

# **KMW - Merton Model for measuring the credit risk of the international reserves of the Central Bank of Bolivia**

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## **ABSTRACT**

Since subprime market crisis in the United States peaked up in September 2008, the financial consequences over high credit quality institutions became a major issue making necessary to improve the monitoring and measurement of the credit risk of BCB counterparties. This document proposes an additional quantitative measure of credit risk besides the traditional credit agency analysis; the methodology is based on KMV-Merton Model, seeking to obtain a default probability as an early warning indicator of the lack of credit quality in banking sector counterparties; our findings show an increase of the probability, since Lehman Brothers Bankruptcy.

**JEL Classification:** C15, C19

**Keywords:** *International reserves; Central Bank of Bolivia; credit risk; KMV-MERTON Model; probability of default; default*