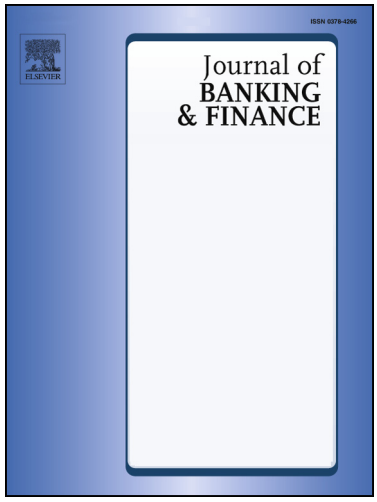

US Bank Credit Spreads during the Financial Crisis

Peter Spencer

PII: S0378-4266(16)30047-4
DOI: http://dx.doi.org/10.1016/j.jbankfin.2016.04.015
Reference: JBF 4944

To appear in: *Journal of Banking & Finance*

Received Date: 7 May 2015
Accepted Date: 21 April 2016

Please cite this article as: Spencer, P., US Bank Credit Spreads during the Financial Crisis, *Journal of Banking & Finance* (2016), doi: http://dx.doi.org/10.1016/j.jbankfin.2016.04.015

US Bank Credit Spreads during the Financial Crisis.

Peter Spencer*

University of York

Abstract

This paper argues that first passage time models are likely to better than affine hazard rate models in modelling stressed credit markets and confirms their superior performance in explaining the behavior of Credit Default Swap rates for the major US and UK banking groups over the period of the financial crisis. Affine models find it hard to deal with periods of exceptionally high or low default risk given their assumption of a constant rate of mean reversion in the hazard rate. In contrast, first passage time models are specified in terms of the distance to default rather than the hazard rate. The persistence of shocks varies with the distance to default, allowing the default curve to invert sharply (compress) when the distance to default is low (high). I use an empirical version of the Collin-Dufresne et al (2003) model, which contains a smoothing parameter that allows it to control the relative effect of these shocks on the short spreads and can be interpreted as an information lag. Investors in the CDS market behaved as if they observed the distance to default with a lag of two to four years.

*Department of Economics and Related Studies; University of York, York YO10 5DD, UK. (44) 904-323771, ps35@york.ac.uk.