Z/Yen Group

The Role of Finance in Addressing Sustainable Development

Commissioned by:

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Foreword

Hong Kong, as a leading international financial centre, has been playing a pivotal role in advancing green and sustainable finance. Leveraging its global connectivity and the unique opportunities presented by the Guangdong–Hong Kong–Macao Greater Bay Area and the Belt and Road Initiative, the city has established itself as a platform that has been favourable to global stakeholders, providing the infrastructure, policy support, and professional expertise needed to mobilise capital toward green and sustainable investment, financing, and certification. These efforts resonate with the national agenda and the Hong Kong SAR Government's commitment to achieving carbon neutrality and positioning Hong Kong as a leading hub for sustainable finance in Asia and beyond.

Green and sustainable finance has long been a strategic research priority for the Financial Services Development Council (FSDC). Since its initial foray in 2016, a series of FSDC thematic reports has examined the essential components for building a robust ecosystem, ranging from governance and regulation to data support, incentives, and benchmarking, with many recommendations already adopted by public sector stakeholders. In recent years, research has expanded to encompass emerging strategic pillars, including carbon trading, transition finance, and impact investing. These studies have informed policy formulation and industry practices, advancing the integration of sustainability into Hong Kong's financial system and enhancing its alignment with international sustainability objectives.

Globally, despite the notable progress, the scale of financing continues to fall short of what is required to achieve international sustainability and climate goals. This gap and increasing complexity call for greater coordination, stronger policy alignment, and deeper integration of sustainability principles across all segments of the financial value chain worldwide. Sustainable finance is now a structural imperative—central to economic resilience, market competitiveness, and long-term prosperity—and financial centres have an increasingly critical role to play.

To this end, the FSDC commissioned the Z/Yen Group to develop this publication, which provides an overview of the evolving landscape of green and sustainable finance, highlighting key trends, opportunities, and challenges. The report also shares Hong Kong's experience as a prominent green and sustainable finance hub—demonstrating how the city is advancing the sustainable development agenda through the alignment of financial innovation, regulatory integrity, and international collaboration.

We hope that the observations in this report will serve as a valuable reference and inspire collective action to harness finance as a driver for sustainable development. Through vision, collaboration, and innovation, we can build a sustainable, more inclusive, and more resilient future—for Hong Kong, the region, and the world.

Dr Rocky Tung
Executive Director
Financial Services Development Council

Executive Summary

The integration of finance into the global sustainability agenda has transformed financial systems from passive intermediaries of capital into active instruments of social, environmental, and economic transformation. This paper explores the interconnected dimensions of sustainable development and sustainable finance, focusing on how financial innovation, policy frameworks, and institutional reform collectively underpin the transition toward resilient, inclusive, and low-carbon growth.

Sustainability, once a normative principle guiding policy and corporate behaviour, now functions as a structural determinant of market competitiveness, investor confidence, and long-term economic stability. Recent decades have witnessed notable progress in embedding sustainability considerations into global financial frameworks. Between 2015 and 2024, global financing directed toward sustainable development increased 22% from USD 4.3 trillion to USD 5.2 trillion,[1] reflecting growing alignment between financial capital and international commitments to achieve the United Nations Sustainable Development Goals (SDGs) and global net-zero objectives.

However, financing progress remains modest with a widening gap. International organisations estimate an additional USD 4 trillion in annual investment is needed for developing countries alone to meet SDGs and climate transition goals.[2] Shortfalls are particularly acute in sectors such as renewable energy, low-carbon infrastructure, sustainable agriculture, and social resilience, where perceived risks, limited fiscal space, and underdeveloped financial markets constrain capital mobilisation.

The broadening of green and sustainable finance has also redefined how risk, value, and accountability are conceived within capital markets. The increasing prevalence of green bonds, sustainability-linked loans, impact investment funds and blended finance demonstrates how sustainability objectives can be embedded into financial decision-making. These innovations have been reinforced by advances in sustainability disclosure, digital measurement tools, and evolving policy frameworks, all of which enhance credibility and comparability. Yet, persistent challenges—including fragmented regulations and inconsistent data—continue to hinder the full integration of sustainability into global financial systems.

Addressing these systemic weaknesses requires both institutional coherence and international coordination. Financial instruments must be complemented by transparent policy frameworks and standards that guide capital toward projects that deliver measurable social and environmental outcomes. In this context, international financial centres serve as governance anchors and innovation laboratories, facilitating cross-border investment, standard setting, and the dissemination of best practices.

In this context, Hong Kong is presented as a case study of how an international financial centre can embed sustainability within its institutional and market architecture. Its adoption of a comprehensive sustainable finance taxonomy, expansion of sustainable bond programmes, promotion of carbon-market collaboration across the Greater Bay Area (GBA), and other initiatives collectively reflect a deliberate strategy to align financial infrastructure with global sustainability objectives.

[1] OECD. (2025). Global outlook on financing for sustainable development 2025. https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/02/global-outlook-on-financing-for-sustainable-development-2025_6748f647/753d5368-en.pdf

[2] UNCTAD. (2024). Financing for sustainable development report 2024. https://unctad.org/publication/financing-sustainable-development-report-2024

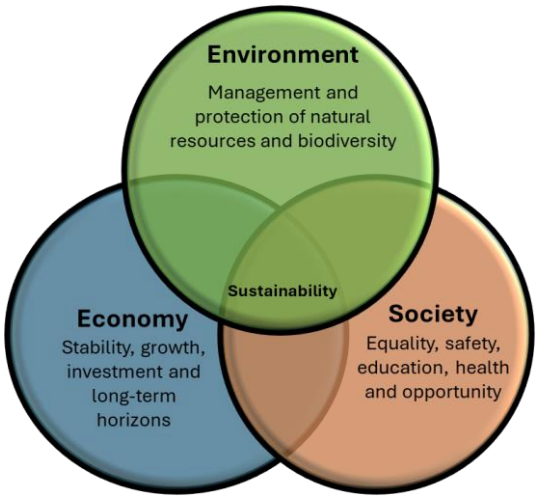
Ultimately, this paper contends that the success of global sustainable development depends on transforming finance from a reactive instrument of growth into a proactive vehicle for systemic change. The capacity of financial systems—and of leading international financial centres like Hong Kong—to align profit with purpose will therefore be decisive in shaping a global economy that is both competitive and sustainable across generations.

1. The Interconnection Between Sustainable Development & Finance

Sustainable Development

Sustainable development encompasses a holistic approach to meeting the needs of the present without compromising the ability of future generations to meet their own needs.[3] Central to policy agendas, this concept is often captured by the 'triple bottom line' framework, which integrates economic viability, social well-being, and environmental integrity into a unified model of balanced progress See Figure 1. Popularised by the United Nations, this framework establishes a normative foundation for policymaking and corporate strategy, guiding the pursuit of balanced growth that neither degrades ecosystems nor deepens social inequities.

Figure 1: Sustainable Development, The Triple Bottom Line



Source: Adapted From John Elkington[4]

Progress Through The Lens Of The Sustainable Development Goals

The evolution of global sustainability commitments can be charted through successive international frameworks, beginning with the Millennium Development Goals (MDGs) of 2000 and culminating in the 2015 adoption of the Sustainable Development Goals (SDGs). Whereas the MDGs concentrated on poverty reduction and fundamental human development, the SDGs articulated a broader, interconnected agenda encompassing environmental stewardship, institutional strength, and equitable growth. This transition marked a conceptual maturation—from viewing development as a primarily social challenge to recognising it as a systemic interplay of economic, environmental, and governance dimensions.

Yet, despite their comprehensiveness, progress toward the SDGs has been uneven. The decade following 2015 has been shaped by converging crises: geopolitical fragmentation, economic volatility,

[3] World Commission on Environment and Development. (n.d.). Our common future. https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

[4] The Economist. (2009, November 17). Triple bottom line. https://www.economist.com/news/2009/11/17/triple-bottom-line

climate-related disruptions, and a global pandemic. Collectively, these forces have undermined momentum, with only around one-fifth of the SDG targets on track to be achieved by 2030.[5]

Particularly troubling are the setbacks in areas such as SDG 2 (Zero Hunger), SDG 11 (Sustainable Cities and Communities), SDG 14 (Life Below Water), SDG 15 (Life on Land), and SDG 16 (Peace, Justice and Strong Institutions) - which remain particularly off course, showing limited advancement since 2015 (see Figure 2).[6] The erosion of progress in these fields reflects a deeper structural disconnect between the global ambition for sustainability and the prevailing modalities of economic and financial governance. Increasingly, it is accepted that several SDG targets—especially those tied to climate and biodiversity—will require an extended horizon stretching to 2050 and beyond.

Figure 2: Progress On Achieving The SDGs

Source: Adapted From United Nations[7]

Other Sustainable Development Frameworks

Beyond the SDGs, several complementary frameworks have emerged to guide organisational performance and enhance the transparency of sustainability practices. The **Global Reporting Initiative** provides a widely adopted standard for evaluating economic, environmental, and social impacts, enabling benchmarking and informed decision-making.[8] The **Carbon Disclosure Project** facilitates consistent reporting of environmental data, particularly carbon emissions, thus improving accountability and enabling investors and regulators to assess environmental risk exposure. [9] The **Corporate Sustainability Reporting Directive**, implemented by the European Union, extends corporate reporting obligations beyond financial metrics to integrate broader sustainability performance indicators, aligning business conduct with regional climate and sustainability objectives. [10] More recently, the Chinese Mainland introduced the **Corporate Sustainability**

[5] World Economic Forum. (2025, September 12). Sustainable development goals: Are we on track for 2030? https://www.weforum.org/stories/2025/09/sdg-progress-report-2025/#:~:text=Only%2018%25%20of%20the%20Sustainable,global%20leaders%20to%20accelerate%20progress
[6] United Nations Statistics Division. (2025). Sustainable development report 2025 - Financing sustainable development to 2030 and mid-century. https://s3.amazonaws.com/sustainabledevelopment.report/2025/sustainable-development-report-2025.pdf
[7] United Nations. (2025). The SDG index and dashboards. https://dashboards.sdgindex.org/chapters/part-2-the-sdg-index-and-dashboards/

[8] Global Reporting Initiative. (n.d.). The global reporting initiative. Retrieved June 18, 2025, from https://www.globalreporting.org/
[9] CDP. (n.d.). The carbon disclosure project. Retrieved June 18, 2025, from https://www.cdp.net/en
[10] European Union. (2022). Directive (EU) 2022/2464. Retrieved June 18, 2025, from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022L2464

Disclosure Standards (Basic Standards) in 2024,[11] signalling its intention to harmonise national reporting practices with international norms by 2030. Collectively, these frameworks illustrate the growing institutionalisation of sustainability within financial and corporate governance structures.

The Role Of Financial Services In Delivering Sustainable Development

While sustainable development and sustainable finance share a conceptual link, their roles remain distinct yet mutually reinforcing. Sustainable development provides the normative foundation—a vision of progress that harmonises economic growth, environmental stewardship, and social inclusion. Sustainable finance, on the other hand, functions as the operational mechanism through which this vision is implemented. Financial decisions ultimately determine whether development pathways enhance or undermine sustainability. By allocating capital toward infrastructure, energy systems, and public goods, financial institutions shape the material trajectory of future economies. Accordingly, as environmental degradation and social disparities intensify, the evolution of the global financial system must align with society's shifting priorities.

Box 1: The Changing Landscape

"The first step in achieving a sustainable future is to dispel the notion that environmental sustainability is somehow distinct from financial sustainability."

World Economic Forum - How The Finance Industry Can Save The World

The United Nations Environment Programme (UNEP) articulated this imperative in 2016 by defining a sustainable financial system as one that serves "*the long term needs of a healthy real economy, an economy that provides decent, productive, and rewarding livelihoods for all, and ensures that the natural environment on which we all depend remains intact and so able to support the needs of this and future generations*".[12] From this standpoint, four evaluative dimensions emerge: the encouragement of long-term investment, reflection of pricing signals and risk, the encouragement of development and growth, and resilience to shocks.

When assessed against these criteria, structural deficiencies become evident. The global infrastructure financing gap is estimated at approximately USD 1.5 trillion per year,[13] with hundreds of millions of people lacking access to electricity, clean water, sanitation, and digital connectivity. This underscores the inadequacy of current incentives for long-term, inclusive investment. Environmental externalities also remain under-priced, reflecting a systemic failure to incorporate ecological constraints within financial risk assessments.[14]

[11] Herbert Smith Freehills Kramer. (2025). China's new sustainability reporting standards: A step towards global ESG alignment. https://www.hsfkramer.com/notes/esg/2025-posts/China%E2%80%99s-New-Sustainability-Reporting-Standards--A-Step-Towards-Global-ESG-Alignment#:~:text=In%20December%202024%2C%20China%20took,sustainability%20disclosures%2C%20over%20six%20sections

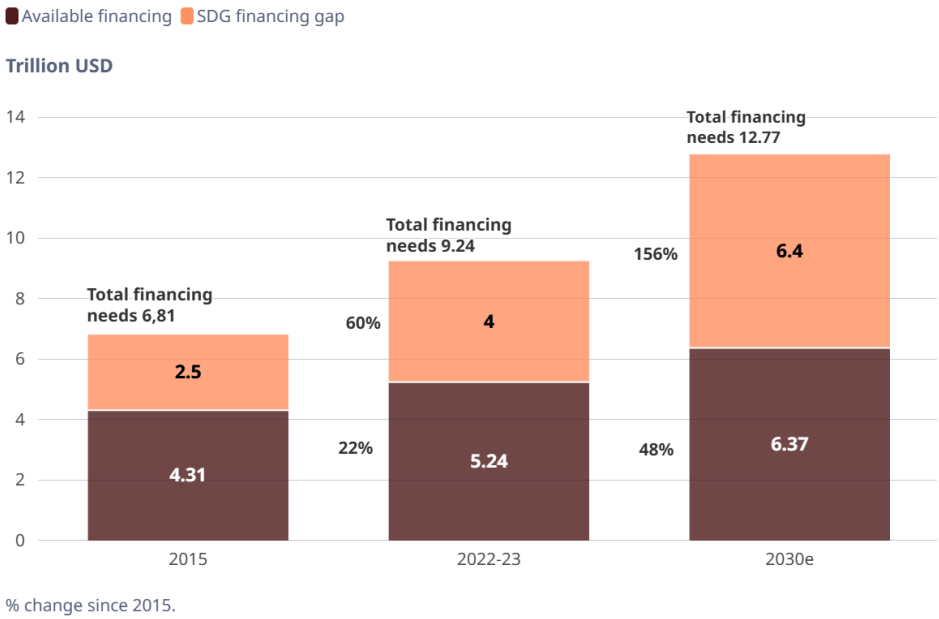
[12] United Nations Environment Programme. (2016). Imagining a sustainable financial system. https://wedocs.unep.org/bitstream/handle/20.500.11822/7441/-Imagining_a_sustainable_financial_system_-2016Imagining_a_Sustainable_Financial_System.pdf.pdf?sequence=3&%3BisAllowed=

[13] World Bank. (2025, March 13). Infrastructure investment. https://www.worldbank.org/en/topic/sustainableinfrastructurefinance/overview

[14] Bank for International Settlements. (2022). Pricing of climate risks in financial markets: A summary of the literature. https://www.bis.org/publ/bppdf/bispap130.pdf

In developing and emerging economies, there is a funding gap of approximately USD 4 trillion annually to achieve the SDGs (See Figure 3),[15] revealing a misalignment between the allocation of capital and global development priorities. Furthermore, persistent vulnerabilities, ranging from financial contagion and cybersecurity risks to pandemic-related disruptions, suggest that the financial system remains insufficiently resilient to shocks.[16]

Figure 3: The Growing Financing Gap For SDGs



Source: OECD

Addressing these demands a reconfiguration of the global financial architecture. The provision of global public goods such as climate stability, biodiversity conservation, and clean infrastructure transcends national borders, necessitating supranational coordination and innovative instruments capable of mobilising both public and private capital. Mechanisms such as blended finance and sustainability-linked debt represent early manifestations of this logic, but their scalability is constrained by the challenge of translating development priorities into investable opportunities—shaped by return expectations, deal-structuring complexity, and implementation risks. Institutional linkages can potentially play an enabling role in catalysing predictable capital flows from developed to developing economies. For low and lower-middle-income countries, the challenge lies in securing long-term, affordable financing that can underpin structural transformation without precipitating unsustainable debt burdens.

The financial system thus occupies a strategic position in shaping sustainable development trajectories. Its influence extends beyond capital allocation to encompass risk valuation, ownership structures, and corporate accountability. By integrating sustainable parameters into financial decision making, the system can internalise externalities that have historically been treated as residual. The transition toward such a financial system is neither automatic nor purely market driven; rather, it demands deliberate policy coherence, regulatory innovation, and a redefinition of fiduciary duty that privileges long-term societal welfare alongside shareholder returns.

[15] Organisation for Economic Co-operation and Development. (2025). Finance for Sustainable Development. https://www.oecd.org/en/topics/policy-issues/finance-for-sustainable-development.html.
[16] Financial Stability Board. (2024, April 29). Speech by Klaas Knot, Chair, Financial Stability Board at the CFA Institute Systemic Risk Council Meeting. https://www.fsb.org/2024/04/financial-stability-risks-and-the-fsbs-work-program/

2. Green and sustainable finance

The Rise Of Green & Sustainable Finance

Over the past decade, sustainable finance has evolved from an ethically motivated niche into a central organising paradigm within global capital markets. This redefinition is underpinned by a structural reassessment of risk and return, whereby sustainability considerations are no longer peripheral to financial analysis but rather integral to the assessment of long-term value creation and resilience.

Green finance, as a pivotal dimension within this broader framework, embodies this shift by channelling financial resources toward technologies, infrastructures, and practices that both mitigate environmental degradation and enhance resource efficiency, notably in sectors such as renewable energy, low-carbon transport, and ecosystem conservation. Collectively, these developments signify a reconfiguration of investment doctrine in which sustainability and profitability can be mutually reinforcing imperatives.

This structural reorientation has unfolded against an increasingly complex global backdrop characterised by accelerating population growth, rapid urbanisation, and mounting ecological constraints. With the world's population projected to approach 9.8 billion by 2050[17]- concentrated disproportionately within emerging and developing regions - the demand for sustainable infrastructure, clean energy, and essential social services has intensified.

At the same time, widening income disparities and recurrent climate-related disruptions have exposed the limitations of conventional financial models in achieving inclusive growth. Sustainable finance thus emerges as a corrective framework that integrates financial innovation with developmental intent and aligns private incentives with public objectives. By mobilising both institutional and private capital toward projects that yield quantifiable environmental and social benefits, the financial system itself is recast as an active participant in the global transition toward a low-carbon economy.

Sustainable Investing

Sustainable investing redefines the traditional risk-return paradigm, infusing the financial system with a forward-looking orientation that fosters stability, inclusivity, and resilience across global economic systems. The rise of innovative instruments such as green bonds, sustainability-linked loans, ESG-integrated funds, and impact investment vehicles illustrates the scope of this transformation. These tools channel capital toward enterprises demonstrating clear accountability and also reshape investor behaviour, shifting the focus from short-term returns to long-term, impact-driven engagement.[18] Complementary initiatives, such as the SDG Industry Matrix,[19]developed jointly by the United Nations Global Compact and KPMG, have further concretised this paradigm by translating the aspirational design of the SDGs into sector-specific, actionable models. Through such institutional integration, sustainability becomes a central axis of competitive differentiation and long-term value creation.

[17] United Nations. (2024). World population projected to reach 9.8 billion in 2050, and 11.2 billion in 2100. https://www.un.org/en/desa/world-population-projected-reach-98-billion-2050-and-112-billion-2100#:~:text=The%20current%20world%20population%20of,Nations%20report%20being%20launched%20today

[18] Long Finance. (2018). The global green finance index. https://www.longfinance.net/programmes/financial-centre-futures/global-green-finance-index/about-ggfi/

[19] United Nations Global Compact. (2015). The SDG industry matrix. https://home.kpmg/content/dam/kpmg/xx/pdf/2017/05/sdg-financial-services.pdf

Morgan Stanley's 2025 report reveals that sustainable investing has transitioned from a niche consideration to an enduring fixture of mainstream investor behaviour. Globally, 88% of investors express interest in sustainable investments, with nearly all Gen Z and Millennial investors (99% and 97%, respectively) identifying sustainability as a key determinant in their portfolio strategy.[20]

Among others, the prioritisation of clean energy, energy efficiency, and pollution reduction as investment themes underscores a structural realignment of capital flows toward the global energy transition. As sustainable investing continues to mature, it is becoming less a question of moral preference and more an intrinsic component of sound financial analysis, reshaping the contours of portfolio management and the strategic imperatives of global finance.

The momentum of these developments is mirrored in scale. The global green finance market is projected to grow from USD 4.2 trillion in 2023 to USD 28.7 trillion by 2033, a compound annual growth rate (CAGR) increase of 21.3%. [21] This underscores the accelerating integration of environmental considerations into financial decision-making processes among institutional investors and corporations.

Recent fund flow dynamics attest to consolidation through a volatile 2025. Global sustainable open-end and exchange-traded funds recorded initial outflows of USD 8.6 billion in the first quarter; the sector saw a partial recovery, with net inflows of USD 4.9 billion in the second quarter, buoyed by renewed activity in Europe. However, this momentum reversed in the third quarter with headline outflows of USD 55 billion—a figure distorted by a USD 48 billion strategic transfer by a single UK pension client into custom ESG mandates. Despite these flow dynamics, global sustainable fund assets rose by 4% in the third quarter to USD 3.7 trillion by September 2025, supported by equity market appreciation and resilience in regional pockets like Asia ex-Japan.[22]

In the Asia-Pacific (APAC) region (excluding Japan), sustainable funds reached USD 80 billion in assets under management as of September 2025, representing a 2% quarterly increase. (see Figure 4). The market composition remained largely consistent quarter-over-quarter, with the Chinese Mainland continuing to account for 42% of total assets. The gradual but steady consolidation of these regional markets underscores the increasingly global character of sustainable finance.[23]

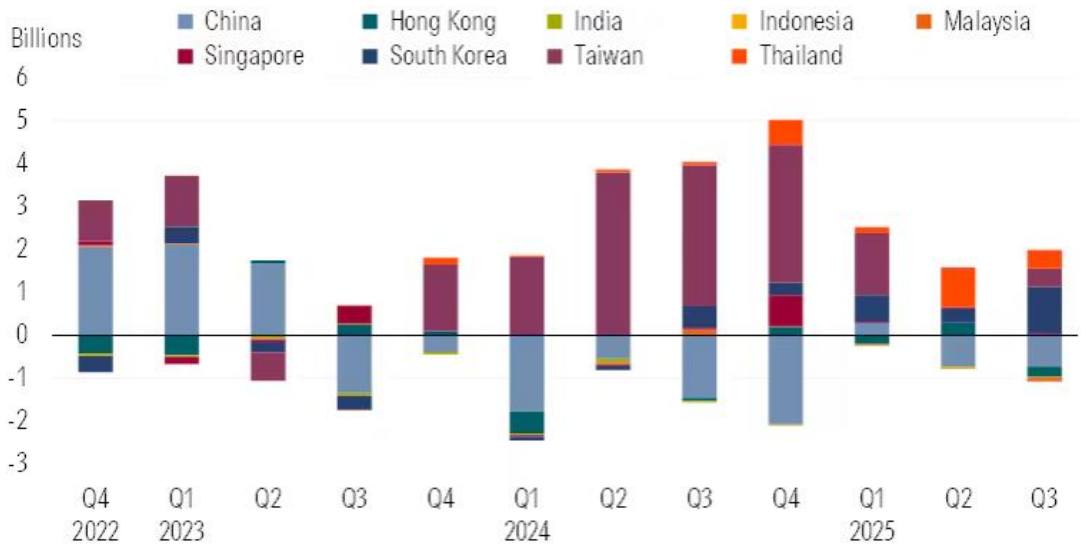
[20] Morgan Stanley. (n.d.). 2025 sustainable signals individual investors 2025 report. Retrieved from https://www.morganstanley.com/content/dam/msdotcom/en/assets/pdfs/2025_Sustainable_Signals_Individual_Investors_2025_report.pdf

[21] Spherical Insights LLP. (2024, February 22). Global green finance market size to exceed USD 28.71 trillion by 2033 | CAGR of 4.18 %. https://www.globenewswire.com/news-release/2024/02/22/2833419/0/en/Global-Green-Finance-Market-Size-To-Exceed-USD-28-71-Trillion-By-2033-CAGR-Of-4-18.html

[22] Morningstar. (2025, October 23). Global Sustainable Fund Flows: Q3 2025 in Review. https://www.morningstar.com/content/cs-assets/v3/assets/blt9415ea4cc4157833/blt0ed076e5482cacec/68fa4f8b0e43824cd6c2e60b/Global_ESG_Q3_2025_Flow_Report_October_2025.pdf

[23] Morningstar. (2025, October 28). Asia ex-Japan Sustainable Fund Flows: Q3 2025 in Review. https://global.morningstar.com/en-ea/funds/asia-ex-japan-sustainable-fund-flows-q3-2025-review

Figure 4: Asia ex-Japan Sustainable Fund Assets (USD Billion)



Source: Morningstar Sustainalytics

Global Sustainable Debt Issuance

Global sustainable debt issuance plays a crucial role in the broader framework of sustainable finance, serving as a vital mechanism for mobilising capital towards environmentally and socially responsible projects. As the world confronts the pressing challenges posed by climate change, the demand for sustainable debt instruments, such as green bonds, sustainability bonds, and sustainability-linked loans is becoming ever more pressing.

The landscape of sustainable debt issuance reveals regional disparities, with varying performances across geographic markets. In the APAC region, for instance, Chinese Mainland and Hong Kong stand out as major players, collectively accounting for approximately 40% of the total sustainable debt issuance in 2025.[24] This substantial share underscores the strategic role they play in advancing sustainable finance, driven by governmental support for green initiatives and a robust appetite from both corporate and financial sector participants to engage in sustainable projects.

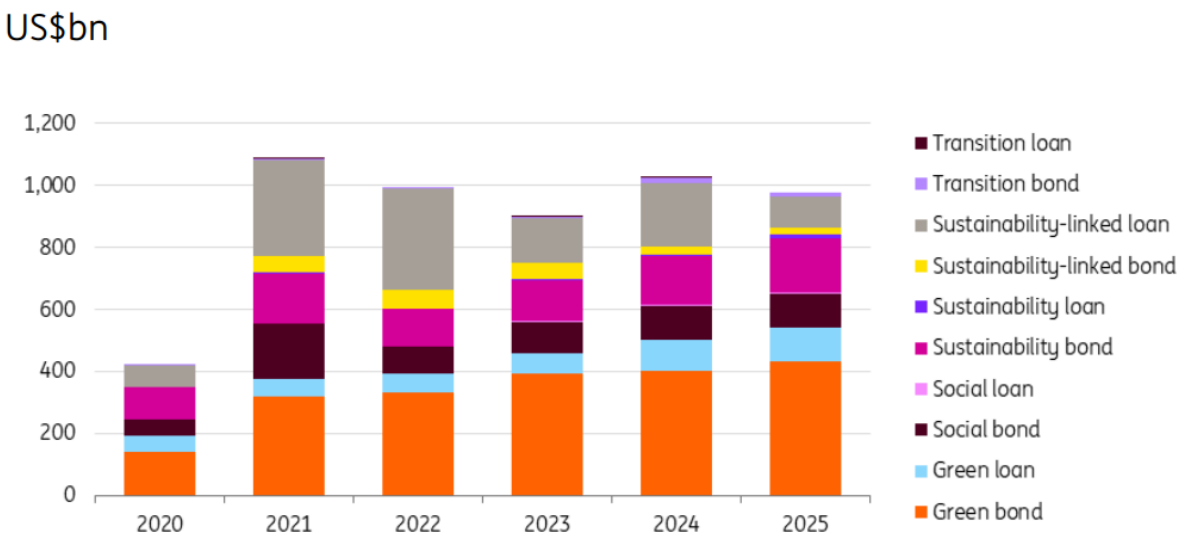
The latest trends in sustainable debt instruments indicate a nuanced and evolving market characterised by both growth and challenges. Green bonds remain the most favoured instrument among issuers, reflecting their established status and the clarity they provide in terms of the use of proceeds. In 2025, issuance in this category has shown a notable uptick, particularly in the APAC region, where robust demand for financing renewable energy projects continues to thrive. Conversely, other instruments, such as sustainability-linked loans and transition bonds, have experienced relatively modest growth, especially in the Americas, where policy uncertainties have dampened market sentiment. This divergence in performance highlights the intricate dynamics that inform sustainable finance practices across different regions.

Despite the overall global sustainable debt issuance amounting to approximately USD 975 billion in the first seven months of 2025, slightly lower than the same period in 2024, the outlook remains

[24] ING Think. (n.d.). Global sustainable finance 2025: Mixed results highlight regional differences. Retrieved from https://think.ing.com/articles/global-sustainable-finance-2025-mixed-results-highlight-regional-differences/

positive (See Figure 5).[25] This optimism is fuelled by the sustained commitment of corporations to decarbonisation and an increasing integration of sustainability considerations into investment decision-making processes. Emerging megatrends, such as the rapid expansion of artificial intelligence and data centres, necessitate significant sustainable financing to address their environmental impacts, further driving market growth.

Figure 5: Global Sustainable Finance Issuance By Theme From January To July, Excluding Asset-Backed Securities



Source: Bloomberg New Energy Finance, ING Research

In short, the global sustainable debt issuance landscape is marked by both opportunities and challenges, influenced by regional variations and shifting market dynamics. The significant share of issuance from Chinese Mainland and Hong Kong emphasises their critical role in driving sustainable finance within the APAC region.

Growth Drivers In Green And Sustainable Finance

The expansion of green and sustainable finance is underpinned by several mutually reinforcing drivers that are reshaping the contours of global capital allocation:

- **Institutional demand and investor preference**: Institutional investors are increasingly incorporating green finance principles into their investment strategies,[26] driven by a mix of client mandates, growing recognition of the financial materiality of climate and nature risks, and perceived opportunities for risk-adjusted return. Frameworks such as the UN Principles for Responsible Investment have been more enabling than causal—providing common language, tools, and signalling that support implementation—rather than constituting the primary source of demand. With sizeable balance sheets, pension funds, sovereign wealth funds, and insurers can mobilise capital for climate-aligned development and the low-carbon transition. Private equity and family offices are also following this trend, driven by personal ethics and the increasing profits to be made in this area.

[25] Ibid.
[26] Brandon, R., & Krueger, P. (2023). The role of institutional investors as responsible investors. CEPR Press. https://cepr.org/publications/books-and-reports/role-institutional-investors-responsible-investors

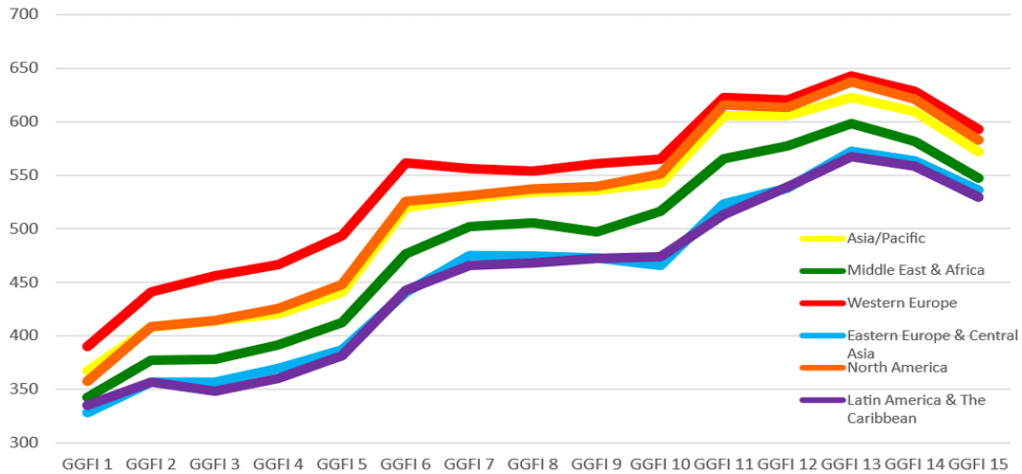
- **Regulatory and policy frameworks**: The global green and sustainable finance market has been facilitated by global, regional and jurisdictional policy frameworks and disclosure standards. Governments and regulators increasingly impose environmental and climate-related reporting obligations on listed companies, enhancing transparency and investor confidence while reducing the prevalence of 'greenwashing'. Jurisdictions such as Hong Kong have exemplified this trend, introducing well-defined taxonomies and clear regulatory standards that attract international capital to green investments. [27]

- **Technological advancement**: Innovations in data analytics, artificial intelligence, and distributed ledger technologies have lowered transaction costs, improved transparency, and enabled more precise evaluation of environmental impact. In parallel, the proliferation of digital finance and mobile banking platforms has extended access to financial services among previously excluded populations, reinforcing the social dimension of sustainable finance.[28]

- **Industry initiatives and market innovation:** Sector-led initiatives and voluntary standards play a complementary role by raising awareness, disseminating best practices, and encouraging innovation in product design. Financial institutions, seeking both differentiation and new sources of growth, have introduced a variety of sustainability-linked instruments, enabling clients to participate in the transition to low-carbon.

Taken together, these factors have elevated green and sustainable finance from a peripheral activity to a central component of modern financial systems, reflecting a broader acceptance of its financial materiality. Its integration into mainstream market structures not only enhances competitiveness among international financial centres but also contributes to broader societal objectives. Financial hubs worldwide are therefore competing to expand their expertise and capture a greater share of this rapidly growing sector (See Figure 6), recognising that leadership in sustainable finance defines credibility and influence in the global financial landscape.

Figure 6: Average GGFI Ratings Of The Top Five Centres In Each Region



Source: Long Finance[29]

[27] Dixit, N. (2024). Sustainable finance: A sustainable future. https://www.legalbusinessonline.com/features/sustainable-finance-sustainable-future
[28] Venet, B. (2020). FinTech and financial inclusion: A research agenda for financial inclusion and microfinance. Edward Elgar Publishing.
[29] Long Finance. (2025, April 24). The Global Green Finance Index 15. https://www.longfinance.net/documents/4063/GGFI_15_Report_2025.04.24_v1.0.pdf

Recent Innovation In Sustainable Finance

The global transition to a low-carbon economy and the delivery of sustainable development present notable opportunities. Over the past decade, a proliferation of innovative financial instruments and services has emerged to directly support the sustainability agenda, reflecting both market adaptation and policy innovation. The sustainable finance market expanded to over USD 8.2 trillion in 2024; a 17% increase compared to 2023.[30,31] This acceleration signifies not merely the scale of the climate and development challenge but also the dynamism of new financial tools and business models that underpin sustainable growth strategies across advanced and emerging economies alike. Collectively, these developments demonstrate how financial innovation has evolved from a peripheral market experiment into a pillar of contemporary economic transformation.

Evolution Of Carbon Pricing And Market-Based Mechanisms

At a systemic level, a consequential development in sustainable finance has been the rise of carbon pricing as an important instrument for addressing climate change. The climate matter is, at its core, a pollution problem stemming from the excessive accumulation of greenhouse gases in the atmosphere. While environmental pollution has historically been managed through regulatory bans - such as the prohibition of chlorofluorocarbons to protect the ozone layer - such approaches are impractical for carbon emissions, given the global economy's deep reliance on fossil fuels.

Instead of outright prohibitions, policymakers have turned to frameworks that set quantitative emission limits and attach economic consequences to noncompliance. These mechanisms create incentives for technological innovation and low-carbon investment by embedding climate costs into market behaviour. However, weak enforcement or insufficient penalty structures can erode effectiveness, allowing firms or jurisdictions that retain carbon-intensive practices to secure short-term competitive advantages—thereby undermining global mitigation goals.

To address this imbalance, carbon pricing mechanisms have emerged to internalise emission costs. Whether implemented as direct taxes or through market-based trading systems, carbon pricing aligns economic decisions with environmental objectives by rewarding efficiency and penalising excessive emissions. Complementary tools, such as border carbon adjustments, help prevent carbon leakage and ensure fair competition across jurisdictions. Although administrative complexity and trade disputes pose challenges, carbon pricing remains a scalable method of embedding climate accountability into the global economy.

An example of such a system is the European Union Emissions Trading System (EU ETS), launched in 2005 as the world's first multinational emissions market. Covering roughly 45% of total EU greenhouse gas emissions,[32] the EU ETS has proven instrumental in catalysing significant emissions reductions—participating entities collectively lowered emissions by approximately 35% between 2005 and 2021. The success has provided a model for global replication, demonstrating how market-

[30] United Nations. (2025). World Investment Report 2025 – Chapter III: Sustainable finance trends. https://unctad.org/system/files/official-document/wir2025_ch03_en.pdf

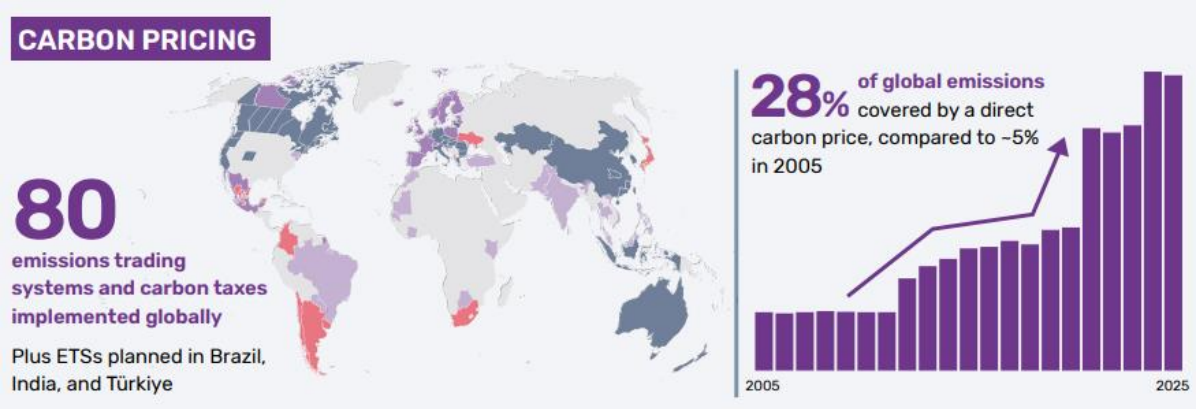
[31] Note: The sustainable finance market figure refers to the total value of financial instruments supporting sustainability, and is distinct from the "financing for sustainable development" figure of USD 5.2 trillion cited earlier in the report.

[32] European Commission. (n.d.). EU emissions trading system. Retrieved July 3, 2025, from https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets_en

based governance can deliver cost-effective reductions at scale while fostering technological and policy innovation.[33]

Following Europe's pioneering implementation, an expanding number of nations and subnational entities have adopted comparable policy instruments. As of 2025, approximately 80 carbon taxes and emissions trading systems are operational worldwide. Together, these jurisdictions account for nearly 28% of global greenhouse gas emissions and encompass roughly two-thirds of global gross domestic product. The diffusion of carbon pricing mechanisms underscores both the growing normalisation of carbon markets and the intensifying integration of environmental considerations into the fabric of economic decision-making (See Figure 7).[34]

Figure 7: State And Trends Of Carbon Pricing 2025



Source: World Bank[35]

Voluntary carbon market

Complementing these regulatory mechanisms, the Voluntary Carbon Market (VCM) has evolved as a parallel mechanism through which private actors seek to offset emissions beyond mandatory compliance frameworks. Over the past few years, heightened public awareness of climate change and an increasing prevalence of corporate 'net-zero' commitments have spurred demand for voluntary carbon offsets—tradable units intended to represent verified emission reductions or removals. These markets provide companies with an avenue to neutralise their carbon footprints, typically with respect to direct (Scope 1) and energy-related (Scope 2) emissions.

Unlike compliance markets, the VCM operates without centralised regulation, relying instead on a diverse array of standards, registries, and verification mechanisms. In 2024, the VCM experienced a notable contraction, with total transaction values amounting to approximately USD 535 million - a 29% decline from the previous year.[36] While at first glance this might appear indicative of waning demand, the contraction primarily reflects a deeper structural transition, as legacy credit types are phased out and replaced by higher-integrity methodologies that better align with emerging best practices and stakeholder expectations.

[33] Protea. (n.d.). EU emissions trading system (ETS) becomes effective January 1st 2024. Retrieved July 3, 2025, from https://www.protea.ltd.uk/eu-emissions-trading-system-ets-becomes-effective-january-1st-2024#:~:text=Through%20the%20EU%20ETS%2C%20the,signal%20to%20encourage%20decarbonisation%20efforts

[34] World Bank Group. (n.d.). State and trends of carbon pricing 2025. Retrieved July 3, 2025, from https://www.worldbank.org/en/publication/state-and-trends-of-carbon-pricing#:~:text=Key%20Messages%20in%202025,credits%20with%20perceived%20higher%20quality

[35] Ibid.

[36] Ecosystem Marketplace. (2025). State of the voluntary carbon market. https://3298623.fs1.hubspotusercontent-na1.net/hubfs/3298623/SOVCM%202025/Ecosystem%20Marketplace%20State%20of%20the%20Voluntary%20Carbon%20Market%202025.pdf

Despite a 25% decrease in transaction volume, retirements of credits across the ten largest certification standards remained relatively stable, suggesting that end-use demand from corporations and institutions has remained resilient[37]. Indeed, the persistence of elevated average prices - now more than twice the levels observed in 2020 - reveals a bifurcation within the market: credits associated with high-quality, durable carbon removals and nature-based solutions are commanding significant premiums, while older credit types and certain renewable energy projects have experienced steep declines in market share.

Furthermore, running in parallel with voluntary markets, the evolution of international carbon trading under Article 6 of the Paris Agreement marks a major advance in global climate policy. Article 6 enables countries to cooperate in meeting their nationally determined contributions through both bilateral trades (6.2) and a centralised crediting mechanism (6.4). In 2024, the first operational transfers of Article 6.2 credits were completed and key rules for the Paris Agreement Crediting Mechanism were finalised.[38,39] While practical implementation is still at an early stage, Article 6 is expected to enhance the integrity and transparency of carbon markets, better align voluntary and compliance markets, and support both national and corporate climate targets.[40]

Collectively, these trends depict the VCM as a market in transformation—one characterised by integrity and scalability. As quality assurance frameworks mature and governance mechanisms are progressively institutionalised, the VCM is positioned to play a critical complementary role in global climate finance. It functions as a transactional offsetting platform and a laboratory for innovation in the measurement, verification, and monetisation of carbon reductions. Ultimately, this transitional phase underscores both the resilience and the evolving sophistication of VCMs within the broader ecosystem of climate policy and sustainable finance.

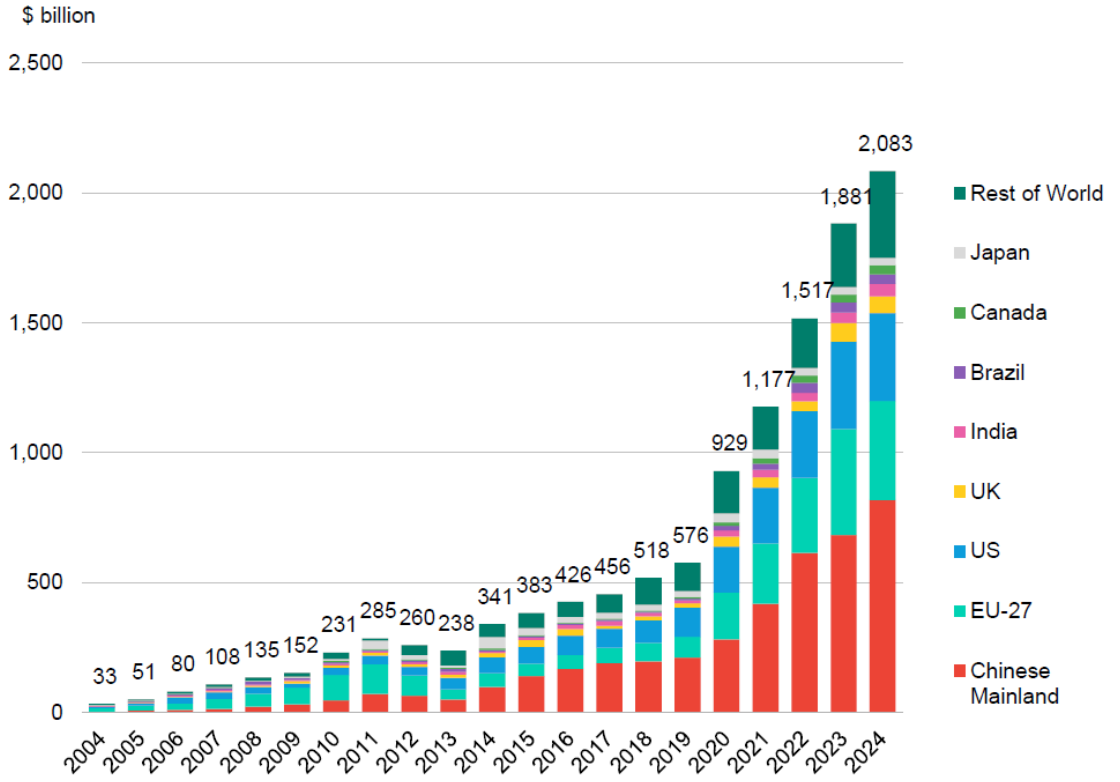
Transition Finance

Transition finance functions as a structural mechanism within sustainable finance, bridging the critical gap between high-emission economic systems and the low-carbon models necessary to achieve global net-zero objectives. Unlike traditional green finance, which primarily channels capital into projects already aligned with sustainability outcomes, transition finance targets carbon-intensive industries as they progress along credible decarbonisation pathways, supporting the transformation of essential sectors such as steel, cement, aviation, and shipping.

Recent data illustrate that the transition finance landscape is entering a phase of rapid expansion and strategic alignment. According to Bloomberg NEF, global energy transition investment reached approximately USD 2.1 trillion in 2024, reflecting an 11% year-on-year increase and indicating a clear long-term trajectory of growth (See Figure 8).[41] Chinese Mainland currently accounts for the largest share of these investments, underscoring the scale of its industrial transformation and the centrality of emerging markets to the broader decarbonisation effort.

[37] Ibid.
[38] S&P Global. (2024, Jan). Switzerland, Thailand conclude first Article 6.2 deal in landmark move for carbon markets. https://www.spglobal.com/commodity-insights/en/news-research/latest-news/energy-transition/010824-switzerland-thailand-conclude-first-article-62-deal-in-landmark-move-for-carbon-markets#:~:text=Switzerland%2C%20Thailand%20conclude%20first%20Article%206.2%20deal,for%20emissions%20reductions%20under%20the%20Paris%20Agreement.
[39] UNFCCC. (2025, May). Key Rules Agreed for Credible Climate Project Crediting under UN Carbon Market. https://unfccc.int/news/key-rules-agreed-for-credible-climate-project-crediting-under-un-carbon-market
[40] UNFCC. (n.d.). Article 6 of the Paris Agreement. https://unfccc.int/process-and-meetings/the-paris-agreement/article6
[41] Bloomberg NEF. (2025, January 30). Energy transition investment trends 2025: Tracking global investment in the low-carbon transition. https://jtia.biz/wp-content/uploads/2025/03/1739627414265.pdf

Figure 8: Global Energy Transition Investment By Economy



Source: Bloomberg NEF

Complementing the ongoing financial mobilisation efforts, a broad spectrum of international policies, regulations, and market standards encompassing disclosure frameworks, sustainability taxonomies, and other mechanisms are converging to establish a conducive environment to include transition finance. Notably in Hong Kong, the Phase 2A Taxonomy introduced by the Hong Kong Monetary Authority, which builds upon the foundational Hong Kong Taxonomy released in May 2024, introduced a dedicated 'transition' category and expanded sector coverage to address high-emitting industries such as energy and manufacturing.[42] Similar to other transition taxonomies developed across various jurisdictions in Asia, its primary objective is to catalyse the expansion of transition finance by providing a structured framework for these sectors to align with climate goals.

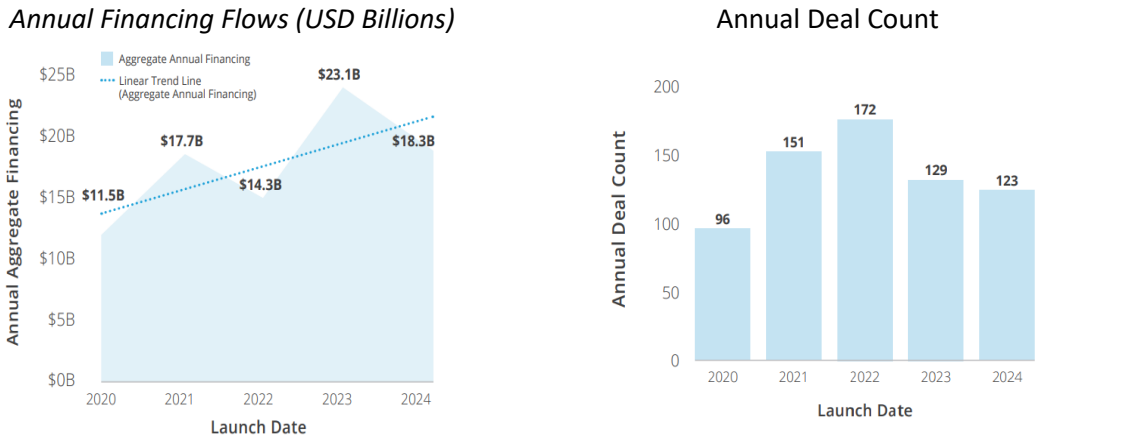
These initiatives are shaping the criteria that define credible transition activities, thereby enhancing the quality and reliability of sustainability-related data and fostering a stronger alignment between financial incentives and overarching climate objectives. Global transition to a low-carbon economy is a critical pillar of sustainable economic development.

Blended finance plays a pivotal role in bridging the transition gap, particularly in emerging and developing markets where elevated risk perceptions frequently deter private investment. Blended finance refers to the strategic combination of public and private capital within a shared investment structure, in which concessional public funds are deployed to mitigate critical risks, thereby rendering complex transition projects commercially viable. By leveraging public or philanthropic capital to de-risk investments, blended finance catalyses private-sector participation in projects that might otherwise remain unfinanced under conventional market conditions.

[42] Hong Kong Monetary Authority. (2025, September 8). Phase 2 of Hong Kong taxonomy for sustainable finance: Advancing the development of green finance. https://www.hkma.gov.hk/eng/news-and-media/insight/2025/09/20250908/

The global blended finance market demonstrates steady growth and increasing institutional maturity, with total deal flow reaching USD 18 billion across 123 transactions in 2024 (See Figure 9), with nearly half of which were climate-related investments representing over 60% of total financing volume.[43] This expansion is underscored by larger deal sizes, greater reliance on concessional guarantees and risk insurance, and notable engagement by commercial investors who, for the first time, deployed more capital than development finance institutions. Yet challenges persist, particularly regarding limited participation from investors and insufficient transparency on concessional terms. Moving forward, improving standardisation, disclosure, and local capacity will be essential to strengthen blended finance as a reliable mechanism for mobilising capital toward a just, inclusive, and effective transition to net zero.

Figure 9: Blended Finance Market, 2020-2024



Source: Convergence[41]

Green Venture Capital (GVC)

Green venture capital (GVC) serves as a source of funding for innovative technologies and solutions aimed at addressing the urgent challenges posed by climate change and environmental degradation. By directing capital towards startups and enterprises focused on clean energy, energy efficiency, and sustainable practices, venture capitalists facilitate the commercialisation of green technologies and help establish a robust ecosystem that supports long-term sustainability goals. This influx of investment is particularly vital, as it often acts as a springboard for early-stage companies, enabling them to scale their operations and achieve impacts in their respective sectors.

Recent trends in GVC indicate a dynamic and evolving landscape, characterised by both challenges and opportunities. In 2024, however, venture capital inflows to the green segment experienced a decline of approximately 16%, totalling USD 673 billion, reflecting the broader uncertainties in the macroeconomic environment and political pushback against green initiatives in various regions.[44]

Despite these setbacks, experts remain cautiously optimistic about the future trajectory of green investments, highlighting a sustained interest in software-led solutions for decarbonisation and

[43] Convergence. (2025). State of Blended Finance. https://www.convergence.finance/api/file/e46fbb9f55bc4318b1c921141bf35ed6:8485f7a2753c784dd7801d457ec404da55b2b8cd71137d55d252f7ff4f485fe007358ea923174c540592f84cbf682dab4a6ebaaee9aba13133706d757d5c2d022f20b834d689d83b21d2c19b333e9f63c739e6a361aaa946568e0371d88f2c59822b0e610deb2311d7067f24fba9f19bc74a42a730a3239f38fd9f658ea02da78bc9108900f93639869712477e0c3848

[44] Sharma, G. (2025, September 29). Venture capital inflows will keep green investments buoyant to 2030. https://www.forbes.com/sites/gauravsharma/2025/09/29/venture-capital-inflows-will-keep-green-investments-buoyant-to-2030/

improved efficiencies across industries.[45] The demand for innovative technologies that facilitate the transition to net-zero emissions continue to drive venture capital activity, as firms increasingly seek to invest in startups that demonstrate high climate performance potential and scalable business models. Consequently, while market fluctuations may occur, the foundational role of venture capital in supporting the green transition remains strong, with expectations that funding will persist through to 2030 in alignment with global net-zero commitments.

Biodiversity financing

Biodiversity - encompassing the immense variety of species, ecosystems, and genetic resources - is gaining momentum amid new regulations, evolving investor expectations, and heightened awareness of nature-related risks.[46] It forms the foundation for healthy ecosystems and for the provision of ecosystem services that support economic stability and growth, from agricultural pollination and water purification to carbon storage and climate resilience. However, the accelerating loss of biodiversity—driven by deforestation, pollution, and climate change—poses escalating risks to global financial systems. This degradation disrupts supply chains, raises costs for industries dependent on natural capital, and compels investors to adjust as tighter environmental regulations and conservation priorities reshape global investment landscapes.

The Kunming-Montreal Global Biodiversity Framework, adopted in December 2022, represents a landmark global commitment that mirrors the ambition of the Paris Agreement on climate change, setting global targets to halt and reverse biodiversity loss by 2030 through 23 actionable goals, including mobilising USD 200 billion annually to scale up positive incentives for biodiversity conservation and sustainable use.[47] This framework urges financial markets to redirect capital away from activities that harm nature and toward projects like habitat restoration, creating opportunities for innovative financial tools like biodiversity credits.

Building on this global momentum, the Chinese Mainland advanced its national biodiversity agenda in January 2024 through the release of the China National Biodiversity Conservation Strategy and Action Plan (2023–2030) (NBSAP).[48] This comprehensive plan identifies 27 Priority Actions and 75 Priority Projects across four focal areas: mainstreaming biodiversity, addressing threats of biodiversity loss, sustainable use and benefit-sharing of biodiversity, and modernisation of biodiversity governance capacities. Recognising the importance of regional collaboration, the NBSAP designates the Guangdong–Hong Kong–Macao region as a strategic hub for advancing biodiversity conservation, fostering cross-border efforts to protect ecosystems. This plan complements global initiatives by emphasising the integration of biodiversity considerations into development strategies, thereby creating synergies with financial frameworks that prioritise nature-positive investments.

By 2025, biodiversity considerations have become more deeply entrenched within global financial frameworks, reflecting an accelerating convergence between environmental policy and sustainable finance. Initiatives such as the EU's Biodiversity Strategy for 2030 and the Convention on Biological Diversity are advancing the incorporation of nature-related risks into investment decisions.[49] These policy developments are prompting financial institutions to evaluate their ecological impacts and to

[45] Ibid.
[46] Harvard Law School Forum on Corporate Governance. (2025, June 24). Top 10 corporate sustainability priorities for 2025. https://corpgov.law.harvard.edu/2025/06/24/top-10-corporate-sustainability-priorities-for-2025/
[47] Ibid.
[48] Ministry of Ecology and Environment of the People's Republic of China. (2024). China's Biodiversity Conservation Strategy and Action Plan (2023–2030). https://chinadevelopmentbrief.org/wp-content/uploads/2024/02/China-Biodiversity-Action-Plan-1.pdf
[49] Ernst and Young. (2024, November 11). Integrating biodiversity risks: The future of sustainable finance. https://www.ey.com/en_lu/insights/sustainability/integrating-biodiversity-risks-the-future-of-sustainable-finance

channel capital toward biodiversity-positive investments—such as green bonds and nature-based solutions—that deliver both environmental resilience and long-term economic value.[50]

Despite progress, challenges persist, such as limited data on biodiversity impacts, which complicates risk assessment for investors. To address this, it is recommended that standardised reporting through tools like the Taskforce on Nature-related Financial Disclosures and the development of EU-wide biodiversity markets to incentivise private investment.[51] By embedding biodiversity as a key element of sustainable finance, these measures not only mitigate financial risks but also position biodiversity as a vital driver of long-term economic resilience and environmental health.

Impact Investing

Impact investing has increasingly come to the forefront of contemporary financial discourse, representing a paradigm shift in capital allocation whereby investors deliberately seek to generate both measurable financial returns and tangible social and environmental benefits. This emerging field, now estimated to constitute a market of approximately USD 1.57 trillion,[52] reflects a broader transformation in global investment priorities, as stakeholders increasingly recognise the necessity of addressing systemic challenges such as climate change, poverty alleviation, and the reduction of inequality.

Distinct from conventional investing and philanthropy, impact investing explicitly prioritises generating positive social and environmental outcomes in addition to returns. The dual focus on 'financial return' and 'impact' is a feature of impact investing that distinguishes it from traditional investing.

Across global financial systems, a number of advanced and emerging economies have made progress in strengthening the supply and intermediation of impact capital, translating responsible investment principles into measurable outcomes. The table below summarises some of the efforts gathered from the international market (See Table 1).

Table 1: Examples Of Key Developments In The Global Impact Investing Landscape

Jurisdiction	Key development
European Union	The European Union's proposed revision of the Sustainable Finance Disclosure Regulation (SFDR 2.0) explicitly addresses impact funds within its sustainable finance framework. The draft amending regulation introduces three product categories—Transition, ESG Basics, and Sustainable—and sets specific criteria for products claiming to achieve impact. Only products classified as Transition or Sustainable, with the explicit objective of generating a pre-defined, positive, and measurable social or environmental impact, may use "impact" in their names. These products are required to disclose how they measure, manage, and report on impact. This proposal embeds impact funds within the EU's core product regime and establishes clear eligibility standards to safeguard against greenwashing.
United Kingdom	The United Kingdom has institutionalised impact finance through mechanisms such as the Pathway Fund - a dedicated wholesaler that channels dormant-asset funding and private capital toward enterprises advancing social and

[50] Sustainable Finance Advisory Committee. (2025, March). Biodiversity and sustainable finance. https://sustainable-finance-beirat.de/wp-content/uploads/2025/03/202503_SFB_recommendations_on_biodiversity.pdf
[51] Ibid.
[52] Global Impact Investing Network. (2024). Sizing the impact investing market 2024. https://thegiin.org/publication/research/sizing-the-impact-investing-market-2024/

Jurisdiction	Key development
	environmental objectives. Complementary initiatives, including the integration of place-based impact investing within pension portfolios and the adoption of the Sustainability Disclosure Requirements by the Financial Conduct Authority, have further strengthened transparency, accountability, and scale within the UK's impact ecosystem.
France	France has achieved a high level of maturity in aligning public policy with market practice through instruments such as the launch of the new version of the socially responsible investment label and the ESUS accreditation for social enterprises, both of which expand access to tailored financing mechanisms and ensure that impact criteria are embedded in mainstream capital markets.
India	India's introduction of the Fund of Funds for Startups and the establishment of The Blended Finance Company—a partnership between philanthropic foundations and institutional investors—have catalysed early- and growth-stage enterprises in climate technology, agricultural technology, and inclusive finance, supporting transformative outcomes through blended capital.
Japan	Japan has advanced an integrated impact finance architecture through JANPIA, its dormant-asset-funded impact wholesaler, and the Japan Impact-driven Financing Initiative, a collaborative framework uniting major financial institutions under common sustainability principles. Supported by the Impact Consortium and the Basic Guidelines on Impact Investment, these initiatives have firmly embedded impact considerations within national financial regulation and corporate strategy.

Source: GSG Impact[53], Eur-Lex[54]

Collectively, these examples demonstrate how well-designed intermediaries - anchored in credible standards, institutional commitment, and policy alignment - can transform impact investing into a core instrument for sustainable and inclusive economic growth.

FinTech As An Enabler Of Sustainable Development

FinTech has emerged as a transformative catalyst in sustainable finance development. Prior to its rise, the sustainability finance landscape was constrained by inefficiencies, data inconsistencies, and a lack of transparency. Reporting frameworks from rating agencies sometimes produced fragmented or unreliable information, undermining investor confidence and enabling misleading claims of environmental responsibility - a notable example is the 2015 Volkswagen emissions scandal. In addition, high transaction costs and restrictive entry barriers marginalised retail investors and communities in developing economies, while manual verification processes delayed and complicated compliance reporting. These structural weaknesses collectively hindered the efficient flow of capital toward low-carbon and socially responsible investments.

FinTech leverages digital technologies such as blockchain, artificial intelligence, big data analytics, and mobile platforms to enhance accountability, accessibility, and operational efficiency within

[53] GSG Impact. (2025). Impact economies traction & trends: Insights from 34 GSG national partners. https://www.gsgimpact.org/media/ilxnrwtb/gsg-impact-economies-tractions-and-trends-insights-from-34-gsg-national-partners.pdf

[54] European Union (2025, November). Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52025PC0841

sustainable finance. In this context, FinTech is reshaping sustainable development within the financial sector in three distinct ways:[55]

1. **Enhancing financial inclusion through digital accessibility:** FinTech has expanded the digital reach of financial services to populations historically excluded from the traditional banking ecosystem. Mobile and social banking platforms, including innovations in Africa, have enabled millions of unbanked individuals to access microloans and savings instruments that support rural entrepreneurship and sustainable agriculture. This expansion of financial inclusion embodies a core pillar of sustainable development - empowering individuals and communities through equitable access to economic opportunities.[56]

2. **Reducing costs in financial services:** FinTech has lowered the cost of financial services, using automation and decentralised systems to eliminate inefficiencies and reduce dependency on traditional intermediaries. By decentralising finance through blockchain-based infrastructures and tokenisation models, FinTech enables small investors to participate in renewable energy projects and green assets that were previously accessible only to large institutions. Such an approach has disrupted monopolistic market structures and introduced competition that promotes affordability and transparency across the financial landscape.

3. **Innovating customer-centric digital experiences:** FinTech redefines customer experience by integrating convenience, security, and regulatory compliance through seamless digital interfaces. These innovations simplify user interactions while embedding advanced safeguards for privacy and trust, thereby enabling customers to engage confidently in sustainable financial activities.

At the heart of this transformation are instruments that reinforce traceability, transparency, and accountability. Blockchain networks[57] support verifiable and fraud-resistant carbon credit trading, while AI-powered analytics continuously monitor corporate disclosures, real-time data feeds, and public sources to detect misleading information and assess sustainability risks with greater precision. Likewise, crowdfunding and peer-to-peer lending channels facilitate direct financing between individuals and environmentally focused projects,[58] minimising cost leakages associated with intermediaries and accelerating capital allocation to impactful ventures.

Looking forward, FinTech's potential to further advance sustainable finance will depend on cautious regulatory enhancements that address challenges related to data integrity, privacy, and energy consumption. Central Bank Digital Currencies could enhance financial inclusion while facilitating green investments through accessible digital infrastructures that support microtransactions and peer-to-peer lending for environmentally focused projects.[59] Meanwhile, decentralised finance ecosystems could drive global standardisation in sustainability disclosures and performance tracking. If governed responsibly, FinTech will support and accelerate the transition toward a fairer, more resilient, and ecologically aligned global financial system.

[55] World Economic Forum. (2025). FinTech and Sustainable Finance. https://intelligence.weforum.org/topics/14ddcedf91954012b46d2d10f986ca0d
[56] SSRN. (2025, March). The Role of FinTech in Sustainable Finance and ESG Investing. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5182517
[57] Ibid.
[58] Ibid.
[59] National Library of Medicine. (2025, April). An overview of CBDCs and their potential role in the green economy. https://pmc.ncbi.nlm.nih.gov/articles/PMC12181764/

3. Sustainable Finance Hubs: The Broader Role Of International Financial Centres

Sustainable finance has become a defining feature of the global financial system, evolving from the narrower concept of green finance into a multidimensional agenda encompassing various sustainability priorities, including social resilience, responsible supply chains, and governance standards. While green finance remains the most mature segment - supported by structured taxonomies and disclosure frameworks and strong investor demand - the broader agenda requires international coordination and innovative financial mechanisms to translate sustainability objectives into tangible market outcomes.

International financial centres (IFCs) occupy a pivotal position in this transformation. Their global connectivity, advanced regulatory infrastructure, and deep financial expertise enable them to mediate cross-border capital flows and to accelerate the development of innovative products and practices. By convening industry players, regulators, investors and other relevant stakeholders, IFCs help to shape policy dialogue and build the institutional trust necessary to scale sustainable investment. Equally crucial is their role in developing robust governance frameworks. By advancing high-quality disclosure standards, stewardship codes, and accountability mechanisms, IFCs enhance market transparency and mitigate the risks of greenwashing - an increasingly critical concern for investors seeking credible sustainability outcomes.

The evolution from leadership in green finance towards broad-based sustainable finance represents a natural progression for leading IFCs. Within this context, Hong Kong stands as a compelling case study that has strategically integrated sustainability into its financial ecosystem, leveraging its regional influence and policy coherence to emerge as a global leader in sustainable finance.

Case Study: Hong Kong As A Leading Green And Sustainable Finance Hub

Hong Kong has made significant strides in advancing both green and broader sustainable finance. The city's experience offers practical insights for other jurisdictions seeking to develop and advance their own sustainable finance ecosystems.

To substantiate the research findings, the authors conducted interviews with two key industry players in Hong Kong's sustainable finance sector. Their insights and perspectives are incorporated throughout the case study below.

- ***Sustainable Finance Initiative (SFi)***[60]
  SFi was launched under the mission to "Mobilise private capital for positive impact" in 2018. SFi is a global platform created by and for Asia Pacific-focused private investors and changemakers, who believe in mobilising private capital for positive impact. They advise, guide and collaborate with impact driven family offices, asset owners, private investors, and financial services professionals to best position their capital for profit and purpose.

[60] Sustainable Finance initiative. (n.d.). https://www.sustainablefinance.hk/

- ***Hong Kong Green Finance Association (HKGFA)***[61]
  Founded in September 2018, the HKGFA provides a platform that supports the development of green finance and sustainable investments in Hong Kong and beyond. It aims to mobilise both public and private sector resources and talents in developing green and sustainable finance policies, to promote sustainable business and product innovation within financial institutions. The HKGFA's main goal is to position Hong Kong as a leading international green tech and green finance hub by providing greater access and opportunities for the city's financial institutions and corporates to participate in green financing transactions locally, in Chinese Mainland, and in markets along the Belt & Road.

Over the past decade, Hong Kong has systematically built a comprehensive sustainable finance architecture, anchored in prudential regulation, market innovation, and capacity building. Such a transformation has been driven by leadership and close partnerships among the government, regulators, and the financial and business community. Together, they have created a stable yet dynamic environment that fosters sustainable innovation for stakeholders worldwide.

Fuelling Growth: Hong Kong's Dynamic Sustainable Debt Market

The breadth and sophistication of Hong Kong's sustainable financial instruments underscore the city's progressive and innovation-driven approach. The city's deep and liquid capital markets offer a diverse suite of green bonds and sustainability-linked loans, which have emerged as the principal vehicles for mobilising climate-related capital, reflecting both investor confidence and policy coherence in advancing the city's net-zero agenda.

A key attraction to issuers and investors is its proven track record in facilitating high-quality, internationally recognised sustainable debt transactions. In 2024, the city facilitated over USD 84 billion in green and sustainable debt, with its bond issuance alone reaching USD 43 billion, capturing 45% of the regional market - securing Hong Kong's position as Asia's top-ranked green bond market for seven consecutive years since 2018.

Central to this is the Hong Kong SAR Government's Sustainable Bond Programme (GSBP), which serves as a benchmark for best practice and inspires private sector issuers to leverage the city's dynamic financial platform. As of the end of 2024, the HKSAR Government had issued a total of USD 28.2 billion in GSS+ bonds under the green theme, representing approximately 26% of the government GSS+ market in the Asia-Pacific region. This highlights Hong Kong's leading position in the region's government green bond market, surpassing other key Asia-Pacific economies, including Japan, Indonesia, Singapore, and India.[62]

Since inception, the GSBP has successfully issued approximately USD 32 billion worth of green bonds across multiple currencies - including HKD, RMB, USD and EUR - through tranches of varying themes designed for both global institutional and local retail investors.[63] These issuances reaffirm international investors' confidence in Hong Kong's long-term creditworthiness and economic fundamentals. Amongst the programme's milestones are the world's largest retail green bond issuance in 2022, Asia's largest ESG bond issuance and the first tokenised government green bond in 2023, and the world's first multi-currency digital native bond in 2024.

[61] Hong Kong Green Finance Association. (n.d.). https://www.hkgreenfinance.org/
[62] Climate Bonds Initiative. (2025, July 17). Hong Kong Sustainable Debt Market Briefing 2024. https://www.climatebonds.net/files/documents/publications/Climate-Bonds_Hong-Kong-State-of-the-market-briefing-2024_July-2025.pdf
[63] HKSAR Government. (2026, January 28). Speech by SFST at 2026 International Forum for Impact Investing. https://www.info.gov.hk/gia/general/202601/28/P2026012800241.htm

This innovative momentum continued in 2025 with the issuance of a third digital green bond, totalling around HKD 10 billion. For the first time, settlement options included tokenised central bank money alongside traditional rails, setting a global precedent and further reducing settlement risks and costs. All tranches were certified under ISO 24165 and adopted the International Capital Market Association's Bond Data Taxonomy (BDT), ensuring greater interoperability between traditional and digital markets.[64] Collectively, these achievements exemplify Hong Kong's commitment to financial innovation, digital transformation, and the continuous enhancement of market efficiency within the sustainable finance ecosystem.

Complementing these market developments, the Government's Green and Sustainable Finance Grant Scheme, now extended to 2027, plays a catalytic role in scaling sustainable financing activities. The scheme has disbursed more than HKD 370 million in subsidies, supporting the issuance of over 600 green and sustainable debt instruments with a combined value exceeding HKD 1.3 trillion.[65]By lowering issuance costs and incentivising the adoption of best-practice sustainability standards, the scheme has deepened market participation and advanced the mainstreaming of sustainable finance across both public and private sectors.

Specific insights from HKGFA

The significant growth in green loans and bonds is complemented by a rising interest in sustainability-linked loans, which reflect performance-based financing.

Meanwhile, innovative products such as tokenised green bonds, which utilise blockchain technology to enhance efficiency and reduce costs, are gaining traction. This not only streamlines processes but also minimises barriers for investors, making it easier to access sustainable finance initiatives.

By promoting these innovative financial instruments, Hong Kong can attract a broader range of investors committed to supporting sustainable development.

Specific insights from SFi

Green finance has become a prominent area within Hong Kong's financial landscape, particularly through green bonds, which are characterised by their relative simplicity and lower risk profile. This accessibility makes them attractive entry points for investors new to sustainable finance, thereby broadening the base of participants in this sector. The rising interest in blended finance further addresses both social and environmental issues, appealing to investors with diverse impact goals. By fostering a variety of innovative financial instruments, Hong Kong is positioning itself as a leader in sustainable finance solutions.

Driving Sustainable Finance: Policy Innovation And Disclosure Excellence

Hong Kong's ascent as a premier green and sustainable finance hub has been propelled by its strategic vision, decisive policy direction and relentless commitment to international best practices. Central to this is the ability to mobilise government, regulators and industry around a shared vision. This collaborative approach was formalised in 2020 with the establishment of the Green and

[64] HKMA. (2025, November 11). HKSAR Government's Third Digital Green Bonds Offerings. https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/11/20251111-6/

[65] HKSAR Government. (2025, September 12). SFST's keynote speech at ReThink HK 2025. https://www.info.gov.hk/gia/general/202509/12/P2025091200306.htm

Sustainable Finance Cross-Agency Steering Group, which has worked closely with industry partners to drive the sustainable finance agenda forward. This has yielded a clear and ambitious roadmap that embeds sustainability, climate, and transition risk considerations into the very architecture of Hong Kong's financial system.

A defining feature of Hong Kong's approach is its pursuit of international standards, coupled with a readiness to innovate where global solutions fall short. The Hong Kong Taxonomy for Sustainable Finance (the Taxonomy), spearheaded by the HKMA in 2024, exemplifies this.[66] The science-based Taxonomy clearly defines criteria for identifying environmentally sustainable economic activities.[67] Built on the principles of interoperability, comparability, and inclusiveness, it aligns with leading international standards, including the Common Ground Taxonomy, the Chinese Mainland's Green Bond Endorsed Projects Catalogue, and the European Union's Sustainable Activities Taxonomy. This compatibility facilitates cross-border capital flows while giving financial institutions and investors a consistent framework for assessing green and sustainable investment opportunities.

Recognising the need to accelerate climate action, the HKMA has continued to enhance its taxonomy to reflect emerging priorities. The expansion in 2025 introduced criteria for transition activities,[68] addressing a gap in global taxonomies and creating pathways for financing high-emission sectors essential to decarbonisation but not yet fully 'green'. Furthermore, the addition of a 'Climate Change Adaptation' category reinforces Hong Kong's pioneering stance, transforming the Taxonomy into one of the first in the region to incorporate such an objective. These enhancements reflect the city's leadership in aligning financial practice with the latest climate science.

Complementing the Taxonomy are efforts to facilitate transparency and disclosure. Since 2016, the HKEX has required listed companies to publish annual ESG reports, a framework that has evolved and expanded to align with increasingly comprehensive disclosures and international frameworks. The Roadmap on Sustainability Disclosure, launched in 2024 by the Hong Kong SAR Government, charts a phased timeline for the adoption of ISSB-aligned standards, requiring large-cap issuers to meet new climate disclosure obligations by 2026 and implementation for publicly accountable entities by 2028. This structured progression ensures reliable, consistent, and comparable sustainability data, thereby supporting more informed capital allocation to companies that actively manage environmental and transition risks. Given Hong Kong's position as one of the world's largest markets for listed companies, these measures are propelling the financial community towards higher standards of sustainability performance and market transparency.

Hong Kong's ambitions are further crystallised in the HKMA's Sustainable Finance Action Agenda, (Action Agenda) launched in 2024.[69] Articulating a vision centred on four core pillars: banking for net-zero, investing in a sustainable future, financing net-zero, and making sustainability more inclusive, these pillars outline concrete objectives such as banks to achieve net-zero operations by 2030, steering the Exchange Fund towards net-zero investment emissions by 2050, mainstreaming transition finance, and addressing the regional talent and knowledge gap. The Action Agenda marks a strategic step to consolidate Hong Kong's leadership as a global sustainable finance hub.

[66] Hong Kong Monetary Authority. (2024). Hong Kong Taxonomy for Sustainable Finance. https://brdr.hkma.gov.hk/eng/doc-ldg/docId/20240503-3-EN

[67] Its initial scope encompassed 12 activities across four core sectors—power generation, transportation, construction, and water and waste management.

[68] Hong Kong Monetary Authority. (2025, September). Phase 2 of Hong Kong Taxonomy for Sustainable Finance: advancing the development of green finance. https://www.hkma.gov.hk/eng/news-and-media/insight/2025/09/20250908/

[69] Hong Kong Monetary Authority. (2024). Sustainable Finance Action Agenda. https://www.hkma.gov.hk/media/eng/doc/key-information/press-release/2024/20241021e4a1.pdf

Specific insights from SFi

Hong Kong's alignment with international standards enhances its credibility in global sustainable finance markets. The city serves as a critical gateway for investments flowing into Chinese Mainland, especially in light of the country's ambitious decarbonisation targets.

As family offices tend to be "first-movers" into sustainable finance, establishing Hong Kong as a family office hub can also facilitate attracting additional capital aimed at supporting sustainability initiatives in Hong Kong.

This proactive stance positions Hong Kong as a vital facilitator for addressing the financial needs arising from Chinese Mainland's sustainability goals.

Optimising Impact: Hong Kong's Commitment To Green Technology Leadership

Hong Kong is actively advancing green technology development as a strategic pillar of its sustainable finance agenda. The city's ambition to become a global centre for green innovation is reflected in its integrated ecosystem—combining research excellence, policy support, and private investment—to accelerate the adoption of low-carbon and climate-resilient solutions. This direction, reinforced in the 2024-25 Budget, [70] emphasises both attracting international green tech enterprises and establishing frameworks for technology transfer and commercialisation, all coordinated through a network of public institutions and market initiatives.

An example is the Hong Kong Science and Technology Parks Corporation (HKSTP), which in early 2025 announced the strategic development of InnoCentre as the leading 'GreenTech Hub', [71] bringing together over 200 green technology enterprises under one roof. This hub serves as a flagship platform to drive research and development, demonstrate sustainable business solutions, and cultivate cross-sector collaboration in areas such as clean energy, smart materials, and climate resilience, attracting tech creators and creating opportunities for investors seeking to finance projects with real impact and visibility.

Complementing this is the Green Tech Fund, which supports research and development in sectors including net-zero electricity, energy-efficient buildings, and waste reduction. Initiatives such as the Hong Kong Green FinTech Map further connect corporates and financial institutions with emerging green fintech solutions, reinforcing the city's ability to mobilise capital and foster innovation (see Figure 10). [72]

[70] Financial Services and the Treasury Bureau. (2024). The 2024-25 Budget. https://www.budget.gov.hk/2024/eng/budget13.html
[71] Hong Kong Science and Technology Parks Corporation. (2025). HKSTP launches GreenTech hub. https://www.hkstp.org/en/park-life/news-and-events/news/hkstp-launches-greentech-hub-solidifying-hk-as-an-international-leading-green-technology-finance-hub
[72] Green and Sustainable Finance Cross-Agency Steering Group. (2024). Hong Kong Green FinTech Map 2025. https://www.sustainablefinance.org.hk/en/data-technology/hong-kong-green-fintech-map-2025

Figure 10: Hong Kong Green FinTech Map 2025

Source: The Green and Sustainable Finance Cross-Agency Steering Group, Cyberport and Invest Hong Kong[73]

The Green and Sustainable FinTech Proof-of-Concept Funding Support Scheme further accelerates the early-stage commercialisation of cutting-edge solutions, enabling FinTech start-ups to collaborate with financial institutions on data-driven tools for carbon tracking, ESG analytics, and green asset tokenisation.[74] Dozens of projects have already received funding, demonstrating the effectiveness of Hong Kong's public-private partnership model in translating innovation into measurable sustainability outcomes.

The scope of investment opportunities continues to broaden. The HKGFA identified substantial financing potential across multiple sectors—including energy, environment and waste management, building and construction, transportation, manufacturing and materials, and fintech[75]—highlighting the central role of technological innovation in accelerating climate action and economic transformation. These initiatives are collectively cementing Hong Kong's status as a convergence point for green technology, digital finance, and sustainable investment, positioning the city to lead the next wave of innovation-driven climate solutions in Asia and beyond. [76]

[73] Green and Sustainable Finance Cross-Agency Steering Group. (2024). Hong Kong Green FinTech Map 2025. https://www.sustainablefinance.org.hk/en/data-technology/hong-kong-green-fintech-map-2025
[74] Cyberport. (n.d.). Green FinTech PoC. https://greenfintechpoc.cyberport.hk/
[75] Hong Kong Green Finance Association. (2025, January 14). HKGFA report – Green technology landscape in Hong Kong: Opportunities for finance. https://www.hkgreenfinance.org/research-report/hkgfa-report-green-technology-landscape-in-hong-kong-opportunities-for-finance/
[76] Hong Kong Green Finance Association. (2024). Green technology landscape in Hong Kong: Opportunities for finance. https://www.hkgreenfinance.org/wp-content/uploads/2025/01/GTIEng14_1.pdf

Strengthening Foundations: Capacity Building And Education In Sustainable Finance

Recognising that human capital forms the foundation of an effective financial transformation, the city has placed strong emphasis on equipping professionals, students, and emerging practitioners with the technical knowledge and applied skills required to drive growth in green and sustainable finance. This strategic focus ensures that the sustainability agenda is not confined to policy or investment frameworks but is embedded within the professional competencies of those who design, implement, and manage financial instruments that support the transition to a low-carbon economy.

Within this context, the Pilot Green and Sustainable Finance Capacity Building Support Scheme plays a pivotal role. The scheme subsidises up to HKD 10,000 per applicant for eligible training programmes, thereby reducing the financial barriers to specialised education in sustainable finance. More than 7,600 applications have been approved with reimbursements exceeding HKD 42 million, underscoring Hong Kong's dedication to nurturing a skilled and knowledgeable workforce.[77]

This investment in human capital yields multiplier effects across the broader financial system. It fosters a generation of professionals well-versed in sustainability principles, carbon accounting, and sustainable investment assessment - areas increasingly central to both capital-market activity and corporate governance. Educational programmes are progressively designed to integrate theoretical learning with practical application, bridging the persistent gap between academic concepts and market practice.

Specific insights from HKGFA

The HKGFA organises numerous industry events annually, fostering knowledge sharing and professional development among over 160 member institutions. Certification programmes, such as the HKGFA-HKUST Certificate in Sustainable Finance, support the development of ESG talent and prepare the next generation of finance professionals to meet the growing demand for expertise in sustainable finance. By investing in education and training, Hong Kong is ensuring that its workforce is equipped to lead in the sustainable finance sector.

Specific insights from SFi

A holistic approach to education in sustainable finance should integrate theoretical knowledge with practical experience, addressing the evolving needs of the industry. SFi's training programmes (such as the online courses offered through New Impact Society) aimed at working professionals focus on sustainable investing practices and perspectives, building expertise that is essential for navigating the complexities of sustainable finance. This emphasis on capacity building is crucial for enhancing the skill set of current and future professionals, enabling them to effectively contribute to the city's sustainability goals.

Collectively, these efforts reflect a comprehensive and forward-looking strategy that recognises education and talent development as central enablers of sustainable finance. By institutionalising professional training, fostering academic-industry collaboration, and aligning capacity-building initiatives with global standards, Hong Kong is consolidating its position as a centre of excellence in sustainable finance. Such investment in people ensures that the transition towards a low-carbon and inclusive economy is both intellectually grounded and operationally sustainable.

[77] HKSAR Government. (2025, September 12). [General news]. https://www.info.gov.hk/gia/general/202509/12/P2025091200306.htm

Leveraging Connectivity: Regional Integration And Cross-Boundary Collaboration

Hong Kong's extensive cross-border financial linkages remain one of its greatest strategic assets in expanding the reach and influence of sustainable finance. Its proximity to the Chinese Mainland, yet coupled with its global connectivity, enables it to act as a vital gateway for channelling international capital into sustainability-driven projects. Engagement with Chinese Mainland counterparts and active participation in regional alliances have reinforced Hong Kong's dual function as both a policy laboratory for innovative financial practices and a conduit for sustainable capital flows throughout the Mainland and beyond, especially the GBA cities.

According to the GBA Green Finance Alliance's signature report, achieving the region's carbon-neutrality target will require an additional USD 1.84 trillion in investment, highlighting vast opportunities for cross-boundary collaboration.[78] This financing need closely aligns with China's national dual-carbon goals—to peak carbon emissions by 2030 and achieve carbon neutrality by 2060—which form the overarching framework guiding the country's green transition.

The rapid rise of China's "New Three Industries" — electric vehicles, batteries, and solar photovoltaics — further illustrates the accelerating pace of industrial transformation under the nation's dual-circulation strategy, which positions the domestic market as a key driver of growth. Within this evolving national landscape, Hong Kong plays a crucial connector role, acting as an international platform that channels both capital and expertise into the Mainland's emerging low-carbon sectors.

Building on this foundation, the direction outlined in the 2025 Policy Address has further deepened Hong Kong's role in regional integration and cross-border collaboration on sustainable finance.[79] The HKSAR Government supports the efforts of Chinese Mainland to promote participation in green cooperation with Belt & Road (B&R) countries, including the establishment of a B&R Green Development Co-operation Platform in Hong Kong in collaboration with the B&R Initiative International Green Development Coalition. Complementing this, a B&R Sustainable Green Development Training Centre is targeted to launch in 2026, providing professional training and enhancing regional capabilities in environmental governance and sustainable finance management.

In parallel, ongoing initiatives continue to reinforce Hong Kong's position as a regional hub for cross-boundary sustainable finance. The Hong Kong Chapter of the Glasgow Financial Alliance for Net Zero brings together global entities and local organisations to forge partnerships, convene experts, and stimulate dialogue across the financial sector. It plays an important role in elevating the profile of transition finance by establishing practical guidelines and developing collaborative products tailored to sectoral needs. [80] Meanwhile, the Hong Kong Biodiversity Strategy and Action Plan 2035 complements these financial initiatives by advancing four strategic areas—nature conservation, mainstreaming biodiversity, capacity building, and collaborative partnerships—anchored by 30 priority actions and 81 projects.[81] Together, these measures strengthen Hong Kong's broader green and transition finance agenda and reinforce its leadership in mobilising capital and expertise to support low-carbon transformation in the Mainland and the wider region.

[78] WRI China. (2023). Decarbonisation pathways and how finance can accelerate the business transition to a low-carbon economy in the GBA. https://av.sc.com/hk/content/docs/hk-gba-decarbonisation-pathways-apr-2023-en.pdf
[79] HKSAR Government. (2025). Policy Address 2025. https://www.policyaddress.gov.hk/2025/public/pdf/policy/policy-full_en.pdf
[80] GFANZ. (2023, August 31). GFANZ Announces Hong Kong Chapter to Support Asia-Pacific Net-Zero Transition. https://www.gfanzero.com/press/gfanz-announces-hong-kong-chapter-to-support-asia-pacific-net-zero-transition/
[81] HKSAR Government. (2025, December 31). Government updates Biodiversity Strategy and Action Plan for Hong Kong. https://www.info.gov.hk/gia/general/202512/31/P2025123100202.htm

To further support the global transition to net-zero, the HKEX launched Core Climate in 2022,[82] an international carbon trading platform and the only voluntary carbon credit trading platform in the world offering settlement in HKD and RMB. This was further strengthened by a 2025 quadripartite memorandum of understanding among carbon exchanges in Hong Kong, Guangzhou, Shenzhen, and Macao—paving the way for greater knowledge exchange and collaborative growth within the GBA's green finance ecosystem.[83] Furthermore, in partnership with the HKMA, the HKEX is actively studying the application of tokenisation technology in carbon trading.[84] an endeavour that explores how blockchain-based digital representations could streamline verification, reduce transaction costs, and enhance transparency in carbon credit exchanges, potentially revolutionising the efficiency and scalability of such systems.

Looking ahead, Hong Kong will deepen pilot cooperation with the GBA carbon market, with a particular focus on cross-border trade settlement mechanisms and the joint development of a regional carbon market ecosystem, which could foster integrated standards and interoperability amongst participating entities.[85] In tandem with these, and through collaboration with relevant Mainland authorities, the Government will also examine the country's prospective participation in international carbon markets.

Specific insights from SFi

The increase in cross-border dialogue around sustainable finance signifies strong interest and opens avenues for regional collaboration. This engagement fosters knowledge exchange and enhances synergies among different markets, positioning Hong Kong as a leader in promoting sustainable finance within the region. The potential for cross-border collaboration is significant, particularly in mobilising the capital needed for achieving sustainability targets.

Specific insights from HKGFA

The GBA Green Finance Alliance promotes synergies among cities like Hong Kong, Guangzhou, and Shenzhen and Macau, fostering cross-border collaboration that aligns with international frameworks. Participation in such initiatives reinforces Hong Kong's leadership role in driving the sustainable finance agenda in Asia. By working closely with Mainland and regional partners, Hong Kong is able to leverage collective strengths and resources to advance sustainable finance goals effectively.

Mobilising Capital For Impact: Hong Kong's Evolving Sustainable Finance Landscape

As the global economy pivots towards sustainability, Hong Kong is leveraging its strengths as an international financial centre to accelerate the flow of capital into activities that deliver measurable environmental and social value. Building on its established green finance base, the city is deepening its sustainable finance ecosystem by advancing transition finance and strengthening impact investing.

[82] HKEX. (2022). [News release]. https://www.hkex.com.hk/News/News-Release/2022/221028news?sc_lang=en
[83] HKEX. (2025). [News release]. https://www.hkex.com.hk/News/News-Release/2025/250923news?sc_lang=en
[84] HKSAR Government. (2025). Policy Address 2025. https://www.policyaddress.gov.hk/2025/public/pdf/policy/policy-full_en.pdf
[85] Ibid.

Transition Finance: Catalysing Real-Economy Decarbonisation

Building on solid foundations in green finance, Hong Kong is actively expanding its sustainable finance architecture to address broader and more complex imperatives within the real economy - principally, the decarbonisation of high-emission sectors and the mobilisation of capital for activities that deliver measurable environmental and social impact. Transition finance has emerged as a critical tool in this effort, targeting hard-to-abate industries such as energy, heavy manufacturing, and transportation - sectors that are essential to regional economic competitiveness but face significant barriers to decarbonisation.

The scale of investment required underscores the urgency of this shift. The International Renewable Energy Agency (IRENA) estimates that achieving global net-zero emissions by 2050 will necessitate cumulative investments of USD 150 trillion,[86] while the International Monetary Fund (IMF) projects an annual USD 800 billion shortfall in climate finance within Asia alone.[87] Given that the region accounts for more than half of worldwide energy consumption and derives approximately 85% of its energy from fossil fuels[88] - the pace and scale of financial mobilisation will be decisive.

Hong Kong's position as Asia's leading international financial centre and sustainable finance hub places it at the forefront of this transition. The city's deep capital markets and broad spectrum of sustainable investment products have already earned the trust of issuers and investors alike. Increasingly, issuers are choosing Hong Kong to launch transition-related bonds and instruments, attracted by its liquidity, innovation, and robust, evolving regulatory frameworks.[89] These features make Hong Kong a preferred platform for raising transition-related capital, offering both credibility and flexibility.

Policy developments underscore this commitment. The Green and Sustainable Finance Cross-Agency Steering Group's 2024 work plan and the HKMA's Sustainable Finance Action Agenda set out a roadmap for sustainable finance and chart a course for expanding transition finance. The ongoing expansion of the Hong Kong Taxonomy for Sustainable Finance to include transition activities provides transparent, science-driven criteria to classify economic activities that are progressing towards decarbonisation.[90] In parallel, the HKMA has extended its Green and Sustainable Finance Grant Scheme to encompass transition bonds and loans,[91] thereby offering incentives for regional issuers to utilise Hong Kong's platform for transition-related capital raising. Together, these measures enhance market transparency, reinforce investor confidence, and position Hong Kong as a regional model for channelling capital into credible, verifiable transition activities.

Looking ahead, Hong Kong's approach, as outlined in the FSDC's research report,[92] builds on its green finance legacy while introducing new instruments and governance tailored to the financing needs of high-emission sectors. Notably, enhancements to the regulatory framework for transition activities are already underway. Meanwhile, the FSDC has identified blended finance solutions and enhanced

[86] International Renewable Energy Agency. (2023). World energy transitions outlook 2023. https://www.irena.org/Digital-Report/World-Energy-Transitions-Outlook-2023
[87] International Monetary Fund. (2024, January 29). Explainer: How Asia can unlock $800 billion of climate financing. https://www.imf.org/en/Blogs/Articles/2024/01/29/explainer-how-asia-can-unlock-800-billion-of-climate-financing
[88] International Renewable Energy Agency. (n.d.). Asia and Pacific. https://www.irena.org/How-we-work/Asia-and-Pacific
[89] HKSAR Government. (2025, October 22). Acting SFST's speech at Opening Ceremony of Green Tech Summit 2025. https://www.info.gov.hk/gia/general/202510/22/P2025102200293.htm
[90] Hong Kong Monetary Authority. (2025, September). [Insight]. https://www.hkma.gov.hk/eng/news-and-media/insight/2025/09/20250908/
[91] Hong Kong Monetary Authority. (2024, May 3). [Press release]. https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/05/20240503-9/
[92] FSDC. (2024, Nov). Navigating the Evolving Sustainable Landscape: Hong Kong's Cirtical Role in Financing the Transaction to Sustainbility. https://www.fsdc.org.hk/en/insights/navigating-the-evolving-sustainable-landscape-hong-kong-s-crucial-role-in-financing-transition-to-sustainability

data management as critical priorities for further development. Although progress in these areas is ongoing, they represent important opportunities for future market innovation and capacity building.

By cultivating a market environment that integrates strong policy direction, regulatory support, and continued financial innovation, Hong Kong is well-positioned to bridge the transition finance gap.

Impact Investing

In recent years, Hong Kong has emerged as a focal point for impact investing, reflecting a broader global shift in how capital is deployed for social and environmental good. While impact investing shares its roots with sustainable finance, it is distinguished by a clear commitment to purposeful investment, the pursuit of outcomes that go beyond financial returns, and a systematic approach to tracking and evaluating results. This emphasis on intentionality and measurable difference enables investors to direct resources towards addressing specific needs - from advancing climate solutions and sustainable development to improving healthcare and making education more accessible.

Parallel to the evolution of sustainable finance, the global impact investing market has expanded dramatically - from USD 715 billion in 2020 to USD 1.57 trillion in 2024[93] - and Asia is increasingly at the forefront of this growth, with East and South Asia now managing more than USD 40.9 billion in impact-investment assets.[94] This development illustrates both the rising investor appetite for measurable impact and the region's growing influence in shaping the future direction of sustainable capital markets.

Against this backdrop, Hong Kong is cultivating a sophisticated and collaborative impact investing ecosystem. Home to more than 17,000 ultra-high-net-worth (UHNW) individuals with a combined net worth of approximately USD 2.3 trillion,[95] the city commands a deep reservoir of private capital that can be mobilised towards social investment and sustainable value creation across Asia. The ecosystem is further supported by the presence of development banks and multilateral institutions. For instance, the Asian Infrastructure Investment Bank announced a plan to set up an office in Hong Kong to mobilise private capital for sustainable development.[96]

This cultural and market shift is further documented in the FSDC's 2025 report, which highlights how the concentration of wealth is driving a broader cultural shift: UHNW individuals, alongside asset owners and family offices, are emphasising impact returns in their wealth-management frameworks, aligning financial stewardship with social responsibility. In response, both the Government and the financial community are working to strengthen the infrastructure that underpins this momentum.

A number of developments illustrate this commitment in action. The HKEX Impact Funding Scheme, launched in 2021, supports recognised social enterprises with grants ranging from HKD 800,000 to HKD 2 million per project.[97] By prioritising financial literacy, social empowerment, talent development, and environmental sustainability, the scheme exemplifies the growing commitment of mainstream institutions to deploy structured, outcomes-oriented capital in pursuit of measurable community-level impact. Complementing this, the Hong Kong Academy for Wealth Legacy (HKAWL)

[93] Global Impact Investing Network. (2024). Sizing the impact investing market 2024. https://thegiin.org/publication/research/sizing-the-impact-investing-market-2024/
[94] Global Impact Investing Network. (2024). In focus: Impact investing in Asia in 2024. https://s3.amazonaws.com/giin-web-assets/giin/assets/publication/giin-infocusimpactinvestinginasiain2024-2024.pdf
[95] Altrata. (2025, September 30). World Ultra Wealth Report 2025. https://info.altrata.com/l/311771/2025-09-26/27cmbq/311771/17589096956AYjzV5Z/Altrata_World_Ultra_Wealth_Report_2025_FINAL.pdf
[96] HKSAR Government. (2025, November 3). Government welcomes Asian Infrastructure Investment Bank's plan to set up office in Hong Kong. https://www.info.gov.hk/gia/general/202511/03/P2025110200193.htm?fontSize=2
[97] HKEX Group. (2024, February 1). HKEX Impact Funding Scheme. https://www.hkexgroup.com/Sustainability/HKEX-Foundation/HKEX-Impact-Funding-Scheme?sc_lang=en

launched the Impact Link (iLink) Online Portal in mid-2025, bringing together around 50 family partners in a curated digital environment.[98] This creates an exclusive digital environment, where invited family philanthropists can identify scalable philanthropic and impact-oriented initiatives addressing urgent societal and environmental challenges in Hong Kong and beyond.

Taken together, these developments reveal a significant broadening of Hong Kong's sustainable finance architecture, which now encompasses the complementary pillars of transition finance, impact investment, and strategic philanthropy.

Conclusion

Hong Kong's journey exemplifies how an international financial centre can strategically embed sustainability into its financial ecosystem by advancing regulatory development, financial innovation, cross-border collaboration, and investment in human capital. Through its forward-looking taxonomy, robust climate disclosure requirements, and leadership in transition and impact finance, Hong Kong has crafted a coherent strategy that balances market competitiveness with environmental and social responsibility. Its proactive approach affirms that sustainable finance is not a parallel agenda but a core pillar for long-term economic resilience and global relevance.

[98] Financial Services Development Council. (2025, June 17). Hong Kong Academy for Wealth Legacy launches Impact Link Online Portal (iLink online) to accelerate strategic philanthropy. https://www.fsdc.org.hk/en/media/hong-kong-academy-for-wealth-legacy-launches-impact-link-online-portal-ilink-online-to-accelerate-strategic-philanthropy

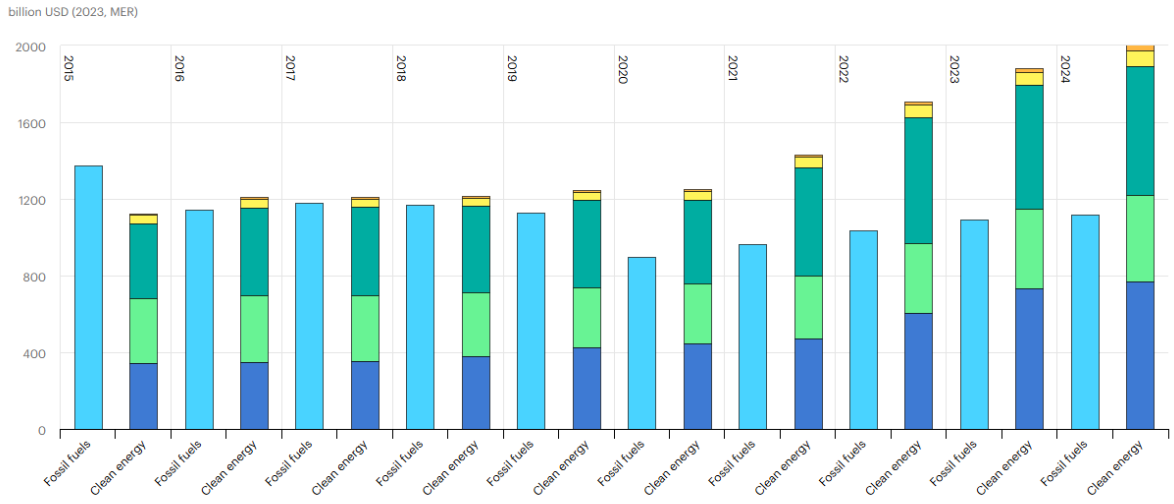
4. Further Considerations For Financial Centres Integrating Sustainable Development Objectives

As the global transition to sustainable development accelerates, the financial sector faces an intricate landscape of strategic challenges and competitive risks. Markets must contend with policy volatility, reputational pressures, and evolving investor and client expectations. The future ahead will be shaped by the ability of financial centres, regulators, and market participants to manage these exposures, transform them into competitive advantages, and unlock long-term value in a fundamentally reshaped global economy.

Systemic Vulnerability To Climate-Related Risks

The financial sector is navigating a profound structural shift as it adapts to the low-carbon transition. Investment trends illustrate this inflection: the world currently invests twice as much in clean energy as in fossil fuels. [99] (See Figure 11). Yet, momentum is constrained by entrenched fossil fuel subsidies, which reached USD 7 trillion in 2022 - equivalent to 7.1% of global GDP - with no significant reduction through 2024. [100] These subsidies, both explicit (tax breaks and direct payments) and implicit (unpriced externalities such as pollution and health impacts), continue to incentivise hydrocarbon dependence and distort market dynamics, undermining the economics of clean energy and complicating the global path to net zero.

Figure 11: Global Investment In Clean Energy And Fossil Fuels, 2015-2024



Source: IEA

This misalignment produces systemic risks, notably the prospect of stranded assets as renewable energy becomes more competitive and climate policies intensify. According to the UK Sustainable Investment Forum, global exposure to stranded assets could reach USD 2.28 trillion by 2040,[101] with

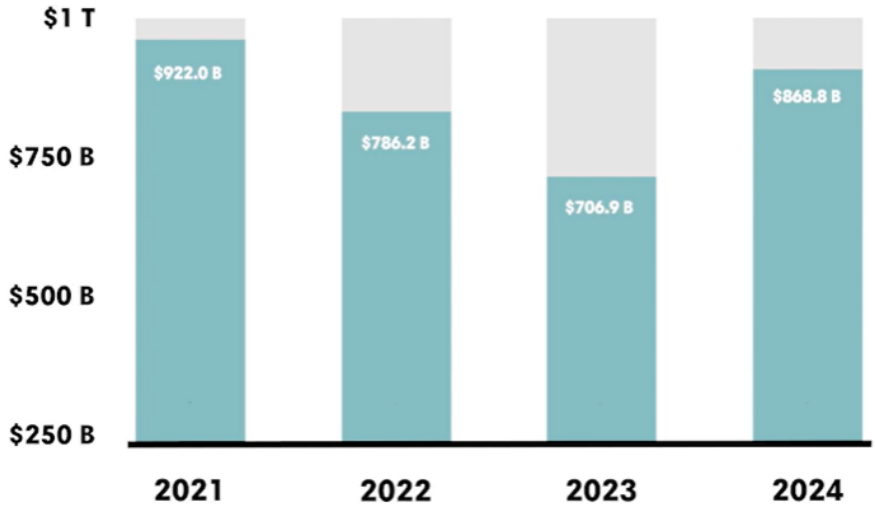
[99] International Energy Agency. (2024). World energy investment 2024. https://iea.blob.core.windows.net/assets/60fcd1dd-d112-469b-87de-20d39227df3d/WorldEnergyInvestment2024.pdf
[100] International Monetary Fund. (2023). IMF fossil fuel subsidies data: 2023 update. https://www.imf.org/en/Publications/WP/Issues/2023/08/22/IMF-Fossil-Fuel-Subsidies-Data-2023-Update-537281
[101] UK Sustainable Investment and Finance Association. (2025). Stranding: Modelling the UK's exposure to at-risk fossil fuel assets. https://uksif.org/wp-content/uploads/2025/03/UKSIF-Stranded-Assets-Report-March-2025.pdf

fossil-reliant economies such as Russia, the United States, and Canada particularly at risk. In the UK alone, potential losses may exceed USD 141 billion, including USD 19 billion borne by pension funds—threatening both macroeconomic resilience and retirement security.[102]

The energy sector's weight in the S&P 500 has already fallen precipitously, from 16% in 2014 to 3.7% in 2025, reflecting both the erosion of fossil dominance and the rise of clean energy and technology leaders.

Yet this market repricing has not fully translated into bank balance sheets. In 2024, the world's 65 largest banks provided USD 869 billion in fossil-fuel financing - a 23% increase from the previous year (See Figure 12).[103] This level of financing is not inherently incompatible with all net-zero pathways, which generally allow for a continuing (though declining) role for fossil fuels during the transition; however, the transition risk is uneven and becomes pronounced where lending supports long-dated, high-cost, and carbon-intensive assets, especially thermal coal and certain long-life oil and gas developments. In these segments, tightening policy, shifting demand, and reputational constraints can accelerate impairments and, at scale, amplify broader financial-stability concerns, setting the context for the more assertive investor responses that follow.

Figure 12: Fossil Fuel Financing From The World's 65 Biggest Banks



Source: Rainforest Action Network[104]

Institutional investors have responded to these challenges by moving beyond cautious engagement toward more assertive action. The Climate Action 100+ initiative, now comprising over 700 investors and USD 68 trillion in assets, has driven tangible progress by using shareholder resolutions and board engagement to push over 170 of the world's largest corporate emitters toward Paris-aligned targets. As of 2025, 80% of focus companies now have net zero commitments, and 90% have established board-level oversight of climate risks. This has led not only to enhanced emissions disclosures and transition planning but also to a normalisation of climate risk as a core element of corporate governance.

[102] UK Sustainable Investment and Finance Association. (2025). UK economy heading for USD 141 billion loss caused by stranded fossil fuel assets, with pension funds on track to lose USD 19 billion. https://uksif.org/stranding-press-release/
[103] Rainforest Action Network. (2025). Banking on climate chaos. https://www.bankingonclimatechaos.org/
[104] Rainforest Action Network. (2025). Banking on climate chaos. https://www.bankingonclimatechaos.org/

At the same time, divestment from fossil assets is gaining momentum as a strategic response to underperformance and rising risks. Over 1,600 institutions have divested more than USD 40 trillion from fossil fuels since 2014.[105] This wave, driven in part by pension funds and long-term asset owners, reflects both ethical imperatives and market realities: fossil-heavy portfolios have trailed the S&P 500 by more than 50% over the past decade, and renewables are increasingly delivering superior risk-adjusted returns.

This dynamic raises the spectre of a disorderly 'carbon bubble', in which the rapid unwinding of fossil assets destabilises financial markets. Avoiding such an outcome will require proactive regulatory and central bank interventions, alongside coordinated strategies for managing transition risk. The imperative is clear: finance must evolve from adapting to sustainability pressures to actively accelerating the transition, mitigating systemic vulnerabilities while seizing new opportunities for value creation.

Regulatory Frameworks And Standards

Regulatory standards have been evolving in tandem with the development of sustainable finance, although challenges persist. A key obstacle is the absence of universally accepted definitions, particularly for 'green finance', which often overlaps with broader sustainability objectives. This ambiguity creates space for greenwashing and hinders comparability.

Over the past two years, regulatory developments in green finance have provided a reference for the entire sustainable finance sector. This push for transparency has propelled sustainable debt issuance: by the close of 3Q 2025, cumulative aligned issuance of Green, Social, and Sustainability bonds, plus other labelled thematic bonds (GSS+) debt stood at USD 6.5 trillion.[106]

Crucially, as regulatory frameworks extend from green into social and governance domains, several core features are emerging across jurisdictions, despite variations in detail and scope:

1. **Alignment with global targets:** Most frameworks are anchored to global objectives - such as the UN Sustainable Development Goals, the Paris Agreement, and the UN Biodiversity Convention - ensuring that capital flows support internationally recognised priorities.

2. **Reporting requirements:** Companies are required to disclose information on their ESG performance, guided by both regulatory standards and voluntary guidelines. Disclosure frameworks are underpinned by materiality, ensuring that reported information is relevant to both financial and societal impacts. The EU's CSRD, Non-Financial Reporting Directive, and the UK's Streamlined Energy and Carbon Reporting are leading examples, and Hong Kong's roadmap for adopting ISSB standards by 2028 similarly embeds materiality and comparability into local disclosure.

3. **Compliance and enforcement:** New standards are increasingly backed by concrete compliance requirements, including penalties for non-compliance. This emphasis on enforcement is essential for deterring greenwashing and ensuring the credibility of sustainable finance products and claims.

[105] Institute for Energy Economics and Financial Analysis. (n.d.). The Financial Case for Fossil Fuel Divestment. https://ieefa.org/financial-case-fossil-fuel-divestment
[106] Climate Bonds Initiative. (n.d.). Sustainable debt H1 2025. https://www.climatebonds.net/files/documents/publications/Sustainable_Debt_H1_2025_01C.pdf

These pillars are reinforced and complemented by the proliferation of voluntary international standards, such as the Global Reporting Initiative, the Task Force on Climate-related Financial Disclosures, and the Sustainability Accounting Standards Board. These frameworks provide detailed guidance on what should be disclosed, how ESG factors should be measured, and how sustainability data should be presented, further supporting global harmonisation efforts. Empirical research supports these efforts: mandatory ESG disclosure has been shown to reduce capital costs and improve liquidity, especially when coupled with rigorous enforcement.[107]

However, the proliferation of standards across jurisdictions has also introduced challenges. Europe's 'regulatory blizzard' - with overlapping requirements under the EU Taxonomy, CSRD, and SFDR—has contributed to a slowdown in green bond issuance in 2024, prompting regulatory streamlining for SMEs and non-financial firms.[108] In Hong Kong and other leading markets, the challenge is to harmonise local rules with global initiatives like the ISSB while maintaining accessibility for smaller issuers and regional players. Emerging markets face parallel hurdles: capacity gaps, fragmented adoption, and resource constraints can impede full implementation and enforcement. Malaysia's ongoing sustainability assurance consultations[109] and Chinese Mainland's unified green finance catalogue[110] highlight both the progress and the persistent barriers to harmonised, high-quality reporting. Meanwhile, global research suggests that while mandatory ESG disclosure generally enhances transparency, it can also widen loan spreads for firms with poor prior practices—potentially deterring investment in high-impact but riskier sectors, such as renewables in emerging economies.[111]

Looking ahead, the challenge—and opportunity—lies in harmonising standards without sacrificing ambition or accessibility. The EU's Voluntary Sustainability Reporting Standard for SMEs,[112] adopted in July 2025, and Hong Kong's phased ISSB adoption strategy,[113] both aim to ease compliance burdens while maintaining integrity. The OECD has flagged growing complexity and cost burdens that companies face, amid a fragmented global ESG reporting landscape, and recommends that jurisdictions accept reporting under global standards as equivalent to domestic rules.[114]

Ultimately, the next phase of sustainable finance will depend on the ability to balance rigour with flexibility, harmonise global standards with local realities, and extend the lessons of green finance across the broader sustainability landscape. Financial centres and regulators that succeed in this balancing act—like Hong Kong—will be best positioned to attract capital, foster market innovation, and deliver on the promise of sustainable, equitable growth.

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[107] SSRN. (2024, June 26). From Mandate to Market Across the Globe: The Impact of Mandatory ESG Disclosure on the Cost of Equity Capital. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4877934

[108] Prayoonrat, N. (2025). European authorities shift away from issuing green bond guidance. https://www.compliancecorylated.com/news/european-authorities-shift-away-from-issuing-green-bond-guidance/

[109] Securities Commission Malaysia. (2025). Advisory committee on sustainability reporting (ACSR) public consultation paper no. 2 / 2025 proposed framework for sustainability assurance. https://www.sc.com.my/api/documentms/download.ashx?id=60fa692e-1059-451d-9e67-234cea439cd7

[110] Xie, W. (2025). China's new green finance catalogue brings clarity and confidence to the market. https://www.climatebonds.net/news-events/blog/chinas-new-green-finance-catalogue-brings-clarity-confidence-market

[111] Do, T., & Vo, X. (2023). Is mandatory sustainability disclosure associated with default risk? Evidence from emerging markets. Finance Research Letters, 55(Part A), Article 103818. https://www.sciencedirect.com/science/article/abs/pii/S1544612323001915#:~:text=corporate%20governance%20mechanism.-,Abstract,the%20economy%20and%20wider%20society

[112] European Commission. (2025). Commission presents voluntary sustainability reporting standard to ease burden on SMEs. https://finance.ec.europa.eu/publications/commission-presents-voluntary-sustainability-reporting-standard-ease-burden-smes_en

[113] Hong Kong Securities and Futures Commission. (2024). Roadmap on sustainability disclosure in Hong Kong. https://www.fstb.gov.hk/fsb/en/publication/report/docs/FSTB_Roadmap2024_eBooklet_EN.pdf

Organisation for Economic Co-operation and Development. (2025). The risks of divergence between global ESG reporting standards. https://www.businessatoecd.org/hubfs/The%20Risks%20of%20Divergence%20Between%20Global%20ESG%20Reporting%20Standards.pdf

The Sustainability Data Challenge For Emerging Markets

The persistent sustainability data gap, especially in emerging markets, represents a critical impediment to accelerating sustainable development and attracting global investment essential for the energy transition. Despite substantial concessional funding targets - estimated by the International Energy Agency to reach USD 80–100 billion by the early 2030s[115] - and continued pledges to institutions such as the Green Climate Fund, the absence of reliable, standardised sustainability data continues to undermine investor confidence and constrain capital mobilisation.

The challenge primarily lies in the limited interoperable infrastructure for sustainability data collection and reporting, where only 39% of companies in the FTSE Emerging Index disclose Scope 1 and 2 emissions,[116] compared to nearly universal reporting among participants in established frameworks like GRESB. This discrepancy highlights not only structural limitations in data availability but also the broader institutional hurdles - ranging from deficient regulatory frameworks to technical capacity gaps - that prevent economies from demonstrating measurable progress toward sustainability objectives.

Moreover, the implications of this data deficit extend beyond mere transparency concerns to pose a potential market failure in the allocation of sustainable investment capital. Investors increasingly use sustainability metrics as a decisive factor in their assessments, with a majority viewing investment-grade sustainability data as integral to risk evaluation and performance forecasting. In the absence of credible data, high-impact infrastructure projects in developing regions risk being overlooked in favour of those situated in more mature markets where robust, sustainable information verification mechanisms are entrenched. This misallocation of capital perpetuates developmental asymmetries and diminishes the transformative potential of sustainable infrastructure in regions where socioeconomic and environmental dividends could be greatest.

Consequently, bridging the sustainability data gap requires both targeted technical assistance and sustained multilateral collaboration, enabling emerging economies to integrate sustainability principles from the earliest stages of project development. By institutionalising data quality and availability, these markets can better align with global standards, ensuring that investment decisions reflect true sustainability performance rather than structural data disparities.

ESG Backlash

The growing backlash against ESG principles marks a challenging moment for companies and investors committed to sustainable finance. Once viewed as a near-universal framework for corporate responsibility and long-term value, ESG has recently faced criticism and political resistance, especially in markets such as the United States. Many firms are quietly reducing their public use of the term ‘ESG’, even as they continue sustainability efforts behind the scenes.[117] This reflects a wider tension between short-term business pressures and the need for long-term resilience in an increasingly uncertain global environment. The challenge now lies not in whether sustainability still matters - it clearly does - but in how to pursue it effectively when the political climate, investor expectations, and regulatory landscapes are shifting.

[115] International Energy Agency. (2023). Net zero roadmap: A global pathway to keep the 1.5 °C goal in reach. https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach
[116] FTSE Russell. (2023). Mind the gaps: Clarifying corporate carbon. https://www.lseg.com/content/dam/ftse-russell/en_us/documents/research/mind_the_gaps_-_clarifying_corporate_carbon_final_5.pdf
[117] London Business School. (n.d.). What the ESG backlash reveals. https://www.london.edu/think/what-the-esg-backlash-reveals

Yet, this backlash also opens up space for more meaningful and resilient approaches to sustainability. Rather than treating ESG as a marketing label, organisations are encouraged to integrate it into their business strategies as a tool for future planning and risk management. This evolution allows companies to focus on real impact - innovation, efficiency, and value creation - rather than on compliance or reputation alone. Even though the global conversation around sustainability may seem less prominent today, it continues to influence economic and financial decisions in profound ways. In this regard, Hong Kong stands out as a jurisdiction that remains firmly committed to the path of sustainable development. The city continues to work closely with its regional and international partners to strengthen sustainability practices, integrate sustainable finance, and align with emerging standards. This shows that, despite the changing tone of global debates, the direction of travel toward a more sustainable and resilient financial system remains intact.

Insurance

Drawing on the G20 Sustainable Finance Working Group input prepared by the International Association of Insurance Supervisors, [118] which underscores both the macroprudential role of insurance in absorbing climate- and nature-related shocks and the micro-level imperative to close protection gaps, it becomes clear that insurers sit at a pivotal junction of risk transfer, risk reduction, and capital allocation. On one hand, the sector can channel long-duration liabilities into climate-aligned infrastructure and transition assets, thereby supporting decarbonisation while enhancing portfolio resilience; on the other hand, it must recalibrate underwriting, pricing, and capital models to reflect non-stationary hazard, exposure, and vulnerability profiles, which are increasingly shaped by climate change, urbanisation, and supply-chain complexity.

The scale of the challenge is illustrated by the steady escalation of catastrophe burdens on the balance sheet: global insured losses from natural catastrophes reached USD 137 billion in 2024 and are on trend to USD 145 billion, up from USD 115 billion in 2023 and well above the 10-year average of USD 98 billion,[119] a trajectory that not only compresses underwriting margins and heightens tail-risk correlation but also intensifies the urgency of deploying risk prevention, nature-based solutions, and risk-pooling mechanisms that can stabilise affordability and availability. Consequently, sustainable finance presents both opportunities - such as integrating scenario analysis into strategic asset allocation, scaling parametric covers, and leveraging public–private partnerships to crowd in capital - and challenges, including model uncertainty, data asymmetries, and regulatory frictions that can inhibit rapid product innovation while safeguarding policyholder protection.

Within this broader frame, Hong Kong offers a targeted case study of how market infrastructure and policy can catalyse alternative risk transfer in support of resilience objectives, as their government is weighing additional incentives to attract more catastrophe bond issuers and investors following its second annual insurance-linked securities conference aimed at promoting the city as a global hub. Since launching its insurance-linked securities (ILS) regulatory regime in 2021, Hong Kong has hosted nearly USD 800 million in catastrophe bond issuance, with entities like the World Bank and Peak Re raising funds through deals issued or listed on its exchange. Approximately USD 300 million of that volume has employed a Hong Kong-domiciled and regulated special purpose reinsurance vehicle structure, while the remaining USD 500 million came from two World Bank catastrophe bonds that listed on the Hong Kong Exchange.

[118] International Association of Insurance Supervisors. (2025, July). G20-SFWG input paper: Identify and address insurance protection gaps. https://www.iais.org/uploads/2025/07/G20-SFWG-input-paper-Identify-and-address-insurance-protection-gaps.pdf
[119] Swiss Re Institute. (2025). Sigma 2025-01: Natural catastrophes trend. https://www.swissre.com/institute/research/sigma-research/sigma-2025-01-natural-catastrophes-trend.html

Furthermore, the April issuance of the second catastrophe bond - involving USD 50 million, which provides coverage for earthquakes and typhoons across Japan, Chinese Mainland, and India - serves as a marker of market maturation, demonstrating both investor appetite for diversified peril-region exposures and the potential for Asian hubs to deepen liquidity in protection markets;[120] yet, as the IAIS perspective suggests, the durability of such growth will depend on aligning supervisory frameworks, disclosure standards, and transition taxonomies so that risk transfer via ILS complements broader sustainable finance objectives rather than merely displacing risk across balance sheets.

[120] Insurance Authority. (2024, April 30). [Press release]. https://www.ia.org.hk/en/infocenter/press_releases/20250430.html

5. International Collaboration

Innovative financial products and services require a broad international footprint to achieve growth and enduring sustainability. These offerings must navigate national borders to access expanding markets, while those with substantial transaction costs demand large-scale deployment to attain economic viability. Similarly, risk-laden instruments such as insurance benefit from geographic diversification to distribute exposures more effectively. Fostering this global orientation relies on robust partnerships among policymakers, financial institutions, and leading financial centres, which collaborate on harmonised regulations, standardised practices, and benchmarking protocols, to streamline cross-border activities and address overarching challenges in sustainable development.

Partnerships For Finance For Sustainable Development Within The APAC Region

A recent UNEPFI report highlights a number of trends amongst central banks and regulators within the APAC region. [121] Notably, there is a transition from voluntary guidelines to binding mandates, coupled with stronger alignment to international benchmarks like the TCFD and the ISSB. Advancements in climate scenario analysis and stress testing are also gaining traction, with regulatory scopes broadening from climate-specific risks to encompass a fuller spectrum of environmental threats. Together, these developments equip institutions with enhanced tools for uncertainty management and forward-looking risk mitigation.

This converging vision has fuelled a wave of collaborative initiatives among regulators, multilateral organisations, and financial entities, all geared toward mobilising capital and insurance solutions for sustainable development. Several prominent examples demonstrate how these alliances generate practical momentum.

Central to these efforts is the UNDP Sustainable Finance Hub, [122] which spans 36 Asia-Pacific countries and strategically channels private investments toward the SDGs. It establishes a resilient sustainable finance framework, anchored in robust public financial governance. Public-sector components emphasise inclusive advancement through climate-resilient taxation and investment strategies, SDG-integrated budgeting, and innovative mechanisms such as sustainability-linked bonds and debt-for-nature swaps. Complementary risk-financing tools and Integrated National Financing Frameworks further cultivate an ecosystem conducive to sustained economic vitality. On the private front, the Hub draws on market intelligence to assemble investable portfolios of sustainable enterprises, collaborates with stock exchanges to align impact reporting with global norms, and expands interconnected networks involving financial intermediaries, sustainability-oriented centres, and coalitions like the Financial Centres for Sustainability. In aggregate, these activities bridge knowledge gaps and accelerate the infusion of capital into high-potential ventures.

Complementing this landscape, the Glasgow Financial Alliance for Net Zero established its APAC Network in June 2022 to engage financial institutions and policymakers in advancing decarbonisation. The network's reach deepened with the August 2023 announcement - and 2024 formal launch - of the GFANZ Hong Kong Chapter, which prioritises capacity enhancement for regional players. By directing resources toward real-economy transformations, such as retrofitting carbon-intensive

[121] United Nations Environment Programme Finance Initiative. (2025). Climate related risks in financial regulation and supervision in APAC – A policy landscape analysis. https://www.unepfi.org/regions/asia-pacific/climate-related-risks-in-financial-regulation-and-supervision-in-apac

[122] United Nations Development Programme. (n.d.). SDG finance Asia-Pacific. Retrieved September 20, 2025, from https://sdgfinance.undp.org/where-we-work/asia-pacific

industries and fortifying low-emission supply chains, it not only hastens progress toward net-zero ambitions but also bolsters systemic resilience.[123]

Further amplifying regional cooperation, the HKMA forged a pivotal partnership in November 2024 with institutions including the Asian Development Bank, the Asian Infrastructure Investment Bank, and the International Finance Corporation. This alliance intensifies sustainable finance across Asia, targeting priority areas like renewable energy infrastructure, energy-efficient innovations, and sustainable mobility solutions to diminish greenhouse gas emissions and advance net-zero objectives.[124] Such focused collaborations yield compounded benefits, intertwining environmental safeguards with economic prosperity.

In a significant development furthering this collaborative trajectory, the HKMA and the AIIB formalised a partnership agreement in June 2025 to support venture capital investments in emerging Asia, marking a new milestone in deepening ties and cooperation between the two institutions.[125] This strategic alliance commits both entities to jointly invest in a portfolio of VC funds that prioritise emerging market opportunities across Asia, emphasising the development of innovative technologies and business models aimed at green and technology-enabled infrastructure in Asia's emerging economies. Concurrently, this partnership seeks to leverage and promote Hong Kong's established ecosystem for venture capitalists and innovators throughout the region.

In short, sustainable finance policies do not evolve in isolation. Their success hinges on coordination across regulatory bodies, governments, and stakeholder networks. Bridging the APAC region's financing shortfall - potentially trillions for climate adaptation alone - demands this policy synergy. As a leading global financial centre and the indispensable gateway in connecting Chinese Mainland and global markets, Hong Kong is well positioned to facilitate the integration of funding conduits, harmonise disparate regulatory frameworks, and amplify the impact of collaborative sustainable finance initiatives.

[123] Glasgow Financial Alliance for Net Zero. (n.d.). Asia-Pacific network. https://www.gfanzero.com/asia-pacific-network/
[124] Hong Kong Monetary Authority. (2024, November 11). [Press release]. https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/11/20241111-3/
[125] Hong Kong Monetary Authority. (2025, June 26). [Press release]. https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/06/20250626-5/

6. Conclusion

Global finance has been recasting from a growth-centric model into a catalyst for structural transformation that reconciles economic advancement with environmental stewardship and social equity. As this paper has shown, finance - when strategically aligned with sustainability principles - serves not only as a mechanism for wealth creation but as an instrument capable of addressing systemic challenges such as climate change, inequality, and biodiversity loss. The evolution of sustainable finance marks a paradigm shift in which resilience, inclusion, and accountability are intrinsic to financial performance.

As the field matures, its landscape is becoming ever more dynamic and complex. The expansion of green bonds and sustainability-linked loans has been joined by the rise of more sophisticated approaches - such as transition finance and impact investing - reflecting the nuanced pathways and challenges involved in supporting a just and inclusive transition. Sustainable finance has become a multifaceted endeavour, requiring tailored solutions for diverse sectors and geographies.

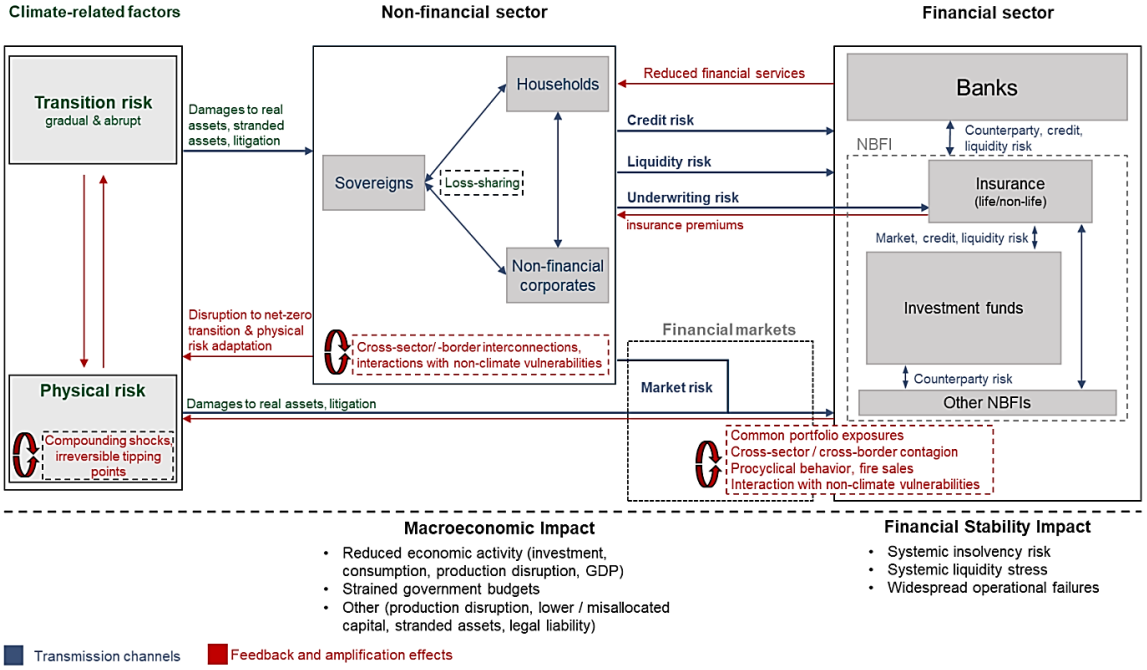
Financial centres like Hong Kong are poised to lead by example - continuing to refine regulatory frameworks, foster cross-border partnerships, and scale up new solutions that embed sustainability at the heart of financial governance. Their adaptive approaches can potentially set benchmarks and build momentum for global practices.

Ultimately, the role of finance in addressing sustainable development lies in its capacity to channel resources, incentivise behavioural change, and reinforce accountability across all sectors of the global economy. As sustainability becomes an intrinsic measure of financial performance, the distinction between economic value and societal value will continue to narrow. The defining challenge of the coming decades will therefore be ensuring that capital - public and private alike - is mobilised not only efficiently, but purposefully, toward a just, inclusive, and enduring global transition.

Annex 1: Climate-Related Vulnerabilities And Financial Stability

Climate-related vulnerabilities represent a growing source of financial risk, stemming from the interaction between climate shocks and the structural fragilities of the global financial system. As climate change intensifies, both the frequency and the magnitude of its physical and transitional impacts are expected to increase, challenging the capacity of financial institutions and markets to manage and absorb losses. These vulnerabilities are not confined to specific sectors or jurisdictions but have cross-border and cross-sectoral implications, as they manifest through multiple and interlinked transmission channels that connect the real economy to the financial system (See Figure A1).

Figure A1: Climate-Related Vulnerabilities



Source: Financial Stability Board[126]

Physical risks originate from acute or chronic climate events such as floods, droughts, or windstorms. These events can damage productive assets, diminish property values, disrupt supply chains, and impair economic output. The resulting losses reduce borrowers' ability to meet financial commitments, devalue collateral, and increase non-performing loans, thereby heightening credit risk. Moreover, repeated or severe physical damages can erode insurance coverage and increase costs, potentially transferring residual risks to households, businesses, or the public sector.

Transition risks, on the other hand, result from the process of adjusting towards a lower-carbon economy. Abrupt regulatory changes, technological breakthroughs, or shifts in consumer preferences can generate sudden revaluations in carbon-intensive industries. Companies exposed to such changes may face reduced profitability, higher costs of capital, or even asset stranding. These developments can also induce financial market reactions if investors reassess the long-term viability of transition-sensitive sectors, triggering volatility and widening risk premiums.

[126] Financial Stability Board. (2025, January 16). Assessment of climate-related vulnerabilities: Analytical framework and toolkit. https://www.fsb.org/uploads/P160125.pdf

In practice, climate-related shocks are transmitted through traditional channels of financial risk, which include credit, market, liquidity, and underwriting mechanisms, but are amplified by the distinctive characteristics of climate dynamics:

- Credit risk arises when climate shocks weaken the capacity of borrowers to service debt or impair the value of pledged collateral. Firms suffering from disrupted operations or costly adaptation requirements may become less creditworthy, while asset devaluation in exposed regions can heighten systemic loan losses.

- Market risk emerges as investors adjust asset valuations to reflect new information about climate vulnerabilities, transition pathways, or physical damages. Abrupt re-pricing of climate-sensitive instruments, equity shares, and sovereign bonds can create significant mark-to-market losses and elevated market volatility.

- Liquidity risk may be triggered by funding withdrawals from entities viewed as vulnerable to climate exposures, by large-scale redemptions in investment funds, or by margin calls following asset price declines. Such dynamics can rapidly constrain market liquidity and tighten financing conditions.

- Underwriting risk affects insurers as the frequency and severity of weather-related losses increase. A persistent escalation of claims can threaten insurers' capital positions, limit the availability or affordability of insurance, and result in the transfer of uninsurable risks to other sectors or to the government.

- Beyond these, operational and legal risks may arise from physical damage to financial infrastructure, such as data centres or branches, or from litigation associated with alleged failures to manage or disclose climate exposures.

The amplification of climate-related vulnerabilities is often magnified by the high degree of interconnectedness within the financial system. Corporate, banking, and investment linkages - through credit relationships, cross-holdings, and funding dependencies - allow shocks in one part of the system to spread rapidly to others. Non-bank financial institutions (NBFIs), including insurers and investment funds, play an important role in this propagation, as their holdings of climate-exposed assets, or their responses to abrupt price changes, can produce liquidity pressures and correlated portfolio adjustments. For instance, if a substantial portion of investors simultaneously reassess climate risks, widespread sell-offs may ensue, depressing asset valuations further and amplifying feedback effects through market and funding channels.

Additionally, feedback loops between the real economy and the financial system can reinforce these vulnerabilities. Physical damages or sharp transitions can reduce economic output and wealth, which in turn weakens credit quality and investment capacity. Reduced lending and limited insurance coverage may exacerbate economic losses, while public balance sheets come under strain as governments assume residual risks or provide recovery funding. The cyclical interaction of these effects can lead to sustained disruptions in financial intermediation, increased systemic correlation across asset classes, and reductions in overall financial resilience.

Ultimately, climate-related vulnerabilities threaten financial stability not solely because of specific climatic events, but because they interact with and amplify underlying financial fragilities such as leverage, liquidity mismatches, and asset mispricing. Their non-linear, uncertain, and forward-looking nature makes them difficult to assess using conventional, historically based risk models. This

underscores the importance of developing forward-looking analytical frameworks and consistent data to monitor and address these emerging threats. By identifying the key transmission and amplification channels, authorities can better gauge how climate shocks might evolve into broader systemic disruptions and ensure that financial systems remain stable and adaptable in the face of long-term climatic change.

Annex 2: Nationally Determined Contributions And Global Climate Commitments

Nationally Determined Contributions (NDCs) constitute the cornerstone of the global climate framework under the Paris Agreement, representing each country's plan to reduce GHG emissions, strengthen resilience, and adapt to the escalating impacts of climate change. The 2025 submission cycle marks a decisive stage in this process, as countries' updated NDCs will set the direction of climate efforts through 2035. Together, these commitments determine whether the international community can remain within the temperature thresholds of 1.5°C to 2°C above pre-industrial levels and avoid the most severe climate consequences.

As of September 2025, 61 countries — representing approximately 31% of global GHG emissions - had submitted updated NDCs. Several major economies, including Australia, Brazil, Canada, Japan, Russia, and the United Kingdom, have established their official commitments, while others - notably the Chinese Mainland, the European Union, and Turkey - have announced indicative targets without submitting formal updates. This uneven pattern underscores persistent asymmetries in both ambition and capacity, as countries representing nearly 70% of global emissions are still finalising their strategies.[127]

Although the new commitments represent measurable progress in national planning, the cumulative ambition remains insufficient to align global emissions pathways with the goals of the Paris Agreement. If all unconditional pledges - those reliant solely on domestic financing and policy instruments - were fully executed, they would produce an additional reduction of approximately 1.3 gigatons of carbon dioxide equivalent ($GtCO_2e$) by 2035 relative to 2030. When conditional pledges dependent on international support is included, projected reductions increase marginally to 1.6 $GtCO_2e$. However, even in this more optimistic scenario, a residual gap of roughly 26 $GtCO_2e$ persists between current pledges and the level of emissions consistent with a 1.5°C pathway.[128] In effect, existing NDCs collectively deliver less than 6% of the incremental mitigation required by 2035, indicating a significant shortfall in global decarbonisation effort.

Substantial variation exists among major emitting jurisdictions with respect to both the scope and ambition of their 2035 emissions-reduction targets. Some countries have advanced considerably, setting higher percentage reductions compared to earlier commitments, while others have maintained limited or more ambiguous targets. Several jurisdictions also introduced longer-term trajectories toward mid-century net-zero objectives, though differences in reference years and definitions complicate comparative assessment and hinder global consistency in measuring progress (See Table A1).

[127] World Resources Institute. (Last updated: 2025, October 22). Climate Watch NDC Tracker. https://www.climatewatchdata.org/ndc-tracker
[128] Ibid.

Table A1: Emissions-reduction targets put forward by selected jurisdiction (as of September 2025)

Jurisdiction	Share of global GHG emissions	Previous 2030 emissions-reduction target	New 2035 emissions-reduction targets	Net-zero target year
Australia	1.15%	43% from 2005 levels	62% to 70% from 2005 levels	2050
Brazil	3.14%	53.1% from 2005 levels	59% to 67% from 2005 levels	2050
Canada	1.50%	40% to 45% from 2005 levels	45% to 50% from 2005 levels	2050
Japan	2.10%	46% from 2013 levels	60% from 2013 levels	2050
Russian Federation	3.71%	70% of 1990 levels	65% to 67% of 1990 levels	2060
United Kingdom	0.82%	68% from 1990 levels	81% from 1990 levels	2050
Chinese Mainland*	25.29%	Over 65% carbon intensity reduction below 2005	7% to 10% from peak	2060
European Union*	6.09%	55% from 1990 levels	66.25% to 72.5% from 1990 levels	2050
Turkey*	0.97%	41% below business-as-usual	Reach 643 MtCO2e	2053

**These jurisdictions have announced 2035 top-line emissions-reduction targets but had not yet submitted NDCs as of 30 September 2025.*

Source: World Resources Institute[129]

A prominent theme emerging in the 2025 NDC cycle is the growing integration of social equity and institutional coordination within climate commitments. Over 70% of submissions explicitly reference the principle of a 'just transition', reflecting a normative shift toward policies that promote fairness and inclusivity in the transition to a low-carbon economy. Countries such as Bangladesh and Brazil anchor their just transition frameworks around employment creation and equitable growth, while others - including Moldova and the UAE - stress vocational training and social protection. This evolution suggests a gradual mainstreaming of social sustainability within national climate governance frameworks, linking environmental ambition to development outcomes.

Similarly, the number of countries institutionalising multi-level governance within NDC implementation has recorded a notable increase. More than thirty submissions now formally acknowledge the role of subnational entities - such as local and regional governments - as implementation partners. Brazil's introduction of a 'climate federalism' mechanism exemplifies this

[129] World Resources Institute. (Last updated: 2025, October 22). Assessing 2025 NDCs: Are countries' new climate plans ambitious enough? What we know so far. https://www.wri.org/insights/assessing-2025-ndcs

decentralised approach, while Colombia's NDC explicitly integrates municipal and regional perspectives into both mitigation and adaptation planning. Such approaches illustrate an important governance trend: climate policy implementation increasingly requires coordination across scales and sectors, supported by transparent and accountable financial mechanisms.

Financing remains the decisive enabler - and constraint - of NDC realisation. Among the 61 submissions as of September 2025, 29 developing countries have specified estimated financial requirements totalling approximately USD 1.9 trillion, the majority of which depend on international support. This reveals the considerable investment gap between national aspiration and practical feasibility. Although some developing economies have enhanced the precision of their cost reporting, nearly half of all NDCs still omit detailed financial assessments. The absence of robust cost modelling and predictable funding sources raises substantive concerns regarding both credibility and implementation potential. The scale of required investment thus underscores the need for reoriented global financial flows, particularly mechanisms that can de-risk low-carbon projects, mobilise private capital, and ensure equitable access to climate finance.

In essence, the 2025 NDC submissions illustrate meaningful but uneven progress across the global climate landscape. Countries are adopting more comprehensive planning frameworks and demonstrating greater awareness of social and governance dimensions of the climate transition. Yet, the aggregate level of emissions reductions remains substantially lower than what scientific evidence dictates for a 1.5°C-consistent pathway. The success of the next implementation phase will therefore depend not only on strengthened ambition but also on the capacity to operationalise finance, governance, and accountability mechanisms that can translate commitments into effective and equitable climate action.

Annex 3: Global Corporate Sustainability Reporting

The evolution of global corporate sustainability reporting reflects the increasing convergence between financial governance and non-financial disclosure practices, as corporations and regulators alike seek to enhance market transparency and long-term value creation. Over the past decade, sustainability considerations - once peripheral to financial reporting - have been gradually institutionalised through globally recognised frameworks, culminating in the widespread integration of sustainability factors into corporate disclosure regimes. By 2024, companies representing approximately 91% of global market capitalisation were engaged in some form of sustainability reporting,[130] signalling a near-universal recognition of sustainability as a determinant of corporate performance and investment decisions.

Recent developments reveal a pronounced shift toward comprehensive and standardised disclosure practices. The emergence of the International Sustainability Standards Board (ISSB) under the IFRS Foundation, including its IFRS S1 and S2 standards, together with the European Sustainability Reporting Standards (ESRS) mandated under the EU's Corporate Sustainability Reporting Directive (CSRD), represents a pivotal moment in global standard-setting. Simultaneously, the continued application of legacy frameworks - such as the Global Reporting Initiative (GRI), the Task Force on Climate-Related Financial Disclosures (TCFD), and the Sustainability Accounting Standards Board (SASB) - demonstrates both the complexity and the fragmentation of the sustainability reporting landscape. The current trajectory, however, points decisively toward interoperability and harmonisation among these standards, driven by issuer demand for efficiency and investor demand for comparability.

A defining feature of contemporary sustainability reporting is the intensification of quantitative disclosure, particularly in relation to GHG emissions and climate-related risks. In 2024, 88% of global market capitalisation reported scope 1 and 2 emissions, while 76% disclosed at least one category of scope 3 emissions, marking a significant broadening of corporate accountability across value chains. However, assurance practices remain uneven: only about 17% of companies obtained reasonable assurance of their sustainability data, with the vast majority opting for limited verification, underscoring the need for enhanced confidence and consistency across jurisdictions. In this respect, the adoption of the International Standard on Sustainability Assurance (ISSA) 5000 is expected to play a critical role in strengthening confidence in sustainability assurance practices and establish a consistent, cross-jurisdictional understanding of the distinctions between 'limited' and 'reasonable' assurance.

Parallel to the expansion of reporting coverage, there has been notable growth in the governance integration of sustainability. By 2024, two-thirds of companies by market capitalisation had established board-level committees responsible for sustainability oversight, while 70% explicitly assigned their boards responsibility for climate-related risks. Executive remuneration is increasingly tied to sustainability outcomes: approximately two-thirds of firms with variable pay link incentives to sustainability metrics, reflecting a broader reorientation of corporate governance toward long-term environmental and social value creation.

Another emerging trend lies in the heightened emphasis on investor engagement and stewardship. Institutional investors now own around one-third of equity in both the highest emitting companies and the most innovative green technology firms, illustrating the dual pressures exerted on capital markets: to decarbonise portfolios while simultaneously accelerating investment in climate

[130] Organisation for Economic Co-operation and Development. (2025). Global Corporate Sustainability Report 2025. https://doi.org/10.1787/bc25ce1e-en

innovation. Yet, the persistence of ownership concentration and public sector participation, particularly among energy-sector giants and state-owned enterprises, continues to shape regional trajectories in corporate transition efforts.

In relation to sectoral dynamics, the energy sector remains the focal point of sustainability discourse. Despite accounting for roughly one-third of global disclosed emissions, listed energy companies show the highest levels of sustainability reporting - 94% by market capitalisation - reflecting both regulatory scrutiny and investor expectations. Nevertheless, the limited expansion of capital expenditure and research investment in low-carbon technologies, despite strong operating cash flows, indicates that financial priorities have yet to align fully with declared transition objectives. Between 2015 and 2024, for instance, net dividends and share buybacks in the sector tripled, while investing activity grew by less than 5%, a divergence that underscores structural inertia within traditional energy financing models.

The issue of human rights and social due diligence also represents an area of growing, though uneven, disclosure. While over 80% of companies by market capitalisation report having human rights or labour policies, fewer than one-third disclose concrete due-diligence measures or outcomes. This imbalance points to the persistence of form over substance in social reporting, and highlights the impact of regulatory interventions such as mandatory human-rights reporting laws on disclosure behaviour, particularly within the European Union and the United States.

Looking ahead, the convergence of sustainability and financial reporting reveals a systemic transformation in global corporate practice. The integration of sustainability into core governance processes, the proliferation of standardised metrics, and the rising expectations for third-party verification collectively mark a decisive shift toward data-driven accountability. In essence, corporate sustainability reporting has evolved from a voluntary reputational instrument to a foundational component of financial governance - one that not only informs capital allocation but increasingly defines corporate legitimacy in global markets.

As financial institutions and policymakers seek to mobilise capital for sustainable development, the consolidation of credible, comparable, and assured sustainability data will become indispensable. The trajectory reflected in global corporate sustainability reporting thus represents not merely an administrative evolution, but a structural recalibration of how global finance perceives, prices, and governs sustainability risk.

Annex 4: Summary of green bond issuance by the Hong Kong Government

Table A2: Summary Of Green Bond Issuance By The Hong Kong Government (As Of November 2025)

Round	Date	Descriptions
1	May 2019	• Inaugural institutional green bond • The proceeds were fully allocated to 7 green projects across 4 eligible categories
2	Feb 2021	• Comprised 3 tranches • First 30-year green bond issued by an Asian government • The proceeds were fully allocated to 12 green projects across 4 eligible categories
3	Nov 2021	• Comprised 5 tranches, involving 3 currencies: RMB, USD, and EUR, as well as more green projects • Inaugural offering of Euro-denominated and RMB-denominated bonds • The longest tenor (20-year) EUR government green bond ever in Asia
4	May 2022	• Inaugural retail green bond • The largest retail green bond issuance across the globe at the time
5	Jan 2023	• Comprised 8 tranches, involving 3 currencies: RMB, USD, and EUR with different tenors • The largest ESG bond issuance in Asia • The RMB tranches were doubled in size to a total of RMB10 billion to cater for investor demand
6	Feb 2023	• First tokenised green bond issued by a government globally
7	Jun 2023	• Comprised 8 tranches, involving 3 currencies: RMB, USD, and EUR with different tenors • The RMB tranches were further expanded to RMB15 billion, with issuance of a new 10-year tranche
8	Oct 2023	• Second batch of retail green bond
9	Feb 2024	• First multi-currency digital bond in the world • First digitally native bond in Hong Kong
10	Jul 2024	• Inaugural offering of 20-year and 30-year RMB bonds
11	Jun 2025	• Comprised 3 tranches, involving 3 currencies: RMB, USD, and EUR with different tenors
12	Nov 2025	• The world's first digital bond offering to incorporate tokenised central bank money in the form of e-CNY and e-HKD in the settlement process

Source: HKSAR Government,[131] HKMA[132]

[131] Financial Services and the Treasury Bureau. (n.d.). Green Bond Report 2025. https://www.hkgb.gov.hk/en/others/documents/FSTB_GreenBond25_eBooklet_EN.pdf

[132] Hong Kong Monetary Authority. (2025, November 11). HKSAR Government's Third Digital Green Bonds Offering. https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/11/20251111-6/

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The Financial Services Development Council (FSDC) was established in 2013 by the Government of the HKSAR as a high-level advisory body to engage the industry in formulating proposals to promote the further development of the financial services industry of Hong Kong and to map out the strategic direction for the development.

In September 2018, the FSDC was incorporated as a company limited by guarantee. This change allows it to better discharge its functions through research, market promotion, and human capital development with greater flexibility.

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