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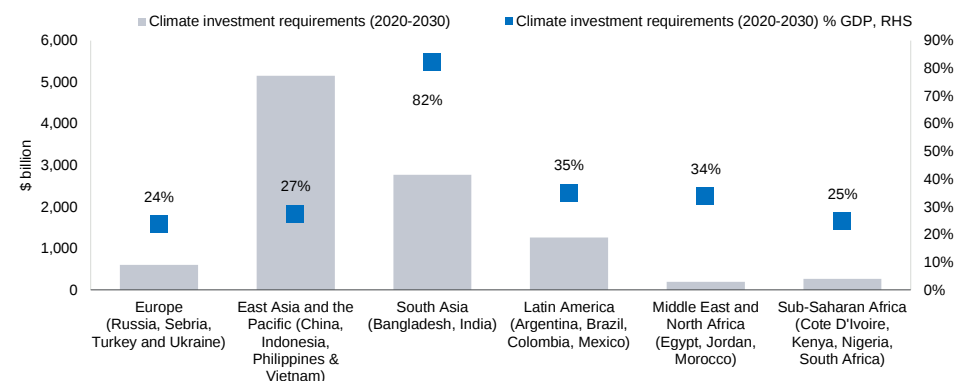
Concessional and market-based financing vastly undershoots climate-resilience funding needs

The capital investment needed by emerging market (EM) sovereigns to meet their climate-transition goals is significant. Based on national climate-change commitments and other policies of 21 EMs,¹ the International Finance Corporation (IFC) identified \$10 trillion in green-investment opportunities between 2020 and 2030.² The International Energy Agency (IEA) estimates that EMs will need to increase their spending on clean-energy initiatives sevenfold to more than \$1 trillion annually, or 3% of their GDP by the end of this decade to remain on track for net-zero emissions by 2050.³ The OECD estimates an annual figure of around \$4.1 trillion would be needed to address climate-change mitigation and adaptation as well as other environmental issues in EMs between 2015 and 2030.⁴ In this report, we proxy the green-financing requirements of 21 EMs on the IFC's 2020 green investment opportunity estimates. Relative to GDP, these investment requirements vary significantly by region, from around 20% in Europe to around 80% in South Asia.

At the same time, the capacity of EM governments to invest in green initiatives is constrained, especially in the midst of the pandemic when almost all EM governments have seen a significant decline in fiscal revenue and an intensification in their spending pressures.

Exhibit 1

Green investment requirements vary by region, but are highest relative to GDP in South Asia



We proxy the green-financing requirements of 21 EMs based on the IFC's 2020 green investment opportunity estimates.
Sources: International Finance Corporation, Haver Analytics and Moody's Investors Service

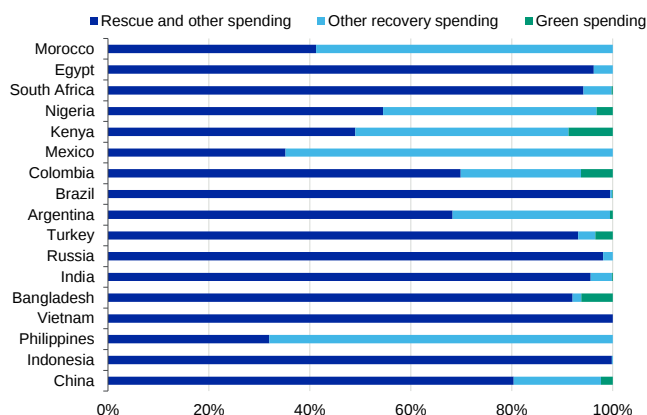
For the 21 EM countries referenced in this report, government spending on green initiatives has fallen to \$54 billion since on the onset of the pandemic or \$5 billion if China is excluded, which accounts for 5% of the estimated average annual investment requirements for the 21 EMs covered in this report (see Exhibits 2 and 3). We expect advanced economies will commit to increasing bilateral support from the \$28 billion they provided to EMs in 2019,⁵ but high government debt levels are a legacy of the coronavirus crisis and are likely to weigh on any sizeable increases going forward. As a result, we expect public spending will fall well short of EMs' estimated investment needs.

Multilateral development banks (MDBs) are playing a critical role in closing this investment gap, especially in places where private investment has been limited to date. In 2020, they committed \$66 billion in climate finance globally, with around \$38 billion directed to EMs. MDBs have also pledged to increase this figure to \$50 billion by 2025. The Africa Development Bank for example will increase its climate finance target to \$25 billion for 2020-25, double the \$13 billion it spent between 2015 and 2020 (for details see appendix).

However, apart from a small number of African and European countries, the size of MDBs commitments falls well short of most countries' climate-investment requirements. Collectively, MDBs and EM public investment in 2020 accounted for around 10% of the IFC's \$1 trillion figure. As a result, absent a significant increase in government spending, private-sector finance will need to play a major role in closing the gap. In fact, the IEA estimates⁶ over 70% of clean energy investment will need to come from private capital.

Exhibit 2

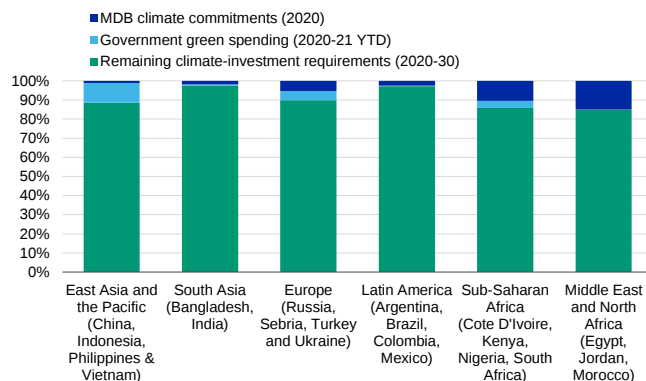
Green recovery spending only accounts for 2% of total EM government spending to counter the pandemic
% of total government recovery spending since the pandemic



Source: The Global Recovery Observatory

Exhibit 3

MDB commitments and government green recovery spending accounted for a fraction of climate-investment requirements in 2020



Sources: International Finance Corporation, Joint report on multilateral development banks, and Moody's Investors Service

The capacity of domestic markets to fund these kinds of investment varies. According to the IFC estimates made in 2016 when a country-level breakdown was last available, [South Africa](#) (Ba2 negative), [Kenya](#) (B2 negative), [Vietnam](#) (Ba3 positive) and [Brazil](#) (Ba2 stable) had the highest level of climate investment required relative to their national savings rates. [Argentina](#) (Ca stable), Kenya and [Egypt](#) (B2 stable) had much larger climate investment requirement compared with domestic market funding capacity (see Exhibit 4).

The potential for external private investment is much larger, but EM issuance of green bonds had hovered around \$50-60 billion pre-pandemic before falling to \$40 billion in 2020. That said, the number of EMs tapping sustainable debt markets has more than doubled over the last decade, with issuers from India and Brazil raising \$33 billion and \$31 billion, respectively. We expect private investment to flow into countries with the strongest policy environments. MDBs will play a crucial role by helping EMs build relevant policy frameworks to attract private-sector finance and demonstrating the viability of green solutions.⁷ For example, private-sector co-financing in green EM initiatives alongside MDBs was \$85 billion in 2020 alone.

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Across the 21 EM countries covered in this report, countries in Latin America, Southern Asia and Sub-Saharan Africa face the most significant financing gaps given the size of their investment requirements relative to GDP, constraints on government balance sheets and the relatively limited involvement of private-sector investment to date (see Exhibit 4). In Latin America, heatmap indicators for MDB funding, fiscal space and domestic funding capacity are the lowest among the 21 EMs covered in this report. In African countries, relatively shallower domestic funding markets and tight fiscal space still pose challenges towards climate financing despite greater support from MDBs. They also face some of the highest exposure to environmental risks, as assessed by our Environmental Issuer Profile scores.⁸

By contrast, East Asian countries have more fiscal space given relatively lower government debt levels and interest payments relative to government revenue. They also have higher national savings rates and relatively developed capital markets, which will support domestic funding capacity, especially in countries with relatively smaller investment need. Lastly, even for emerging European countries, which are generally in better position thanks to their relatively lower climate investment need, ample fiscal space, sizeable domestic capital and banking market, there is still a significant gap to close over the coming decade.

Exhibit 4

Most EMs face significant funding shortfalls in meeting their climate-investment needs over the coming decade

		Investment requirement*	Funding capacity										Environmental risk
			MDB funding		Fiscal space		Domestic funding capacity			External funding capacity			
			Total climate investment requirement (2016-2030, \$ billion)	Avg. annual investment requirement 2016-2030 (% 2021 GdPe)	MDB climate commitments % avg. annual climate investment requirement (2020)	Govt debt level % GDP (2021)	Gen. gov. interest payments % gov. revenue (2021)	Avg. annual investment requirement % gross national savings (2019)	Avg. annual investment requirement % domestic credit to private sector (2019)	Avg. annual investment requirement % domestic capital market (2020)	Avg. annual investment requirement % FDI (2019)	Green bond issuance % GDP (2020)	
East Asia and the Pacific	China	15000	5.9%	0.2%	45%	5%	13%	4%	6%	534%	0.15%	0.25%	E-3
	Indonesia	274	1.6%	4.8%	44%	21%	5%	4%	6%	73%	0.23%	0.07%	E-3
	Philippines	115	1.9%	10.1%	51%	9%	8%	4%	6%	88%	0.22%	0.53%	E-4
	Vietnam	753	13.5%	1.3%	38%	7%	44%	11%	n.a.	311%	n.a.	0.05%	E-3
South Asia	Bangladesh	138	2.6%	13.2%	35%	22%	9%	7%	n.a.	482%	n.a.	n.a.	E-5
	India	2100	4.6%	2.4%	89%	26%	16%	10%	13%	277%	0.03%	0.18%	E-4
Europe	Russia	313	1.3%	n.a.	20%	2%	5%	2%	5%	65%	n.a.	n.a.	E-3
	Serbia	9	1.0%	55.7%	60%	5%	5%	3%	n.a.	14%	n.a.	1.90%	E-3
	Turkey	270	2.4%	9.1%	39%	8%	9%	4%	11%	194%	0.01%	0.16%	E-3
	Ukraine	73	2.8%	18.6%	56%	7%	29%	11%	n.a.	83%	n.a.	n.a.	E-3
Latin America and the Caribbean	Argentina	338	5.5%	4.7%	92%	11%	33%	31%	20%	338%	n.a.	n.a.	E-3
	Brazil	1300	5.4%	1.5%	84%	14%	43%	7%	4%	125%	0.08%	0.03%	E-3
	Colombia	195	4.2%	6.2%	68%	11%	24%	8%	12%	91%	n.a.	n.a.	E-3
	Mexico	791	4.2%	1.6%	42%	12%	20%	11%	8%	180%	0.07%	0.02%	E-3
Sub-saharan Africa	Cote d'Ivoire	10	0.9%	51.1%	42%	13%	5%	6%	n.a.	79%	n.a.	0.17%	E-3
	Kenya	81	5.0%	10.1%	71%	24%	58%	17%	n.a.	405%	n.a.	n.a.	E-4
	Nigeria	104	1.4%	7.2%	30%	35%	7%	13%	n.a.	301%	0.03%	n.a.	E-5
	South Africa	588	9.6%	0.7%	79%	17%	66%	8%	13%	766%	n.a.	n.a.	E-3
Middle east and north africa	Egypt	174	2.9%	12.1%	90%	48%	20%	16%	n.a.	129%	0.19%	n.a.	E-4
	Jordan	23	3.4%	25.0%	113%	18%	23%	4%	n.a.	186%	n.a.	n.a.	E-4
	Morocco	48	2.5%	26.4%	77%	9%	9%	3%	n.a.	186%	n.a.	n.a.	E-4

*We proxy the green financing requirements of 21 EMs on IFC's 2016 green investment opportunity estimates between 2016 and 2030, where the latest country level estimates from IFC are available. The total estimate of investment opportunity was \$23 trillion for the period between 2016 and 2030. Because these estimates do not take into account investments made during 2016 and 2020, they are different from numbers presented in Exhibit 1 and 3, with major differences arising from East Asia. MDBs' climate commitments are sourced from 2020 joint report on multilateral development banks. Environment issuer profile scores (IPS) measure the exposure of an issuer or transaction to environmental considerations. We score sovereigns' environmental IPSs on a scale of E-2 (Neutral-to-Low) to E-5 (Very Highly Negative).

Sources: International Finance Corporation, Joint report on multilateral development banks, Haver Analytics, Dealogic Analytics and Moody's Investors Service

Appendix

Exhibit 5

MDB climate finance targets for 2020s

Multilateral development banks	Climate-finance targets	2020
African Development Bank	A doubling of climate finance to US\$ 25 billion for the period 2020-25, giving priority to adaptation finance.	\$2.1 billion
Asian Development Bank	By 2024, 65% of the number of its committed operations will address climate change, and for the period 2019-24 the ADB will provide US\$ 35 billion for climate finance from its own resources. By 2030, at least 75% of the number of its committed operations will be supporting climate change mitigation and adaptation. Climate finance from the ADB's own resources will reach US\$ 80 billion for the period 2019-30.	\$5.3 billion
AIIB	Reflecting its commitment to support the Paris Agreement, the AIIB will aim to reach or surpass by 2025 a 50% share of climate finance in its actual financing approvals.	\$1.1 billion
European Bank for Reconstruction and Development	Green finance is to account for more than 50% of total annual EBRD investment by 2025, including both mitigation and adaptation.	\$2.3 billion
European Investment Bank	The EIB will gradually increase the share of its financing dedicated to climate action and environmental sustainability to exceed 50% of its operations in 2025.	\$3.2 billion
Inter-American Development Bank Group	Projects supporting climate change mitigation and/or adaptation for 2020-23 above 60% of operations.	\$2.5 billion
Islamic Development Bank	The IsDB is committed to a climate finance target of 35% of total financial commitment by 2025.	\$0.2 billion
World Bank Group	The WBG announced a target for an average of 35% of its financing to be climate finance over the period, from 26% for 2016 and 2020.	\$21 billion

Source: Joint report on multilateral development banks

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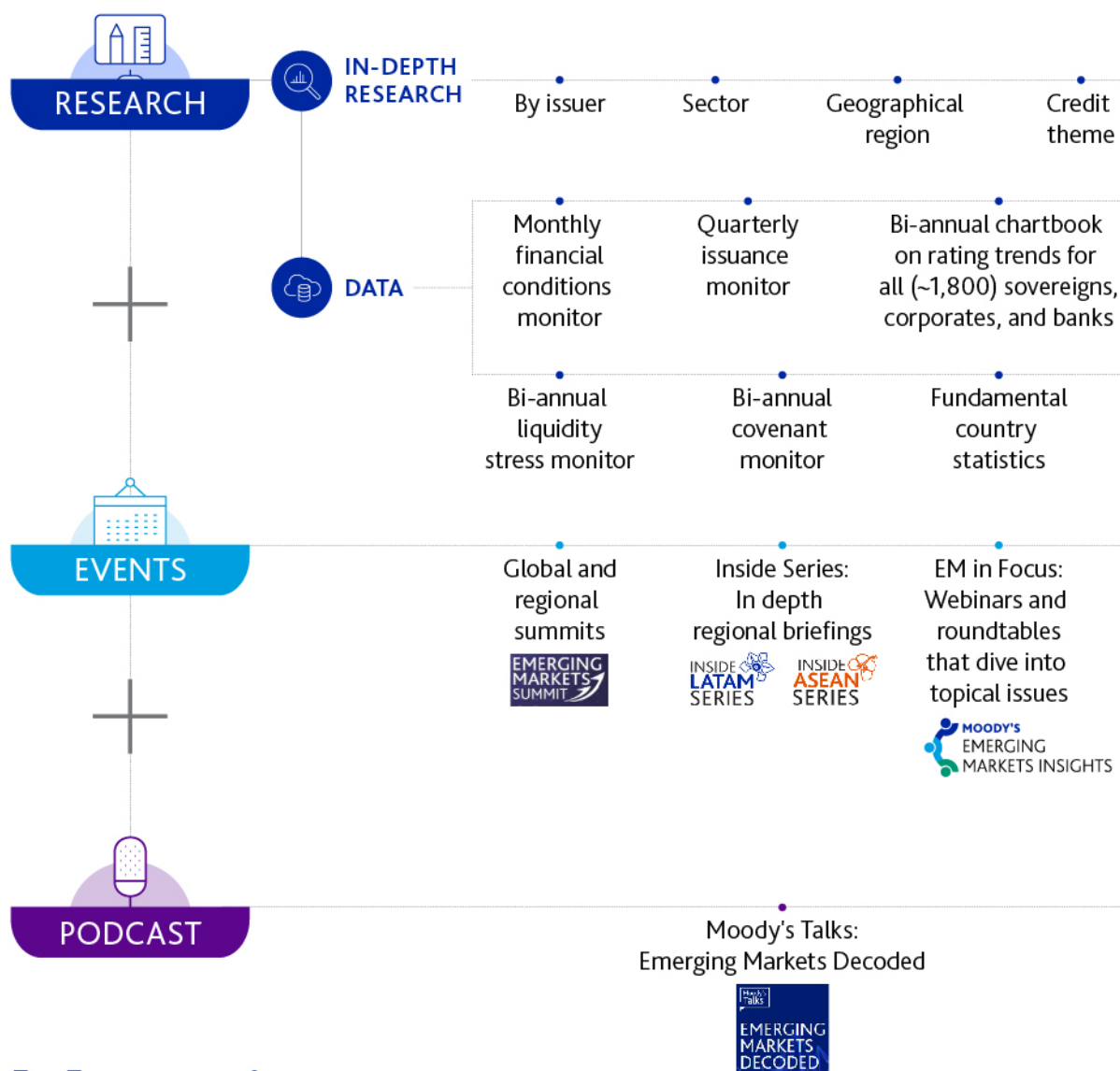
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Endnotes

- ¹ These countries represent 62% of the world's population and 48% of global emissions.
- ² Investment opportunities are based on available policies that are pave the way to net-zero. They use bottom-up approach, estimating investment for key sectors including renewable energy, distributed generation and storage, buildings, transport, waste, agriculture, carbon capture, airlines and shipping. for details, see [A green reboot for emerging markets](#), IFC.
- ³ See [Financing clean energy transitions in emerging and developing economies](#).
- ⁴ See [Green finance and investment: mobilising resources for sustainable development and climate action in developing countries](#).
- ⁵ See [Climate Finance Provided and Mobilised by Developed Countries: Aggregate Trends Updated with 2019 Data](#).
- ⁶ See [Financing clean energy transitions in emerging and developing economies](#).
- ⁷ The IFC has outlined a range of measures that it believes it will help crowd-in private finance, like effective and transparent business taxation, regulation, legal enforcement of property rights, frameworks for public-private partnerships, and proactive investment policies all help to build investor confidence. It also pointed out that the relative newness of the green investment sector in many EMs meant financial incentives may be needed to address the associated risks for firms and all segments of the financial sector.
- ⁸ Environment issuer profile scores (IPS) measure the exposure of an issuer or transaction to environmental considerations. We score sovereigns' environmental IPSs on a scale of E-2 (Neutral-to-Low) to E-5 (Very Highly Negative). For more details, see [General principles for assessing Environmental, social and governance risks methodology](#)

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