

## Mortgage Securitization and Risk

### Abstract

Securitization is typically seen as a risk-sharing technique; less attention is paid to how risk types affect the equilibrium and optimal secondary market sizes. We use a standard equilibrium model with spatial differentiation to characterize the effects of different risk types on secondary markets and ultimate mortgage borrowers. We find that: (1) Market risks (e.g. liquidity and origination risk) increase secondary market trading volume but do not necessarily lead to securitization *per se*; (2) Idiosyncratic risks (e.g. credit risk) do lead to securitization as well as increasing secondary market volume; and (3) Aggregate risks (e.g. prepayment risks) tend to decrease secondary market volume.

Also, some secondary markets are fragmented while others are highly standardized. We provide conditions for the equilibrium emergence of a single secondary market, and for the optimality of such a market.

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## 1 Introduction

Mortgage originators face four fundamental sources of risk. First, the risk that they are unable to originate the desired volume of mortgages (*origination risk*); second, that the market price of mortgages may fluctuate, hampering their efforts to maintain a diversified portfolio (*liquidity risk*); third, that individual mortgages may default (*credit risk*); and fourth, that mortgages may prepay, losing a fraction of their value (*prepayment risk*).