Predicting Probability of Defaults: The Case of Malaysian Sukuk Market

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ABSTRACT

Of all rapidly growing Islamic capital market securities, none are gaining popularity as much as sukuk. Unfortunately, series of high profile sukuk defaults in the Gulf Cooperation Council (GCCs) e.g., Investment Dar, Saad Group and Dubai World’s Nakheel Sukuk in 2009 have tarnished the credibility of sukuk as feasible and viable Islamic long-term project financing instrument. For Malaysian sukuk market, there were 26 cases of sukuk default documented since the first sukuk issuance in 1997 until 2013. Given this situation, it is interesting to investigate the reason for the defaults, more importantly, to predict the probability of default so that the occurrence of defaults may be minimized in the future. Such identification of default risks in sukuk is important for supervision and risk management purposes. The objective of this study is to develop an early warning model for predicting corporate sukuk defaults in the Malaysian capital market using financial as well as non-financial variables. This study employs a multiple regression using maximum likelihood (ML) based on binary logit. It provides important results: first, an empirical method for estimating corporate sukuk probability of default, where the default risk is forecastable on the basis of a number of financial and macroeconomic variables. Second, it shows that for solvent companies issuing sukuk, the probability of default is low. On the other hand, for insolvent companies, the probabilities of defaults are very high as early as the first year of issuance. These results have many important implications for Malaysian sukuk market.

Keyword: Capital market, Islamic finance; Malaysia; sukuk default.

INTRODUCTION

Sukuk is an increasingly important asset class which enables governments and corporations to raise capital in a shariah-compliant manner. In addition to the conventional bonds, sukuk provides access to

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5 “Shariah-compliant” refers to activities that are permissible according to Islamic teachings, values, and ethics.

Persidangan Kebangsaan Ekonomi Malaysia ke-9 (PERKEM ke-9)
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huge and growing Islamic liquidity pool. The sukuk market has grown rapidly over the last few years in terms of size, numbers, and sophistication. The instrument has gained popularity in Malaysia since its first inception in 2002 and has seen tremendous development since then. In the global arena, Malaysia is consistently being the largest market for sukuk with 69 percent and 62 percent of the total sukuk issuance and outstanding consecutively.

Malaysia’s Islamic capital market continues to exhibit vibrant growth as can be seen from the ever-increasing size and diversity of sukuk offered. This is attributable to various factors, including well-executed policies, facilitative regulatory environment, increasing numbers and sophistication of intermediaries that continue to push the frontiers in terms of product innovation as well as the existence of a complete, matured and well-established Islamic financial system.

Of all rapidly growing Islamic capital market securities, none are gaining popularity as much as sukuk. Unfortunately, series of high profile sukuk defaults in the Gulf Cooperation Council (GCCs) e.g., Investment Dar, Saad Group and Dubai World’s Nakheel Sukuk in 2009 have tarnished the credibility of sukuk as feasible and viable Islamic long-term project financing instrument. In Malaysian market, there were 26 cases of sukuk default documented since the first sukuk issuance in 1997 until 2013 (including two new cases being downgraded to D). Therefore, this study aims to provide model in predicting sukuk default using financial and non-financial indicators.

It is interesting to investigate the reason for the defaults. Also, it is more important to predict the probability of default so that the occurrence of defaults may be minimized in the future. It is important to address this issue as this study able to help sukuk issuers as well as rating agencies in estimating credit risks and setting corporate pricing on a risk-adjusted return basis. Such identification of default risks in sukuk is important for supervision and risk management purposes.

This paper is structured as follows. The following part discusses on overview of sukuk and default risk in Malaysia market. Next, it presents methodology, followed by deliberation on the findings. Final part concludes with policy implication.

OVERVIEW OF SUKUK

Sukuk Concept

Sukuk is derived from Arabic word, sak, which means certificate. Sukuk is defined as certificates of equal value which evidence undivided ownership or investment in the assets using shariah principles or concepts, e.g. murabahah, buy’ bithaman ajil, ijarah, istisna’, mudarabah, musharakah, wakalah, salam and istisna’. In Malaysia, these principles in structuring sukuk must be approved by the Shariah Advisory Council (SAC) of the Securities Commission (SC). There are a few types of sukuk, namely asset-based (sale & lease-based); asset-backed (partnership & agency-based); and hybrid.

Sukuk and Default Risk

Sukuk are different from conventional bonds in some risks that each issuer and investor must take into consideration. The risks that sukuk encounter vary according to the structure of their underlying contracts as well as the underlying assets of these Sukuk. Furthermore, lack of efficient institutional support increases the risk of sukuk as compared to traditional fixed incomes (Sundararajan & Luca 2002).

Credit (default) risk is one of the risks that apparently associated to sukuk instruments. Khan and Ahmed (2001) define credit risk as the risk that the counterparty will fail to meet its obligations promptly and fully in accordance with the agreed terms. It also refers to the probability that an asset or loan becomes irrecoverable due to a default or delay in settlements (Tariq & Dar 2007). Chapra and Khan (2000) identify various unique credit specific to sukuk. Meanwhile, Khan and Ahmed (2001) conclude that sukuk salam entail unique bases of credit risks, while sukuk musharakah has high default risks. For sukuk mudarabah, poor performance of projects and problems emanating from asymmetric information may contribute to credit risk.6

Sukuk ijarah in particular is exposed to credit risk in two occasions: (1) credit risks while the contract is enforced; and (2) credit risk when the contract matures. During the term of the contract, an issuer is obliged to pay the specified rent at the specified time to the sukuk ijarah holders. Failure to pay rent at the specified time imposes credit risks. The floating rate of sukuk ijarah is more susceptible to this

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6 Generally, asymmetric information occurs when the mudharib (entrepreneur/firm) accesses more information compared to investors, and encourages the said mudharib to not fully disclose information for its benefits.
risk as the rise in reference rate could increase the burden of rental payment. On the other hand, when the contract matures, the SPV under sukuk ijarah will sell the underlying assets back to the issuer at a predetermined price. Proceeds from this sale will be distributed among sukukholders. However, the credit risk can occur at maturity if the issuer is unable to buy back the underlying asset at the predetermined value.

Howladar (2006) insists that sukukholders must own the beneficial title of the underlying asset to avoid the risk of “claw back”. By owning the asset legally, sukuk investors are entitled to all rights on the assets, including the right to liquidate the asset should the originator becomes insolvent. However, the actual sale of asset may not occur due to the tendency of contractual parties to sign both the sell-and-leaseback and buy-back contracts concurrently (Mohd Hafizuddin et al., 2010). Accordingly, Vicary (2010) highlights that if investors are unable to dispose the asset in case of default; the underlying asset has no genuine role in the sukuk structure. In this case, the structure of sukuk is merely a metaphor for the purpose of legitimacy under shariah law.

Under the mudarabah structure, bankruptcy risk can happen if the project fails or if the sukuk issuer becomes insolvent. In the former, it is clearly understood that rabbul-maal would bear the entire loss should the project not perform well, but the mudarib will be responsible for the losses due to negligence, mismanagement, and dishonesty. However, in case the originator goes bankrupt, which then leads to the project’s failure, can investors claim for recovery of their investment? The presence of SPV is not compulsory for sukuk mudarabah but many issuers in Malaysia (or even worldwide) tend to use SPVs for tax incentives purposes as well as for their bankruptcy-remote feature. Although the originator owns the SPV, its liability is limited to the capital invested in SPV and prevents the rabbul-maal to make claims against the originator in the event of insolvency. Therefore, the bankruptcy risk the investor faces is solely on the performance of the project and not to the originator. In addition, the Shariah Advisory Council (SAC) of the Securities Commission of Malaysia allows third-party guarantee on capital invested by rabbul-maal under sukuk mudarabah. Thus, the major credit risk faced by the rabbul-maal is the non-payment of profit share by the mudarib at specified times.

Hence, corporate liabilities such as sukuk may also carry credit or default risks. There is always a chance that a corporate borrower will not meet its contractual obligations and may renego from paying the principal and the profit due. Although high grade issuer is also exposing to credit risk at minimum, the exposure can even increase significantly. Further, the margins in corporate lending are very tight; even small miscalculations of default risks can undermine the profitability of lending. Unexpected realizations of default risk have destabilized, decapitalized, and destroyed many internationally active corporate institutions. Bandyopadhyay (2006) reports that as the credit quality of a corporate bond worsens (i.e., its rating grade declines), the probability of default (PD) increases. Furthermore, the probability of default jumps sharply as soon as the rating moves from investment to non-investment grades (i.e., from BBB rating to BB). He also observes that rating stability declines as the credit quality worsens. The higher risk in the bottom grades (mainly non-investment grades) calls for developing a corporate default predictor model that would better capture the firm’s characteristics and could give an early warning of corporate distress.

**Sukuk and Credit Ratings**

In conjunction to credit risk exposure, the need for a sukuk credit rating becomes more evident. A credit rating is a mechanism through which an independent third party, i.e., the credit rating agency (CRA), makes an assessment on the likelihood a corporate issuer will default on its debt repayments. It focuses on a specific debt instrument and not on the overall creditworthiness or financial standing of the corporate issuer. A rating will take into consideration various enhancement tools such as guarantees, sinking funds, letters of credit, or any other mechanism devised to reduce the default risk

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7 Claw back refers to the possibility that those assets may now be reclaimed by the administrator of the insolvent estate and will not be available to repay sukuk investors (Howladar 2006).
8 It is permissible by shariah law to establish reserves for contingencies but it only covers the shortfall of expected profits.
9 Most SPVs in Malaysia are owned by the originator.
10 To date, there are two licensed CRAs in Malaysia that provide independent opinions on the credit risks and potential default risks of specific issuers. The first rating agency, RAM Rating Services Berhad (then, Rating Agency Malaysia Berhad – RAM), was established in November 1990. The second is the Malaysian Rating Corporation Berhad (MARC), which was incorporated in October 1995. Some international rating agencies such as Moody’s, Standard & Poor's (S&P) and Fitch Ratings are also recognized by the Malaysian Securities Commission.
of specific issues. Thus, a corporation may be assigned different rating categories for different debt issues across time (RAM 2010). The sukuk credit rating reflects credit worthiness of the underlying asset and issuers of the certificate. In general, sukuk with good credit ratings (e.g., AAA, AA) entail low credit risk, and vice-versa. Similar to conventional bond, sukuk also entail credit or default risk. Chances of failure for corporate borrower to meet contractual obligation are always exist due to default in paying principal and outstanding profit. In fact, typical high-grade borrower is exposed to credit risk although it may relatively small, perhaps 1/10 of 1 percent per year.

Malaysia is one of the first countries in the world to require CRAs’ ratings on sukuk issue. Sukuk to be issued in Malaysia must have at least one credit rating, i.e. initial rating, and throughout its tenure (SC & Bank Negara Malaysia 2007). The measure recognizes CRA’s vital role in evaluating the credit risk, and the importance investors place on ratings for their investment decisions. This is important to boost the confidence of sukuk investors and market participants.

METHODOLOGY

This study employs a multiple regression using maximum likelihood (ML) based on binary logit. As the sample chosen is relatively small, panel data regression is employed. Specifically, logit regression analysis is conducted to obtain the coefficient of each explanatory variable. Then, these coefficient values are used to derive the Logistic Distribution Function (LDF). The logit model method is employed to estimate several data sets that have a qualitative-dependent variable. It is an alternative estimation method over the Linear Probability Model (LPM) since the former could overcome many of LPM estimation problems.

Probability of Sukuk Default: The Model

The logit model is derived from the LPM equation to form the Z-score model to obtain coefficient values for each explanatory variable where \( P \) is the cumulative logistic distribution, as below:

\[
P_i = \beta_1 + \beta_2X_i
\]  

(Eq. 1)

Where, the following represent the probability of event will happen:

\[
P_i = \frac{1}{1 + e^{-Z_i}} = \frac{e^Z}{1 + e^Z}
\]  

(Eq. 2)

Thus, the logit equation takes the following form:

\[
PD_u = F(Z)
\]  

(Eq. 3)

Where, \( F(Z) \) is the cumulative logistic distribution from Equation 2, i.e. Z-score. The common form of the Z-score model is shown below:

\[
Z_i = \beta_1 + \beta_2X_{i1} + \beta_3X_{i2} + \ldots + \beta_kX_{ik}
\]  

(Eq. 4)

We develop our model by replicating Bandyopadhyay (2006) on the probability of bond default. We include macroeconomic variable i.e. gross domestic product (DGP) to further assess the macroeconomic effect on the probability of sukuk defaults and earnings before interest and tax (EBIT). According to Samsudin et al. (2011), EBIT is significant in predicting default of sukuk in Malaysia. Furthermore, the ability of companies to service its bondholder is largely depends on profit

11 The rating itself is not a recommendation to purchase, sell, or hold a security’s market price or its suitability for a particular investment, nor does it involve any audit by the rating agency (RAM 2010).
12 The CRAs must be recognized by the SC for the purpose of rating debt or sukuk issues in Malaysia, pursuant to the Guidelines on Recognition of Credit Rating Agencies by the Securities Commission for the Purpose of Rating Bond Issues
13 Mandatory ratings will be lifted starting 2015.
performance, which could be severely affected during economic recession (Helwege & Kleiman 2006). The GDP is the natural measure of economic condition (Helwege & Kleiman 2006; Bishop et al. 2013) and has been applied for many years. The probability of sukuk default of Banyopadhyay (2006) is shown in Eq. 5 and Eq. 6 presents the modified version of Banyopadhyay (2006) with the incorporation of EBIT and GDP.

\[ Z_a = \beta_1 + \beta_3 \text{WK_TA}_a + \beta_4 \text{CASHPROF_TA}_a + \beta_5 \text{SOLVR}_a + \beta_6 \text{OPPROF_TA}_a + \beta_7 \text{SALES_TA}_a + \mu_a \]  
\[ \text{(Eq. 5)} \]

\[ Z_a = \beta_1 + \beta_3 \text{WC}_a + \beta_4 \text{CASHPROF}_a + \beta_5 \text{SALES}_a + \beta_6 \text{SOLVR_AB}_a + \beta_7 \text{MVE_BVE}_a + \beta_8 \text{EBIT}_a + \beta_9 \text{GDP}_a + \mu_a \]  
\[ \text{(Eq. 6)} \]

where,

\[ PD = Z_a \text{ Defaulted } = 1, \text{ non-default } = 0 \]
\[ WC \text{ Working capital (total working capital over total asset ratio).} \]
\[ \text{CASHPROF Cash profit (total cash profit over total asset ratio).} \]
\[ \text{SALES Sales (total sales over total assets ratio).} \]
\[ \text{SOLVR_AB Solvency ratio-asset based.} \]
\[ \text{MVE_BVE Market value (market value to book value ratio).} \]
\[ \text{EBIT Earnings before interest and tax.} \]
\[ \text{GDP Economic condition (Gross domestic product).} \]

As the \( Z_a \) value is acquired, by using expositions from LPM derived model, the estimated probability value of a company with defaulted sukuk can be derived individually. By putting the actual financial data of the companies in the estimated logit model given in Table 2, the estimated values are:

\[ PD = 8.667 + 6.386(\text{WC}) + 4.374(\text{CASHPROF}) – 0.76(\text{SALES}) – 0.185(\text{SOLVR_AB}) – 0.29(\text{MVE_BVE}) – 0.00006(\text{EBIT}) + 0.428(\text{GDP}) \]  
\[ \text{(Eq. 7)} \]

Based on cumulative logistic distribution function derived from Eq. 1 and the probability of default values from Eq. 7, the estimated probability values for each company are then calculated.

**Predictive Power of the Logistic Model**

This model has been tested by using the same holdout sample from 2000 until 2010. The holdout sample consist of equal number of 7 sukuk defaulted cases and 7 solvent sukuk cases in Malaysian capital market. As shown in Table 3, our model clearly shows good capacity to discriminate between defaulted and solvent sukuk.

**Sample and Sources of Data**

A sample of public listed companies (PLC) issuing sukuk is selected for the period of 2000 to 2010 (11 years). During this period, there were more than 20 sukuk that have been defaulted but only seven of the issuing companies were listed in Bursa Malaysia. In order to produce fair evaluation and assessment, balanced sample of 132 observations comprising of 14 companies – seven with defaulted sukuk and seven with non-defaulted sukuk are employed in order to obtain the beta value. The company information and financial data are extracted from the SC website Thompson Reuters DataStream 5.1 and OSIRIS, respectively.
This paper will only report and analyse four cases of *sukuk* issuing companies (two non-default, 2 defaulted); namely Tenaga Nasional Bhd, TSH Resource Bhd (for non-default companies); and EngloTech Holdings Bhd and Tracoma Holdings Bhd (for defaulted companies). These companies showed evident change on financial performances after five years of *sukuk* issuances. The two non-default companies are chosen due to their strong financial condition by mean to compare with the other two defaulted companies.

**PROBABILITY OF SUKUK DEFAULT BY COMPANY: AN ANALYSIS**

The companies’ probability values of default for each year under observation will be presented by two ways, namely, (a) by using a table, the probability values for every company every year is the said company’s probability to default a year onward; and (b) by using a graphical line consisting of five years’ threshold bound for further analysis. The defaulted *sukuk* take the value 1, while the non-default is 0.

(i) Solvent companies
For companies with good financial strength, i.e. solvent, their probabilities of default are very low. The *sukuk* were performing well in tandem with the company’s financial performance and have no risk of default. For example, TSH Resource Bhd (Figure 1) and Tenaga Nasional Bhd (Figure 2) are generally doing well for the first five years of *sukuk* issuance. After the fifth year, Tenaga Nasional Bhd also shows stability with very low probability of default, while TSH Resource Bhd was also doing well for the following years.

(ii) Insolvent companies
For companies with less financial strength, i.e. insolvent, their probabilities of default are very high. The companies appeared to have higher Z-Score value than before five years threshold. The *sukuk* were not performing due to the companies’ bad financial performance. For the first five years of issuance, the *sukuk* credit qualities deteriorate for both issuing companies, namely EngloTech Holdings Bhd (Figure 3) and Tracoma Holdings Bhd (Figure 4). After the fifth year, both *sukuk* show very high probability of default, and were announced as defaulted on the following year. Both companies have high Z-Score values and experienced the worst default events, as compared to other five companies i.e. bankrupt.

**CONCLUSION & POLICY IMPLICATION**

This study aimed to develop an early warning model for predicting corporate *sukuk* defaults in the Malaysian capital market. It provides important results: first, it provides an empirical method for estimating corporate *sukuk* probability of default, where the default risk is forecastable on the basis of a number of financial and macroeconomic variables. Second, it shows that for solvent companies issuing *sukuk*, the probability of default is low. On the other hand, for insolvent companies, the probabilities of defaults are very high as early as the first year of issuance. These results have many important implications for Malaysian *sukuk* markets.

Findings show that default risks of *sukuk* are forecastable empirically using financial and macroeconomic variables. This study has some policy relevance since the default probability estimate could help *sukuk* issuers and rating agencies in estimating credit risk and setting corporate pricing on a risk-adjusted return basis. The identification of default risks in *sukuk* is important for supervision and risk management purposes. Having an efficient risk management in Islamic capital market instruments is crucial as the markets are coping with with the challenges of financial liberalization. This will also help regulators ensure market stability and efficiency.

**ACKNOWLEDGEMENT**

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REFERENCES


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**TABLE 1: Malaysian Sukuk Market, 2011 –2013**

<table>
<thead>
<tr>
<th>Sukuk Issued (USD billion)</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>68.4</td>
<td>113.2</td>
<td>86.7</td>
</tr>
<tr>
<td>Global</td>
<td>93.7</td>
<td>149.3</td>
<td>125.3</td>
</tr>
<tr>
<td>% to Global</td>
<td>73%</td>
<td>76%</td>
<td>69%</td>
</tr>
<tr>
<td>No. of Global Issuers</td>
<td>125</td>
<td>144</td>
<td>142</td>
</tr>
<tr>
<td>No. of Global Sukuk</td>
<td>811</td>
<td>861</td>
<td>894</td>
</tr>
</tbody>
</table>

**Sukuk Outstanding (USD million)**

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>81.7</td>
<td>129.5</td>
<td>161.5</td>
</tr>
<tr>
<td>Global</td>
<td>113.0</td>
<td>193.7</td>
<td>260.3</td>
</tr>
<tr>
<td>% to Global</td>
<td>72%</td>
<td>67%</td>
<td>62%</td>
</tr>
<tr>
<td>No. of Global Issuers</td>
<td>222</td>
<td>290</td>
<td>356</td>
</tr>
<tr>
<td>No. of Global Sukuk</td>
<td>1,031</td>
<td>1,435</td>
<td>1,928</td>
</tr>
</tbody>
</table>

TABLE 2: Estimated Logit Model Dependent variable: Probability of Default

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>z-Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>$C$</td>
<td>8.6671</td>
<td>3.4773</td>
</tr>
<tr>
<td>$WC$</td>
<td>6.3859</td>
<td>2.5327</td>
</tr>
<tr>
<td>$CASHPROF$</td>
<td>4.3738</td>
<td>0.5175</td>
</tr>
<tr>
<td>$SALES$</td>
<td>-0.7595</td>
<td>-0.7040</td>
</tr>
<tr>
<td>$SOLVR__AB$</td>
<td>-0.1848</td>
<td>-4.0963</td>
</tr>
<tr>
<td>$MVE_BVE$</td>
<td>-0.2897</td>
<td>-1.3288</td>
</tr>
<tr>
<td>$EBIT$</td>
<td>-6.06E-05</td>
<td>-3.5239</td>
</tr>
<tr>
<td>$GDP$</td>
<td>0.4276</td>
<td>2.3957</td>
</tr>
</tbody>
</table>

McFadden R-squared 0.6677
LR statistic 119.7290

TABLE 3: Classification Power of the Logistic Model for the Holdout Sample from Years 2000 and 2010

| Original Case | Predicted Case | | | |
|---------------|----------------|---------------|
|               | Defaulted (n=7) | Solvent (n=7) | Total |
| Defaulted (n=7) | 7               | -             | 7     |
| Solvent (n=7)  | -               | 7             | 7     |
| Total          | 7               | 7             | 14    |

FIGURE 1: Probability Values of TSH Resource Bhd.
FIGURE 2: Probability Values of Tenaga Nasional Bhd

<table>
<thead>
<tr>
<th>Year</th>
<th>Prob. Value ($L_d$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1.008E-74</td>
</tr>
<tr>
<td>2001</td>
<td>4.53E-84</td>
</tr>
<tr>
<td>2002</td>
<td>1.237E-63</td>
</tr>
<tr>
<td>2003</td>
<td>4.587E-75</td>
</tr>
<tr>
<td>2004</td>
<td>2.749E-70</td>
</tr>
<tr>
<td>2005</td>
<td>1.242E-84</td>
</tr>
<tr>
<td>2006</td>
<td>5.065E-111</td>
</tr>
<tr>
<td>2007</td>
<td>9.602E-158</td>
</tr>
<tr>
<td>2008</td>
<td>1.729E-106</td>
</tr>
<tr>
<td>2009</td>
<td>9.750E-63</td>
</tr>
<tr>
<td>2010</td>
<td>2.818E-132</td>
</tr>
</tbody>
</table>

FIGURE 3: Probability Value of Engitech Holdings Bhd.

<table>
<thead>
<tr>
<th>Year</th>
<th>Prob. Value ($L_d$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>0.528473</td>
</tr>
<tr>
<td>2004</td>
<td>0.615846</td>
</tr>
<tr>
<td>2005</td>
<td>0.979492</td>
</tr>
<tr>
<td>2006</td>
<td>0.987762</td>
</tr>
<tr>
<td>2007</td>
<td>0.998455</td>
</tr>
<tr>
<td>2008</td>
<td>0.998361</td>
</tr>
</tbody>
</table>

FIGURE 4: Probability Value of Tracoma Holdings Bhd.

<table>
<thead>
<tr>
<th>Year</th>
<th>Prob. Value ($L_d$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>0.0904</td>
</tr>
<tr>
<td>2003</td>
<td>0.2526</td>
</tr>
<tr>
<td>2004</td>
<td>0.6299</td>
</tr>
<tr>
<td>2005</td>
<td>0.9908</td>
</tr>
<tr>
<td>2006</td>
<td>0.9950</td>
</tr>
<tr>
<td>2007</td>
<td>0.9952</td>
</tr>
<tr>
<td>2008</td>
<td>0.9999</td>
</tr>
<tr>
<td>2009</td>
<td>0.9992</td>
</tr>
<tr>
<td>2010</td>
<td>1</td>
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