

Climate change and the ECB: we need both enthusiasm and realism

Speech by Governor Pierre Wunsch | CFO Award Trends-Tendances

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Ladies and gentlemen,

It is a pleasure for me to have been invited here and to share my views on this very important topic.... As you know, climate change is one of the toughest challenges for the planet and the global economic system. All economic actors, including central banks, need to think about the role they can play to tackle it. This is exactly what the ECB has done recently, in the context of its strategy review. Our plan in that context – including some reflections that I have about it – will be an important part of my speech.

Before jumping to my main messages, I should mention that I will only be talking about how climate change can affect the conduct of monetary policy. I will leave its implications for the other important job of central banks, namely financial supervision, for another occasion.

So, let me start by summarising the five main takeaways of my speech:

- 1) Climate change is real and we need to act. That can be done at a reasonable cost.
- 2) The correct price for emissions is *the* key (but not only) instrument to steer our collective efforts.
- 3) Central banks have a rather limited role to play in this, given their mandate but also the instruments at their disposal.
- 4) However, the consequences of climate change for monetary policy and the central bank balance sheet need to be factored in... and the action plan that the ECB announced in July will just do that.
- 5) Funding the transition to net zero will benefit from advances in disclosures and taxonomy but making sure sustainable activities are *profitable* is the key priority.

1. Climate change is real and we need to act. That can be done at a reasonable cost.

Let's start with my first message. Climate change is real. This has been made clear in many studies by renowned scientists and institutions. From these studies, it appears that the ecological, social and economic cost of no action is ultimately very high. While most forecasts predict that the consequences of climate change will be quite mild in Western Europe in the coming decade, the July floods have shown the devastating impact of extreme weather events. So, the risks related to climate change in our regions might need some re-assessment.

But in any case, our focus should now be on mitigation measures. We have agreed to net zero in 2050. Let's do it! And let's do it while keeping the economic and social costs as low as possible.

Even during the COVID-19 crisis, when large parts of the world economy came to a halt, carbon emissions only fell slightly. Positive news on the recovery implies that emissions will again start to grow if we do not take any additional measures. Clearly, we are currently not meeting our commitments. Emissions should come down by more than 5 % per year. We are not there yet!

I am a strong believer in the capacity of markets to adapt to the new reality. But they need clear and stable rules of the game. I therefore welcome the new Commission package that aims to extend and deepen our climate toolbox, in particular the ETS system. Clear and ambitious long-term targets are essential, but they have to be translated into *actual instruments* to create the sense of urgency that is now required. Price signals and regulations are needed for climate considerations to be incorporated into the decision-making process of **all** economic actors. It should not be a matter of belief... or a matter of being (or not) sensitive to peer pressure... These rules should be binding so that we all act accordingly.

But let's be honest. The path towards a carbon-neutral world will not necessarily be a happy transition. Taking the right measures to achieve this goal will have an economic cost. It will generate opportunities for some but be a burden for others. It will for sure disrupt current business practices and society at large.

The precise cost for the economy is heavily debated and estimates differ substantially. The overall cost may well not be too high. According to the European Commission for example, the impact on aggregate GDP in 2030

could be negative or positive, depending on the hypotheses and assumptions that are used.

To put this cost in perspective, let me mention a few numbers. Belgium emits some 110 million tonnes of CO₂ each year. What about the average cost of abatement? It is not easy to pin down. Some green technologies are already competitive. Others are still expensive. Costs are also expected to fall as technology advances. In the industrial sector, carbon capture provides us with some upper bound for the costs. Estimates of the cost vary between 100 and 200€ per tonne. I guess 150 euro per tonne is therefore a number we can use here as an “upper bound” for the *average* cost of abatement in the entire economy. This would imply a cost of some 16-17 billion euro per year to reach net zero in Belgium. As a share of *today's* GDP, that is some 3.5 %. But we have until 2050 to achieve net zero. Therefore, starting today, the yearly cost will gradually increase and reach the 16-17 billion figure in 2050. But by then, with a larger economy, it will probably be closer to 2 than 3 % of GDP. These numbers are smaller than the drop in GDP during the 2008-2009 great financial crisis and will come about much more gradually. Another way of putting it is that, each year, aggregate income growth would be some 0.1 of a percentage point lower between now and 2050.

I know I am taking a risk in mentioning a number. But then, we will only know in thirty years' time. So, nobody can prove me wrong. Also, and most importantly, I strongly believe that we need a realistic message on the economic impact of climate change. It will not be “party time with free money” BUT neither will it be all “doom and gloom”. Our best estimate is that the impact will not be any higher than that of previous economic shocks – like the oil shocks or financial crisis – but then spread over a much longer period. I might be wrong, but this is my best understanding of the issue from the many readings I have done on the topic.

Anyway, even if the numbers suggest that the overall economic impact might not be too bad, some important remarks have to be made.

First, they only consider the long-term impact on GDP and therefore overlook the intermediate period. The climate transition requires us to gradually factor in the cost to others from carbon emissions. This is a negative supply shock. It will constrain the means of production available to us. Also, part of the capital stock will be made economically obsolete earlier than foreseen or technically feasible. This is in addition to the negative impact on LT potential growth. There is therefore a trade-off between speed of action and the negative impact on the existing capital stock.

Secondly, large investment will be needed to reduce emissions. Such additional investment can mean lower consumption. And green investment might even lead to other necessary investment being crowded out. This is probably less of a risk in the short run, given current low interest rates, but it cannot be ruled out, especially in the longer run if interest rates start rising again. Another way to look at this risk of crowding-out is perhaps easier to imagine: if virtually all research and innovation efforts in companies all over the economy are redirected to reduce emissions, other welfare-generating projects and activities could be put on hold or simply be abandoned. Productivity – the key source of welfare creation in an ageing society – would suffer.

Last but not least, the costs might be very unevenly distributed across the population and economic sectors. Poorer households risk being hit harder, as energy represents a larger part of their expenses and they have less means to spend on clean investment. Some firms' activities are very energy-intensive: that makes those firms very vulnerable to emission-reducing measures. Social coherence and competitiveness should therefore be kept in mind when charting a path towards net zero. Society-wide – yet targeted – support is needed to make the ecological transition a success.

2. The correct price for emissions is *the* key (but not the only) instrument to steer our collective efforts.

For a successful transition, a green action plan needs to make economic sense. In that respect, economists agree that government action will be most effective if carbon is priced so that firms and households take the environment into account when consuming and investing. A carbon price and a clear announcement of its future path together form the most efficient way of doing that. All individual decisions can be taken with full forward-looking information and that naturally leads to the most cost-effective options to reduce emissions.

In practice, the European Union has chosen to use the Emission Trading System (ETS) which fixes a maximum emission quantity. Emission rights are granted and traded, implicitly leading to a carbon price. In comparison to a carbon tax, an ETS has the advantage of directly fixing the target variable, that is carbon emissions. With quantities fixed, the price is the buffer and hence becomes more volatile. The current ETS has shown some success despite its disadvantages, like its rather limited scope. Fortunately, the European Commission has announced an extension of the system, which will remove or limit some of its weaknesses.

By the way, even if higher ETS prices play a role in the recent very strong increase in energy prices, it is only one of many factors. The energy price boom is driven by several other market-specific factors affecting the price of energy products. It is therefore not the result of climate policies.

But even after the planned extension, relying only on the ETS is risky. If people don't sufficiently internalise higher future CO₂ prices, they could postpone necessary actions and the transition would be unnecessarily hard in the long term. Therefore, governments will also have to rely on regulation, impose minimum standards and forbid polluting activities. In addition, some techniques for reducing the amount of greenhouse gasses in the atmosphere are currently very expensive and will surely need public subsidies to be kick-started and ultimately be marketed. This is, for instance, the case for direct air capture (DAC)¹, which will be needed to reach and accelerate to net zero, compensating for residual emissions.

It is also crucial to regularly review subsidy schemes in order to keep providing the right incentives and avoid windfall effects. This is complex, as it requires permanent monitoring of lots of elements, not only for the related technology but also for other technological alternatives. It is one of

¹ DAC, which takes carbon from the air, should not be confused with carbon capture incorporated in industrial processes where the carbon concentration is much higher.

the lessons of the past that some technologies have been supported excessively. That has resulted in high costs for only small reductions of emissions. Policy-makers should support promising but still expensive technologies on a smaller scale. Innovative projects can then be an inspiration for everybody and kick-start private investment.

Let me summarise this second part of my talk. A carbon price covering most economic activities is central to cope with climate change. It gives a clear market signal to all economic agents, who can then make the most cost-efficient choices. One could say that it gets into all the cracks of the economy. But only setting a carbon price might not be enough to reach the desired net zero target. Governments should correct the most adverse redistribution effects and could flank this price mechanism with regulation, for instance when network effects play a role. Temporary and targeted support of a limited number of promising flagship projects to get these off the ground and serve as a role model should also be part of the toolkit.

3. Central banks have a rather limited role to play in this, given their mandate but also the instruments at their disposal

Everything I have said up to now, I consider to be the core of our collective efforts to reach net zero. I haven't mentioned central banks and not even financial markets or financial institutions. So, let's turn to them now.

What role should the ECB² play in the fight against climate change?

The mandates of central banks differ widely all over the world. There are of course some common features, like the focus on the pursuit of monetary and financial stability or the fact that central banks should enjoy wide independence in the performance of their tasks. But the legal mandates also differ in the precise way they describe objectives, tasks and instruments. We should keep that in mind when comparing the actions of different central banks.

In the EU, the mandate of the central bank is anchored in the Treaty³. In European Law, an EU institution can only have the competences which EU Treaties attribute to it. In other words, for each initiative, for each action, the central bank must find a legal basis in the EU Treaties. And I guess we all agree that Treaty change is only a theoretical possibility today...

Different views have been expressed as to the legal possibility for the ECB to take *standalone* actions on climate change issues, outside the pursuit of its primary objective of maintaining price stability.

People arguing that such a legal basis exists often refer to the so-called secondary objective of the ECB⁴. The Treaty does in fact state that "*The primary objective of the ESCB shall be to maintain price stability*". But it goes even further: "*Without prejudice to the objective of price stability, the central bank shall support the general economic policies in the Union with a view to contributing to the achievement of the objectives of the Union as laid down in Article 3 of the Treaty*".

If you read Article 3 of the Treaty, you will notice that it covers a very broad list of objectives without any priorities assigned to them. Sure, Article 3 refers to "a high level of protection and improvement of the quality of the

² For convenience, I refer to the ECB as the monetary policy authority for the euro area. To put things more specifically, the legal provisions apply to the ESCB, comprised of the Frankfurt-based ECB and the national central banks of the EU.

³ More precisely, it has been anchored in Article 127 of the Treaty on the Functioning of the European Union (TFEU) and in the Statutes of the ESCB and the ECB which are annexed to that Treaty.

⁴ Referred to in Article 127 of the TFEU.

environment” but only as one among many other objectives: balanced economic growth, a highly competitive social market economy, full employment, social progress, scientific and technologic advance, social exclusion and discrimination, equality of women and men, etc.

I am an economist, not a lawyer. I shall therefore not venture further into these legal debates. But it is interesting that this legal possibility for the ECB to pursue a standalone action in the domain of climate change has only been discovered recently, while these provisions have been there for more than twenty years.

In fact, I hear more and more voices – including from former central bankers – speaking about a risk of mission creep. For instance, the former Governor of the Bank of England, Mervyn King, expressed clear warnings when he wrote recently that central banks are risking their independence by entering into issues traditionally considered as being the domain of elected politicians⁵. Once politicians and activists see that central banks bend to pressure, he argues, they will push all the harder. In the end, that means central banks will find it harder to do what they are uniquely qualified to do: to provide monetary and financial stability.

Former US Treasury Secretary Larry Summers put it in even stronger words. He accuses central banks of trying “to curry domestic political favor by focusing on issues like climate change”⁶. And, if you allow me a last reference, former Bank of England Deputy Governor Paul Tucker warned in his book “Unelected Power” that central banks should show “self-restraint” in straying into areas where they do not have a mandate⁷.

To offer yet another perspective on the question: how should we think about the effectiveness of euro area monetary policy to support climate objectives? Monetary policy is about supporting or slowing down aggregate demand in the euro area, depending on the outlook for inflation. That’s in contrast with what is needed to tackle climate change, which is mainly about reinventing the global supply side of the economy. An overly proactive role on our side could perhaps even be a disincentive, maybe giving governments an excuse for postponing necessary, but sometimes difficult, decisions or reforms?

Beyond the legal or political arguments, lies another one: monetary policy does not have efficient tools to deal with allocative efficiency. This is the

⁵ <https://www.bloomberg.com/opinion/articles/2021-08-23/central-banks-are-risking-their-independence-mervyn-king-dan-katz>

⁶ <https://www.bloomberg.com/news/articles/2021-05-18/summers-says-central-banks-currying-favor-with-climate-focus>

⁷ <https://press.princeton.edu/books/paperback/9780691196305/unelected-power>

reason why no economic textbook assigns us a role in this area. We have relatively blunt macro tools that are very far from a first-best Pigouvian price.

It is with these caveats in mind that I look at the decisions of the Governing Council of the ECB to present an action plan to include climate change considerations in our monetary policy strategy. There was unanimous support for this, so I also agreed with it. But I also want to underscore that this is work in progress. Translating the action plan into concrete decisions will have to be discussed and prepared in depth by experts from the ECB and the national central banks. Some strands of work are uncontroversial, others will have to be challenged, for instance in view of the concerns raised by Mervyn King and Paul Tucker. Also, practical feasibility is a point of attention, I'll come back to that.

4. The ECB's climate change action plan

Do not misunderstand me. I am not saying that my colleagues from the ECB Governing Council and I should disregard climate change when we conduct monetary policy.

All I have said so far is that an orderly transition towards a net zero EU can only be effective if elected leaders send a clear signal on a fair price for carbon. And I have clarified that, in my view, the scope for facilitating this transition with proactive intent is far less obvious for unelected monetary policy-makers. Moreover, when factoring in political economy dynamics, it risks jeopardising our independence. Apart from such legal or institutional reasons, we should also acknowledge that our instruments are far from ideal for pro-active climate policies.

That said, both physical and transition shocks do have implications for the conduct of monetary policy when pursuing the price stability mandate. They are likely to affect aggregate demand and supply. They therefore create new sources of risks for the growth and inflation outlook. They will also affect the functioning of financial markets and the financial sector, with possible impairments to the monetary transmission mechanism. Finally, they could imply higher financial risks on the central bank balance sheet.

It was thus more than justified to pay a lot of attention to climate in our recent monetary policy strategy review. There is no question in my mind that we need to invest much more in our understanding of the issue, which explains (if need be) my support for the action plan announced by the ECB in early July.

The action plan reflects the breadth and complexity of the challenge. It covers four main areas.

First, we have committed ourselves to intensifying our efforts to better understand how climate change risks impact the macroeconomy and the financial system. The ECB and national central banks will coordinate investment in analytical tools and the development of new data and experimental indicators.

Second, we will promote knowledge and transparency around climate change risks by leveraging the central role that the Eurosystem has on financial markets. This aspect focuses on exploring options to introduce climate-related disclosure requirements for private assets that we buy in

our corporate bond purchase programme or that we hold as collateral against our loans to commercial banks.

Third, we will undertake climate stress tests on the Eurosystem balance sheet and improve our own balance sheet risk assessment capabilities.

And, finally, we will consider ad hoc adjustments to our operational framework, specifically to our collateral policy and our corporate sector purchase programme. For corporate bond purchases, this means we have to define to what extent we can change the set of principles guiding the allocation of our corporate bond purchases to factor in climate change criteria. Besides, we also intend to continue enhancing our internal due diligence process, especially as the availability and the quality of climate-related metrics improve. Going forward, climate change considerations could be given a more important role in our assessments of CSPP issuers.

As I argued earlier, I fully endorse the essence of this ambitious action plan. In particular, I warmly welcome the push to better grasp the implications of climate change for a price-stability-oriented central bank and for its balance sheet. To that end, richer statistical data for climate risk analysis and efforts on disclosures and reporting are obviously very important. These efforts should keep the burden for companies at a manageable level, though.

What about the changes to our operational framework? Here, I would like to plead for a risk-based approach that capitalises on methodological robustness and solid evidence. Let me elaborate.

I must first insist on risk-based motivation. The case for adjustments to our monetary policy instruments to protect our balance sheet from financial risks is conceptually clear, and when these risks are related to climate change, too. It is a matter of preserving our ability to fulfill our price stability mandate.

Whether it is relevant in practice, and therefore useful to implement specific measures, is a more open question. In fact, there are two necessary conditions for this endeavour to yield material results.

The first is solid evidence that financial markets are not adequately factoring in risks related to climate change when pricing financial assets. In other words, we need to demonstrate that there is a wedge between market prices and fundamental values. Fundamental value should be understood here as the value that incorporates all currently available information, including currently known and expected or announced climate

policies. Another aspect to keep in mind is that the relevant horizon for any mispriced risk that we may identify should be consistent with the exposures on our balance sheet; for instance, very long-term risks are irrelevant for our collateral framework because these are re-valued on a daily basis.

The second condition is that our initiatives need to materially improve our risk assessment. For that, we must be able to rely on a sufficient degree of disclosure, reliable climate change risk assessments by rating agencies and, in the absence of this, an in-house framework which is both conceptually clear and can be quantified reliably.

To me, this seems quite a challenge.

Coming back to the first condition, research-based evidence on the pricing of physical and transition risks is growing, but still limited. Yet, the burden of proof – that markets misprice these risks – lies with us. When I read the various reports and research at our disposal, I cannot escape the conclusion that it remains extremely difficult to *measure* the size of any mispricing. The deeply uncertain, non-linear, endogenous and forward-looking nature of the risks explains that. However, to be able to act here, the bias *should* be measurable.

Against this background, I remain very cautious about the calls for shifting from the operational concept of market neutrality towards a notion of market efficiency.

Market neutrality is deeply rooted within the Eurosystem purchasing philosophy. It is understood as an ambition to minimise the impact of our purchases on relative prices and market liquidity while having an impact on the overall level of yields. In practice, it has translated into purchasing bond categories reflecting their market capitalisation.

Market efficiency, in contrast, is a concept which is deeply rooted in the economic literature. To put it very briefly, its application to our purchasing framework would enable the allocation of our purchases to be tilted in the face of apparent market imperfections, like a carbon price that is too low.

Taking on board market efficiency considerations is often put forward as a means of reducing the carbon bias of credit markets. However, it also very much relates to the idea of adjusting monetary policy with a view to supporting climate policies. I expressed – and backed up – my reservations on this earlier.. Aiming for allocative efficiency is not a central bank task and could have far reaching implications in many areas.

5. Funding the transition to net zero: disclosures and taxonomy versus the right price for emissions

The implementation of the ECB climate change action plan will be aligned with EU policies and initiatives in the field of environmental sustainability disclosure and reporting, like the Taxonomy Regulation. Once there is agreement on its content, the taxonomy enables activities to be identified as environmentally sustainable – or not! – and thus aligned with the Paris objectives, the EU Climate Law and the Green Deal. Let me close my talk with a few thoughts on how such initiatives can be squared with policies that focus on the price mechanism, like a carbon tax or emissions trading.

Putting a price on carbon, in the EU mainly via the ETS, is all about economic efficiency. Firms face an extra cost when producing and they will use technologies optimally while maximising profits. The philosophy behind the taxonomy is that investors will use it to discriminate between green and less green firms, leading to different external funding costs. They, in turn, should impact firms' choices in the field of climate and sustainability.

I do see a role for labelling in consumer markets: people can easily pick the products and services that are labelled “sustainable” and that should be welcomed. On financial markets, informing investors and introducing elements of “best in class” or “name and shame” can also contribute to higher transparency. But we should not expect wonders here. What is first and foremost needed for firms to make the “right” choices is that such choices are profitable.

Here, I have some sympathy for what Tariq Fancy⁸, former Blackrock head of sustainable investing, argues: if a “good” bank discriminates against a firm based on an ESG score, there will be a “bad” bank happily buying the cheap bonds or shares as long as the firm is profitable. Of course, that “good” bank can also be a central bank that uses tilting... This is not mere theory. There was recently an article in the FT⁹ showing how hedge funds were making a killing by buying cheap dirty assets from more socially “exposed” companies.

More broadly speaking, I still find it difficult to articulate the interaction between CO2 pricing and the taxonomy. The idea behind the ETS – a form of Pigouvian price – is that reducing emissions should take place efficiently. Some firms have higher costs of abatement than others. Some sectors, like renewable energy and electric cars, have lower “green

⁸ <https://www.tijd.be/markten-live/analyse/tariq-fancy-ex-blackrock-duurzaam-beleggen-is-een-gevaarlijk-luchtkasteel/10333120.html>

⁹ <https://www.ft.com/content/ed11c971-be02-47dc-875b-90762b35080e?shareType=nongift>

premia” compared to brown technologies than others. It is therefore efficient for firms to have different levels of emission reductions, different paths to carbon neutrality.

So, what is the value added of the taxonomy for two firms that comply with the ETS rules? In theory – in a world with perfect information –, none. Unless one might argue that the ETS price is too low... That it is not in line with the objective of carbon neutrality in 2050. But this would point to a *policy* failure. The ECB would then act *instead* of politicians. But this would be abusing our independence.

So, in short, I would a priori be reluctant to rely on the taxonomy to discriminate between two firms that comply with the ETS scheme. It would not be efficient and err on the side of autonomous policy-making.

Now, some firms or consumers may want to go beyond what is legally required, which is more than fine with me. The taxonomy can also be used to fight “greenwashing” and should better inform us about the challenges ahead. But, again, from a policy perspective, I find it difficult to articulate its role for firms that fall under the ETS regime (which is probably the case for most big emitters on our balance sheet).

Let me conclude by repeating my main messages.

- 1) Climate change is real and we need to act. I have also taken the risk of claiming that this can be done at a reasonable cost.
- 2) The correct price for emissions is *the* key instrument (but not the only instrument) to steer our collective efforts.
- 3) Central banks have a rather limited role to play in this, given their mandate and the instruments they have.
- 4) However, the consequences of climate change for monetary policy and the central bank balance sheet need to be factored in. The action plan that the ECB announced in July should do just that.
- 5) Funding the transition to net zero will benefit from advances in disclosures and good taxonomy but making sure sustainable activities are *profitable* is key.

Thank you for your attention.