

Dissertation Defense

Maxime Roy

Essays on the Securitization of Student Loans and the Financial Crisis of 2007-2009

Friday, May 5, 2017

2:00pm

384 Posner Hall

My dissertation contains three chapters that have the securitization of student loans for common thread. The first two chapters focus on the underpricing of Asset-Backed Securities (ABS) collateralized by government guaranteed student loans during the financial crisis of 2007-2009. The findings add to the literature that documents persistent arbitrages during the crisis and doing so in the ABS market is a novelty. The last chapter focuses on the securitization of private student loans, which do not benefit from government guarantees. Whether the disclosure to investors is sufficient to prevent the selection of underperforming pool of loans and whether the credit risk retention is sufficient to dissuade issuers from engaging in selection on characteristics undisclosed to investors are the research questions that motivates this last chapter. All chapters have interesting normative implications.

More specifically, in the first chapter, I document the presence of *near-arbitrage* opportunities in the student loan ABS (SLABS) market during the financial crisis of 2007-2009. I construct near-arbitrage lower bounds on the price of SLABS collateralized by government guaranteed loans. Once the price of a SLABS is below its near-arbitrage lower bound, an arbitrageur that buys a SLABS, holds it to maturity and finances the purchase by frictionlessly shorting short-term Treasuries, is nearly certain to make a profit. The underpricing on some SLABS relative to Treasuries exceeded 22% during the crisis.

In the second chapter, I analyze whether the risks associated with historically unprecedented macroeconomic events, such as exceptionally high inflation and default by the government on its loan guarantee, could explain the large underpricings observed on SLABS during the financial crisis of 2007-2009. Using data on inflation caps, data on interest rate swaps, the pricing of caplets on interest rate basis and comparing the price dynamic on SLABS to other securities benefitting from a similar government guarantee, I find that these aforementioned risks only explains between 5% and 32% of the near-arbitrage gaps.

In the third chapter, co-authored by Adam Ashcraft, we empirically analyze the adverse selection of loans in the private student loan (PLS) ABS market. Using loan-level data, we demonstrate the potential for an issuer of PSL-ABS to select loans in such a way that could result in materially adverse outcomes for investors (credit rating downgrades or market value loss). We find that issuers could increase pool losses by 6%-20% among pre-crisis deals and by 16%-36% among post-crisis deals while still matching the disclosed pool characteristics. The shifts in pool losses are achieved by exploiting the coarseness of the disclosure and by jointly overrepresenting unseasoned loans in the low credit score region and overrepresenting seasoned loans in the high credit score region.