

The Risk of Safe Asset Creation*

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October 6, 2022

Abstract

Many financial intermediaries issue money-like, safe liabilities against risky asset holdings, effectively engaging in safe asset creation and earning convenience and safety premia. In this paper, we model safe asset creation by an intermediary with risky asset holdings, whereby the risk and safety of an intermediary's liabilities endogenously vary with its net worth. The intermediary controls safety creation both on the extensive and intensive margin, in that it can either issue few, relatively safe assets or more assets that are comparatively less safe. When net worth is high, intermediary liabilities are safe and the intermediary earns high safety premium to further grow its net worth and improve safety of its liabilities, causing a virtuous cycle. When net worth is low, intermediary liabilities become risky and their value fluctuates with shocks to assets, which reduces the intermediary's earnings and its balance sheet risk. Their riskiness reduces the safety premium of intermediary liabilities, curbs net worth growth, and dynamically reduces safety further, causing a vicious cycle. The stationary distribution of net worth is bimodal, and features a persistent instability trap for intermediary liabilities in states of low net worth. A volatility paradox arises: The safety of intermediary liabilities might increase with the volatility of asset holdings. We then evaluate how regulation (e.g., capital requirement) affects intermediaries' safe asset creation. Our model can be used to study and to assess the risks of different types of financial intermediaries, including banks, shadow banks, or stablecoin issuers.

Keywords: Safe Assets, Shadow Banking, Money Creation, Convenience Yield, Liquidity Transformation, Financial Intermediation, Stablecoins, Intermediary Asset Pricing, Security Design

*We are grateful to helpful comments from Wenhao Li.

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