2012 Default Statistics and Rating Transition Rates

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INTRODUCTION

Thailand showed a strong economic recovery in 2012. The economy rebounded sharply after the worst flood crisis ever in the last quarter of 2011. According to the National Economic and Social Development Board (NESDB), the gross domestic product (GDP) of Thailand in 2012 grew by 6.4%, higher than the previous forecast of 4.5%-5.5%. Government spending on infrastructure projects and several government's stimulus schemes, including the first car buyer program, the Bt300 minimum wage policy, and the rice pledging scheme drove the investment and domestic consumption higher. The rises in investment and domestic consumption helped offset a lower growth rate in exports. This year, GDP is expected to grow by 4.5%-5%, driven by the public sector investments in infrastructure projects and the recovery in exports.

Several companies rated by TRIS Rating also showed strong earnings growth, especially companies in the tourism, banking, and construction industries. The growth is supported by the political stability and a lower corporate income tax rate. Companies in the property development sector also recovered strongly from the flood crisis in 2011. Six rated issuers received either "negative" outlooks or "negative alert" status due to the negative impact from the flood crisis in 2011. Four of these six issuers returned to have "stable" outlooks in 2012. There were five upgrades and two downgrades during 2012. Eight outlook revisions were issued, three upwards and five downwards. The downward outlook revisions were mainly due to companies' specific causes rather than the impact from common economic factors. Since there was one issuer missed the payments of its bank loans in 2012, thus, the cumulative number of defaulters since 1994 increased to 18. However, due to the increasing number of issuers, the one-, two-, and three-year cumulative default rates in 2012 declined slightly to 1.8%, 3.9%, and 6.0%, from 2.0%, 4.3%, and 6.5% in 2011, respectively.

The amount of new bonds issued and registered with the Thai Bond Market Association (ThaiBMA) in 2012 totaled Bt540,329 million, 2.12 times the value of bonds issued in 2011. Bonds issued by banks and financial institutions accounted for 44.34% of total value of new bonds issued in 2012, much higher than 18.13% in the prior year. Several commercial banks issued subordinated debentures in 2012 to serve their funding needs and strengthen their capital bases. The inflation rate in Thailand is expected to rise this year, driven by the minimum wage hike nationwide. However, the Bank of Thailand (BOT) is expected to keep the core inflation rate at its target level of 0.5%-3.0% by maintaining the policy interest rate, the one-day repurchase rate, at the current level. At the end of March 2013, the policy interest rate stood at 2.75% per annum.

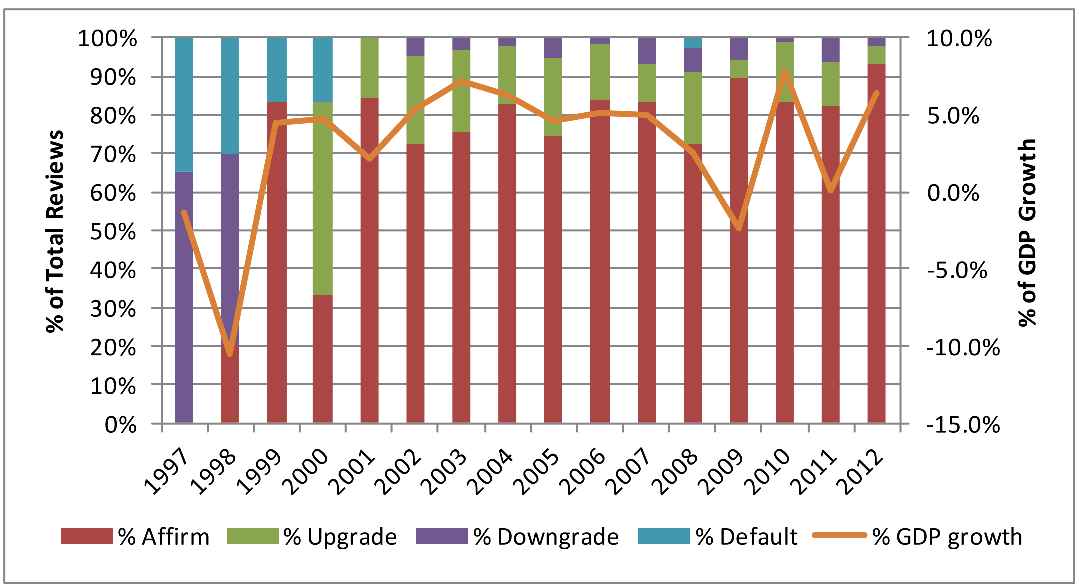
RATING ACTIONS IN 2012

The Thai economy recovered strongly in 2012 after the flood hit Bangkok and many provinces in the central Thailand. GDP in 2012 grew by 6.4% from only 0.1% in 2011. Political stability, coupled with several government stimulus projects, drove domestic consumption and investment in both the public and private sectors.

- **The one-year rating stability reaches the highest level since the 1997 financial crisis**

In 2012, TRIS Rating publicly announced the ratings of 101 companies, of which nine were new clients. The number of corporate issuers was 69, while the number of financial institution issuers was 32. One corporate issuer withdrew its rating during the year. TRIS Rating issued five upgrades, two downgrades, eight changes in outlooks, and seven CreditAlerts. Most of the upgrades were in the financial sector. Three issuers received upward outlook revisions and five received downward outlook revisions. In 2011, most downward outlook revisions were concentrated in the property development sector. In contrast, the downward outlook revisions in 2012 occurred in different sectors. The one-year stability rate of publicly announced ratings in 2012 (excluding new ratings) was 92.3%, the highest since the 1997 financial crisis. The remainder, 5.5% were upgrades and 2.2% were downgrades. The number of downgrades dropped significantly in 2012, to two from five in 2011. Two issuers were downgraded but for different reasons. One issuer was downgraded because of deteriorating operating performance as a result of the global financial crisis. The other was downgraded because of overinvestment concerns.

Chart 1: Proportion of Rating Changes[1] and GDP Growth (1997-2012)



Sources: 1) TRIS Rating
2) National Economic and Social Development Board (NESDB)

[1] Proportions of rating changes as a percentage of the total number of reviewed companies or issuers, rated by TRIS Rating, are publicly announced by the end of each year.

Most companies hit by the flood crisis in late 2011 showed strong comebacks in 2012. Three property development companies received upward outlook revisions after they showed a faster recovery from the flood crisis than expected. The Bt300 minimum wage hike policy implemented in April 2012 in Bangkok and seven provinces raised costs for property developers, however, most rated property developers still reported higher net profits. This was due mainly to improving operating performance after the flood crisis and the reduction of the corporate income tax rate from 30% to 23%. Other industries like automobiles, banking, and construction also benefited from several government's stimulus programs. The tourism industry also performed well, with the number of foreign tourist arrivals reaching 22.2 million people or around 18% higher than 2011.

Table 1: List of Issuer Rating Changes Announced in 2012

NO.	Company	Sector	Rating Change		Rating Direction	Outlook Direction	CreditAlert
			From	To			
1	BCP	Energy					Negative
2	BLS	Finance & Securities	A-/Positive	AA-/Stable	Upgrade		
3	BTSC	Transportation & Logistics					Negative
4	BTSG	Transportation & Logistics					Negative
5	DA	Paper & Printing Materials	BBB/Stable	BBB/Negative		Downward	
6	EASY BUY	Finance & Securities	BBB/Positive	BBB+/Stable	Upgrade		
7	ITD	Property Development	BBB/Stable	BB+/Negative	Downgrade	Downward	Negative
8	PRIN	Property Development	BBB-/Negative	BBB-/Stable		Upward	
9	PS	Property Development	A/Negative	A/Stable		Upward	
10	RCL	Transportation & Logistics	BBB+/Negative	BBB-/Negative	Downgrade		
11	SINGER	Finance & Securities					Developing
12	SST	Transportation & Logistics	BBB-/Stable	BBB-/Negative		Downward	
13	STEC	Property Development	BBB+/Positive	A-/Stable	Upgrade		
14	TBANK	Banks	A+/Positive	AA-/Stable	Upgrade		
15	TCAP	Banks	A/Positive	A+/Stable	Upgrade		
16	THAIBEV	Food & Beverage					Negative
17	TICON	Property Development	A/Negative	A/Stable		Upward	
18	TSFC	Finance & Securities	BB+/Positive	BB+/Stable		Downward	
19	UV	Property Development					Developing
20	TRUE	IT & Communication	BBB/Stable	BBB/Negative		Downward	

Source: TRIS Rating
Note: See full names of issuers in Appendix II

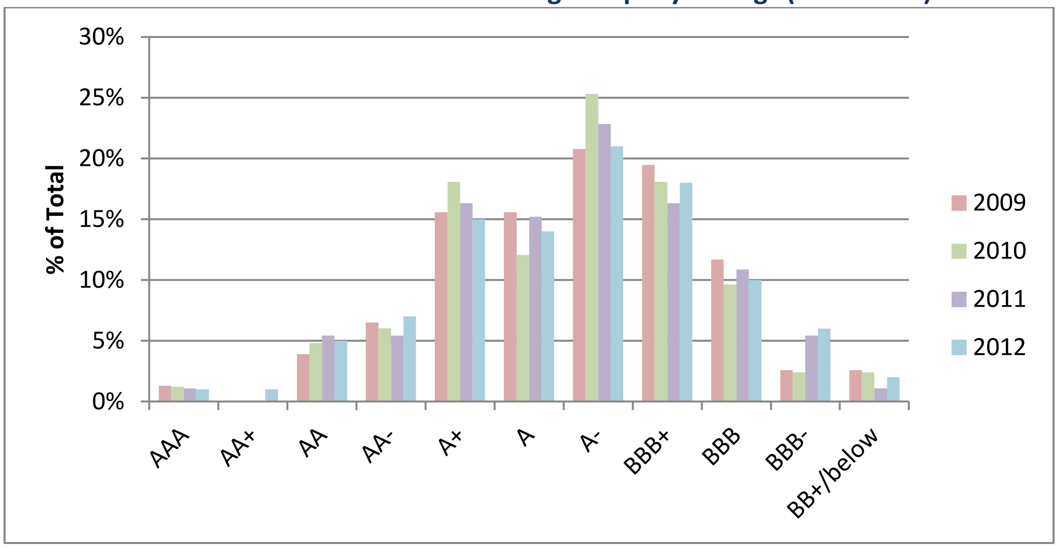
- **Ratings[2] were concentrated in the "A" rating category**

At the end of 2012, companies rated in the "A" category remained the largest proportion of TRIS Rating's portfolio, accounting for 50.0% of publicly announced ratings (including new issuers but excluding withdrawals and defaults). This percentage fell slightly in 2012 from 54.3% in 2011. The second largest portion was the "BBB" rating category, at 34.0%, a rise from 32.6% in 2011. The rise was due to a higher proportion of new issuers rated in the "BBB" rating category. The issuers rated in the lower ranges (i.e., "BB", "B", and "C") have consistently comprised a small portion of rated companies throughout TRIS Rating's history. In 2012, only two issuers were rated below the "BBB" category, accounting for only 2.0% of rated companies. This was a slight increase from 1.1% in 2011. The rise was due to the downgrade of one company from "BBB" rating to "BB+". The relatively small proportion of issuers in these lower rating categories was due to the lack of demand for junk bonds in the Thai debt market. Mutual funds face limitations when investing in non-investment grade bonds.

[2] Issuer ratings for this study are based on stand-alone creditworthiness of the publicly announced issuers. For example, instead of using the issue ratings of fully guaranteed debentures, which generally reflect the creditworthiness of the guarantors, this study used the shadow ratings of issuers assigned internally.

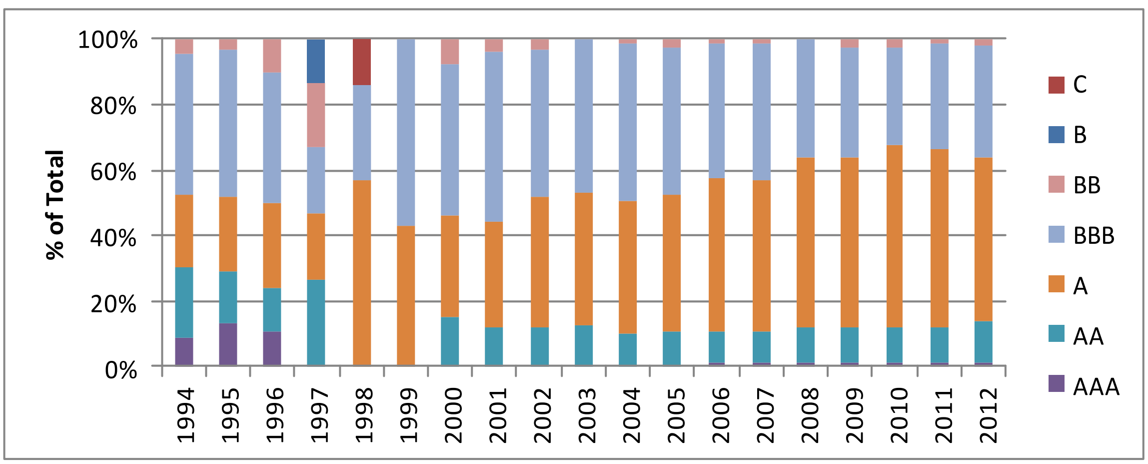
Therefore, issuers with ratings lower than investment grade tend to keep their ratings private or withdraw their ratings. However, the Securities and Exchange Commission (SEC) has a plan to promote high-yield bond ratings, which may shift the ratings toward lower end of the spectrum.

Chart 2: Distribution of Outstanding Company Ratings (2009-2012)



Source: TRIS Rating

Chart 3: Distribution of Reviewed Company Ratings by Category (1994-2012)



Source: TRIS Rating

- **Cumulative default rates declined**

The one-, two-, and three-year cumulative average default rates[3] for each rating category were calculated to estimate the probability of default during the one-, two-, and three-year period after a company was rated. As credit ratings should reflect the default risk, the higher the rating, the lower the probability of default should be. However, due to both the small sample size and the severe financial crisis faced by all companies in 1997, the default rates of the "AA" rating were abnormally higher than the default rates of the "A" rating. As more bond issues are added to the sample each year, the reliability of the cumulative default rates is expected to

[3] The calculation methodology of the three-year cumulative average default rate is explained in Appendix I.

improve. Due to the default of one issuer that withdrew its rating in 2011 and defaulted its bank loans in 2012, this defaulter will not be counted as a sample in the one-year average cumulative default rate but will be counted as a sample in the two- and three-year average cumulative default rates. With only one default in 2012, the one-, two-, and three-year average cumulative default rates improved in all rating categories. The one-, two-, and three-year average cumulative default rates declined to 1.8%, 3.9%, and 6.0% from 2.0%, 4.3%, and 6.5%, respectively in 2011.

Table 2: Annual Default Rates[4] of Rated Companies between 1997 and 2012

% Annual Default Rate	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
AAA	0%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0%	0%	0%	0%	0%	0%
AA	33%	0%	n.a.	n.a.	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
A	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%
BBB	50%	33%	0%	33%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%
BB	100%	100%	n.a.	n.a.	0%	n.a.	0%	n.a.	0%	0%	0%	n.a.	n.a.	0%	0%	0%
B	n.a.	50%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C	n.a.	n.a.	100%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Investment grade*	31.6%	14.3%	0.0%	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	0%	0%	0%
Non-investment grade**	100%	67%	100%	n.a.	0%	n.a.	0%	n.a.	0%	0%	0%	n.a.	n.a.	0%	0%	0%
Total	35%	30%	17%	17%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%

Source: TRIS Rating

Note: n.a. "not available", means there is no issuer rated in the rating category.
** Investment grade issuers are those that are in the AAA, AA, A, and BBB rating categories.*
*** Non-investment grade issuers are those that are in the BB, B, and C rating categories.*

Table 3: TRIS Rating's Average Cumulative Default Rates (CDR) for Long-term Ratings

One-, Two-, and Three-Year CDRs, Between 1994-2012

Rating	No. of Sample	One-year	Two-year	Three-year
AAA	15	0.00%	0.00%	0.00%
AA	90	1.11%	3.82%	7.08%
A	357	0.28%	0.97%	1.83%
BBB	315	2.54%	5.23%	8.03%
BB	15	13.33%	30.67%	42.22%
B	2	50.00%	100.00%	100.00%
C	1	100.00%	100.00%	100.00%
Total	**795**	**1.76%**	**3.91%**	**5.99%**

Source: TRIS Rating

Corporate Rating Transitions between 1994 and 2012

A rating transition is the probability of a given issuer rating moving to another rating category within a specified time period. For example, in Table 4, 94.1% of companies rated at "A" were still rated "A" by the end of a year. A small portion of 3.4% were upgraded to "AA" and 2.2% were downgraded to "BBB". For more than half of the rated companies in any particular rating category, their ratings remained unchanged by the end of

[4] Annual default rate is the proportion of the number of defaulted issuers in a rating category divided by the total number of rated issuers in that particular rating category.

that year. The ratings of investment-grade issuers were more likely to remain at the same level over a one-year period than the ratings of non-investment grade issuers. The highlighted cells of Table 4 contain the stability rates of each rating category, e.g., the stability rate is 80.0% for "AAA" issuers.

Table 4: Average One-year Transition Rates between 1994 and 2012

Ratings	No. of Sample	AAA	AA	A	BBB	BB	B	C	D	Cumulative Withdrawals
AAA	15	80.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2
AA	90	1.11%	92.22%	5.56%	0.00%	0.00%	0.00%	0.00%	1.11%	8
A	357	0.00%	3.36%	94.12%	2.24%	0.00%	0.00%	0.00%	0.28%	25
BBB	315	0.00%	0.00%	6.67%	87.94%	2.22%	0.63%	0.00%	2.54%	25
BB	15	0.00%	0.00%	0.00%	13.33%	73.33%	0.00%	0.00%	13.33%	8
B	2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	-
C	1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	-
Total	795									68

Source: TRIS Rating

Structured Finance Rating Transitions between 1999 and 2012

Due to the relatively few number of structured finance transactions in the Thai bond market, TRIS Rating has rated only two transactions. The first transaction, LSPV Co., Ltd., involving an inventory securitization, was rated at "A-" in 1999 and was fully redeemed in 2002. The second transaction, DAD SPV Co., Ltd., is the securitization program backed by a 30-year lease and services payments agreement from the Treasury Department. The rating of the second transaction has been maintained at "AAA".

Table 5: Average One-year Transition Rates for Structured Finance Ratings between 1999 and 2012

Ratings	No. of Sample	AAA	AA	A	BBB	BB	B	C	D
AAA	7	100%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**
AA	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**
A	2	0.00%	0.00%	100%	0.00%	0.00%	0.00%	0.00%	**0.00%**
BBB	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**
BB	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**
B	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**
C	0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	**0.00%**
Total	9								

Source: TRIS Rating

Appendix I

1. Methodology and Definition

1.1 Default Definition

TRIS Rating assigns a "Default" or "D" rating to an entity on the date when the entity misses a payment of a financial obligation, irrespective of whether the obligation issue is rated or unrated, according to the terms and conditions stipulated in the borrowing agreement.

1.2 Cumulative Default Rates

The default rate is the proportion of the number of defaulted issuers as a percentage of the total number of issuers in each rating category. Therefore, the default rate represents the default probability of companies in each particular rating category. The default rate tends to rise after each subsequent year.

The three-year cumulative default rate of any particular rating category is the probability that companies rated in that category will default within three years. Generally, the cumulative default rate tends to increase as time passes. The average three-year cumulative default rate is computed by subtracting the average three-year cumulative survival rate from 100%. The average three-year cumulative survival rate is derived by multiplying the first-year survival rate by the second-year and the third-year rates. The survival rate for any given year is calculated by subtracting the default rate of that year from 100%.

1.3 Rating Transition Rates

The rating transition rate is the percentage of issuer rating changes from a particular rating category at the beginning of a given year to another rating category by the end of that year. To compute a one-year rating transition rate, issuers rated in each rating category at the beginning of the year are tracked for any rating changes by the end of the year.

2. Scope of the Study

Corporate Ratings

2.1 Credit Ratings Included in the Study

2.1.1 For the corporate ratings, the study uses ratings of entities (companies or issuers) rather than ratings of debenture issues (or debentures). The reason is to simplify the default rate calculation process, particularly for cases in which a company has issued several debentures that might receive different ratings due to different priorities of claims and expected losses in the case of default.

2.1.2 When TRIS Rating assigns a public rating to debentures but the issuer rating is not publicly announced, the rating of the issuer will be assigned internally and used in the study. Typically, the issuer will receive the same rating as the rating of its senior debentures. One exception is when the issuer has a substantial portion of secured debts that might put the holders of senior debentures (or unsecured debts) in a disadvantageous position. In such a case, the issuer rating might be one or two notches higher than the rating of its senior debts.

2.1.3 A debenture that is fully or partially guaranteed by a parent company or a group of guarantors may receive a rating higher than the stand-alone rating of the issuer. In this case, TRIS Rating will internally assign a stand-alone rating to the issuer and will use this rating for the study.

2.1.4 The study period covers ratings from the first year of TRIS Rating's operation in 1993 until year-end 2012. The number of rated companies at the end of each year will be recorded as the static pool of the following year. For example, rated clients at the end of 1993 are recorded as the 1994 pool.

Securitization Ratings

2.1.5 In this paper, TRIS Rating also provides the one-year rating transition rates of securitization securities. For the ratings of securitization securities, TRIS Rating uses the ratings of the debentures or a series of debentures issued under the same program.

2.1.6 In this section, TRIS Rating will include rating transition rates across all securitization securities, e.g., asset-backed securities (ABS), collateralized debt obligations (CDO), commercial mortgage-backed securities (CMBS), and residential mortgage-backed securities (RMBS).

2.2 Company Ratings Excluded from the Study

2.2.1 *Ratings that are not publicly announced*

Ratings assigned by TRIS Rating can be categorized into those that are publicly announced and those that are kept private, based on an issuer's wishes.

2.2.2 *Structured finance ratings*

This category includes ratings of project finance instruments, such as Khanom Electricity Generating Co., Ltd. (KEGCO), and partially- or fully-guaranteed debentures.

2.2.3 *Local government ratings*

A crucial factor in determining the rating of a local government organization is the relation between the local and the central governments. As such, the local government rating can deviate significantly from its stand-alone rating.

2.2.4 *Ratings that are withdrawn in the specific period*

For example, a company that was initially rated by TRIS Rating in mid-1994 but withdrew its rating in 1997 will be included in the static pools for 1995 and 1996 but not for 1997.

2.3 Data Used to Calculate Default Rates

Static pools are established to represent groups of samples for the study. In any given year, a static pool includes all entities with active ratings at the beginning of a year that remain rating clients at the end of a year. For example, there were 20 issuers rated by TRIS Rating on 1 January 1995 and all 20 issuers remained clients through 31 December 1995. The 1995 static pool would comprise 20 issuers and the default record of these 20 issuers would be tracked in each subsequent year.

For a given year, the pool is static because no issuer is taken out of the pool even though the issuer may subsequently withdraw its rating. For example, Dhana Siam Securities Co., Ltd. (DS) was initially rated in 1993 but withdrew its rating in 1997, shut down operations, and defaulted on 14 August 1998. In this circumstance, DS was included in the static pool for 1994, 1995, and 1996, but not for 1997. The subsequent default of DS in 1998 was counted as a two-year default for the 1996 static pool, a three-year default for the 1995 static pool, and a four-year default for the 1994 static pool.

3. Database Limitations

The corporate debenture market in Thailand is considered to be in a developing stage. The total value of corporate bonds issued in 2012 accounted for about 20% of the total outstanding value of the Thai bond market. The Thai bond market is largely dominated by debt instruments issued by the government, the BOT, and state enterprises. These debt instruments are not required by law to have credit ratings. As a result, the number of TRIS Rating's clients is considerably less than those of the long-established international rating agencies.

One problem with the limited sample size is that it exaggerates the default rate statistics, as the number of observations in each rating category is used as the denominator to calculate the default rate. Hence, the fewer the observations in any particular rating category, the higher the default rate.

4. Impact of the Financial Crisis on the Cumulative Default Rates

The financial crisis in 1997 and 1998 forced the government to use the managed float exchange rate system. This action raised the value of foreign denominated debts in terms of local currency, and thus the credit risk, of many financial and non-financial companies. As shown in Table 2, the annual default rates of companies rated by TRIS Rating between 1997 and 1998 were unusually high at 35% and 30%, respectively. The annual default rate of 33% in the "AA" rating category in 1997 was the result of a default by a financial institution that was ordered by the BOT to cease operations. The default rate is thus overstated because of the relatively small number of issuers rated in the particular rating category. In 1997, there were only three companies in the "AA" rating category and 10 companies rated "BBB". The default of one company rated "AA" and five companies rated "BBB" made the annual default rates equal to 33% and 50% in these two rating categories in 1997. Moreover, five out of six defaulting issuers in 1997 were finance companies that defaulted after they were ordered to stop operations by the BOT.

Appendix II

Full Names of Issuers

Abbreviation	Company Name
BCP	The Bangchak Petroleum PLC
BLS	Bualuang Securities PLC
BTSC	Bangkok Mass Transit System PLC
BTSG	BTS Group Holdings PLC
DA	Double A (1991) PLC
EASY BUY	EASY BUY PLC
ITD	Italian-Thai Development PLC
PRIN	Prinsiri PLC
PS	Pruksa Real Estate PLC
RCL	Regional Container Lines PLC
SINGER	Singer Thailand PLC
SST	Sub Sri Thai PLC
STEC	Sino-Thai Engineering & Construction PLC
TBANK	Thanachart Bank PLC
TCAP	Thanachart Capital PLC
THAIBEV	Thai Beverage PLC
TICON	TICON Industrial Connection PLC
TSFC	TSFC Securities Ltd.
UV	Univentures PLC
TRUE	TRUE Corporation PLC

Source: TRIS Rating

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