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Abstract

In this survey we provide an overview of the subprime mortgage securitization process and the seven key informational frictions which arise. We discuss how market participants work to minimize these frictions and speculate on how this process broke down. We continue with a complete picture of the subprime borrower and the subprime loan, discussing both predatory borrowing and predatory lending. We present the key structural features of a typical subprime securitization, document how the rating agencies assign credit ratings to mortgage-backed securities, and outline how the agencies monitor the performance of mortgage pools over time. Throughout the survey, we draw upon the example of a mortgage pool securitized by New Century during 2006.

Keywords: Subprime mortgage credit; securitization; rating agencies; principal agent; moral hazard.

JEL codes: G24, G28

Contents

1

Introduction

As of this writing the total write-downs by financial institutions over the course of 2007–2008 has been \$290 billion,[1] much — if not most — directly or indirectly related to subprime mortgages. This already exceeds the total cost of the S&L crisis of about \$250 billion (in 2008 dollars) (GAO, 1996). How does one securitize a pool of mortgages, especially subprime mortgages? What is the process from origination of the loan or mortgage to the selling of debt instruments backed by a pool of those mortgages? What problems creep up in this process, and what are the mechanisms in place to mitigate those problems? This survey seeks to answer all of these questions. Along the way we provide an overview of the market and some of the key players, and provide an extensive discussion of the important role played by the credit rating agencies.

In Section 2, we provide a broad description of the securitization process and pay special attention to seven key frictions that need to be resolved. Several of these frictions involve moral hazard, adverse selection, and principal-agent problems. We show how each of these

[1] Abigail Moses, 'Credit Suisse Leads Increase in Bank Risk on Loss, Writedowns'. *Bloomberg News*, April 24, 2008.

frictions is worked out, though as evidenced by the recent problems in the subprime mortgage market, some of those solutions are imperfect. In Section 3, we provide an overview of subprime mortgage credit; our focus here is on the subprime borrower and the subprime loan. We offer, as an example a pool of subprime mortgages New Century securitized in June 2006. We discuss how predatory lending and predatory borrowing (i.e., mortgage fraud) fit into the picture. Moreover, we examine subprime loan performance within this pool and the industry, speculate on the impact of payment reset, and explore the ABX and the role it plays. In Section 4, we examine subprime mortgage-backed securities, discuss the key structural features of a typical securitization, and, once again illustrate how this works with reference to the New Century securitization. We finish with an examination of the credit rating and rating monitoring process in Section 5. Along the way we reflect on differences between corporate and structured credit ratings, the potential for pro-cyclical credit enhancement to amplify the housing cycle, and document the performance of subprime ratings. Finally, in Section 6, we review the extent to which investors rely upon on credit rating agencies views, and take as a typical example of an investor: the Ohio Police and Fire Pension Fund.

We reiterate that the views presented here are our own and not those of the Federal Reserve Bank of New York or the Federal Reserve System. And, while the survey focuses on subprime mortgage credit, note that there is little qualitative difference between the securitization and ratings process for Alt-A and home equity loans. Clearly, recent problems in mortgage markets are not confined to the subprime sector.

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