UNIVERSITI TEKNOLOGI MARA

TECHNICAL REPORT

THE ADAPTATION OF KMV MODEL IN MEASURING SOVEREIGN DEBT DEFAULT

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Abstract

Sovereign debt default can be defined as the failure of a government of a country to make repayment on its debt. KMV model was used in firms as a subject to measured it's default risk and less used on countries. The aim of this study is to adapt the KMV model into the case of predicting default risk of sovereign debt. In addition, the effect of sovereign debt default to the gross domestic product (GDP) of a country is identified where the sovereign debt default is not significantly related to the GDP of a country. Since the ability of KMV model is uncertain, therefore it is tested by comparing the probability of default (PD) between Malaysia and Greece This model measures the default risk of both countries based on the value of the financial statement of assets and liabilities from the years 2006 to 2017. From the result, it is found that Malaysia has a lower default risk than Greece. KMV model is found able to predict the default risk during world financial crisis. This study helps researcher, analyst, investor and policy maker to make decision involving the sovereign debt cases.

CONTENTS

LIST OF TABLES