The challenge of financing the solutions for climate change and sustainable development is not one that the finance industry should, or can, bear on its own. The scale of the funding challenge is simply too large for the finance industry to address and requires alignment across stakeholders including individual savers, governments, and corporations. The inherent limitations and mandate restrictions for finance industry leaders provides the space for other stakeholders to help fund the transition, and in the process, they will become both competitors to and collaborators with the finance industry. Financial hubs, governments, development finance institutions, large technology companies, innovative financial technology disruptors, and the individual can all play a critical role in financing sustainable development and will play a critical role in determining whether the world is able to rise to the challenge of the SDGs.

The Finance Industry’s Transition to the Sustainable Information Age

While finance industry leaders have demonstrated their increasing ambition to make an impact for good and play a critical role in the world’s survival and future, the financial system has other powerful participants which are potential allies and competitors. These include the individual, government and related agencies and corporations. As the analysis of the stock and flow of funds analysis in Chapter 3
shows, these are also powerful allocators and/or managers of capital. These stakeholders interact with the finance industry in myriad ways, collaborating, competing and as potential catalysts for bigger changes that may transforming the financial system as a whole.

This year’s study points to some of the critical factors that are set to determine the shape of capitalism in the future, including:

1. **Disruption in global financial hubs** which are the nerve points of the financial system and are set for critical changes in their power position based on geo-political and geo-economic changes.

2. **Individuals, who collectively own c.75% of the world’s net financial assets and generate c.80% of its consumption**, are being empowered through digital inclusion as both consumers and investors.

3. **Technology companies as a platform for collective action** have provided individuals with the means to exercise extraordinary power in politics and social movements, and this is set to impact finance and business too, in potentially equally disruptive fashion.

4. **The next generation of specialty fintech solutions create new markets** in developing new and innovative solutions to what seemed like intractable funding problems, and some of these can scale to become the giants of the future and while others are likely to be bought and scaled by established financial institutions.

5. **Governments across the world have an imperative to unlock investment opportunities** if they are to attract capital, creating the conditions for private sector capital deployment.

6. **Development finance as a theme and capability that is growing in diversity** including in new regions such as rising Asia and in the private sector.

**Changes in the Hubs Through Which Money Flows**

A major challenge for the finance industry is that its very context is in flux, operating in a period of global discontinuity which is transforming the world in terms of how the world order works. Beyond the shift to the information age and the shift to a more sustainable way of doing business previously described, the world is also undergoing a transition to a multi-polar world order driven by four superpower blocks: the US, the EU, China, and India. These discontinuities are reshaping the power dynamic for the dominant financial hubs to date, and resulting in some major hubs eroding their position, while other rise to prominence.
A closer analysis of the metrics that drive the success of financial hubs leads to several important conclusions:

**Power of scaled sophisticated finance.** The world's current pre-eminent hub, New York, has the established base and scale to continue to be at the center of global capital flows, particularly given its increasing focus on innovation, sustainability, and digital technologies, and London's advantages maintain its position too, for a while.

**Geopolitical power, sustainability, and technology.** America is well positioned with both New York and San Francisco, two of the world’s most powerful hubs in their fields. Others that that can catch up and join the US in the coming decades to 2050 on one or more of these fronts include the EU and China.

**Four superpower blocs emerge.** America, the EU, and increasingly China, as well as their cities, emerge as the dominant players across many categories, reflecting their countries continued economic power and the depth of capital in their domestic markets, with India increasingly showing the potential to join that group as an Asian power.

**America and China, and New York and Beijing.** An increase in the relative importance of three factors, the "Economic Power of Countries and Blocs" which is driven by GDP, the "Power Assertion of Host Countries and Blocs" which is driven by trade and investment, and the "Strength of a Hub’s Asset Base" which is driven by asset base of financial institutions in the hub, by very little would see Beijing surpass New York City as the world’s leading financial hub in 2050.

**Hub and spoke model for large and leading countries and blocs.** Countries with multiple financial centers such as the US, EU, and China have the chance to create a hub and spoke model with one core hub (such as Beijing for China) and satellites (such as Shanghai and Shenzhen for Beijing) and
gain advantages that others cannot replicate, particularly as all three are much like continents with
diverse industries that matter to the future of a sustainable information era.

**Split into strategic decision-making hubs and distribution hubs.** Given the requirements of power,
scale and strategic decision making, many face a relative demotion from global leadership positions
to regional distribution centers for pooling capital and distributing products, but not as strategic
allocators of capital that solves the world’s biggest problems. Being part of the global system, linked
to multilateral institutions, trade flows, trading blocs matters and in this regard some such as London
and Hong Kong have seen their positions hurt for local political reasons, jeopardizing their relevance
in an interconnected world.

**Population and financial inclusion matter.** Countries or blocs with huge populations, such as China
and India, if they can navigate out of poverty and drive financial inclusion, can create the biggest
consumer base and therefore financial users in the world.

This has profound implications for which countries and financiers control the global flow of capital,
and therefore set the rules of that flow. This control is set to dramatically change over time as the
dominance of various countries and their hubs changes, leading to the concentration of finance and
financial institutions from the US, China, EU, and later India, as the most powerful arbiters of what gets
financed between now and 2050. The alignment of these countries on financing the SDGs and the
creation of a common agenda for doing so is critical if the 2030 targets are to be met.

**Individuals, a Connected, Networked and Powerful Collective**

The majority of the world’s capital and an even larger proportion of its annual spending is in the
hands of private households, and ultimately controlled by individuals. Recognizing that the options
available to individuals varies significantly due to differences across geographies, incomes and
circumstances, the collective choices of the world’s 7.8 billion people as investors, consumers, and
citizens will ultimately decide which of the world’s challenges are addressed and which ones are not.

**Figure 40 - Current State of Global Financial Inclusion**
Consumption is key, and it is controlled by individuals. Consumption represents over 70% of annual global output, nearly 80% of which is in the hands of individuals. Their US$49 trillion of annual spending is equal to nearly 15% of the world's total stock of total net liquid assets and represents a critical flow in funding systemic change, (recognizing that the level of discretion available on a given dollar of consumption will vary).

Increasing digital inclusion will unlock c.70% of the global population. Nearly 70% of the world’s population today is not fully financially included today. Digital technology will increasingly reach and unlock these 5.6 billion people as both investors and consumers.

A lack of financial inclusion creates the risk of increased conflict and migration. Should governments and the private sector fail to financially include these populations in their own countries, many will choose to move to countries which are perceived to offer greater economic opportunities, triggering further mass migration and the conflicts and security risks that come with it.

The world’s lower and lower middle-income population of 5.5 billion is potentially a highly disruptive global force for the status quo. When networked, connected, and mobilized the world’s poor and aspiring have significant potential to disrupt the status quo socially, economically, and politically as voters, protesters, migrants or as revolutionaries if ignored and left in poverty. And if nurtured, they become a new and vibrant class of consumer, investor, and participant in the world system.

At current levels of global income distribution, the world’s richest 12% own 85% of its total wealth. The influence of the rest of the world on how money is spent however goes far beyond the investment of their financial assets and includes their control of 80% of annual global consumption, their determination of elections and politicians that determine public spending, and their ability to create movements that favor and alienate other stakeholders. The mandate to act for the finance industry and other stakeholders will therefore come not only from the small minority of the population that ultimately owns the majority of the industry’s assets today, but it will also come from the empowerment and inclusion of the rest of the world’s population and the choices that they will make.

“Big Tech” Platforms Empowering Collective Action

Given the critical importance of individuals in allocating the capital required for both survival and thriving, the players who access them and empower their spending and investment decisions are of critical importance in the finance industry. Big Tech companies have created digital platforms with unprecedented global reach that provide deep insights into the behavior of individuals consumers. The reach of major tech platforms to over half the world’s population is captured below.
Deep Consumer Access Has Created Unprecedented Value. Seven of the ten most valuable companies in the world are technology companies, and the world’s five most valuable tech companies (valued at US$8.7 trillion) are worth nearly six times as much as the five most valuable financial services companies (valued at US$1.5 trillion), reflecting the value of the deep relationships with individuals their platforms have created, among other things.

Nine out of Ten Global Internet Users Currently Reached by the Leading Tech Companies. With 4.0 billion unique social media users, over half the world’s population is reached by Big Tech. Among these, Facebook has 2.8 billion active users, Google maintains a global market share of internet searches of over 90%, and Amazon represents half of all US e-commerce – allowing these companies to generate unprecedented amounts of data and insight on their customers.

Public Opinion on Big Tech Shifting to Negative, Creating a Need to Re-position for Good. The concentration of monopolistic power among major platforms, concerns over personal data usage and privacy and the abuse of social media platforms enabling the propagation of fake news and misinformation is driving a negative shift in the public perception by both consumers and governments of an industry that widely perceives itself to be a ‘force for good’.

The ‘Force for Good’ Initiatives of the Tech Industry’s Engagement Early-Stage Relative to the Finance Industry. Big Tech companies were early adopters of ESG practices and policies, and have also excelled at corporate-level sustainability initiatives, and several companies have set targets for their operations to go carbon negative before the end of the decade. However, few tech companies have
developed business cases that align purpose and profit to become meaningful forces for good in the world relative to their value, size, and reach.

**The Industry is Becoming a Leader in Renewable Energy, But Has Not Yet Strategically Unlocked the Potential of its Platforms for a Broad Impact.** Tech companies have become the world’s biggest corporate purchasers of clean energy, setting targets for clean energy’s share of their total consumption. Given the massive power needs of data centers and IT infrastructure in general, these commitments are significant in terms of their impact and scope. However, their use of their platforms to directly initiate large projects with significant global impact on social, human development, and environmental challenges is still in its infancy.

**Its Opportunity to Empower Individuals for Funding Change is Likely Unrivalled.** Big Tech’s ultimate opportunity as a force for good lies in its ability to empower and unlock what will soon be nearly every individual in the world as a decision maker in consumption and investment, as to the ultimate owners of 63% of the world’s gross liquid financial assets as a group and providing them the opportunity to facilitate mass funding for change.

While Big Tech platforms have the potential to disintermediate financial companies’ relationships with their customers, few Big Tech firms have to date displayed an appetite for competing directly with the traditional finance industry. With Silicon Valley/San Francisco set to emerge as a top five global financial hub by 2050, the partnership between the finance industry and Big Tech is a highly strategic one for both parties. The tech platforms either consciously or without their involvement, as hosts to the individual across the world, is likely to be a powerful conduit for the impact of the individual on the theme of sustainable development. The challenge will be whether that is a strategic intent for its most powerful players, as it has been in the finance industry and in doing so they will transform too.

**Fintech Innovators Disrupting Traditional Models**

The bigger changes to the traditional finance industry leaders’ model come from a wide range of disruptive FinTech platforms that have emerged in the last decade, leveraging technology to deliver financial products, and services which if scaled can augment and hold the potential to disrupt the traditional finance ecosystem. These FinTech disruptors are dis-intermediating and democratizing finance by using technology to create highly scalable products and business models, by driving down the cost of delivery, becoming far more efficient than traditional finance institutions and by increasing the transparency in the system for customers. Based on these drivers, the FinTech industry and its leading companies have seen rapid growth and inflows in funding.
A number of FinTech companies have scaled rapidly over the last decade, in some cases collaborating with traditional finance institutions and in other cases circumventing them to build a direct touchpoint with the customer, rendering the financial institution into merely a conduit for funds. In the coming years, FinTech innovators are well-positioned to benefit from the rise in sustainable finance, and while there are a wide variety of FinTech companies, their ability to disrupt traditional finance players can be seen in a number of such platforms that are driving the sustainable investing transition.

**Breaking New Ground in Unlocking Opportunities Outside of Traditional Finance.** FinTech’s initial targets have been on market, product, and customer opportunities outside of the focus of the traditional finance industry, using technology and innovation to access and unlock these opportunities.

**Significant Competitive Advantages Established.** Given their access to technology and innovation and the superior cost structure of their (largely digital) operations, many FinTech companies can successfully compete directly with financial services companies across a range of products.

**Disintermediation of Specialty Traditional Finance Underway.** FinTech companies’ unique advantage lies in their ability to deliver functionality to customers that are agnostic to the underlying financial product. Online and mobile payment services for example can seamlessly link into credit cards,
PayPal accounts, or checking and savings accounts in a manner that makes the invisible to users, allowing them to transact without engaging with the underlying financial service providers.

**Majority of FinTech Challengers Face Limits to Scaling.** However, the majority of FinTechs seeking to challenge traditional finance players will likely face limits to their scaling given the absolute size disadvantage they suffer from. For example, the largest online bank in the US has raised nearly US$15 billion in equity capital to amass c.15 million customer accounts, less than a third of the digital banking users of each of several of the major US banks have.

**Multiple FinTech Models Emerging Pointing to the Potential for Systemic Change and a Broader ‘Democratization’ of Finance.** There are a number of FinTech models and categories that are disrupting the sustainable investing transition, including ‘People’ FinTechs – that allow individuals to connect to finance each other, or borrowers outside of the traditional finance system to borrow or raise funds commercially, ‘Planet’ FinTechs that help drive capital towards addressing climate change, ‘Physical and Virtual Infrastructure’ FinTechs that disintermediate traditional financial services providers, democratizing the access to financial services, and ‘Prosperity’ FinTechs using technology and data to drive financial inclusion.

The potential of Fintech leaves traditional financial service with a risk of missing growth segments and, as these scale (often by funding from more established financial institutions), poses the threat to those that do not adapt of being left with undifferentiated products and services being delivered at a cost structure that is neither competitive nor sustainable. However, the likely challenges to scaling that many FinTech challengers will face may limit the number of competitors with the potential to displace today’s financial leaders. Moreover, many challengers may find themselves ultimately being acquired by traditional competitors who can integrate their technologies and IP to compete more effectively themselves.

**Governments’ Role in Unlocking Investment Opportunities**

‘Development’ spending furthering education, healthcare, infrastructure, conservation, security, and other social goods has traditionally been the role of national governments. However, with the funding need for global sustainable development far exceeding the resources of even the world’s richest nations, private investors will need to supply the vast majority of the funds required to meet the SDGs.
National government have an insurmountable gap to fund the scale of change required. While governments (including central banks) control nearly 30% of the world’s net financial assets and represent over 20% of global spending annually, the majority of these funds are tied to existing national spending priorities, with only minimal levels of ‘discretionary’ spending in any year. Although sovereign wealth funds are a relatively small part of the capital of the world (representing 4% of asset gatherer-allocators’ capital), they are influential, but have much to do as a group to exert influence on sustainable investing.

Significant emergency capacity as the ‘bank of last resort’ exists in rich western economies, but not for the SDGs. Given significant emergencies however, governments (and central banks) can step up as lenders, investors, and consumers at scale, as the US$20 trillion of fiscal and monetary stimulus by the G7 nations during 2020 demonstrated. However, given the recent stimulus, the capacity to do enough to meet the SDG gap is unlikely to be forthcoming given the scale of the shortfall.

ESG cuts both ways, making investing compliant to high standards and excluding countries that do not meet them. Developing countries, particularly least developed countries, will likely see the challenge to attract funding become more acute given both the risk requirements and the rising ESG requirements of private sector investors. The challenge of making local opportunities investible by ensuring peace, justice and strong institutions will need fundamental thinking for a tier of countries not to be excluded by the ESG movement itself.

Developed countries have a role to play in direct financing, but this is insufficient on its own to close the shortfall. Developed countries, acting through their national aid agencies, have an important direct investing role to play, providing low-cost finance to bridge the gap in countries and opportunities that do not qualify for commercial lending, as they have often done in the past, the challenge of how to do that without making bad loans and creating dependency remains.

Governments can drive capital flows to priorities through policy and execution, but not at the expense of creating a robust system of wealth creation. Governments’ most important lever for unlocking capital flows is through policy making, setting the rules of engagement and providing incentives that...
link the world’s deepest pools of capital to the largest funding needs, both at the origin and at the
destination of capital flows. If this is to be robust it would need to result in a robust system of wealth
creation, avoiding the many traps of sub-optimal capital flows, disincentives, outflows and ultimately a
corrupted system of capitalism.

With only limited direct spending capacity governments will need to facilitate private investment into
solving the world’s biggest challenges (and opportunities). Developed and developing countries both
have important, although very different, roles to play in this regard.

**Role of Development Finance Increasing in Importance**

Development finance has traditionally been the remit of development finance institutions (or DFIs)
and multi-lateral development banks (or MDBs), like such as the World Bank, institutions with a clear
mandate and long history of financing development. As government and quasi-government
institutions, MDBs and DFIs have an inherently low cost of capital and their financial objectives are
typically limited to being self-financing rather than maximizing profits, allowing for a broader focus on
developmental and environmental goals and so are well-suited to funding the SDGs and helping
developing countries to transition their development.

**Figure 44 - Largest MDBs and DFIs by Annual Financing**

<table>
<thead>
<tr>
<th>MDB / DFI</th>
<th>Annual Financing (US$bn)</th>
<th>Date of Establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Investment Bank (EIB)</td>
<td>74.4</td>
<td>1958</td>
</tr>
<tr>
<td>The World Bank Group</td>
<td>65.9</td>
<td>1944</td>
</tr>
<tr>
<td>Asian Development Bank (ADB)</td>
<td>21.6</td>
<td>1966</td>
</tr>
<tr>
<td>Inter-American Development Bank Group (JDB)</td>
<td>16.0</td>
<td>1959</td>
</tr>
<tr>
<td>European Bank for Reconstruction &amp; Development (EBRD)</td>
<td>11.8</td>
<td>1991</td>
</tr>
<tr>
<td>International Finance Corporation (IFC)</td>
<td>11.1</td>
<td>1956</td>
</tr>
<tr>
<td>Islamic Development Bank Group (IsDB)</td>
<td>7.8</td>
<td>1973</td>
</tr>
<tr>
<td>African Development Bank (AfDB)</td>
<td>7.3</td>
<td>1964</td>
</tr>
<tr>
<td>New Development Bank (NDB)</td>
<td>7.2</td>
<td>2015</td>
</tr>
<tr>
<td>Council of Europe Development Bank (CEB)</td>
<td>4.7</td>
<td>1956</td>
</tr>
<tr>
<td>Asian Infrastructure Investment Bank (AIIB)</td>
<td>4.5</td>
<td>2016</td>
</tr>
<tr>
<td><strong>Total (Top-11 MDBs and DFIs)</strong></td>
<td><strong>232.3</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Source: AIIB*

**Mandated Positioning is as the Original ‘Force for Good’ from Inception.** Development finance
organizations’ mandates position them as a ‘force for good’ in the finance industry, having been
established to fund development, growth, and prosperity, and having been early leaders in ESG.

**Their Focus is on the Most Critical Issues, including the SDGs.** Development finance has traditionally
focused on many of the most critical issues facing the world, providing inclusion-linked finance and
infrastructure development for developing and least developed countries and aligning closely the
SDGs. Major investment areas during 2020, for example, included renewable energy, green, sustainable, and social bonds, public health infrastructure and education and training.

**Significant Experience in Managing Risk that the Private Sector Does Not Address.** Many DFIs and MDBs have decades of long track records in funding critical issues in many of the world’s least developed regions, both making and losing money, provide them with significant experience in managing country and product risk and in structuring investments.

**Engagement Model Provides Deep Expertise in Investing for Impact.** DFIs have always engaged and worked closely with customers and borrowers to pursue positive impact for its investments, positioning them among the pioneers of impact investing.

**Established Partnership Models Being Deployed, Available to Scale.** MDBs and DFIs tend to work closely with both governments (both in donor and recipient countries’) and private sector finance providers, by setting common standards and co-financing opportunities, often at lower returns, rather than trying to supplant them.

**Absolute Funding Scale Remains Marginal in the Context of Global Capital Stock.** Despite their increasing scale and importance, development institutions are a fraction of the size of their private sector peers, with the top-11 MDBs/DFIs having US$232 billion of annual financing, while JPMorgan’s newly launched for-profit Development Finance Institute, which leverages third party capital to fund projects, deployed US$146 billion of capital in its first year, nearly as much the two largest global DFI’s combined.

**Significant Potential Additional Financing.** Existing capital adequacy frameworks of MDBs limit their ability to provide further funding. There is the potential to unlock US$500 billion to US$1 trillion of additional lending, while preserving MDBs’ current credit ratings, through revisions in their capital adequacy framework policies, based on the engagements with some of the leading institutions.

A key role of DFIs and MDBs traditionally was played a ‘bridging’ role to filling gaps where the private sector either cannot or is not acting, and this role is one that needs scaling in geographic and deployment scope. The natural engagement model between traditional private sector finance industry participants and development finance institutions, with the latter also bringing their expertise in working with governments, is one of partnership. With highly complementary skills and assets and an increasing alignment around the need for investing in the pursuit of sustainability and development goals, a partnership between private sector financial companies and DFIs can unlock capital in pursuit of the SDGs at unprecedented levels of scale.

**Conclusions**

The analysis and engagement of development banks, Big Tech companies, and disruptive FinTech platforms, and the role they are playing in driving sustainability and inclusive growth across the world points to a number of important conclusions, both for the finance industry and for these stakeholders too:
The Scale of the Funding Challenge is Beyond Traditional Financing Routes. As highlighted in previous chapters of this report, the funding challenge of the SDGs needing an additional US$84-101 trillion of funding, and climate change needing over US$80 trillion between 2030 and 2050 on top of this, is simply impossible for the finance industry to address on its own. Other stakeholders, as well as entire segments and industries will need to play an important role and the industry will need to grow to a totally different scale.

The Flow of Capital Across the World is Set to Change as Four Superpower Blocs Dominate. The major discontinuities underway in terms of the transition to the sustainable information age and changing geopolitics seeing the emergence of four major power blocs in the US, EU and China followed over the coming decades by India, will result in money flowing through new centers of finance, displacing some of today’s leading hubs, and changing the flow of capital across the world.

Big Tech Companies with an Unrivalled Engagement with the Collective Individual are a Powerful Player in Mobilizing Big Changes to the Flow of Funds. The Big Tech companies have built deep connections with individuals across the world and can and will ultimately cultivate the individuals’ social conscience and activism that is fundamentally changing the flow of capital; and hence hold the potential to be an ally for the finance industry, but also a disruptor if the industry fails to transition rapidly enough.

Finance and Tech Combined Creates Path-Breaking Solutions That Needs Scale. By combining finance and technology and, by their very nature, operating on a virtual platform, FinTech platforms are potential pathbreakers in finding solutions that were not feasible for traditional players and hubs and as such will continuously challenge both finance and Big Tech to do more, and in the process, many will likely be funded or acquired by traditional financial institutions.

Governments Unlock Investment Opportunities Through their Policies, Capital, and Governance. Despite highly constrained direct spending capacity, both developed and developing country governments have key roles to play in unlocking development investment from the private sector, acting as bridges and enablers for private capital and arbiters of policy, with a need to do it in a way that creates wealth, avoiding the many traps.

DFIs Have Deep Experience as a Force for Good and are Natural Partners. Development finance institutions are an experienced partner in sustainable development and have deep experience of funding across developing countries and dealing with complexity, as such they are an important collaborator with the finance industry and given that they have a clear mandate to drive capital towards sustainability and development, they can help the finance industry transition, and fill the gaps where it is not viable for private finance institutions to provide funding.

The funding of the world’s challenges clearly exceeds the mandate and the capacity of the finance industry to execute and is a multi-stakeholder responsibility that will require the coordination of governments, individuals, and private corporations beyond traditional financial services companies. Efficient collaboration between these parties however will require a shared blueprint of goals, deliverables, roles, and actions for the world to own. Such global blueprints have traditionally been
the remit of the UN, which has convened its member states to build consensus on the biggest issues facing the world and to promote united action. Given the projected future flows of global capital the UN will need to include the four major power blocs (initially the US, EU and China and later India) and will quickly need to expand beyond national governments to become a true global compact. Given the power of financial institutions and the individual in the stock and flow of global capital, the UN and others will need to more comprehensively mobilize the experience and expertise of the leading financial institutions and tech platforms that host the individual.