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Default risk of a jump-diffusion model subject to Chapter 7 and Chapter 11 bankruptcy codes

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We are interested in the default risk of a firm. Let $a < b$ and $c > 0$ be three exogenously determined constants, with a interpreted as the liquidity threshold, b as the reorganization threshold and c as the grace period. The firm is considered as defaulted whenever its value either goes below level a or constantly stays below level b for c units of time. Economic justifications for this concept of default are the US bankruptcy codes Chapter 7 (Liquidation) and Chapter 11 (Reorganization). We model the firm value by a jump-diffusion process and derive an explicit formula for the default probability.