Question for written answer Z-000053/2021
to the European Central Bank
Rule 140
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Subject: ECB’s methodology for estimating the economic impacts of climate change

In his blog post published on 11 May entitled ‘A global accord for sustainable finance’, European Central Bank (ECB) executive board member, Fabio Panetta, referenced William Nordhaus’ Nobel Prize lecture to state that ‘climate change is the quintessential global externality’\(^1\).

However, it is now well established that Nordhaus’ methodological approach for estimating the economic impacts of climate change was seriously flawed\(^2\), in particular, the use of and parameters for the damage function, and the general setting of the DICE model\(^3\).

The consequences of this approach may have resulted in climate inaction.

In this context:

1. Does the reference to Nordhaus’ work imply that the ECB is still using modelling approaches in the vein of Nordhaus, where for example the optimal scenario is one in which the average temperature of the Earth’s atmosphere is 3.5°C above pre-industrial levels at the end of this century?
2. How does the ECB envisage, in its present economic modelling, the fact that reaching this temperature level would mean that approximately 75% of the Earth’s population would disappear, according to the World 3 model, which has been successfully back-tested over the past 40 years\(^4\)?
3. What scenarios and models have been developed in-house by the ECB and Eurosystem staff?

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\(^3\) Grandjean, A., Cohen, M. and Martini, M., ‘Climate Change: just a little less GDP?’ Chronicles of the Anthropocene, 2020, [https://alaingrandjean.fr/2021/02/25/changement-climatique-de-pib/](https://alaingrandjean.fr/2021/02/25/changement-climatique-de-pib/).