



1. Modelling credit risk of portfolio of consumer loans

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Abstract: One of the issues that the Basel Accord highlighted was that, though techniques for estimating the probability of default and hence the credit risk of loans to individual consumers are well established, there were no models for the credit risk of portfolios of such loans. Motivated by the reduced form models for credit risk in corporate lending, we seek to exploit the obvious parallels between behavioural scores and the ratings ascribed to corporate bonds to build consumer-lending equivalents. We incorporate both consumer-specific ratings and macroeconomic factors in the framework of Cox Proportional Hazard models. Our results show that default intensities of consumers are significantly influenced by macro factors. Such models then can be used as the basis for simulation approaches to estimate the credit risk of portfolios of consumer loans. © 2010 Operational Research Society Ltd. All rights reserved.

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