



The turning point

A new economic climate in South America

The scope of South America's climate challenge

Today South America accounts for 6% of the world's carbon emissions. More than half of South America's emissions are from agriculture, land use, land use change, and forestry (LULUCF) activities. Many of the region's economies are also significantly exposed to oil, gas, and other fossil fuel value chains. Over the next 50 years, the three industries in South America expected to incur the greatest losses to economic activity due to climate change are: services, manufacturing, and retail and tourism.

South America is already feeling the impacts of climate change. Between 1970 and 2019, South America recorded 867 disasters that resulted in more than 50,000 deaths and an estimated US\$100 billion in economic losses. Based on existing levels of warming, the next 30 years are expected to bring similar extreme weather events, but they will be more intense, and they will occur more frequently. The estimates set out in [The turning point: A new economic climate in South America](#) are a mixture of Deloitte modeling and third-party research.

Deloitte's analysis

In this report, the Deloitte Economics Institute presents analysis from Deloitte's Regional Climate Integrated Assessment Computable General Equilibrium Model (D.Climate) that models the economic impacts of climate change if emissions go largely unchecked, and what could happen if the countries of South America transform their systems to achieve net-zero emissions with the rest of the world by 2050. ➤

Key points

- Without global action, carbon emissions and temperatures will continue to rise.
- Rapid, coordinated global decarbonization would not only limit the worst effects of climate change, but could bring an economic and climate turning point.
- A net-zero future could transform sectors, create new jobs, and strengthen economic resilience.
- South America's core challenge is to decouple emissions from economic growth and to manage the upfront costs of decarbonization.
- The key to a successful net-zero transition will be in the sequence of actions leading up to South America's turning point.

Impacts of climate action/inaction in the region

Future negative impacts of inaction

- In a future of inaction, South America could lose 12% of GDP—or US\$2 trillion—in 2070 alone.
- By 2070, unchecked climate change could create approximately US\$17 trillion in economic losses to the South American region (in present value terms), according to Deloitte's analysis.
- In this climate-damaged future economy modeled by Deloitte, there could also be 18 million fewer jobs available in South America's economies in 2070, diminishing the region's long-term economic prospects.

- Extreme weather events and damaged physical capital would reduce South America's manufacturing output by US\$3.5 trillion by 2070. The retail and tourism industry could also experience a loss of US\$2.3 trillion by 2070.

Future positive impacts of action:

- If South America and the world take immediate steps to decarbonize, South America's net benefit of transition could grow to 1% of GDP, or US\$150 billion in 2070, compared to a climate-damaged, 3°C world. This benefit would grow with every subsequent year.
- South America's vast wind and solar resources, coupled with increasing electrification of energy systems, could provide an affordable and secure energy supply.
- Rapid expansion in the biofuel sector could be supported by an emerging hydrogen industry.
- South America can leverage existing skills and supply chain connections to support rapid decarbonization.

Scenario A: We do nothing further and global emissions rise ("around 3°C world")

This economic path represents a future with a higher rate of global greenhouse gas (GHG) emissions, where there are no significant additional mitigation efforts, and the global average temperature increases to near 3°C by 2100. This scenario reflects a widely adopted set of emissions, economic, and population assumptions, referred to as SSP2-6.0. The results of this scenario are presented as a deviation – a comparison to a world in which climate change didn't exist.

Scenario B: We act decisively and quickly to hit global net-zero by midcentury ("close to 1.5°C world")

This economic path represents a sequencing of efforts—by government, business, and citizens—to achieve net-zero emissions by 2050. This scenario would make it possible for us to limit warming to as close to 1.5°C—well below 2°C. Within this report,

Figure 1. South America—definition of modeled region



Source: Deloitte Economics Institute.

this scenario is regionalized to the South American continent. The results of this "close to 1.5°C" scenario are presented as a deviation, a comparison to the "3°C world."

The climate turning point

The turning point is when the benefits of decarbonization start to offset the costs. If the world limits global average warming to 1.5°C, it would benefit South America by preventing the worst impacts of climate change.

The Deloitte Economics Institute modeled path for South America's turning point represents a sequencing of efforts—by government, business, and citizens—to collectively move to net-zero emissions by 2050 and limit warming to around 1.5°C.

The following is a snapshot of the stages of coordinated change on the net-zero pathway.

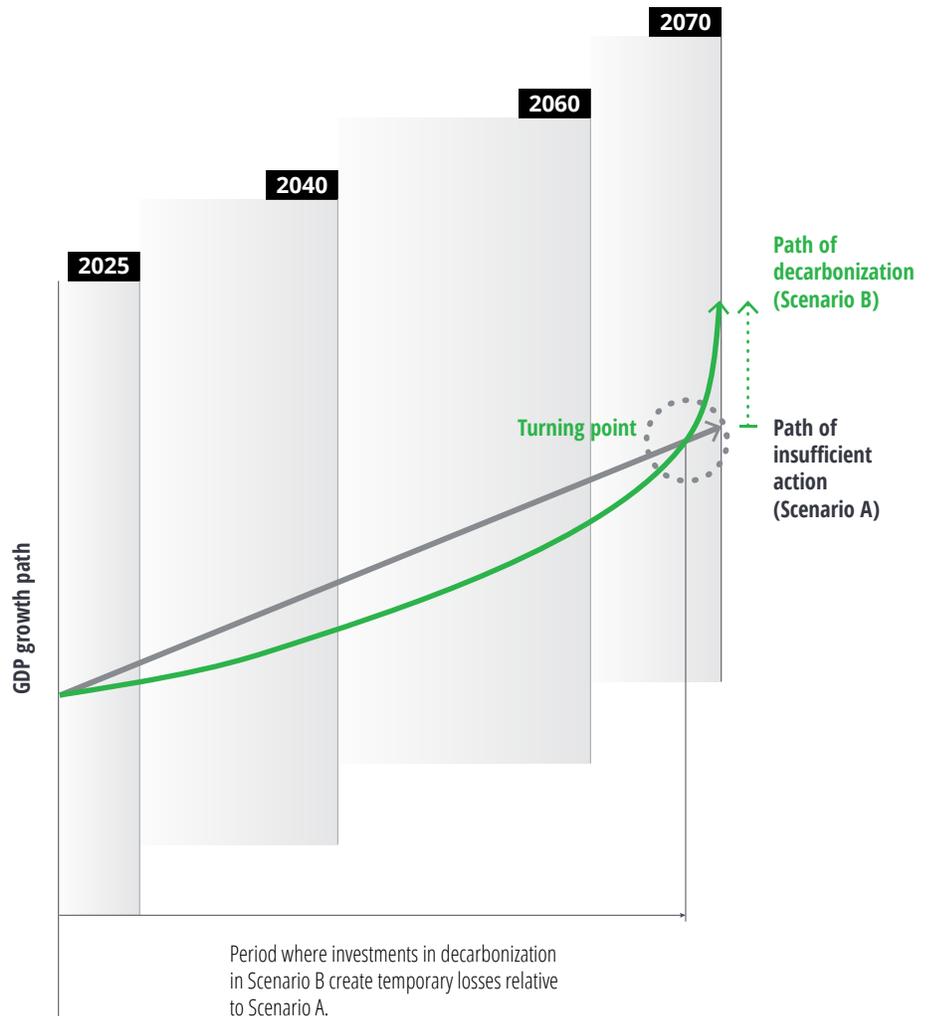
- Between now and 2065, low-emissions systems within and between countries would strengthen, accelerating the decarbonization transition past the most economically challenging point.
- Starting in 2046, the net transition costs would decrease each year, and decarbonization of high-emission industries would be almost complete, moving the economy closer to a low-emissions future.
- The manufacturing and utilities industries would be the first to see the benefits of the transition start to exceed the costs.
- From 2065, the economies of South America could be at net-zero emissions, and the decarbonized global economy could keep global average warming to around 1.5°C by the end of the century.
- South America's net gross domestic product could be positive from 2068 onward.
- Employment gains occur earlier, turning positive in 2066.
- Gains continue to gradually rise toward the end of the century, reaching over 2 million additional jobs in 2070.

A technical appendix outlining the data and methods underpinning this analysis is available on our [report website](#).

Conclusions

The decisions by government, regulators, business, industry, and consumers could reinforce initial progress and create the market conditions to deliver decarbonization at pace and scale. This vision of lasting prosperity will only be realized once South America's economic and ecological systems are truly harmonized.

Figure 2. Illustrative example of economic growth to 2070 on the path to a "close to 1.5°C world"



Note: Data is illustrative only.
Source: Deloitte Economics Institute.

References

- Deloitte Economics Institute, [Europe's turning point: Accelerating new growth on the path to net zero](#), October 2021; Deloitte Economics Institute, [Asia Pacific's turning point: How climate action can drive our economic future](#), August 2021; Deloitte Economics Institute, [The turning point: A new economic climate in the United States](#), January 2022
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