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Green Finance and the EU-Taxonomy for Sustainable Activities: Why Using More Direct Environmental Policy Tools Is Preferable

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Abstract: The EU taxonomy on sustainable activities is expected to pave the way for steering capital towards sustainable investments. However, the economic effects are problematic. Promoting “green” capital will lead to income losses due to productivity differences, while greenhouse gas emissions do not change at a given EU emission allowance cap. Worldwide emissions may even increase as carbon intensive production moves outside the EU. While green finance may be used to bind future governments, committing to future climate goals directly is a superior policy since efficiency losses can be avoided.

Keywords: Green finance, taxonomy, climate policy

The new EU taxonomy for sustainable activities has received strong attention. This taxonomy attempts to classify economic activities according to whether or not they contribute to sustainable development. The concept of sustainability basically includes environmental and social concerns as well as aspect of responsible governance (ESG). Up to now, the design of the taxonomy has focused primarily on climate protection aspects, in particular the goal of reducing emissions of carbon dioxide and other greenhouse gases (EU Technical Expert Group on Sustainable Finance 2020).

One aim of the taxonomy is to guide investors as to which financial assets can be classified as “green“ in this sense. However, the implications of the taxonomy go far beyond the mere provision of information. For example, it is likely that subsidies for projects under the EU’s Green Deal will have to meet the criteria of the taxonomy. In fact, measures are in preparation or already implemented in various member countries of the European Union to promote green financial investments (European Banking Federation 2019). In addition, efforts exist in Germany, among

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other countries, to encourage state-controlled or regulated investors to preferentially invest in green assets as defined by the taxonomy (Sustainable Finance Beirat der Bundesregierung, 2021). Even monetary policy intends to favor green investments (NGFS 2020; Pagliari and Ferrari 2021). The policy of the Norwegian sovereign wealth fund to exclude securities that are significantly linked to carbon emissions from its asset investments (Norges Bank Investment Management 2022), also marks such a trend.

From an economic perspective, the sustainable finance taxonomy raises several fundamental questions. Drawing up comprehensive lists of all economic activities and classifying them in a binary way as sustainable or not, and thus as worthy of support or not, fits more to a centrally planned economy than to a market economy. Steering economic activities to internalize environmental damage belongs to the design of framework conditions in market based systems – but other much better targeted instruments exist for this purpose.

In this contribution, we explain the results of a welfare economic analysis (Fuest and Meier, 2022) of the interaction of government intervention in the capital market between “green“ and “brown“ sectors and existing environmental instruments, in our case a system of emission allowances. It turns out that, if tradable emission rights are properly designed, adding the capital diversion instrument reduces aggregate economic output and leads to less climate protection globally, rather than more. Under certain conditions, it will even lead to higher emissions in the country introducing the taxonomy. There are political economy explanations for such policies. This does not change the fact that it is harmful from a welfare economic vantage point.

1 Income Losses due to Green Finance

What is the point of an additional use of green finance beyond the existing environmental policy instruments? In our theoretical analysis (Fuest and Meier 2022), we model the effect of the taxonomy analogously to either a subsidy to sustainable activities or a tax on unsustainable activities. So far, environmental goals in the EU have been addressed primarily through environmental policy measures. These include, above all, the European system of tradable emission allowances. The allowances put a price on the emission of carbon dioxide by companies in the EU. By setting the total emissions cap, the EU can control the targeted emissions of greenhouse gases. The tradability of the allowances via an exchange implies that all companies with low abatement costs contribute to curbing carbon emissions, for example by installing filters. Any additional environmental benefit from promoting green investments appears doubtful. At the same time, investment may

be misdirected in the sense that subsidized investments are less productive than unsustainable ones. A sufficiently large number of private investors in the capital market will invest in such a way that expected net returns, taking into account taxes and subsidies, are the same in all sectors. Should some investors, such as sovereign wealth funds, pursue different objectives, the proportion of profit-seeking investors will always be large enough to exploit any systematic differences in net returns that may arise in the short term. In line with this expectation, Deutsche Bundesbank (2019) finds no systematic difference in returns between green and other financial assets. Applying differential taxation or subsidies results in uneven gross returns, such that subsidized green investments will have a lower gross return.

But this would make green capital systematically less productive than capital that is not classified as sustainable. Such an outcome is inefficient since higher income and higher consumption opportunities for consumers could be attained by redirecting capital from “green“ to “brown“ sectors. The loss of income will typically manifest itself through burdens of the taxpayers funding the subsidies. If instead green finance is used to avoid this problem by increasing the taxation of brown capital, we can expect lower wages due to capital flight.

Another question is whether a reduction of greenhouse gas emissions can be achieved by promoting “green“ capital. Our new study (Fuest and Meier, 2022) addresses the complex issues concerning the environmental and economic consequences of subsidizing investments in low-emission industries. We consider a framework of an economy with two sectors that use carbon dioxide at different intensities and produce different goods. To maximize any benefit from promoting green capital, we take the simplifying assumption that the green sector operates emission-free and the brown sector emits carbon dioxide. Consumers use both goods that moreover are traded in the world market. Realistically, capital can also be imported or exported. Furthermore labor mobility between sectors leads to an equalization of real wages. Consider first the consequences of subsidizing investment in the green sector. This leads to an enlargement of the green sector through an inflow of labor and capital and a contraction of the brown sector.

2 Green Finance May End up Increasing CO₂ Emissions

Looking at economic and environmental goals, the predicted outcomes are sobering. Total income and consumption opportunities of the people in the economy under consideration are reduced. The capital income of the locals

ultimately does not increase, but the subsidization of green capital must be financed by taxation—which burdens domestic workers. Moreover, there will be a global increase in greenhouse gas emissions if the EU's environmental policies remain unchanged. This happens because of the reaction of trade flows. The reduced production of the brown good is absorbed by additional (net) imports. Correspondingly, there are additional (net) exports of the green good. However if realistically the rest of the world outside the EU does not have comparable strict environmental policies, the additional production of the brown good is associated with additional greenhouse gas emissions. Hence, because of the supposedly green policy of promoting green capital in the EU greenhouse gas emissions outside the EU and in the world as a whole increase. Numerous similar phenomena of negative feedbacks of environmental policy measures of individual countries via reactions of import and export structures are known in the literature under the keyword „carbon leakage“ (Aichele and Felbermayr 2015; Böhringer, Rosendahl, and Storrøsten 2017). Unlike the standard issue of carbon leakage that environmental tightening yields higher emissions due to shifting dirty production abroad, sustainable finance itself does not even reduce emissions in the country that introduces it.

The question arises whether a stricter environmental policy by the EU is likely as a result of the described reactions to the subsidization of green capital. According to our analysis, this is also doubtful. After all, in line with many observations, lower income leads to lower propensity to pay for additional environmental policy measures, thus rather to a laxer policy. Further, lower emission prices or higher emission caps would mitigate the problem of income losses due to the capital productivity differences across sectors. To some extent, this is offset by lower material damage from further downsizing of the brown sector by tightening the environmental policy. In general, it is uncertain which effect predominates. It is undoubtedly true, however, that the EU would be better off by directly tightening the allocation of emission allowances without taking the detour of subsidizing green capital.

3 Binding Future Governments: Commitment to Goals Superior to Green Finance

So why does this apparently inefficient policy currently enjoy such broad popularity? Our attempt at an explanation takes political processes into account and focuses on a scenario in which capital cannot be uninstalled easily, as it is often the case with buildings and machinery. For simplicity, only two political

parties are assumed, labeled “green“ and “conservative“, which differ in their environmental objectives. In democracies, changes of power occur regularly, with green governments having higher willingness to pay for environmental policy tightening than conservative governments. It is further assumed that a subsidy for green capital, once introduced, will persist after a change to a different government and thus may influence investment decisions in a long-term perspective. Such subsidies are frequently kept in place after a change in government due to a common understanding of protecting investors without explicit court rulings. In contrast, a new government can always adapt its environmental policy according to its own preferences. In such a scenario, an enlarged green sector due to the implementation of green finance will also induce a conservative government, coming into office after a new election, to pursue a stricter environmental policy because investments in physical capital are no longer flexible. Income gains from a laxer environmental policy can then be leveraged only to a limited extent. It is this reaction of an eventual future conservative government that leads the current green government to subsidize green assets today. If it remained safely in office, on the other hand, it would prefer to dispense with green finance and to rely solely on the use of environmental policy instruments.

This explanation for green finance is not a normative economic justification. The goal of a longer-term commitment to environmental targets is achievable through other measures. The efficiency loss induced by green finance can be avoided by making commitments to future climate policy, such as binding commitments to lower greenhouse gas emissions at various later dates. Such an approach is quite common in the Kyoto process and especially in the EU. It has considerable binding force and credibility through public debate and legal regulations. For example, international treaties can be translated into national law and supported by court rulings, as in the German constitutional court’s climate page decision in 2021. A climate policy that wants to be successful should select instruments that enable climate protection targets to be achieved at lowest possible cost. To this end, it is important to ensure that the various instruments are sensibly coordinated.

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