4. STEPS TOWARDS TRANSFORMATION

4.1. AMPLIFYING THE MOMENTUM

Today's momentum is to be applauded and encouraged, but needs to be amplified to secure transformation. This is the central message of this year's edition of '*The Financial System We Need*'. The 2030 Agenda for Sustainable Development and the Paris Agreement represent the most ambitious multilateral goals ever set. While moving in the right direction, current levels of financing for sustainable development remain inadequate. We should not allow celebration of the momentum achieved to cloud the challenges we now face.

> *"Meeting the Paris Agreement's goals will require the full mobilization of all stakeholders, including financial sector actors. I fully support efforts to make financial flows consistent with the needed limitation of greenhouse emissions and the financing of climate resilient development."*[259]
>
> **Michel Sapin,** Finance Minister, France

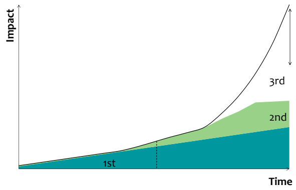
Recognizing the urgent need to move from momentum to transformation is not a matter of optimism or pessimism. The Inquiry highlights the need for, and progress made, in advancing financing for sustainable development. Public finance is essential for realizing the Sustainable Development Goals, and has multiple roles to play – in direct financing, crowding-in private finance, and otherwise shaping financing flows, such as through public procurement and influencing standard-setting. Yet public finance is insufficient. Many of the market and policy innovations intended to drive financing for sustainable development are at an early stage, and despite rapid growth, such changes are starting from a low base. Few countries have made comprehensive progress across their financial systems – and most countries have yet to start. Most actions have yet to be fully implemented or institutionalized, and little is known as to which, often in combination, are most effective.

Failing to amplify the current momentum delays the reallocation of capital away from, and so perpetuates, unsustainable economic development. The continuation of these trends generates powerful feedback loops, undermining human progress and also building up systemic risks that the financial system is, at present, ill-prepared to manage. Such systemic feedback creates more volatility and further undermines the prospects of long-term, sustainable prosperity. In spite of encouraging momentum, then, we risk slipping backwards if the bulk of financing flows continue to be channelled towards unsustainable production and consumption patterns.

4.2. MOVING TO THE NEXT PHASE

Moving from today's momentum to tomorrow's transformation is not just about doing more of the same. Strategies need to evolve as we move from early stage innovation to broader structural change. As we have sought to illustrate with our initial performance framework, a system-wide approach to transforming finance is needed – one that encompasses the

FIGURE 23: MOMENTUM IS NOT ENOUGH

STAGES OF CHANGE	BARRIERS TO ACCELERATION	LEVERAGE POINTS
Current shifts mainly 'first-order' – paradigm maintaining adjustments with some second order policy shifts emerging. **Third-order changes** – deeper changes and disruption are needed. 	**INCUMBENTS** Vested interests in existing valuations and business models. **INCREMENTALISM** Tendency towards slow adjustments, in the face of large and urgent challenge. **UNCERTAINTY** Lack of relative calm to allow a more deliberative approach to long-term considerations.	• National strategies for financial reform and development. • Financial technology development, and policy responses. • Public financial resources and institutions. • Public and political awareness. • Common methods, tools and standards.

architecture of rules, the practice of market behaviour, and the quantitative stocks and flows of finance towards sustainable assets and away from those that degrade natural capital.

Thomas Kuhn described a paradigm shift as being when evidence can be effectively described and dealt with only by affirming the explanations and worldviews that are new or were previously controversial and unacceptable.[260] Paradigm shifts lead to the emergence of new norms, orthodoxies and worldviews. Peter Hall, drawing on Kuhn's work, distinguishes three orders of change.[261]

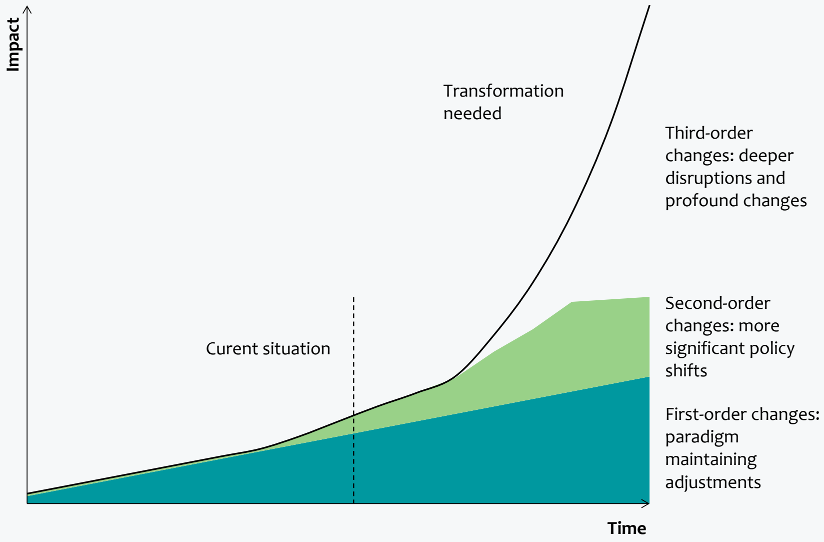
1. First-order changes are 'paradigm maintaining' and involve processes that adjust policy without challenging their existing, underlying assumptions about the way things are.
2. Second-order changes are more significant, where the instrument of a policy is adjusted but not the overarching policy. Both first and second-order changes are characterized by incrementalism.
3. Third-order changes reflect deeper changes to the underlying terms of the discourse and indicate that a paradigm shift is occurring. Third-order change is the paradigm shift described by Kuhn, involving reappraisal of what have previously been considered certainly true.[262]

"Green finance is burgeoning, it has reached a point of spontaneous combustion. But it needs to be aligned. It needs to go beyond the leadership of a few champions."[263]

Nuru Mugambi, Director of Communications and Public Affairs, Kenya Bankers Association

The transition to sustainable development will require profound changes to the financial system itself. Ambitious goals, and arguably most Sustainable Development Goals and associated targets, will require some degree of system change, often including the 'creative destruction' of existing markets and institutions, and the emergence of new configurations, rules and conventions. Finance is without doubt a case in point. It is not a coincidence that some developing countries have taken leadership in progressing alignment of their domestic financial systems with sustainable development. Such leadership is partly explained by the higher visibility and impact of unsustainable development. Beyond this, or perhaps in part because of this, developing country central banks and financial regulators understand their role as being to align finance with national development priorities, alongside the roles they share with their developed country counterparts of monetary and financial stability and market integrity.[264] As Dr. Atiur Rahman, the previous Governor of the Bangladesh Bank, pointed out, developing countries appreciate more readily the profound connections between central and development banking.[265,266]

FIGURE 24: CHANGE PROCESSES



"Once climate change becomes a defining issue for financial stability, it may already be too late."[267]

Mark Carney, Governor, Bank of England

Now is the need to move towards a deeper change in the financial system. Innovations such as green bonds reflect the extended application of existing market architecture – and in many ways that is their strength, enabling rapid market expansion. Today's momentum is, however, signalling the need and potential to move beyond the current level of innovation to achieve greater scale by addressing the role of sustainable development in broader market norms such as credit ratings. As mainstream investors, insurers and banks increasingly embrace 'responsible', 'sustainable' or 'low-carbon' financing, we see for example the early signs of their convergence with metrics and norms until now only seen in work undertaken by specialist impact investors[268,269] and social banking pioneers'.[270] Notable shifts in the interpretation of, and regulations governing, pension funds' fiduciary responsibilities[271] are looking increasingly like more avant-garde innovations in corporate governance, such as the 'B Corporation' legal forms allowing for financial and non-financial corporate objectives.[272] In highlighting the complex dynamic between climate change and financial stability, innovative central banks are deepening the quality of conventional practice and signalling the need for an alignment of their mandates with longer-term policy goals.[273]

Today's momentum, then, is already exhibiting some of Hall's 'second-level' characteristics – the straddling of at least two different narratives, stretching inherited conventions and providing an early glimpse of an emerging new set of conventions.

4.3. TRANSFORMATIONAL FINANCING IN TIMES OF TURMOIL

Today's economic uncertainty and volatility are often cited as key reasons why more transformational approaches to finance are not possible. Since the global financial crisis, key aspects of the financial system have been in a state of rapid change. Many of these changes are positive – such as the introduction of post-crisis regulation to restore integrity and stability to core financial markets.[274] Others are problematic – such as the apparent break in the long-term trend to increasing cross-border capital flows.[275] Weak underlying growth in industrialized markets continues to deliver historically low interest rates, challenging some of the traditional fundamentals of financial practice, and placing many business models and long-term savers at risk. Technology itself, over recent decades a source of significant value added to incumbents, is now also a source of disruption and change. Fintech is challenging not only today's business models in key financial sectors, but also the very foundations of our modern monetary system, and the basis on which the financial system can be governed in the future.[276, 277]

Moving from momentum to transformation needs to be achieved at a time of turmoil. The direct causes of turmoil may change over time, but turmoil itself looks set to remain a core feature of our global landscape. It is unlikely that we will move into a period of relative calm, allowing for a more deliberative approach to addressing longer-term considerations. So either turmoil has to be circumnavigated to address the Sustainable Development Goals and the ambitions underlying the Paris Agreement, or else this period of recalibration of core features of the financial system needs to be seen as an opportunity for advancing these long-term agendas.

Low interest rates provide a unique historical moment for advancing sustainable development-aligned investment, boosting short-term economic growth and providing greater security for long-term savers. Investment levels remain well below what is needed, and corporate cash-hoarding remains at an all-time high of more than US$5 trillion.[278] Yet many leading experts have pointed out that historically low interest rates in developed countries could provide a rare moment in time for financing capital-intensive long-term investment for sustainable development. International action on this front could deliver a low-cost boost to short-term growth and advance much-needed, low-carbon, resilient and productive infrastructure. Such investments could, furthermore, if delivered through crowded-in private finance, help institutional investors overcome severe revenue and asset valuation shortfalls against future liabilities, and so help in protecting future income streams for ageing populations.

In the wake of the financial crisis, furthermore, central banks and financial regulators are giving greater consideration to broader policy objectives.[279] As well as classical economic objectives such as the US Federal Reserve's employment-related mandate, this increasingly includes related social and environmental goals. Indonesia's financial regulator, for example, introduced a Sustainable Finance Roadmap in the wake of the global financial crisis to strengthen the competitiveness of its financial sector and align it to long-term development priorities.[280] Peru's Superintendency of Banking, Insurance and Private Pension Fund Administrators (Superintendencia de Banca y Seguros) has placed increasing emphasis on ensuring investor oversight over mining-related social and environmental risks, given their potential macroeconomic effects.[281]

4.4. BUILDING ON THE DYNAMICS OF CHANGE

Financing sustainable development is entirely possible, now and into the future. Turning the 'possible' into reality requires that policymakers and market actors work together to connect the dots between what often appear to be, but in reality are not, distinct goals, instruments and dynamic pathways. This second edition of the UNEP Inquiry global report has sought to untangle some of these multi-faceted aspects of the financial system and its impacts on the real economy in an effort to identify what interventions might amplify momentum into transformation. We have distilled seven dimensions of the dynamics of today's financial system to focus on as we formulate practical interventions.

1. ***Impact: shifting the financial system can deliver sustainable development outcomes*** – financial system reform and development is required to deliver sustainable development, alongside complementary developments in the real economy. Practice demonstrates that such changes are possible in shaping specific outcomes, such as clean energy, and can point towards greater financial system stability.

2. ***Purpose: aligning overarching purpose and institutional mandates*** – to effectively pursue the overarching purpose of sustainable development requires an alignment of key mandates of public institutions. Early leadership in such an alignment can be seen from Dhaka to California, but needs to be amplified and embedded institutionally.

3. ***Co-evolution: blending market leadership with policy and regulatory innovations*** – market innovation and policy and regulatory developments are not substitutes, but are necessary co-determinants of the changes needed, building mutual confidence and enabling greater levels of ambition.

4. ***Leadership: national leadership drives international cooperation*** – at this stage, national action is driving cooperation at the international level, often through small alliances of leaders seeking to share experience and develop common approaches to system-wide challenges.

5. ***Public finance: improving productivity for system change*** – the potential of public finance to support system change can be more fully realized, through crowding-in private finance, market creation efforts (such as green bonds) and their impacts on market-wide rules.

6 ***Technology: technological innovation and sustainable finance*** – advancing sustainable development means understanding the disruptive role of technology within the financial system (fintech) and how this can be channelled for improved access, efficiency and protection of natural systems.

7 ***Public choice: public expectations and choice*** – rising expectations of the sustainability performance of the financial system highlights the important role of mechanisms for education, dialogue, participation and accountability to enable informed choice.

Moving from momentum to transformation requires us to design interventions that work with these seven dimensions.

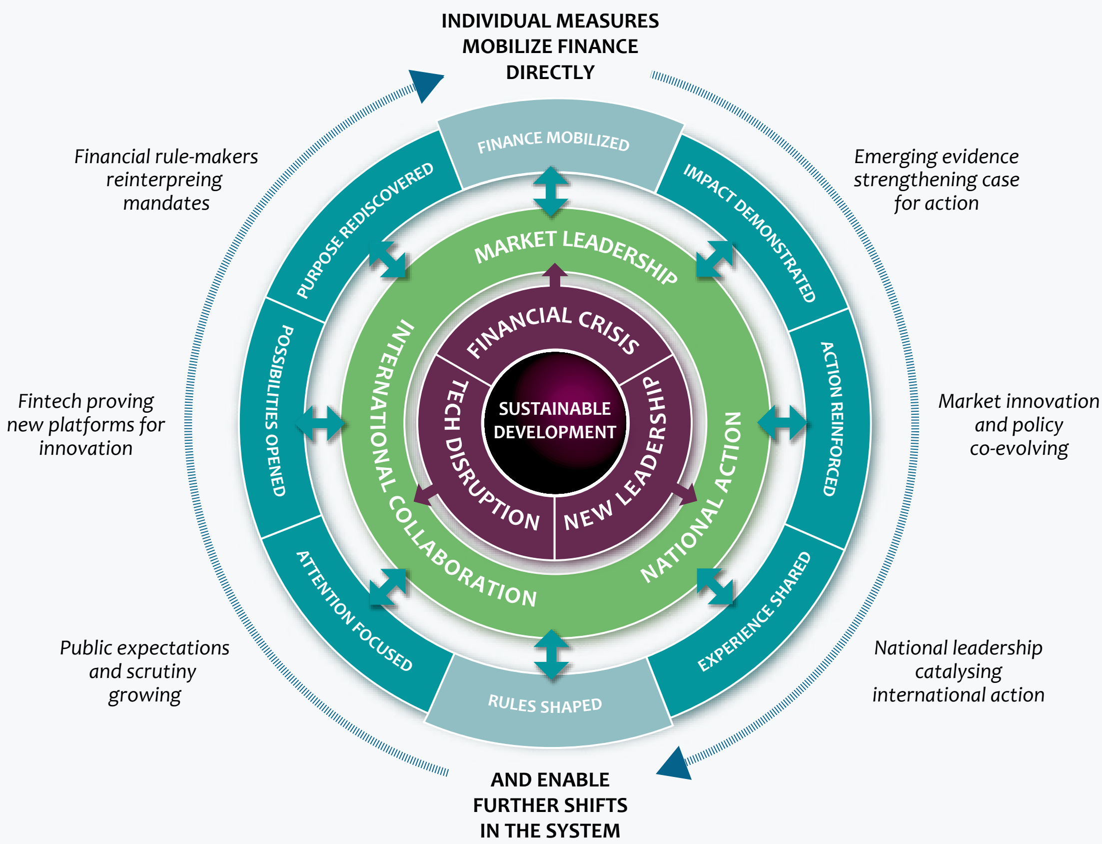
"Implementing the Sustainable Development Goals will not be possible without adequate financing. We have to be creative in mobilizing finance from every possible source and ambitious in exploring how to work together in aligning our global financial system with sustainable development"[282]

Ambassador Peter Thomson, President of the 71st session of the United Nations General Assembly

"I believe that the financial sector as a whole has a generational opportunity to build sustainable capital markets."[283]

Mark Wilson, CEO, Aviva

FIGURE 25: EMERGING SYSTEM DYNAMICS



BOX 16: RENEWING THE PURPOSE OF THE FINANCIAL SYSTEM

Finance is not consumed for its own sake but exists to serve other purposes. Historically, the core purpose of the financial system has been to serve the real economy – providing a range of core services for households, enterprises and public authorities. Now, the transition to sustainable development is reframing this historic relationship, setting in motion a powerful new dynamic between the real economy and the financial system focused on delivering inclusive prosperity, poverty elimination and respect for planetary boundaries. This builds on the post-crisis reform process so that not only the problems of the past are fixed, but also the system is also able to deliver a sustainable future.

4.5. STEPS TO RENEWING THE FINANCIAL SYSTEM

Many of the near-term options set out in our first edition of "The Financial System We Need" are being taken up in practice. Growing numbers of countries are determining what sustainability means for their financial system, and formulating plans for acting on these assessments. Internationally, there has been an up-swell of intergovernmental and private initiatives, each seeking in their own ways to understand emerging innovations and new thinking, and to share lessons and harmonize practice. Just one year on, the sense of potential has become larger – and in the wake of the Sustainable Development Goals and the Paris Agreement, the acknowledged need for a more strategic, long-term response has become greater.

Many bottom-up actions need to be advanced. The world is too complex to secure financing for sustainable development by executing a top-down blueprint, however elaborate or consensual. The wealth of initiatives described in the preceding pages are without doubt the bottom-up driving forces that have brought us, positively, to where we are today. That said, larger-scale initiatives can begin to systematize such innovations into the wider global landscape, embedding the vision and success into institutional forms as appropriate using combined approaches including organizational culture and norms, principles, standards, regulations and policies and wider societal expectations and public choices.

The UNEP Inquiry points to five policy steps that could build on today's momentum in further catalysing and beginning to institutionalize bottom-up innovations to secure the transformation needed in the financial system:

1 ***Anchor Sustainability in National Financial Reform and Development Strategies***

Experience shows that action to develop sustainable financial systems is more coherent and effective where there is a comprehensive, long-term plan or roadmap. Each country is different – and already there is a diversity of approaches, with a mix of policy-led, market-led and public-private initiatives under way. Practice suggests that road maps may include:

- Taking stock of current practices, needs, opportunities and risks through a process of review and dialogue;
- Seeking a convergence of existing national strategies for financial sector development, as well as actions to implement the Sustainable Development Goals and the Paris Agreement;
- Identifying opportunities for financial centre growth and competitiveness through green and sustainable finance;
- Building a coalition of key institutions in the public, private and civic sectors across the country to guide the design and execution of agreed measures, acknowledging and building on existing work;
- Outlining an open pathway for action and implementation, with milestones for review and reinforcement; and,
- Putting in place key metrics and feedback mechanisms to understand performance and enable learning and improvement.

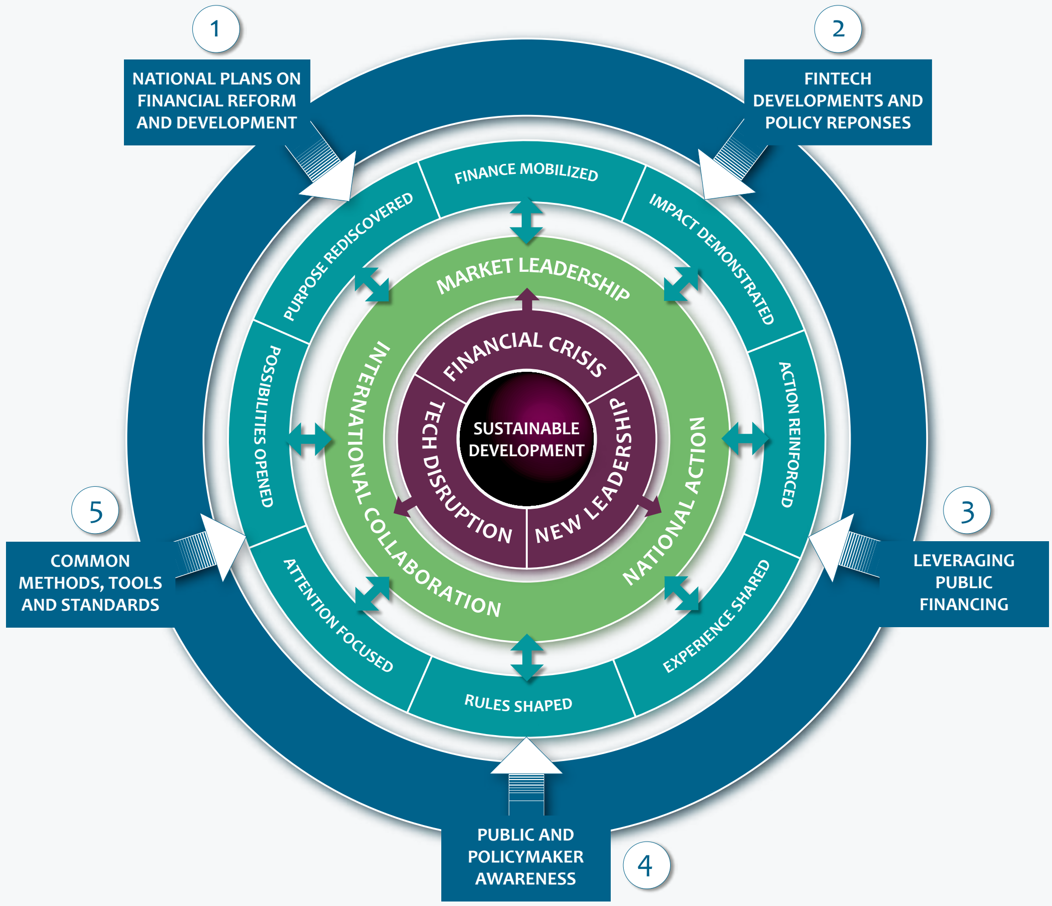
At present, about 10 countries have plans in place or processes under way. By 2020, a stretch goal could be to have 50 national or regional roadmaps, including the major financial centres that are key in shaping the norms of global finance. An international learning network could help to share practice, spur efficiency and raise ambition.

2 ***Channel technological innovation to finance sustainable development***

We have highlighted the key role that technology will play in transforming finance, and so impact its ability to serve the broader needs of sustainable development. Fintech, even at this early stage and as part of an emerging ecology of new technologies, needs to be aligned with sustainable development as it evolves. Options could include:

- Integrate fintech considerations into national strategies seeking to align financial market development with sustainability outcomes, including:
    - Increasing access to sustainable finance for low-income communities as well as micro, small and medium-sized enterprises.
    - Increasing the mobilization of domestic savings for longer-term, sustainability-aligned investments.
- Establishing an international coalition of leading actors in fintech to influence the development of codes, standards and regulations, as well as

FIGURE 26: ACCELERATING SYSTEM DYNAMICS



policy incentives, to better align fintech development with sustainable development.

- Encouraging the integration of sustainable development considerations into fintech challenge funds, incubators and the consideration of early-finance funds.

3 ***Realize the triple leverage potential of public finance***

Public finance plays a three-fold role in mobilizing private capital and stimulating market leadership for sustainable development – providing financial support through funding and subsidies, helping to create new sustainable finance markets and pioneering new sustainability rules and practices. The understanding of how development finance institutions can leverage private capital is advancing strongly. However, knowledge of the other areas remains fragmentary. To close this gap, a number of steps could be considered:

- Assessing the implications for sustainable development outcomes of current fiscal incentives provided through the financial system, focusing in particular on possible 'perverse subsidies' and opportunities for enhancing the effectiveness of incentives to meet real economy goals.
- Evaluating the role of public finance in seeding and growing key green and sustainable finance markets, such as landmark issuer (e.g. for green bonds or investment trusts), anchor investor and provision of fiscally neutral tax incentives.
- Identifying the ways in which innovative rules and practices adopted by public finance institutions on sustainable development can be best transferred and adopted by private financial institutions.

4 ***Raise awareness and build capabilities across the system***

Raising awareness and building capacity within market and policy institutions will be critical to enable the financial community to take advantage of new opportunities, as well as ensuring that policymakers and regulators are fully engaged in the imperatives and risks associated with such plans, that the public is actively involved as an enabler of change. Steps could include:

- Raising political and policy awareness through key intergovernmental platforms such as the G20 and the G7, as well as the United Nations, and through more specialized finance institutions.
- Building the capabilities of financial professionals, as well as policymakers and regulators, so that sustainability becomes a core part of the skills and behaviours that shape the overall financial culture. Sustainability-focused platforms such as the UNEP Finance Initiative and the Principles for Responsible Investment can play a key role in sharing experience and practice.
- Strengthening public awareness through collaborative approaches to improving financial literacy and education on the linkages with sustainable development, including such programs in the proposed national strategies and plans (see above).

5 ***Embed sustainability into common methods, tools and standards***

A striking evolution in awareness has emerged over the past year, as a growing number of standard setting and oversight bodies have realized the relevance of sustainable development to their core mandate and objectives. Realizing the latent synergies within this evolution toward a more systematic approach calls for:

- Extracting real-time learning from the elaboration and implementation of national strategies for aligning financial system development with sustainable development, ensuring a bottom-up, experience-based basis for evolving common approaches.
- Building out the early stage 'sustainability-aligned financial system' performance framework set out in this report by:
  - Investing in actions to improve the quality and availability of data.
  - Evolving selected metrics to cover the broader sustainable development spectrum including underlying aspects of market integrity.
  - Aligning and perhaps converging such a performance framework with existing international assessment methodologies, such as the FSAP.

The most effective step would be to establish a collaborative approach to such developments, including key international organizations such as the IMF and the World Bank.

Financial standards need to support and reflect a recalibrated alignment of the financial system with sustainable development, especially in regard to standards underlying performance measurement. Such an alignment can be effectively addressed, and a 'one size fits all' approach avoided, through a graduated approach comprising four stages:

- Reviewing unintended sustainable development consequences – positive and negative – of existing standards and processes.
- Developing guidance to explore the relevance of sustainable development factors for key aspects of existing standards and processes (such as materiality, governance, risk and disclosure).
- Incorporating an assessment of the sustainable development implications of new work on financial standards and processes.
- Introducing dedicated efforts to promote specific sustainable development priorities in key standards and processes (such as those already under way for financial inclusion).

Central to these efforts would be the clear request of members of standards organizations, thus linking efforts at the national and international levels, as has been the case for financial inclusion. A target for 2020 might be for at least the first three steps to have been completed across all major financial standards and oversight processes. Particular value could be generated by focusing on developing common approaches to definitions for financial instruments (such as green bonds) and tools (such as sustainability 'stress testing').

"Green finance is one of the very few ideas that, if effectively implemented, can benefit the vast majority of the population in the world, and can help improve the sustainability of the global economy."[284]

Zhou Xiaochuan, Governor, People's Bank of China

4.6. A MATTER OF CHOICE

Aligning the financial system with sustainable development is ultimately a matter of choice. Progress can – and is – being made within existing regulatory mandates, focused on the exposure and more effective management of risk at the project and enterprise level and for the financial system as a whole. Such progress can be extended by applying a 'risk lens' over longer-term horizons and taking account of an ever-broader set of drivers.

Beyond this, however, alignment is a policy decision – a matter of public choice. In fact, such choices have already been made and translated into broad policy terms. The Sustainable Development Goals and the Paris Agreement reaffirm the centrality of sustainable development going forward in underpinning viable and inclusive economic strategies and practices. Needed now is to translate these policy decisions into the mandates of relevant governing institutions. This includes the responsibility for stewarding the development of the financial system, whose task it is to maintain orderly and stable – but also vibrant and effective – financial and capital markets. Combined with smart public financing, financial market leadership, and active public debate, the opportunity now exists to drive forward transformational financing for sustainable development.