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Warehouse receipt financing for smallholders in developing countries: Challenges and limitations

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Data Appendix Available Online: A data appendix to replicate main results is available in the online version of this article.

Abstract

A warehouse receipt is a document issued by a warehouse operator as evidence that a specified commodity of stated quantity and quality has been deposited at a particular warehouse by a named depositor. When backed by an appropriate legal and regulatory framework, a warehouse receipt becomes a formal financial instrument that allows the depositor to confer a security interest in the stored commodity to another party without requiring physical delivery, allowing the warehouse receipt to serve as possessory collateral for a loan. Warehouse receipt financing, in theory, permits smallholders farmers in developing countries to store their surplus safely in a modern warehouse to sell at a later date when prices are higher, while allowing them to use the stored commodity as collateral to secure a loan to finance household consumption and investment needs in the interim. However, in practice, warehouse receipt financing generally has not been embraced by smallholders in developing countries in which it is available. Here, we develop and analyze a formal stochastic dynamic model of seasonal commodity marketing that exposes the transaction cost and risk reallocation problems that undermine the benefits of warehouse receipt financing to smallholders.

Supporting Information

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Citing Literature

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