



ELSEVIER

Contents lists available at ScienceDirect

## Journal of Financial Markets

journal homepage: [www.elsevier.com/locate/finmar](http://www.elsevier.com/locate/finmar)Predictions of corporate bond excess returns<sup>☆</sup>Hai Lin<sup>a,1</sup>, Junbo Wang<sup>b,2</sup>, Chunchi Wu<sup>c,\*</sup>

<sup>a</sup> School of Economics and Finance, Victoria University of Wellington, Rutherford House 23, Lambton Quay, Pipitea Campus, Wellington 6140, New Zealand

<sup>b</sup> Department of Economics and Finance, City University of Hong Kong, 88 Tat Chee Avenue, Kowloon, Hong Kong

<sup>c</sup> Department of Finance and Managerial Economics, School of Management, State University of New York at Buffalo, 335A Jacobs Management Center, Buffalo, New York 14260, United States

## ARTICLE INFO

## Article history:

Received 1 August 2013

Received in revised form

15 August 2014

Accepted 19 August 2014

Available online 28 August 2014

## JEL classification:

G12

G14

## Keywords:

Return predictability

Default premium

Term premium

Duration

Credit spreads

Liquidity

## ABSTRACT

In this paper, we investigate the predictability of corporate bond excess returns using a comprehensive data sample for the period from January 1973 to December 2010. We find that corporate bond returns are more predictable than stock returns, and the predictability tends to be higher for low-grade bonds and short-maturity bonds. A forward rate factor captures substantial variations in expected bond excess returns. Furthermore, liquidity factors and a bond's credit spread have predictive power on corporate bond excess returns. Combining these variables with traditional predictors significantly improves the performance of the predictive model for corporate bond returns.

© 2014 Elsevier B.V. All rights reserved.

<sup>☆</sup> We are grateful to Geert Bekaert, Lubos Pastor, and Guofu Zhou for helpful suggestions and discussions. Special thanks go to Sarah Carrington, Brandon Chen, Michael Chng, Timothy Crack, Toby Daghli, Lew Evans, Michael Keefe, Martin Lally, Tao Li, Edward Lin, Ruipeng Liu, Srikant Marakani, Dorian Owen, Giorgio Valente, Niklas Wagner, James Wang, Jerry Wang, Jin Zhang, Xinwei Zheng, and seminar participants at City University of Hong Kong, Deakin University, National Taiwan University, University of Otago, Victoria University of Wellington, Xiamen University, and Zhejiang Gongshang University, and participants at the 2011 HKU-HKUST-Stanford Conference in Quantitative Finance and 2013 International Conference on Finance and Banking for helpful comments. Lin acknowledges financial support from the National Natural Science Fund of China (Grant nos. 71301137, 71371161, 71101121) and the Humanities and Social Science Fund of Chinese Ministry of Education (Grant no. 11JYC790014). Junbo Wang acknowledges financial support from the Research Grants Council (RGC) of the Hong Kong Special Administration Region, China (Project 9041965, equivalent to CityU 194913). Wu acknowledges the summer research support of the School of Management, State University of New York at Buffalo.

\* Corresponding author. Tel.: +1 716 645 0448.

E-mail addresses: [hai.lin@vuw.ac.nz](mailto:hai.lin@vuw.ac.nz) (H. Lin), [jwang2@cityu.edu.hk](mailto:jwang2@cityu.edu.hk) (J. Wang), [chunchiw@buffalo.edu](mailto:chunchiw@buffalo.edu) (C. Wu).

<sup>1</sup> Tel.: +64 04 463 5239.

<sup>2</sup> Tel.: +852 3442 9492.

## 1. Introduction

The predictability of asset returns has attracted considerable attention of financial economists. Whether returns are predictable remains a subject of ongoing debates.<sup>3</sup> The literature focuses on the predictability of stock market returns. At the same time, the issue of return predictability is relatively underexplored for the corporate bond market. In this paper, we examine the predictability of corporate bond returns using a large individual bond sample, additional predictors, and improved empirical methods advanced in the recent literature.

Investigating the predictability of returns on the corporate bond market is important for various reasons. First and foremost, understanding the predictability of returns is necessary for a market whose size is roughly equal to that of equities in aggregate value, from the perspective of risk premium determination. More importantly, the study of bond return predictability provides clues for the sources of variations in expected returns and directly answers the question of whether returns on different classes of assets are driven by common factors. Corporate bonds are in many ways different from stocks. Bond analysis offers additional evidence to compare and contrast the results to the equity and other markets. Further, as variations in expected returns affect investors' asset allocations, understanding the predictability of returns in different asset classes is essential for developing optimal strategies for dynamic asset allocation and hedging.

In investigating the predictability of corporate bond returns, our analysis draws on several important papers. [Cochrane and Piazzesi \(2005\)](#) find that Treasury excess returns can be predicted by the full term structure of forward rates. We examine whether the Cochrane-Piazzesi forward rate factor can predict corporate bond returns. [Gilchrist and Zakrajsek \(2012\)](#) find that a credit spread index extracted from corporate bonds predicts future economic activity. Their finding implies that the credit spread can have predictive power for expected corporate bond returns as bond premiums vary with economic conditions. We include the bond's credit spread as an additional predictor for corporate bond returns. [Bongaerts, De Jong, and Driessen \(2012\)](#) and [Dick-Nielsen, Feldhutter, and Lando \(2012\)](#) document that credit spreads contain a significant liquidity component. In this paper, we consider a number of conventional liquidity indices, as well as the corporate bond liquidity index suggested by [Dick-Nielsen, Feldhutter, and Lando \(2012\)](#) to explore the predictive power of these indices for corporate bond returns.

Using a comprehensive data sample of corporate bonds, we provide several unique findings that expand the literature on return predictability. First, we find that corporate bond returns are more predictable than stock returns, and the magnitude of predicted bond returns is of economic significance. Returns tend to be more predictable for speculative-grade bonds and short-maturity bonds.

Second, we find that the [Cochrane–Piazzesi \(2005\)](#) forward rate factor, liquidity factors, and the bond's credit spread have predictive power for corporate bond returns. Including these variables significantly improves the forecasting performance of the predictive model. Variations in expected returns tracked by these predictors are linked to business cycles and market liquidity conditions. The results show that the predictability of corporate bond returns is driven predominantly by time-varying risk premiums associated with changing business conditions.

Third, we find that a combination of individual forecasts generates better out-of-sample forecasting performance than single forecasts for corporate bond returns by improving the information content of the model and stability of out-of-sample forecasting. Different predictors track different components of expected corporate bond returns. A combination of individual predictive models out-of-sample captures different dimensions of evolving return information and

---

<sup>3</sup> See, for example, [Ang and Bekaert \(2007\)](#), [Campbell and Thompson \(2008\)](#), [Welch and Goyal \(2008\)](#), [Rapach, Strauss, and Zhou \(2010\)](#), and [Thornton and Valente \(2012\)](#). Past studies have shown that stock returns can be predicted by long and short bond rates ([Campbell, 1987](#); [Ang and Bekaert, 2007](#)), default and term spreads ([Fama and French, 1989](#)), dividend yields ([Fama and French, 1988, 1989](#); [Cochrane, 1992, 2008](#)), valuation ratios ([Campbell and Thompson, 2008](#)), earnings yields ([Campbell and Shiller, 1988](#)), earnings ([Sadka and Sadka, 2009](#)), book-to-market ratio ([Kothari and Shanken, 1997](#)), inflation rates ([Fama and Schwert, 1977](#)), stock market volatility ([Guo, 2006](#)), and consumption-to-wealth ratio ([Lettau and Ludvigson, 2001](#)). [Fama and Bliss \(1987\)](#) find that the spread between the forward rate and the one-year spot rate predicts Treasury returns.

Download English Version:

<https://daneshyari.com/en/article/960984>

Download Persian Version:

<https://daneshyari.com/article/960984>

[Daneshyari.com](https://daneshyari.com)