

# ASEAN X Macro

## Sustainable Bonds: Taking Stock of Issuances, New Standards and PDS Market

STRATEGY

Regional

### Issuance: Sovereign Bonds Took Charge in ASEAN

Global sustainable bond issuance dropped for the first time by 25% YoY to USD849b in 2022 (2021: USD1.1t), based on our estimate, weighed by tighter financing conditions and increased scrutiny by investors. EMEA and AMER regions declined 29% and 36% respectively, while APAC increased slightly. Issuances may resume growth this year on continued drive to invest in climate change, but the pace will depend on evolving policy and regulations as well as global demand for bonds.

ASEAN buck the trend. Sustainable bond supply grew 18% YoY to USD21.1b (2021: USD17.9b) from a relatively low base. Label issuances for corporate actually fell last year, but growth was driven by sovereign green and sustainability debuts such as Philippines' 25y sustainability USD bond and multi-tranche sustainability Samurai Bonds, Singapore's inaugural 50y SGS (Infra) and HDB green bond as well as Malaysia's 15y sustainability GII. By type, it remains primarily driven by green and sustainability bonds.

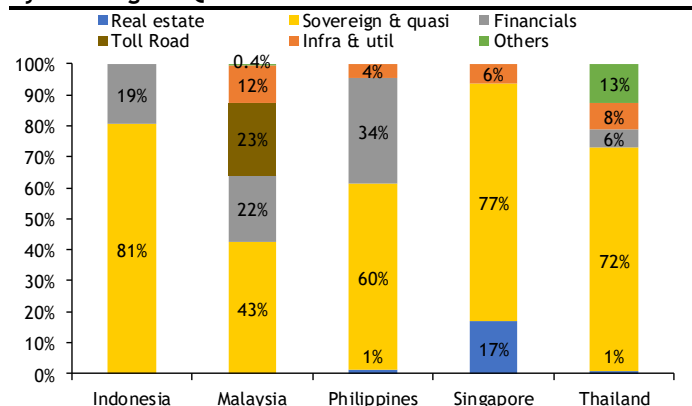
### Regulation: Taxonomy to Mitigate Greenwashing

Regulators are attempting to address greenwashing concerns. A research from HKMA suggests that green taxonomies and more comprehensive environmental disclosure requirements help reduce the probability of greenwash behavior. EU Taxonomy is among the first to be implemented, and the downgrade of at least USD125b funds from Article 9 (seen as dark green) to Article 8 (light green), according to BloombergNEF, indicates the taxonomy is having an impact. Securities Commission Malaysia (SC) launched its Sustainable and Responsible Investment (SRI) Taxonomy in Dec 2022. Adoption is voluntary and can be applied at any level as well as alongside other SRI frameworks. A social component has also been included in addition to environmental objectives. A shortcoming of SC SRI Taxonomy is the lack of setting disclosure improvements and mandatory reporting.

### Malaysia PDS: Steady Growth in Sustainable Bonds

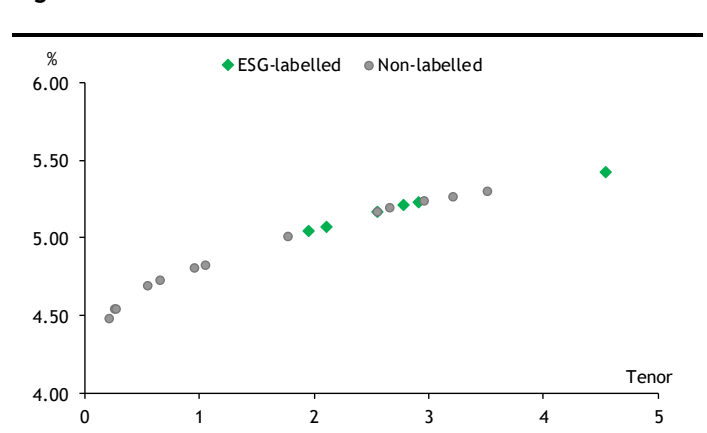
Sustainable bond issuance in Ringgit PDS market rose to MYR15.1b in 2022 (2021: MYR4.8b), mainly due to the labelling of Amanat Lebuhraya Rakyat's (ALR) MYR5.5b sukuk. ESG-labelled bonds now account for 3.2% of total PDS outstanding with a broader range of issuers. In this report, we identify a few issuers which issue both ESG and non-ESG label bonds, and compare the two curves for pricing differential based on MTM levels. The result is a mixed bag: some ESG curves offer better pricing versus non-ESG curves, while some don't. Looking ahead, there is still significant room to grow and we expect ESG labels to account for a larger share of PDS.

Figure 1: ASEAN Sustainable Bond Issuance 2022 - Driven by Sovereign & Quasis



Source: Bloomberg, Maybank IBG Research  
\*Reflect country of risk

Figure 2: UEMS: ESG-labelled & Non-labelled Bonds



Source: BPAM, Maybank IBG Research  
\*As of 28 Feb

## Macro Views

### ASEAN-6 Key Macroeconomic Indicators

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|             | Real GDP growth (%) |        |      |       |       | Headline Inflation (% average) |      |      |       |       | Policy Rate (% year-end) |       |       |           |           |
|-------------|---------------------|--------|------|-------|-------|--------------------------------|------|------|-------|-------|--------------------------|-------|-------|-----------|-----------|
|             | 2020                | 2021   | 2022 | 2023E | 2024E | 2020                           | 2021 | 2022 | 2023E | 2024E | 2020                     | 2021  | 2022  | 2023E     | 2024E     |
| Global      | (3.0)               | 6.0    | 3.0  | 1.9   | 2.8   | 3.2                            | 4.7  | 8.3  | 6.5   | 4.5   | -                        |       |       |           |           |
| US          | (3.4)               | 5.7    | 2.1  | 0.3   | 1.4   | 1.2                            | 4.7  | 8.0  | 4.0   | 2.5   | 0.125                    | 0.125 | 4.375 | 5.125     | 3.125     |
| Indonesia   | (2.1)               | 3.7    | 5.3  | 5.0   | 5.2   | 2.0                            | 1.6  | 4.2  | 4.2   | 3.0   | 3.75                     | 3.50  | 5.50  | 5.75      | 5.50      |
| Malaysia    | (5.5)               | 3.1    | 8.7  | 4.0   | 4.8   | (1.2)                          | 2.5  | 3.3  | 3.0   | 2.5   | 1.75                     | 1.75  | 2.75  | 2.75-3.00 | 2.75-3.00 |
| Philippines | (9.6)               | 5.7    | 7.6  | 5.5   | 6.2   | 2.4                            | 3.9  | 5.8  | 4.6   | 3.0   | 2.00                     | 2.00  | 5.50  | 6.50      | 4.25      |
| Singapore   | (3.9)               | 8.9    | 3.6  | 1.7   | 2.2   | (0.2)                          | 2.3  | 6.2  | 6.0   | 2.8   | 0.41                     | 0.44  | 4.25  | 4.80      | 3.20      |
| Thailand    | -6.2                | 1.6    | 2.6  | 4.0   | 3.6   | (0.8)                          | 1.2  | 6.1  | 3.3   | 2.0   | 0.50                     | 0.50  | 1.25  | 2.00      | 2.00      |
| Vietnam     | 2.9                 | 2.6    | 8.0  | 6.3   | 6.5   | 3.2                            | 1.8  | 3.2  | 4.3   | 3.9   | 4.00                     | 4.00  | 6.00  | 6.50      | 6.50      |
| Cambodia    | (3.1)               | 3.0    | 5.2  | 5.7   | 5.7   | 2.9                            | 2.9  | 5.0  | 3.7   | 3.0   | 2.50                     | 2.50  | 2.75  | 3.00      | 3.00      |
| Myanmar     | 3.2                 | (18.0) | 0.8  | 2.0   | 2.1   | 5.7                            | 3.6  | 14.0 | 9.0   | 8.0   | 7.00                     | 7.00  | 7.25  | 7.50      | 7.50      |
| Laos        | 0.5                 | 2.5    | 2.6  | 3.3   | 3.9   | 5.1                            | 3.8  | 23.0 | 5.0   | 4.6   | 3.00                     | 3.00  | 3.25  | 3.50      | 3.50      |

|             | Exports of Goods & Services (%) |        |       |       |       | Gross Fixed Capital Formation (%) |        |       |       |       | Private Consumption (%) |        |      |       |       |
|-------------|---------------------------------|--------|-------|-------|-------|-----------------------------------|--------|-------|-------|-------|-------------------------|--------|------|-------|-------|
|             | 2020                            | 2021   | 2022  | 2023E | 2024E | 2020                              | 2021   | 2022  | 2023E | 2024E | 2020                    | 2021   | 2022 | 2023E | 2024E |
| Indonesia   | 24.0                            | 18.3   | 5.7   | 8.0   | 8.0   | 3.8                               | 4.3    | 6.0   | 6.0   | 6.0   | 2.0                     | 5.1    | 4.9  | 5.2   | 5.2   |
| Malaysia    | (8.6)                           | 15.4   | 12.8  | 2.2   | 3.5   | (14.4)                            | (0.9)  | 6.8   | 5.1   | 6.7   | (4.2)                   | 1.9    | 11.3 | 6.1   | 6.4   |
| Philippines | (16.1)                          | 8.0    | 10.7  | 6.8   | 9.6   | (27.3)                            | 9.9    | 10.4  | 8.9   | 10.1  | (8.0)                   | 4.2    | 8.3  | 6.4   | 6.5   |
| Singapore   | 0.4                             | 11.7   | (1.3) | 0.5   | 2.0   | (14.8)                            | 18.0   | 1.6   | 1.5   | 2.5   | (13.1)                  | 6.6    | 9.7  | 2.4   | 3.0   |
| Thailand    | (19.7)                          | 11.1   | 6.8   | 2.1   | 6.0   | (4.8)                             | 3.1    | 2.3   | 1.9   | 2.2   | (0.8)                   | 0.6    | 6.3  | 4.0   | 3.5   |
| Vietnam     | 4.1                             | 14.0   | 4.9   | 4.0   | 6.6   | 4.1                               | 3.7    | 6.0   | 6.2   | 7.2   | 0.4                     | 2.0    | 7.8  | 6.0   | 6.4   |
| Cambodia    | (11.3)                          | 13.5   | 16.0  | 4.5   | 8.5   | (2.7)                             | 6.8    | 5.8   | 6.0   | 6.5   | (4.3)                   | (3.7)  | 6.4  | 6.0   | 5.9   |
| Myanmar     | 8.0                             | (18.0) | 4.3   | 3.4   | 3.8   | 2.2                               | (14.7) | (4.5) | 1.5   | 1.2   | 2.0                     | (20.7) | 2.4  | 2.7   | 2.8   |
| Laos        | -                               |        |       |       |       | -                                 |        |       |       |       | -                       |        |      |       |       |

Note: Total consumption shown for Myanmar, as Myanmar does not provide breakdown of private & government consumption. Gross Capital Formation shown for Myanmar. Laos' real GDP data is provided with breakdown by industry. Data series on breakdown of real GDP by expenditure components was discontinued since 2017.

Source: CEIC, Maybank IBG Research

### USD vs. Major & Regional Currencies Forecast

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|                    | Current<br>(as of 3 Mar 2023) | 1Q2023 | 2Q2023 | 3Q2023 | 4Q2023 | 1Q2024 |
|--------------------|-------------------------------|--------|--------|--------|--------|--------|
| DXY (Dollar Index) | 104.71                        | 101.76 | 100.72 | 99.59  | 98.47  | 98.09  |
| Japanese Yen       | 136.20                        | 132    | 128    | 125    | 122    | 121    |
| Euro               | 1.0620                        | 1.1000 | 1.1100 | 1.1200 | 1.1300 | 1.1400 |
| Pounds Sterling    | 1.1992                        | 1.2400 | 1.2100 | 1.2200 | 1.2400 | 1.2400 |
| Australian Dollar  | 0.6763                        | 0.7000 | 0.7200 | 0.7400 | 0.7500 | 0.7500 |
| Renminbi           | 6.9030                        | 6.75   | 6.70   | 6.65   | 6.60   | 6.55   |
| Indian Rupee       | 82.98                         | 81.00  | 80.00  | 80.00  | 79.00  | 78.50  |
| HK Dollar          | 7.85                          | 7.85   | 7.80   | 7.80   | 7.80   | 7.80   |
| Taiwan Dollar      | 30.62                         | 30.00  | 30.00  | 29.30  | 29.00  | 29.00  |
| Korean Won         | 1301                          | 1330   | 1320   | 1300   | 1290   | 1280   |
| Singapore Dollar   | 1.3460                        | 1.31   | 1.30   | 1.29   | 1.29   | 1.29   |
| Malaysian Ringgit  | 4.4770                        | 4.25   | 4.15   | 4.10   | 4.00   | 4.00   |
| Indonesian Rupiah  | 15311                         | 15000  | 14700  | 14400  | 14200  | 14000  |
| Thai Baht          | 32.72                         | 32.00  | 31.50  | 31.00  | 30.00  | 30.00  |
| Philippines Peso   | 55.83                         | 54.00  | 53.00  | 52.50  | 52.00  | 52.00  |
| Vietnamese Dong    | 23727                         | 23200  | 23100  | 23000  | 22900  | 22800  |

Source: Bloomberg, Maybank FX Research & Strategy

## Fixed Income: Government Bond Yield Forecast

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| 10-year Yield (%) | Outlook        | Current<br>(as of 2 Mar 2023) | 1Q2023 | 2Q2023 | 3Q2023 | 4Q2023 |
|-------------------|----------------|-------------------------------|--------|--------|--------|--------|
| China             | Mildly Bullish | 2.92                          | 2.90   | 2.80   | 2.70   | 2.50   |
| Indonesia         | Neutral        | 6.94                          | 6.70   | 6.80   | 6.75   | 6.75   |
| Malaysia          | Mildly Bullish | 3.98                          | 3.90   | 3.90   | 3.70   | 3.50   |
| Philippines       | Neutral        | 6.39                          | 6.50   | 6.50   | 6.25   | 6.00   |
| Singapore         | Neutral        | 3.43                          | 2.80   | 2.75   | 2.70   | 2.50   |
| Thailand          | Neutral        | 2.58                          | 2.70   | 2.60   | 2.50   | 2.40   |
| US                | Mildly Bullish | 4.06                          | 3.75   | 3.50   | 3.00   | 3.00   |

Source: Bloomberg, Maybank IBG Research

# Focus Piece: Sustainable Bonds

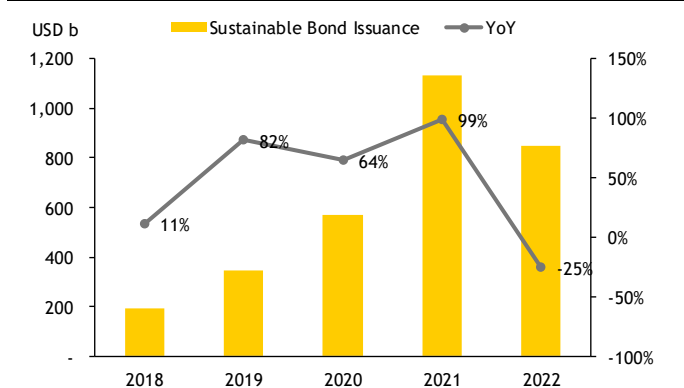
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## 1. Sustainable Bond Issuance

**A blip in 2022.** For the first time, global sustainable bond issuance dropped 25% YoY to USD849b in 2022 (2021: USD1.1t), in line with weaker global bond supply amid tighter credit conditions as well as greenwashing concerns. Issuances contracted across all sustainable bond types, led by social bonds -38% YoY, followed by sustainability label -24%, green bonds -22%, sustainability-linked bonds -21% and transition bonds -6%. Fund flows into global ESG-focused ETFs, which consider environment, social and governance factors in their investments, also took a hit in 2022, falling 67% to USD44.2b, according to BloombergNEF, amid challenging asset performances.

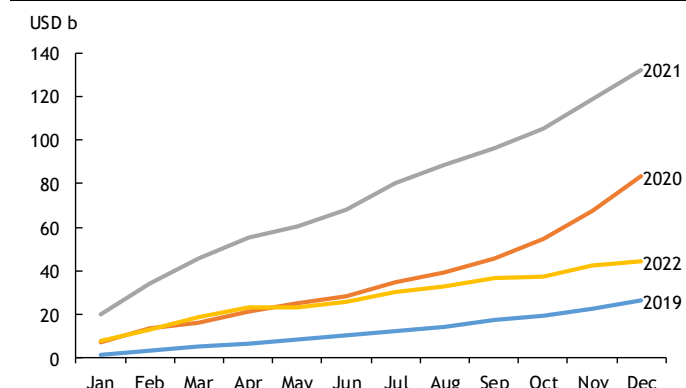
**By region,** APAC remained resilient with a small increase in sustainable bond issuance by +1% YoY to USD260b, while EMEA and AMER saw sharp declines of 29% and 36% to USD356b and USD104b respectively. The key drivers in APAC issuance were China and Japan where central bank policy directions diverged from major developed markets (Figure 6). In Europe, energy crisis complicates energy security against climate efforts, while more rules are implemented such as the start of mandatory reporting and disclosure compliance with the EU Taxonomy and Sustainable Finance Disclosure Regulation (SFDR)<sup>1</sup>. APAC's share of issuance rose to 31% (2021: 23%), though EMEA still leads with a slightly lower share at 42% (2021: 44%) and AMER was at 12% (2021: 14%).

**Figure 3: Sustainable Bond Issuance Dropped For The First Time in 2022**



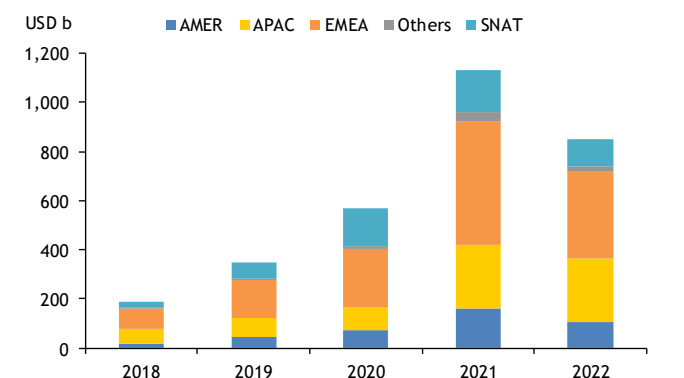
Source: Bloomberg, Maybank IBG Research's estimate

**Figure 4: Cumulative Flows In Global ESG-Focused ETFs Also Took a Hit in 2022**



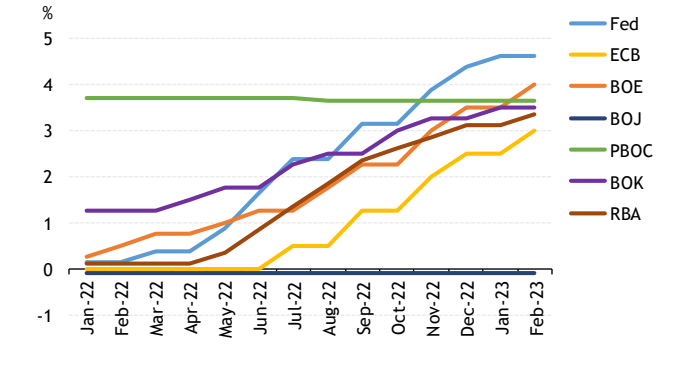
Source: BloombergNEF

**Figure 5: Sustainable Bond Issuance by Region**



Source: Bloomberg, Maybank IBG Research's estimate

**Figure 6: Central Bank Policy Rates**



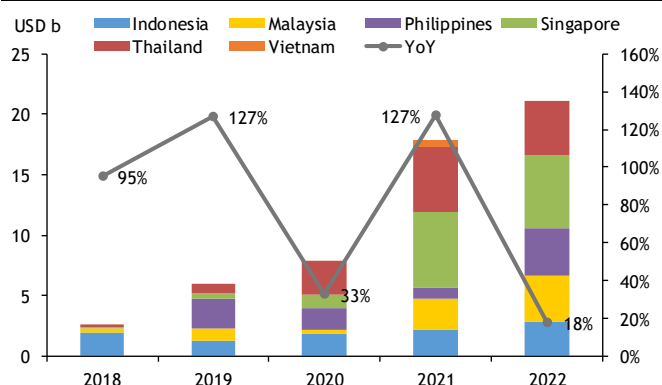
Source: CEIC, Compiled by Maybank IBG Research

<sup>1</sup> EU Taxonomy's mandatory application of climate change mitigation and adaptation started in Jan 2022. It requires certain entities to disclose the share of activities that are taxonomy-eligible or -aligned, such as turnover, capex and opex for corporates and other information. Helping to enable this are EU's Non-Financial Reporting Directive (NFRD) and Sustainable Finance Disclosure Regulation (SFDR).

**ASEAN: Continued growth, but divergence in performances.** Sustainable bond issuance in ASEAN grew 18% YoY to USD21.1b (2021: USD17.9b). Performance was mixed as issuance grew for Philippines, Malaysia and Indonesia, while Singapore and Thailand declined, and Vietnam had nil. Philippines stood out with a nearly four-fold increase to USD3.8b (2021: USD0.9b) thanks to the sovereign’s c.USD2.3b sustainability bonds. Singapore remains the regional leader, though with a lower share of 29%, followed by Thailand 21%, Malaysia and Philippines 18% each, and Indonesia 13%.

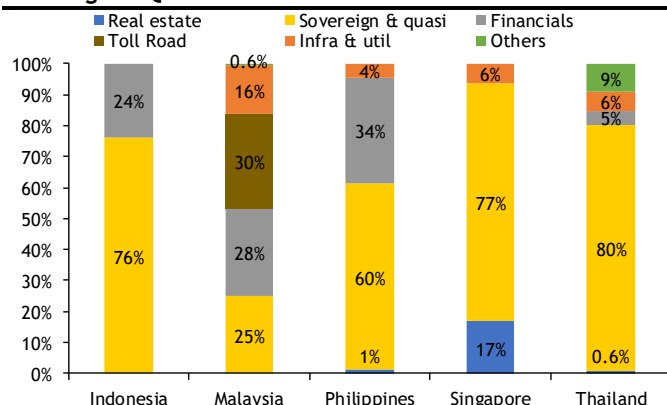
**Sovereign issuances dominated 2022.** Philippines debuted its 25y Sustainability USD Global Bond in USD1.75b size, and multi-tranche Sustainability Samurai Bonds totaling USD0.54b. Indonesia regularly taps the green bond market, raising a total of USD2.2b through IDR and USD issuances. Singapore launched its first sovereign green bond - Green SGS (Infra) - of 50y tenor, the longest ever for Singapore government bond. The SGD2.4b issue is part of the government’s planned SGD35b pipeline by 2030 to finance green infra projects. Government agencies like Housing & Development Board also issued green bonds. Thailand’s 15y sustainability bond is regularly reopened with USD3.5b issued last year. In Malaysia, the government remained a major contributor with its first sustainability-labelled 15y GII of MYR4.5b, while sustainable bond issuance by corporates and financial institutions expanded with notable ones being Amanat Lebuhraya Rakyat, TNB Power Generation, Pengurusan Air Selangor and CIMB Bank.

**Figure 7: ASEAN Sustainable Bond Issuance Grew in 2022 Despite Broader Market Decline**



Source: Bloomberg, Maybank IBG Research’s estimates  
\*Reflect country of risk

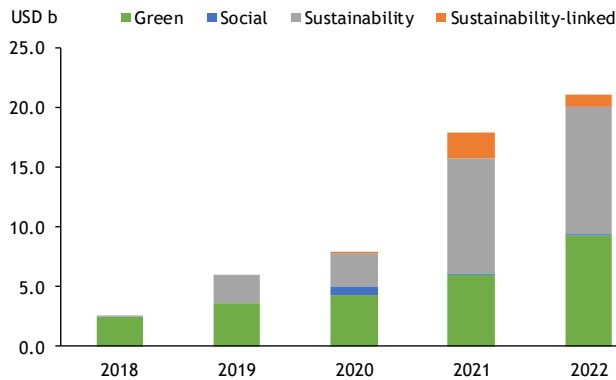
**Figure 8: ASEAN Sustainable Bond Issuance 2022 - Driven by Sovereign & Quasis**



Source: Bloomberg, Maybank IBG Research’s estimates  
\*Reflect country of risk

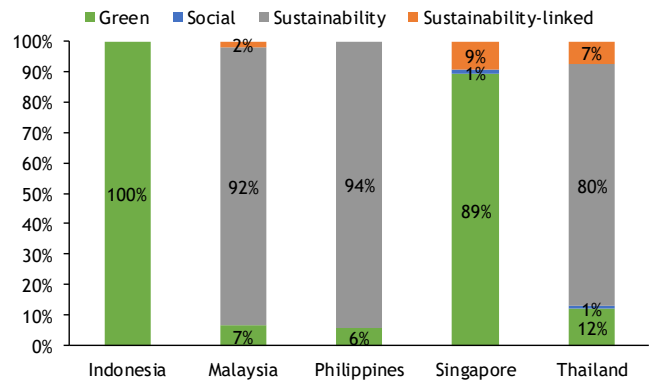
**Transition or “brown” bonds:** The shift towards clean energy is unlikely to be reversed, but rather than solely removing fossil fuel funding, more focus will likely be paid towards decarbonization transition to protect energy security after the Russia-Ukraine war and high commodity prices last year drove a surge in energy prices. Transition bond is useful for companies aspiring to shift to more sustainable business practices, but may not be considered entirely green. An example is JERA Co Inc, Japan’s largest power generation company, which issued JPY20b transition bonds to fund the development of decarbonization technologies such as the co-firing of fossil fuel and ammonia/hydrogen at power plants. Transition bonds took off in Japan during 2022 after the release of its climate transition finance guidelines. Other major markets for transition bond issuance have been Canada, Italy, HK and US, but transition bond is still negligible in the global sustainable bond space (<1%). There is room to grow with Japan planning to issue JPY1.6t sovereign transition bonds for the next fiscal year. ASEAN has yet to see a transition bond issuance, probably due to lacking relevant framework, and remains primarily driven by green and sustainability bonds (Figures 9 and 10). However, there are concerns about investing in transition bonds given the risk of greenwashing accusation, financing of stranded assets and lack of agreed standards for using such labels.

**Figure 9: Growth in ASEAN Sustainable Bond Issuance  
Mainly Driven by Green and Sustainability Bonds**



Source: Bloomberg, Maybank IBG Research's estimates

**Figure 10: ASEAN Sustainable Bond Issuance 2022 by Type**



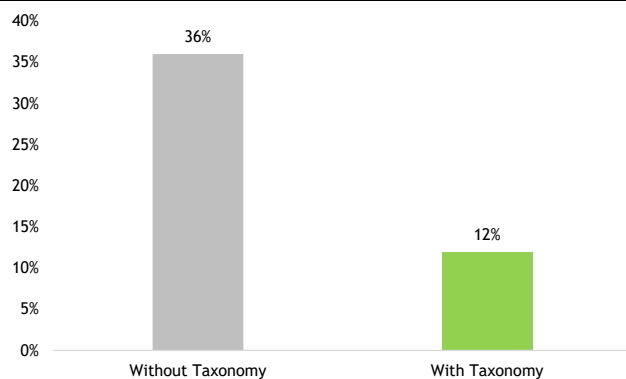
Source: Bloomberg, Maybank IBG Research's estimates  
\*Reflect country of risk

## 2. Regulation: Taxonomy to Mitigate Greenwashing

**Greenwashing:** The rapid expansion of green bonds has raised greenwashing concerns. Think tank InfluenceMap found that 71% of 593 equity funds in its study published in Aug 2021 had companies in their portfolios that are misaligned with the Paris Agreement's global climate targets ([link](#)). HKMA's research memorandum published in Nov 2022 found that about 1/3 of global corporate issuers showed higher level of greenhouse gas (GHG) emissions after initial green bond issuance while more than half had insignificant reduction in GHG emissions ([link](#)).

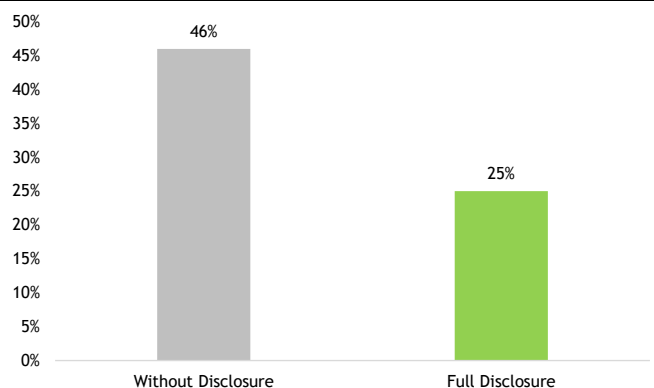
**Mitigation Measures: Taxonomy and Enhanced Disclosure.** Taxonomy is a classification tool. It seeks to define economic activities that can be labelled as green or sustainable to help channel funds to investments and projects that have a positive impact on the environment. In the same research memorandum by HKMA, it found that green bond taxonomies and more comprehensive environmental disclosure requirements could reduce the probability of greenwash behavior by roughly 20%. Following the phase-in of EU Taxonomy and developments on SFDR, BloombergNEF estimates asset managers have downgraded at least USD125b of funds from Article 9 to Article 8<sup>2</sup>.

**Figure 11: Taxonomy: Estimated Probability of Having Greenwashing Bonds**



Source: Findings from research memorandum "Greenwashing in the Corporate Green Bond Markets", 21 November 2022, HKMA

**Figure 12: Disclosure: Estimated Probability of Having Greenwashing Bonds**



Source: Findings from research memorandum "Greenwashing in the Corporate Green Bond Markets", 21 November 2022, HKMA

<sup>2</sup> Article 8 fund (light green) should promote environmental or social features and have good governance practices, while Article 9 fund (dark green) is more stringent as it should have sustainable investment as an objective and make a positive impact on society, the environment or governance.

Globally, many green taxonomies are being developed at both the regional and national levels (Figure 13). Regional ones are the ASEAN Taxonomy and EU Taxonomy, and while comparability is important, it is impossible for a one-size-fits-all and hence, some customization at the national level is required.

**Malaysia: Launched in December 2022, the Securities Commission Malaysia (SC)'s Sustainable and Responsible Investment (SRI) Taxonomy** is a set of universal guiding principles for Malaysia capital market participants to identify and classify economic activities for sustainable investment, and help mitigate the risks of greenwashing.

- **Adoption of SC's SRI Taxonomy is voluntary**, and can be applied at the project, asset, entity or portfolio level as well as alongside other SRI frameworks. The environmental objectives in SRI Taxonomy are aligned with the Climate Change and Principle-based Taxonomy (CCPT) by BNM and the ASEAN Taxonomy.
- **SC SRI Taxonomy is based on principles approach and does not contain any metric or threshold**, similar to BNM's CCPT. For contrast, the technical screening criteria approach, which EU Taxonomy is based on, requires more detailed data disclosures (e.g. proportion of turnover, capex, opex and investments that are taxonomy-aligned). Even in Europe where sustainability reporting is better established, there have been complaints about limited public data and uncertainty in the interpretation of certain performance thresholds, according to a report by PRI. But the SRI Taxonomy could still be updated in the future to include more details, such as sustainability thresholds and metrics, as and when the need arises.
- While most taxonomies are mainly focused on environmental aspects, **SC SRI Taxonomy includes a social component** (Figure 15) together with a non-exhaustive list of examples for assessing an economic activity's contribution to social objectives for selected sectors: manufacturing, construction, utilities & infrastructure, financial services, telecommunications, education, healthcare, and plantation. Social bonds can also be utilized by the government to finance essential services, socioeconomic advancement, affordable housing and food security.
- **On the environmental front, SC SRI Taxonomy classifies economic activities into three broad categories represented by green, amber and red** and based on contribution to the environmental objectives (Figures 16 and 17). The amber category recognizes the energy mix and economic reality in Malaysia, and remedial efforts to help the transition process without outright excluding an economic activity. As an example in the taxonomy's appendix, the use of SRI sukuk proceeds for a 300MW hydropower plant project would be classified as amber.
- SC SRI Taxonomy will help to direct investments into appropriate projects that will move Malaysia towards its net zero target and promote the development of sustainable financing. Malaysia aims to reach net zero greenhouse gas emissions by 2050 and a study estimated that it needs around MYR350-400b of investments to finance climate goals ([link](#)). Given the large scale, private capital is needed to complement public efforts to fill the financing gap.

A shortcoming of SC SRI Taxonomy is the lack of setting improvements in disclosure requirements and mandatory reporting to provide quality data for investors' assessment.

**Figure 13: Green Taxonomy Development in Selected Countries and Regions**

| Date   | Country/Region | Taxonomy   |
|--------|----------------|--|
| Jun-20 | EU             | EU Taxonomy Regulation   |
| Apr-21 | China          | Green Bond Endorsed Project Catalogue (2021 Edition)   |
| Apr-21 | Malaysia       | BNM: Climate Change and Principle-based Taxonomy (CCPT)  |
| May-21 | Japan          | Basic Guidelines on Climate Transition Finance (not exactly a taxonomy)                                      |
| Nov-21 | ASEAN          | ASEAN Taxonomy V1  |
| Nov-21 | Russia         | National green taxonomy adopted  |
| Dec-21 | South Korea    | K-Taxonomy Guideline   |
| Jan-22 | Indonesia      | Indonesia Green Taxonomy 1.0   |
| Apr-22 | South Africa   | Green Finance Taxonomy 1st Edition   |
| Dec-22 | Malaysia       | SC: Sustainable and Responsible Investment Taxonomy  |
| -      | India          | Renewable energy ministry and the finance ministry working on draft policy                                   |
| -      | Singapore      | Third consultation on green and transition taxonomy for financial institutions launched in Feb 2023          |
| -      | Thailand       | Transition-focused green taxonomy in development; draft consultation open until 26 Jan 2023                  |
| -      | UK             | Green taxonomy in development  |
| -      | US             | SEC proposing climate disclosures and ESG guidelines in place of a taxonomy and currently under consultation |
| -      | Vietnam        | No green taxonomy yet  |

Source: Compiled by Maybank IBG Research

**Figure 14: Comparison of Development Approach of Selected Taxonomies**

| Environmental Objectives  | EU | ASEAN          | China          | Singapore | Malaysia | Indonesia | Thailand (planned) |
|---|----|----------------|----------------|-----------|----------|-----------|--------------------|
| Climate change mitigation   | ✓  | ✓              | ✓              | ✓         | ✓        | ✓         | ✓<br>(Early 2023)  |
| Climate change adaptation   | ✓  | ✓              | ✓              | ✓         | ✓        | ✓         | ✓<br>(Later phase) |
| Protection of biodiversity  | ✓  | ✓              |                | ✓         | ✓        |           | ✓<br>(Later phase) |
| Promotion of resource resilience, or efficient and sustainable use of resources | ✓  | ✓ <sup>1</sup> | ✓              | ✓         | ✓        |           | ✓<br>(Later phase) |
| Pollution prevention and control  | ✓  |                | ✓              |           | ✓        |           | ✓<br>(Later phase) |
| Transition to circular economy  | ✓  |                | ✓              |           |          |           |                    |
| <b>Implementation Method</b>  |    |                |                |           |          |           |                    |
| Mandatory enforcement   | ✓  |                | ✓ <sup>2</sup> |           |          |           |                    |
| Voluntary basis   |    | ✓              |                | ✓         | ✓        | ✓         | ✓                  |
| <b>Classification Method</b>  |    |                |                |           |          |           |                    |
| Classification of economic activities   | ✓  | ✓              | ✓              | ✓         | ✓        | ✓         | ✓                  |
| Metrics & thresholds  | ✓  | ✓              | ✓              | ✓         |          |           | ✓                  |

Source: BOT

<sup>1</sup>ASEAN member states incorporated the transition to circular economy into this objective.

<sup>2</sup>Currently only applies to green bonds and credits.

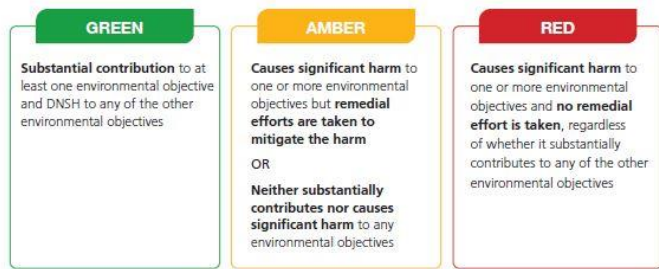
**Figure 15: Malaysia SC SRI Taxonomy: Environmental and Social Objectives**

|                      |             |   |
|----------------------|-------------|---|
| <b>Environmental</b> | Objective 1 | Climate Change Mitigation   |
|                      | Objective 2 | Climate Change Adaptation   |
|                      | Objective 3 | Protection of Healthy Ecosystems and Biodiversity                   |
|                      | Objective 4 | Promotion of Resource Resilience and Transition to Circular Economy |
| <b>Social</b>        | Objective 1 | Enhanced Conduct Towards Workers                                    |
|                      | Objective 2 | Enhanced Conduct Towards Consumers and End-Users                    |
|                      | Objective 3 | Enhanced Conduct Towards Affected Communities and Wider Society     |

Source: SC



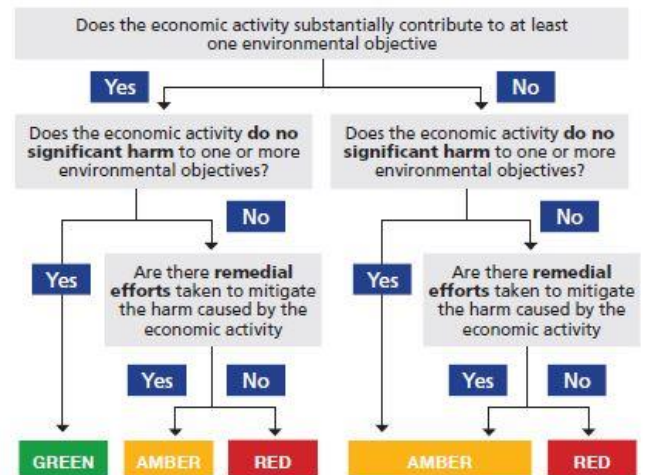
**Figure 16: Malaysia SC SRI Taxonomy: Three Categories For Environmental Objectives**



Source: SC

**General criticisms of green taxonomy globally:** 1) Inclusion of contentious economic activity, such as gas and nuclear energy which is in the list of sustainable investments under the EU Taxonomy; 2) Technical screening may leave out some activities, despite demonstrable sustainable credentials or having a minor impact on the environment; and 3) Confusion on interpretation and use of metrics and thresholds.

**Figure 17: SC SRI Taxonomy: Illustration of Classifying an Economic Activity**



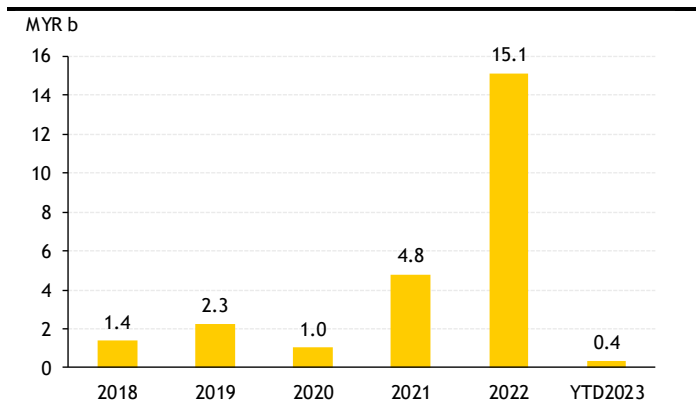
Source: SC

### 3. Malaysia PDS: Steady Growth in Sustainable Bonds

**Snapshot:** Sustainable bond issuance in PDS market increased to MYR15.1b in 2022 (2021: MYR4.8b), mainly due to the labelling of Amanat Lebuhraya Rakyat’s (ALR) MYR5.5b sukuk used to finance the acquisition of 4 toll roads and refinance their borrowings. More banks also came to the market with sustainability-labelled issuances, such as MBSB Bank and Hong Leong Bank. Other notable issuances include Cagamas MYR1.6b, TNB Power Generation MYR1.5b, Pengurusan Air Selangor MYR1b, and UEMS MYR0.68b. A list of MYR sustainable bonds is in the appendix.

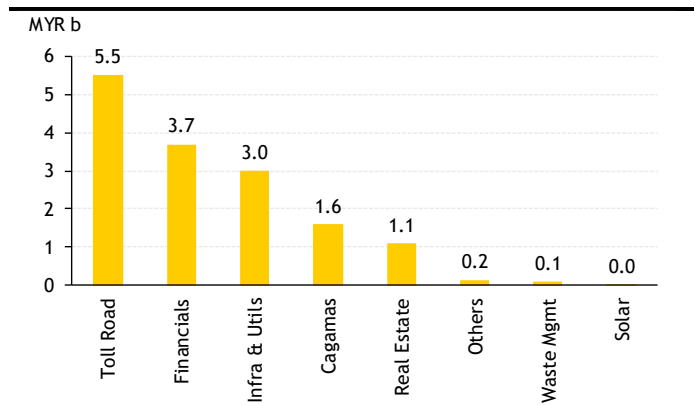
ESG-labelled bonds now account for 3.2% of total outstanding PDS. Issuers have broadened out from mainly renewable energy in the past to include toll road, financials, property and infra & utilities sectors. Expanding sustainable bond issuance to broader stakeholders in the economy will help drive the nation towards achieving SDG goals and the taxonomy can help identify sustainable activities across sectors.

**Figure 18: Sustainable Bond Issuance Jumped to MYR15.1b in 2022**



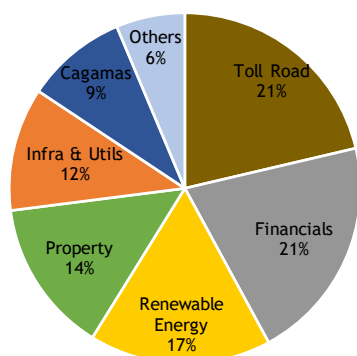
Source: BPAM, Maybank IBG Research  
\*YTD2023 as of 28 Feb

**Figure 19: 2022 ESG-labelled Issuance by Sector**



Source: BPAM, Maybank IBG Research  
n.m.: Not meaningful  
\*Toll road is ALR

**Figure 20: Outstanding Sustainable Bonds - Issuers Have Broadened**

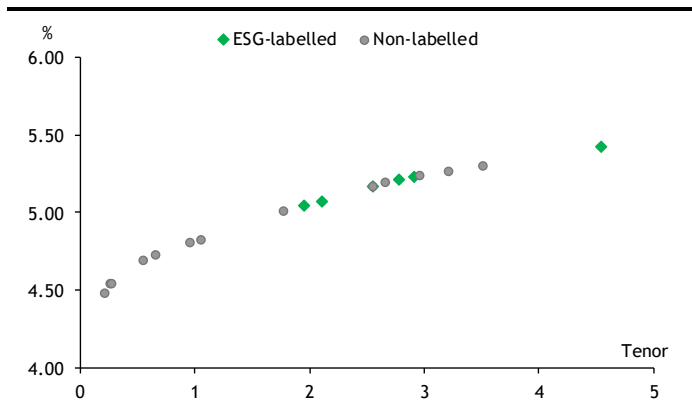


Source: BPAM, Maybank IBG Research  
\*As of 28 Feb

**Bond Pricing: ESG vs Non-ESG Label Bonds.** For the ease of comparison, we look for issuers that issue both ESG and non-ESG label bonds, and compare their marked-to-market (MTM) yields of these two types of bonds. In theory, bonds with the same structure and seniority from the same issuer carry no difference in credit profile, and we think the yield differentials should reflect largely its different label

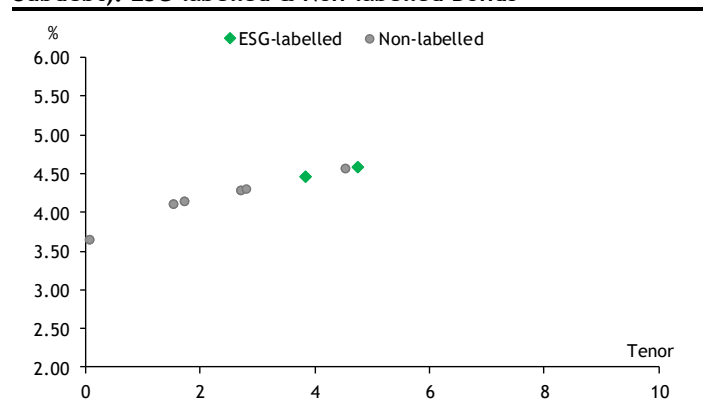
i.e. ESG or non-ESG, although there could be other factors e.g. bond size and liquidity that could affect bond pricing which we assume to be minimal. We have compared four issuers with both the ESG and non-ESG curves: Air Selangor, Cagamas, CIMB and UEM Sunrise. The results are mixed. On one hand, UEM Sunrise and CIMB bonds don't seem to display noticeable difference between ESG and non-ESG label bonds (Figure 21 and 22). But on the other hand, the ESG curves of Cagamas and Air Selangor are marked slightly lower than the non-labelled curves (Figure 23 and 24). The limitation of this comparison is that the findings is based on marked levels, which don't necessarily reflect the tradeable levels.

**Figure 21: UEMS (AA3): ESG-labelled & Non-labelled Bonds**



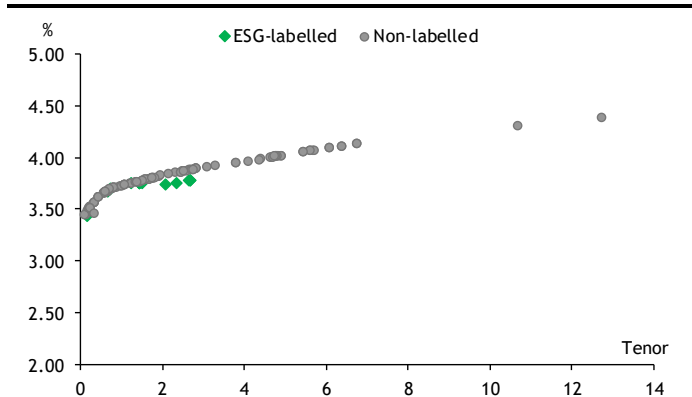
Source: BPAM, Maybank IBG Research  
\*As of 28 Feb

**Figure 22: CIMB Group Holdings And CIMB Bank (AA2 Subdebt): ESG-labelled & Non-labelled Bonds**



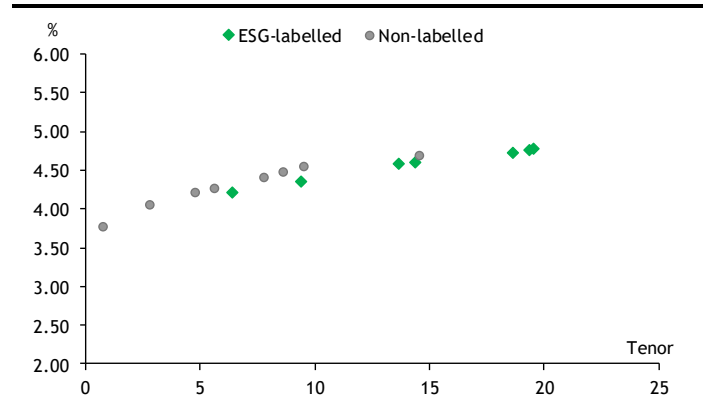
Source: BPAM, Maybank IBG Research  
\*As of 28 Feb

**Figure 23: Cagamas (AAA): ESG-labelled & Non-labelled Bonds**



Source: BPAM, Maybank IBG Research  
\*As of 28 Feb

**Figure 24: Air Selangor (AAA): ESG-labelled & Non-labelled Bonds**

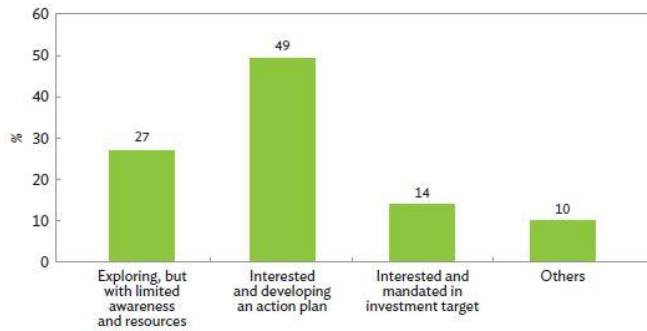


Source: BPAM, Maybank IBG Research  
\*As of 28 Feb

**A question of quality and mandate.** First, green mandate. In a survey of 59 institutional investors in Malaysia done by Asian Development Bank (ADB) during Jan-Feb 2022, it showed that only 14% have a mandate incorporated in their portfolio for green bonds, and bulk of investors have  $\leq 5\%$  of their portfolio made up of green investments (Figures 25 and 26). Second, credit quality. This is still a key factor for investors. For example, UiTM Solar Power, a green bond, had its rating cut to A+/negative from AA-/MARCS Watch Negative after equipment damages and protracted delays in sourcing parts left the solar power plant non-operational for an extended period which has weakened its liquidity and cash flow coverage. Spooked by this incident, some investors probably assign a greater premium in assessing greenfield RE projects and will scrutinize the availability of spare parts at the plants.

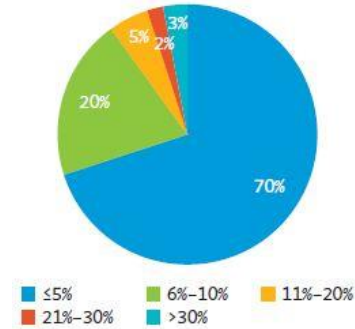
**Room to grow.** Demand for green bonds is still growing. The ADB survey showed that investors’ interest in green bond investment in Malaysia remained strong with 49% of respondents showing interest and developing an action plan, and another 27% are exploring. In ASEAN, the interest in green bonds was healthy, but among the key issues, for example in the case of Indonesia and Philippines, are limited knowledge and resources. The survey indicated that the main obstacle for green bond investment in Malaysia is limited green bond supply (Figure 28). This is in line with the feedback we gathered from Ringgit bond investors, and is also cited as one of the key reasons for Indonesia, Thailand and Philippines.

**Figure 25: ADB Survey in Malaysia: Institutional Investors’ Interest in Green Bonds**



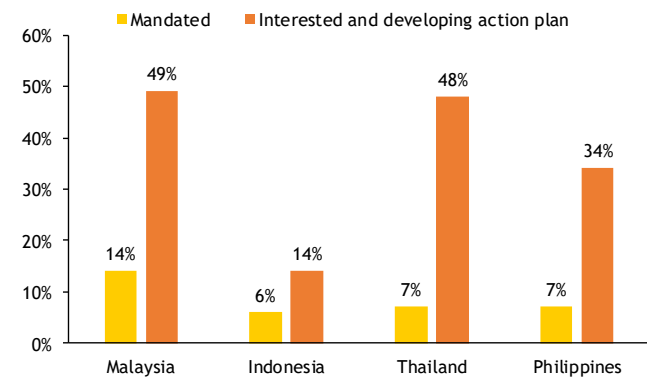
Source: ADB

**Figure 26: ADB Survey in Malaysia: Share of Green Investments in Investor Portfolios**



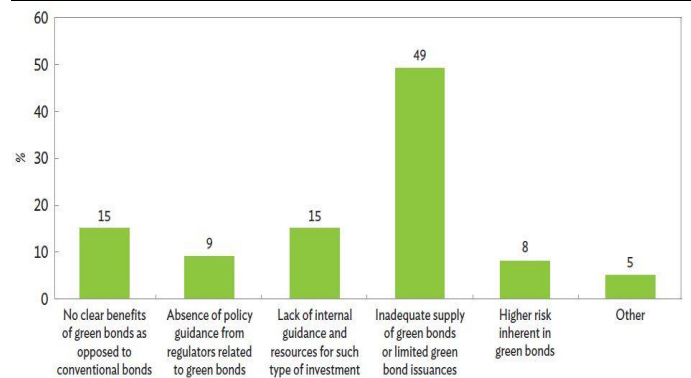
Source: ADB

**Figure 27: Compilation of Results from ADB’s Survey of Institutional Investors’ Interest in Green Bonds in Regional Countries**



Source: ADB

**Figure 28: ADB Survey in Malaysia: Main Obstacles in Green Bond Investing**



Source: ADB

## Appendix

Figure 29: List of MYR Sustainable-labelled Bonds

| Issuer   | Rating    | Outstanding (MYR b) |
|--|-----------|---------------------|
| <b>CAGAMAS</b>   |           |                     |
| Cagamas Berhad   | AAA       | 2.4                 |
| <b>FINANCIALS</b>  |           |                     |
| Bank Pembangunan Malaysia Berhad                         | AAA       | 0.5                 |
| CIMB Bank Berhad   | AA2       | 1.1                 |
| CIMB Group Holdings Berhad                               | AA2       | 1.1                 |
| Hong Leong Bank Berhad                                   | A1        | 0.9                 |
| HSBC Amanah Malaysia Berhad                              | AAA       | 0.5                 |
| MBSB Bank Berhad (fka Asian Finance Bank Berhad)         | A1        | 0.3                 |
| Small Medium Enterprise Development Bank Malaysia Berhad | AAA       | 1.0                 |
| <b>INFRA &amp; UTIL</b>                                  |           |                     |
| Pengurusan Air Selangor Sdn Berhad                       | AAA       | 1.4                 |
| TNB Power Generation Sdn Berhad                          | AAA       | 1.5                 |
| <b>OTHERS</b>  |           |                     |
| Agroto Business (M) Sdn Berhad                           | AA1 (BG)  | 0.2                 |
| Cenviro Sdn Berhad                                       | Not rated | 0.1                 |
| Ihsan Sukuk Berhad                                       | AAA       | 0.1                 |
| MY E.G. Services Berhad                                  | AA3       | 0.3                 |
| Yinson Holdings Berhad                                   | A1        | 1.0                 |
| <b>PROPERTY</b>  |           |                     |
| Fairview Valley Sdn Berhad                               | Not rated | 0.4                 |
| PNB Merdeka Ventures Sdn Berhad                          | Not rated | 2.0                 |
| Segi Astana Sdn Berhad                                   | A1        | 0.3                 |
| Sime Darby Property Berhad                               | AA1       | 0.2                 |
| SunREIT Unrated Bond Berhad                              | Not rated | 0.1                 |
| UEM Sunrise Berhad                                       | AA3       | 0.8                 |
| <b>RENEWABLE ENERGY</b>                                  |           |                     |
| Cenergi SEA Berhad                                       | A1        | 0.2                 |
| Cypark Ref Sdn Berhad                                    | AA3       | 0.5                 |
| Cypark Renewable Energy Sdn Berhad                       | Not rated | 0.2                 |
| Edra Solar Sdn Berhad                                    | AA2       | 0.2                 |
| Hanwha Q CELLS Malaysia Sdn Berhad                       | AAA (FG)  | 0.2                 |
| Leader Energy Sdn Berhad                                 | AA3       | 0.2                 |
| Quantum Solar Park (Semenanjung) Sdn Berhad              | AA3       | 0.8                 |
| reNIKOLA Solar Sdn Berhad                                | AA3       | 0.4                 |
| Sinar Kamiri Sdn Berhad                                  | AA3       | 0.2                 |
| Solar Management (Seremban) Sdn Berhad                   | AA3       | 0.2                 |
| Tadau Energy Sdn Berhad                                  | AA3       | 0.2                 |
| Telekosang Hydro One Sdn Berhad                          | A2/AA3    | 0.6                 |
| UiTM Solar Power Dua Sdn Berhad                          | AA3       | 0.1                 |
| UiTM Solar Power Sdn Berhad                              | A1        | 0.2                 |
| <b>TOLL ROAD</b>   |           |                     |
| Amanat Lebuhraya Rakyat Berhad                           | AAA       | 5.5                 |

Source: BPAM, Maybank IBG Research

\*As of 28 Feb

## Appendix: Summary Tables

**Table 1: Indonesia - Key Macroeconomic Indicators**

|  | 2019   | 2020   | 2021   | 2022   | 2023E  | 2024E  |
|--|--------|--------|--------|--------|--------|--------|
| Real GDP (%)                           | 5.0    | -2.1   | 3.7    | 5.3    | 5.0    | 5.2    |
| Private Consumption (%)                | 5.0    | -2.6   | 2.0    | 5.1    | 4.9    | 5.2    |
| Government Consumption (%)             | 3.3    | 2.0    | 4.2    | -3.8   | 1.3    | 3.0    |
| Gross Fixed Capital Formation (%)      | 4.5    | -5.0   | 3.8    | 4.3    | 6.0    | 6.0    |
| Exports of Goods & Services (%)        | -0.5   | -8.1   | 24.0   | 18.3   | 5.7    | 8.0    |
| Imports of Goods & Services (%)        | -7.1   | -16.7  | 23.3   | 17.9   | 8.0    | 8.7    |
| Current Account Balance (% of GDP)     | -2.7   | -0.4   | 0.3    | 0.7    | -0.8   | -1.2   |
| Fiscal Balance (% of GDP)              | -2.2   | -6.1   | -4.7   | -2.4   | -3.0   | -2.6   |
| Inflation Rate (% , period average)    | 2.8    | 2.0    | 1.6    | 4.2    | 4.2    | 3.0    |
| Unemployment Rate (% , period average) | 5.1    | 6.0    | 6.4    | 5.8    | 5.3    | 5.1    |
| Exchange Rate (per USD, end-period)    | 13,866 | 14,050 | 14,253 | 15,568 | 14,200 | 13,800 |
| BI Policy Rate (% p.a., end-period)    | 5.00   | 3.75   | 3.50   | 5.50   | 5.75   | 5.50   |

Source: CEIC, Maybank IBG Research

**Table 2: Malaysia - Key Macroeconomic Indicators**

|  | 2019  | 2020   | 2021  | 2022  | 2023E     | 2024E     |
|--|-------|--------|-------|-------|-----------|-----------|
| Real GDP (%)                                   | 4.4   | (5.5)  | 3.1   | 8.7   | 4.0       | 4.8       |
| Private Consumption (%)                        | 7.7   | (4.2)  | 1.9   | 11.3  | 6.1       | 6.4       |
| Government Consumption (%)                     | 1.8   | 5.0    | 5.3   | 3.9   | 4.3       | 6.2       |
| Gross Fixed Capital Formation (%)              | (2.1) | (14.4) | (0.9) | 6.8   | 5.1       | 6.7       |
| Exports of Goods & Services (%)                | (1.0) | (8.6)  | 15.4  | 12.8  | 2.2       | 3.5       |
| Imports of Goods & Services (%)                | (2.4) | (7.9)  | 17.7  | 14.2  | 2.3       | 3.8       |
| Current Account Balance (% of GDP)             | 2.3   | 4.2    | 3.8   | 2.6   | 2.5       | 2.3       |
| Fiscal Balance (% of GDP)                      | (3.7) | (6.2)  | (6.4) | (5.6) | (5.0)     | (4.3)     |
| Inflation Rate (% , period average)            | 1.0   | (1.2)  | 2.5   | 3.3   | 3.0       | 2.5       |
| Unemployment Rate (% , period average)         | 3.3   | 4.5    | 4.6   | 3.8   | 3.5       | 3.3       |
| Exchange Rate (per USD, end-period)            | 4.09  | 4.02   | 4.17  | 4.40  | 4.00      | 3.95      |
| 10-Year Government Bond Yield (% , end-period) | 3.31  | 2.65   | 3.59  | 4.00  | 3.50      | 3.30      |
| Benchmark Interest Rate (% p.a., end-period)   | 3.00  | 1.75   | 1.75  | 2.75  | 2.75-3.00 | 2.75-3.00 |

Source: CEIC, Maybank IBG Research

**Table 3: Philippines - Key Macroeconomic Indicators**

|  | 2019  | 2020   | 2021  | 2022  | 2023E | 2024E |
|--|-------|--------|-------|-------|-------|-------|
| Real GDP (%)                                 | 6.1   | (9.5)  | 5.7   | 7.6   | 5.5   | 6.2   |
| Private Consumption (%)                      | 5.9   | (8.0)  | 4.2   | 8.3   | 6.4   | 6.5   |
| Government Consumption (%)                   | 9.1   | 10.5   | 7.1   | 5.0   | 5.2   | 5.0   |
| Gross Fixed Capital Formation (%)            | 3.9   | (27.3) | 9.9   | 10.4  | 8.9   | 10.1  |
| Exports of Goods & Services (%)              | 2.6   | (16.1) | 8.0   | 10.7  | 6.8   | 9.6   |
| Imports of Goods & Services (%)              | 2.3   | (21.6) | 13.0  | 13.1  | 9.5   | 10.9  |
| Current Account Balance (% of GDP)           | (0.8) | 3.3    | (1.4) | (6.3) | (3.8) | (3.5) |
| Fiscal Balance (% of GDP)                    | (3.4) | (7.6)  | (8.6) | (7.3) | (6.0) | (5.5) |
| Inflation Rate (% , period average)          | 2.4   | 2.4    | 3.9   | 5.8   | 4.6   | 3.0   |
| Unemployment Rate (% , period average)       | 5.1   | 10.4   | 7.8   | 5.4   | 5.0   | 5.0   |
| Exchange Rate (per USD, end-period)          | 50.7  | 48.0   | 51.0  | 55.7  | 52.0  | 51.5  |
| Benchmark Interest Rate (% p.a., end-period) | 4.00  | 2.00   | 2.00  | 5.50  | 6.50  | 4.25  |

Source: CEIC, Maybank IBG Research

Table 4: Singapore - Key Macroeconomic Indicators

|  | 2019 | 2020   | 2021 | 2022  | 2023E | 2024E |
|--|------|--------|------|-------|-------|-------|
| Real GDP (%)                                 | 1.3  | (3.9)  | 8.9  | 3.6   | 1.7   | 2.2   |
| Private Consumption (%)                      | 2.8  | (13.1) | 6.6  | 9.7   | 2.4   | 3.0   |
| Government Consumption (%)                   | 3.2  | 13.0   | 3.7  | (2.3) | 3.0   | 2.0   |
| Gross Fixed Capital Formation (%)            | 2.3  | (14.8) | 18.0 | 1.6   | 1.5   | 2.5   |
| Exports of Goods & Services (%)              | 0.2  | 0.4    | 11.7 | (1.3) | 0.5   | 2.0   |
| Imports of Goods & Services (%)              | 0.0  | (1.1)  | 12.0 | (1.9) | 0.4   | 3.0   |
| Current Account Balance (% of GDP)           | 16.2 | 16.4   | 18.0 | 19.3  | 18.5  | 17.0  |
| Fiscal Balance (% of GDP)                    | 0.2  | (10.5) | 0.3  | (0.3) | (0.1) | 0.5   |
| Inflation Rate (%)                           | 0.6  | (0.2)  | 2.3  | 6.1   | 6.0   | 2.0   |
| Unemployment Rate (%)                        | 2.3  | 3.0    | 2.7  | 2.1   | 2.2   | 2.1   |
| Exchange Rate (per USD, end-period)          | 1.35 | 1.3    | 1.35 | 1.34  | 1.29  | 1.27  |
| 10-Year Government Bond Yield (% end-period) | 1.73 | 0.83   | 1.64 | 3.10  | 2.50  | 2.50  |
| 3M SIBOR (% p.a., end-period)                | 1.77 | 0.41   | 0.44 | 4.25  | 4.80  | 3.20  |

Source: CEIC, Maybank IBG Research

Table 5: Thailand - Key Macroeconomic Indicators

|  | 2019 | 2020  | 2021 | 2022 | 2023E | 2024E |
|--|------|-------|------|------|-------|-------|
| Real GDP (%)                                 | 2.1  | -6.2  | 1.6  | 2.6  | 4.0   | 3.6   |
| Private Consumption (%)                      | 4.0  | -0.8  | 0.6  | 6.3  | 4.0   | 3.5   |
| Government Consumption (%)                   | 1.6  | 1.4   | 3.7  | 0.0  | 1.3   | 1.2   |
| Gross Fixed Capital Formation (%)            | 2.0  | -4.8  | 3.1  | 2.3  | 1.9   | 2.2   |
| Exports of Goods & Services (%)              | -3.0 | -19.7 | 11.1 | 6.8  | 2.1   | 6.0   |
| Imports of Goods & Services (%)              | -5.2 | -13.9 | 17.8 | 4.1  | 1.3   | 7.1   |
| Current Account Balance (% of GDP)           | 7.0  | 4.2   | -2.1 | -3.4 | 3.5   | 6.0   |
| Fiscal Balance (% of GDP)                    | -3.0 | -5.2  | -4.8 | -3.5 | -3.5  | -3.2  |
| Inflation Rate (% period average)            | 0.7  | -0.8  | 1.2  | 6.1  | 3.3   | 2.0   |
| Unemployment Rate (% period average)         | 1.0  | 1.7   | 1.9  | 1.3  | 1.2   | 1.2   |
| Exchange Rate (per USD, end-period)          | 30.0 | 30.0  | 33.4 | 34.6 | 30.0  | 29.0  |
| Benchmark Interest Rate (% p.a., end-period) | 1.25 | 0.50  | 0.50 | 1.25 | 2.00  | 2.00  |

Source: CEIC, Maybank IBG Research

Table 6: Vietnam - Key Macroeconomic Indicators

|  | 2019   | 2020   | 2021   | 2022E  | 2023E  | 2024E  |
|--|--------|--------|--------|--------|--------|--------|
| Real GDP (%)                                 | 7.4    | 2.9    | 2.6    | 8.0    | 6.3    | 6.5    |
| Private Consumption (%)                      | 7.0    | 0.4    | 2.0    | 7.8    | 6.0    | 6.4    |
| Government Consumption (%)                   | 5.4    | 1.2    | 4.7    | 3.6    | 3.9    | 4.0    |
| Gross Fixed Capital Formation (%)            | 7.7    | 4.1    | 3.7    | 6.0    | 6.2    | 7.2    |
| Exports of Goods & Services (%)              | 6.2    | 4.1    | 14.0   | 4.9    | 4.0    | 6.6    |
| Imports of Goods & Services (%)              | 4.9    | 3.3    | 16.2   | 2.2    | 3.5    | 6.5    |
| *Current Account Balance (% of GDP)          | 3.9    | 4.5    | (2.2)  | (0.8)  | 1.2    | 1.9    |
| *Fiscal Balance (% of GDP)                   | (2.1)  | (2.5)  | (3.4)  | (2.5)  | (3.8)  | (4.2)  |
| Inflation Rate (%)                           | 2.8    | 3.2    | 1.8    | 3.2    | 4.3    | 3.9    |
| Unemployment Rate (%)                        | 2.2    | 2.5    | 3.0    | 2.3    | 2.3    | 2.2    |
| Exchange Rate (per USD, end-period)          | 23,173 | 23,098 | 22,826 | 23,633 | 22,900 | 22,700 |
| Benchmark Interest Rate (% p.a., end-period) | 6.00   | 4.00   | 4.00   | 6.00   | 6.50   | 6.50   |

\*Vietnam started using new nominal GDP series in 2021. 2022 figures are actual outturns for all variables except current account and fiscal balance.

Source: CEIC, Maybank IBG Research

Table 7: Cambodia - Key Macroeconomic Indicators

|   | 2019   | 2020   | 2021   | 2022E  | 2023E  | 2024E  |
|---|--------|--------|--------|--------|--------|--------|
| Real GDP (%)                                  | 7.1    | (3.1)  | 3.0    | 5.2    | 5.7    | 5.7    |
| Private Consumption (%)                       | 6.1    | (4.3)  | (3.7)  | 6.4    | 6.0    | 5.9    |
| Government Consumption (%)                    | 6.8    | 13.0   | 78.7   | 6.0    | 5.7    | 5.8    |
| Gross Fixed Capital Formation (%)             | 14.3   | (2.7)  | 6.8    | 5.8    | 6.0    | 6.5    |
| Exports of Goods & Services (in USD terms, %) | 13.3   | (11.3) | 13.5   | 16.0   | 4.5    | 8.5    |
| Imports of Goods & Services (in USD terms, %) | 11.1   | (8.9)  | 23.1   | 12.9   | 7.0    | 8.0    |
| Current Account Balance (% of GDP)            | (15.0) | (8.5)  | (45.7) | (23.0) | (17.0) | (15.0) |
| Fiscal Balance (% of GDP)                     | 2.3    | (4.0)  | (6.4)  | (4.5)  | (4.5)  | (3.2)  |
| Inflation Rate (%)                            | 1.9    | 2.9    | 2.9    | 5.0    | 3.7    | 3.0    |
| Unemployment Rate (%)                         | 0.1    | 0.3    | 0.6    | 0.5    | 0.5    | 0.5    |
| Exchange Rate (per USD, end-period)           | 4,070  | 4,046  | 4,074  | 4,070  | 4,060  | 4,040  |
| *Benchmark Interest Rate (% p.a., end-period) | 3.00   | 2.50   | 2.50   | 2.75   | 3.00   | 3.00   |

\* Refers to one-year interest rate applied under Liquidity-Providing Collateralized Operation (LPCO) mechanism.

Source: CEIC, Maybank IBG Research

Table 8: Myanmar - Key Macroeconomic Indicators

|   | FY18/19E | FY19/20E | FY20/21 | FY22/23E | FY23/24E | FY24/25E |
|---|----------|----------|---------|----------|----------|----------|
| Real GDP (%)                                  | 6.8      | 3.2      | (18.0)  | 0.8      | 2.0      | 2.1      |
| *Consumption (%)                              | 1.7      | 2.0      | (20.7)  | 2.4      | 2.7      | 2.8      |
| Gross Capital Formation (%)                   | 2.6      | 2.2      | (14.7)  | (4.5)    | 1.5      | 1.2      |
| Exports of Goods & Services (in USD terms, %) | 11.3     | 8.0      | (18.0)  | 4.3      | 3.4      | 3.8      |
| Imports of Goods & Services (in USD terms, %) | (7.7)    | 5.5      | (22.1)  | 2.8      | 5.0      | 4.4      |
| Current Account Balance (% of GDP)            | (0.2)    | (2.0)    | (0.2)   | (1.6)    | (1.3)    | (1.2)    |
| Fiscal Balance (% of GDP)                     | (3.2)    | (6.5)    | (7.8)   | (7.8)    | (7.2)    | (7.2)    |
| Inflation Rate (%)                            | 8.6      | 5.7      | 3.6     | 14.0     | 9.0      | 8.0      |
| Unemployment Rate (%)                         | 0.5      | 1.1      | 2.2     | 3.4      | 3.3      | 3.2      |
| Exchange Rate (per USD, end-period)           | 1,532    | 1,325    | 1,780   | 2,100    | 1,920    | 1,840    |
| ^Benchmark Interest Rate (% p.a., end-period) | 10.00    | 7.00     | 7.00    | 7.25     | 7.50     | 7.50     |

Note: Underlying months that constitute a fiscal year were changed in 2018 and 2022. Fiscal year is from April 1 to March 31, up to FY 2017/18. From FY 2018/19 to FY 2020/2021, the fiscal year is from October 1 to September 30. From FY 2022/23, the fiscal year was changed back to April 1 to March 31.

\* Myanmar does not provide breakdown of private & government consumption.

^ Refers to Central Bank of Myanmar (CBM) Central Bank Rate

Exchange rate forecasts are end-period (i.e. 4Q of 2022, 2023 and 2024)

Source: CEIC, Maybank IBG Research

Table 9: Laos - Key Macroeconomic Indicators

|   | 2019  | 2020  | 2021   | 2022E  | 2023E  | 2024E  |
|---|-------|-------|--------|--------|--------|--------|
| Real GDP (%)                                  | 5.5   | 0.5   | 2.5    | 2.6    | 3.3    | 3.9    |
| *Agriculture (%)                              | 1.2   | 3.2   | 2.3    | 1.0    | 1.5    | 2.0    |
| *Industry (%)                                 | 5.6   | 4.0   | 7.6    | 4.0    | 4.9    | 5.0    |
| *Services (%)                                 | 6.9   | (3.5) | (2.1)  | 2.0    | 2.9    | 4.0    |
| Current Account Balance (% of GDP)            | (7.0) | (1.2) | 2.4    | (4.0)  | (4.3)  | (4.5)  |
| Fiscal Balance (% of GDP)                     | (3.2) | (5.2) | (1.4)  | (5.1)  | (4.8)  | (4.7)  |
| Inflation Rate (%)                            | 3.3   | 5.1   | 3.8    | 23.0   | 5.0    | 4.6    |
| Unemployment Rate (%)                         | 0.9   | 1.0   | 1.3    | 1.2    | 1.1    | 1.1    |
| Exchange Rate (per USD, end-period)           | 8,885 | 9,300 | 11,197 | 16,200 | 15,000 | 13,400 |
| ^Benchmark Interest Rate (% p.a., end-period) | 4.00  | 3.00  | 3.00   | 3.25   | 3.50   | 3.50   |

\* Laos' real GDP data is provided with breakdown by industry. Data series on breakdown of real GDP by expenditure components was discontinued since 2017.

^ Refers to Bank of Lao PDR (BOL) Short-Term Lending Rate for < 1 Week

Source: CEIC, Maybank IBG Research



## Performance and Valuation Summary

### Equity performance by Country (in local currency terms)

| Name                       | Index level | FX rate  | --- Absolute performance (local currency) --- |     |      |     |      |     |     | YTD |
|----------------------------|-------------|----------|---|-----|------|-----|------|-----|-----|-----|
|                            |             |          | -1w   | -1m | -3m  | -6m | -1y  | MTD | QTD |     |
| MSCI All Country World     | 631         |          | (1)   | (5) | (16) | 14  | (9)  | 0   | 4   | 4   |
| MSCI Emerging Market       | 980         |          | (1)   | (6) | (20) | 12  | (16) | (0) | 2   | 2   |
| MSCI Asia Pac (inc Japan)  | 160         |          | (1)   | (6) | (17) | 15  | (12) | (0) | 2   | 2   |
| MSCI Asia Pac (ex Japan)   | 519         |          | (1)   | (7) | (18) | 15  | (13) | (0) | 3   | 3   |
| MSCI Asia x JP             | 636         |          | (1)   | (6) | (19) | 14  | (14) | (0) | 3   | 3   |
| MSCI Far East (ex Japan)   | 575         |          | (1)   | (7) | (20) | 18  | (15) | (0) | 5   | 5   |
| MSCI ASEAN                 | 647         |          | (2)   | (7) | (8)  | 8   | (8)  | (0) | (1) | (1) |
| MSCI Emerging Asia         | 530         |          | (1)   | (7) | (20) | 14  | (15) | (0) | 3   | 3   |
| MSCI EM Latin America      | 2,191       |          | (2)   | (5) | 3    | 7   | (9)  | (1) | 3   | 3   |
| MSCI EMMEA                 | 189         |          | 1   | (5) | (31) | 4   | (26) | (1) | (1) | (1) |
| MSCI Frontier              | 481         |          | (1)   | (3) | (28) | 0   | (20) | (1) | 2   | 2   |
| MSCI Asia x JP Small Cap   | 1,178       |          | (0)   | (4) | (19) | 13  | (12) | (0) | 4   | 4   |
| China - Shanghai Composite | 3,311       | 6.9      | 1   | 1   | (9)  | 9   | (5)  | (0) | 7   | 7   |
| China - H-shares           | 6,857       | 7.8      | (0)   | (9) | (17) | 16  | (13) | (1) | 2   | 2   |
| Hong Kong - HSI            | 20,429      | 7.8      | 0   | (7) | (13) | 19  | (9)  | (1) | 3   | 3   |
| Taiwan - TAIEX             | 15,599      | 30.6     | (0)   | 0   | (14) | 16  | (13) | 0   | 10  | 10  |
| Korea - KOSPI              | 2,428       | 1,315.7  | (0)   | (2) | (18) | 13  | (10) | 1   | 9   | 9   |
| Singapore - STI            | 3,235       | 1.3      | (1)   | (4) | 4    | 3   | (0)  | (1) | (1) | (1) |
| Malaysia - KLCI            | 1,455       | 4.5      | (0)   | (2) | (7)  | 4   | (9)  | 0   | (3) | (3) |
| Thailand - SET             | 1,613       | 34.8     | (2)   | (4) | (3)  | 1   | (5)  | (0) | (3) | (3) |
| Indonesia - JCI            | 6,857       | 15,280.0 | 0   | (0) | 4    | (3) | (0)  | 0   | 0   | 0   |
| Philippines - PSEi         | 6,622       | 55.0     | (1)   | (5) | (7)  | 15  | (9)  | 0   | 1   | 1   |
| India - Sensex             | 58,909      | 82.6     | (1)   | (2) | 1    | 3   | 6    | (1) | (3) | (3) |
| Vietnam - Ho Chi Minh      | 1,038       | 23,720.0 | (2)   | (4) | (31) | (8) | (30) | (0) | 3   | 3   |
| Australia ASX 200          | 7,255       | 1.5      | (0)   | (3) | (3)  | 12  | 2    | 0   | 3   | 3   |
| New Zealand - NZX50        | 11,901      | 1.6      | 0   | (2) | (9)  | 8   | (2)  | 0   | 4   | 4   |
| Japan - Nikkei 225         | 27,499      | 136.7    | 1   | 0   | (4)  | 6   | 4    | (0) | 5   | 5   |
| Japan - TOPIX              | 1,995       | 136.7    | 1   | 1   | 0    | 9   | 7    | (0) | 5   | 5   |
| S&P 500                    | 3,981       | 1.0      | (1)   | (5) | (16) | 11  | (9)  | 1   | 4   | 4   |
| Russell 2000               | 1,903       | 1.0      | (0)   | (5) | (15) | 14  | (8)  | 0   | 8   | 8   |
| FTSE 100                   | 7,944       | 0.8      | 0   | 2   | 8    | 15  | 7    | 0   | 7   | 7   |
| Euro Stoxx                 | 4,241       | 0.9      | (0)   | (0) | (1)  | 28  | 11   | 1   | 12  | 12  |

Source: Maybank IBG Research, Factset, MSCI, data as of 2 Mar 2023

## Equity performance by Country (in USD terms)

| Name                       | Index level | FX rate  | --- Absolute performance (USD) --- |      |      |     |      |     |     | QTD | YTD |
|----------------------------|-------------|----------|------------------------------------|------|------|-----|------|-----|-----|-----|-----|
|                            |             |          | -1w                                | -1m  | -3m  | -6m | -1y  | MTD |     |     |     |
| MSCI All Country World     | 631         |          | (1)                                | (5)  | (16) | 14  | (9)  | 0   | 4   | 4   |     |
| MSCI Emerging Market       | 980         |          | (1)                                | (6)  | (20) | 12  | (16) | (0) | 2   | 2   |     |
| MSCI Asia Pac (inc Japan)  | 160         |          | (1)                                | (6)  | (17) | 15  | (12) | (0) | 2   | 2   |     |
| MSCI Asia Pac (ex Japan)   | 519         |          | (1)                                | (7)  | (18) | 15  | (13) | (0) | 3   | 3   |     |
| MSCI Asia x JP             | 636         |          | (1)                                | (6)  | (19) | 14  | (14) | (0) | 3   | 3   |     |
| MSCI Far East (ex Japan)   | 575         |          | (1)                                | (7)  | (20) | 18  | (15) | (0) | 5   | 5   |     |
| MSCI ASEAN                 | 647         |          | (2)                                | (7)  | (8)  | 8   | (8)  | (0) | (1) | (1) |     |
| MSCI Emerging Asia         | 530         |          | (1)                                | (7)  | (20) | 14  | (15) | (0) | 3   | 3   |     |
| MSCI EM Latin America      | 2,191       |          | (2)                                | (5)  | 3    | 7   | (9)  | (1) | 3   | 3   |     |
| MSCI EMMEA                 | 189         |          | 1                                  | (5)  | (31) | 4   | (26) | (1) | (1) | (1) |     |
| MSCI Frontie               | 481         |          | (1)                                | (3)  | (28) | 0   | (20) | (1) | 2   | 2   |     |
| MSCI Asia x JP Small Cap   | 1,178       |          | (0)                                | (4)  | (19) | 13  | (12) | (0) | 4   | 4   |     |
| China - Shanghai Composite | 3,311       | 6.9      | 0                                  | (2)  | (16) | 12  | (13) | (0) | 8   | 8   |     |
| China - H-shares           | 6,857       | 7.8      | (0)                                | (9)  | (17) | 16  | (14) | (1) | 2   | 2   |     |
| Hong Kong - HSI            | 20,429      | 7.8      | 0                                  | (7)  | (13) | 19  | (9)  | (1) | 3   | 3   |     |
| Taiwan - TAIEX             | 15,599      | 30.6     | (1)                                | (3)  | (23) | 20  | (20) | (0) | 11  | 11  |     |
| Korea - KOSPI              | 2,428       | 1,315.7  | (2)                                | (9)  | (26) | 22  | (18) | 1   | 4   | 4   |     |
| Singapore - STI            | 3,235       | 1.3      | (1)                                | (7)  | 4    | 10  | 1    | (1) | (1) | (1) |     |
| Malaysia - KLCI            | 1,455       | 4.5      | (1)                                | (7)  | (14) | 8   | (15) | 0   | (5) | (5) |     |
| Thailand - SET             | 1,613       | 34.8     | (3)                                | (10) | (7)  | 10  | (10) | (0) | (4) | (4) |     |
| Indonesia - JCI            | 6,857       | 15,280.0 | (0)                                | (3)  | (3)  | (3) | (6)  | (0) | 2   | 2   |     |
| Philippines - PSEi         | 6,622       | 55.0     | (1)                                | (7)  | (14) | 23  | (15) | 0   | 2   | 2   |     |
| India - Sensex             | 58,909      | 82.6     | (1)                                | (2)  | (9)  | 1   | (3)  | (1) | (3) | (3) |     |
| Vietnam - Ho Chi Minh      | 1,038       | 23,720.0 | (1)                                | (5)  | (33) | (8) | (33) | (0) | 2   | 2   |     |
| Australia ASX 200          | 7,255       | 1.5      | (2)                                | (9)  | (10) | 17  | (5)  | (0) | 2   | 2   |     |
| New Zealand - NZX50        | 11,901      | 1.6      | 0                                  | (6)  | (17) | 18  | (9)  | (0) | 2   | 2   |     |
| Japan - Nikkei 225         | 27,499      | 136.7    | (0)                                | (6)  | (20) | 12  | (12) | (0) | 2   | 2   |     |
| Japan - TOPIX              | 1,995       | 136.7    | (1)                                | (5)  | (16) | 15  | (9)  | (1) | 2   | 2   |     |
| S&P 500                    | 3,981       | 1.0      | (1)                                | (5)  | (16) | 11  | (9)  | 1   | 4   | 4   |     |
| Russell 2000               | 1,903       | 1.0      | (0)                                | (5)  | (15) | 14  | (8)  | 0   | 8   | 8   |     |
| FTSE 100                   | 7,944       | 0.8      | (0)                                | (1)  | (5)  | 23  | (4)  | (0) | 6   | 6   |     |
| Euro Stoxx                 | 4,241       | 0.9      | (0)                                | (3)  | (8)  | 38  | 6    | 0   | 11  | 11  |     |

Source: Maybank IBG Research, Factset, MSCI, data as of 2 Mar 2023

## Equity performance by Country - relative performance

| Name                       | Index level | FX rate  | --- Relative performance to MSCI Asia x Japan --- |     |      |      |      |     |     |     |
|----------------------------|-------------|----------|---|-----|------|------|------|-----|-----|-----|
|                            |             |          | -1w   | -1m | -3m  | -6m  | -1y  | MTD | QTD | YTD |
| MSCI All Country World     | 631         |          | (0)   | 2   | 3    | 0    | 5    | 1   | 2   | 2   |
| MSCI Emerging Market       | 980         |          | (0)   | 0   | (1)  | (2)  | (2)  | (0) | (0) | (0) |
| MSCI Asia Pac (inc Japan)  | 160         |          | (0)   | 0   | 2    | 1    | 2    | (0) | (0) | (0) |
| MSCI Asia Pac (ex Japan)   | 519         |          | (0)   | (0) | 2    | 1    | 2    | (0) | 0   | 0   |
| MSCI Asia x JP             | 636         |          |   |     |      |      |      |     |     |     |
| MSCI Far East (ex Japan)   | 575         |          | 0   | (1) | (1)  | 4    | (1)  | 0   | 2   | 2   |
| MSCI ASEAN                 | 647         |          | (1)   | (0) | 11   | (6)  | 6    | 0   | (4) | (4) |
| MSCI Emerging Asia         | 530         |          | (0)   | (0) | (1)  | (0)  | (1)  | (0) | 0   | 0   |
| MSCI EM Latin America      | 2,191       |          | (2)   | 1   | 22   | (7)  | 6    | (0) | 0   | 0   |
| MSCI EMMEA                 | 189         |          | 1   | 2   | (12) | (10) | (12) | (0) | (4) | (4) |
| MSCI Frontier              | 481         |          | (0)   | 3   | (8)  | (14) | (6)  | (0) | (1) | (1) |
| MSCI Asia x JP Small Cap   | 1,178       |          | 0   | 2   | 0    | (1)  | 2    | 0   | 1   | 1   |
| China - Shanghai Composite | 3,311       | 6.9      | 1   | 5   | 3    | (2)  | 1    | (0) | 5   | 5   |
| China - H-shares           | 6,857       | 7.8      | 0   | (2) | 2    | 2    | 0    | (1) | (1) | (1) |
| Hong Kong - HSI            | 20,429      | 7.8      | 1   | (1) | 6    | 5    | 5    | (1) | (0) | (0) |
| Taiwan - TAIEX             | 15,599      | 30.6     | (0)   | 3   | (3)  | 6    | (6)  | 0   | 8   | 8   |
| Korea - KOSPI              | 2,428       | 1,315.7  | (1)   | (2) | (7)  | 8    | (4)  | 2   | 2   | 2   |
| Singapore - STI            | 3,235       | 1.3      | (1)   | (0) | 23   | (4)  | 15   | (1) | (4) | (4) |
| Malaysia - KLCI            | 1,455       | 4.5      | (1)   | (1) | 6    | (6)  | (1)  | 1   | (7) | (7) |
| Thailand - SET             | 1,613       | 34.8     | (2)   | (3) | 13   | (4)  | 4    | (0) | (6) | (6) |
| Indonesia - JCI            | 6,857       | 15,280.0 | 0   | 3   | 17   | (17) | 8    | 0   | (1) | (1) |
| Philippines - PSEi         | 6,622       | 55.0     | (1)   | (1) | 6    | 9    | (1)  | 1   | (1) | (1) |
| India - Sensex             | 58,909      | 82.6     | (0)   | 4   | 10   | (13) | 12   | (1) | (6) | (6) |
| Vietnam - Ho Chi Minh      | 1,038       | 23,720.0 | (1)   | 2   | (14) | (22) | (19) | 0   | (0) | (0) |
| Australia ASX 200          | 7,255       | 1.5      | (1)   | (2) | 10   | 3    | 9    | (0) | (0) | (0) |
| New Zealand - NZX50        | 11,901      | 1.6      | 1   | 0   | 2    | 4    | 5    | (0) | (1) | (1) |
| Japan - Nikkei 225         | 27,499      | 136.7    | 0   | 1   | (0)  | (2)  | 2    | (0) | (1) | (1) |
| Japan - TOPIX              | 1,995       | 136.7    | 0   | 2   | 4    | 1    | 5    | (0) | (1) | (1) |
| S&P 500                    | 3,981       | 1.0      | (0)   | 2   | 3    | (3)  | 5    | 1   | 1   | 1   |
| Russell 2000               | 1,903       | 1.0      | 0   | 2   | 4    | 0    | 7    | 1   | 5   | 5   |
| FTSE 100                   | 7,944       | 0.8      | 0   | 5   | 14   | 9    | 10   | 0   | 3   | 3   |
| Euro Stoxx                 | 4,241       | 0.9      | 0   | 3   | 11   | 24   | 21   | 0   | 8   | 8   |

Source: Maybank IBG Research, Factset, MSCI, data as of 2 Mar 2023

## Links to past reports

| Date             | Report title  | Analysts            |
|------------------|---|---------------------|
| <b>Economics</b> |   |                     |
| 30-Nov-22        | <a href="#">Thailand Economics: Another +25bps Hike and Slower Growth in October; Cut 2023 GDP to +3.2%</a>                     | Ju Ye Lee           |
| 01-Dec-22        | <a href="#">Indonesia Economics: Inflation Eases to 3-Month Low; Cut 2023 CPI Forecast to +4.2%</a>                             | Ju Ye Lee           |
| 05-Dec-22        | <a href="#">Singapore Economics: Year Ahead 2023: A Half-Full Economy</a>   | Hak Bin Chua        |
| 05-Dec-22        | <a href="#">Thailand Economics: Year Ahead 2023: Waiting for Bluer Skies</a>  | Ju Ye Lee           |
| 05-Dec-22        | <a href="#">Vietnam Economics: Year Ahead 2023: Weathering Liquidity Crunch</a>   | Brian Lee Shun Rong |
| 05-Dec-22        | <a href="#">Indonesia Economics: Year Ahead 2023: Steady Amid the Storm</a>   | Ju Ye Lee           |
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| 05-Dec-22        | <a href="#">ASEAN Economics : Year Ahead 2023: A Defensive Harbour</a>  | Hak Bin Chua        |
| 06-Dec-22        | <a href="#">Philippines CPI, November 2022: Headline &amp; core inflation edging higher</a>                                     | Zamros Dzulkafli    |
| 07-Dec-22        | <a href="#">Philippines Labour Market Oct '22: Jobless rate improved further to 4.5%</a>  | Zamros Dzulkafli    |
| 07-Dec-22        | <a href="#">Thailand Economics: Inflation Eases Further in Nov; Maintain 2023 CPI Forecast at +3%</a>                           | Ju Ye Lee           |
| 12-Dec-22        | <a href="#">Malaysia Labour Statistics, Oct 2022: "Steady" jobless rate, "sticky" youth unemployment rate</a>                   | Suhaimi Ilias       |
| 12-Dec-22        | <a href="#">MY Monthly GDP Esti, Oct' 2022: Single-digit GDP growth in Oct 2022 after double-digit June-Sep 2022</a>            | Suhaimi Ilias       |
| 15-Dec-22        | <a href="#">Philippines BSP Monetary Policy: Another +50bps rate hike to 5.50%</a>  | Zamros Dzulkafli    |
| 30-Dec-22        | <a href="#">Vietnam Economics: Fastest Annual Growth in 25 Years, But Beware of Rising Headwinds</a>                            | Brian Lee Shun Rong |
| 03-Jan-23        | <a href="#">Indonesia Economics: Inflation Picks Up in Dec; BI to Hike by +25bps in Jan</a>                                     | Ju Ye Lee           |
| 03-Jan-23        | <a href="#">Singapore: Growth Slows in 4Q as Manufacturing &amp; Exports Fall; Manufacturing Recession in 1H2023</a>            | Hak Bin Chua        |
| 04-Jan-23        | <a href="#">Vietnam Economics: How Systemic is the Property Sector?</a>   | Brian Lee Shun Rong |
| 05-Jan-23        | <a href="#">Thailand Economics: Inflation Ends Year at High Note; Expect BoT to Hike in January</a>                             | Ju Ye Lee           |
| 06-Jan-23        | <a href="#">Philippines CPI, December 2022 : Highest headline &amp; core for 2022;...</a>                                       | Zamros Dzulkafli    |
| 08-Jan-23        | <a href="#">Philippines Labour Market Nov '22: Jobless rate improved further to 4.2%</a>  | Zamros Dzulkafli    |
| 10-Jan-23        | <a href="#">Malaysia Labour Statistics, Nov 2022: Jobless rate steady at 3.6%</a>   | Suhaimi Ilias       |
| 11-Jan-23        | <a href="#">Philippines External Trade, Nov 2022: Exports expanded as imports declined</a>                                      | Suhaimi Ilias       |
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| 16-Jan-23        | <a href="#">Indonesia Economics: Exports Decelerate, Retail Sales Flat in Dec; Expect BI to Hike by +25bps</a>                  | Ju Ye Lee           |
| 17-Jan-23        | <a href="#">Overseas Filipino Workers Remittances, Nov 2022: Sustained OFWR growth in USD</a>                                   | Suhaimi Ilias       |
| 17-Jan-23        | <a href="#">Singapore Economics: Exports End Year on Grim Note; Expect Contraction in 2023</a>                                  | Hak Bin Chua        |
| 19-Jan-23        | <a href="#">Indonesia Economics: BI Hikes by +25bps, Over and Done With</a>   | Ju Ye Lee           |
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## Strategy

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## Fixed Income

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### Definition of Ratings

Maybank IBG Research uses the following rating system

|             |  |
|-------------|--|
| <b>BUY</b>  | Return is expected to be above 10% in the next 12 months (including dividends)         |
| <b>HOLD</b> | Return is expected to be between 0% to 10% in the next 12 months (including dividends) |
| <b>SELL</b> | Return is expected to be below 0% in the next 12 months (including dividends)          |

### Applicability of Ratings

The respective analyst maintains a coverage universe of stocks, the list of which may be adjusted according to needs. Investment ratings are only applicable to the stocks which form part of the coverage universe. Reports on companies which are not part of the coverage do not carry investment ratings as we do not actively follow developments in these companies.

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