

ASIA HOUSE **RESEARCH**

**ASIA'S GREEN REVOLUTION:
A LOOK AT SME FINANCE**

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ABOUT ASIA HOUSE

Asia House is an independent think tank and advisory service. We work with companies and governments in Asia, the Middle East and Europe, facilitating high level dialogue, providing business and market intelligence, and driving commercial outcomes.

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EXECUTIVE SUMMARY

Asia's small and medium-sized enterprises are essential for economic growth. Greater financial diversification for the largest emitters – China, India and Japan – particularly into green finance, is of critical importance given the future costs of the climate crisis. Prospects for this are dimmed by the macroeconomic backdrop: stagnant investment spending as a share of GDP since the 2008-09 crisis.

SMEs typically access banking sector finance in addition to informal finance, but this is starting to change. Asia's SMEs are beginning to tap into alternative sources of finance. In the absence of an acceleration in bank lending and investment spending, some of the higher emitting economies' firms are turning to green bonds. Increasing degrees of coordination within and between countries suggest that green finance is accelerating in Asia. Enhanced coordination has the potential to significantly contribute to decarbonisation.

KEY TAKEAWAYS

- SMEs must operate more sustainably to ensure progress towards the UN Sustainable Development Goals
- SMEs' contribution to the green economy, and to tackling the climate crisis, hinges on access to finance.
- Greater financial diversification for the largest emitters, particularly into green finance, is of critical importance. However, financial diversification for SMEs' access is falling short.
- There are serious risks to economies that fall short of financial diversification into green finance. They will contend with multiple shocks, including pronounced financial instability.
- Greater finance for China's SMEs will be instrumental in managing its energy transition given restrictive borrowing standards.
- India needs a two-pronged policy strategy comprised of further concessional lending for green technologies and greater information sharing to mitigate risks.
- Greater use of green finance, particularly in the larger and higher emitting economies, could ignite new business cycles whereby potential growth is enhanced.

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1. DIGITAL INNOVATION AND SUSTAINABILITY

1.1 ASIA'S SMES ARE ESSENTIAL FOR SUSTAINABLE GROWTH

Asia's small and medium-sized enterprises (SMEs) are essential for the region's economic growth.¹ They make up more than 96 per cent of all Asian businesses, providing two out of three private-sector jobs (Yoshino and Taghizadeh-Hesary, 2018). Given their economic importance, SMEs must operate more sustainably to ensure progress towards the UN Sustainable Development Goals (SDGs). Asia's finance gap remains large and is growing. Sustainable finance is multifaceted: it encompasses banking, debt capital, equity capital, insurance, investment, policy and public finance, digital services and information sharing – all of which need to be employed in the service of making Asia's SMEs more sustainable.

Financial resilience among SMEs needs to be high enough to mitigate climate change risks. This is so that if global warming breaches crucial thresholds, triggering ecosystem collapse, adequate financial buffers will also be in place. Greater financial

diversification for the largest emitters, particularly into green finance, is of critical importance to build buffers, given the intersection of multiple climate risks. In the absence of mitigating action, global temperatures could rise by more than 3°C and the world economy could shrink by as much as 18 per cent in the next 30 years (Swiss Re, 2021). The total cost of heatwaves, flooding, water scarcity, cyclones and other climate-related hazards will be determined by economic transformation, infrastructural investment and financial system stability.

SMEs' contribution to the green economy, and to tackling the climate crisis, hinges on access to finance. Prospects for this are dimmed by stagnant investment spending as a share of GDP, since the 2008-09 crisis (Figure 1). In the years leading to the 2008 financial crisis, spending on housing and private consumption fuelled growth. When the crisis came, household spending collapsed, and investment never took over as an engine of growth as the world's major central banks reduced interest rates significantly. These policies created financial wealth largely through capital gains (Sachs, 2016), but little investment. Although credit increased – particularly to emerging economies – actual investment shares have not followed suit to the same degree. This could suggest a misallocation of credit, particularly in the emerging economies (Figure 2).

FIGURE 1: INVESTMENT SHARES HAVE LARGELY STAGNATED



Source: IMF and Asia House Research

FIGURE 2: DIVERGENT CREDIT DYNAMICS IN ADVANCED AND EMERGING ECONOMIES



Source: Bank for International Settlements and Asia House Research.
 *Data denotes credit to the private non-financial sector from all sectors at market value as a percentage of GDP. The data is adjusted for breaks and has been re-indexed at Q1 2000.

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Governments have focused on improving macroeconomic conditions for SMEs through the provision of public subsidies and guarantees. And yet, financial diversification and increased access to finance for SMEs have fallen short. SMEs are still largely dependent on informal and personal sources of finance as well as some access to bank loans. Asia’s banking sector services multiple sectors of each economy, particularly in developing Asia. Banks must both expand and diversify sources of green finance, including the breadth, depth and range of finance available to green (and transitioning) enterprises. Diversity of financial access is assessed through actual lending practices and the business models of different banks (UNEP, 2015a).

1.2 AS ACCESS TO TRADITIONAL FINANCE STALLS, GREEN BONDS OFFER ALTERNATIVE

The distribution of and access to bank lending continues to be cited as a difficulty. Traditionally, SMEs access banking finance, informal finance or personal savings (largely in developing countries) for capital. This is starting to change and Asia’s SMEs are beginning to tap into alternative sources. Post-2008, regulations (such as Basel III) that increased capital adequacy requirements to reduce leverage in the financial system have made it increasingly difficult for SMEs to access loans, particularly for smaller enterprises that may constitute a higher lending risk. For SMEs in Asia, where economies are struggling with the impacts of the COVID-19 crisis, the ability to access long-term credit beyond the emergency assistance that has been provided during the crisis, is a key challenge (OECD 2021).

In the absence of affordable bank loans, some larger firms are turning to the bond market for financing (with smaller firms looking at mini bond issuance). Green bonds fund projects with climate benefits in areas such as energy, transport, waste management, building construction, and water use. Asia’s three highest emitting economies – China, Japan and India – have been increasingly active in green bond issuance. China has formally adopted green finance as a part of its growth strategy, Japan has moved decisively to promote green investments (Schumacher et al., 2020) and the Indian Renewable Energy Development Agency (IREDA) and its Ministry of Renewable Energy (MNRE) have progressed in structuring and expanding India’s green bonds, with international assistance.

SMEs account for the lion’s share of employment and economic activity in Asia’s largest economies (Figure 3). Given this, diversification of finance, to reduce dependence on informal sources of finance and limited bank credit, will be of importance. Medium- to long-term financing increases a company’s liquidity. This results in an improved credit assessment, which then helps companies access further bank loans at a more affordable rate. Providing access to finance for green SMEs, in particular, is therefore essential to ensuring their growth and longevity.

1.3. NEWER AND GREENER ECOSYSTEMS FOR SME FINANCE ARE ESSENTIAL

Asia’s progress in financing its climate response will be felt globally, particularly in economies that account for the highest greenhouse gas (GHG) emissions. In order to succeed, it is essential that policymakers ensure an investment climate that not only supports, but favours green SMEs. We assess progress on this front by examining (i) the level of coordination and (ii) connectivity in finance that characterise the green finance ecosystem in Asia’s largest emitting economies: in China, Japan and India.

FIGURE 3: THE ECONOMIC IMPORTANCE OF SMES

	SMALL AND MEDIUM ENTERPRISES (SMES)		
	GDP	EMPLOYMENT	EXPORTS
CHINA	60-70 PER CENT	80-90 PER CENT	80 PER CENT
INDIA*	30-33 PER CENT	40 PER CENT	48 PER CENT
JAPAN	50 PER CENT	70 PER CENT	25 PER CENT

Source: OECD, Zhang (2020), Asia House Research.
 *India’s figures correspond to MSMEs.

2. GAUGING ASIA'S GREEN FINANCE ECOSYSTEM FOR SMES



2.1. CHINA: CONNECTIVITY AND COORDINATION ON THE RISE

China's SMEs will be instrumental in managing its energy transition. Evidence suggests that finance has been a significant challenge. Although there has been some improvement, restrictive borrowing standards (such as collateral requirements twice the loan amount) reflect the difficulty associated with the perceived risk profile of SMEs (Lam and Liu, 2020). Domestic banks, therefore, may be less willing to extend credit and charge higher lending rates when they do (partly due to fees and surcharges). These challenges are particularly acute in China's smaller cities. And evidence suggests that an overall increase in China's credit to GDP may not necessarily lead to SME financing because loans are often allocated to large state-owned enterprises (ibid).

China's agricultural sector is a significant source of GHG emissions, of both methane and nitrous oxide (Man et al., 2020; Huang and He, 2012). And yet, green financing is limited due to a reluctance to finance agriculture investments, which are perceived as high risk. Bank of China has key initiatives in place for SMEs, including its SME Green Financing Initiative Scheme², whereby fintech has been combined with green finance to achieve innovative solutions to enhance China's SME access to finance. The Henan Green Agriculture Fund supports an investment facility and facilitates green agriculture investments by financing equity investments and on-lending.³

China's connectivity and coordination for financing green SMEs:

- **China's connectivity has been catalytic in promoting green finance at a local level.** The Huzhou local government's Green Finance one-stop service platform (Paulson Institute Green Finance Center, 2020) uses technology to

integrate the services of Huzhou's 36 banks to generate over 300 lending products. Crucially, it consolidates the data of 31 local government agencies to enable information sharing and increase financing efficiency (ibid). Since its launch in 2018, the platform has helped finance over 13,000 green SMEs, with funds exceeding RMB160bn.

- **Multinational finance is necessary to help fill the financing gap.** The World Bank's loan (of Eur267.2mn) to China to develop green agriculture investments has also focused on the development of green standards and technological innovation in Henan Province – key for agricultural production. The project supports a green agriculture financing mechanism that can leverage commercial investments and boost the adoption of innovative technologies. It will help China fill the gap in green financing standards, generate useful regional lessons for other parts of China, and reduce emissions.

China's current 'green penetration' in its financial system is around 4 per cent (Choi et al., 2021). As China's capital market continues to evolve and key stakeholders become familiar with the range of green financial instruments, their usage and uptake will expand. China has been increasing financial support for SMEs, new streams of concessional capital are in development, and there is growing interest in exploring innovative financing structures. Mobile payment and online banking systems offer new financing channels for retail consumers and investors. Finally, there are growing opportunities for foreign investors to collaborate with domestic stakeholders through special funding schemes and joint ventures.

2.2. INDIA: GAME-CHANGING FINANCIAL DEVELOPMENTS

The combination of declining agricultural productivity, sea-level rise and health expenditures in the context of 1°C of global warming would cost India 3 per cent of GDP per year, and 10 per cent per year with 3°C global warming in the long run (Kompas et. al., 2018). SMEs are India's engines of employment, poverty alleviation, and economic growth. They face obstacles in accessing green finance, despite India's developed financial system. Given this, investing and lending practices that incorporate environmental risks⁴, or utilise environmental incentives to drive business decisions, would gain particular traction in India.

In India, 68.7 per cent of GHG emissions come from its energy sector, followed by agriculture, which contributes approximately 20 per cent to GHG emissions. Symbiotics, a leading market access platform for impact investing, has launched a first 100 per cent agricultural green bond in India with Samunnati (the latter lends to smallholder farms, helps manage supply chains and builds agri-finance ecosystems) – whereby the proceeds of the bond are channeled to climate-smart agriculture.⁵ With the issuance of this green bond Samunnati has committed itself to the promotion of climate-smart agricultural practices by its loan borrowers.

India's connectivity and coordination for financing green SMEs:

- **Connectivity is growing in India's green finance ecosystem.** India's green banking products or services offer customers an option to reduce negative environmental impacts or provide environmental benefits. An example of this has been energy efficient home mortgages, and their securitisation, which has been a significant and game-changing development (Jain, 2020; Climate Bonds Initiative, 2018). These offer a lower interest rate for customers who purchase energy-efficient houses or invest in green power. India's green credit cards offer emissions offset programs, provide discounts and grant low borrowing rates to customers who purchase green products and services.
- **Multinational finance is key in India.** The joint agreement between the European Investment Bank (EIB) and India's largest lender, the State Bank of India (SBI), to jointly provide Eur100mn in equity financing to Indian SMEs has focused on climate change and sustainability. A particular focus has been building solutions for clean energy, electric vehicles and water and

circular economy projects. The two entities have created 'Neev Fund II' to provide equity finance to SMEs focusing on mitigating climate risks at scale (EIB, 2021).

India's green SMEs could access greater finance through community-based coordination to reduce the inherent information asymmetry associated with extending credit to smaller businesses. The Small Industries Development Bank of India (SIDBI) has been operating targeted lending schemes for promoting new investment in clean production and energy-efficient technologies. Looking ahead, policies that include both India's public and private sector need to have a similar two-pronged focus composed of concessional lending for green or energy-efficient technologies and cluster-specific information dissemination.

2.3. JAPAN: TOKYO AS AN ESSENTIAL ESG FINANCE CENTRE FOR ASIA

Japan is among the world's most disaster-prone countries and is subject to extreme weather, including typhoons, and heavy snowfall around the Sea of Japan archipelago. What's more, it is located in the Pacific earthquake belt and is frequently struck by earthquakes. Its coastline is vulnerable to tsunamis and it has 83 active volcanoes, according to the Ministry of the Environment and the Ministry of Foreign Affairs. A pessimistic pathway without mitigation would result in a net economic impact equivalent to approximately 6.6 percent of GDP (within a range of 3.9-8.6 per cent) at the end of this century. And yet, a pathway with high mitigation would limit the impact to less than 1 per cent of GDP (Takakura et. al., 2019).

The participation of a wide range of parties, including Japan's SMEs, is indispensable for promoting efforts to achieve or approach net zero emissions in Tokyo – in line with the government commitment to be carbon neutral by 2050. Japan requires a stronger green finance ecosystem whereby market participants can accurately make investment decisions that contribute to decarbonisation. At approximately US\$9.8bn, Japan's green bond market is growing but small compared to global assets of approximately US\$300bn (Climate Bonds Initiative, 2021). Japan will set up a scheme to certify green bonds and work with Japan Exchange Group (the operator of Tokyo Stock Exchange) on a common platform that issuers and investors can use to share information on green bonds (TGFI, 2021).



Japan's connectivity and coordination for financing green SMEs:

- **Japan's connectivity:** As one of the world's financial centres, Tokyo can be an essential source of ESG finance. Abundant personal financial assets can be linked to funds tackling decarbonisation. Green finance can provide investment options to individuals and investors, including with green products. This would unlock a necessary structural shift in Japan, from savings to investment. Tokyo plans to increase green finance through both digitalisation and expanding the depth and breadth of its green bond market, according to the government's recent policy initiatives.
- **Coordination:** The Tokyo Metropolitan government (TMG) has announced the Tokyo Green Finance Initiative (TGFI) which is a strategic project to develop Tokyo's green finance ecosystem, aims to improve the lives of Tokyo residents, expand sustainable economic development, and support the "greening" of Tokyo's financial system. The initiative facilitates smooth business expansion, easy access to information, including on Tokyo-based companies with innovative environmental technologies. It will expand on existing measures including Tokyo Green Bonds, the Tokyo ESG Fund and the Sustainable Energy Fund.⁶

Japan will ramp up efforts to promote sustainable finance. Domestically, in collaboration with the Bank of Japan, the Financial Services Agency (FSA) will conduct scenario analyses on Japan's three mega-banks and top three non-life insurers to measure their resilience to risks posed by climate change. It will also ensure the sustainability of its green finance ecosystem. Additionally, Japan's continued international involvement in promoting cross-border green finance will be essential. For example, the Japan International Cooperation Agency (JICA) and Sumitomo Mitsui Banking Corporation (SMBC) launched the SMBC-JICA Sustainable Finance Framework extending credit to sustainable businesses in Egypt and other partner countries.⁷



3. GLOBAL COORDINATION FOR A JUST ENERGY TRANSITION

GHG emissions represent the biggest market failure the world has seen (Stern, 2008). The largest economies with the highest GHG emissions – China, India and Japan included – bear a particular responsibility in ensuring an adequate policy response for climate change mitigation and adaptation. The interaction of multiple natural hazards in multiple regions can compound the economic impact of climate events. A three-pronged approach is, at minimum, necessary.

Greater blended finance will facilitate the burden sharing inherent in global decarbonisation. Given this, global financial coordination and heightened standard setting is essential. This will ensure a just energy transition, for both mitigation and adaptation, in order to safeguard more vulnerable economies – and those that cannot afford to finance themselves. Concrete international cooperation is needed to allocate funding for the climate crisis, as it is a unique global problem (Awazu and da Silva, 2017). Global debates have been dominated by an opposition to multilateralism, international cooperation and coordination.

Enhanced and widespread use of financial instruments to re-incentivise. As the single biggest negative externality of modern times, climate change entails a spectrum of financial stability risks both now and in the future. Financial and monetary policy need to target and re-incentivise investment, portfolio and

consumer decisions through credit allocation, taxes and interest rates. This is intimately linked with how climate change can be priced into and incorporated in business, investment and consumption decisions in a sustainable manner.

Financing research in innovative technologies and in how best to facilitate and finance technology transfer into developing and emerging economies, where industrialisation is still at a comparatively early stage. Climate change progress and decisive action require multifaceted cooperation between advanced and developing countries, underpinned by the financing for and the recognition of the need for technology transfers. Increases in official development assistance to developing countries would aid this effort.

Greater use of green finance, particularly in the larger and higher emitting economies, could ignite new business cycles whereby potential growth is enhanced. With global investment shares having stagnated globally, re-igniting growth through investment in low carbon technologies is better – and preferable from a macroeconomic and environmental perspective – than any previous consumption-led economic recoveries. Economies that fall short of achieving this will have to contend with multiple risks and shocks, including pronounced financial instability.

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If you have any questions or comments about this report, or wish to find out more about Asia House Research, please contact Phyllis Papadavid, Head of Research and Advisory, at phyllis.papadavid@asiahouse.co.uk

NOTES

1. Small and medium-sized enterprises are defined here as non-subsidiary, independent firms that typically employ fewer than 250 employees, although this number varies across economies, with some countries setting the limit at 200 employees and the US setting it at 500. Small firms are generally those with fewer than 50 employees, while micro-enterprises have at most 10, or in some cases 5, workers (OECD, 2005).
2. <https://www.bochk.com/en/loan/loan/smegreenloan.html>
3. <https://projects.worldbank.org/en/projects-operations/project-detail/P169758>
4. Venkatesh and Kumari (2012).
5. <https://symbioticsgroup.com/news/press-release-symbiotics-launches-first-100-agricultural-green-bond-in-india-with-samunnati/>
6. <https://www.reuters.com/article/sponsored/tokyo-means-green-business>
7. https://www.jica.go.jp/english/news/press/2021/20210405_10_en.html

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