### The LSE Climate Risk Business Survey 2020 – synopsis

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### 1. Introduction

The LSE Climate Risk Business Survey 2020 was undertaken by the Grantham Research Institute to help inform the Business and Industry Chapter of the Third UK Climate Change Risk Assessment (CCRA3) - <u>https://www.theccc.org.uk/publications/third-uk-climate-change-risk-assessment/</u>.

The survey follows the business function approach adopted in the Second UK Climate Change Risk Assessment (<u>UKCCRA2</u>) (<u>Surminski *et. al.* 2018</u>), which allows for analysis of risks and opportunities from climate impacts across business and industry sub-sectors as well as across regions. The following risks to businesses were considered in the survey:

- Risks to businesses from flooding
- Risks to businesses and infrastructure from coastal change
- Risks to businesses from water scarcity
- Risks to finance, investment and insurance including access to capital for businesses
- Risks to business from reduced employee productivity due to infrastructure disruption and higher temperatures in working environments
- Risks to business from disruption to supply chains and distribution networks
- Opportunities for business from changes in demand for goods and services

Survey results are illustrative but come with significant health warnings and cannot be considered representative due to comparatively low response rates (when considered in the context of the overall number of businesses in the UK).

Many thanks to all those who participated in the survey. Findings were discussed with businesses and business associations during the CCRA3 stakeholder engagement phase.

Further results are currently analysed and written up and will be made available on the GRI/LSE webpage in due course.

### 2. Methodology

The LSE Business survey ran from 21st November 2019 – 2nd March 2020 and was open to businesses across the UK. The survey was shared with business stakeholders (e.g., business associations, consultancies etc.) participating in the CCRA3 process and circulated with their business contacts and through the author's network. Business participation was voluntary, and all results were anonymised. Businesses reported their current and future climate risk/opportunities, financial impact and adaptation strategies. They also reported on their climate risk preparedness, reporting, and engagement with internal and external stakeholders.

The survey received 225 responses from across the UK and a wide range of sectors (e.g., Agriculture, Manufacturing and Services). Most respondents were small businesses with 0-4 employees and the majority had turnover of £50,000+. The survey contributes to the nascent firm-level evidence in the UK, particularly concerning climate risk perception of SMEs. However, survey results should be treated as indicative as the sample size was limited and non-representative across sectors and countries. Moreover, to increase participation, the survey was open to respondents with different roles in the business (e.g., CEO, CRO), which may have influenced the subjectivity of some responses.

# 3. Key findings

- Respondents reported that while heavy rainfall and surface water flooding and high temperatures, including heatwaves, will continue to dominate, coastal and river flooding and water scarcity will also become more significant drivers.
- Respondents identified the top three information sources on flood risk which have helped them develop their risk management strategies, these include, in-house expertise and consultants, industry or sector-wide reports and Government guidance.
- Only 52% of the surveyed businesses reported that climate change risk is discussed at the Board-level in their organisation.
- Some businesses are experiencing increased costs of insurance for physical climate risks, but overall availability and affordability concerns are relatively low, except for SMEs.

## Current and future climate risk and opportunities:

- Respondents reported that while heavy rainfall (26.61%) and surface water flooding (26.61%) and high temperatures (16.97%), including heatwaves, were the most frequent prolonged or extreme weather-related events directly or indirectly impacting businesses over the last year, coastal and river flooding and water scarcity will also become more significant drivers in the future.
- Main impacts of weather-related events on surveyed businesses were increased operation costs (19.02%), drop in labour productivity (e.g. staff unable to work or access sites) (18.05%) and physical damages to assets including buildings, stock, materials (17.56%). For example, businesses are already impacted by reduction in labour productivity due to heatwaves and due to physical damages to infrastructure with respondents in England significantly more impacted than those located in Wales, Northern Ireland or Scotland.
- Results suggest UK businesses are exposed to weather related supply chain risks through dependencies on suppliers and transport networks in equal measure. The latter may be more significant in Scotland, Wales and Northern Ireland due to dependence on a more limited number of transport hubs.
- Respondents identified which information sources have helped them develop their flood risk management strategies, with in-house expertise and consultants (i.e. own databases, indices, or tools developed in-house or by consultants for your business 20.69%), industry or sector-wide reports (i.e. reports, case studies, collaboration with associations or peers 17.24%) and Government guidance (i.e. guidance, data, reports 14.18%) featuring as the top three sources. However, businesses are unlikely to turn to government for information and support when seeking to manage climate risks to their supply chain, instead preferring to make use of their own in-house expertise or consultant services.
- Despite significant current and future climate risks, only 52% of surveyed businesses reported that climate change risk is discussed at the Board-level in their organisation.

• Most businesses (34.7% of surveyed businesses) are expecting possible opportunities, but these are not assessed.

## Financial impacts

- Results indicate that some businesses are experiencing increased costs of insurance for physical climate risks, but overall availability and affordability concerns are relatively low, except for SMEs.
- Most surveyed businesses (42.57%) cannot quantify financial impact from prolonged or extreme weather-related events. For example, only 9.9% of the respondents who experienced losses due to supply chain and distribution network disruption were able to quantify the impacts.
- A number of businesses are expecting a future increase in the cost of capital due to rising climate risks. Those that do expect financial impacts to increase, estimate an increase in costs between 1-5% (25.74% of surveyed businesses that expect future increase in financial impacts).

## **References:**

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