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## **An Experimental Analysis of Compliance in Dynamic Emissions Markets: Theory and Experimental Design**

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Whether pollution sources should be allowed to bank or borrow transferable emissions permits and what restrictions should be placed on this activity are fundamental design choices for market-based pollution control. Recent theoretical work examines compliance incentives and enforcement strategies for trading programs with banking provisions. This paper reports on the initial stages of a project to design and conduct economic experiments to test hypotheses from this theoretical work. The experiments are designed to address questions about how to construct enforcement strategies to motivate truthful emission reporting and permit compliance in a dynamic trading environment. These will include questions about the appropriate use of reporting penalties, permit violation penalties, and penalties that are offsets from future permit allocations. Also, we will investigate the consequences of inadequate enforcement on the time paths of emissions permit prices, patterns of noncompliance, and environmental quality.