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* Views expressed are those of the author and do not necessarily reflect official positions of De Nederlandsche Bank.

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Inflation Expectations in the Context of Climate Change and the Green Transition*

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Abstract

This paper studies how views on climate change shape household inflation expectations. Using a new representative survey of Dutch households, we elicit perceptions of climate change, the green transition and climate policies, and their expected effects on long-run inflation. Households expect climate change, the green transition and three types of climate policies – carbon pricing, support for the green transition and support for green innovation – to raise inflation and inflation volatility over the next ten years. Climate change is expected to have the largest effect, while support policies are expected to have the smallest. These results suggest that climate-related beliefs are linked to the anchoring of inflation expectations and that support policies for the green transition and green innovation may facilitate the net-zero transition while keeping inflation expectations relatively well anchored. We also document significant heterogeneity across households. Expected inflationary effects of climate change are larger among respondents who anticipate more severe global warming and extreme weather. Climate-related inflation concerns are widespread across demographic groups.

Key words: climate change, green transition, climate policy, inflation, household expectations.

JEL classification: E31, E58, Q48, Q54, Q55, Q58.

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1 Introduction

This paper uses a representative household survey in the Netherlands to examine households’ perceptions of climate change and the green transition, and how these perceptions can shape expectations about the long-run level and volatility of inflation.

The motivation for our analysis is twofold. First, central banks closely monitor longer-term inflation expectations, as well-anchored expectations help prevent temporary shocks from becoming embedded in wage- and price-setting behaviour. By contrast, when longer-term expectations drift away from the central bank’s target, wage and price setting may amplify shocks, increasing inflation persistence and the risk of self-reinforcing inflation dynamics [Lagarde, 2026a].

The importance of anchored expectations became particularly evident during the high-inflation episode of 2021-23 and when inflationary pressures re-emerged following the escalation of the conflict in the Middle East in 2026. In assessing the risk of second-round effects from higher energy prices, central banks have increasingly focused on household inflation expectations. This focus on households is particularly relevant given the growing empirical evidence that household inflation expectations differ systematically from those of professional forecasters and financial-market participants, while also playing an important role in wage-setting, consumption and monetary policy transmission.¹

Beyond cyclical inflation developments, central banks must also assess structural forces that are likely to shape the macroeconomic environment over the longer term. Climate change, geopolitical fragmentation, artificial intelligence and demographic developments are among the factors that may affect inflation dynamics and monetary policy in coming decades. There is evidence that global warming has accelerated and that the frequency and intensity of extreme weather events has increased [Copernicus Climate Change Service, 2025, Emerton et al., 2026].

Climate change and associated policy responses are particularly relevant for central banks because of their implications for output, inflation, financial markets and financial stability [Lagarde, 2026b, Lane, 2026, Schnabel, 2022, 2023, 2026]. Recognising these links, the ECB committed in its 2021 Monetary Policy Strategy Review to fully consider, within its mandate, the implications of climate change and the green transition for monetary policy and central banking [European Central Bank, 2021]. In parallel, European policymakers have continued efforts to advance the transition to a low-carbon economy through initiatives such as Fit for 55 [European Council, 2022, European Central Bank, 2025].

Second, while there has been important progress on developing macroeconomic models and empirical approaches for assessing the impact of climate change and transition policies on inflation (see e.g. Fernández-Villaverde et al. [2025]), more work is needed to create underpinnings for monetary policy prescriptions [Lane, 2026].

There is no consensus in the literature on the direction and magnitude of the impact of climate change on the level of inflation, making it hard to predict. On the one hand, rising global temperatures, more frequent extreme weather events and major climate-related catastrophes, exert

¹For a review of the literature on household inflation expectations and their relevance for monetary policy see e.g. D’Acunto et al. [2024], Dräger and Lamla [2024].

upward pressure on inflation through adverse supply-side effects, including lower agricultural output, disruptions to energy supply and pressures on global supply chains [European Central Bank, 2025, Lane, 2026]. As Elderson [2026] argues, Europe’s dependence on fossil fuels may pose risks to price stability and complicate the pursuit of the ECB’s inflation objective. On the other hand, climate change may weaken economic activity, trade and income growth, thereby reducing aggregate demand and exerting downward pressure on inflation [El Hadri et al., 2017, Batten et al., 2020, Ciccarelli and Marotta, 2024] (Kotz et al., 2024). The impact of climate change is also difficult to identify because climate change is accompanied by mitigation measures [Sahuc et al., 2024, Lane, 2026]. Existing evidence further suggests that the effects of climate shocks are heterogeneous across countries, asymmetric and non-linear [Ciccarelli et al., 2024].

The evidence regarding inflation volatility is more clear-cut. Climate change is expected to increase the frequency and severity of supply shocks, thereby contributing to greater inflation volatility [Ferreira et al., 2026]. Extreme weather events, for example, have been shown to raise inflation volatility, primarily through their effects on food prices [Bates et al., 2025, Kotz et al., 2025].

The impact of the green transition on the level of inflation is also theoretically ambiguous, in both the short and the long term [Moessner, 2025, Lane, 2026].² In the short run, higher carbon prices and a shift of investment towards greener production processes and power generation may create supply-demand imbalances and put upward pressure on energy prices and inflation [Panetta, 2022, European Central Bank, 2025]. By contrast, higher carbon prices and the behavioral adjustments they induce among households and firms – including substitution towards greener products and technologies – may weigh on economic activity and dampen inflation. The long-run effects are similarly uncertain, although the balance of risks may be tilted towards lower inflation. Cheaper and more widely adopted renewable energy and green technologies and greater energy efficiency could reduce energy costs and dampen inflationary pressures over time. In addition, by mitigating the adverse consequences of climate change, the transition may reduce inflationary pressures associated with food shortages, climate-related disruptions and extreme weather events [Parker, 2018, Faccia et al., 2021, Moessner, 2022]. In this context, Elderson [2026] argues that an orderly and accelerated transition to domestic clean energy would weaken Europe’s exposure to volatile global fossil-fuel markets.

The green transition and climate policies may also affect inflation volatility. As demand for and supply of fossil fuels decline during the transition, mismatches between the two may generate increased volatility in energy prices [Panetta, 2022]. Although the contribution of fossil fuels to headline inflation should diminish over time, the growing importance of transition-critical minerals may create new supply-demand imbalances, particularly during the early stages of the transition. Moreover, a larger share of variable renewable energy sources, such as solar and wind power, without sufficient investment in electricity grids, storage capacity and demand-management technologies, could result in more volatile electricity prices. Empirical evidence points to heterogeneous effects of

²Empirical evidence on the inflationary effects of carbon pricing is provided by Konradt and Weder di Mauro [2023], Känzig [2023], Konradt et al. [2024] and Moessner [2025]. Using VAR analysis, Ciccarelli and Marotta [2024] examine the effects of environmental policy stringency, environmental technologies and physical climate risk on inflation. Del Negro et al. [2023] analyse climate-related inflation dynamics in a multisector New Keynesian model calibrated to U.S. data. Sahuc et al. [2024] develop a nonlinear New Keynesian climate model that incorporates climate damages, mitigation policies, nominal rigidities, inflation expectations and monetary policy. Garcia et al. [2026] use an extended version of the EAGLE DSGE model with an explicit energy sector to study the macroeconomic effects of green transition policies in the euro area, including carbon taxes, taxes on brown capital income and redistribution schemes.

emissions trading schemes, carbon pricing and fuel excise taxes on inflation volatility [Santabarbara and Suarez-Varela, 2022, Ahn, 2025].

Lane [2026] argues that more frequent and severe climate-related shocks could increase the risk of inflation expectations becoming de-anchored from the central bank’s inflation target. Yet, little is known about the extent to which climate-related shocks and climate policies affect the anchoring of inflation expectations. This paper helps fill this gap by providing novel survey evidence on households’ perceptions of the long-term effects of climate change, the green transition, and climate policies on inflation, and on the implications of these perceptions for inflation expectations. Using a representative survey of Dutch households, we examine the relationship between climate-related perceptions and long-term inflation expectations and directly elicit households’ views on the effects of climate change, the green transition, and climate policies on the level, uncertainty and volatility of inflation.

Our survey design complements, but differs from, earlier surveys conducted in the Netherlands, the euro area and other OECD countries. Jansen [2024] and de Leeuw and Jansen [2025], for example, use ad hoc questions in the DNB Household Survey (DHS) to study flood awareness and mitigation behaviour. Georgarakos et al. [2025] use data from the ECB Consumer Expectations Survey to examine the relationship between temperature and inflation expectations, while Meinerding et al. [2023] find that German households who are more concerned about climate change report lower medium-term inflation expectations.³

The literature has primarily focused on public attitudes towards climate policies rather than their perceived inflationary consequences. Fairbrother [2022] notes that relatively little is known about public support for climate policies beyond carbon pricing. Dechezleprêtre et al. [2025], using survey evidence from OECD countries, show that support for climate policies increases when governments expand the availability of low-carbon alternatives and target support towards vulnerable households. Similarly, Andre et al. [2024], Savin and van den Bergh [2026], Crispino and Loberto [2024], Baiardi [2023], and Douenne and Fabre [2022] document widespread interest in climate action and substantial heterogeneity in public support for climate policies. In contrast to these studies, our analysis focuses on how households perceive the inflationary consequences of climate change, the green transition and climate policy interventions.

Three main findings emerge from our analysis. First, households expect climate change, the green transition and three broad categories of climate policy – carbon pricing, policy support for the green transition and policy support for green innovation – to increase both inflation levels and inflation volatility over the next ten years. Climate change is perceived to have the largest impact, whereas support measures for the green transition and green innovation are expected to have the smallest effects. This finding has important implications for monetary policy. To the extent that climate change – and, to a lesser extent, carbon pricing and the green transition – raises households’ long-term inflation expectations, it may weaken the anchoring of households’ inflation expectations.⁴ By

³This is opposite in sign to our own finding, which we attribute to a difference in measurement design: Meinerding et al. [2023] correlate general climate concern with general inflation expectations, which may load on a demand-side pessimism channel, whereas we ask directly how climate change affects inflation, which may make supply-side channels more salient to respondents.

⁴Throughout the paper, the anchoring is defined following Ball and Mazumder [2011] in terms of long-term inflation expectations being tied to a particular level of inflation. Given that our survey was conducted only once, we cannot examine shock anchoring, i.e. that transitory shocks to inflation are not passed into long-term inflation expectations.

contrast, support for the green transition and green innovation appears to be broadly compatible with facilitating the net-zero transition without materially de-anchoring inflation expectations.

Second, we find substantial heterogeneity across households. Respondents who expect more severe global warming and more frequent extreme weather events anticipate significantly larger effects of climate change on both inflation levels and inflation volatility, even after controlling for demographic characteristics. Finally, the results show that concerns about climate-driven upside inflation risks in the long term are widespread across demographic groups.

The paper is organised as follows. Section 2 presents the new survey, Section 3 analyses the survey results, and Section 4 concludes.

2 Survey of consumers’ views on climate change, the green transition and climate policy in the context of inflation

Our analysis is based on a new survey on consumers’ views on climate change and the green transition in the context of inflation.⁵ The survey is administered within the LISS (Longitudinal Internet Studies for the Social Sciences) panel, a probability-based online household panel that is representative of the Dutch population along key socio-demographic dimensions. Panel members are recruited using random sampling from the population registry.⁶ Individuals without access to a computer are provided with the necessary equipment by Centerdata. These measures help ensure the quality, representativeness, and composition of the panel. As a result, the LISS panel differs from many other online panels, where participants often self-select into the sample and individuals without internet access are typically excluded. Established in 2007, the LISS panel is widely used in academic research. Its design supports both population-level inference and the analysis of heterogeneity across socio-demographic groups. Our survey was fielded in December 2025 among 2,921 LISS panel members, of whom 2,064 completed the questionnaire, corresponding to a response rate of 71 percent. Table 1 reports the demographic composition of the respondent sample.

The goal of our survey is to assess households’ views on climate change, the green transition and climate policy, and to investigate how these views influence their inflation expectations. Global temperatures have risen markedly in recent decades, and extreme weather events have become more frequent and intense. In response, countries adopted the 2015 Paris Agreement, committing to limit global warming to well below 2°C, and preferably 1.5°C, relative to pre-industrial levels. Achieving this objective requires reaching net zero emissions, meaning that any remaining greenhouse gas emissions are balanced by equivalent removals. Today, around 78% of global economic activity is covered by a net-zero target.

Galati et al. [2023] document that Dutch households’ inflation expectations have not been well anchored also in terms of shock anchoring.

⁵The survey was conducted by Centerdata, a specialised survey agency at Tilburg University, and sponsored by De Nederlandsche Bank. The full survey questionnaire is reproduced in the appendix, translated from the original Dutch version.

⁶Survey participants cannot self-select into the panel; instead, households are identified for inclusion in the LISS panel by the Dutch national statistical office (Statistics Netherlands, CBS).

Meeting these targets requires significant reductions in greenhouse gas emissions by firms and households, alongside investment in clean technologies and carbon-removal solutions. Climate policy plays a central role in this transition and can be grouped into three broad categories: carbon pricing, support for the green transition, and support for green innovation. Carbon pricing increases the cost of emitting greenhouse gases through instruments such as carbon taxes and emissions trading systems (ETS). By raising the relative price of carbon-intensive activities, it encourages firms and households to switch to cleaner alternatives and reduces emissions [Kohlscheen et al., 2026]. Governments can further support the transition through subsidies for clean technologies, tax incentives, and investments in green infrastructure, thereby lowering the cost of adopting sustainable solutions.⁷ The third pillar is green innovation. This includes developing and scaling technologies such as renewable energy, electric vehicles, hydrogen, carbon capture, and nature-based carbon-removal solutions. Continued innovation is expected to lower costs and increase the availability of climate-friendly technologies, facilitating the transition to a net-zero economy.

We examine responses to a set of survey questions designed specifically for this study. The survey distinguishes between two horizons: a long-term horizon (10 years ahead, corresponding to 2035) and a very long-term horizon (25 years ahead, corresponding to 2050). The survey consists of two parts. In the first part, respondents are asked about their perceptions of past and future climate change, focusing on changes in global temperatures and the severity of extreme weather events. For temperature-related questions, respondents select their best estimate from 13 intervals ranging from a decline of more than 2.5°C to an increase of more than 2.5°C. Questions on extreme weather events use five qualitative response categories: a large decrease in severity, a small decrease, no change, a small increase, and a large increase. We opted for qualitative response options because a quantitative definition of an extreme weather event and its changing severity would likely have been too demanding for most survey participants.

Survey participants are then asked for their views on the implications of climate change for inflation. The survey questions elicit households' views on the impact of climate change and climate policies on year-on-year euro area HICP inflation 10 years ahead, rather than on (cumulative or average) inflation over the subsequent 10-year period. We distinguish between the effects of climate change on the level of inflation, inflation uncertainty, and inflation volatility. For inflation and inflation volatility, respondents indicate their best guess using five response categories: a large decrease, a small decrease, no effect, a small increase, or a large increase. While qualitative response options may appear less precise than numerical measures, households are unlikely to be able to quantify the effects of climate change on inflation over long and very long horizons.

Views on inflation uncertainty are elicited using questions on households' subjective probability distributions of future inflation. Specifically, respondents allocate 100 points across the same five response categories, where 0 indicates no chance and 100 indicates complete certainty.

In addition, survey participants are asked for their views on the main channels through which climate change will affect inflation. They select from the following list: effects on food prices, on energy prices, economic activity, disruptions to the supply of goods and services, and other channels.⁸

⁷See Moessner [2024] for evidence on the effects of green technology support policies on carbon emissions.

⁸The list of channels is based on European Central Bank [2025].

In the second part of the survey, respondents are asked whether, and to what extent, different types of domestic climate policy, namely carbon pricing, support for the green transition, and support for green innovation, can mitigate these effects. For each policy instrument, participants are asked to assess its impact on future inflation and inflation volatility. Respondents are recorded using five response categories, ranging from a large decrease and a small decrease to no effect, a small increase, and a large increase.

In addition, the survey includes questions on households’ expectations regarding the stringency of government climate policies in the Netherlands at two future horizons, 2035 and 2050. For each of the three policy areas (carbon pricing, support for the green transition, and support for green innovation) respondents are asked both how stringent they expect government policy to be compared to current plans, and how stringent they believe it should be at each horizon. These questions allow us to assess whether households perceive a gap between expected and desirable climate policy stringency at different horizons. Responses are measured on a five-point scale: much less stringent, less stringent, no change, more stringent, much more stringent.

The survey further elicits households’ views on the effectiveness of Dutch climate policies. Respondents assess the extent to which current climate policies are expected to reduce carbon dioxide emissions and mitigate climate change by 2035 and 2050, using four response categories: no effect, small effect, moderate effect, and large effect.

To ensure a common understanding of key concepts, all survey participants received information at the beginning of the questionnaire explaining the concepts of carbon pricing, green technologies, and net zero carbon emissions. They were also informed that the survey focuses on Dutch climate policies, which complement climate policies at the EU level. This distinction is particularly relevant because the EU Emissions Trading System (EU ETS) serves as the European Union’s primary climate policy instrument.

3 Analysis of survey results

3.1 Balance statistics

For households’ survey responses we mostly use a rescaled 5-point Likert scale [Likert, 1932, Dawes, 2008], which we refer to as balance statistics in the following. We compute balance statistics for individual households’ responses to survey questions on climate-related factors – namely climate change, the green transition, and the three climate policies (carbon pricing, support for the green transition, and support for green innovation) – and their effect on 10-year-ahead inflation expectations. Most of the survey questions offer five ordered response categories. For these questions, we construct balance statistics that normalize responses to lie between -1 and 1, and are centred on 0, which corresponds to no change. Specifically, for survey questions with five response categories ($b=1, 2, 3, 4, 5$), the balance statistic for a response in category b is calculated as $bal=(b-3)/2$. As an illustration, consider the question on the effect of climate change on the level of expected inflation. The response options are: ‘will decrease inflation a lot’ ($b=1$); ‘will decrease inflation a little’ ($b=2$); ‘will not affect inflation’ ($b=3$); ‘will increase inflation a little’ ($b=4$); and ‘will increase inflation a lot’ ($b=5$). The corresponding balance statistic for a response in the first category

(decrease a lot) is -1, for a response in the second category (decrease a little) is -0.5, for a response in the third category (no effect) is 0, for a response in the fourth category (increase a little) is 0.5, and for a response in the fifth category (increase a lot) is 1. In this example, as well as for all other survey questions using this scale, a higher balance statistic indicates a larger expected increase.

For questions on temperature outcomes that offer multiple response categories defined by temperature intervals, we retain responses in degrees Celsius ($^{\circ}\text{C}$) rather than converting them into balance statistics. We assume that the probability mass within each temperature interval is concentrated at its midpoint. For the open-ended intervals at the lower and upper tails of the distribution, we assume the same interval width as for the other intervals (0.5°C), thereby truncating the distribution. These distributional assumptions follow D’Amico and Orphanides [2008] and are also employed in Apokoritis et al. [2025].

3.2 Households’ views on climate change

The survey results highlight that households expect climate conditions to deteriorate further.⁹ Households anticipate both higher global temperatures and greater risks of global warming. On average, respondents estimate that global temperatures have increased by 1.11°C since 2000 and expect a further rise of 1.17°C by 2050.¹⁰ Table 2 reports the mean, median and standard deviation of these temperature beliefs. Moreover, the distribution of expected temperature changes between 2025 and 2050 is strongly right-skewed, indicating that households assign considerably more probability mass to large temperature increases than to temperature declines.¹¹

Households also expect extreme weather events to become more severe and more frequent. Respondents perceive the severity of extreme weather events to have increased slightly between 2000 and 2025 (with a mean balance statistic of 0.45) and expect a further deterioration by 2050 (with mean balance statistic of 0.47). Table 2 reports these statistics along with their standard deviations, and Table 3 shows the underlying distribution of responses: a majority of respondents (67.6% for the past 25 years, 55.8% for the next 25 years) select “more frequent and severe”, with a further 12.5% and 20.9%, respectively, selecting “much more frequent and severe”. The same is true for the risk of future severe weather events. Consistent with expectations about global temperatures, the subjective probability distribution of future changes in extreme weather severity is also right skewed, with substantially greater probability mass in the upper tail than in the lower tail.¹²

3.3 Climate-related variables and inflation expectations

We next estimate the effect of climate-related variables (climate change, the green transition, and the three climate policies of carbon pricing, support for the green transition, and support for green

⁹For detailed results, see Galati et al. [2026a].

¹⁰By comparison, global temperatures increased by an estimated 0.9°C between 2000 and 2025 [NOAA, 2025].

¹¹The risk of global warming is measured here as the expected probability of high temperature changes of 2°C or more over the next 25 years. The mean of this measure across survey participants is 18.6%.

¹²The risk of extreme weather events is measured here as the expected probability of much more severe extreme weather events over the next 25 years. The mean of this measure is 29.6%.

innovation) on individual households' 10-year-ahead inflation expectations ($\Delta\pi_i^{LT}$) by regressing the corresponding balance statistics on a constant,

$$\Delta\pi_i^{LT} = c + \epsilon_i \quad (1)$$

Equation 1 is estimated using OLS with heteroscedasticity-robust standard errors. The results suggest that households expect climate change, the green transition, and the three climate policies (carbon pricing, support for the green transition, and support for green innovation) to raise inflation in the long run (Table 5). This is consistent with the statement in European Central Bank [2025] that the recent acceleration of climate change may affect longer-term inflationary pressures if it is not reversed. It is also in line with the transmission channels in Sahuc et al. [2024]. Climate change is expected to have the largest impact on long-term inflation expectations, with a mean balance statistic of 0.52, indicating that households expect it to raise inflation slightly ("a little") on average. Carbon pricing has the second-largest expected effect (0.41), followed by the green transition (0.25). Support policies for the green transition and for green innovation are expected to lead to the smallest increase in inflation 10 years ahead, each with a balance statistic of 0.16. The low balance statistics for support policies targeting the green transition and green innovation suggest that these measures can facilitate the transition to net zero emissions without weakening the anchoring of household inflation expectations.

3.4 Role of temperatures and extreme weather events for expected effects of climate change on inflation expectations

The expected effects of climate change on long-term inflation expectations are significantly larger for households with more extreme weather expectations and perceptions, as well as for households with higher temperature expectations and perceptions (Table 6), based on the regression in equation 2,

$$\Delta\pi_i^{LT} = c + \alpha x_i^h + \epsilon_i \quad (2)$$

Here, $\Delta\pi_i^{LT}$ is the balance statistic for expected changes in long-term inflation (10 years ahead) of respondent i due to climate change. x_i^h captures households' beliefs on climate change in terms of extreme weather events or global temperature changes. It is defined either as the balance statistic of respondent i for expectations (perceptions) over the next (past) 25 years of the severity of extreme weather events, EW_i^{e25} (EW_i^{p25}), or the expectations (perceptions) of global temperature changes over the next (past) 25 years, T_i^{e25} (T_i^{p25}). We estimate OLS regressions with heteroscedasticity-robust standard errors.¹³

¹³These results are generally robust to using ordered logit regressions with robust standard errors.

3.5 Climate-related variables and expected inflation volatility

Based on mean balance statistics, climate change, the green transition, and the three different climate policies (carbon pricing, support for the green transition, and support for green innovation) are also all expected by households to increase inflation volatility, with climate change again having the largest effect, and policy support for the green transition and for green innovation having the smallest effect (Table 7).

3.6 Role of temperatures and extreme weather events for expected effects of climate change on inflation volatility

As for the level of inflation expectations, the expected effects of climate change on inflation volatility in the long term are significantly larger for households with more extreme weather expectations and perceptions, as well as for households with higher temperature expectations and perceptions. These results are obtained from estimating equation 2, when replacing the balance statistics for the effects on inflation levels with those for the effects on inflation volatility, $\Delta\pi_i^{volLT}$ (i.e. the balance statistic for the effect of climate change on 10-year-ahead inflation volatility) (Table 8).¹⁴

While the relationships documented in Tables 6 and 8 are statistically significant, they explain a modest share of the variation in individual responses ($R^2 = 0.012$ – 0.067 and $R^2 = 0.013$ – 0.096 , respectively), so we do not interpret their magnitude as indicating a dominant explanatory role. These relationships are also robust to controlling for gender, education, income and age: adding these demographic controls changes the estimated coefficients on extreme weather and temperature beliefs by less than 5% in every specification, none of the controls are systematically significant, and R^2 rises only marginally.

3.7 Channels through which climate change is expected to affect inflation

In addition to eliciting whether and how strongly households expect climate change to affect inflation, the survey asks respondents which channels they expect climate change to work through (Question 10 of the questionnaire in Appendix B), allowing them to select as many of four substantive channels – food prices, energy prices, economic activity, and disruptions to the supply of goods and services – as apply, in addition to an open “other” option and “no impact”/“do not know” options.

Respondents most frequently point to price-related channels: 74.5% select food prices and 71.5% select higher energy prices, followed by economic activity (58.0%) and disruptions to the supply of goods and services (44.1%) (Table 4). On average, respondents select 2.5 of the four substantive channels, indicating that most households see climate change as working through several channels simultaneously rather than a single dominant one. Only 2.4% select “no impact” and 12.5% select “do not know”; neither group also selects a substantive channel, consistent with the survey’s routing logic.

¹⁴These results are generally robust to using ordered logit regressions with robust standard errors.

Channel selection varies systematically with households’ overall belief about the direction of climate change’s effect on inflation (Table 4). Respondents who expect climate change to raise inflation (81% of the sample) are markedly more likely to select every substantive channel than those who expect no effect (e.g. 82.5% versus 39.1% for food prices, and 79.3% versus 36.2% for energy prices), while the small group expecting climate change to lower inflation (2% of the sample) selects channels at rates between these two groups. This pattern is consistent with respondents’ channel selections reflecting a considered view of the transmission mechanism, rather than being unrelated to their overall belief about the direction of the effect.

3.8 Climate change and the balance of perceived inflation risks

Sections 3.3–3.6 show that households expect climate change to raise inflation and inflation volatility in absolute terms. This leaves open how large climate-driven inflation concerns are relative to households’ pre-existing, non-climate-related views on inflation risk. We address this question by benchmarking climate-driven inflation risk perceptions against an independent measure of inflation risk perceptions that does not reference climate change at all.

To understand whether climate change affects also the perceived balance of inflation risks, we relate the results of our climate survey to household expectations of Dutch inflation drawn from the regular monthly DHS satellite survey conducted in the same month as our climate survey, December 2025. The DHS satellite survey has been conducted monthly since December 2019.¹⁵

From the DHS satellite survey we construct a measure of general inflation risk asymmetry at the long-term horizon (in percentage points). This measure is defined as the mean expected probability across respondents that inflation will be 4% or higher 10 years ahead, minus the mean expected probability that inflation will be negative 10 years ahead. From the climate survey, we construct a corresponding measure of climate-driven inflation risk asymmetry at the long-term horizon (in percentage points). This measure is defined as the mean expected probability across respondents that inflation will increase slightly or strongly 10 years ahead due to climate change, minus the mean expected probability that inflation will decrease slightly or strongly 10 years ahead due to climate change. Because the DHS survey and the climate survey were fielded to two different, non-overlapping samples of respondents, the two measures cannot be linked at the individual level. We instead compare them at the level of demographic cells defined by the joint combination of age, education and income category (see Appendix A for the construction of these cells and the reliability filter applied below). In what follows, we compare these general and climate-driven inflation risk asymmetry measures for the full sample of survey respondents, as well as for demographic subgroups defined by education, income, and age.

We find that climate-driven inflation risk asymmetry is generally larger than general inflation risk asymmetry at the 10-year horizon (Figure 2). General and climate-driven inflation risk asymmetry are not significantly related across demographic cells (correlation $r = -0.10$, $p = 0.52$): of the 212 age×education×income cells populated in both surveys, we focus on the 46 cells reliably populated on both sides (≥ 5 respondents each, following Appendix A), and every one of these 46 cells exhibits a positive climate-driven inflation risk asymmetry, including the two cells with a negative general

¹⁵See Galati et al. [2023, 2026b] for details and results of earlier waves of the DHS satellite survey of household inflation expectations from December 2019 to 2024.

asymmetry (Figure 3). This indicates that climate change tilts perceived inflation risks upward essentially independently of a household group’s general view of inflation risk, and substantially so even among groups that do not otherwise expect upside inflation risks.

Variation in climate-driven inflation risk asymmetry across household income groups is relatively limited, whereas income-related differences are more pronounced for general inflation risk asymmetry (Figure 4). Figure 5 presents a histogram of the distribution of climate-driven inflation risk asymmetry across demographic subgroups from the climate survey at the 10-year horizon. The concentration of probability mass well above zero indicates that concerns about climate-driven inflation risks are widespread across demographic groups, rather than being confined to a small subset of the population (Figure 5).

4 Conclusions

This paper has examined how Dutch households perceive the structural implications of climate change and the green transition for long-term inflation. Using a representative household survey in the Netherlands, we elicited expectations about the effects of climate change, the green transition and climate policy on both the level and volatility of inflation, and linked responses to households’ demographic characteristics. Our analysis highlights the relationship between beliefs about climate change and long-term inflation expectations.

We find that climate change, the green transition, and the three major climate policies (carbon pricing, support for the green transition, and support for green innovation) are all expected by households to increase both inflation levels and inflation volatility in the long run, with climate change perceived as having the largest effect. The expected impact of climate change on inflation levels and volatility is significantly stronger for households with more extreme weather expectations and perceptions, as well as for households with higher temperature expectations and perceptions. Moreover, climate-driven inflation concerns are widespread across demographic groups rather than being confined to a small subset of the population.

The perceived inflationary impact is largest for climate change itself, followed by carbon pricing and the green transition. By contrast, support policies for the green transition and for green innovation are expected to lead to comparatively smaller increases in inflation. These findings suggest that government support policies aimed at facilitating the green transition and promoting green innovation may be particularly well suited to advancing the transition to net zero emissions while helping to keep household inflation expectations relatively well-anchored.

Households’ mean expectations that climate change, the green transition and carbon pricing will lead to higher inflation in the long run are broadly consistent with the transmission channels highlighted in the New Keynesian climate model of Sahuc et al. [2024]. From a monetary policy perspective, our results therefore reinforce the concerns raised by Lane [2026] that climate-related shocks may increase the risk of de-anchored inflation expectations.

Finally, households also expect government support for the green transition and green innovation to be stronger than currently planned, and want it to be stronger still [Galati et al., 2026a]. This

suggests that households' beliefs about climate change extend coherently to their views on climate policy, and are not confined to their inflation expectations alone.

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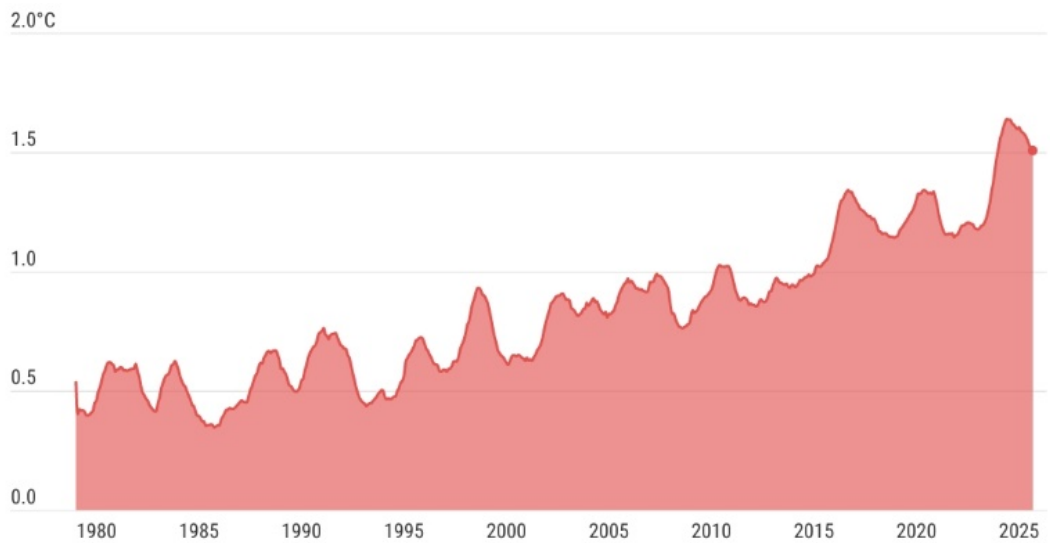
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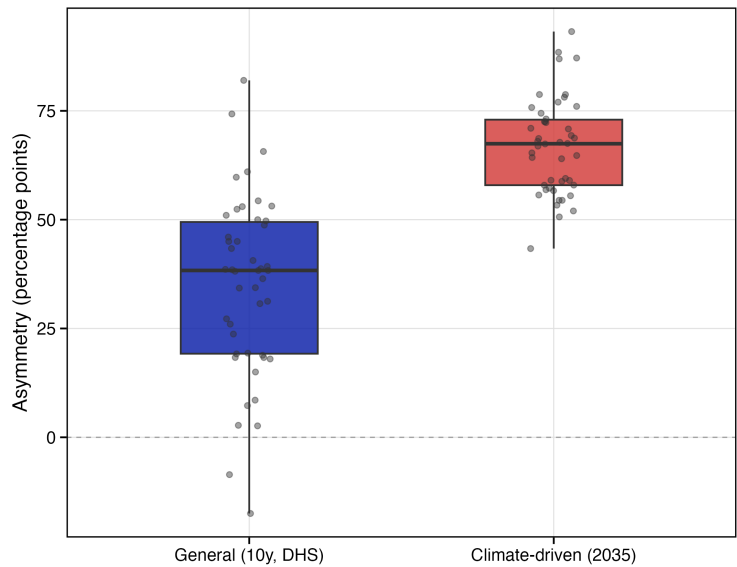
Figures

Figure 1: Global surface air temperature: increase above pre-industrial average



Notes: 12-month averages of global surface air temperature, expressed as deviations from the pre-industrial (1850-1900) average;
Source: Copernicus, CS3/ECMWF.

Figure 2: Comparison of distributions of general and climate-driven inflation risk asymmetry at 10-year horizon



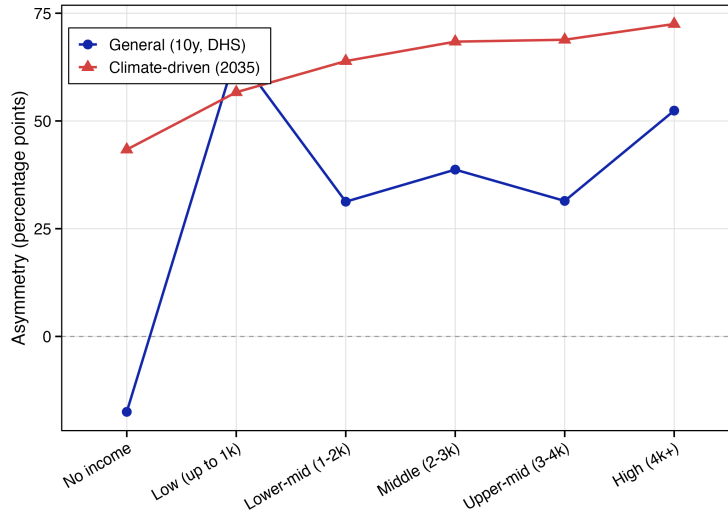
Notes: Comparison of the distributions of demographic subgroup means (cells by age×education×income) for general inflation risk asymmetry (DHS satellite survey, December 2025, 10-year horizon) and climate-driven inflation risk asymmetry (climate survey, December 2025, 10-year horizon). Restricted to the 46 reliably populated cells (≥ 5 respondents on each side out of 212 matched cells; see Section 3.8 and Appendix A). Points show the underlying cell means.

Figure 3: Relationship between general and climate-driven inflation risk asymmetry at 10-year horizon



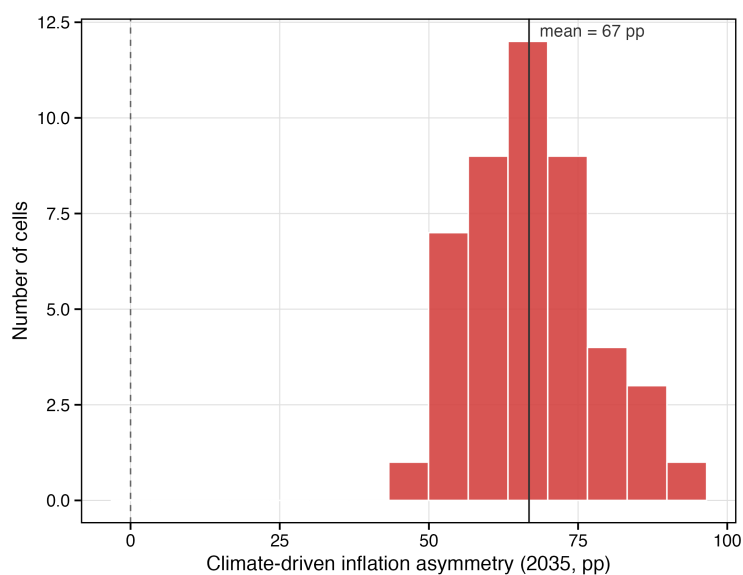
Notes: Each point is a demographic subgroup mean (cell by age $\times$ education $\times$ income; the 46 reliably populated cells, ≥ 5 respondents on each side out of 212 matched cells), plotting general inflation risk asymmetry (in pp, from DHS satellite survey, December 2025, 10-year horizon) against climate-driven inflation risk asymmetry (in pp, from climate survey, December 2025, 10-year horizon). No trend line is shown: the cross-cell correlation is not statistically significant ($r = -0.10$, $p = 0.52$; see Appendix A for a robustness check across alternative reliability thresholds). Every one of the 46 cells has positive climate-driven asymmetry.

Figure 4: General and climate-driven inflation risk asymmetry by income at 10-year horizon



Notes: Income-bin averages of general inflation risk asymmetry (DHS satellite survey, December 2025, 10-year horizon) and climate-driven inflation risk asymmetry (climate survey, December 2025, 10-year horizon), computed from matched demographic cells. Restricted to the 46 reliably populated cells (≥ 5 respondents on each side); bin averages are weighted by $\min(N_c^{DHS}, N_c^{clim})$.

Figure 5: Distribution of climate-driven inflation risk asymmetry across demographic subgroups at 10-year horizon



Notes: The histogram shows the distribution of climate-driven inflation risk asymmetry (in percentage points, from climate survey in December 2025 at the 10-year horizon) across demographic subgroups (cells by age $\times$ education $\times$ income). Restricted to the 46 reliably populated cells (≥ 5 respondents on each side out of 212 matched cells); vertical line marks the mean.

Tables

Table 1: Sample Characteristics

	%	N
<i>Gender</i>		
Male	51.6	1,066
Female	48.3	997
<i>Age</i>		
15–24	3.3	68
25–34	8.3	171
35–44	11.3	233
45–54	13.0	269
55–64	17.2	356
65+	46.9	967
<i>Education</i>		
Primary education	1.2	24
Lower secondary (vmbo)	5.2	108
Upper secondary (havo/vwo)	11.8	243
Intermediate vocational (mbo)	30.3	625
Higher professional (hbo)	33.7	695
University (wo)	17.5	361
<i>Net monthly income</i>		
No income	4.4	91
Low ($\leq$ €1,000)	6.7	138
Lower-middle (€1,000–€2,000)	24.9	513
Middle (€2,000–€3,000)	31.1	641
Upper-middle (€3,000–€4,000)	19.9	410
High ($\geq$ €4,000)	8.3	172
Don't know / prefer not to say	4.4	90

Notes: Sample characteristics of survey respondents who completed the climate survey questionnaire ($N = 2,064$). Percentages may not sum to 100 due to rounding and a small number of missing responses (0.4% for education, 0.4% for income). Income categories follow the same grouping used in Figure 4.

Table 2: Climate Beliefs: Temperature and Extreme Weather

	Mean	Median	SD	N
<i>Temperature change (°C)</i>				
Past 25 years (perception)	1.12	1.25	0.97	2,064
Next 25 years (expectation)	1.17	1.25	0.99	2,064
<i>Extreme weather severity (balance statistic)^a</i>				
Past 25 years (perception)	0.45	0.50	0.33	2,064
Next 25 years (expectation)	0.48	0.50	0.36	2,064

Notes: ^a Balance statistics range between -1 and 1 and are centred on 0 indicating no change, where -1 corresponds to a large decrease, -0.5 to a small decrease, 0 to no change, 0.5 to a small increase, and 1 to a large increase. Temperature change is expressed in degrees Celsius using the midpoint convention described in Section 3.1. Sample: respondents who completed the climate survey questionnaire ($N = 2,064$).

Table 3: Distribution of Extreme Weather Severity Beliefs

	Past 25 years (perception, %)	Next 25 years (expectation, %)
Large decrease	0.6	0.6
Small decrease	2.2	1.4
No change	17.2	21.3
Small increase	67.6	55.8
Large increase	12.5	20.9

Notes: Share of respondents choosing each response category for the severity of extreme weather events over the past 25 years (perception) and the next 25 years (expectation). Sample: respondents who completed the climate survey questionnaire ($N = 2,064$). Columns may not sum to 100 due to rounding.

Table 4: Channels Through Which Climate Change Is Expected to Affect Inflation

	Overall (N=2,064)	Decrease (N=49)	No effect (N=345)	Increase (N=1,670)
Food prices	74.5	49.0	39.1	82.5
Higher energy prices	71.5	55.1	36.2	79.3
Economic activity	58.0	34.7	26.4	65.3
Supply disruptions	44.1	36.7	16.2	50.1
Other channel	3.4	2.0	4.1	3.3
No impact	2.4	2.0	10.7	0.7
Do not know	12.5	24.5	32.5	8.1

Notes: Share of respondents (%) selecting each channel through which climate change is expected to affect inflation (Question 10; multiple channels can be selected). “Decrease”/“No effect”/“Increase” columns split the sample by the respondent’s belief about the direction of climate change’s overall effect on inflation. Sample: respondents who completed the climate survey questionnaire ($N = 2,064$); column N’s for the direction split sum to 2,064.

Table 5: Effect of Climate-Related Variables on Long-Term Inflation Expectations

	Dependent Variable: $\Delta\pi^{LT}$	
	Estimate	No. observations
Climate change	0.520 ^{***}	2,081
Green transition	0.246 ^{***}	2,073
<i>Climate policy:</i>		
Carbon pricing	0.410 ^{***}	2,070
Support for green transition	0.161 ^{***}	2,070
Support for green innovation	0.161 ^{***}	2,070

Notes: This table reports mean balance statistics for the effect of climate-related variables on 10-year-ahead inflation expectations, $\Delta\pi^{LT}$. Balance statistics range between -1 and 1 and are centred on 0 indicating no change, where -1 corresponds to a large decrease, -0.5 to a small decrease, 0 to no effect, 0.5 to a small increase, and 1 to a large increase. Estimates are based on OLS regressions across households of the balance statistic for $\Delta\pi^{LT}$ on a constant with heteroscedasticity-robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 6: Effect of climate change on long-term inflation expectations

	(1)	(2)	(3)	(4)
Dependent variable ^a	$\Delta\pi^{LT}$	$\Delta\pi^{LT}$	$\Delta\pi^{LT}$	$\Delta\pi^{LT}$
Extreme weather expectations ^b	0.267 ^{***}			
Extreme weather perceptions ^c		0.269 ^{***}		
Temperature expectations ^d			0.068 ^{***}	
Temperature perceptions ^f				0.041 ^{***}
Intercept	0.393 ^{***}	0.400 ^{***}	0.440 ^{***}	0.473 ^{***}
No. observations	2081	2081	2081	2081
R^2	0.067	0.055	0.033	0.012

Notes: ^a Balance statistics for effect of climate change on 10-year-ahead inflation expectations, $\Delta\pi^{LT}$; balance statistics between -1 and 1 and centred on 0 of no change, where -1 : large decrease; -0.5 : small decrease; 0 : no effect; 0.5 : small increase; 1 : large increase. ^b Balance statistics for expectations of severity of extreme weather events over next 25 years, EW_t^{e25} ; ^c balance statistics for perceptions of severity of extreme weather events over past 25 years, EW_t^{p25} ; ^d expectations of global temperature changes over the next 25 years in $^{\circ}\text{C}$, T_t^{e25} ; ^f perceptions of global temperature changes over the past 25 years in $^{\circ}\text{C}$, T_t^{p25} . Based on OLS regression of equation 2 with heteroscedasticity-robust standard errors. Stars denote significance levels (* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$).

Table 7: Effect of Climate-Related Variables on Expected Long-Term Inflation Volatility

	Dependent Variable: $\Delta\pi^{volLT}$	
	Estimate	No. observations
Climate change	0.515***	1,696
Green transition	0.270***	1,671
<i>Climate policy:</i>		
Carbon pricing	0.401***	1,675
Support for green transition	0.179***	1,665
Support for green innovation	0.159***	1,652

Notes: This table reports mean balance statistics for the effect of climate-related variables on 10-year-ahead expectations of inflation volatility, $\Delta\pi^{volLT}$. Balance statistics range between -1 and 1 and are centred on 0 indicating no change, where -1 corresponds to a large decrease, -0.5 to a small decrease, 0 to no effect, 0.5 to a small increase, and 1 to a large increase. Estimates are based on OLS regressions across households of the balance statistic for $\Delta\pi^{volLT}$ on a constant with heteroscedasticity-robust standard errors. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 8: Effect of Climate Change on Expected Long-Term Inflation Volatility

	Dependent Variable: $\Delta\pi^{volLT}$			
	(1)	(2)	(3)	(4)
Extreme weather expectations ^b	0.336***			
Extreme weather perceptions ^c		0.305***		
Temperature expectations ^d			0.087***	
Temperature perceptions ^f				0.045***
Intercept	0.352***	0.375***	0.413***	0.464***
No. observations	1696	1696	1696	1696
R^2	0.096	0.060	0.050	0.013

Notes: ^a Balance statistics for effect of climate change on expected 10-year-ahead inflation volatility, $\Delta\pi^{volLT}$; balance statistics between -1 and 1 and centred on 0 of no change, where -1 : large decrease; -0.5 : small decrease; 0 : no effect; 0.5 : small increase; 1 : large increase. ^b Balance statistics for expectations of severity of extreme weather events over next 25 years, EW_i^{e25} ; ^c Balance statistics for perceptions of severity of extreme weather events over past 25 years, EW_i^{p25} ; ^d Expectations of global temperature changes over the next 25 years in $^{\circ}\text{C}$, T_i^{e25} ; ^f Perceptions of global temperature changes over the past 25 years in $^{\circ}\text{C}$, T_i^{p25} . Based on OLS regression of equation 2 with heteroscedasticity-robust standard errors. Stars denote significance levels (* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$).

A Matching the Climate Survey to the DHS Satellite Survey

The general inflation risk measure used in Section 3.8 is drawn from the DHS satellite survey, DNB’s monthly survey of Dutch household inflation expectations, described in detail in Galati et al. [2023]. Respondents are randomly assigned to answer about inflation in the Netherlands or in the euro area; only Netherlands-referenced responses are used, to match the scope of the climate survey. Full subjective probability distributions of inflation are elicited only in the December wave of each year, so we use the December 2025 wave, which also coincides in fielding month with the climate survey.

All measures based on a subjective probability distribution – whether of future inflation, temperature change, extreme-weather severity, or the effect of climate change on inflation – are constructed only from respondents whose reported probabilities sum to exactly 100; respondents who fail this check are dropped from that measure. This restriction is applied separately to the DHS survey’s twelve-month and ten-year inflation distributions (only the ten-year distribution is used here) and to the climate survey’s temperature, extreme-weather, and climate-inflation distributions (only the last of these is used here; 98.3% of respondents pass this check).

For a DHS respondent i , general inflation risk asymmetry is the probability the respondent assigns to inflation being 4% or higher ten years ahead (the top two of the distribution’s twelve bins) minus the probability assigned to deflation (the six bins below zero):

$$Asym_i^{base} = \Pr_i(\pi^{10y} \geq 4\%) - \Pr_i(\pi^{10y} < 0\%) \quad (3)$$

For a climate-survey respondent i , climate-driven inflation risk asymmetry is the probability assigned to climate change raising inflation in 2035 (slightly or strongly) minus the probability assigned to it lowering inflation (slightly or strongly):

$$Asym_i^{clim} = \Pr_i(\text{climate raises } \pi^{2035}) - \Pr_i(\text{climate lowers } \pi^{2035}) \quad (4)$$

Both measures are individual-level, expressed in percentage points, and range from -100 to 100 .

Because the DHS survey and the climate survey were fielded to two different, non-overlapping samples of respondents, the two measures cannot be linked at the respondent level. We instead compare them at the level of demographic cells, defined by the joint combination of age category (six bins), education category (the CBS classification, from basisonderwijs through vmbo, havo/vwo, mbo, hbo, to wo), and net income category (fifteen bins, including “don’t know” and “prefer not to say” as valid categories). For each cell c ,

$$\overline{Asym}_c^{base} = \frac{1}{N_c^{DHS}} \sum_{i \in c} Asym_i^{base}, \quad \overline{Asym}_c^{clim} = \frac{1}{N_c^{clim}} \sum_{i \in c} Asym_i^{clim} \quad (5)$$

where N_c^{DHS} and N_c^{clim} are the number of DHS-survey and climate-survey respondents, respec-

tively, in cell c . The two sets of cell averages are matched on the (age, education, income) combination, keeping only cells populated in both surveys. This yields 212 matched cells out of the full cross of age-by-education-by-income combinations.

These cells are populated unevenly: the median cell has two DHS respondents, and 83 of the 212 cells (39%) have only one respondent on at least one side of the match. Figures 2–5 are therefore restricted to the 46 cells (22% of the 212 matched cells) with $N_c^{DHS} \geq 5$ and $N_c^{clim} \geq 5$.

The 46 reliable cells are not a representative subset of the 212 matched cells: because larger demographic groups are more likely to clear the ≥ 5 -respondent threshold on both sides, the reliable subsample skews toward the most populous age, education and income categories (Table 9). No cell in the lowest education category (basisonderwijs) survives the filter, and the share of intermediate-vocational (mbo) cells roughly doubles, from 22.2% of the 212 matched cells to 43.5% of the 46 reliable cells; the youngest age category (15–24) falls from 6.6% to 2.2%. The number of distinct income categories represented also falls, from 16 to 9. The 46 reliable cells nonetheless still cover a substantial share of respondents: 430 of the 859 DHS respondents (50%) and 891 of the 1,844 climate-survey respondents (48%) in the 212 matched cells.

Table 9: Demographic Composition: 46 Reliable Cells vs. 212 Matched Cells

	212 matched cells (% of cells)	46 reliable cells (% of cells)
<i>Age</i>		
15–24	6.6	2.2
25–34	11.8	13.0
35–44	15.1	21.7
45–54	18.9	19.6
55–64	24.5	21.7
65+	23.1	21.7
<i>Education</i>		
Primary education (basisonderwijs)	5.7	0.0
Lower secondary (vmbo)	13.7	6.5
Upper secondary (havo/vwo)	12.3	2.2
Intermediate vocational (mbo)	22.2	43.5
Higher professional (hbo)	23.1	32.6
University (wo)	22.6	15.2

Notes: Share of cells (not respondents) in each age or education category, among the 212 age $\times$ education $\times$ income cells matched across both surveys and among the subset of 46 cells reliably populated on both sides ($N_c^{DHS} \geq 5$ and $N_c^{clim} \geq 5$). A cell’s age/education category is shared by all respondents assigned to it by construction. Columns may not sum to 100 due to rounding and cells with missing education (0.5% of the 212).

To check whether the finding in Section 3.8 is sensitive to the choice of the $N_c \geq 5$ reliability threshold, Table 10 repeats the quadrant and correlation analysis at alternative thresholds, from no filter at all ($N_c \geq 1$, all 212 matched cells) to a stricter $N_c \geq 3$. The finding is robust throughout: the share of cells with positive climate-driven asymmetry is at least 97.6% even with no filter applied,

reaches 100% at every threshold of $N_c \geq 2$, and the cross-cell correlation between general and climate-driven asymmetry remains small and statistically insignificant at every threshold shown.¹⁶

Table 10: Robustness of the DHS-Comparison Finding to the Reliability Threshold

Threshold	Cells	% positive ^a	Correlation (r, p) ^b
$N_c \geq 1$ (no filter)	212	97.6	-0.10 ($p = 0.13$)
$N_c \geq 2$	129	100.0	-0.10 ($p = 0.26$)
$N_c \geq 3$	87	100.0	-0.07 ($p = 0.53$)
$N_c \geq 5$ (used in paper)	46	100.0	-0.10 ($p = 0.52$)

Notes: ^a Share of cells with non-negative climate-driven inflation risk asymmetry. ^b Pearson correlation between cell-level general and climate-driven inflation risk asymmetry, with a two-sided p -value.

Finally, the DHS measure refers to expected inflation ten years ahead, as elicited in the December 2025 wave, which corresponds to inflation in approximately 2035; the climate survey measure refers directly to inflation “in 2035”. The two therefore cover the same horizon and fielding month, though they were put to two different groups of respondents.

¹⁶A still stricter threshold of $N_c \geq 10$ leaves only 7 cells – too few for a reliable correlation estimate – and is omitted; the share of cells with positive climate-driven asymmetry there is unaffected (100%, 7 of 7).

B Household Survey Questionnaire (English Translation)

Additional DHS survey on households' views on climate change, the green transition and climate policy in the context of inflation

All respondents receive a short introductory text (Text 1) at the start of the survey, and some short explanatory texts during the survey (Texts 2, 4, 5 and 6).

We perform an RCT in which we assign survey participants randomly to four groups: (i) Group 1, a control group which receives no additional information, (ii) Group 2, a group receiving additional information on global temperature changes (Graph 1), (iii) Group 3, a group receiving additional information on climate policy of the Dutch government (Text 3), and (iv) Group 4, a group receiving additional information on both global temperature changes (Graph 1) and climate policy of the Dutch government (Text 3).]

Survey questions

[Programming instructions: Please provide Text 1 to all respondents (Groups 1, 2, 3 and 4) at the start of the survey].

[start of Text 1]

Introduction: In 2015, almost every country in the world signed the Paris Agreement, to keep global warming well below 2°C and ideally under 1.5°C compared to pre-industrial times. To achieve this, countries agreed to aim for net zero emissions, that is that the amount of greenhouse gases (including carbon dioxide) added to the atmosphere is balanced by the amount removed. There are three main types of climate policies that support net zero emissions: carbon pricing, support for green transitions and support for green innovation.

[end of Text 1]

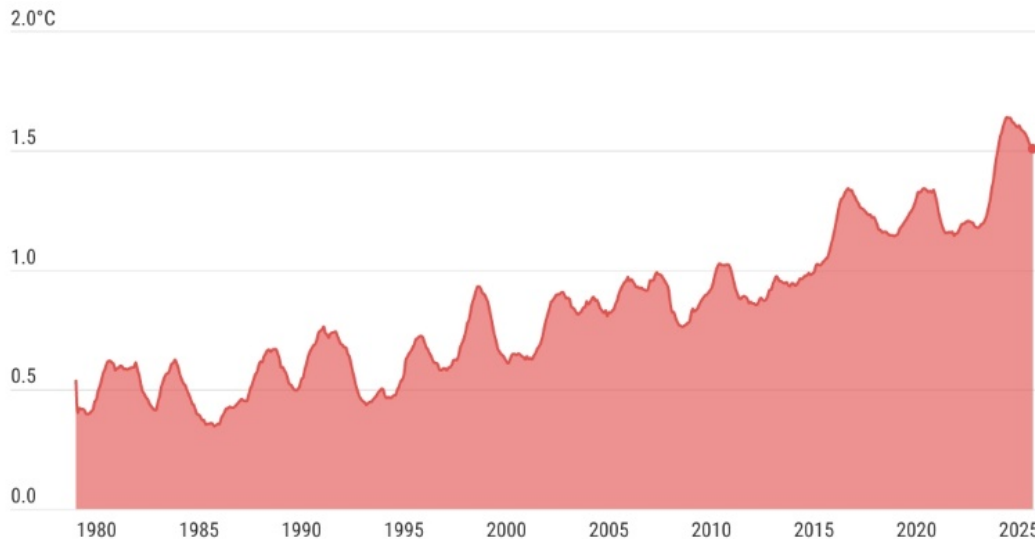
[Programming instructions: all questions in this survey are given to all respondents]

1. Changes in global temperatures

[Programming instructions: Please provide Graph 1 to Group 2 and Group 4 of respondents].

[start of Graph 1]

Graph 1: Global surface air temperature: increase above pre-industrial average



Notes: 12-month averages of global surface air temperature, increase above pre-industrial average for 1850–1900; Source: Copernicus, CS3/ECMWF.

[end of Graph 1]

*Question 1: How much do you think global temperatures changed **over the past 25 years**? Give your best guess by choosing one of the following 13 ranges for the change in temperature:*

decreased by more than 2.5°C; decreased by between 2.0°C and 2.5°C; decreased by between 1.5°C and 2.0°C; decreased by between 1.0°C and 1.5°C; decreased by between 0.5°C and 1.0°C; decreased by between 0°C and 0.5°C; did not change; increased by between 0°C and 0.5°C; increased by between 0.5°C and 1.0°C; increased by between 1.0°C and 1.5°C; increased by between 1.5°C and 2.0°C; increased by between 2.0°C and 2.5°C; increased by more than 2.5°C..

*Question 2: How much do you think global temperatures will change **over the next 25 years**? Give your best guess by choosing one of the following 13 ranges for the change in temperature:*

decrease by more than 2.5°C; decrease by between 2.0°C and 2.5°C; decrease by between 1.5°C and 2.0°C; decrease by between 1.0°C and 1.5°C; decrease by between 0.5°C and 1.0°C; decrease by between 0°C and 0.5°C; will not change; increase by between 0°C and 0.5°C; increase by between 0.5°C and 1.0°C; increase by between 1.0°C and 1.5°C; increase by between 1.5°C and 2.0°C; increase by between 2.0°C and 2.5°C; increase by more than 2.5°C

*Question 3: Now we would like you to think about the different things that may happen to global temperatures **over the next 25 years**. Please allocate 100 points in the table below indicating how likely in your view the listed temperature changes are, where 0 points means no chance at all and 100 points means absolutely sure. In your view, what is the chance that **over the next 25 years**,*

Points

global temperatures will decrease by more than 2.5°C

global temperatures will decrease by between 2.0°C and 2.5°C

global temperatures will decrease by between 1.5°C and 2°C

global temperatures will decrease by between 1°C and 1.5°C

global temperatures will decrease by between 0.5°C and 1°C

global temperatures will decrease by between 0°C and 0.5°C

global temperatures will not change

global temperatures will increase by between 0°C and 0.5°C

global temperatures will increase by between 0.5°C and 1°C.....

global temperatures will increase by between 1°C and 1.5°C

global temperatures will increase by between 1.5°C and 2°C

global temperatures will increase by between 2°C and 2.5°C

global temperatures will increase by more than 2.5°C

Total (the points should sum to a total of 100) 100

2. Changes in extreme weather events

*Question 4: How much do you think that the severity of extreme weather events changed **over the past 25 years**? Give your best guess among the following 5 choices:*

large decrease in severity; small decrease in severity; no change in severity; small increase in severity;
large increase in severity

*Question 5: How much do you think the severity of extreme weather events will change **over the next 25 years**? Give your best guess among the following 5 choices:*

large decrease in severity; small decrease in severity; no change in severity; small increase in severity;
large increase in severity.

Question 6: Now we would like you to think about the different things that may happen to extreme weather events **over the next 25 years**. Please allocate 100 points in the table below indicating how likely in your view the listed 5 possible choices, where 0 points means no chance at all and 100 points means absolutely sure. In your view, what is the chance that **over the next 25 years**

Points

There will be a large decrease in severity of extreme weather events

There will be a small decrease in severity of extreme weather events

There will be no change in severity of extreme weather events

There will be a small increase in severity of extreme weather events

There will be a large increase in severity of extreme weather events

Total (the points should sum to a total of 100) 100

3. What impact will climate change have on inflation expected in 2035?

Question 7: We are interested in your opinion on how you expect climate change to affect inflation in the Netherlands **in the calendar year 2035**. Inflation is the percentage change in consumer prices over twelve months. How do you think climate change will affect the rate of inflation **in 2035** (at that moment, i.e. the percentage change in consumer prices between year 2034 and year 2035)? *Give your best guess among the following 5 choices:*

climate change will decrease inflation a lot; climate change will decrease inflation a little; climate change will not affect inflation; climate change will increase inflation a little; climate change will increase inflation a lot.

Question 8: Now we would like you to think about the different ways in which climate change may affect inflation in the Netherlands **in 2035**. Please allocate 100 points in the table below indicating how likely in your view the listed effects of climate change on inflation rates are, where 0 points means no chance at all and 100 points means absolutely sure. In your view, what is the chance that **in 2035**

Points

climate change will decrease the rate of inflation a lot

climate change will decrease the rate of inflation a little

climate change will not affect the rate of inflation

climate change will increase the rate of inflation a little

climate change will increase the rate of inflation a lot

Total (the points should sum to a total of 100) 100

Question 9: Now we would like you to think about how **climate change** will affect inflation volatility in the Netherlands, which measures how much inflation fluctuates (i.e. how much and how often inflation changes over time). How do you think that climate change will affect inflation volatility **in 2035**? *Give your best guess among the following 5 choices:*

climate change will decrease inflation volatility a lot; climate change will decrease inflation volatility

a little; climate change will not affect inflation volatility; climate change will increase inflation volatility a little; climate change will increase inflation volatility a lot

4. Question 10: What do you think are the main channels through which climate change will affect inflation in 2035?

Please tick one or more of the choices in the following list:

- Through its effect on food prices
- Through its effect on energy prices
- Through its effect on economic activity
- By creating disruptions in the supply of goods and services
- Other channels

5. What impact will the green transition to net zero carbon dioxide emissions have on inflation expected in 2035?

[Programming instructions: Please provide Text 2 to all respondents].

[start of Text 2]

The green transition is the shift from using polluting energy sources like coal and oil to cleaner, more sustainable ones like wind and solar power. It also means changing how we live and work to protect the environment and fight climate change.

[end of Text 2]

Question 11: We are interested in your opinion on how you expect the **green transition** to affect inflation in the Netherlands **in the calendar year 2035**. Inflation is the percentage change in consumer prices over twelve months. How do you think the green transition to net zero carbon emissions will affect the rate of inflation **in 2035**? *Give your best guess among the following 5 choices:*

the green transition will decrease inflation a lot; the green transition will decrease inflation a little; the green transition will not affect inflation; the green transition will increase inflation a little; the green transition will increase inflation a lot.

Question 12: Now we would like you to think about how the green transition will affect the inflation volatility in the Netherlands, which measures how much inflation fluctuates (i.e. how much and how often inflation changes over time). How do you think that the green transition will affect inflation volatility in 2035? *Give your best guess among the following 5 choices:*

the green transition will decrease inflation volatility a lot; the green transition will decrease inflation volatility a little; the green transition will not affect inflation volatility; the green transition will increase inflation volatility a little; the green transition will increase inflation volatility a lot

6. Will the Dutch government’s climate policies as of 2025 aimed at reducing carbon dioxide emissions affect inflation in 2035? *[Information for programmer: For the questions in sections 6 and 7, we perform an RCT in which Group 3 and Group 4 of respondents are provided information on the Dutch government’s climate policies (Text 3).]*

[Programming instructions: Please provide Text 3 on Dutch government’s climate policies to Group 3 and Group 4 of respondents].

[start of Text 3]

Dutch government’s climate policies:

The Netherlands aims to be climate neutral by 2050, with a target of a 49% reduction in greenhouse gas emissions by 2030 compared to 1990. These targets have been made legally binding by the Klimaatakkoord in 2019. To reach this, the government uses carbon pricing, subsidies for clean technologies, and investments in renewable energy, electric transport, and green hydrogen. However, according to the Netherlands Environmental Assessment Agency, the chance of meeting the 2030 target with current climate policies is less than 5%. Key challenges include grid congestion (a situation when electricity transfer capacity is not enough to transmit all available power from one point on the electricity grid to another), a slow rollout of offshore wind farms and green hydrogen production, labour and permitting bottlenecks, and political delays in decision-making. Without stronger and more structural measures, the path to net zero carbon emissions will become increasingly difficult and costly.

[end of Text 3]

[Programming instructions: Please provide Text 4 to all respondents].

[start of Text 4]

Carbon pricing puts a cost on emitting greenhouse gases (including carbon dioxide), through a carbon tax, which charges a fixed fee for each tonne of carbon dioxide emitted, and/or with an emissions trading system, where companies buy permits to cover their emissions. Carbon pricing is a climate policy which aims to reduce carbon dioxide emissions.

[end of Text 4]

Question 13: We are interested in your opinion on how you expect the Dutch government’s carbon pricing to affect inflation in the Netherlands **in the calendar year 2035**. Inflation is the percentage change in consumer prices over twelve months. How do you think the Dutch government’s carbon pricing policies aimed at reducing carbon dioxide emissions will affect the rate of inflation **in 2035**? *Please give your best guess among the following 5 choices:*

carbon pricing will decrease inflation a lot; carbon pricing will decrease inflation a little; carbon pricing will not affect inflation; carbon pricing will increase inflation a little; carbon pricing will increase inflation a lot.

Question 14: Now we would like you to think about how the Dutch government’s carbon pricing

will affect inflation volatility, which measures how inflation fluctuates (i.e. how much and how often inflation changes over time), **in 2035**. How do you think carbon pricing will affect inflation volatility **in 2035**? *Give your best guess among the following 5 choices:*

carbon pricing will decrease inflation volatility a lot; carbon pricing will decrease inflation volatility a little; carbon pricing will not affect inflation volatility; carbon pricing will increase inflation volatility a little; carbon pricing will increase inflation volatility a lot.

[Programming instructions: Please provide Text 5 to all respondents].

[start of Text 5]

Government support for the green transition includes subsidies for clean technologies (like solar panels, wind energy or electric vehicles), and tax incentives for investments in green infrastructure, such as charging stations or heat pumps.

[end of Text 5]

Question 15: We are interested in your opinion on how you expect the Dutch government's support for green transitions to affect inflation in the Netherlands **in the calendar year 2035**. Inflation is the percentage change in consumer prices over twelve months. How do you think that support for green transitions will affect the rate of inflation **in 2035**? *Give your best guess among the following 5 choices:*

support for green transitions will decrease inflation a lot; support for green transitions will decrease inflation a little; support for green transitions will not affect inflation; support for green transitions will increase inflation a little; support for green transitions will increase inflation a lot.

Question 16: Now we would like you to think about how the Dutch government's support for green transitions will affect inflation volatility in the Netherlands, which measures how strongly inflation fluctuates (i.e. how much and how often inflation changes over time), **in 2035**. How do you think support for green transitions will affect inflation volatility **in 2035**? *Give your best guess among the following 5 choices:*

support for green transitions will decrease inflation volatility a lot; support for green transitions will decrease inflation volatility a little; support for green transitions will not affect inflation volatility; support for green transitions will increase inflation volatility a little; support for green transitions will increase inflation volatility a lot.

[Programming instructions: Please provide Text 6 to all respondents].

[start of Text 6]

Government support for green innovation involves support for major changes in how we produce energy, travel, and manufacture goods. This includes for example developing carbon capture technologies or nature-based solutions, such as reforestation, to absorb carbon dioxide.

[end of Text 6]

Question 17: We are interested in your opinion on how you expect the Dutch government's support for green innovation will affect inflation in the Netherlands **in the calendar year 2035**. Inflation is the percentage change in consumer prices over twelve months. How do you think that support for green innovation will affect the rate of inflation in **2035**? *Give your best guess among the following 5 choices:*

support for green innovation will decrease inflation a lot; support for green innovation will decrease inflation a little; support for green innovation will not affect inflation; support for green innovation will increase inflation a little; support for green innovation will increase inflation a lot.

Question 18: Now we would like you to think about how the Dutch government's support for green innovation will affect inflation volatility in the Netherlands, which measures how much inflation fluctuates (i.e. how much and how often inflation changes over time) **in 2035**. How do you think government support for green innovation will affect inflation volatility **in 2035**?

Give your best guess among the following 5 choices:

support for green innovation will decrease inflation volatility a lot; support for green innovation will decrease inflation volatility a little; support for green innovation will not affect inflation volatility; support for green innovation will increase inflation volatility a little; support for green innovation will increase inflation volatility a lot.

7. Effect of the Dutch government's climate policies on carbon dioxide emissions and climate change

7A.

[Programming instructions: Please put the below in a table with answer options no effects; small effects; moderate effects; large effects]

Question 19: Do you think the following Dutch government's current climate policies are effective in reducing carbon dioxide emissions and thereby in reducing climate change? Give your best guess among the 4 answer options.

- *The Dutch government's carbon pricing has ..*
- *The Dutch government's support for green transitions has ..*
- *The Dutch government's support for green innovation has ..*

7B.

[Programming instructions: Please put the below in a table with answer options much less stringent; less stringent; as planned; more stringent; much more stringent; questions 7B and 7C are asked separately for 2035 and for 2050]

Question 20: How do you think that by 2035 [2050] the Dutch government will change the stringency of the following climate policies to affect carbon dioxide emissions and thereby affect climate

change compared with what is currently planned? Give your best guess among the 5 answer options.

- The Dutch government's carbon pricing will be ..*
- The Dutch government's support for green transitions will be ..*
- The Dutch government's support for green innovation will be ..*

7C.

[Programming instructions: Please put the below in a table with answer options much less stringent; less stringent; as planned; more stringent; much more stringent]

Question 21: How do you think that by 2035[2050] the Dutch government should change the stringency of the following climate policies to affect carbon dioxide emissions and thereby affect climate change compared with what is currently planned? Give your best guess among the 5 answer options.

- The Dutch government's carbon pricing should be ..*
- The Dutch government's support for green transitions should be ..*
- The Dutch government's support for green innovation should be ..*

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