Economics

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Key Message 19.1

Climate Change Affects the Economy Directly

Climate change directly impacts the economy through increases in temperature, rising sea levels, and more frequent and intense weather-related extreme events (e.g., wildfires, floods, hurricanes, droughts), which are estimated to generate substantial and increasing economic costs in many sectors (*likely, high confidence*). These impacts are projected to be distributed unequally, affecting certain regions, industries, and socioeconomic groups more than others (*very likely, high confidence*). Adaptation can attenuate some impacts by reducing vulnerability to climate change, but adaptation strategies vary in their effectiveness and costs (*medium confidence*).

Key Message 19.2

Markets and Budgets Respond to Climate Change

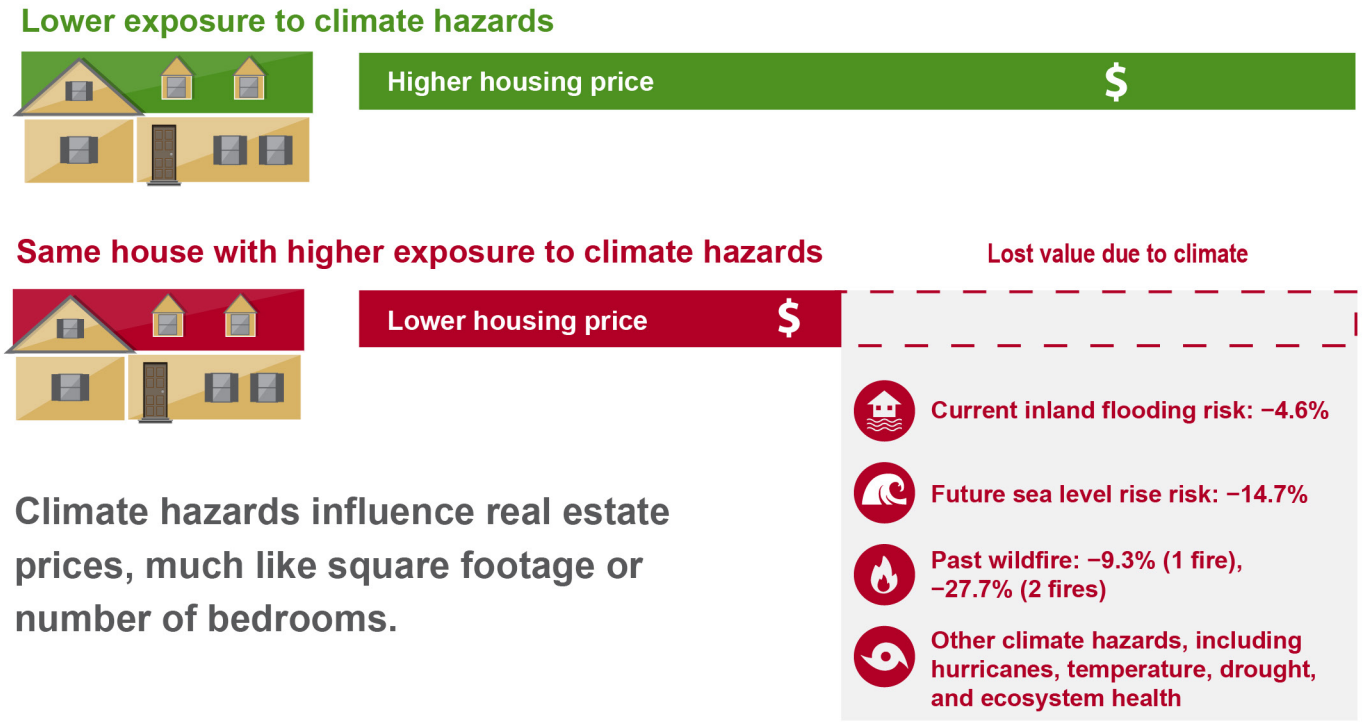
Markets are responding to current and anticipated climate changes, and stronger market responses are expected as climate change progresses (*medium confidence*). Climate risks are projected to change asset values as markets and prices adjust to reflect economic conditions that result from climate change (*very likely, high confidence*). New costs and challenges will emerge in insurance systems and public budgets that were not originally designed to respond to climate change (*high confidence*). Trade and economic growth are projected to be impacted by climate change directly and through policy responses to climate change (*likely, medium confidence*).

Key Message 19.3

Economic Opportunities for Households, Businesses, and Institutions Will Change

Climate change is projected to impose a variety of new or higher costs on most households and to impact their employment, income, and quality of life (*very likely, high confidence*). Climate change will alter the economic landscape that businesses face, generating new risks but also creating new opportunities (*likely, medium confidence*). Institutions and governments are expected to see existing programs used more intensively or in new ways as populations cope with climate change, generating new system-wide risks (*medium confidence*). Design, evaluation, and deployment of adaptation technologies and policies will strengthen our national preparedness for climate change (*high confidence*).

How Climate Hazards Impact Real Estate Prices



Exposure to climate hazards has a negative effect on real estate values.

Figure 19.3. Exposure to past climate events and to present and future climate risks affects the values of otherwise identical properties. The market price for real estate is reduced when the property is exposed to adverse climate extremes or risks. Percentages shown are example estimates from studies. Homes located in the present-day 100-year floodplain cost 4.6% less than comparable homes outside the floodplain (Beltrán et al. 2018); homes projected to be inundated by 1 foot of sea level rise cost 14.7% less (Bernstein et al. 2019); and homes located near one recent wildfire cost 9.3% less, while those located near two recent wildfires cost 27.7% less (Mueller et al. 2009). Note that these are examples from specific studies, some of which are not nationally representative. Other climate hazards including hurricanes (Hallstrom and Smith 2005), droughts (Hornbeck 2012), temperature (Albouy et al. 2016), and ecosystem health (Druckenmiller 2020), among others, also affect real estate prices. Figure credit: See figure metadata for contributors. See full chapter for detailed citations.

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