recovered could either be redistributed to the neediest or allocated to financing public investments needed to produce decarbonized energy.

These examples as well as the analytical reasoning behind it have an immediate policy implication, namely the need to implement, as during World War, national economic planning, at least during the transition period. Planning the reduction of chosen shortages, in the same way as planning the management of suffered shortages, requires the rapid reorganization and establishment of administrative authorities, i.e., determining their missions, their governance and building the legal means for their action. Western democracies were able to do this during the Second World War, in the face of the totalitarian threat. Why shouldn't they be able to do so today? Such question related in part to the practicalities of setting up such planning authorities, which is beyond the scope of this article. However, our historical analogy entails, in conclusion, to address the fundamental question of the compatibility between liberal democracy and the substantial public control of the economy required by the implementation of the green transition.

Section 4: The Climate War Economy, Planning and Liberal Democracy

To ensure that the historical analogy underlying the concept of climate war economy is relevant for guiding policy-makers on the solutions to the medium-run macroeconomic challenge of the green transition, it is first essential to acknowledge its limitations. One fundamental difference lies in the absence of a return to normality after the transition implemented, unlike the post-war promise (4.1). Despite this major difference, the CWE, like the war economy, requires substantial public control of the economy. That is why the debate on the means of the green

[21] Who defines such normal standard? This political question in no way invalidates this economic reasoning. Now, from a democratic rather than a technocratic point of view, it is legitimate to argue that such a political decision must be made at the end of the work of commissions bringing together scientists, producer representatives, seller representatives, consumer representatives, etc.

transition is reviving the major controversies on planning from the 1930s and 1940s (4.2). This underscores the need to examine the issue of the compatibility between liberal democracy and the climate war economy (4.3).

4.1 No return to normality

Despite the similarities between a wartime economy and the stakes of the green transition that we have highlighted, it is important to also acknowledge the differences imply by reallocating resources from civilian to military sectors in face of war emergency, and reallocating resources from carbon-intensive to low-carbon sectors in face of ecological emergency. One major difference concerns the temporal horizon of a war economy compared to a CWE (Monnet, 2022). Historically, the political and social acceptability of the war economy during World War Two was largely underpinned by the promise of a rapid return to normality once the war was over. The allocative, productive and social efficiency that justified wartime price controls, allowing for a more equitable distribution of scarcity, was sustained by the belief that rationing and excess savings (which cannot be spent due to rationing, lack of production and eventually forced saving) were temporary, with previous production and consumption patterns expected to resume post-war. By contrast, the transition toward decarbonized economies entails a massive and rapid reallocation of resources which aims at achieving permanent, not temporary, decarbonation of the productive apparatus and consumption structure. Thus, unlike the wartime context, the prospect of a post-transition economic euphoria in production and consumption cannot serve as the foundation for the political and social legitimacy of the climate war economy[22].

At that the end of World War Two, John Kenneth Galbraith (1952), who operated as the head of the Office of Price Administration and was described by Milton Friedman, a fierce opponent of price controls, as "the only person who has made a serious attempt to present a theoretical analysis to justify his position" (1977, p. 12), acknowledged that controls were only effective in the US because of high "margins of tolerance" within the population. These margins of tolerance relate to the incentive to work: beyond a certain level, the excess savings resulting from the combination of price controls and rationing would become such that the population would begin to lose its incentive to work. Such margins of tolerance of controls were high in the U.S. during WWII because of strong patriotism but also because of the credible and widespread belief that the consumption restrictions imposed by rationing would be lifted once the war was over. The implementation of a CWE could not rely on such belief, but only on high level of "climate patriotism", i.e., collective beliefs in favor of the green transition that would guarantee the acceptability and effectiveness of measures of price controls coupled with rationing. That is why, at the political level, actors who want to promote the establishment of a CWE have to be able to foster the emergence and the reinforcement of such kind of beliefs.

Another fear generated by the concept of a CWE concerns the risk of reducing the challenges of the green transition to short-term concerns only (Monnet, 2022). Achieving a sustainable economic system through the green transition indeed requires profound and lasting institutional and cultural transformations. Yet, we see no reason why such long-term changes should be incompatible with rapid and massive short-term reallocations of resources and economic reorganizations. To begin with, the history of World War II demonstrates again that short-term measures adopted in response to exceptional circumstances can have long-lasting effects. Moreover, this concern overlooks the fact that the green transition also involves

[22] From this perspective, the social acceptability of a compulsory savings measure allocated to debt securities used to finance subsidies for green energy proposed by Jacques et al. (2023) is challengeable. These savings will not lead to consumption that is quantitatively and qualitatively similar once the transition plan adopted would be completed.

extremely urgent challenges, not just long-term ones, that closely resemble those faced by war economies. According to the latest IPCC report (IPCC, 2022), limiting global warming to 1.5°C requires halving greenhouse gas emissions by 2030. Meeting such an ambitious target necessitates a deep economic transformation within a very short timeframe that the market price mechanism cannot produce in due times. From this perspective, once again, wartime economies offer valuable lessons and inspiration for today's policymakers. Well-designed and implemented price and quantity controls can be suited to both accelerate the transition and manage the consequence of macroeconomic disequilibrium.

2.2 The planning debate is back

As we have seen, mobilizing the concept of a CWE calls for reintegrating price controls and rationing into the conventional toolkit of macroeconomic policy to manage inflation and its consequences. This would entail substantial public control of the economy. In addition, by distinguishing suffered shortages from chosen shortages, we have concluded that the use of such instruments entails a broader framework of national economic planning, at least during the transition phase. It is therefore not surprising that current economic and political debates are witnessing the reemergence of arguments reminiscent of those historically raised against economic planning - particularly during the interwar period and World War II. Schematically, three main objections to ecological planning are often put forward today, and directly echo those articulated in the past, in particular by Friedrich Hayek (1944, 1945). Without surprise, contemporary critiques are usually addressed using the same counterarguments that were advanced against the Austrian economist.

A first claim rests on the idea that no central authority, whether public or private, can possess the information necessary to allocate resources more efficiently than the market thanks to price signals. This epistemic argument is grounded in the belief that centralized planning, even in capitalist countries, is inherently inadequate due to the "ever-changing circumstances" that "require constant adaptations and adjustments on the part of the participants within the economic system to achieve the coordination of plans through time" (Boettke et al., 2024, p. 37). A first partial response to this first critique, however, is that centralized state planning is not necessarily a static device or rigid process. This is illustrated by the concrete implementation of French indicative planning for agricultural prices. The French Third Plan (1957–1961) introduced a coherent system that produced a single decision encompassing main agricultural prices. This system aimed to steer agricultural production according to the directions set by the Plan's agricultural commissions, through the manipulation of relative prices. Among the various pricing mechanisms introduced, the 'campaign prices' added a temporal adjustment feature: they were revised at the time of the harvest, based on actual production levels, changes in non-food input costs, and developments in agricultural wages. The combination of 'target prices' and 'campaign prices' was thus designed to reconcile production incentives with the protection of farmers' incomes. A more general answer to the epistemic argument would be that it remains plausible that the coordination failures of decentralized market systems, in some cases, outweigh those of centralized state coordination. As we have shown, this view was widely shared among various economists during transition to wartime economies, where the market price signal is recognized as dysfunctional in allocating resources toward given production priorities.

A second claim, distinct from the epistemic critique addressed above, is that planning represents a threat to individual liberty, understood as the absence of coercion. Both war economy and CWE are characterized by the existence of production priorities. For advocates of the free market, the mere existence of such production priorities constitutes, in itself, an infringement on consumer sovereignty, and consequently individual liberty. In contrast,

proponents of national economic planning argue that such critique relies on a strictly negative conception of liberty. In their view, an economic system should strive to reconcile negative liberty with positive liberty, that is, individuals' capacity to meet their needs and lead decent lives. This normative-based opposition explain why market suspension is widely accepted by almost all economists in wartime, but not in peacetime. In wartime, social ends such as military victory or the satisfaction of citizens' basic needs are sufficiently consensual to reach collective production orderings having priority over the expression of individual preferences. Many (neo)liberal economists, who admit the efficiency of price and quantity control in wartimes, advocate relaxing these controls in peacetime.[23] Yet they do so not in the name of allocative or productive efficiency, but above all in the name of freedom, which they define *à la* Hayek as the absence of coercion rather than *à la* Dewey as the ability to satisfy one's needs. This value-based opposition reminds us that arguing in favor of price and quantity controls, as well as planning, to meet the macroeconomic challenges generated by the green transition means endorsing the idea that some social ends must take precedence over individual preferences in guiding resource allocation. This leads us to the third and last main criticism against (ecological) planning.

The third major claim against planning asserts that central planning inevitably leads to totalitarianism in the political realm, due to the impossibility of reaching a consensus on socially desirable ends. In Hayek's framework (1944), this lack of consensus stems from two core assumptions of its political philosophy: the postulate of individual sovereignty assuming that individuals have their own opinions, values, and preferences that guide their choices (grounding the second claim) and the postulate of limited knowledge (grounding the first claim). Supporters of economic planning counter this argument by framing planning as a necessary response to the pursuit of a common objectives, such as wartime mobilization or the fight against the ecological emergency. In in our view, the crucial issue is rather how planning is carried out, by distinguishing between authoritarian and democratic planning process for determining both the collective goals and the means to achieve them.

4.3 The compatibility between the climate war economy and liberal democracy

The return of the debate on planning, in the context of the green transition and the climate war economy, revives the same concerns as those raised by the implementation of a war economy. Some are alarmed by the inexorable rise of an "ecological authoritarianism" (Beeson, 2010). Conversely, others fear that an idealized political and economic liberalism may prove powerless in the face of the ecological emergency, as in the face of world wars (Brinn, 2022).

Many intellectuals are prone to claim that the chain of command and the vertical administrative mechanisms of a war economy are inherently incompatible with liberal democracy. However, such claims often conflate liberal democracy with libertarian utopias. No modern state, including liberal democracies, operates without an administrative apparatus, that is, a hierarchical structure. Moreover, unlike Italian Fascism, German Nazism or Soviet Communism, examples such as the U.S. war economy and France Post-war economy demonstrated that national economic planning, including price and quantity controls, is by no means incompatible with a liberal and democratic political system. Liberalism, as it exists rather

[23] In the US, most economists called for the continuation of controls in the immediate post-war period, followed by their gradual lifting (Weber, 2021, p. 57). In France as well, all economists rallied to the defence of price controls during the war, mainly on the grounds of social efficiency. For instance, (neo)liberals (Alphand, Diethelm, Pleven) agreed with socialists (Boris, Mendès-France, Philip) on the need to control prices and quantities during the Liberation and Reconstruction periods, as the country was marked by major shortages. But while neoliberals advocated a rapid return to free pricing, socialists called for price control and long-term planning of the national economy.

than as an idealized political doctrine, has been defined as a “reasonable exercise of authority” (Brinn, 2022). During the Second World War, the so-called “camp of democracies” engaged in extensive planning and administrative controls of the economy precisely to safeguard liberal values. Why, then, should this not be possible in the case of the green transition? On this issue, if the ecological crisis is duly acknowledged as an existential challenge faced by our societies, then:

> “In a climate-war economy, liberalism would not need to do much more than it has done in the recent past. Rationing of energy, food, water, and other scarce, essential ressources; nationalisation of corporations and general government control of the market; authoritarian, even military social control; active promotion of particular values and ways of living have all been enacted by liberal democracies in response to crisis, especially those threats justifiably considered possibly existential. The potential collapse and even extinction are threats so grave that they easily meet liberalism’s preconditions for the enactment of its latent coercive and interventionist capacities” (Brinn, 2022, p. 654)

Neither ecological planning requires throwing away liberal democracy nor should we naively believe that war economies alone impose normative management of resource allocation. Rather, in a climate war economy, individual preferences, which are the normative criterion legitimizing a free-market economy, would be giving way to some social preferences as the normative criterion guiding resource allocation. This explains why the green transition is not a business-as-usual macroeconomic challenge, but entails “a profound challenge for redefining our social contract» (Combet et Pottier 2024, p. 10). The question of who and how to decide on social preferences, i.e., on the goals of the green transition and post-transition to be pursued, is obviously a thorny issue, particularly relevant for the medium-run macroeconomic and longer-term economic challenges raised by the political *Arlésienne* of the green transition.

Conclusion

This article has elaborated the concept of a Climate War Economy, drawing on a historical analogy with the economic management strategies deployed during World War II. Through this comparative analysis, we have highlighted how the green transition inherently involves a medium-run macroeconomic disequilibrium analogous to those of a war economy, marked by structural imbalances between constrained supply and rising demand. We argue that price and quantity controls, tools historically used to manage such a disequilibrium, offer valuable insights and practical mechanisms for navigating the economic challenges of the green transition. Indeed, by re-examining the economic reasonings that led to the widespread acceptance of the suspension of market mechanisms in times of war, we argue that similar policy interventions, designed to address inflationary pressures stemming from transitional and physical risk-induced shortages, could be justified today on the basis of social, productive and allocative efficiency. Despite prevalent scepticism regarding these types of measures, some are already implemented within contemporary climate policies, as best exemplified by carbon pricing designs.

Although this paper is not a policy brief, so that further inquiry in ecological economics could focus on identifying more precisely the markets and which kind of price and quantity controls might prove effective, two general public policy implications stem from the development of the CWE concept. First, monetary policy alone would be incapable of managing all the medium-term causes of inflation during the green transition. Second, price and quantity controls

must be reintegrated, by both policy advisers and policy makers, into the conventional toolkit of macroeconomic policies because of their social, productive and allocative efficiency. Third, the effectiveness of this macroeconomic tool depends on its embeddedness within a consistent planning framework that requires a sufficient minimal political consensus on the social objectives to be pursued to be compatible with liberal democracy. This is the reason why we address potential concerns regarding compatibility with liberal democracy. Our conclusion is that substantial public management and planning are neither inherently incompatible nor historically unprecedented within democratic regimes. As such, embracing elements of a climate war economy could not only enhance the effectiveness of climate policies but also sustain democratic institutions by ensuring equitable burden-sharing during a period of radical economic transformation.

The most critical issue emerging from the historical analogy is the need for a form of 'climate patriotism': a collective commitment to the green transition that can secure the acceptability and effectiveness of measures such as price controls and rationing. This resonates with Robert Costanza's view that "the most critical task facing humanity today is the creation of a shared vision of a sustainable and desirable society, one that can provide permanent prosperity within the biophysical constraints of the real world in a way that is fair and equitable to all of humanity, to other species, and to future generations" (Costanza, 2000). Political science research has shown that the modes of climate policy governance significantly shape the acceptability of such policies (Perlaviciute & Squintani, 2020; Lage et al., 2023; Perlaviciute, 2025). Future research may refine and expand this conceptual framework, particularly by examining the forms of democratic governance best suited to managing a climate war economy.

References

Acemoglu, D., Aghion, P., Barrage, L., & Hémous, D. (2023). *Green innovation and the transition toward a clean economy* (No. WP23-14). Peterson Institute for International Economics.

Acemoglu, D., Akcigit, U., Hanley, D., & Kerr, W. (2016). Transition to clean technology. Journal of political economy, 124(1), 52-104.

Angeli, M., Archer, C., Batten, S., Cesa-Bianchi, A., D'Aguanno, L., Haberis, A., ... & Young, C. (2022). Climate change: possible macroeconomic implications. *Bank of England Quarterly Bulletin*.

Annicchiarico, B., Di Dio, F., & Diluiso, F. (2024). Climate actions, market beliefs, and monetary policy. *Journal of Economic Behavior & Organization*, *218*, 176-208.

Autor, D., Dorn, D., Katz, L. F., Patterson, C., & Van Reenen, J. (2020). The fall of the labor share and the rise of superstar firms. The Quarterly journal of economics, 135(2), 645-709.

Babic, M. (2024). Green finance in the global energy transition: Actors, instruments, and politics. *Energy Research & Social Science*, *111*, 103482.

Bajgar, M., Berlingieri, G., Calligaris, S., Criscuolo, C., & Timmis, J. (2023). Industry concentration in europe and north america. *Industrial and Corporate Change*, dtac059.

Ban, C., & Hasselbalch, J. (2025). Green economic planning for rapid decarbonisation. *New political economy*, *30*(2), 287-299.

Batten, S., Sowerbutts, R., & Tanaka, M. (2020). Climate change: Macroeconomic impact and implications for monetary policy. *Ecological, societal, and technological risks and the financial sector*, 13-38.

Besley, T., & Persson, T. (2023). The political economics of green transitions. *The Quarterly Journal of Economics*, *138*(3), 1863-1906.

Blanchard, O., Gollier, C., & Tirole, J. (2023). The portfolio of economic policies needed to fight climate change. *Annual Review of Economics*, *15*(1), 689-722.

Bijnens, G., Anyfantaki, S., Colciago, A., De Mulder, J., Falck, E., Labhard, V., ... & Strobel, J. (2024). The impact of climate change and policies on productivity. *ECB Occasional Paper*, (2024/340).

Blinder, Alan S., and William J. Newton. "The 1971–1974 controls program and the price level: An econometric post-mortem." Journal of Monetary Economics 8.1 (1981): 1-23.

Boinon, Jean-Pierre. (2012). "Agricultural Land Policies in France since 1945." *Economie & Statistique*

Borenstein, S. (2012). The redistributional impact of nonlinear electricity pricing. *American Economic Journal: Economic Policy*, *4*(3), 56-90.

Boomhower, J., Fowlie, M., Gellman, J., & Plantinga, A. (2024). *How are insurance markets adapting to climate change? risk selection and regulation in the market for homeowners insurance* (No. w32625). National Bureau of Economic Research.

Bowles, S. (1998). Endogenous preferences: The cultural consequences of markets and other economic institutions. *Journal of economic literature*, *36*(1), 75-111.

Brinn, G. (2022). The path down to green liberalism. *Environmental Politics*, *31*(4), 643-662.

Bronfenbrenner, M. (1947). « Price Control under Imperfect Competition ». The American Economic Review, 37(1). 107-20

Carney, M. (2015). Breaking the tragedy of the horizon–climate change and financial stability. *Speech given at Lloyd's of London*, *29*, 220-230.

Carret, V. (2024). Inflation Expectations During the Korean War: Evidence from a Program of Price Controls. *Working Paper*.

Cayla, D. (2023). *The decline and fall of neoliberalism: Rebuilding the economy in an age of crises*. Routledge.

Cayla, D. (2025). Institutional Challenges of the Ecological Transition. *Review of Radical Political Economics*.

Çevik, Veli Ahmet (2024). "Impacts of Climate Change on Logistics and Supply Chains." *Journal of Disaster and Risk ,* 7 (2). 368-391.

Chiappinelli, O., & Neuhoff, K. (2020). Time-consistent carbon pricing: The role of carbon contracts for differences.

Chirat, A., & Clerc, B. (2024a). «Économie de guerre climatique»: de quoi parle-t-on?. *L'Économie politique*, *102*(2), 90-103.

Chirat, A., & Clerc, B. (2024b). Convergence on inflation and divergence on price control among post Keynesian pioneers: insights from Galbraith and Lerner. *Journal of Post Keynesian Economics*, *47*(1), 189-235.

Chirat, A., & Clerc, B. (2024c). « L'effort climatique, comme l'effort de guerre, requiert une réallocation rapide et massive des ressources », *Le Monde*, 22 novembre 2024.

Clark, J. M. (1941). Further remarks on defense financing and inflation. *The Review of Economics and Statistics*, *23*(3), 107-112.

Combet, E., & Pottier, A. (2024). *Un nouveau contrat écologique*. Puf.

Costanza, R. (2000). Visions of alternative (unpredictable) futures and their use in policy analysis. *Conservation ecology* 4.1

Costanza, R. (2010). What is ecological economics?. *Yale insights*. May 11, 2010.

Daly, H. E. (1991). Towards an environmental macroeconomics. *Land economics*, *67*(2), 255-259.

Daumas, L. (2024). Financial stability, stranded assets and the low-carbon transition–A critical review of the theoretical and applied literatures. *Journal of Economic Surveys*, *38*(3), 601-716.

David, Antonio C., Samuel Pienknagura, and Juan F. Yépez (2025). "Can fiscal consolidations announcements help anchor inflation expectations?." *Journal of International Money and Finance* 151.

Del Negro, M., Di Giovanni, J., & Dogra, K. (2023). Is the green transition inflationary?. *FRB of New York Staff Report*, (1053).

Delpla, J., & Gollier, C. (2019). Pour une banque centrale du carbone. *Astérion Analyse*, *1*.

Dormois, Jean-Pierre (2004). *The French economy in the twentieth century*. Vol. 49. Cambridge University Press.

Dornbusch, R., & Edwards, S. (1990). Macroeconomic populism. *Journal of development economics*, *32*(2), 247-277.

Douenne, T., & Fabre, A. (2020). French attitudes on climate change, carbon taxation and other climate policies. *Ecological Economics*, *169*, 106496.

Dumez, Hervé, and A. Jeunemaître (1990). "A Style of Economic Regulation, France 1969–86: A Comparison between France and West Germany." *Environment and Planning C: Government and Policy* 8 (2). 139-148.

Dumez, Hervé, and A. Jeunemaître. "A Style of Economic Regulation, France 1969–86: A Comparison between France and West Germany." *Environment and Planning C: Government and Policy* 8.2 (1990): 139-148.

Dupont-Kieffer, A., Dimand, R. W., & Rivot, S. (2024). Introduction to Economists at War: How World War II Changed Economics (and Vice Versa). *History of Political Economy*, *56*(S1), 1-27.

Economic report to the president (1972). United States government printing office, Washington.

Estrin, Saul, and Peter M. Holmes. "The role of planning contracts in the conduct of French industrial policy." *Mich. YBI Legal Stud.* 6 (1984): 97.

Ferrari, A., & Nispi Landi, V. (2024). Will the green transition be inflationary? Expectations matter. *IMF Economic Review*, 1-64.

Field, Alexander J. "The US Rubber Famine during World War II." (2023).

Friedman, M. (1974). *Inflation, Taxation, Indexation, in Inflation: Causes, Consequences, Cures*, London, Institute of Economic Affairs.

Friedman, Milton. *From Galbraith to Economic Freedom*. London, UK: Institute of Economic Affairs, Occasional Paper, 1977.

Frye, Jon, and Robert J. Gordon. "Government Intervention in the Inflation Process: The Econometrics of" Self-Inflicted Wounds"." *The American Economic Review* 71.2 (1981): 288-294.

Gabor, D., & Braun, B. (2025). Green macrofinancial regimes. *Review of International Political Economy*, 1-27.

Galbraith, J. K. (1941). The selection and timing of inflation controls. *The Review of Economics and Statistics*, *23*(2), 82-85.

Galbraith, J. K. (1947). The disequilibrium system. *The American Economic Review*, *37*(3), 287-302.

Galbraith, J. K. (1952). *A theory of price control*. Harvard University Press.

George, Katona (1945), *Price Control and Business*, Bloomington.

Groos, J., & Sorg, C. (Eds.). (2025). *Creative construction: democratic planning in the 21st century and beyond*. Policy Press.

Gropman, Alan L. *Mobilizing US industry in World War II: myth and reality*. No. 50. Institute for National Strategic Studies, National Defense University, 1996.

Grullon, G., Larkin, Y., & Michaely, R. (2019). Are US industries becoming more concentrated?. *Review of Finance*, *23*(4), 697-743.

Hansen, A. H. (1941). Defense financing and inflation potentialities. *The Review of Economics and Statistics*, *23*(1), 1-7.

Harris, S. (1945) Price and Related Controls in the United States (New York, McGraw Hill).

Harrison, Mark, ed. *The economics of World War II: six great powers in international comparison*. Cambridge University Press, 2000.

Hayek, F. A. (1944). *The road to serfdom*. University of Chicago Press.

Hayek, F. A. (1945). The Use of Knowledge in Society. *American Economic Review*, *35*(4), 519-30.

Hayek, F. V. (1940). Review of How to Pay for the War, by JM Keynes. *The Economic Journal*, *50*(198/199), 321-6.

Heino, Matias, et al. "Increased probability of hot and dry weather extremes during the growing season threatens global crop yields." *Scientific reports* 13.1 (2023): 3583.

Hirst, D. (2018). Carbon Price Floor (CPF) and the price support mechanism. *House of Commons Library Briefing Paper*, *20*.

Intergovernmental Panel on Climate Change (IPCC) (2022) Climate Change 2022 Mitigation of Climate Change (Working Group III contribution to the Sixth Assessment Report).

Jacques, P., Delannoy, L., Andrieu, B., Yilmaz, D., Jeanmart, H., & Godin, A. (2023). Assessing the economic consequences of an energy transition through a biophysical stock-flow consistent model. *Ecological Economics*, *209*, 107832.

Kalecki, M. (1940) Scheme of Curtailment of Consumption, Bulletin of the Oxford University Institute of Statistics, 2(3), pp. 7-9.

Keynes, J. M. (1940). How to Pay for the War. In *Essays in persuasion* (pp. 367-439). London: Palgrave Macmillan UK.

Knotek, Edward S., et al. The effects of interest rate increases on consumers' inflation expectations: the roles of informedness and compliance. No. IDB-WP-1641. IDB Working Paper Series, 2024

Konradt, M., & Weder di Mauro, B. (2023). Carbon taxation and greenflation: Evidence from Europe and Canada. *Journal of the European Economic Association*, *21*(6), 2518-2546.

Kornai, J. (1980). *Economics of shortage*. North Holland Publishing Company

Krogstrup, S., & Oman, W. (2019). Macroeconomic and Financial Policies for Climate Change Mitigation: A Review of the Literature. *IMF Working Paper* 19/185.

Lafond, François, Diana Greenwald, and J. Doyne Farmer (2022). "Can stimulating demand drive costs down? world war ii as a natural experiment." *The Journal of Economic History* 82 (3), 727-764.

Lage, J., Thema, J., Zell-Ziegler, C., Best, B., Cordroch, L., & Wiese, F. (2023). Citizens call for sufficiency and regulation—A comparison of European citizen assemblies and National Energy and Climate Plans. *Energy Research & Social Science*, *104*, 103254.

Laguérodie, S. and Vergara, F. (2008). "The Theory of Price Controls: John Kenneth Galbraith's Contribution", *Review of Political Economy*. 20 (4): 569-593.

Lemoine, M., Petronevich, A., & Zhutova, A. (2024). Energy tariff shield in France: what is the outcome?. *Bulletin de la Banque de France*, (253).

Lerner, Abba P. "Some Theoretical Aspects." *The Review of Economics and Statistics* 31.3 (1949): 193-200.

Litman, Simon (1920), Prices and price control in Great Britain and the United States during the World War. Oxford University Press.

Magalhães, N. (2021). The green investment paradigm: Another headlong rush. *Ecological Economics*, *190*, 107209.

Mann, L. (2023). "Climate policy and monetary policy: interactions and implications". Speech given at the Environmental Economics Seminar, University of Oxford.

Mardellat, P. (2020). L'économie de guerre et la possibilité du calcul économique socialiste. *Revue d'histoire de la pensée économique*, *2020*(10), 249-286.

Mastini, R., Kallis, G., & Hickel, J. (2021). A green new deal without growth?. *Ecological economics*, *179*, 106832.

Mattauch, L., Hepburn, C., Spuler, F., & Stern, N. (2022). The economics of climate change with endogenous preferences. *Resource and Energy Economics*, *69*, 101312.

Milward, Alan S. (1979). *War, economy and society, 1939-1945*. Vol. 5. Univ of California Press.

Mintz, Ilse. (1973). *US import quotas: Costs and consequences*. The American enterprise institute for public policy research, Washington, D.C.

Monnet, E. (2018). Controlling Credit: Central Banking and the Planned Economy in Postwar France, 1948 1973. Cambridge University Press.

Monnet, É. (2022). War economy and ecology: The risks of the analogy. *L'Economie politique*, *95*(3), 94-102.

Monnet, E., & van't Klooster, J. (2023). Using green credit policy to bring down inflation: What central bankers can learn from history.

Nakov, A., & Thomas, C. (2023). Climate-conscious monetary policy. *Documentos de trabajo-Banco de España*, (34), 1.

Nikiforos, Michalis, Simon Grothe, and Jan David Weber. (2024). "Markups, profit shares, and cost-push-profit-led inflation." *Industrial and Corporate Change* 33 (2), 342-362.

OCDE (1972), *L'Observateur de l'OCDE, Volume 1972 Numéro 4*, Éditions OCDE, Paris,

Ogunbode, C. A. et al. (2024). Climate justice beliefs related to climate action and policy support around the world. *Nature Climate Change*, 1-7.

Olsson, Kerstin. How do monetary policy announcements affect inflation expectations?. No. 2020: 2. Working Paper, 2020

Osório, A. (2023). Not everything is green in the green transition: theoretical considerations on market structure, prices and competition. *Journal of Cleaner Production*, *427*, 139300.

Perlaviciute, G., & Squintani, L. (2020). Public participation in climate policy making: toward reconciling public preferences and legal frameworks. *One Earth*, *2*(4), 341-348.

Perlaviciute, G. (2025). Understanding the relationship between public participation and public acceptability of climate policies. *Cell Reports Sustainability*.

Philippon, T. (2019). The great reversal: How America gave up on free markets. Harvard University Press.

Pigou (1941). The political economy of war. New and revised edition. London, McMillan.

Pigou, Arthur Cecil (1924). *The economics of welfare*. Macmillan.

Pisani-Ferry, J., & Mahfouz, S. (2023). Les incidences économiques de l'action pour le climat. *France Stratégie, mai*.

Qiu, Yang, et al. "The impacts of material supply availability on a transitioning electric power sector." *Cell Reports Sustainability* 1.10 (2024).

Robinson, Joan (1933).*The Economics of Imperfect Competition*. Springer.

Rockoff, H. (2016). *The US economy in WWII as a model for coping with climate change* (No. w22590). National Bureau of Economic Research.

Rockoff, Hugh (2004). *Drastic measures: A history of wage and price controls in the United States*. Cambridge University Press.

Rodríguez-Pose, A., & Bartalucci, F. (2024). The green transition and its potential territorial discontents. *Cambridge Journal of Regions, Economy and Society*, *17*(2), 339-358.

Sapir, J. (2022). *Le grand retour de la planification?*. Editions Jean-Cyrille Godefroy.

Schnabel, I. (2022, March). A new age of energy inflation: climateflation, fossilflation and greenflation. In *Speech at a panel on "Monetary Policy and Climate Change" at the ECB and its Watchers XXII Conference*.

Scitovsky, T., Shaw, E. & Tarshis, L. (1951) Mobilizing Ressources for War: The Economic

Shi, H., Heng, J., Duan, H. *et al.* Critical mineral constraints pressure energy transition and trade toward the Paris Agreement climate goals. *Nat Commun* 16, 4496 (2025)

Skidelsky, R. (2007). Hayek versus Keynes: the road to reconciliation. *The Cambridge Companion to Hayek*, 82-110.

Stanford, J. (2024). Regulating Prices Not Such a Crazy Idea. Centre for Future Work, 25 August 2024.

Stiglitz, J. E. (2019). Addressing climate change through price and non-price interventions. *European Economic Review*, *119*, 594-612.

Storm, Servaas. "Profit inflation is real." *PSL Quarterly Review* 76.306 (2023): 243-259.

Sun, Yida, et al. "Global supply chains amplify economic costs of future extreme heat risk." *Nature* 627.8005 (2024): 797-804.

Sweezy, P. M. (1943). Rationing and the War Economy. *Science & Society*, 64-71.

Taussig, F. W. (1919). Price-Fixing as seen by a Price-Fixer. *The Quarterly Journal of Economics*, *33*(2), 205-241.

Thaller, A., et al. (2023). When perceived fairness and acceptance go hand in hand–Drivers of regulatory and economic policies for low-carbon mobility. *PLoS Climate*, *2*(5), e0000157.

Way, R., Ives, M. C., Mealy, P., & Farmer, J. D. (2022). Empirically grounded technology forecasts and the energy transition. *Joule*, *6*(9), 2057-2082.

Weber, Isabella (2021). *How China escaped shock therapy: The market reform debate*. Routledge.

Weber, Isabella M., and Evan Wasner (2023). "Sellers' inflation, profits and conflict: why can large firms hike prices in an emergency?." *Review of Keynesian Economics* 11(2) 183-213.

Weitzman, M. L. (1977). Is the price system or rationing more effective in getting a commodity to those who need it most?. *The Bell Journal of Economics*, 517-524.