The sensitivity of pension funds to carbon transition risk

"The Dutch pension sector has a non-negligible exposure to carbon transition risk"

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What is the focus of the paper?

This paper examines the sensitivity to carbon transition risk of the equity and corporate bond portfolios of all 180 Dutch pension funds, particularly as a result of the introduction of a carbon tax. Using a climate stress test, the impact of various carbon tax scenarios on the value of their investments is calculated.

What are the key findings?

The exposure of Dutch pension funds to the three most carbon-intensive sectors (utilities, materials, and energy) is relatively limited: about 9 percent of the equity portfolio and 7.5 percent of the corporate bond portfolio. Nevertheless, the stress test shows that the financial impact of a carbon tax can be significant. With a carbon tax of 200 euros per tonne, the value of the total equity portfolios of pension funds could decline by 5.7 percent, and with a tax of 400 euros per tonne, by 9.1 percent. For corporate bonds, the declines are 4.2 and 7.4 percent, respectively. For individual pension funds, losses could be much higher.

What are the implications?

- Understanding carbon transition risk is important for institutional investors in order to assess the financial risks within their investment portfolios.
- The stress test shows that the Dutch pension sector has a non-negligible exposure to carbon transition risk, especially in equity portfolios. For some funds, this vulnerability is substantial. The analysis in the paper identifies which sectors contribute most to this risk and provides guidance on how to mitigate it.

Want to know more? Read the paper (in Dutch):

Who's afraid of carbon transition risk? A climate stress test of Dutch pension funds