Credit Guarantee & Investment Facility
An Asian Bond Markets Initiative

Comparison of ASEAN Corporate Bond Markets

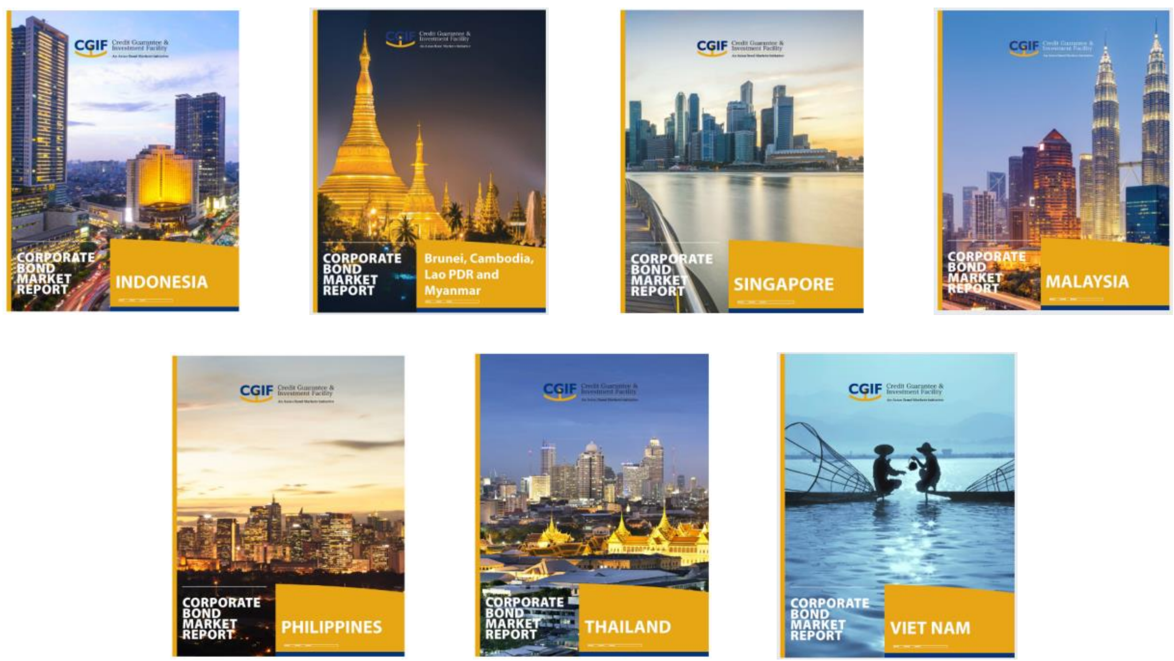
CGIF Research

January 2023

About This Research

This is a consolidated report on the development and characteristics of the existing corporate bond markets in the ASEAN region. This report aims to show the key findings from the individual market reports, which are available in the **Knowledge Center** section in CGIF website.

Corporate Bond Market Reports 2022



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Development Stages (1)

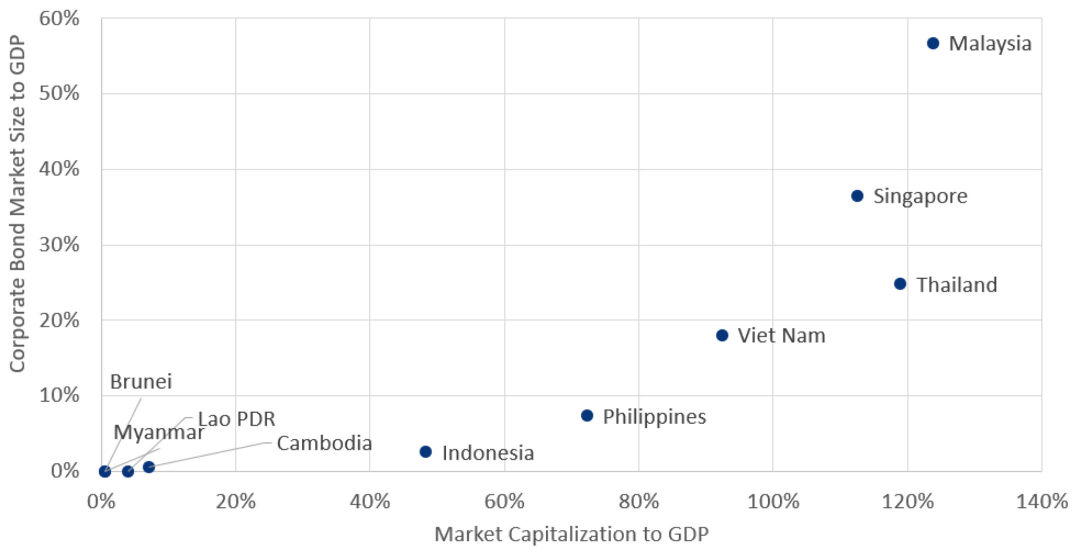
Overview of Bond Market Development Stages

	No government bond regulation	Government bond regulations in place	Presence of government bonds
Presence of corporate bonds		Until Sep 2022 Cambodia	ASEAN6 Cambodia
Corporate bond regulations in place			Lao PDR Brunei Myanmar
No corporate bond regulation			

- ASEAN6 markets include Indonesia, Malaysia, the Philippines, Singapore, Thailand and Viet Nam, which all have active bond markets.
- Brunei, Lao PDR and Myanmar still do not have corporate bond markets despite having regulations in place.
- Of the ASEAN markets, Cambodia has a remarkable bond market development. Cambodia issued its maiden sovereign bond worth KHR100 billion in September 2022.

Development Stages (2)

Relationship between Market Capitalization to GDP and Corporate Bond Market Size to GDP, 2021



Notes:
1. Units are USD billion
2. GDP figures of ASEAN6 (Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam) are sourced from Asian Bonds Online and those of BCLM (Brunei Darussalam, Cambodia, Lao PDR, and Myanmar) are from World Bank.
3. Market capitalization figures for ASEAN6 countries are sourced from Bloomberg, while those for BCLM are retrieved in local exchanges in each country. Brunei has no stock exchange. These are reported in local currencies. Exchange rates used are as follows: USD1 = KHR4,074.20; USD1 = LAK11,196.90; and USD1 = MMK1,780.
4. LCY corporate bond market figures from ASEAN6 are sourced from Asian Bonds Online. Viet Nam's corporate bond market size reflects data from the Ministry of Finance Viet Nam. LCY corporate bond market size of Cambodia is from Cambodia Stock Exchange.

- Generally, the corporate bond market of a country is developed as its stock market is developed.
- **Malaysia**, **Singapore** and **Thailand** have relatively developed corporate bond markets as their market capitalizations exceeded their own GDP.
- **Brunei**, **Myanmar** and **Lao PDR** do not have active corporate bond markets as their capital markets have not yet developed enough to foster active corporate bond markets.
- Having more companies listed at the Cambodia Securities Exchange (CSX) serves as a good ground for **Cambodia** to welcome more bond issuances in the future.

Development Stages (3)

Sovereign Ratings of ASEAN Countries

Country	Moody's	S&P	Fitch
Brunei	N/A	N/A	N/A
Cambodia	B2	N/A	N/A
Lao PDR	Caa3	N/A	CCC
Myanmar	N/A	N/A	N/A
Indonesia	Baa2	BBB	BBB
Malaysia	A3	A	BBB+
Philippines	Baa2	BBB+	BBB
Singapore	Aaa	AAA	AAA
Thailand	Baa1	A-	BBB+
Viet Nam	Ba3	BB+	BB

Note: As of August 2022
Source: Bloomberg

Use of Multiple Currencies in BCLM

Country	LCY	FCY
Brunei	BND	SGD
Cambodia	KHR	USD/THB/VND
Lao PDR	LAK	USD/THB
Myanmar	MMK	USD

Source: Market Interviews

- Two implications of low or no sovereign ratings among some ASEAN countries:
  - Such countries have capital markets of nascent stage, and
  - The governments and the companies in these countries have difficulties raising funds overseas because foreign investors are reluctant to invest on foreign entities which have low credit ratings or no ratings.
- Foreign currencies (FCYs) are widely used for transactions in BCLM.
  - With the currency interchangeability agreement, the monetary authorities and licensed banks in Brunei and Singapore can accept and exchange each other's currencies at par and without charge, into their own currency.
  - Among CLM where USD is used for their domestic transactions, Cambodia is the most dollarized country. These three countries are currently in the process of de-dollarization by restricting the use of FCY and promoting LCY.

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Specific Characteristics:
Issue Size

Issue Size of Corporate Bonds

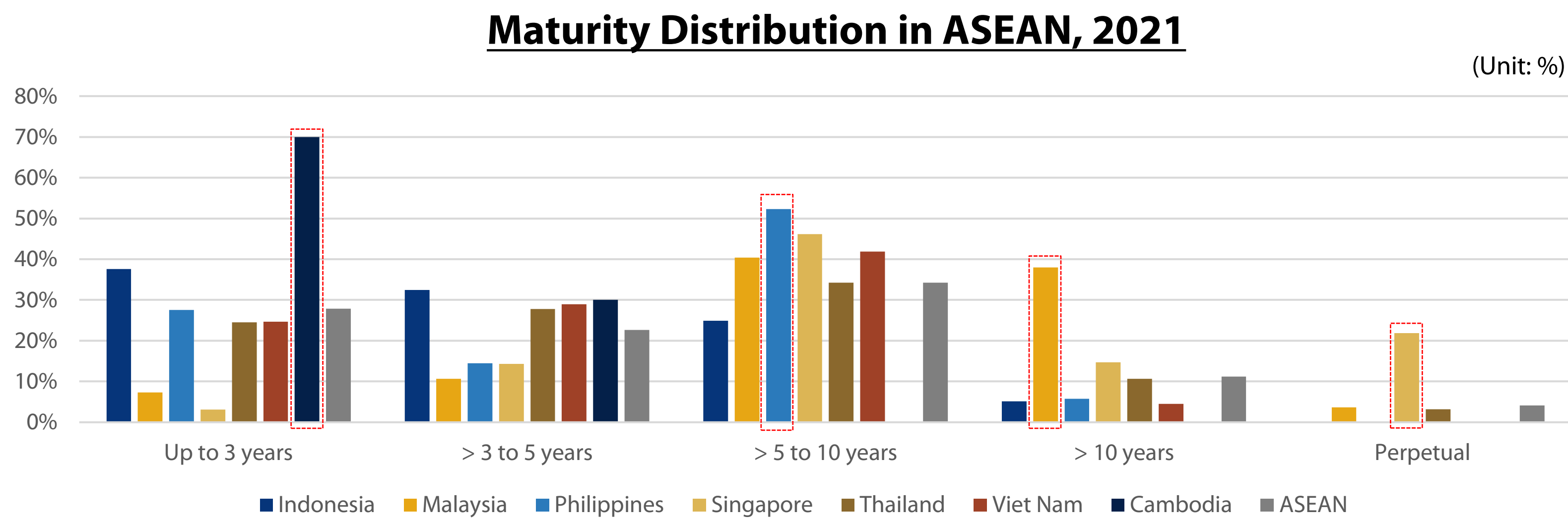
(Unit: USD Million)

Country	Average	Minimum	Maximum
Cambodia	16.32	6.48	31.22
Indonesia	32.73	< 0.01	592.94
Malaysia	50.26	< 0.01	3,443.56
Philippines	127.27	1.96	786.40
Singapore	184.29	0.07	4,593.62
Thailand	67.74	0.15	1,321.70
Viet Nam	56.28	0.05	175.24

Note: Based on outstanding local currency corporate bonds as of the end of 2021
Source: Bloomberg.

- Small average issue size does not necessarily indicate an "undeveloped" corporate bond market because companies can issue smaller sized bonds. However, a small average issue size in a domestic corporate bond market may lead companies to tap offshore bond markets when their funding amounts are too big.
- **Malaysia** has wide range of issue size of corporate bonds because of its Islamic finance market. A sukuk program can be issued with small size of issue amount. This tendency is also observed in **Indonesia**, since it has Islamic finance market too.
- In the **Philippines**, a bond issuance is not generally considered when an issue size is smaller than USD100 million due to the fixed costs associated with bond issuance such as legal fees or credit rating fees.

Specific Characteristics:
Maturity Distribution



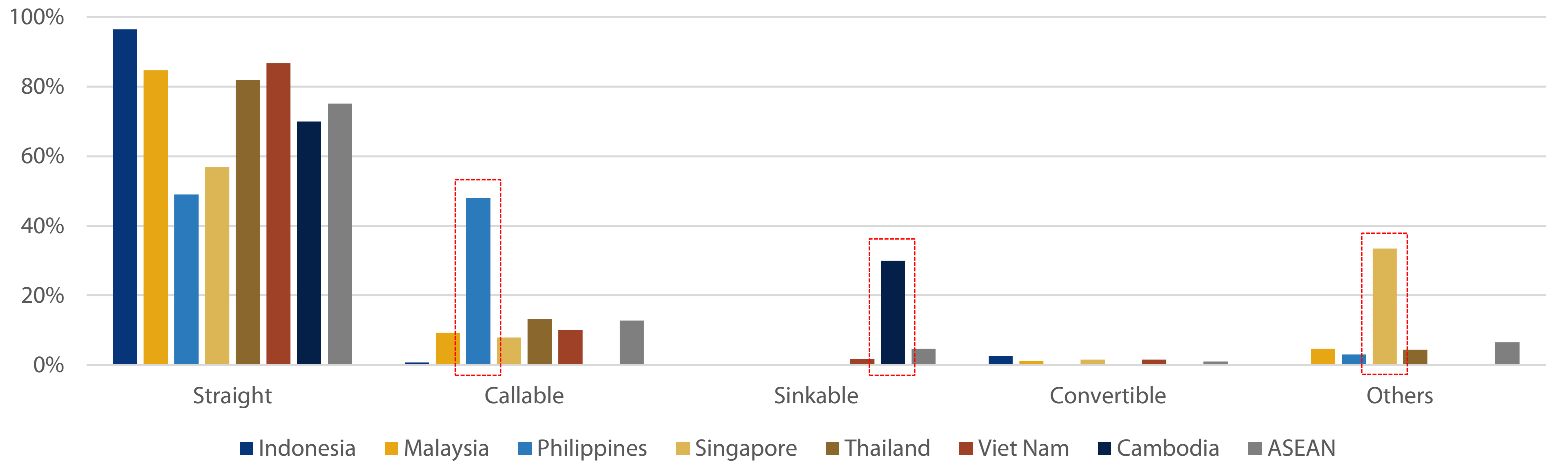
Notes:
1) Based on outstanding local currency corporate bonds as of the end of 2021
2) "ASEAN" refers to the simple average of the same maturity distribution group
Source: Bloomberg.

- **Philippines:** More than 50% of outstanding corporate bonds are issued with 5 to10-year maturities. It is attributed to the withholding tax exemption applied to debt instruments issued by banks when they are issued with maturity of longer than 5 years.
- **Malaysia:** 38% of outstanding corporate bonds are issued with longer than 10-year maturities, because bonds are widely used for project financing which requires long term funding.
- **Cambodia:** The tax incentives on bonds influence the maturity distribution concentrating on tenors of up to 3 years.
- **Singapore**: More than 20% of outstanding corporate bonds are issued with perpetual bonds. In fact, they are mostly perpetual callable bonds issued for supplementary capital.

Specific Characteristics:
Maturity Type

Maturity Type in ASEAN, 2021

(Unit: %)

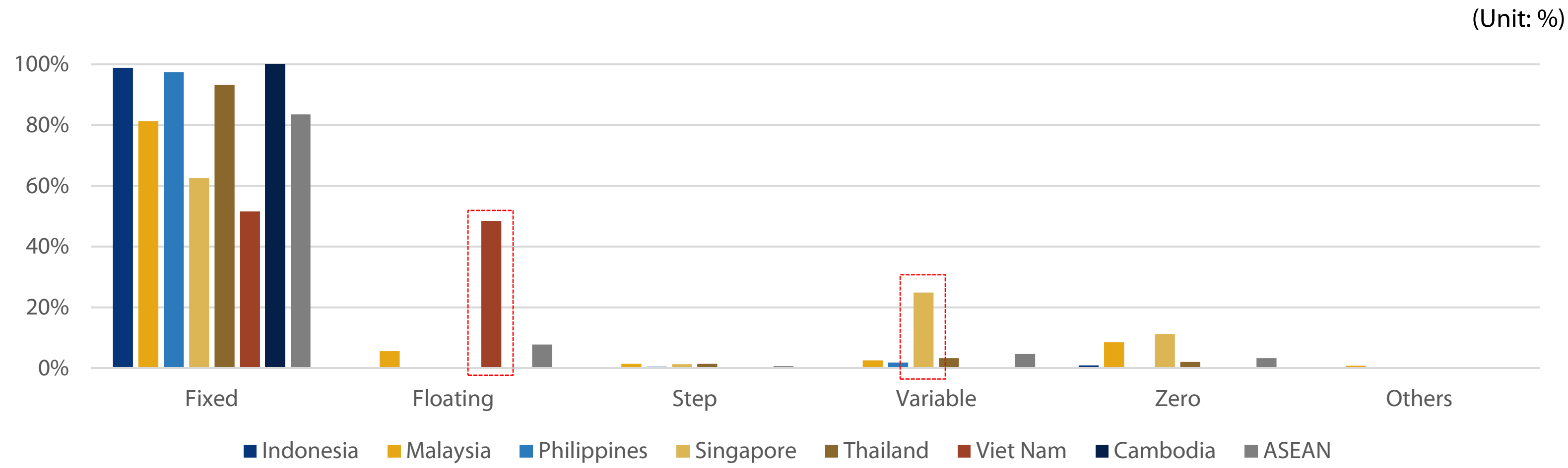


Notes:
1) Based on outstanding local currency corporate bonds as of the end of 2021
2) "ASEAN" refers to the simple average of the same maturity type group
Source: Bloomberg.

- Bonds with straight maturity type dominate most of the ASEAN corporate bond markets. However, some unique characteristics stand out:
  - **Philippines:** About 48% of outstanding corporate bonds are callable bonds, which are issuer-led, since most issuers are large and established corporates in the country. The issuers prefer to have call options that would enable them to refinance with lower rates when market interest rates go down.
  - **Cambodia:** Sinkable bonds are the amortizing bonds with CGIF-guarantees.
  - **Singapore**: A significant share of outstanding bonds are perpetual callable bonds, which are classified under "Others".

Specific Characteristics:
Coupon Type

Coupon Type in ASEAN, 2021



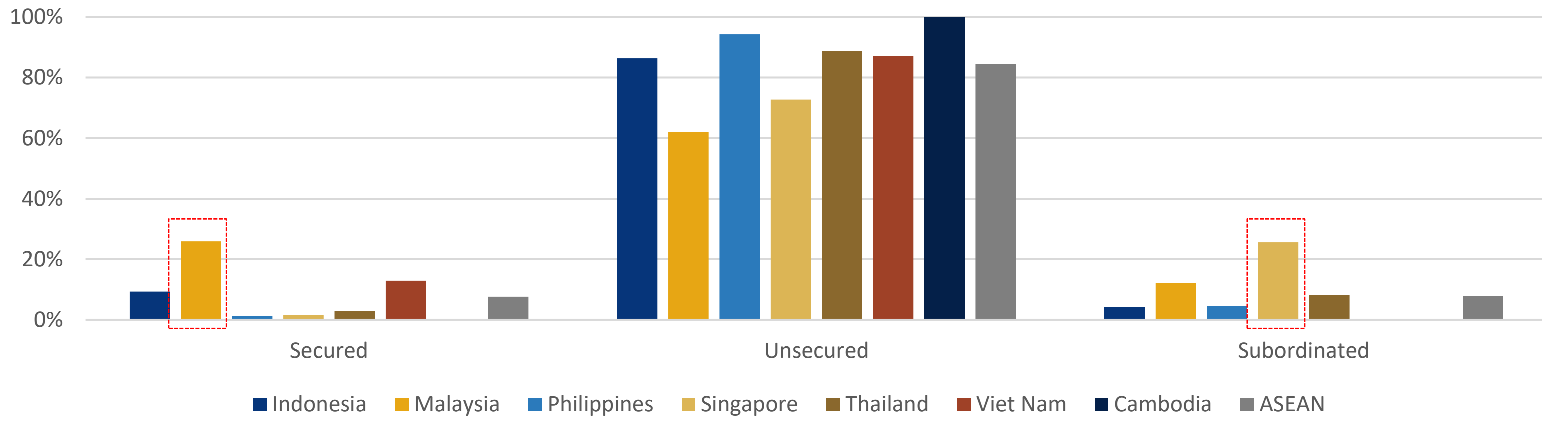
Notes:
1) Based on outstanding local currency corporate bonds as of the end of 2021
2) "ASEAN" refers to the simple average of the same coupon type group
Source: Bloomberg.

- Coupon type of most of the outstanding corporate bonds in ASEAN are fixed coupon type.
- **Viet Nam:** Floating rate bonds with 12-month deposit rate as reference rate are popular due to two possible reasons. First, banks, the biggest investor group in Viet Nam, prefer investing in floating rate bonds because their liabilities are also linked to deposit rates. Second, the corporate bonds have been considered alternatives of corporate loans in Viet Nam.
- **Singapore**: Variable coupon bonds are mostly observed from perpetual callable bonds whose coupons until call dates are fixed and coupons after call dates are fixed at the benchmark rates set at the call date plus spreads.

Specific Characteristics:
Payment Rank

Payment Rank in ASEAN, 2021

(Unit: %)



Notes:
1) Based on outstanding local currency corporate bonds as of the end of 2021
2) "ASEAN" refers to the simple average of the same payment rank group
Source: Bloomberg.

- Unsecured payment rank dominates ASEAN.
- **Malaysia:** The high level of secured bonds is linked to developed project-related bonds in the country because project bonds are structured similar to project finance loans in which security is a common characteristic.
- **Singapore**: Banks issue subordinated bonds as these are accepted as supplementary capitals that help banks comply with capital requirements under regulation. Aside from banks, companies from other industries, especially real estate, participate in subordinated bond issuances in Singapore.

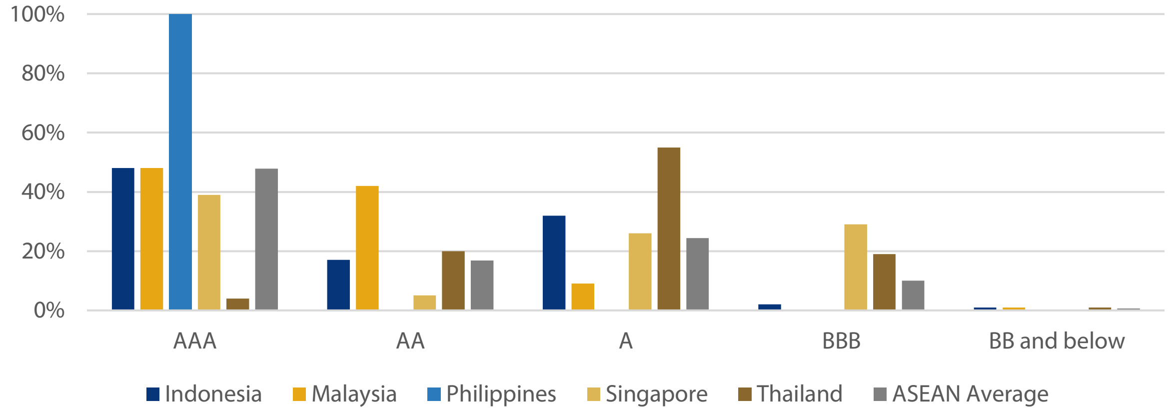
Specific Characteristics:
Credit Ratings

Ratio of Rated Corporate Bonds

Country	Ratio
Indonesia	82%
Malaysia	54%
Philippines	26%
Singapore	30%
Thailand	65%
Average	51%

Distribution of Credit Ratings in ASEAN

(Unit: %)



Notes:
1) Based on outstanding local currency corporate bonds as of the end of 2021
2) "ASEAN" refers to the simple average of the same credit ratings group
Source: Bloomberg.

- **Indonesia** has the highest ratio of rated corporate bonds in ASEAN.
- **Philippines:** The rated corporate bonds have AAA in the local rating scale.
- **Malaysia:** Although credit ratings are not mandatory, the rating cliff in Malaysia is at AA.
- **Thailand:** While only AAA and AA rated issuers are active in most of ASEAN countries, A ratings are dominant and BBB ratings are common in Thailand.
- **Singapore**: BBB ratings are easily observed as they are already investment grades in terms of global rating scale.

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Investors:
Corporate Bond Holdings

Corporate Bond Holding Rank by Investor Group

	Biggest Investor group	2nd Biggest	3rd Biggest
Cambodia	Bank	Insurance	
Indonesia	Mutual Fund	Bank	Insurance
Malaysia	Bank	Insurance	Pension
Philippines	Bank	Insurance	Mutual Fund
Singapore	Private Banking	Bank	Mutual Fund
Thailand	Individual	Insurance	Mutual Fund
Vietnam	Bank	Securities Companies	

Sources:
Cambodia: SBI Royal Presentation 2019
Indonesia: KSEI Securities Ownership as of 30 December 2021
Malaysia: Asian Bond Online Malaysia Market Summary November 2018
Philippines: Market interview
Singapore: Monetary Authority Singapore (MAS) Singapore Corporate Debt Market Development 2020
Thailand: Thai BMA 2021 Bond Market Highlights
Vietnam: VBMA January 2022

- In general, banks, insurance and mutual funds are three main investor groups of corporate bonds in ASEAN.
- **Thailand** is unique as individual investors are the biggest investor group for corporate bonds.
- **Indonesia**: Mutual fund is the biggest investor group due to the tax incentive having been given to them. However, the tax rate became unified regardless of investor groups since 2021.
- **Viet Nam**: Securities companies are the second biggest in terms of the investment from primary market, which does not necessarily represent its rank in terms of holding as they tend to sell the bonds to end-investors.

Investors:

Investment Appetite of Banks

Banks' investment appetites on corporate bonds are generally **1) short to medium in terms of maturity** because their liability (e.g., customer deposits) are short, **2) LCY and USD in terms of currency** and **3) moderate in terms of credit rating** because they already provide loans to SMEs.

Investment Appetite of Banks

Tenor	Currency	Credit Rating
Up to 5 years	LCY and USD	BBB and higher

Banks of some countries have special or additional appetite as follows.

- **Singapore**: Private banking is the biggest investor group in Singapore, which invests in perpetual bonds as their high-net worth individual clients prefer to invest them due to the high yields.
- **Malaysia** and **Philippines**: As most of corporate bonds are issued with longer than 5 years' maturities in these countries, banks invest longer than 5 years' corporate bonds.
- **Viet Nam**: Banks are keen to invest in bonds issued by other banks.

Investors:
Investment Appetite of Insurance Companies

Insurance' investment appetites on corporate bonds are generally **1) long in terms of maturity** because their liabilities are long, **2) only LCY in terms of currency** and **3) highly rated in terms of credit rating** because they are conservative investors.

Investment Appetite of Insurance Companies

Tenor	Currency	Credit Rating
Up to 10 years or longer	LCY	A or higher

Insurance companies of some countries have special or additional appetite as follows.

- **Indonesia**: Investment-linked insurance product (ILIP), a combination of insurance and mutual funds, is popular in Indonesia. Mutual funds in ILIP can be equity-, bonds-, time deposits-, mixed- and even USD bonds-typed. As a result, insurance companies in Indonesia invest short-term bonds or USD bonds.
- **Singapore**: Given abundant unrated corporate bonds supply in the market, insurance companies can invest in unrated bonds. In terms of currency, they invest in other major currencies as well as SGD.
- **Thailand:** FCY bonds are invested, and they are fully hedged to THB.
- **Viet Nam**: Insurance companies are keen to invest CGIF-guaranteed bonds regardless of tenor.

Investors:
Investment Appetite of Mutual Funds

Mutual funds' investment appetites on corporate bonds are generally **1) relatively short in terms of maturity, 2) LCY and FCY in terms of currency** and **3) diverse in terms of credit rating** because credit appetites are different depending on clients.

Investment Appetite of Mutual Funds

Tenor	Currency	Credit Rating
Up to 3 years	LCY and FCY	Diverse

Mutual funds of some countries have special or additional appetite as follows.

- **Indonesia**: Capital Protected Fund (CPF) is the most popular product, which protects capital by holding bonds until their maturities. Corporate bonds are preferred by CPF because of their higher yields.
- **Malaysia**: In case of Islamic funds, only sukuk can be invested.
- **Singapore:** Majority of funds (76% in 2019) are sourced outside of Singapore.
- **Thailand**: FCY fixed income funds are popular. They provided fixed THB return as they were fully hedged. FCY can be USD, EUR, JPY and other currencies as long as post-hedge THB yield is attractive.

Investors:

Investment Appetite of Pension Funds (EPF)

Employee Provident Fund (EPF), the pension fund for private sector employees in **Malaysia**, is the seventh largest pension in the world as of end 2019. Pension' investment appetites on corporate bonds, referred by those of EPF, are **1) long in terms of maturity, 2) LCY and FCY in terms of currency** and **3) highly rated in terms of credit rating.**

Strategic Asset Allocation and Investment Appetite of EPF

Item	Details
Strategic Asset Allocation (SAA)	• 51% fixed income instruments • 36% equities • 10% real estate and infrastructure • 3% Money Market Instruments
Credit appetite in fixed income instruments	• Most investments in government bonds and corporate bonds have ratings of AA or higher. • Minimal investments in A-rated and unrated corporate bonds
Currency appetite	• 70% in assets denominated in MYR, 30% in overseas assets • Under the internal policy, at minimum, 50% of the global fixed income investments are hedged, whereas global equities and other global exposures are hedged where appropriate.
Maturity appetite	• Based on the interest rate sensitivity information from the FS, the average maturity of bonds accounted under FVOCI is around 7 years. This implies that the average maturity of these bonds at the time of investment is likely longer than 10 years.

FS = Financial Statement, FVOCI = fair value through other comprehensive income, MYR = Malaysian ringgit
Note: Composition of SAA totals to 100%.
Source: EPF Annual Report 2019.

Investors:
Investment Appetite of Individual Investors

Individuals' investment appetites on corporate bonds are generally **1) short in terms of maturity, 2) LCY and USD in terms of currency** and **3) generous in terms of credit rating** because individuals are keen to achieve higher yield despite taking more credit risk.

Investment Appetite of Individuals

Tenor	Currency	Credit Rating
Up to 3 years	LCY and USD	BBB on average

Individuals of some countries have special or additional appetite as follows.

- **Philippines**: Long-term Negotiable Certificate of Deposit (LTNCD) is popular for individual investors as it is exempted from withholding tax.
- **Singapore:** Individuals invest in perpetual callable bonds despite long tenor because of their attractive yields.
- **Thailand**: Individuals are the biggest investor group, holding 35% of outstanding corporate bonds in 2021. They can invest in speculative grade bonds or even unrated bonds as long as yields are high.

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Other Market Participants:
Profile of Corporate Bond Issuers

- Across ASEAN, the companies under the financial industry (including real estate)* have been the most active issuers of corporate bonds.
  - **Thailand** has a relatively diverse issuer profile, with only 27% of corporate bond issuers from the financial industry, 22% from the consumer staples industry, and 10% from the materials industry.

Corporate Bond Issuer Profile in ASEAN, 2021

Industry	Malaysia	Singapore	Philippines	Thailand	Indonesia	Viet Nam
Financials	52%	58%	66%	27%	44%	52%
Industrials	19%	9%	2%	5%	14%	5%
Utilities	13%	2%	14%	7%	8%	0%
Consumer Discretionary	4%	22%	1%	9%	4%	10%
Energy	3%	1%	9%	9%	3%	4%
Consumer Staples	2%	3%	5%	22%	5%	22%
Materials	1%	1%	0%	10%	14%	5%
Others	6%	4%	3%	11%	8%	2%

Source: Bloomberg.

*The classification of industries is based on Bloomberg's industry classification, in which real estate is a sub-industry of financial industry.

Other Market Participants:
Bond Pricing Agency

- Local bond pricing agencies provide market prices of local corporate bonds, which can be used for bonds' fair values reflected in the financial statements of institutional investors.
- They also provide daily yield matrix which can be used for the yield reference of corporate bond trading in the local bond markets.

Bond Pricing Agencies in ASEAN

	Local Agency which provide daily corporate bond prices	Remarks
Cambodia	-	
Indonesia	PT Penilai Harga Efek Indonesia (PHEI)	Bond pricing agency
Malaysia	Bond Pricing Agency Malaysia (BPAM)	Bond pricing agency
Philippines	-	
Singapore	-	
Thailand	Thailand Bond Market Association (Thai BMA)	Bond market association which has, among others, bond pricing function.
Viet Nam	-	-

Other Market Participants:
Credit Rating Agency

- Credit rating agencies are active in most ASEAN countries as credit ratings on corporate bonds or their issuers are generally required for public offering bonds.
- **Cambodia** does not have a local credit rating agency yet, given its nascent corporate bond market.
- In **Viet Nam**, mandatory credit ratings are already being introduced for bond issuance in 2023.

Credit Rating Agencies in ASEAN

Country	Credit Rating Agencies
Cambodia	*None*
Indonesia	PT Pemeringkat Efek Indonesia / PT Fitch Ratings Indonesia
Malaysia	RAM Ratings Services Berhad / Malaysian Rating Corporation Berhad
Philippines	Philippine Rating Services Corporation / Credit Rating and Investors Services Philippines Inc.
Singapore	Fitch Ratings Singapore / Moody's Investors Service Singapore Standard & Poor's Singapore / A.M. Best-Asia Pacific (Singapore)
Thailand	Thai Rating and Information Services / Fitch Ratings (Thailand) Limited
Viet Nam	Saigon Phat Thinh Rating Joint Stock Company / FiinRatings

Other Market Participants:
Credit Rating Requirements

- ASEAN has different contexts in requiring credit rating, with respect to the bond type or mode of offering.
- **Malaysia** and **Singapore** do not have any credit rating requirements as part of their policies to make their corporate bond markets competitive.

Country	Application of mandatory credit rating requirement	Exemptions to credit rating requirements
Cambodia*	For plain bonds offered under public offering	Guaranteed bonds
Indonesia	For publicly offered bonds with at least 1-year maturity	Privately placed bonds
Malaysia	None	
Philippines	For bonds with issuance amounts of more than 25% of issuer's net worth, or if there is an irrevocable committed credit line with a bank covering 100% of the proposed issuance	
Singapore	None	
Thailand	For bonds issued under public offering For bonds issued to specific investors who are subject to investment regulations of their respective regulatory bodies For Baht bonds (THB-denominated issuances of foreign companies)	For bonds issued under private placement to Accredited Investors
Viet Nam**	Credit ratings are required for corporate bonds after 1 January 2023 under Decree 155/2020/ND-CP, subject to conditions.	

* Under the exempt conditions of the Prakas on Public Offering of Debt Securities, if there is no CRA accredited by the Securities and Exchange Commission of Cambodia, the issuer must submit a report on the level of financial ratios such as cash flow ratio, leverage ratio, and coverage ratio, and others with certification of the appropriateness from its experts or underwriter.
** As of January 2023, there are no updates if the mandatory credit ratings for private placements will be delayed to 2024.

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Credit Spread:

Availability of Credit Spreads Data in ASEAN

- Credit spread is the difference between corporate bond yield and government bond yield with same maturity. Credit spreads become wider as credit rating goes down because more compensation is required for investors to take more credit risk.
- Availability of credit spreads is different depending on countries as below.

Countries	**Availability of Credit Spreads**
Indonesia, Malaysia and Thailand	Thanks to local bond pricing agencies in these countries, credit spreads for certain credit ratings and maturities are easily available on a daily basis.
Philippines and Singapore	Credit spreads of both rated and unrated corporate bonds are available by calculating the difference between the yield of outstanding corporate bond and that of government bond with same maturity.
Vietnam	Credit spreads of unrated corporate bonds are available by calculating the difference between the yield of outstanding corporate bond and that of government bond with same maturity. Credit spreads of rated corporate bonds are not available as there are no rated corporate bonds.
Cambodia	Credit spreads are not available as benchmark government bonds are not available.

Credit Spread:
Credit Spread Matrix

- For **Indonesia**, **Malaysia** and **Thailand** where daily yield matrices are provided by their respective bond pricing agencies, credit spread matrix are easily calculated as below.

IDR Yield Matrix, 28 April 2022

Credit Rating	1Y	3Y	5Y	7Y	10Y
Government	4.17	**5.71**	6.38	6.79	7.12
AAA	4.50	6.18	7.01	7.55	8.00
AA	5.25	7.00	7.82	8.32	8.73
A	7.32	**8.93**	9.64	10.24	11.04
BBB	9.50	11.20	12.07	12.62	13.03

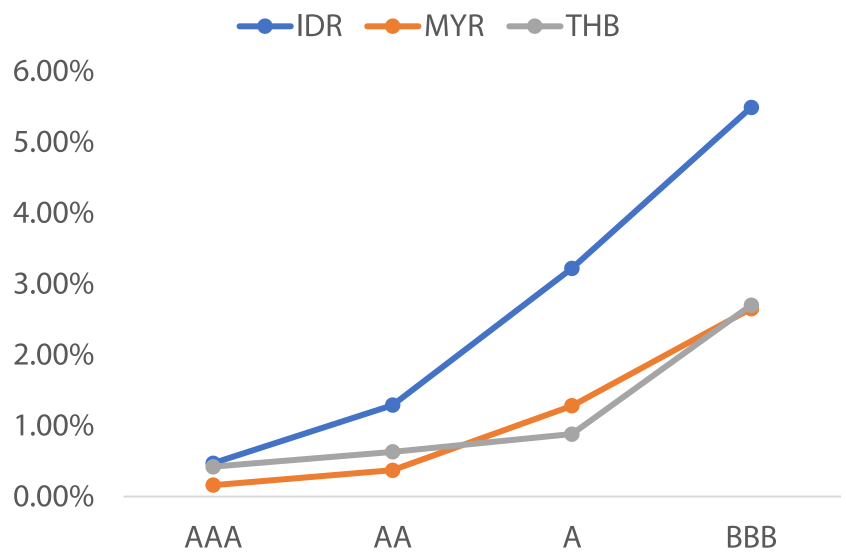
For example, credit spread of 3-year A rated bond is 3.22% which is 8.93%-5.71%.

IDR Credit Spread Matrix, 28 April 2022

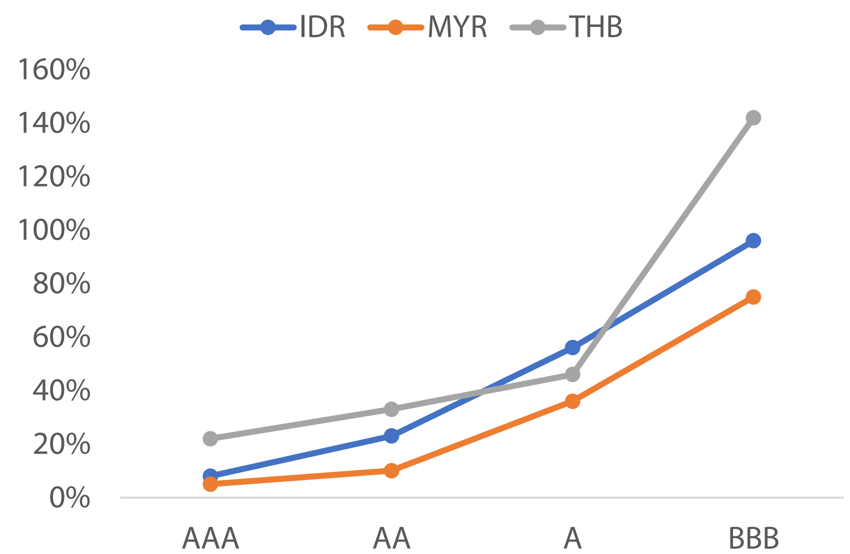
Credit Rating	1Y	3Y	5Y	7Y	10Y
AAA	0.33	0.47	0.63	0.76	0.88
AA	1.08	1.29	1.44	1.53	1.61
A	3.15	**3.22**	3.26	3.45	3.92
BBB	5.33	5.49	5.69	5.83	5.91

Credit Spread:
Indonesia, Malaysia and Thailand

IDR, MYR and THB 3-year Credit Spread



IDR, MYR and THB 3-year Credit Spread / Benchmark Treasury Rate

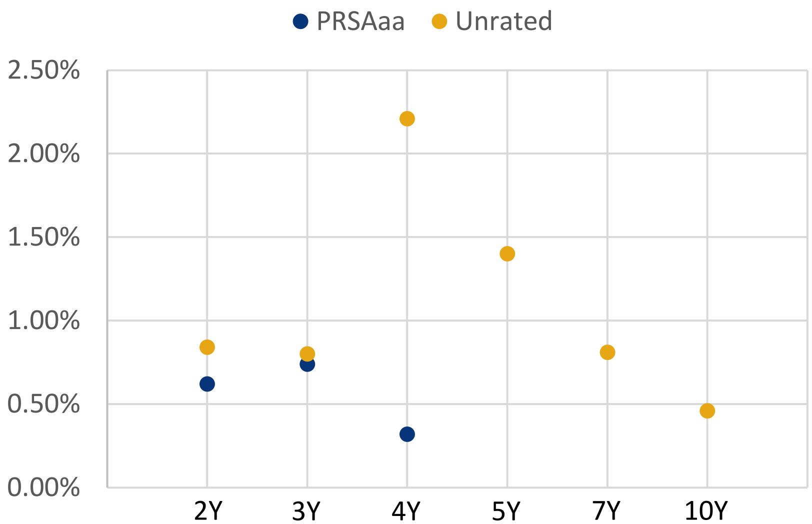


Source: PHEI for IDR data as of 28 April 222 and Bloomberg for MYR and THB data as of 3 May 2022.

- **Indonesia** shows higher credit spreads than Malaysia and Thailand, which become more prominent as credit rating lowers.
- BBB rated spread is the highest in **Thailand** when the benchmark treasury rate of each country is considered.

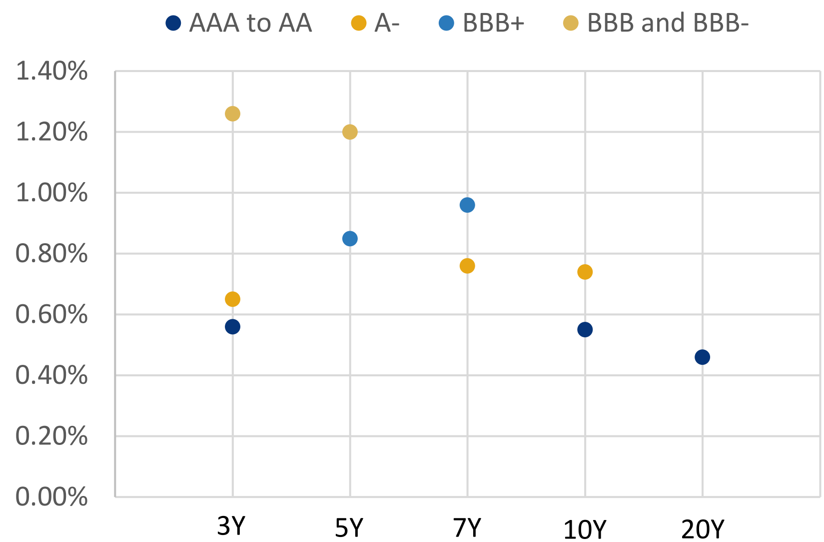
Credit Spread:
Philippines and Singapore

PHP Credit Spread, 2021



Source: Bloomberg for coupon rates; PDEx for BVAL Rates; Author's calculations

SGD Credit Spread, 2021



Source: Bloomberg; Author's calculation

- **PHP credit spreads** are based on the ones at their issuance dates. As a result, dots in the left graph above are the spreads observed at different dates.
- **SGD credit spreads** are based on the outstanding corporate bonds at a certain date.

Credit Spread:
Viet Nam

- Based on the table below, it seems that 12-month deposit rates are used as benchmark reference rates for corporate bonds in Viet Nam because spreads from same issuers are too wide if government bond rates are used for benchmark reference rates.

Examples of Credit Spread Computations in Viet Nam

Issuer	**ACB**		**HCMC Infrastructure**		**LienViet Post Bank**	
Issue Date	19Dec18	6Dec19	15Aug17	21Oct21	19Jul19	15Dec20
Maturity	10-year	5-year	2-year	3-year	10-year	5-year
Coupon	7.35%	7.10%	10.50%	9.50%	7.35%	6.50%
GBR[1]	5.17%	2.10%	4.24%	0.54%	4.64%	1.09%
12MDR[2]	6.80%	6.80%	6.50%	5.50%	6.80%	5.60%
SOGBR[3]	**2.18%**	**5.00%**	**6.26%**	**8.96%**	**2.71%**	**5.41%**
SO12MDR[4]	**0.55%**	**0.30%**	**4.00%**	**4.00%**	**0.55%**	**0.90%**

GBR = Government bond rate with same maturity of the corporate bond at its issue date, 12MDR = 12-month deposit rate at issue date, SOGBR = spread over GBR, SO12MDR = spread over 12MDR.
Source: Bloomberg; Author's calculations

Credit Spread:

Observations by country (1)

Country	Observations on Credit Spread
Indonesia	• Lower credit ratings lead to higher credit spreads under the same maturity. • Wider credit spreads are required as maturities become longer, regardless of the credit ratings. • Additional spread from AA to A is significant, implying that investors in Indonesia require significant compensation for their investments in A-rated bonds, even if they are eligible for investments by most investors.
Philippines	• Due to the lack of data for unbiased credit spread analysis, it is not apparent whether longer tenor corporate bonds require more spread than shorter ones. • AAA rated bonds show tighter spreads than unrated bonds on average. However, depending on issuers, unrated bonds can show tighter spreads than AAA rated bonds.
Singapore	• The maximum tenors become shorter as credit rating goes down. This means that the maximum tenor that is liquid enough to be traded or issued becomes shorter as credit ratings go down. • Credit spreads from A-rated bonds are relatively competitive as they require only 10 to 20 basis points more than AA- or AAA-rated bonds.

Credit Spread:
Observations by country (2)

Country	Observations on Credit Spread
Malaysia	• Since the rating cliff is regarded at Aa3, investors show some reluctance to invest in A1 or lower rated bonds unless large yield incentives are given. This is because of the credit spreads jumping significantly from ratings of Aa3 to lower. • Among Aa3 or higher rated bonds, credit spreads increase as maturity becomes longer until 10 years and drop in the maturities beyond 10 years. A possible reason behind this observation is that the demand for bonds with tenor of more than 10 years is strong and investors accept credit ratings of up to Aa3 for long tenor bond investments. • Among A1 and lower rated bonds, credit spreads increase as maturity becomes longer. It is related to the general credit appetite of Malaysian investors who are much more careful on bonds with A1 or lower ratings than Aa3 or higher ratings.
Thailand	• Additional spread required for one-notch difference is the biggest from A- to BBB+, which is even larger than the additional spread from BBB+ to BBB. • Longer maturity requires more spread within the same credit rating.
Viet Nam	• 12-month deposit rate is accepted as benchmark rate for corporate bonds more than government bond rate with same maturity. • Spreads applied to 5-year bonds are higher than those applied to 3-year bonds by the same issuer and in the same industry, suggesting that more spreads are applied to longer-tenor bonds, all else being equal. • CGIF-guaranteed bonds generally have the lowest spreads and have the longest maturities on average. Market participants in Viet Nam recognize that these observations reflect CGIF's high credit rating, AA by S&P.

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Guaranteed Bonds:
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Guaranteed Corporate Bonds Ratios in ASEAN, 2021

Unit : LCY Billions

	LCY Corporate Bonds (A)	LCY Guaranteed Corporate Bonds (B)	Ratios (B/A)
Cambodia	532	207	39%
Indonesia	421,513	8,840	2%
Malaysia	728	281	39%
Philippines	1,467	4	0.3%
Singapore	87	32	37%
Thailand	3,640	262	7%
Viet Nam	68,086	14,929	22%

Source: Bloomberg.

- **Malaysia** and **Singapore** are the countries where guaranteed corporate bonds are active.
  - Main guarantors in Malaysia include government or specialized national guarantor, Danajamin.
  - Guarantors in Singapore are mostly parents or same group companies.
- **Cambodia** and **Viet Nam** are the countries where guaranteed corporate bonds are mostly CGIF guaranteed bonds.
  - Cambodia: 100%
  - Viet Nam: 87%
- **Indonesia**, **Philippines** and **Thailand** are the countries where guaranteed corporate bonds are relatively inactive.

Guaranteed Bonds:
National Credit Guarantors in ASEAN

National Credit Guarantors for Private Sectors

	National Guarantor	Market Activity
Cambodia	Credit Guarantee Corporation of Cambodia (CGCC)	Not yet active because it was established in September 2020
Indonesia	Indonesia Infrastructure Guarantee Fund (IIGF)	Guarantees available for infrastructure projects in Indonesia under public-private partnership (PPP) scheme
Malaysia	Danajamin Nasional Berhad	Active
Philippines	Philippine Guarantee Corporation (PhilGuarantee)	Only a few times
Singapore	-	-
Thailand	Thai Credit Guarantee Corporation (TCG)	Not active
Vietnam	-	-

- Danajamin Nasional Berhad in **Malaysia** is the only active national guarantor for corporate bonds in the region although there are other national guarantors from other countries.
  - As of 31 July 2021, Danajamin has provided credit guarantees to 97 MYR corporate bonds issued by 11 Malaysian entities.
  - In November 2021, Danajamin became a wholly-owned subsidiary of Bank Pembangunan Malaysia Berhad, a development financial institution. This acquisition is aligned in improving the development finance sector of Malaysia.

Guaranteed Bonds:
Guarantor ranks by country

Active Guarantors in ASEAN

	The Most Active Guarantor	2nd Active Guarantor	3rd Active Guarantor
Cambodia	CGIF		
Indonesia	Government	Parents /Subsidiaries	CGIF
Malaysia	Government	Parents /Subsidiaries	Danajamin
Philippines	CGIF	Parents /Subsidiaries	Philguarantee
Singapore	Parents /Subsidiaries	CGIF	Financial Institutions
Thailand	Parents /Subsidiaries	Government	CGIF
Viet Nam	Government	CGIF	GuarantCo

- The government remains as key guarantor for the bond market of **Indonesia**, **Malaysia** and **Viet Nam**.
- Parent companies and subsidiaries are natural guarantors for bond issuance across ASEAN countries, except **Cambodia**.
- Compared to other ASEAN markets, **Malaysia** has a very active national credit guarantor, Danajamin Nasional Berhad which can provide guarantees to both conventional bonds and sukuk in Malaysia.
- CGIF is the most active third-party credit guarantor in the region.

Guaranteed Bonds:
Co-Guarantee

- Co or partial guarantees are rare in the region as guaranteed bonds are generally fully guaranteed by a single guarantor. (Subsidiaries or same group companies are counted as one guarantor.)

Co-Guarantees in ASEAN

Country	Transaction Details	Remarks
Philippines	Issuer: Power Sector Assets and Liabilities Management Corp. (PSALM) Guarantor: Philippines Government and ADB Issue Date: 13 Dec 2002 Maturity: 10 years Bond Currency: JPY Issue Rating: Aaa by Moody's	Issuer is a SOE in the Philippines and received guarantees from ADB (Aaa by Moody's) and Philippines government (Baa2 by Moody's) for its JPY bond issuance. Both guarantors provided 100% guarantees. Issue rating is Aaa as it follows the rating of a higher one.
Thailand	Issuer: Boonthavorn Ceramic 2000 Guarantor: Kbank and CGIF Issue Date: 17 Dec 2018 Maturity: 5 years Bond Currency: THB Issue Rating: AA+ by TRIS	Issuer is a private company and received guaranteed from Kbank (AA+ by TRIS) and CGIF (AAA by TRIS) for its THB bond issuance. Each guarantor provided 50% guarantee, which made full issue amount guaranteed. Issue rating is AA+ as it follows the rating of a lower one.

Guaranteed Bonds:
Partial Guarantee

<u>Partial Guarantees in ASEAN</u>

Country	Transaction Details	Remarks
Indonesia	Issuer: Ciputra Residence (A- by Fitch National) Guarantor: IFC Issue Date: 2 Apr 2014 Maturity: 3, 5 and 7 years (3 tranches) % of Guarantee: 20% Issue Rating: A (by Fitch National)	Issue rating was one notch (A- to A) lifted due to 20% partial guarantee from IFC. A was the minimum rating required for Indonesian pension funds to invest corporate bonds.
Thailand	Issuer: True Corp. (BBB+ by TRIS) Guarantor: Kbank (AA+ by TRIS) Issue Date: 10 Nov 2015 Maturity: 7 years % of Guarantee: 45% Issue Rating: A- (by TRIS)	Partial guarantees were mostly executed to the bonds issued by BBB+ issuers who could make the best use of partial guarantees due to significantly wide credit spreads between BBB+ and A- in comparison with other one notch differences in Thailand. Two local banks (Kasikornbank and SCB) were active on partial guarantees and CGIF provided two partial guarantees including the one left.
	Issuer: Siamgas & Petrochemicals (BBB+ by TRIS) Guarantor: CGIF Issue Date: 7 Dec 2018 Maturity: 5 years % of Guarantee: 70% Issue Rating: A (by TRIS)	

Guaranteed Bonds:
CGIF-Guaranteed Bonds (1)

- The list of CGIF-guaranteed bonds here includes matured bonds as of end 2022. However, it does not include its cross-border bonds, which are introduced in cross-border bonds section.

Bond Issuance Venue	Issuer	Currency and Issue Size	Issuance Year	Tenor
Cambodia	Telcotech Ltd.	KHR80 billion	2021	5 years
	PRASAC Microfinance Institution	KHR127.2 billion	2020	3 years
	RMA (Cambodia)	KHR80 billion	2020	5 years
Indonesia	PT Polytama Propindo	IDR110.25 billion IDR110.25 billion IDR96.5 billion IDR223 billion IDR104 billion IDR56 billion	2022 2022 2021 2021 2021 2021	3 years 5 years 3 years 5 years 3 years 5 years
	PT Ketrosden Triasmitra	IDR415 billion IDR168 billion	2021 2021	3 years 5 years
	PT Mitra Pinasthika Mustika Finance	IDR160 billion IDR140 billion	2016 2016	3 years 3 years
	PT BCA Finance	IDR120 billion IDR300 billion	2014 2013	3 years 3 years

Guaranteed Bonds:
CGIF-Guaranteed Bonds (2)

Bond Issuance Venue	Issuer	Currency and Issue Size	Issuance Year	Tenor
Malaysia	Hanwha Q Cells Malaysia Sdn. Bhd.	MYR150 million	2021	3 years
Philippines	Aeon Credit Service (Philippines)	PHP900 million PHP100 million	2018 2018	3 years 5 years
	ASA Philippines Foundation, Inc.*	PHP500 million PHP500 million PHP1 billion	2018 2017 2017	5 years 5 years 5 years
	AP Renewables**	PHP10.7 billion	2016	10 years
Singapore	First Real Estate Investment Trust	SGD100 million	2022	5 years
	Nexus International School	SGD150 million	2019	12 years
	CJ Logistics Asia	SGD70 million	2019	5 years
	Fullerton Healthcare Corp	SGD50 million SGD50 million	2016	5 years 7 years
	IVL Singapore	SGD195 million	2015	10 years

* CGIF guaranteed 75% of the bond.
** Up to Php 4.7 billion Risk Sharing with ADB

Guaranteed Bonds:
CGIF-Guaranteed Bonds (3)

Bond Issuance Venue	Issuer	Currency and Issue Size	Issuance Year	Tenor
Thailand	JWD InfoLogistics	THB1.2 billion THB700 million	2021	9 years 5 years
	Thaifoods Group PCL	THB1 billion THB2 billion	2021 2020	5 years 5 years
	Boonthavorn Ceramic 2000	THB2 billion	2018	5 years
	Siamgas and Petrochemicals PCL*	THB2 billion THB2 billion	2018 2018	5 years 5 years
Viet Nam	GELEX Group JSC	VND1.15 trillion	2019	10 years
	Hong Phong 1 Energy JSC	VND400 billion VND2.5 trillion	2019 2019	5 years 15 years
	REE Corporation	VND2.32 trillion	2019	10 years
	Hoan My Medical Corporation	VND1.4 trillion VND930 trillion	2018 2018	7 years 5 years
	The Pan Group	VND1.14 trillion	2018	5 years
	Mobile World Investment Corporation	VND1.14 trillion	2017	5 years
	Vingroup JSC	VND1.95 trillion VND1.05 trillion	2016 2016	5 years 10 years
	Masan Consumer Holdings	VND2.1 trillion	2014	10 years

* Co guarantee with Kasikornbank

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Cross-Border Bonds:
State of Cross-Border Bonds In ASEAN

Illustration of Cross-Border Issuances in ASEAN

Presence of corporate bonds issued in a foreign market	Myanmar, Thailand, Singapore	Indonesia, Lao PDR, Malaysia, Philippines, Viet Nam
Absence of corporate bonds issued in a foreign market	Brunei, Cambodia	
	Absence of government bonds issued in a foreign market	Presence of government bonds issued in a foreign market

- Five ASEAN countries have outstanding government bonds denominated in foreign currencies and other five do not. Whether to have them or not does not depend on sovereign rating or bond market development degree of a country.
- Only two countries, **Brunei** and **Cambodia**, do not have companies which issued bonds outside of their own countries.

Cross-Border Bonds:
Inbound Bonds

Cross-Border Bonds in ASEAN6: Inbound Bonds, as of 2021

Country	Ratio of LCY bonds issued by foreign entities to total LCY bonds: Including bonds settled in major currencies	Ratio of LCY bonds issued by foreign entities to total LCY bonds: Excluding bonds settled in major currencies (Inbound)
Indonesia	29%	0.1%
Malaysia	1%	1%
Philippines	3%	0.3%
Singapore	22%	22%
Thailand	1%	1%
Viet Nam	2%	0%

Source: Bloomberg.

- **Singapore** is the only ASEAN country where significant inbound bonds are present.
- **Indonesia:** Although significant IDR bonds issued by foreign entities are observed, most of them are not inbound bonds as they are issued outside of Indonesia with being settled in USD or other major currencies.
- **Malaysia:** Although inbound bonds are small, some foreign entities issued MYR-denominated sukuk as Malaysia has the largest sukuk market in the world.
- **Thailand:** Although inbound bonds are not significant, some issuers from neighboring countries such as Lao PDR and Myanmar issued THB-denominated bonds in Thailand.

Cross-Border Bonds:
Inbound Bonds from ASEAN+3

- Indonesia, Malaysia, Singapore and Thailand are the ASEAN countries where foreign issuers from ASEAN+3 are participating in their own local corporate bond markets.

Inbound Bonds from ASEAN+3

Issue Market	Foreign Issuers from ASEAN+3	Issuer Country	Remark
Indonesia	BTMU	Japan	
Malaysia	Bumitama Agri	Singapore	Sukuk
	First Resources	Singapore	Sukuk
Singapore*	Profesional Telekomunika	Indonesia	CGIF guaranteed Bond
	Ciputra Development	Indonesia	Issued twice with BB- and B+ rating from Fitch
	Cagamas Global	Malaysia	Rated A3 by Moody's
Thailand	EDL-Generation	Lao PDR	Rated BBB- by TRIS
	Nam Ngum 2 Power	Lao PDR	Rated A by TRIS
	Yoma Strategic Holdings	Myanmar	CGIF guaranteed Bond

* Issuers from +3 countries are excluded in this table. They are ABC, BOC, CCB, ICBC, China Orient Securities, Chongqing Banan Economic Park from China, Sumitomo Mitsui Trust from Japan and Daewoo E&C and Posco from Korea.

Cross-Border Bonds:
Outbound Bonds

Cross-Border Bonds in ASEAN6: Outbound Bonds, as of 2021

Country	Ratio of FCY bonds issued by local entities to total bonds issued by local entities (Outbound)
Indonesia	70%
Malaysia	19%
Philippines	39%
Singapore	66%
Thailand	18%
Viet Nam	42%

Source: Bloomberg.

- In ASEAN, companies in **Indonesia** rely on the offshore market most when they issue bonds. Given the fact that FCY bonds show larger average issue and longer average maturity than LCY bonds, Indonesia entities seem to look for offshore bond market when the bonds they want to issue are too large or too long for their local market.
  - **Komodo bond** is an offshore IDR bond issued by Indonesia entities for infrastructure projects in Indonesia. While it is not a FCY bond, it is a part of offshore bond issuance by Indonesia entities.
- **Malaysia and Thailand** show the low ratios, which may be attributed to the fact that they have relatively developed local corporate bond markets.
- **Philippines:** Several USD perpetual callable bonds were issued to raise supplementary capital and two USD thematic bonds are observed.
- **USD** is the dominant FCY in all ASEAN countries.

CGIF

Cross-Border Bonds:
Currencies of Outbound Bonds

- USD is the most widely used FCY for bond issuances of companies in ASEAN.
- Companies in **Singapore** use various currencies for their offshore bond issuances.
- **Lao PDR** and **Myanmar** are the countries whose companies rely more on THB than USD for their cross-border bond issuances.

Currencies of Outbound Bonds, as of 2021

Country of Issuers	Number of FCYs including USD	Dominance of USD
Indonesia	4	93%
Lao PDR	2	13%
Malaysia	6	66%
Myanmar	1	0%
Philippines	2	97%
Singapore	20	63%
Thailand	3	90%
Viet Nam	1	100%
ASEAN	**22**	**66%**

Source: Bloomberg.

Cross-Border Bonds:
CGIF's Guaranteed Cross-Border Bonds

- **Singapore** and **Thailand** are the issuance venues of the CGIF's cross border bonds.
- All CGIF's cross border bonds are 100% guaranteed.

List of CGIF's Guaranteed Cross-Border Bonds

Bond Issuance Venue	Issuance Year	Issuer (Country of Incorporation)	Currency and Issue Size	Tenor
Singapore	2022	China Education Group (China)	CNH500 million	3 years
	2021	Hanwha Solutions Corporation (South Korea)	CNH1 billion	3 years
	2014	Protelindo Finance BV (Indonesia)	SGD180 million	10 years
	2014	Kolao Holdings (Lao PDR)	SGD60 million	3 years
	2014	PT Astra Sedaya Finance (Indonesia)	SGD100 million	3 years
Thailand	2019	Yoma Strategic Holdings (Myanmar)	THB2.22 billion	5 years
	2016	KNM Group Berhad (Malaysia)	THB2.78 billion	5 years
	2013	Noble Group Limited (Hong Kong)	THB2.85 billion	3 years

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Thematic Bonds:
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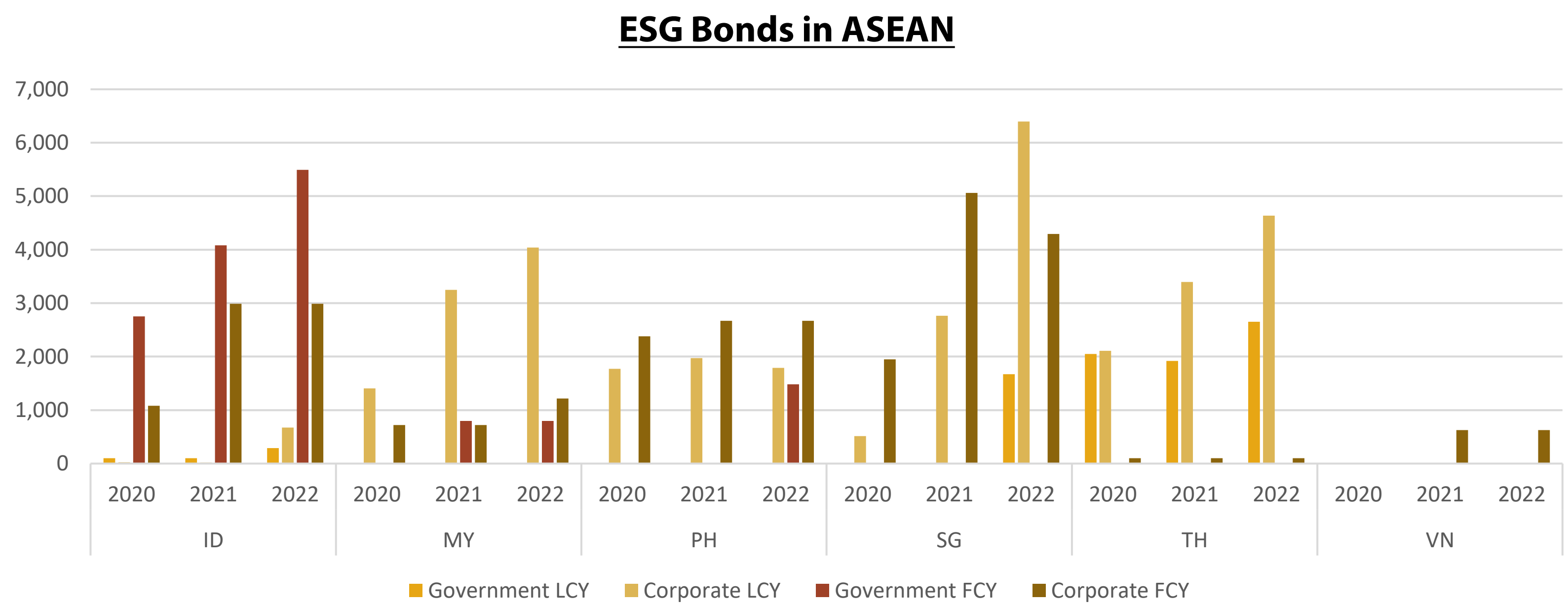

Note: Data as of December 2022
Source: Asian Bonds Online

- In **Indonesia**, FCY-denominated ESG bonds are more active compared to LCY. In fact, Indonesia has the highest FCY-denominated ESG bonds issued by the government in ASEAN.
- **Singapore's** corporates are more active in issuing ESG bonds compared to its government.
- In terms of currencies, **Thailand** has more LCY-denominated ESG bonds are more pronounced.
- The **Philippines** are tapping both foreign and local currencies for ESG bond issuances.

Thematic Bonds:
Selected ESG Bonds in ASEAN

- Corporates in ASEAN are becoming more aware of issuing ESG bonds, specifically green bonds.
- As of 14 November 2022, there are 322 issuances of ESG bonds (matured and outstanding) which are aligned with ASEAN Green, Social or Sustainability Bonds Standards. Some examples are listed in the table below.

List of Selected ESG Bonds in ASEAN

Bond Issuance Venue	Issuer	Issuance Year	Currency and Issue Size	Tenor	Type of Bond
Singapore	National University of Singapore	2020 2021	SGD300 million SGD300 million	10 years 10 years	Green Bonds
Thailand	Bangkok Expressway and Metro PCL	2021 2021 2021 2021	THB2 billion THB2 billion THB1 billion THB1 billion	3 years 5 years 7 years 10 years	Sustainability Bonds
Malaysia	Hanwha Q CELLS Malaysia	2021	MYR150 million	3 years	Green Bond
Indonesia	PT Bank Negara Indonesia	2022 2022	IDR4 trillion IDR1 trillion	3 years 5 years	Green Bonds
Philippines	Energy Development Corporation	2021 2021	PHP2.5 billion PHP2.5 billion	3 years 5 years	Green Bonds

Source: ASEAN Capital Markets Forum, as of November 2022
https://www.theacmf.org/initiatives/sustainable-finance/list-of-asean-green-social-sustainability-bondssukuk

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Regulatory Direction

- Depending on the level of corporate bond market development, ASEAN countries focus on **1) enabling issuers to tap the sustainable finance market which includes green and sustainability bonds**, **2) increasing investor base**, **3) improving market infrastructure**, and **4) increasing market transparency**.

Country	Year	Regulatory Directions or Programs
Cambodia	2022	Extension of the tax incentive for corporate bonds
Indonesia	2022	Introduction of OJK's Green Taxonomy in 2022 which would help in identifying green activities which would be helpful for issuing green bonds in the country
Malaysia	2022	Expanded the SRI Sukuk and Bond Grant Scheme Program as an initiative to help eligible companies to meet their sustainable finance needs
Philippines	2020	Passage of the regulation for Corporate Debt Vehicle, which is a closed-end investment company that offers for sale shares or units of participation to invest in corporate debt of large corporations and medium-sized companies.
Singapore	2019	Implementation of a grant scheme for potential bond issuers in securing credit ratings which would help in increasing market transparency in the SGD corporate bond market
Thailand	2020 2021	Partnered with the Capital Market Development Forum to support the development of digital infrastructure for the country's capital market Launched the Strategic Plan 2021-2023 containing the broad strategies for capital market development
Viet Nam	2022	Passage of new regulations on credit rating requirements

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