Almost a free lunch
Boosting investment predictability for the Green Deal

Philipp Jäger, Policy Fellow

Implementing the EU Green Deal requires annual investments of about €620 billion, most of which will have to be shouldered by the private sector. However, businesses and households are not investing enough as of now. An important lever for greater green investment is reducing uncertainty around such investment. At the start of the next institutional cycle, the EU should hence improve regulatory certainty for green investments, which should be palatable to most parties likely to form a majority in the Parliament. In addition, the EU should adopt concrete tools that reduce cost uncertainty for companies and households in a pragmatic manner. To this end, this policy position recommends using green lead markets and proposes moves to explore two novel mechanisms that cost taxpayers little to nothing but should boost green investments.

Getting the EU Green Deal done is costly. Industry, transport and heating must be decarbonised; electricity grids reinforced, clean hydrogen produced, wind parks rolled out, charging stations erected – the list goes on. The additional investments in Europe are estimated at around €620 billion a year or about 4% of GDP.

Most of this staggering sum of money can’t be shouldered by the public purse but must come in the form of investments by companies and households. However, the private sector is not investing enough. One major impediment to more green investments is the uncertainty about their economic viability.

This uncertainty has many drivers. The price of carbon, i.e. of ETS certificates, fluctuates a lot, and it is unclear where it will be a few years from now. The availability and volume of green subsidies over the next years are added unknowns. Regulatory uncertainty is acute as well; the back-and-forth about banning the sale of combustion-engine cars after 2035 or the unclear

I am grateful for comments by Ciarán Humphreys and Ben McWilliams. All errors remain my own.
future scope of CBAM are just two examples. And the availability of clean, cheap energy is a policy promise that many companies simply do not trust. For a company considering making a green investment that needs to pay off over, say, the next 10 years, this is often too much uncertainty to shoulder.

At the beginning of the next institutional cycle, the EU should therefore enhance the planning predictability of green investments for the private sector, encompassing both companies and households. To accomplish this, the EU will have to provide greater regulatory certainty (see the first part below). In addition, policy makers need to improve economic certainty, which may require leaving the trodden path, and introducing some novel tools. These tools should aim to boost green investment with little to no additional cost to the budget. In the second part of this policy position, such novel mechanisms are sketched out, as food for thought for the new legislature.

**Regulatory and political certainty**

**Lack of regulatory and political certainty comes with high costs.** In the EU, 'uncertainty' is cited by 78% of companies as an impediment to their investments. For instance, when energy prices increased because of the Russian war on Ukraine, the EU introduced ad-hoc “windfall taxes” in the form of a revenue cap on inframarginal electricity producers, which are often solar and wind farms. Widely differing implementation across member states “led to significant investor uncertainty”, as even the Commission concluded when the measure was not prolonged. For solar and wind farms, which are very capital intensive, uncertainty regarding the regulatory framework surrounding future revenue is a major impediment. Undersubscribed solar auctions in Germany and Spain, for instance, were attributed to the nervousness induced by the discussion around capturing ‘windfall profits’.

Political uncertainty also induces massive costs if it casts doubts about the stringency of the Emission Trading System (ETS). Research indicates that recent price increases in ETS certificates came about partly because policy makers signalled their “credible long-term commitment to climate targets”. In other words, now companies believe more than before that the ETS will be implemented as promised. Conversely, if this political commitment weakens, companies’ trust in the ETS could deteriorate, driving prices down and volatility up, thereby hampering green investments.

Both examples show the high cost of uncertainty for public budgets: under high regulatory or political uncertainty, green investments are more costly, and hence governments must subsidize more heavily for the investment to be undertaken.

**The EU currently does not deliver enough political and regulatory certainty.** A telling example of regulatory uncertainty is the controversy around the combustion engine. In lengthy negotiations, co-legislators agreed on phasing it out after 2035. However, after that agreement had been struck, a small number of political parties changed their position and wanted to reverse the decision, with that controversy still ongoing. Naturally, policy makers are allowed to reverse their errors (if banning the sale of new combustion engine cars after 2035 was indeed a mistake), but the uncertainty induced by such moves is substantial.

In the current election, some parties have also created political uncertainty. As a side-effect of polarised campaigns, the narrative of a ‘green backlash’ has become widespread. While such a backlash is not supported by most major parties’ actual positions nor by voter preferences, the narrative has induced large uncertainty among private individuals and

---

1 In the 2023 EIB Investment survey, 83% of businesses indicate high energy cost as an long-term impediment to investments (note that this figure encompasses all types of investments, not just green investments).
companies as to whether the Green Deal will proceed as promised. After the elections, it
will be high-time for parties to adapt their narrative and actions to reduce this uncertainty.

Increasing regulatory and political certainty is cost-free and feasible despite shifting
political priorities. The next European Parliament and Commission could be significantly less
active on climate and green issues, but they will in all probability remain committed to the
EU’s 2030 climate objectives. The current focus for the next EU cycle is on reducing red tape
and bureaucracy in green files. In contrast, increasing predictability for the private sector,
by providing higher regulatory certainty, hardly figures in policy makers’ discussions. This is
a missed opportunity, given how effective it would be and that it could be a uniting element
for the various parties likely to form a majority in Parliament. Hence, the Parliament should
send clear and early signals it intends to improve predictability for green investments.

This entails a political commitment that the ambition of already adopted green legislative
objectives will remain intact. For instance, credibly conveying that there will be no
reduction in ETS ambition going forward will go a long way to buttress trust in the system.
Operationally, this could simply come in the form of prominently publicised statements
backed by the parties making up the Parliamentary majority, and go on to be reflected in
talks about the 2040 climate targets due in the autumn. Another area where additional
regulatory certainty would be beneficial is the electricity market, where, despite the recent
reform, some open questions for investors remain. For instance, the majority in Parliament
could publicly commit not to introduce ad-hoc changes to revenue streams of solar and
wind energy producers.

If this ruling majority gave such a visible lead, it could realistically be echoed by the Council.
The most recent Competitiveness Council has already highlighted the importance of legal
certainty and a predictable regulatory framework to foster green investments.2 Together,
the three EU institutions should send a strong signal to the private sector that the EU’s
future will indeed be emissions-free, that the ambitious scale of already adopted legislation
will be maintained, and that consequently only business models aligned with EU climate
objectives will thrive.

To give added credibility to such a political commitment, the next EU cycle should announce
concrete tools to reduce cost uncertainty, such as those proposed below.

The EU should create pragmatic tools to reduce cost uncertainty

Economic uncertainty can be decreased in some areas with little budgetary cost. In many
areas, hard subsidies will be needed to make a business case for green investments. However,
to eliminate the need for subsidies, or reduce their required volume, sometimes reducing
cost uncertainty will suffice. In this area, the policy toolbox remains woefully underexplored.
Below, three possible tools are proposed.

1. Green lead markets

A first cheap yet powerful tool to overcome uncertainty is ‘green lead markets’. A green lead
market denotes the creation of a premium for a product with desirable green characteristics,
in particular lower CO2-content. For instance, governments could announce today that in
future, public procurement contracts for buildings will require 25% of certain materials
used in the project, like cement or steel, to be emission neutral. This creates a premium and

2 The conclusions state that “legal certainty and a coherent, predictable, future-proof and accessible regulatory frame-
work are vital to foster investment and safeguard our competitiveness, while environmental and social standards in
Union legislation should be upheld.”
reduces uncertainty about the future demand for green materials, triggering investments in
green production capacities today. If these requirements do not become active immediately
when the law is passed, but subject to a delay of a few years, the cost difference between
green and fossil-based products likely will have reduced substantially given technological
advances and economies of scale, hence lowering the additional costs for governments. Yet,
this type of lead market does have a price tag for the state.

These requirements do not have to be restricted to public procurement but could be
made mandatory in private sector projects as well. In this case, lead markets would not
create costs for the state budget, but for the private sector. The EU already does this with
hydrogen used in industry, which is mandated to be 42% renewable by 2035.

Green lead markets have already been heavily scrutinised and found to be powerful tools.
The German government has just announced it will take the first steps towards lead markets,
by defining for various materials the criteria for being classified as ‘green’. Building on this,
the next EU cycle should analyse where and how European lead markets can be used in a
cost-effective way, taking bold steps towards employing them in a way that boosts planning
certainty, in particular for basic, energy-intensive materials such as cement, steel, or glass.

2. Guaranteeing a price floor for green products

Another tool that should be explored at the beginning of the next EU cycle is a special
form of government off-take agreement at a minimum price, for certificates of green
products. Consider a green product that is functionally equivalent to a non-green product,
such as, for instance, emissions-free steel or glass. Despite the functional equivalence,
buyers are typically willing to pay a higher price for these green products (‘green premium’) — typically because their buyers, in turn, are also willing to pay more for it, either because
they are environmentally conscious consumers, or because some regulation mandates or
incentivises the purchase of green products. However, how high the green premium will be
in a few years from now is uncertain, as is whether it will suffice to cover higher production
costs.

The proposed mechanism could reduce much of this uncertainty, and hence stimulate
green investments. It works as follows. First, the market for the product itself, and that for
the certificate of its green properties, are separated. This is already established practice
for some goods, such as clean electricity: there is the ‘normal’ market for electricity, where
purchasers do not know (and do not care) whether electricity is clean or fossil-based and
hence is traded at the same price; and there is a separate market for the certificates of
clean electricity. If a company wants to buy clean electricity, it has to buy the certificate
in addition to the electricity. The price for this certificate is the ‘green premium’. The same
idea could be applied for other green products as well, such as green steel: there would be
a market for the steel itself (where fossil-based and green steel have the same price), and a
separate market for the certificate of green steel.

With this certificate market established, the main part of the proposed mechanism to
reduce cost uncertainty would come into play: The EU announces on a given day that in
2-5 years, it will offer to buy a large amount of green certificates at a certain price (which
could be indexed to an appropriate metric). In doing so, a price floor is established for the
certificates, i.e. a minimum that producers of green goods know they’ll obtain in future

---

1 Since lead markets apply to all companies in that sector, companies’ competitiveness is not impacted negatively, at
least for goods not traded internationally, or goods that fall under the scope of the Carbon Border Adjustment Mecha-
nism.

2 Green steel, for instance, only differs from conventional steel in its production process (i.e. it uses a production meth-
hod that does not emit CO2). The final product has the same physical properties, i.e. has functional equivalence.
compared to non-green products. However, the goal is – again – that this guarantee does not cost a single cent, because the market is anyway expected to pay a higher price for the green certificate than the price floor guaranteed by the EU.

Crucially, the amount of the green premium, i.e. the price the market is willing to pay for the certificate, depends on regulation (such as the creation of green lead markets, for instance). Hence, it is a variable the EU and member states can directly influence. Given the EU’s commitment to implement the Green Deal and put in place conducive regulatory frameworks, it is likely that the green premium will rise. In other words, if the EU implements what it has promised, this mechanism has virtually no budgetary cost, yet creates a lot of investment predictability.

There are various options how this guarantee could be offered; one option would be to establish an independent agency at EU level with credit authorisation, or it could be offered through national vehicles, such as promotional banks.

3. Guaranteeing low operating cost for households

The EU should explore mechanisms that guarantee to households that green investments requiring electricity instead of fossil fuels, such as oil and gas, pay off. To make this concept tangible, consider domestic heat pumps. Overall, not enough households are installing heat pumps. This is somewhat surprising, given that almost all member states subsidise investment costs. In conjunction with the EU's carbon price on heating emissions that is scheduled to be phased in as ETS II, the total costs of heat pumps should be lower than gas- or oil-fired heaters over a time span of 10-15 years. That is because heat pumps, which use electricity and need less energy overall, have lower operating costs than fossil fuel heating. However, some households are sceptical that the EU will follow through on all its climate objectives and carbon pricing, so refrain from switching in the belief this will save them money.

To provide households with stronger incentives, the EU and member states could simply increase investment subsidies – but this comes with a steep price tag. Another possibility would be to make heat pumps mandatory, but this approach seems to face vociferous opposition. A better, cheaper alternative worth exploring is to lower uncertainty over operational costs. Specifically, some EU body or member states would guarantee to interested households that switching to a heat-pump will be cheaper than a fossil-based heating system. If after a certain time span, say, 15 years, total electricity costs were not low enough to compensate for the higher investment cost of the heat pump (minus investment subsidies) relative to a fossil-based system, then the guarantee would kick in, and the household would receive a payment to cover the difference.

Most likely, such a guarantee would not cost a cent\(^5\), given that all plausible policy paths compatible with climate targets and the introduction of ETS II will have sufficiently high fossil-fuel prices. But such a guarantee would go a long way to reduce uncertainty, accelerating the heating transition, and convincing citizens that the green transition works for them. Moreover, such a guarantee would effectively commit policy makers to follow

---

\(^5\) Whether operating costs of a heat pump are low enough to compensate for higher investment costs is driven by various assumptions. In this Excel Workbook, a rough cost estimation of such a guarantee under different energy price scenarios and other assumptions is compiled. Generally, if gas prices are high, the lower operating costs of a heat pump quickly compensate for higher investment costs. However, in the highly unlikely scenario that gas prices are significantly lower than expected, while electricity prices are significantly higher, the cost of the guarantee could get very high. However, should energy prices start to develop on such a trajectory, policy makers can simply increase the price of fossil fuels for households and avoid this outcome. Moreover, such a guarantee would serve as a powerful commitment device for policy makers to follow through on the promised green agenda.
through with the EU climate agenda (such as ETS II) to avoid incurring potentially very high costs.

With the right mechanism, the bureaucratic burden imposed by such a guarantee would be low. For instance, instead of using the actual costs that an individual household incurs for the calculation, a standardized consumption volume of energy, depending on house type and size, should be used, and average electricity prices paid in the respective region. This would also preserve an incentive for households to reduce energy use and choose a low-price electricity contract (because cost savings do not reduce their potential payment). Contract provisions would be needed to transfer the contract if consumers move house, and to terminate it if the heat pump is no longer in use. Finally, to make the mechanism even more attractive for households, there could be multiple points in time when payouts are possible, instead of once after 15 years.

In cases that are structurally similar, analogous guarantees could be established. For instance, electric vehicle owners who purchase electricity instead of petrol could be given a guarantee. As in the case of heat pumps, it would ensure that operating costs are lower by at least a certain percentage, over a certain time span, to compensate for the higher cost of buying EVs.

To our knowledge, such guarantees have not been proposed before. Their mechanism shares some characteristics with CCfDs (Carbon Contracts for Difference), but they are simpler and geared to households. This above proposal is designed to stimulate debate about such a tool, while many specifics remain to be ironed out. This includes which entity offers the guarantee, and how it is financed. One possibility would be to create an independent EU agency and equip it with a credit authorisation. Another administratively leaner option would be to channel the guarantee through private banks, and in the unlikely case that they have to pay households, reimburse them from the EU budget.

Conclusion

The private sector must bear risk to make profits, and it is not the government’s job to assume all downside risk while companies enjoy the upside. However, for climate investments, there is a lot of uncertainty, much of it driven not by market developments, but by policies and regulation. Hence, the EU and relevant policy makers should aim to reduce these uncertainties more often, and turn green business into good business.

In some areas, creating an investment case will simply require flat-out subsidies, coming from the EU and national budgets. However, as argued above, there are some ‘almost free lunches’ that reduce uncertainty, thereby boosting green investments, and at a low price for the taxpayer.

These mechanisms are (almost) cost-free under the assumption that the EU and national governments will succeed in implementing the green agenda. Given that climate objectives are legally binding, successful implementation should indeed be the EU’s working assumption. And establishing these mechanisms today would also serve as a great incentive for governments: the more successful politicians are over the next few years in implementing the Green Deal, the cheaper these mechanisms will be.

6 Note that in 2021 Bruegel proposed a government subsidy scheme, whose underlying idea is similar to the proposal made here, i.e. having a state-backed ‘insurance’ to keep operational costs of heat pumps below those of fossil alternatives. However, their mechanism and the calculation of payments differs: Households would receive a fixed payment for carbon emissions avoided each year (say €100/tonne), minus the savings due to the carbon price.