

**Economic and Social Commission for Asia and the Pacific**Committee on Macroeconomic Policy, Poverty Reduction and
Financing for Development**Third session**

Bangkok and online, 20–22 October 2021

Item 3 of the provisional agenda*

**Vitalizing innovative and digital financing strategies in
support of the Sustainable Development Goals****Vitalizing innovative and digital financing strategies in
support of the Sustainable Development Goals****Note by the secretariat***Summary*

More than a year since its onset, the coronavirus disease (COVID-19) pandemic continues to pose a major threat to a sustained economic recovery and the achievement of the Sustainable Development Goals. By enhancing the availability of financial resources and improving the alignment of public and private investments with the Sustainable Development Goals, innovative and digital financing strategies have the potential to address such challenges. The present document contains a discussion of selected innovative and digital financing instruments and strategies in the context of the Asia-Pacific region and provides an overview of key regulatory and policy challenges that need to be overcome to maximize such instruments' and strategies' potential benefits in scaling up financing for the Sustainable Development Goals.

Examples of innovative and digital financing strategies and associated policy measures discussed in the document include the following: (1) thematic bonds, and the adoption of frameworks and standards and the strengthening of technical and institutional capacities that such bonds would necessitate, which are highlighted as potential policy areas that require attention; (2) climate risk disclosure and reporting, which can serve as an important means to move towards a green financial system that can better support climate action; (3) debt-for-climate swaps that can ease debt distress and help to tackle challenges related to the insufficient flow of financing for climate action; and (4) strengthening of digital payment systems to maximize their benefits for the Sustainable Development Goals. In addition to highlighting the main barriers and risks associated with digital financing, the document also contains an action agenda to enhance access to digital financing in Asia and the Pacific.

The Committee on Macroeconomic Policy, Poverty Reduction and Financing for Development may wish to discuss the relevance of these financing strategies for the region and identify policy actions that can help to maximize potential benefits, including through regional cooperation, in supporting climate action and the Sustainable Development Goals. The Committee may also wish to provide guidance to the secretariat on how it can support member States through technical assistance programmes aimed at building national capacities to facilitate the implementation of such strategies.

* ESCAP/CMPF/2021/L.1.

I. Introduction

1. The coronavirus disease (COVID-19) pandemic and the measures to contain its spread have put both health and economic systems under severe strain worldwide. The unprecedented socioeconomic consequences of the pandemic pose a substantial threat to the achievement of the Sustainable Development Goals. At the same time, the challenge of dealing with climate change remains daunting, and the need for climate adaptation and mitigation has never been more urgent. The availability of adequate fiscal resources aligned with the Goals and climate action is critical to addressing these risks and challenges. While adopting measures to increase fiscal space will remain crucial, they alone may not be sufficient.

2. Innovative and digital financing strategies can facilitate the channelling of funds directly to climate action and the Sustainable Development Goals. Innovative financing strategies discussed in the present document include the use of financial instruments such as green, social or sustainability bonds (or thematic bonds), mechanisms such as debt-for-climate swaps, and policies such as mandating financial institutions to disclose climate-related risks. Digital financing strategies take advantage of the expansion of digitalization to enhance access to financial services, providing people who are financially excluded with opportunities for economic advancement and thus contributing to Goals 1 (No poverty) and 10 (Reduced inequalities).

3. The present document, prepared to inform substantive discussions under agenda item 3, provides an overview of the situation in the region, a discussion of challenges and opportunities, and recommendations on how to vitalize innovative and digital financing strategies in support of the Sustainable Development Goals and climate action.

II. Thematic bonds: adopting frameworks and standards to finance the Sustainable Development Goals¹

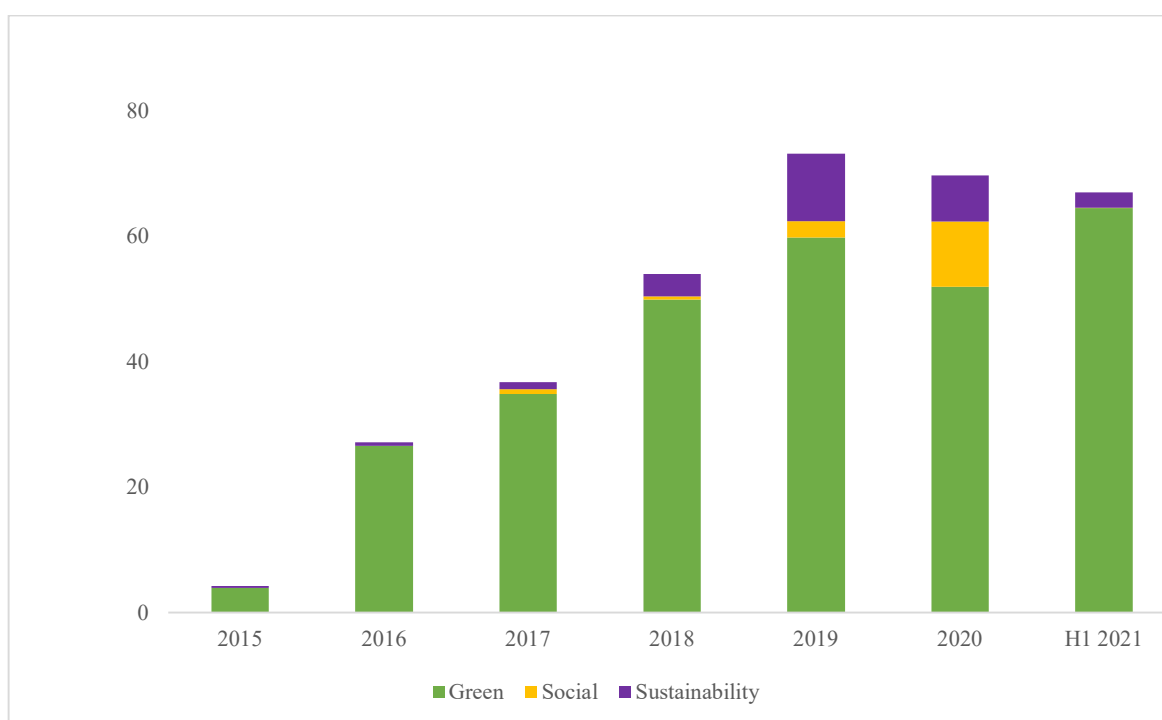
4. Thematic bonds are debt securities issued by governments and private sector entities on the condition that the funds raised are used to finance projects that have a clear social and environmental impact. Thematic bonds are akin to common fixed-income bonds, offering predictable returns for investors in the form of a fixed coupon in exchange for medium-to-long-term funding. There are different types of bonds available under the banner of thematic bonds, including green bonds, social bonds, sustainability bonds and Sustainable Development Goal bonds. Sustainable Development Goal bonds have a mandate to finance projects aligned with the Goals and could include gender bonds to catalyse financing for promoting gender parity or supporting women entrepreneurs.

5. There has been a substantial rise in the issuance of thematic bonds in recent years (see figure I), and several Governments have used them to finance policy measures to address the COVID-19 pandemic. For example, in 2020, the Government of Thailand issued a sustainability bond that raised \$988 million, two thirds of which was used to strengthen the health-care system and provide a stimulus package to support vulnerable groups, with the rest allocated to finance climate adaptation and mitigation projects.

¹ To a large extent, the content of sections II, III and IV is drawn from *Financing the SDGs to Build Forward Better from the COVID-19 Pandemic in Asia and the Pacific*, chap. 2 (United Nations publication, forthcoming).

6. Examples of green bonds issued in the region in recent years include the sovereign green bond in Fiji and the sovereign green *sukuk* (Islamic bond) in Indonesia. The sovereign green bond in Fiji raised \$46.5 million in 2017 and was the first such bond issued by a developing country. There is considerable potential for Pacific small island developing States to follow that example in tapping the green bond market. The sovereign green Islamic bond in Indonesia, which raised \$1.25 billion in 2018, was the world’s first sovereign bond exclusively aimed at financing efforts to address climate change in a manner that was compliant with Islamic law. The proceeds financed projects in renewable energy, energy efficiency, sustainable transportation, waste to energy and waste management, as well as climate resilience for vulnerable areas. Overall, the green bond market is becoming the main benchmark for Governments or private institutions seeking to issue other types of thematic bonds.

Figure I
Thematic bond issuance in Asia and the Pacific
 Billions of United States dollars



Source: Economic and Social Commission for Asia and the Pacific calculations based on data from the Climate Bonds Initiative and the International Capital Market Association.

Abbreviation: H1, first half.

7. While the list of green bond issuers in Asia and the Pacific is expanding, technical capacities across countries remain uneven and the full potential of the market remains untapped. A closer look at the data shows that in 2020, the Governments of China, Japan and the Republic of Korea accounted for almost 80 per cent of green bonds issued, followed by Indonesia, Thailand and Singapore. Globally, green bonds still represent just 2 per cent of the total bond market, which suggests that there is considerable room for them to grow and meet the financing gap to respond to climate change and support the Sustainable Development Goals.

8. The lack of a clear framework and associated policies for issuing green bonds remains a significant barrier in several countries.² While some are well on their way to establishing a robust policy framework to support the issuance of thematic bonds, many others are unaware of the specificities of the green bond market despite having experience in issuing fixed-income bonds, and more than a dozen member States have not yet issued any kind of public bond. The development of strong institutional capacities is a precondition for taking advantage of thematic bonds and gaining direct access to international markets and investors.

9. To facilitate the issuance of thematic bonds in the region, policymakers can consider four key actions. First, they can adopt recognized international standards and frameworks such as the Green Bond Principles of the International Capital Market Association. The Green Bond Principles are voluntary guidelines for a transparent process with regard to disclosure and reporting to investors, underwriters, placement agents and other stakeholders. The Principles stipulate that the proceeds of the bond should be utilized to finance eligible green projects with clear environmental benefits. Examples include projects in the areas of renewable energy, pollution prevention and control, sustainable water and wastewater management, and climate change adaptation. They also require the issuer to communicate clearly to investors how the projects will be selected and evaluated, and further stipulate that the proceeds from the bond be financially segregated and, preferably, subject to external audits. Lastly, the Principles contain a recommendation that annual reports to bondholders include a list of the projects financed, including brief descriptions and expected impact.³ Other frameworks administered by the International Capital Market Association include the Social Bond Principles and the Sustainability-linked Bond Principles.⁴ Clear bond standards are essential to enable financial institutions and markets to effectively engage with potential investors in Asia and the Pacific and develop products and services that can help to finance climate action and the Sustainable Development Goals.

10. In addition to global standards, there are also regional and domestic frameworks, such as the recently established taxonomy of sustainable activities of the European Union and the Green Bond Standards of the Association of Southeast Asian Nations (ASEAN). The European Union taxonomy is a classification system that establishes a list of environmentally sustainable economic activities. Its purpose is to provide companies, investors and policymakers with appropriate definitions for environmentally sustainable economic activities. Taxonomies can complement thematic bond issuance standards. For instance, the 2021 edition of the Green Bond Principles encourages issuers to provide information, if relevant, on the degree to which projects are aligned with official taxonomies.

11. It is important to recognize that global standards may not be suitable for domestic or regional applications in all cases and may therefore require adjustments. For example, the ASEAN Green Bond Standards build on the Green Bond Principles of the International Capital Market Association but are

² Josué Banga, “The green bond market: a potential source of climate finance for developing countries”, *Journal of Sustainable Finance & Investment*, vol. 9, No. 1 (2019), pp. 17–32.

³ International Capital Market Association, “Green Bond Principles: voluntary process guidelines for issuing green bonds” (Paris, 2021). Available at www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Bond-Principles-June-2021-100621.pdf.

⁴ International Capital Market Association, “Sustainable finance”. Available at www.icmagroup.org/sustainable-finance/ (accessed on 6 August 2021).

tailored to issuers with geographies and economies connected to South-East Asia. In sum, Governments considering the issuance of thematic bonds need to clearly identify their target market before adopting a specific bond standard; while domestic and/or regional standards may not be suitable to raise funds from international investors not familiar with domestic regulations, an internationally recognized framework may not be suitable for a bond targeted at domestic investors.

12. Second, policymakers can identify green, social or Sustainable Development Goal projects that qualify to be financed by thematic bonds. This requires issuing Governments to be able to select, design and implement bankable green, social or Goal projects. It is important to understand that bankability in the context of such projects goes beyond financial returns to encompass socioeconomic metrics such as improvements in the resilience of communities.⁵ However, the capacities needed in developing countries to develop pipelines of suitable green bankable projects are often lacking.⁶ Given the importance of the underlying projects to the successful issuance of thematic bonds, Governments wishing to access this kind of financing should set up a strategy to establish a pipeline of bankable green and social projects.

13. Third, policymakers can establish a suitable methodology to verify the environmental and social impacts of the projects to be financed by the bond. As with the Green Bond Principles, and other green bonds policy frameworks as well, it is essential that the issuer disclose and report on the use of proceeds, and all funds must be tracked, providing investors with confirmation that the funds are used for the purpose promised by the issuer. For this purpose, green third-party verification is playing an increasingly essential role in reducing information asymmetries and preventing suspicions of “greenwashing”.⁷ Some bond standards, such as the Climate Bonds Standard by the Climate Bonds Initiative, provide a list of certified verifier organizations, which offer investors more certainty about the quality of the projects to be financed.

14. In this vein, the issuer should keep several aspects in view, for example the aim of the bond and the types of projects or activities to be financed. While the details of each bond issuance may differ, all could follow a familiar structure. It is also essential to understand that a thematic bond is first and foremost a fixed-income debt instrument. As such, thematic bonds may not be suitable for high-risk projects that will not provide steady cash flows during the term period. Moreover, policymakers need to make sure that they have the fiscal capacity to meet the debt servicing requirements emanating from the issuance of green bonds. This has become especially important since the onset of the COVID-19 pandemic, which has reduced fiscal space considerably in many developing countries.

15. Fourth, regional cooperation should be strengthened to support the technical and institutional capacity of developing countries to issue thematic bonds and develop the needed legal and policy frameworks. The successful experience of the Government of Bhutan, which issued the country’s first sovereign bond in 2020, with technical assistance provided by the Economic and Social Commission for Asia and the Pacific (ESCAP), shows that it is possible

⁵ Charlotte Ellis and Kamlesh Pillay, “Understanding ‘bankability’ and unlocking climate finance for climate compatible development” (Capetown, Climate and Development Knowledge Network, 2017), p. 5.

⁶ *Ibid.*, p. 6.

⁷ Maria Jua Bachelet, Leonardo Becchetti and Stefano Manfredonia, “The green bonds premium puzzle: the role of issuer characteristics and third-party verification”, *Sustainability*, vol. 11, No. 4 (February 2019), p. 1098.

for least developed countries to develop appropriate financial and policy frameworks to build their capital markets.

III. Towards a green financial system: role of climate risk disclosure and reporting

16. The Asia-Pacific region is experiencing an increasing number of climate-related risks and disasters, which can adversely impact the financial stability, and thus the optimal mobilization of financial resources, in Asia-Pacific economies. A robust financial system, supported by regulations and strategies that take into account climate-related risks, can contribute to the transition to a resilient and green economy that is consistent with the ambitions of the 2030 Agenda for Sustainable Development and the Paris Agreement. Policies that facilitate the flow of funds towards climate action (broadly referred to as climate finance policies) play a vital role in the transition. They are aimed at incentivizing investors and businesses to factor climate risks into their decision-making, directing financial flows to climate objectives and promoting financial stability and best practices in the management of systemic climate-related risks. The adoption of standards and frameworks for green bonds, as discussed in the previous section, is one example of such policies. Policies related to climate risk disclosure and reporting are another pertinent example.

17. To examine the impact of climate risks on the financial sector, the Financial Stability Board has identified common problems including the following: lack of information on the financial implications of climate change for businesses, inconsistencies in disclosure practices, and non-comparable reporting. Inadequate risk information causes markets to misprice assets and misallocate capital, which can lead to abrupt corrections and financial instability. In that regard, the Task Force on Climate-related Financial Disclosures was established in December 2015 with a mandate to design a set of recommendations for consistent disclosures to help financial market participants to understand climate-related risks.⁸

18. In addition to the Task Force, other frameworks for financial disclosure with regard to climate risks and broader environment, social and governance issues include the Global Reporting Initiative, the Principles for Responsible Investment, the Principles for Responsible Banking and the Sustainability Accounting Standards Board. Meanwhile, the twenty-sixth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change is scheduled to be held from 31 October to 12 November 2021. As the session approaches, there is increasing agreement on the need to align disclosure standards with the Task Force framework and a willingness to establish pathways to mandatory disclosure.⁹

19. The Task Force encourages financial institutions to develop processes for identifying and managing climate-related risks and their relationship to overall risk management frameworks. It also recommends the disclosure of corporations' greenhouse gas emissions and a description of the metrics used to identify risks and opportunities. The Task Force further recommends that corporations include climate disclosures in their financial reporting, where possible.

⁸ Task Force on Climate-related Financial Disclosures, *Recommendations of the Task Force on Climate-related Financial Disclosures: Final Report* (2017).

⁹ Mark Carney, "Building a private finance system for net zero: priorities for private finance for COP26" (2020). Available at https://ukcop26.org/wp-content/uploads/2020/11/COP26-Private-Finance-Hub-Strategy_Nov-2020v4.1.pdf.

20. In light of these proposals at the global level, governments and regulators in Asia and the Pacific must be prepared to issue guidance for financial institutions and corporations on climate-related reporting and implement climate disclosure policies consistent with the Task Force framework, where possible. There are positive signs that this is starting to happen. Examples of policies and regulations to green the financial system, including through climate-related financial disclosures, include the following:

(a) The Financial Services Authority of Indonesia is increasingly aligning its regulations and guidelines with international standards and well-recognized frameworks like that of the Task Force;¹⁰

(b) In April 2021, the Government of New Zealand introduced legislation to make climate-related disclosures that are aligned with the recommendations of the Task Force mandatory for publicly listed companies and large insurers, banks, non-bank deposit takers and investment managers. If the legislation is enacted, such entities will be mandated to disclose their climate-related risks starting in 2023, making New Zealand the first country in the world to have mandated reporting on climate risks;¹¹

(c) In October 2020, the Monetary Authority of Singapore launched the green finance action plan, a new and comprehensive long-term strategy to make sustainable finance a central element of the country's role as an international financial centre. The plan includes initiatives to strengthen financial sector resilience to environmental risks; green and sustainable bond, loan and grant schemes; global fintech innovation challenges to harness technology solutions; and initiatives to build knowledge and capabilities on sustainable finance through research, training, verification and rating services;¹²

(d) In October 2020, the Securities and Exchange Commission of Thailand and the Thai Bond Market Association launched an environment, social and governance information platform to provide information on thematic bonds to investors and issuers. The Government of Thailand is also considering the introduction of environmental, social and governance disclosures for publicly listed companies;¹³

(e) In May 2021, the Hong Kong Monetary Authority released guidance on a green and sustainable finance grant scheme. Under the scheme, eligible bond issuers and loan borrowers will receive subsidies to cover their expenses related to bond issuance and external review services, including legal, audit and listing fees, and pre- and post-issuance external reviews.¹⁴

21. To move towards a green financial system that can effectively support the Sustainable Development Goals, governments are encouraged to adopt climate-related financial disclosures and other related policies, as recommended by the Task Force. To support their implementation, ESCAP can facilitate

¹⁰ CDP Worldwide, "Sustainability risks for Southeast Asian banks: implications for policymakers" (London, 2021).

¹¹ New Zealand, Ministry of Business, Innovation and Employment, "Mandatory climate-related disclosures", 25 May 2021. Available at www.mbie.govt.nz/business-and-employment/business/regulating-entities/mandatory-climate-related-disclosures/.

¹² Singapore, Monetary Authority, "Sustainable finance". Available at www.mas.gov.sg/development/sustainable-finance (accessed on 6 August 2021).

¹³ Nuntawun Polkuamdee, "SEC promotes ESG bond issuance trend via hub", *Bangkok Post*, 22 October 2020.

¹⁴ Hong Kong, China, Monetary Authority, "HKMA announces guideline on the Green and Sustainable Finance Grant Scheme (GSF Grant Scheme)", press release, 4 May 2021.

information-sharing and peer learning among stakeholders and policymakers to help to identify regulatory and institutional capacity barriers and offer practical advice on how to implement appropriate policies and mechanisms.

IV. Debt-for-climate swaps: easing debt distress for green and inclusive development

22. With COVID-19 recovery efforts demanding a massive increase in government expenditure amid slowing economic activity, sovereign debt levels have risen sharply in 2020 and are likely to remain high for the near future. Currently, Afghanistan, Kiribati, the Lao People’s Democratic Republic, Maldives, the Marshall Islands, the Federated States of Micronesia, Papua New Guinea, Samoa, Tajikistan and Tuvalu are at a high risk of debt distress.¹⁵ Furthermore, as member States prioritize addressing health concerns and a speedy economic recovery, relatively less attention is being paid to tackling climate change. Debt-for-climate swaps can potentially help to simultaneously tackle challenges related to insufficient financial flows for climate action and debt sustainability.¹⁶

23. A debt swap is an arrangement between a debtor and a creditor where the latter forgives debt owed to them in exchange for a commitment by the debtor to use the local currency equivalent of the outstanding debt service payments for a particular purpose. In debt-for-nature swaps, for instance, debtors make a commitment to use the savings resulting from debt forgiveness for nature conservation projects. In debt-for-climate swaps, debtor Governments make a commitment to use the savings resulting from debt forgiveness for climate-related expenditures.

24. There are two main types of debt swaps. The first type occurs directly between two Governments. A creditor Government agrees to cancel a debtor Government’s debt in exchange for the debtor’s commitment to spend the newly available funds on approved projects. The second type occurs when a third party, typically a non-governmental organization, purchases the debt of a developing country in the secondary market at a discounted value and then transfers it back to the debtor Government in exchange for its commitment to mobilize funds for specific projects.¹⁷ Although debt swaps can also be structured on a multilateral basis, as is the case in the Caribbean with the debt-for-climate adaptation swap initiative of the Economic Commission for Latin America and the Caribbean, such multilateral debt swaps can be more technically challenging to coordinate with relevant stakeholders.

25. Importantly, debt-for-climate swaps offer the opportunity to bring together two critical pillars of the Paris Agreement, nationally determined contributions and the climate finance commitments by developed countries, while at the same time contributing to providing debt relief to developing countries. Figure II is a schematic view of a debt-for-climate swap that links these two pillars. In the example of figure II, the creditor is a developed country that partially or fully cancels a debt of a developing country. The amount of the debt cancellation would count towards the global commitment of developed

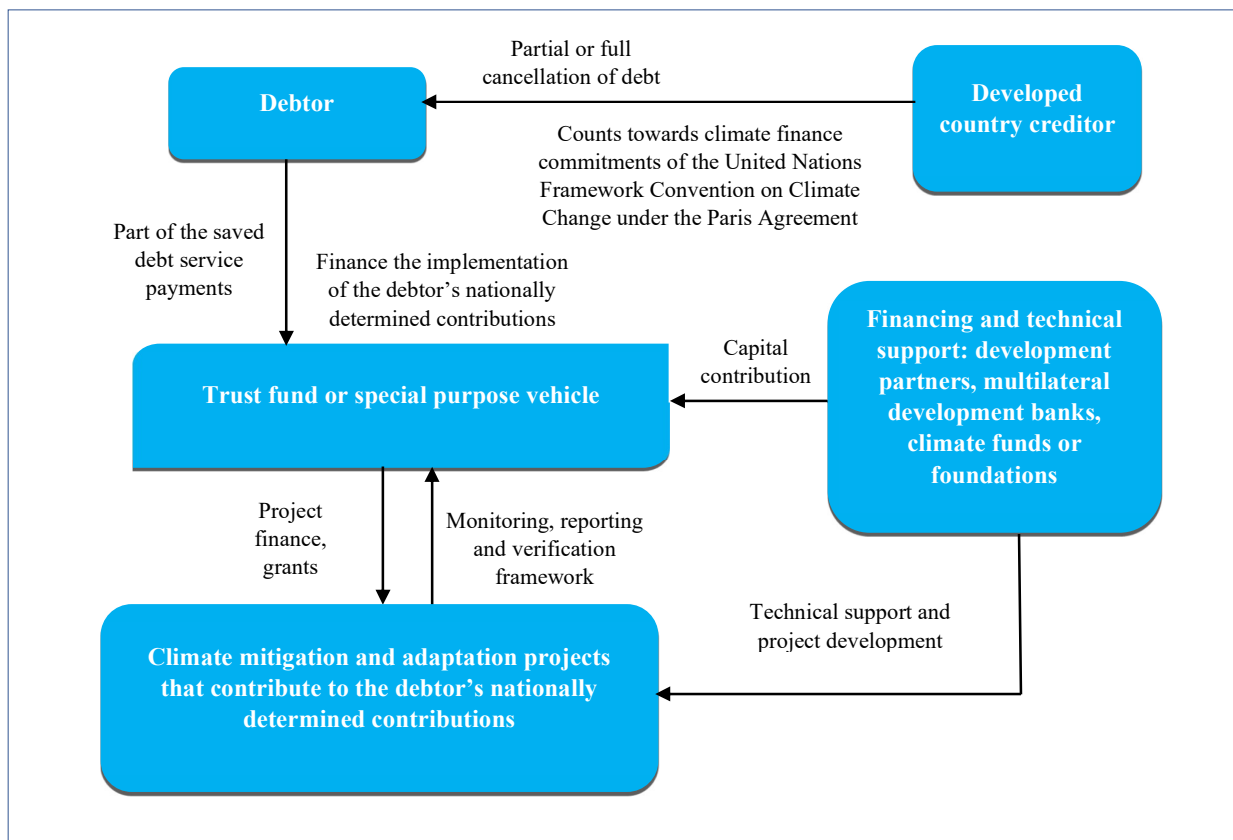
¹⁵ International Monetary Fund, “List of LIC DSAs for PRGT-Eligible Countries as of 30 June 2021”. Available at www.imf.org/external/Pubs/ft/dsa/DSAlist.pdf.

¹⁶ Shamshad Akhtar and others, “Debt-for-climate swaps are crucial for economic recovery in the developing world”, *Mail and Guardian*, 1 September 2020.

¹⁷ See “Building forward better: fiscal and financing policies”, in *Economic and Social Survey of Asia and the Pacific 2021: Towards Post-Covid-19 Resilient Economies* (United Nations publications, 2021).

countries to provide \$100 billion per year in climate finance. The debtor allocates part of the savings in debt services to climate mitigation and adaptation projects that will help it implement its nationally determined contributions. The debtor's funds go to a trust fund or special purpose vehicle that manages the funds and implements suitable projects selected by the debtor. In addition, entities such as development partners, multilateral development banks, climate funds or foundations can provide additional capital to the trust fund or special purpose vehicle, and a monitoring, reporting and verification framework ensures the effective and efficient use of the funds.

Figure II
A debt-for-climate swap scheme to support the implementation of the Paris Agreement



26. One example of an initiative that could benefit from a debt-for-climate swap is the Pacific Resilience Facility of the Pacific Islands Forum Secretariat. The facility is aimed at providing grants to governments to fund small-scale, community-level disaster risk reduction projects, such as small-scale coastal protection projects or retrofitting critical infrastructure, community centres and schools. While the Facility is expected to be funded by capital contributions from development partners and multilateral development banks, a debt-for-climate swap mechanism is also being considered. The ESCAP secretariat is currently providing technical assistance to the Pacific Islands Forum Secretariat to assess the feasibility of such a mechanism.

27. While challenges exist, there are recent examples of successful debt-for-climate swaps. In 2018, the Government of Seychelles agreed to protect one third of its marine and coastal area in exchange for a reduction of its sovereign debt. This first-ever effort to restructure debt in support of climate adaptation, brokered between the Paris Club creditors and the Government of Seychelles,

converted government debt totalling \$21 million into investments in coastal protection and adaptation.

28. Member States that wish to engage in debt-for-climate swaps will need to agree with their creditors on a framework specifying the conditions of the swap. Such a framework should provide answers to questions including the following:

- (a) How much debt will be reduced?
- (b) How will the debtor channel savings in debt services to climate projects?
- (c) How will the projects be selected, implemented and monitored?
- (d) What is the role of other stakeholders in providing additional financing or technical support?
- (e) What will the transaction and operational costs be?
- (f) What impacts will the project have with regard to enhancing the debtor's sustainability, and how will they contribute to the achievement of the Sustainable Development Goals and the implementation of the Paris Agreement?

29. From the debtor's point of view, the swap reduces external debt obligations and provides fiscal space to invest in critical climate mitigation or adaptation projects for which no financing would otherwise be available. From the point of view of developed country creditors, the swap provides an opportunity to scale up their financial support for mitigation and adaptation measures in developing countries, in fulfilment of the Paris Agreement ambition of reaching \$100 billion in annual support. As creditors enter a debt swap agreement voluntarily, there should not be any implications for the debtor's sovereign credit ratings.

V. Digital finance: exploring potential support for the Sustainable Development Goals¹⁸

30. Over the past 18 months, the COVID-19 pandemic has driven digitalization everywhere, including with regard to digital finance, but it has also highlighted the risks and costs of digital exclusion. As a result, policy attention is needed to enhance digital inclusion and reduce digital exclusion with a view to maximizing the potential of digital finance. While digital inclusion indicators in the Asia-Pacific region are generally improving, several gaps remain, as many low- and middle-income countries still struggle with ensuring accessible and affordable Internet for all. In this context, policymakers should work with relevant stakeholders to identify and address context-specific challenges that can improve digital inclusion and help to tap the benefits of digital finance for the Sustainable Development Goals.

A. Strengthening digital payment systems

31. Payment systems create the basic infrastructure for an effective flow of money throughout the economy and are thus essential for economic growth, financial inclusion and sustainable development.¹⁹ They also serve as a core

¹⁸ To a large extent, the content of sections V and VI is drawn from *Financing the SDGs to Build Forward Better from the COVID-19 Pandemic*, chap. 3.

¹⁹ Douglas W. Arner, Ross P. Buckley and Dirk A. Zetzsche, "Fintech for financial inclusion: a framework for digital financial transformation" (Kuala Lumpur, Alliance for Financial Inclusion, 2018), p. 12.

mechanism to enable government payments and transfers, including as part of broader e-government development efforts. Digital payment systems can address the shortcomings of traditional systems by reducing the cost of financial intermediation and providing faster and more reliable payment services.²⁰ For instance, digital payments can increase the financial security of mobile money users by protecting their funds from theft, loss or other risks associated with physical cash. Mobile money accounts also enable financially excluded groups to save via secured online deposits, allowing them to make long-term financial decisions and invest their money in education, insurance or other services.²¹

32. Digital payments can also have a revolutionary effect in lowering the cost of sending cross-border remittances. Indeed, the potential of the market for cross-border digital remittances has attracted interest from governments and private businesses. In a recent development, the Monetary Authority of Singapore and the Bank of Thailand launched the world's first linkage of real-time payment systems, which allows users of the two countries' payment systems, PayNow in Singapore and PromptPay in Thailand, to send money directly to one another using their mobile phones. A similar agreement involving the payment systems of Thailand and Malaysia (DuitNow) will allow cross-border payments and e-commerce transactions using Quick Response Codes.²²

33. Digital payment systems can be created and managed by public entities or private companies. Public payment platforms are usually handled by central banks and provide interoperability across multiple payment platforms operated by traditional financial institutions and newcomers (e.g. services like GrabPay and Alipay).²³ Public platforms include real-time gross settlement systems for interbank transfers and projects like the Bakong blockchain payment system in Cambodia for retail transfers.²⁴ Private digital payment platforms are usually designed to directly service consumers, allowing them to store funds and make transactions. Examples of private digital platforms include Alipay in China; GrabPay by Grab, which is popular in Malaysia, Singapore, Thailand and the Philippines; and GoPay by Gojek, which is popular in Indonesia. These platforms allow funds from consumers or businesses' accounts with traditional financial institutions to be transferred to digital or electronic wallets for the purchase of goods and services from merchants enrolled in the platforms.²⁵

34. An important factor with regard to the expansion in access to digital payments in Asia and the Pacific has been the development of networks of retail agents. These networks were developed by mobile network operators to reach customers in developing countries characterized by limited digital infrastructure and access to mobile phones, by engaging mom-and-pop stores as agents. These agents earn a commission from the mobile network operator every time they receive cash from a customer for electronic transfer to a recipient (cash-in

²⁰ United Nations, Task Force on Digital Financing of the Sustainable Development Goals, *People's Money: Harnessing Digitalization to Finance a Sustainable Future* (New York, 2020), p. 22.

²¹ Douglas W. Arner, Ross P. Buckley and Dirk A. Zetzsche, "Fintech for financial inclusion", p. 6.

²² Ayman Falak Medina, "Malaysia and Thailand launch QR payment linkage", ASEAN Briefing, 28 June 2021.

²³ Bank for International Settlements, "Central banks and payments in the digital era", in *Annual Economic Report 2020* (Basel, 2020), p. 67.

²⁴ *Ibid.*, p. 80.

²⁵ Bhavin Patel and Kat Usita, "Asia's unmatched digital payments growth", Official Monetary and Financial Institutions Forum, 28 August 2020.

operations) or disburse cash to a customer received electronically from a sender (cash-out operations).

35. The Philippines pioneered this approach with the launch of G-Cash in 2004 by the mobile network operator Globe Telecom. G-cash allowed peer-to-peer transfers and micropayments using a short message service interface. Global recognition of the approach came later with the success story of Safaricom, which launched M-Pesa in Kenya in 2007. This success was replicated two years later to even greater effect in the United Republic of Tanzania by parent company Vodafone. Such experiences show that once the right approach is found and the customer base becomes familiar with the service, volume follows and can reach impressive heights. Examples abound in Asia, including Wave Money in Myanmar, with \$4 to \$5 billion in transactions in 2019,²⁶ b-Kash in Bangladesh and Wing in Cambodia.

36. Public provision of digital identification can have a transformative effect on access to finance and to government and private services. In Asia and the Pacific, digital identification programmes have been adopted in multiple countries and had a transformative effect on financial inclusion and economic growth. One notable example is Aadhaar, operated by the Unique Identification Authority of India. The voluntary Aadhaar system allows residents of India to apply for a 12-digit randomized number. The number can be used to verify a person's identity and gain access to public services, banking and insurance, and social benefits. Aadhaar has already proved extremely useful for streamlining know-your-customer checks by financial institutions, thereby facilitating access to and reducing the cost of basic financial services. Moreover, Aadhaar has also digitized public welfare payments, helping to bypass some of the attendant fraud and corruption problems as a result.

37. The digitalization of the public sector can go even further to include the public procurement, land and housing management, court case management, enrolment in education and other services, and taxes.²⁷ Several member States have adopted robust e-government systems; in Malaysia, for example, the government online services gateway is an integrated platform that allows the Government to offer 90 per cent of its services online. Such platforms play an important role in facilitating access to essential public services and reducing the cost of their provision.

38. The importance of digital payments and financial services became ever more apparent during the COVID-19 pandemic as governments and people came to value secure, affordable and contactless financial tools. In 2020, new or expanded digital government-to-person payments reached hundreds of millions of individual beneficiaries in the Asia-Pacific region. These services allowed governments to reach households and firms fast and at low cost, thus fostering inclusive recovery, addressing vulnerabilities and boosting resilience. Countries with existing government-to-person payment ecosystems were able to swiftly make life-saving cash support available, while online payments and trading helped businesses, especially micro-, small and medium-sized enterprises, to survive repeated lockdowns. Digital finance is set to play an even more significant role for governments, businesses and citizens during and beyond the recovery phase.

²⁶ Yuichi Nitta and Thurein Hla Htway, "Myanmar's digital money transfers set to triple in 2019", *Nikkei Asia*, 6 July 2019.

²⁷ Asian Productivity Organization, *Digitalization of Public Service Delivery in Asia* (Tokyo, 2021), p. 103.

B. Barriers and risks

39. To leverage the benefits of technology for the achievement of financial inclusion and the Sustainable Development Goals, policymakers and regulators will need to address risks and barriers related to digitalization. As highlighted in the report of the Task Force, such barriers and risks can be infrastructural, institutional, economic or social.²⁸

40. Barriers to the digitalization of financial services include the following: (a) lack of access to digital technologies; (b) digital or financial illiteracy; (c) lack of access to affordable and secure digital financial services, such as mobile money accounts and financing platforms; (d) limited interoperability among different service providers; (e) talent shortages due to limited access to training in information and communications technology; and (f) weak regulatory oversight.

41. Of these barriers, perhaps the most critical is a lack of access to digital technologies. Globally, 750 million people do not have access to mobile or broadband networks. In Asia and the Pacific, on average, there are 81 active mobile broadband subscriptions per 100 inhabitants, and 51 per cent of the population are Internet users. However, these averages hide rather uneven levels of access across countries. Data from the International Telecommunication Union (ITU) show two clusters of countries in this regard. In the high-access cluster, which includes Armenia, Australia, Azerbaijan, Brunei Darussalam, China, Georgia, the Islamic Republic of Iran, Japan, Kazakhstan, Malaysia, Mongolia, New Zealand, the Republic of Korea, the Russian Federation, Singapore, Thailand, Turkey and Viet Nam, the average number of active mobile broadband subscriptions per 100 inhabitants is 105, and the average percentage of the population using the Internet is 79 per cent. Meanwhile, in the low-access cluster, which includes Afghanistan, Bangladesh, India, Kiribati, the Lao People's Democratic Republic, Nepal, Pakistan, Papua New Guinea, Samoa, Solomon Islands, Tajikistan, Timor-Leste and Turkmenistan, the average number of subscriptions per 100 inhabitants is only 32, and the average percentage of the population using the Internet is just 19 per cent.²⁹

42. In addition to differences in access among countries, there are significant differences in access within countries. In this vein, challenges that need to be addressed include improving digital access, in particular among the most disadvantaged members of society, which often includes the poor and illiterate, people living in rural areas and women and minorities.

43. The Task Force also highlights in its report several digital finance risks relevant to the Asia-Pacific region. The first risk relates to data privacy and data monopolization. Digital platforms collect and analyse large amounts of personal information, such as the names, identification numbers, addresses, shopping preferences and payment details of platform users. The concentration of data in the hands of major platforms raises three issues, namely (a) ethical and legal limits of data processing, (b) data security and (c) data monopolization.

44. The second major digital finance risk is the risk of digital fraud, theft and money-laundering. For instance, crowdfunding platforms, digital marketplaces and cryptocurrency exchanges can be used for illicit activities, such as theft from

²⁸ United Nations, Task Force on Digital Financing of the Sustainable Development Goals, *People's Money*, p. 40.

²⁹ ESCAP calculations based on data from International Telecommunication Union, "Measuring digital development: facts and figures 2019" (Geneva, 2019) and "Measuring digital development: facts and figures 2020" (Geneva, 2020).

digital wallets, digital crowdfunding Ponzi schemes and fraudulent initial coin offerings. These problems are further exacerbated by a lack of e-literacy, or knowledge about how to properly use digital technologies and detect suspicious digital offerings.

45. The third risk relates to irresponsible digital financial products, or products and offerings with misleading terms and conditions or insufficient recourse measures. This risk is closely related to adequate consumer protection and the obligation of relevant authorities to ensure that digital platforms treat their customers fairly. A lack of refund mechanisms and the absence of fraud detection on peer-to-peer platforms are among the relevant indicators of irresponsible digital financial products.

46. The fourth is the risk of unfair treatment of consumers arising from discriminatory algorithms and data analysis methods. Bias in automated credit scoring, rate setting and risk assessment can unintentionally or intentionally affect the access of vulnerable groups to digital and traditional finance. According to the Women's World Banking report, women and ethnic minorities are particularly vulnerable to discriminatory algorithms in the financial sector, and better code oversight and credit scoring methodologies are required to address this problem.³⁰

47. The fifth major risk relates to market concentration. Considering that many digital platforms in Asia and the Pacific, such as WeChat and Grab, have turned into "super apps" offering a broad range of services, the concentration of market power in their hands can negatively affect competition and innovation.

48. The sixth risk relates to incomplete, outdated or unsuitable regulations. As highlighted above, digitalization brings with it a range of new risks, such as data concentration, market monopolization and digital crime. This means that regulators will need to ensure that their regulations on finance, data and competition adequately address the risks arising from digitalization. Regulators in the region have already adopted a range of new policies to tackle digital finance, including the introduction of virtual bank licenses in Singapore and Hong Kong, China, and the modernization of the capital adequacy framework in Australia. However, multiple gaps remain in developing countries in the region, which often have weak data, competition and financial regulatory frameworks.³¹

VI. Towards an action agenda to enhance access to digital financing in Asia and the Pacific

49. In order to maximize the benefits from digitalization, policymakers and regulators will need to address the barriers and risks of digital finance discussed above. A regional action agenda to support digital finance in Asia and the Pacific as a tool for the achievement of the Sustainable Development Goals should be focused on three key elements: infrastructure, regulatory approaches and the wider ecosystem.

³⁰ Sonja Kelly and Mehrdad Mirpourian, "Algorithmic bias, financial inclusion, and gender" (New York, Women's World Banking, 2021), p. 16.

³¹ See Thio Tse Gan, "Data and privacy protection in ASEAN: what does it mean for businesses in the region?" (Singapore, Deloitte, 2018).

A. Infrastructure

50. In considering the infrastructure needed to support digital finance, three key aspects should be taken into account, namely (a) digital access, (b) interoperable payment systems and (c) sovereign digital identification.

51. With regard to digital access, regional initiatives such as the Asia-Pacific Information Superhighway initiative, an intergovernmental platform set up by ESCAP in 2016, can be useful to advance connectivity within and among countries in the region.³² This initiative is aimed at improving broadband connectivity in the developing countries of Asia and the Pacific to contribute to the lowering of broadband Internet prices and to bridge the digital divide in the region. In addition to considering regional frameworks, policymakers and regulators in developing countries could consider preparing a detailed road map to turn high-level national or regional strategies and plans into specific steps. In an example of such a road map, ITU emphasizes the importance of assigning a role to public funding in extending affordable broadband access to rural and remote areas that are commercially challenging, as well as to women and low-income users.³³

52. Improving the interoperability of electronic payment systems has regulatory and technological aspects, and central banks play an important role in both. In that regard, great efforts have been made in building wholesale real-time gross settlement systems around the region, and new forms of retail payments, including not only mobile money and payments but also fast payments systems. More recently, central bank digital currencies are being considered or implemented in an increasing number of countries to serve as the basis of digital payments and money. Central bank digital currencies also have great potential to enhance the efficiency of cross-border payments, but their implementation will require substantial cooperation across central banks.³⁴

53. The development of digital payment systems normally needs to be supported by better access to traditional and digital identification that can facilitate know-your-customer checks and increase the security and transparency of online transactions. Sovereign digital identification is similar to physical documents, such as passports and identification cards, and is used by governments, or with their authorization, to authenticate a person's identity. However, unlike traditional passports, digital identification can be authenticated through digital channels, facilitating access to essential public and private services that require personal identification. Digital identification can be used to open bank accounts, gain access to public services or enrol in education programmes. It is particularly important for vulnerable groups that lack access to traditional forms of identification.

B. Regulatory approaches

54. Improvements in regulations can help to address the several risks highlighted in the previous section. One new area where regulatory oversight is lacking is data privacy, in a new environment where financial technology providers and big technology companies are able to harvest vast amounts of data

³² ESCAP, "The Asia-Pacific information superhighway (AP-IS) platform". Available at www.unescap.org/our-work/ict-and-disaster-risk-reduction/asia-pacific-information-superhighway-ap-platform (accessed on 6 August 2021).

³³ ITU, "Connecting humanity: assessing investment needs of connecting humanity to the Internet by 2030" (Geneva, 2020), p. 14.

³⁴ Bank for International Settlements, "Central bank digital currencies for cross-border payments: report to the G2" (Basel, 2021).

from the transactions of the users of their platforms and services to provide tailored financial services or sell to advertisers. Because this use of data is largely unregulated, it can give rise to risks of data manipulation and privacy breaches, which may in turn promote financial crimes, challenge market integrity and affect the stability of payments and the financial system. Traditional regulatory measures for the compliance and supervision of financial and payment institutions, in particular banks, are inefficient in dealing with these new challenges, and new approaches are therefore needed.

55. For example, a data privacy law in Indonesia is aimed at protecting consumer privacy within the country's financial system in a manner similar to the General Data Protection Regulation of the European Union. Similarly, the Governments of China, Kazakhstan and Uzbekistan have implemented data protection reforms to ensure the fair use of data and prevent data monopolization, which can impair fair competition.

56. Other important risks that necessitate new regulatory approaches involve the activities of hackers and Internet fraudsters, which can disrupt payment processes and cause significant damage to users. While there are internal efforts by platform owners to provide their users with security guarantees of the highest quality, leaving such a crucial public policy obligation in the hands of private actors represents a considerable challenge for regulators and policymakers.

57. In another important area of regulation, relevant stakeholders are trying to improve the governance of digital financial platforms through financial regulation. The recent introduction of digital bank licenses in Singapore and Hong Kong, China, is an important development in this area. In addition, competition law is likely to play an important role in the governance of digital platforms as they increase in size and create risks related to market concentration. Regulators in China have recently pushed back against major technology companies in an effort to tackle market monopolization and increase competition. As digital platforms in the region continue to grow, regulators in other countries will need to make sure that their competition laws can effectively support fair competition and prevent the concentration of market power related to big fintech firms.

58. Authorities in many jurisdictions are also developing regulatory sandboxes to test and learn about new technologies and models as part of their efforts to design appropriate regulatory and supervisory systems. Such sandboxes allow companies to offer innovative financial products while enjoying a full or partial waiver of applicable regulations. In multiple countries in the region, such as Thailand, Malaysia and Indonesia, regulatory sandboxes have been adopted to promote financial innovation. These programmes are particularly powerful when they are part of innovation hubs and the wider ecosystem. Furthermore, the testing of financial products through regulatory sandboxes can allow regulators to better understand risks that are relevant in the context of new technologies and create better regulatory frameworks to tackle digitalization and promote innovation.

59. In sum, regulators in Asia and the Pacific need to carefully assess the existing frameworks and stay abreast of relevant developments related to digital technologies and financial institutions to make sure that they provide appropriate regulation in support of the core objectives of financial stability, financial integrity and market conduct/consumer protection.

C. The wider ecosystem

60. To support innovation and the Sustainable Development Goals, it is also important to consider aspects of the wider ecosystem of digital finance. These include the legal system (particularly relating to support for digitalization and often relating to digital identification), human capital development, the creation of innovation hubs, and financing or support for research and development in the economy.

61. Some of the obstacles related to the wider ecosystem have already been mentioned above. For example, a shortage of digital talent can negatively affect the ability to develop robust digital financial solutions at the national level. This problem is particularly relevant in countries with limited access to high-quality education, where incumbent institutions and start-ups can struggle to hire employees with the technical skills required for the development of digital platforms. A lack of access to education in information technology may also limit the economic opportunities of the workforce in low- and middle-income countries as the global economy becomes increasingly reliant on digital technologies. Similarly, a lack of financial, technical and legal support for the development of digital platforms can slow digitalization in the region.

62. To address these obstacles, policymakers can promote investment in human capital development by introducing accessible education programmes designed to support the digital economy in the region, including online courses and better funding for educational institutions. In addition, regulators and policymakers can create innovation hubs that provide legal, technical and financial support to start-ups and other companies. Such hubs can serve to address some of the main challenges that small firms face before reaching the market, thereby contributing to innovation and competition. Lastly, policymakers should ensure that their domestic legal systems support fair competition and do not hinder innovation. To achieve this, regulators should adopt clear and accessible rules regarding company registration, tax, employment and other matters relevant to small and large businesses.

VII. Issues for consideration by the Committee

63. In view of the potential of selected innovative and digital financing strategies to vitalize finance in support of climate action and the Sustainable Development Goals, the Committee on Macroeconomic Policy, Poverty Reduction and Financing for Development may wish to discuss the regional relevance of the strategies and identify policy actions that can help to maximize their potential benefits, including through regional cooperation. The Committee may also wish to provide guidance to the secretariat on how it can support member States through technical assistance programmes aimed at building national capacities to facilitate the implementation of such strategies.

64. In this vein, and in light of the issues highlighted in the present document, some potential questions for discussion by the Committee could include the following:

(a) What institutional capabilities are needed to adopt best practices in thematic bond issuance standards and taxonomies, climate-related financial disclosures and debt-for-climate swaps, and how can regional cooperation help member States to build such capabilities?

(b) What key policy actions should be prioritized in the context of an action agenda to promote digital financing in support of the Sustainable Development Goals in the region, and how might regional cooperation support the implementation of such an action agenda?

65. The Committee may further wish to explore potential mechanisms that could facilitate more regular and substantive communication between itself and the secretariat, and relevant Government ministries, in particular ministries of finance, to promote exchange of policy ideas, better guide the secretariat's work and support policy initiatives in member States.
