

## **Title: Portfolio Liquidation and Security Design with Private Information**

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**ABSTRACT.** We consider a privately informed issuer which holds a portfolio of assets that can be sold to raise cash, where the fractions of assets sold serve as a multidimensional signal. If good news about one asset is good news for the others, then there is a unique equilibrium that satisfies the Intuitive Criterion, which is Pareto dominant among all equilibria in which assets are not mispriced. If, in addition, the asset returns can be ordered in terms of their sensitivity to the issuer's private information, then the issuer sells its least information-sensitive assets first. We apply this result to consider sales of the senior and junior tranche structures that are typical of asset-backed securities. We show that, when the securities are designed ex ante, splitting a given security into distinct tranches always increases the issuer's payoff. We extend these results to consider optimal ex post security design under asymmetric information. We identify a unique equilibrium when the issuer's information and the return of its portfolio are discrete, and give a sufficient condition for standard debt to be optimal. By taking limits we obtain an equilibrium of the continuous model, in which the face value of this debt contract is given by a simple differential equation. We establish the robustness of this limit result by showing that the issuer's expected profits in the discrete model converge uniformly to its profits in the continuous model.