

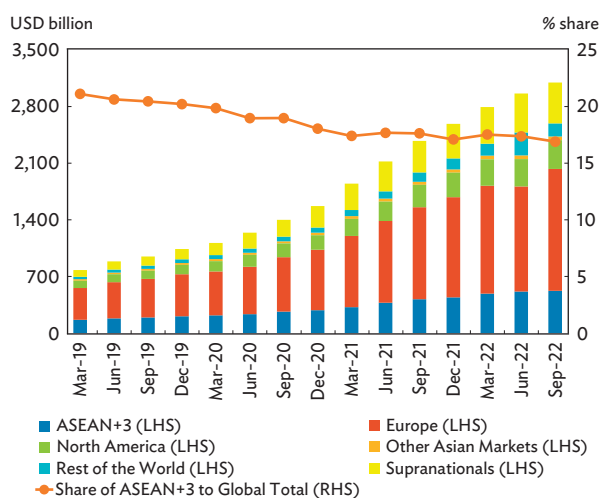
# Recent Developments in ASEAN+3 Sustainable Bond Markets

**ASEAN+3's sustainable bond market growth eased in Q3 2022.**<sup>5,6</sup> The outstanding size of the sustainable bond market in ASEAN+3 totaled USD521.6 billion at the end of September on growth of 1.7% quarter-on-quarter (q-o-q) and 24.9% year-on-year (y-o-y) (Figure 19). Growth moderated from the 5.0% q-o-q and 37.1% y-o-y expansions posted in the second quarter (Q2). Overall growth was weighed down by the dimming economic outlook and monetary tightening in regional and global markets. At the end of September, the size of the global sustainable bond market stood at USD3.1 trillion on growth of 4.5% q-o-q and 30.3% y-o-y in Q3 2022, which were faster expansions than those in ASEAN+3. Next to Europe, ASEAN+3 remained the world's second-largest

regional sustainable bond market, accounting for 16.9% of the global total. However, the gap between the size of the sustainable bond market in Europe and ASEAN+3 widened to USD983.7 billion at the end of September from USD784.1 billion at the end of June.

**Issuance of sustainable bonds in the region slowed in Q3 2022, amid weakening financial conditions and rising borrowing costs.** Uncertainties in the global economic outlook and tightening financial conditions led to reduced issuance activities in ASEAN+3's sustainable bond market in Q3 2022. Total issuance of sustainable bonds in the region reached USD49.8 billion in Q3 2022 on contractions of 25.3% q-o-q and 24.1% y-o-y (Figure 20). Issuance in the People's Republic of China (PRC) declined in United States (US) dollar terms, while issuance in Hong Kong, China and the Republic of Korea also fell during the quarter. Meanwhile, sustainable bond issuance in ASEAN member economies and Japan expanded 34.0% q-o-q and 11.9% q-o-q to reach USD5.7 billion and USD10.9 billion, respectively, during Q3 2022. The growth in issuance lifted the issuance shares of ASEAN members and Japan in ASEAN+3's sustainable bond issuance total from 6.4% and 14.6% in Q2 2022, respectively, to 11.5% and 21.9% in Q3 2022. ASEAN+3's share of the global sustainable issuance total declined to 25.9% in Q3 2022 from 29.5% in Q2 2022.

**Figure 19: Sustainable Bonds Outstanding in Global Markets**



ASEAN = Association of Southeast Asian Nations, LHS = left-hand side, RHS = right-hand side, USD = United States dollar.

Notes:

1. ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.

2. Data include both local currency and foreign currency issues.

Source: AsianBondsOnline computations based on Bloomberg LP data.

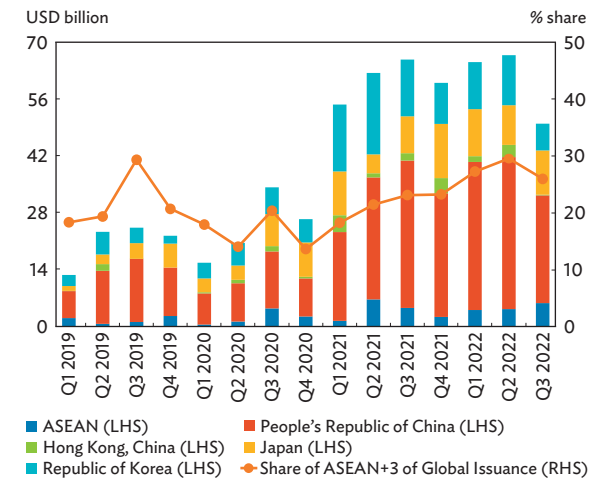
**ASEAN has a strong presence in the regional sustainable bond market and excels in the issuance of sustainability and sustainability-linked bonds.**

Sustainable bonds outstanding in ASEAN markets climbed to USD41.8 billion at the end of September, accounting for 8.0% of the regional sustainable bond total in Q3 2022, which is more than its 5.5% share in the overall LCY bond market in ASEAN+3. ASEAN economies are active players in sustainability bond and sustainability-linked bond markets, accounting for shares of 19.6% and 14.8%, respectively, of the region's

<sup>5</sup> For the discussion on sustainable bonds, ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.

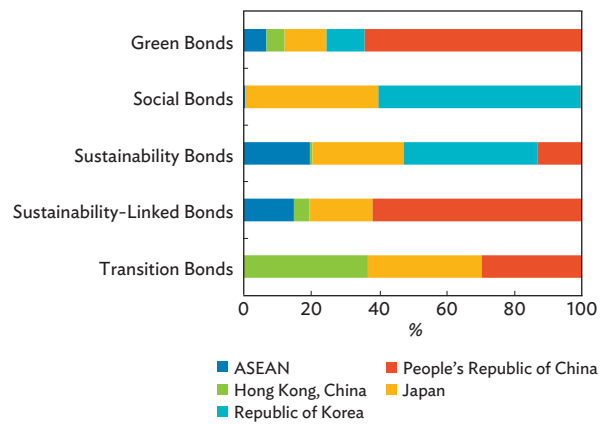
<sup>6</sup> Sustainable bonds include green, social, sustainability, sustainability-linked, and transition bonds.

**Figure 20: Sustainable Bond Issuance in Select ASEAN+3 Markets**



ASEAN = Association of Southeast Asian Nations; LHS = left-hand side; Q = quarter; RHS = right-hand side; USD = United States dollar.  
 Notes:  
 1. ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.  
 2. Data include both foreign currency and local currency issues.  
 Source: *AsianBondsOnline* computations based on Bloomberg LP data.

**Figure 21: Sustainable Bonds Outstanding by Bond Type and Economy Share in Select ASEAN+3 Markets**

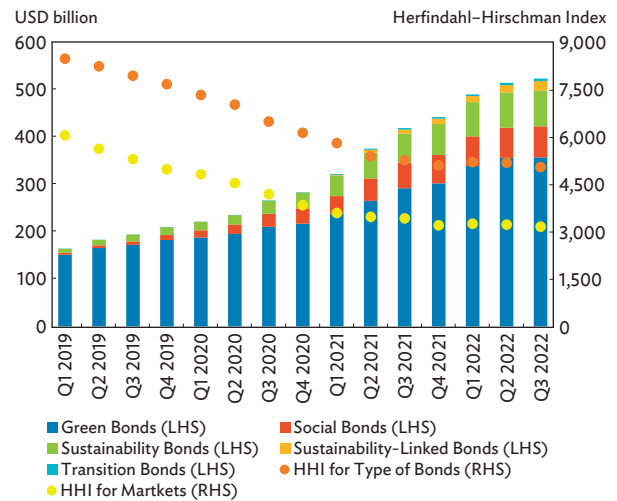


ASEAN = Association of Southeast Asian Nations.  
 Notes:  
 1. ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.  
 2. Data as of 30 September 2022 and include both foreign currency and local currency issues.  
 Source: *AsianBondsOnline* computations based on Bloomberg LP data.

total outstanding bonds of these types at the end of September. As the region's largest sustainable bond market, the PRC accounted for 48.3% of the region's total sustainable bonds outstanding with USD252.2 billion at the end of September, which was more than its corresponding share of 42.8% of ASEAN+3's total bonds outstanding in the same period. The PRC leads the regional green bond and sustainability-linked bond markets, comprising 64.3% and 61.9% of the respective totals at the end of Q3 2022 (Figure 21). The Republic of Korea and Japan accounted for 20.9% and 18.4% of the ASEAN+3 sustainable bond market, respectively, at the end of September, with aggregate issuances from both economies dominating the social bond and sustainability bond segments, accounting for 99.2% and 66.6%, respectively, of the regional total for each type of bond.

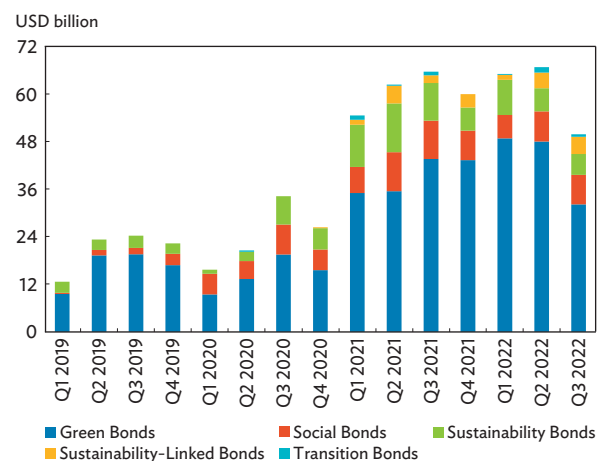
**ASEAN+3 sustainable bond markets witnessed improved diversification.** The regional sustainable bond market has seen improved diversification in terms of market profile and the issuance of different bond types. This is evidenced by the declining trend in the Herfindahl–Hirschman Index, which is used as common measure of market concentration (Figure 22). ASEAN+3's sustainable bond market remains dominated

**Figure 22: Sustainable Bonds Outstanding by Bond Type in Select ASEAN+3 Markets**



HHI = Herfindahl–Hirschman Index, LHS = left-hand side, Q = quarter, RHS = right-hand side.  
 ASEAN = Association of Southeast Asian Nations, USD = United States dollar.  
 Notes:  
 1. ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.  
 2. Data include both foreign currency and local currency issues.  
 3. The Herfindahl–Hirschman Index is a commonly accepted measure of market concentration and is calculated by summing the squared market share of each bond type competing in the market.  
 Source: *AsianBondsOnline* computations based on Bloomberg LP data.

**Figure 23: Sustainable Bond Issuance by Bond Type in Select ASEAN+3 Markets**



ASEAN = Association of Southeast Asian Nations, Q = quarter, USD = United States dollar.

Notes:

1. ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.
2. Data include both foreign currency and local currency issues.

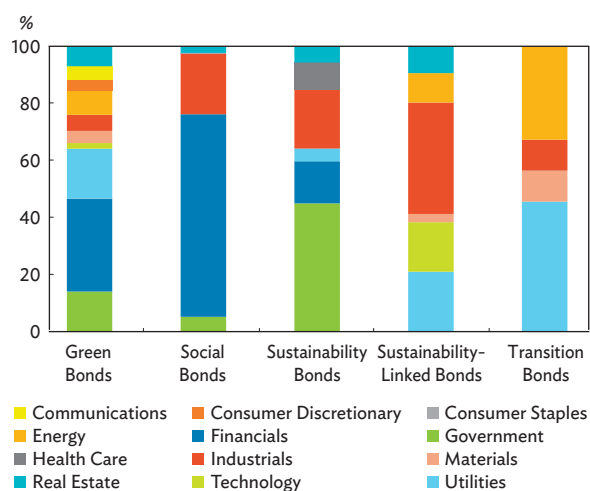
Source: *AsianBondsOnline* computations based on Bloomberg LP data.

by green bonds, which comprise 68.2% of the regional sustainable bond total. However, green bonds' share of sustainable bonds outstanding in the market has steadily declined from 91.8% in Q1 2019 as issuance in other sustainable bond segments gradually expands (Figure 23).

### The private sector is the leading issuer of sustainable bonds in ASEAN+3.

Sustainable bond issuance in Q3 2022 was dominated by issuances from the private sector, which accounted for 85.5% of the regional total during the quarter (Figure 24). In terms of outstanding bonds, 88.7% of ASEAN+3's sustainable bonds at the end of Q3 2022 were from private sector issuers, which contrasts with the ASEAN+3 conventional bond market where government bonds accounted for 75.9% of regional bonds outstanding at the end of September. Among private issuers, financial institutions comprised the largest group, representing 38.7% of total private sector issuance in Q3 2022. While the public sector's share of sustainable bond issuance in ASEAN+3 remains small, its share inched up to 14.5% in Q3 2022 from 10.2% in the prior quarter. Q3 2022 saw three sovereign issuances, all of which were in the domestic currency: Indonesia's IDR4.4 trillion sovereign green bond, Singapore's SGD2.4 billion sovereign green bond, and

**Figure 24: Sustainable Bond Issuance by Sector in Select ASEAN+3 Markets**



ASEAN = Association of Southeast Asian Nations.

Notes:

1. ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.
2. Data reflect issuance for the period 1 July 2022 to 30 September 2022 and include both foreign currency and local currency issues.

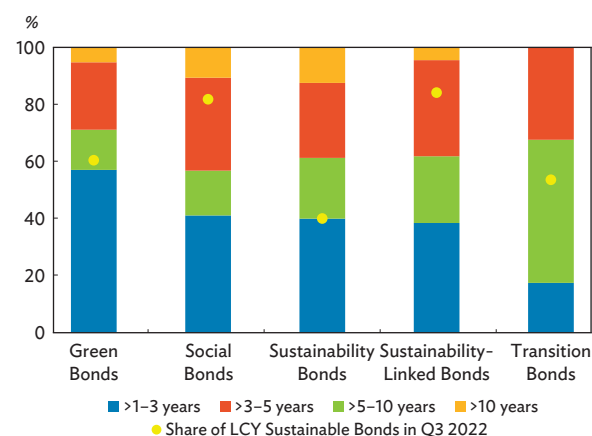
Source: *AsianBondsOnline* computations based on Bloomberg LP data.

Thailand's THB35.0 billion sovereign sustainability bond. The public sector segment of ASEAN+3's sustainable bond market has thus shown good potential for further expansion.

### The ASEAN+3 sustainable bond market largely provides short- to medium-term financing.

Outstanding sustainable bonds in the region were largely concentrated in short-term to medium-term tenors, with maturities between 1 year and 5 years accounting for 77.0% of the sustainable bond total at the end of September, which is in contrast to the much smaller corresponding share of 35.6% in Europe's sustainable bond market (Figure 25). The average size-weighted tenor of outstanding sustainable bonds in ASEAN+3 at the end of September was 4.4 years, substantially lower than the average size-weighted tenor of ASEAN+3's total bond market of 7.5 years. With the issuance of some longer-tenor bonds during the quarter, the average-size weighted tenor of ASEAN+3's sustainable bond issuance climbed to 6.5 years in Q3 2022 from 4.7 years in the prior quarter. For example, longer-tenored sustainable bond issued in Q3 2022 included Singapore's 50-year sovereign green bond, Malaysia's Pengurusan Air Selangor 20-year green bond and 20-year sustainability bond,

**Figure 25: Maturity and Currency Profiles of Sustainable Bonds Outstanding in Select ASEAN+3 Markets**



ASEAN = Association of Southeast Asian Nations, LCY = local currency.  
Notes:

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2. Data as of 30 September 2022 and include both foreign currency and local currency issues.

Source: *AsianBondsOnline* computations based on Bloomberg LP data.

and Singapore's Public Utilities Board 30-year green bond. Turning to the currency profile, local-currency-denominated bonds accounted for a majority of outstanding sustainable bonds in the region at the end of September, representing 61.0% of the region's sustainable bond market; however, this share was much lower than LCY bonds' corresponding share of 95.0% of ASEAN+3's total bond market.