

Transition finance for emerging economies

Policy priorities for the G20

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Key policy recommendations

Finance to support investments to reduce greenhouse gas (GHG) emissions from hard-to-abate sectors, also referred to as transition finance, needs to be expanded. This will require:

- **Mandatory climate-related disclosures and capital adequacy frameworks** aligned to major export markets' regulatory requirements, with weightings that favour credible and ambitious transition planning.
- **Carbon pricing** to align transitioning industries' economic and environmental performance incentives while protecting industry from high-carbon substitutes produced outside jurisdictions and permitting imports from jurisdictions with effective carbon pricing policies.
- **Strengthened supply-side public policy** including tighter regulations to oblige new technology uptake, national decarbonising visions, innovation subsidies and procurement standards, streamlined legal and licensing procedures, and transition project pipelines.
- **Greater use of public expenditure** including blended finance, leveraging government subsidies, issuance of public transition bonds, public technology development and transfer and capacity-building for finance professionals.
- **Increased policy lending** such as mandatory sector targets, higher sectoral and borrower limits and coordinated national policy for hard-to-abate sectors.

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Contents

1	<i>Introduction</i>	6
2	<i>Supporting private transition finance</i>	8
2.1	The landscape for private transition finance	8
2.2	Adapting bank regulatory frameworks to discourage climate risky lending	9
2.3	Developing specialist instruments and funds	10
2.4	Policy lending	10
3	<i>Transition taxonomies and standards</i>	11
3.1	Transition taxonomies and green taxonomies	11
3.2	International taxonomies	12
3.3	Voluntary standard setting and disclosure	14
4	<i>Creating an enabling policy environment</i>	15
4.1	Supply-side public policies	15
4.2	MDB and DFI support	16
4.3	Funding research and development	17
4.4	Demand-side public policy interventions	17
4.5	Cross-cutting policy interventions	18

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Acronyms

AfDB	African Development Bank
ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CA 100+	Climate Action 100 plus
CBI	Climate Bonds Initiative
CDP	Carbon Disclosure Project
EM	Emerging market
ESG	Economic, social and governance
EU-ETS	EU Emissions Trading System
G20	Group of 20
GHG	Greenhouse gas
MDB	Multilateral development bank
METI	Ministry of Economy, Trade and Industry (Japan)
NGFS	(Central banks and supervisors) Network for Greening the Financial System
OECD	Organisation for Economic Co-operation and Development
OJK	Otoritas Jasa Keuangan (Indonesian financial regulator)
SBTi	Science Based Target Initiative
SFAC	Sustainable Finance Action Council (Canada)
SFWG	Sustainable Finance Working Group
SLB/L	Sustainability linked bond/loan
TCFD	Taskforce on Climate-Related Financial Disclosures

TPI Transition Pathways Initiative
US-ICEF United States-India Clean Energy Facility

1 Introduction

An unresolved item on the climate agenda is accelerating the transition in high-emission, hard-to-abate sectors such as cement, steel, plastics, trucking, shipping and aviation. Together these represent 30% of energy-related greenhouse gas (GHG) emissions. They are also essential for economic development in a net-zero world. Technological innovation, financial support and an enabling policy environment are needed to transition them to low- or zero-GHG emissions (IPCC, 2023; Energy Transitions Commission, 2023).

Substantial bank lending is available to these sectors – including in major emerging markets¹ – but it is not applied to transition investments. International private finance for emerging economies is limited because of general risk aversion and disincentives to investment in hard-to-abate sectors.

This adds to the challenges for emerging economies, including that their hard-to-abate industrial sectors constitute a larger share of their economy² with proportionately larger fossil fuel production and emission-intensive industries, such as mining, agriculture and heavy industry (Ahman, 2020).

Under the Indonesian Presidency the G20 highlighted the need for private transition finance for emerging economies and established the G20 Transition Finance Framework. This document set the agenda through five ‘pillars’ to mobilise more sustainable finance (G20 FMCB, 2022; G20 SFWG, 2023). These five pillars are:

- 1) Identifying transitional activities and investments
- 2) Reporting information on transition activities and investments
- 3) Developing transition-related finance instruments
- 4) Designing policy measures
- 5) Assessing and mitigating negative social and economic impacts of transition activities and investments.

¹ Defined as 95 emerging market and middle-income economies (MICs). <https://www.imf.org/external/datamapper/datasets/FM>

² By contrast, in low-income countries (LICs) there is a lack of a substantive existing private sector that will require transitioning, although ‘pure’ green finance and development finance will continue to be critical.

This paper looks at what more the G20 can do to unlock transition finance for emerging economies, with a focus on Pillars 1, 2, 3 and 4 of this framework. Pillar 5 is a cross-cutting recommendation running through the other four. Section 2 discusses the landscape for private finance for transition and how central banks and governments can direct more private finance into transition investments, including through adaptive capital adequacy frameworks, encouraging innovative financial instruments and using policy lending.

Section 3 discusses the current state of and optimal path for sustainable finance taxonomies and climate-related risk disclosures to ensure that investors supply transition finance, including the need for agreed definitions of what is included and excluded and stronger governance through clear performance metrics.

Section 4 looks at further steps to create an enabling environment for transition finance. This includes policies to incentivise investment in low-GHG-emitting technologies in hard-to-abate sectors, including carbon taxes, and measures to increase investor demand through easing asset discovery.

2 Supporting private transition finance

Hard-to-abate sectors such as iron and steel, cement and petrochemicals are highly capital intensive, operated by large, listed corporations and trade in international markets. These sectors already access private finance. But this finance needs to be channelled into pro-transition investments. In emerging markets more finance needs to come via capital markets, particularly from international institutional investors.

2.1 The landscape for private transition finance³

The majority of finance to hard-to-abate sectors is bank lending, estimated at \$20 trillion globally. Of this, approximately 15% went to emerging economies, excluding China. This level of credit is substantive, and it is well-diversified across sectors.⁴ But, while available data does not clearly quantify its application, it is likely only a minority has been applied to pro-transition investments. Similarly, while green and sustainability-linked bonds only as been issued as transition⁵

Between 2016 and 2022, approximately \$250 billion was privately invested globally in new climate technologies, with 80% of this coming from private venture capital (Boston Consulting Group, 2021). The majority of this is in advanced economies and more than 90% went to energy. By contrast, technologies relevant to hard-to-abate sectors received only 3% of this finance and the amount that went to emerging economies was negligible.

Increasing the amount of finance and directing more of it into pro-transition investments and R&D will require addressing fundamental issues of weak private investor risk appetite for emerging markets⁶

³ Sources include the Bank for International Settlements statistical database, Climate Bond Initiative and annual reports of leading emerging market and international banks.

⁴ For example, in India 40% of 2022 total bank credit (excluding personal loans) is to industry including construction (9%), metals (4%) and transport and storage (5%) (Ghosh et al., 2022; RBI, 2022).

⁵ Although it is much more clearly 'ring-fenced' for pro-transition investments because of the taxonomy and governance standards which accompany these bonds.

⁶ Reflecting this, since 2007 sovereign emerging market credit ratings have suffered a long-term decline. Between 2008 and 2021, Standard and Poor's average credit rating for emerging markets fell from BB+ to BB-. By 2021, out of the 54 emerging markets defined by S&P, only 18 had 'investment grade' ratings and ratings for 31 were very poor (B or CC).

and the need for stronger incentives for bank lending to pro-transition investments.

Achieving this is being made more difficult by possible future financial sector regulation. This might 'price in' climate risks for carbon-intensive firms – making finance scarcer and more costly for hard-to-abate sectors (Eren et al., 2020).

This section discusses how adjusted regulatory frameworks, specialist instruments and policy directed finance could assist. In Section 4, the potential role of MDBs and DFIs is discussed.

2.2 Adapting bank regulatory frameworks to discourage climate-risky lending

Led by the Network for Greening the Financial System (NGFS), climate-related risks to regulated institutions and to financial stability are being assessed. New national regulatory frameworks are emerging focused on risk models, disclosures and taxonomies (NGFS, 2023; ESRB, 2023).

There has been discussion on incorporating climate risks into regulatory capital frameworks. This would lead to higher risk weights for higher-emission sectors and countries or regions more exposed to climate risks – which is to say, the majority of emerging economies and hard-to-abate sectors – raising their cost of credit.

Any regulatory reforms need to tread a fine line between discouraging 'business as usual' investments in carbon-intensive equipment and increasing the cost of transition finance being applied to reduce hard-to-abate firms' emissions. Capital adequacy requirements must therefore discriminate between potential stranded assets and transitional assets en route to decarbonisation (Tandon, 2021; Menon, 2022; ESRB, 2023).

Adjusting capital adequacy standards to reflect expected, rather than current, transition risks for hard-to-abate sectors would be one approach to direct lending away from investments that exacerbate climate risk. To be successful and avoid 'greenwashing', such adjustments need to be accompanied by strong accountability and transparency standards requiring companies to set 'credible' plans and their progress in executing them (NGFS, 2023).

Similar frameworks are needed in capital markets. In 2022, the International Capital Market Authority and the Climate Bond Initiative separately issued guidance on the use-of-proceeds and expectations for transition plans. The CBI is also developing sector-specific standards for chemicals, cement and steel (ICMA, 2022; CBI, 2022a). There has been criticism that thresholds have been set too low to be effective (Haq and Doumbia, 2022). More work is needed.

Transition finance could also be promoted via banks emission targets and disclosures processes to unlock 'credit' for future emissions reductions. This would mean that banks are not disincentivised from avoiding transition finance entirely just to meet their own GHG emissions targets.

2.3 Developing specialist instruments and funds

Transition bonds issuance in capital markets and, globally, reached \$7 billion as at December 2021. Most have been by sovereign governments, MDBs and DFIs. Better-rated emerging market sovereigns could also consider issuing transition bonds.

Bonds with specialist ESG features would also be positive. For example, impact and green investors might have appetite especially where the bond is combined with social and poverty alleviation impact (IFC, 2023). It will also be important to develop hedging instruments to enable investors to manage risks effectively at a portfolio level, including derivatives and insurance.

2.4 Policy lending

Some governments and central banks have mandates to provide or direct concessional financing to priority sectors. For example, in India banks are set minimum lending levels to priority sectors (Vaze et al., 2022), and in East Asia governments partnered with banks as part of industrial strategy partnerships with local industrial conglomerates (for example, Chang, 2002) to increase the supply or reduce the cost of credit for specific sectors. Similar policy lending mandates could be issued to transition financing, particularly in countries where such policy lending is already established, or limits could be put on non-transitioning hard-to-abate activities.

3 Transition taxonomies and standards

The expansion of international transition finance from advanced to emerging market economies requires an agreed set of definitions (ideally shared across jurisdictions) of qualifying assets and a robust framework for borrowers and lenders to disclose data to demonstrate adherence to these standards.

The G20 Transition Finance Framework's first pillar for mobilising transition finance is 'put in place either a taxonomy or a set of principles ... to guide financial institutions and real economy firms to identify and understand what transition activity [is]'. The second pillar aims to 'ensure that identification of transition activities or investment opportunities is based on transparent, credible, comparable, accountable, and timebound climate objectives' (G20 SFWG, 2022). At their February 2023 meeting, G20 finance ministers and central bank governors emphasised their desire to see transition finance frameworks progressed and agreement of climate disclosure standards through the International Sustainability Standards Board (G20 Finance Ministers and Central Bank Governors, 2023).

Sustainable finance taxonomies are the primary tool for ensuring consistent, rigorous identification of complying investments. Voluntary or mandatory reporting standards benchmark the investment's performance using these taxonomies. Government agencies, central banks or regulators have typically been responsible for developing taxonomies. Non-state actors often develop standards or labels, though increasingly they are being put on a statutory footing.

This section discusses initiatives taken on the first two pillars that could aid flows of transition finance from high-income countries to emerging markets.

3.1 Transition taxonomies and green taxonomies

Green taxonomies identify net-zero emissions assets that align with the Paris Agreement (such as electricity generated through solar PV). These generally set criteria or thresholds which exclude insufficiently green assets.

However, many hard-to-abate sectors do not have a viable technology for zero-GHG solutions. Hence, they are not regarded as eligible for 'green' finance. But hard-to-abate sectors are a necessary part of the economy and will remain a significant source of GHG emissions without investment to decarbonise them.

Because of this, governments and regulators are introducing taxonomies with different criteria to handle hard-to-abate sectors' GHG reduction efforts. Transition taxonomies are applying forward-looking trajectories for an industry's decarbonisation, offering a transparent and credible sequence of low-emission investments rather than one fixed GHG emissions threshold. Firms benchmark their transition plans against these using short- and medium-term targets to guide their GHG emission reductions and investment needs. Financial instruments can reference these plans and evaluate performance at the level of a whole firm rather than discrete assets or investments (CBI, 2020).

Several key challenges arise in evaluating a firm's transition plan or when framing the transition taxonomy itself. These include (CBI, 2022b):

- *Credibility of the transition plan.* Ensuring the plan is sufficiently ambitious compared to the technological opportunities, measurable short- and long-term milestones are defined and there is independent verification of progress and disclosure of performance.
- *Establishing a continued need for the industry.* Many OECD countries are transitioning away from fossil fuel (particularly coal) power generation. But some emerging economies argue that electricity demand outstrips supply and decommissioning relatively new fossil plant would hamper economic development. Hence energy utilities need transition finance for a phased decarbonisation of the energy sector.
- *Sector-wide approach.* Focusing on individual company performance encourages achievement through offloading carbon-intensive assets rather than decommissioning them, flattering the company but not reducing global emissions. MSMEs in the supply chain need to be included but smaller firms find adhering and reporting on transition standards challenging due to data availability, capacities and resources. A phased approach might be needed to reflect smaller firms' constraints.

In emerging markets in particular, inclusion of local/national environmental and social issues can be an additional challenge.

3.2 International taxonomies

Around the world, 30 national and regional taxonomies have been published (GTAG, 2023). This proliferation is the result of countries' desires to reflect national priorities and circumstances. Many but not all are based on the EU's taxonomy – the Chinese and ASEAN taxonomies differ markedly, using lists of approved green technologies (China) or principles (ASEAN) rather than sector-based screening criteria.

The EU's sustainable finance taxonomy includes technical screening criteria for around 70 sectors. Hard-to-abate sectors that do not yet have net-zero technologies have been set interim standards based on the best technology currently available. The technical screening criteria are framed in terms of the maximum allowed GHG emissions per unit of activity or output a 'sustainable' firm may produce. The EU calculated these thresholds using carbon dioxide emissions and activity data submitted by large combustion plants regulated under the EU's Emissions Trading System (EU-ETS).

The new Mexican and South African taxonomies draw on the EU taxonomy. South Africa uses the EU taxonomy to define carbon intensity thresholds in hard-to-abate sectors, based on the best-performing facilities operating within the EU (National Treasury, 2022). The Mexican taxonomy includes agriculture and livestock, which is excluded by the EU.

Despite investor enthusiasm Japan has not introduced a green taxonomy, but its roadmaps for technologies (described in Section 3.3) could be useful transition pathways for a putative taxonomy (PRI, 2023). Canada's industry-led proposed taxonomy roadmap explicitly considers transition sectors (SFAC, 2022). ASEAN countries have developed a distinctive approach using a traffic light system to identify 'amber' assets/industries that need financing to reduce their emission intensity (ASEAN Taxonomy Board, 2023). Amber activities must meet local environmental standards and have concrete plans to remedy residual harm within five years. Indonesia's green taxonomy guidance includes criteria for the coal industry (OJK, 2022). The amber standard for coal requires the plant to use carbon capture and storage (which is not yet a commercially proven technology) and to remediate sites.

This proliferation of *differing* taxonomies hampers cross-border green capital flows since investors have to make judgements whether assets deemed green by a jurisdiction's taxonomy are green in the eyes of their own country. This will particularly be an issue for transition finance, since hard-to-abate industries already strain against green investors' mandates.

There are efforts to map thresholds and criteria between the two most established taxonomies, the EU's and China's, to enable cross-border flows of green capital between the two blocs. There is scope

to develop more such inter-operability guidance, but this is a cost-intensive exercise. A preferred approach would be for transition finance across G20 countries to adhere to a single standard set of agreed principles.

3.3 Voluntary standard-setting and disclosure

At COP27, the UN Secretary-General launched a new report on net-zero commitments by private actors to improve the integrity of net-zero pledges, given widespread perceptions and evidence of greenwashing (UN High Level Group, 2022). There are a variety of voluntary standards for setting goals and disclosing achievements for GHG emissions. This allows hard-to-abate firms to select weaker standards that flatter their performance and heightens investors' concerns about greenwashing.

Private organisations provide valuable support to transition planning. This includes developing sector pathways (e.g. SBTi, Transition Pathways Initiative), data platforms (e.g. Carbon Disclosure Project), convening market participants (e.g. Climate Action 100+) or developing screening criteria (e.g. Climate Bonds Initiative). Together these services help ensure that investees have sufficiently ambitious targets and that their action is consistent with that ambition and is disclosed to stakeholders.

Too often, businesses set targets with reference to their current performance rather than science-based pathways. This makes their achievements difficult to benchmark against those of their peers or technically feasible (but expensive) solutions (CBI, 2022d). Asset owners and managers with \$14 trillion under management support the Transition Pathway Initiative methodology (TPI, 2019). This focuses on a company's management quality and carbon performance relative to its sectoral peers. Assessments have been undertaken for cement, steel, oil and gas, aluminium and chemicals.

The Carbon Disclosure Project provides subscribers with data about firms' and public bodies' GHG emissions and transition plans. The Climate Action 100+ Net Zero Company Benchmark has 10 disclosure indicators including long-, medium- and short-term goals, capital allocation and Just Transition (CA100+, 2021). CBI is producing transition standards for hard-to-abate sectors to complement its long-established green taxonomy. An example is the criteria for iron and steel (CBI, 2022e).

These voluntary standards have been useful for experimentation and learning, but it is important that G20 countries use common standards. The International Sustainability Standards Board (ISSB) which brings together many standard setting bodies launched the Climate-related Disclosures Standard. The use of common disclosure standards is being advocated at the highest level (G20 Finance Ministers and Central Bank Governors, 2023).

4 Creating an enabling policy environment

Pillar 4 of the Transition Finance Framework is ‘designing policy measures’. Investors use transition taxonomies and reporting frameworks to ensure that hard-to-abate borrowing firms have set and are on track to achieving Paris-aligned GHG reduction targets.

Governments should proactively build investor confidence in and appetite for transition financing, while not forgetting other challenges like nature-based solutions and ecosystem improvement.⁷ They can assist hard-to-abate sectors in attracting transition finance through targeted interventions to support this. Assistance can be on the supply side – increasing hard-to-abate industries' appetite to transition – and the demand side – changing investor perception so that investment in a hard-to-abate industry with a credible Paris-aligned transition plan is seen as legitimate green investment on par with renewable energy. The UN High Level Expert Group echoes these points (UN High Level Group, 2022).

4.1 Supply-side public policies

Introducing net-zero technologies to hard-to-abate sectors can increase costs. For example, one recent assessment of carbon-free steel suggests that, for the technology to be cost-effective with conventional steel, carbon prices need to be high (€34–68/tCO₂) and power prices low (€40/MW-Hr) (Vogl et al., 2018).

Public bodies can introduce measures to change expectations within hard-to-abate sectors and alter market conditions such as price and demand for low-carbon alternatives, but they also need to tackle barriers deterring investment, such as lower (initial) competitiveness, lack of consumer demand and higher risks.

These include carbon pricing through carbon taxes/fuel duties or GHG emissions trading schemes. To be impactful carbon prices on hard-to-abate sectors have to either be high or escalating at a preannounced trajectory. This allows firms to plan their low carbon

⁷ Governments in developed economies also need to create a policy and institutional environment that facilitates capital flows to emerging economies. This is covered in the next section.

investment. The policy needs to prevent production simply relocating outside the territory, so-called 'carbon leakage'.

Tighter regulations or energy labels can mandate higher energy efficiency standards, for instance in relation to vehicle energy efficiency, electronics and white goods like fridges and building codes, the pre-announced phase out of internal combustion engine cars and heat pumps for domestic use.

National frameworks show how existing and nascent technologies to decarbonise might be introduced. Japan's Ministry of Economy, Trade and Industry (METI), for example, has co-developed technology roadmaps for transition finance with companies in hard-to-abate sectors. At the sector level, frameworks can set strategies and propose policies and incentives that government plans to introduce to enhance supplier confidence. India's green hydrogen strategy (MNRE, 2023) sets out government policies to facilitate the development of an indigenous hydrogen production industry, including blending green hydrogen with other fuels in public networks and public auctions for hydrogen-derived ammonia fertiliser.

There are other non-cost barriers to investing in new technologies, such as rules, conformity standards or lists of approved materials, (for example fire safety restrictions that prevent the use of ultra-low carbon timber in place of high-carbon cement in buildings). There are often valid reasons for these regulations, but they can hamper the introduction of new products or increase their costs. In the electricity sector, the UK energy regulator Ofgem has allowed novel demand-side business concepts to be trialled outside the current regulatory framework, to see which regulations impede uptake (Ofgem, 2018).

4.2 MDB and DFI support

Since the SDGs and Paris Agreement goals were adopted in 2015, MDBs and DFIs have mobilised private finance in accordance with these commitments. While this could inform approaches taken for transition finance, there has been continued criticism over the gap between what has been needed and what has been mobilised in respect to the SDGs and Paris Agreement (Mookherjee, 2023).

Traditional '*vanilla*' DFI instruments can be used. These include concessional finance, grants, credit insurance and guarantees for hard-to-abate sectors, or in collaboration with local banks, who are the primary sources of commercial lending and financial advice. Once agreed, these can be linked to taxonomies and green finance programmes.

Blended finance - such as funds and first-loss tranches - and support for the issuance of transition bonds could be used to mobilise private capital. However, expectations must be managed as the total sum of mobilised non-transition private finance has, to date, been relatively

low (Gregory, 2023). Such financing must be accompanied by stringent governance - and taxonomies must be carefully targeted towards the gaps in private finance in order to ensure 'financial additionality' in the use of public resources (SFWG, 2022;2023)

4.3 Funding research and development

Public funding for pre-market research for technologies would help accelerate transitions in emerging markets. Such support can include funding research by academic institutions or in partnership with private firms and industry bodies and financing of early-stage proof-of-concept or pre-feasibility projects.

Such funding can be provided by national governments, MDBs and DFIs. Innovative approaches are already being developed. For example, the ADB is funding the Technology Innovation Challenge for proof-of-concept or pre-feasibility studies of technology for developing countries (ADB, 2022a), and AfDB is financing the University of Science and Technology, based in Abuja, to develop technologies (such as building materials and transport systems) tailored to local climate context. Bilateral DFIs are funding research, often in partnership with academic institutions, and providing public early-stage financing. For example, the UK's FCDO is financing academic partnerships between the UK and India through its Global Research Partnerships Fund, and the UK's BII provides venture capital funding for small-scale technology projects in emerging markets to develop and scale promising projects.

Support is also needed to facilitate capacity-building and technology transfer including goods and equipment, as well as know-how. The Global Environment Facility (GEF) has a mandate to fund demonstration projects and early deployment with, since 2001, more than 85 developing countries involved (GEF, 2023). AfDB have a role model for capacity building including funding a community of practitioners to leverage global knowledge and emerging technologies (Songwe et al., 2022).

With regard to the provision of good-quality data, many MDBs have launched NDC-focused technical assistance (TA) programmes, to overcome data-related barriers to sustainability. Specific TA funding lines for data systems is key.

4.4 Demand-side public policy interventions

Section 3 discusses how taxonomies and reporting standards create definitions and reporting norms for hard-to-abate sectors. If these are rooted in robust science-based trajectories, and the reporting mechanism are placed on a statutory footing investors are assured borrowing firms are on a Paris-aligned trajectory.

Other government interventions can help investors identify suitable investments, reduce risk and package individual investment into structures suitable for funding through the debt capital market.

Increasingly Taskforce on Climate-Related Financial Disclosures (TCFD) recommendations are being put on a statutory footing, enabling regulators to discipline the market and investors to understand investees' climate risk exposure. These disclosure standards can be applied to the hard-to-abate industry, obliging publication of GHG emissions and plans to manage them, or they can be applied to financial entities that lend to hard-to-abate firms, who will request this information from borrowers.

As well as these powerful regulatory measures, numerous countries provide weaker incentives to encourage use of transition frameworks such as subsidising certification costs or reducing charges for listing or registration of green securities.

Government agencies can help investors by identifying projects seeking green and transition finance. The ADB has funded the preparation of such reports for several ASEAN countries (e.g. for Indonesia – ADB, 2022b). Such reports include a spectrum of projects that might interest investors, and also provide information on the policy background and applicable incentives.

Warehouses bundle several similar projects into multi-asset investment-grade aggregators suitable for private investors. The organisation managing the warehouse may provide services to assist projects and investors, such as sifting, providing standardised paperwork for investors' due diligence and aggregating similar small projects (e.g. site-level energy efficiency projects) to a size suitable for debt financing. Some warehouses may have a rolling finance facility allowing new projects to be financed from funds released when an old project loan's term ends. There have already been successful funds of this type. For example, the US-India Clean Energy Facility helps aggregate small-scale Indian solar projects (USICEF, 2022). Such multi-asset aggregators can also be the basis for multi-asset funds and blended finance instruments (discussed further in Section 4.2 above).

4.5 Cross-cutting policy interventions

Regulators, lenders and investors need the knowledge and skill to evaluate credible transition plans at the entity and sectoral level. Even in developed economies, there are critical capacity gaps that have enabled large-scale greenwashing. The gaps are more pronounced again in emerging economies. One survey of sustainability professionals in leading Indian banks (Colenbrander et al., 2023) found that just one in six had experience in using ESG data to assess financial risks.

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Transitioning hard-to-abate sectors is a huge challenge for the coming decades, but it is also a huge opportunity for partnerships between G20 countries to generate the finance, skills and technology transfers needed. This opportunity is one the G20 countries need to grasp, and we hope the recommendations in this policy brief provide a useful checklist for this essential work to progress.

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