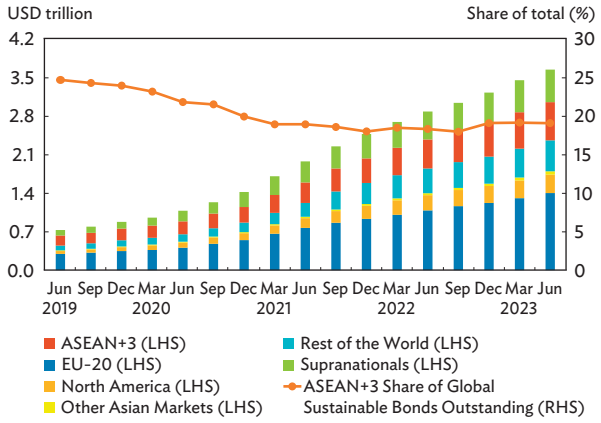
Recent Developments in ASEAN+3 Sustainable Bond Markets

Sustainable bonds outstanding in ASEAN+3 markets reached USD694.4 billion at the end of June 2023.[5] Growth of 31.5% year-on-year and 5.1% quarter-on-quarter (q-o-q) were recorded in the second quarter (Q2) of 2023. The q-o-q expansion was roughly in line with the growth in the global sustainable bond market of 5.5% q-o-q during the same period, bringing total global sustainable bonds outstanding to USD3.6 trillion at the end of June. The ASEAN+3 sustainable bond market maintained its 19.1% share of the global total at the end of June. However, ASEAN+3's growth in Q2 2023 was slower compared to the world's largest regional sustainable bond market, the European Union 20 (EU-20), which expanded 7.2% q-o-q to reach USD1.4 trillion at the end of June. The EU-20 comprised a 38.5% share of the global sustainable bond market at the end of the review period (**Figure 15**). Despite its rapid growth, the ASEAN+3 sustainable bond market accounted for only 1.9% of total ASEAN+3 bonds outstanding at the end of June, which was also much lower than the corresponding share of 6.6% in EU-20 markets.

The ASEAN+3 sustainable bond market has potential for further development to provide more local currency (LCY) and long-term financing. At the end of June, green bonds (64.3%), LCY financing (65.1%), and short-term (maturity of less than 5 years) financing (75.6%) comprised a majority of ASEAN+3 sustainable bonds outstanding (**Figure 16**). The EU-20's sustainable bond market was roughly similar with respect to green bonds (63.2%), but it had a higher share of LCY financing (89.8%) and long-term (maturity of more than 5 years) financing (59.6%) (**Figure 17**). ASEAN+3's outstanding

Figure 15: Global Sustainable Bonds Outstanding

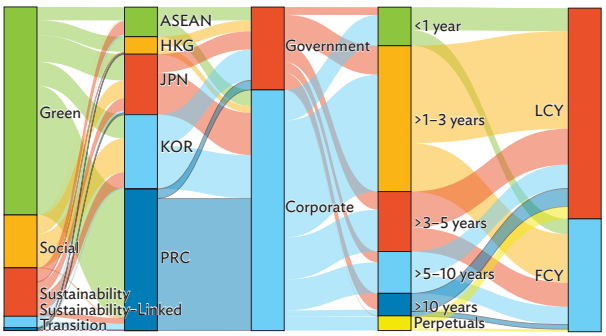


ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea; EU = European Union; LHS = left-hand side; RHS = right-hand side; USD = United States dollar.

Notes:
1. EU-20 includes EU member markets Austria, Belgium, Croatia, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.
2. Data include both local currency and foreign currency issues.

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

Figure 16: Market Profile of Outstanding ASEAN+3 Sustainable Bonds at the End of June 2023



ASEAN = Association of Southeast Asian Nations; FCY = foreign currency; HKG = Hong Kong, China; JPN = Japan; KOR = Republic of Korea; LCY = local currency; PRC = People's Republic of China.

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. ASEAN comprises the markets of Indonesia, the Lao People's Democratic Republic, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

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

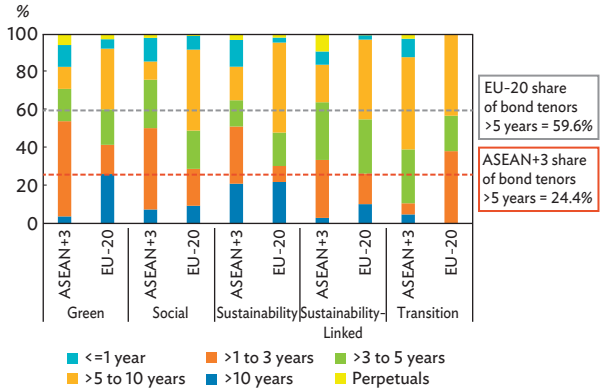
[5] ASEAN+3 is defined to include member states of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.

sustainable bonds had a weighted-average tenor of 4.4 years at the end of June versus 8.6 years for the EU-20.

ASEAN+3 sustainable bond issuance rebounded in Q2 2023, buoyed by a surge in the issuance of social bonds. Sustainable bond issuance in the region tallied USD69.0 billion in Q2 2023, with growth accelerating to 19.7% q-o-q following a 0.6% q-o-q contraction in the first quarter of 2022. This led to an uptick in ASEAN+3's share of global sustainable bond issuance to 26.8% in Q2 2023 from 23.0% in the prior quarter (**Figure 18**). Social bonds witnessed growth of 86.6% q-o-q in Q2 2023 on total issuance of USD16.5 billion, driven largely by issuances from the Republic of Korea and Japan. The People's Republic of China's sustainable bond market remained the largest in the region in terms of issuance, accounting for 44.3% of the regional total during Q2 2023. ASEAN markets' sustainable bond issuance contracted 53.4% q-o-q in Q2 2023, with their collective share slipping to only 4.6% of the regional issuance total. This, however, was higher than their 2.0% share of the region's general bond issuance.

ASEAN+3 sustainable bond issuance in Q2 2023 was mostly LCY-denominated (**Figure 19**). LCY issuance comprised 78.4% of ASEAN+3 sustainable bond issuance during the quarter. This, however, was lower than the 97.2% LCY share of issuance in the general bond market and the 86.6% share in the EU-20 sustainable bond market during the same period. Markets in the People's Republic of China and Japan had over 90% of sustainable bonds issued in Q2 2023 denominated in their respective domestic currencies. LCY sustainable bond issuance from ASEAN markets comprised 61.9% of their total issuance, compared with an 81.5% LCY share in

Figure 17: Maturity Profile of ASEAN+3 and EU-20 Sustainable Bonds Outstanding at the End of June 2023

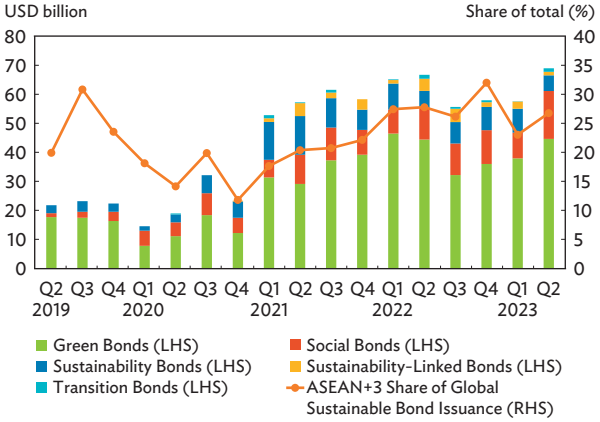


ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea; EU = European Union.

Notes:
1. EU-20 includes EU member markets Austria, Belgium, Croatia, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia, and Spain.
2. Data include both local currency and foreign currency issues.

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

Figure 18: ASEAN+3 Sustainable Bond Issuance and Share of the Global Total

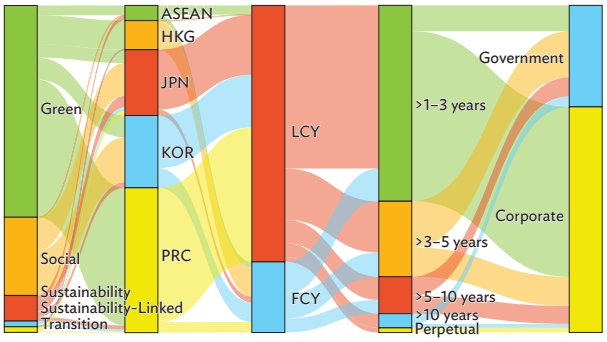


ASEAN+3 = Association of Southeast Asian Nations plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea; LHS = left-hand side; Q1 = first quarter; Q2 = second quarter; Q3 = third quarter; Q4 = fourth quarter; RHS = right-hand side; USD = United States dollar.

Note: Data include both local currency and foreign currency issues.

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

Figure 19: Market Profile of ASEAN+3 Sustainable Bond Issuance in the Second Quarter of 2023



ASEAN = Association of Southeast Asian Nations; FCY = foreign currency; HKG = Hong Kong, China; JPN = Japan; KOR = Republic of Korea; LCY = local currency; PRC = People's Republic of China.

Notes:
1. ASEAN+3 is defined to include member states of ASEAN plus the People's Republic of China; Hong Kong, China; Japan; and the Republic of Korea.
2. ASEAN comprises the markets of Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

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

general ASEAN bond markets. About 64% of ASEAN+3 sustainable LCY bond issuance had maturities of 3 years or less, which was higher than the corresponding share of foreign-currency-denominated sustainable bond issuance (46.2%). This reflects the need to develop the region's sustainable bond market to mobilize more long-term LCY financing. One way to further promote sustainable financing is through the use of blended finance. **Box 2** discusses the four types of blended financing and how this can help fund sustainable projects.

ASEAN+3 sustainable bond issuers focused mainly on seeking shorter-term financing in Q2 2023. More than 80% of the sustainable bonds issued in ASEAN+3 markets carried maturities of 5 years or less, reflecting the challenges in enticing long-term sustainable investment in the region. In contrast, the share of sustainable bond issuance with tenors of 5 years or less was only 27.7% in EU-20 markets in Q2 2023. The weighted-average tenor of ASEAN+3 sustainable bond issuance in Q2 2023 was 4.8 years compared with the EU-20's 9.1 years.

The private sector continued to dominate ASEAN+3 sustainable bond issuance in Q2 2023. The share of private sector issuance in total regional sustainable bond issuance was 69.0% in Q2 2023. This was much higher than the private sector's share of 29.2% for ASEAN+3 general bond issuance in Q2 2023, signaling the public sector's potential to play a bigger role in the region's sustainable bond market.

Box 2: Promoting Innovative Climate Finance for Emerging and Developing Economies

It is increasingly clear that the Paris Agreement's long-term goals—which were negotiated by 196 parties at the United Nations Climate Change Conference in 2015—are becoming difficult to achieve without more ambitious global policy actions.[a] One of the key goals is to reduce greenhouse gas (GHG) emissions enough to keep the increase in the global average temperature this century to well below 2°C (compared with pre-industrial times), while striving to approach a gain of only 1.5°C. In line with this, many countries around the world have committed to net zero emissions or carbon neutrality by 2050 (or soon after).

Since 2021, the global economy has faced serious energy shortages amid the recovery from the coronavirus disease (COVID-19) pandemic. These shortages were subsequently exacerbated by the Russian invasion of Ukraine in February 2022. As a result, many countries have increased their dependence on carbon-intensive coals and other fossil fuels. Meanwhile, energy shortages have also hampered measures to address extreme poverty and inequality in low-income countries.

The substantially high cost of fossil fuels has reminded the world that investments in the clean and low-emission energy projects needed to achieve net zero GHG emissions have been inadequate for many years because of the limited scale of climate policies globally. While an increase in overdependence on fossil fuels might be inevitable for some time, the world is increasingly aware that accelerating the transition toward carbon neutrality is an urgent task.

More Financing is Needed for Emerging and Developing Economies

In general, emerging and developing economies (EMDEs) suffer from a lack of social and economic infrastructure. At present, energy consumption in EMDEs, excluding the People's Republic of China and India, is relatively low. However, energy demand is expected to grow significantly as industrialization, urbanization, and economic development continue to progress. EMDEs are set to account for the bulk of GHG emissions growth in the coming decades unless much stronger action is taken to transform their energy systems. In a scenario reflecting today's announced and existing climate and energy policies, GHG emissions from EMDEs are projected to grow by 5 gigatonnes over the next 2 decades, while they are projected to fall by 2 gigatonnes in developed countries and to plateau in the People's Republic of China during the same period (International Energy Agency 2021). Therefore, a massive increase in clean energy investment is required to put these countries on a pathway to net zero emissions in a cost-effective way.

Energy investments in EMDEs currently depend heavily on public sources of finance. At the 15th United Nations Framework Convention on Climate Change (COP15) held in 2009, developed countries committed to a collective goal of mobilizing USD100 billion per year by 2020 for climate action in EMDEs. This financial goal was formalized at the subsequent COP16 held in 2010. At COP21 held in 2015 in

[a] This box was written by Sayuri Shirai, a visiting fellow and advisor for sustainable policies at the Asian Development Bank Institute, a professor at the Faculty of Policy Management at Keio University, and a former policy board member of the Bank of Japan.

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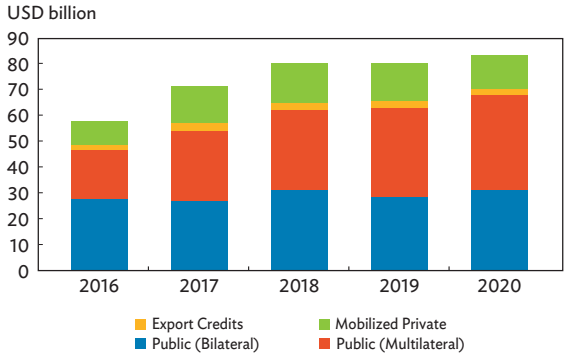
Box 2 *continued*

Paris, it was agreed to continue with the same USD100 billion amount annually until 2025. In 2020, however, the total amount of climate finance for EMDEs rose a mere 4% to USD83 billion; thus, the promised financial support has not yet materialized (**Figure B2.1**). Of this USD83 billion, public climate finance (both bilateral and multilateral) continued to take a substantial share of the total and accounted for 82% (Organisation for Economic Co-operation and Development 2022). Private climate finance mobilized for EMDEs decreased slightly to USD13 billion in 2020 and has remained lower than anticipated. To generate more climate finance for EMDEs, private funds need to be mobilized to a greater extent.

Figure B2.1: Total Climate Finance Provided and Mobilized



USD = United States dollar.
Source: Organisation for Economic Co-operation and Development.

Using Blended Finance to Mobilize Private Capital

Given this background, blended finance is under the spotlight again because of its potential to effectively utilize public and private capital jointly and deepen investors' involvement in global environmental and social projects. In recent years, momentum has been gathering in the world of private capital largely due to the rapid growth of institutional investors' environmental, social, and corporate governance (ESG) investments. ESG investors mainly comprise long-term asset owners (e.g., pension funds and insurance companies) and their asset management companies. In 2021, global-financial-sector-specific alliances—comprising asset owners, asset managers, banks, insurers, financial service providers, and investment consultants—formed the Glasgow Financial Alliance for Net Zero (GFANZ) as part of efforts to attain net zero GHG emissions from their financed activities by 2050. This initiative is contributing to the momentum of ESG investments that seek to encourage corporate behavioral and business model changes. The focus of GFANZ members is gradually expanding beyond listed companies in developed countries, given that the global climate goals cannot be achieved without successful GHG reductions in EMDEs as well.

Since the global financial crisis, financial regulations have been tightened in many economies, making it more difficult for investors to take certain risks, including investment in EMDEs. The recent financial market turbulence as a result of rapid normalization of the massive monetary easing adopted during the COVID-19 pandemic has also reduced investor appetites. If the current situation is left unaddressed, it will delay EMDEs' responses to climate change and other environmental problems, hindering achievement of the sustainable development goals. In light of this, the United Nations convened the Net-Zero Asset Owner Alliance (NZAOA), bringing together asset managers to collaborate on increasing the number of blended-finance vehicles serving EMDEs (NZAOA 2021). NZAOA is an initiative of institutional investors committed to transitioning their investment portfolios to net zero GHG emissions by 2050 and an important member of GFANZ.

To promote blended finance more extensively, it is important to address information asymmetry problems between recipients and creditors and investors, which tend to be severe in EMDEs (Shirai 2022a, 2022b). Currently, most ESG investment occurs in developed countries, where capital and financial markets are well developed and numerous issuers and investors are required to disclose audited financial statements. This situation does not necessarily apply to many EMDEs. A blended finance mechanism, therefore, might need to allocate a larger share of public funds at the initial phase while private investors invest smaller amounts. Private investors can provide an increased share of funding at a later phase after the project becomes more viable. Blended finance is important because blending the public fund portion with private funding can attract additional private funding for projects that otherwise would not have been possible. With the participation of project developers and private companies—as well as well-experienced multilateral and/or bilateral development finance banks, charitable foundations, and nongovernment organizations—blended finance is able to reduce the information asymmetry faced by investors.

Convergence, a nonprofit organization, publishes a report on trends with the aim of developing the global blended finance market. Convergence classifies blended finance schemes

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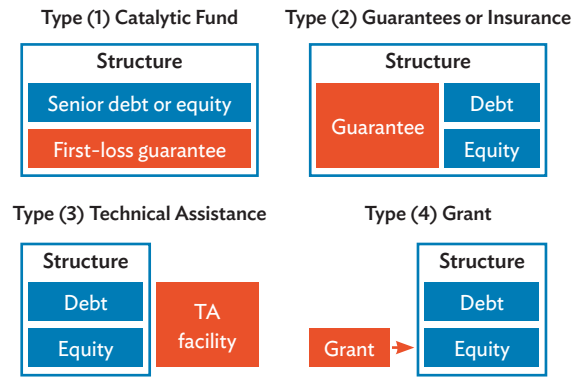
Box 2 *continued*

into four types, as shown in **Figure B2.2** (Convergence 2021). In the Type 1 Scheme (Catalytic Funds), public funds and charitable foundations contribute the riskiest portion of equity capital to absorb first losses in the event of failure. Under the Type 2 Scheme (Guarantees or Insurance), public funds or foundations provide partial or full guarantees, or provide insurance at below market terms, thereby reducing the foreign exchange and political risks faced by private investors. In the Type 3 Scheme (Technical Assistance), developed countries provide technical assistance to support the formulation of project design in the initial stage and to assist project and fund managers after investment. The Type 4 Scheme (Grants) aims at accelerating the initiation of a project by providing grants at the stage of project design and preparation, and the creation of a financing system.

Figure B2.2: Four Types of Blended Finance Scheme



TA = technical assistance.
Source: Convergence.

Among the four types, Type 1 is the most frequently utilized scheme, accounting for 85% of blended finance in 2020. This share rose in 2020 from the previous year partly because the risk of investing in EMDEs increased with the onset of the COVID-19 pandemic, indicating that it became more difficult to mobilize private capital without the catalytic effect of the funding being enhanced. Type 2 also has the effect of reducing risk for private investors, but it is not yet fully utilized perhaps because there are few public finance institutions that provide guarantees. Type 3 was the second-most utilized scheme in 2020.

In recent years, some blended finance initiatives have emerged as a result of joint efforts among developed countries. For example, developed countries formed the Just Energy Transition Partnerships (JETPs) for South Africa (USD8.5 billion) in 2021, Indonesia (USD20.0 billion) and Viet Nam (USD15.5 billion) in 2022, and Senegal (EUR2.8 billion) in 2023. For most JETP schemes, the pledged amounts will be shared equally by developed countries (including the European Union, France, Germany Japan, the United Kingdom, and the United States) and financial institutions. The GFANZ working group, comprising banks and institutional investors, supports the JETPs.

More countries, especially smaller and/or low-income countries, should be given access to such jointly managed funds. Moreover, these funding pledges may not represent additional or new finance being provided to EMDEs, and thus they can end up diverting from other important projects and other countries. Further, developed countries' pledges have traditionally been hard to fulfill, resulting in disparities between commitments and actual disbursements (Liao and Beal 2022). It is even more uncertain whether sufficient funds from financial institutions can be collected to meet the pledged financing amounts.

Given the limited budgetary resources available in EMDEs, developed countries collectively need to explore how to maximize the effectiveness of public funds by mobilizing more private capital inflows. For example, the important role of catalytic funds in blended finance should be more actively discussed by the Group of Seven and Group of Twenty to increase collaboration. The idea of shifting some grants included in official development assistance toward catalytic funds or equity tranches with joint contributions from developed countries should be examined as well. In addition, more priority can be placed on increasing the contributions of public and private capital to the specialized multilateral climate and environmental funds that promote blended finance for EMDEs (Shirai 2022a). These funds include the United Nations-led Green Climate Fund and are often intermediated through multilateral development banks or bilateral development institutions, which are able to promote climate projects and attract institutional investors by forming catalytic funds in a transparent and efficient manner.

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Box 2 *continued*

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