



Inquiry: Design of a
Sustainable Financial System

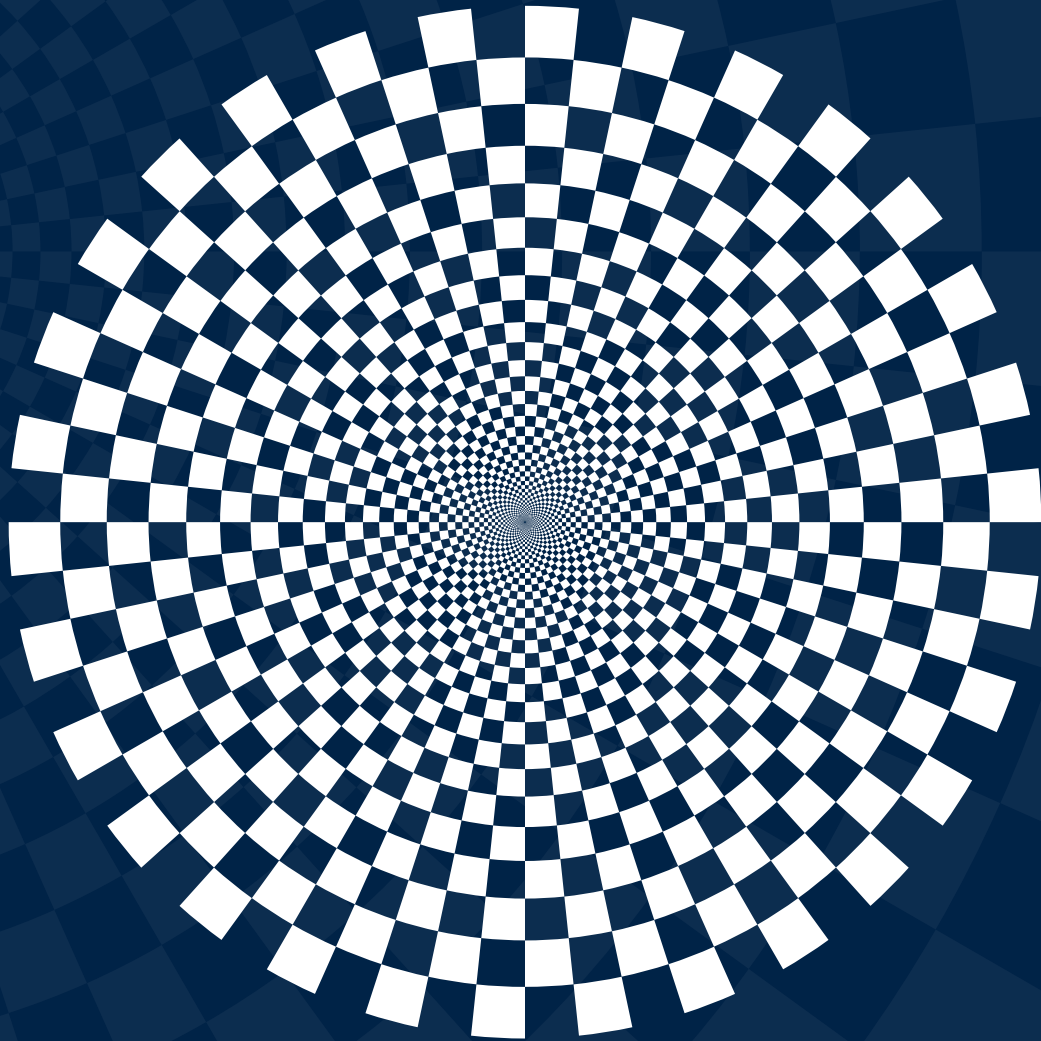


UNEP

THE FINANCIAL SYSTEM WE NEED

ALIGNING THE FINANCIAL SYSTEM WITH
SUSTAINABLE DEVELOPMENT

POLICY SUMMARY



THE UNEP INQUIRY REPORT

OCTOBER 2015

The Inquiry

The Inquiry into the Design of a Sustainable Financial System has been initiated by the United Nations Environment Programme to advance policy options to deliver a step change in the financial system's effectiveness in mobilizing capital towards a green and inclusive economy – in other words, sustainable development. Established in January 2014, it is publishing its final report in October 2015.

More information on the Inquiry is at: www.unep.org/inquiry and www.unepinquiry.org or from:

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Foreword

The financial system underpins growth and development. In 2008 we witnessed some of the world's most sophisticated financial systems spawn the worst global financial crisis seen in decades. As markets in some developed countries collapsed, others in both developed and developing nations were inevitably dragged down. In the wake of this global financial crisis, recognition has grown that the financial system must be not only sound and stable, but also sustainable in the way it enables the transition to a low-carbon, green economy. Therefore to achieve the sustainable development we want will require a realignment of the financial system with the goals of sustainable development.

Aligning the financial system for sustainability is not some far-off notion, but is already happening. A “quiet revolution” is taking place as policy makers and financial regulators address the need to forge robust and sustainable financial systems for 21st century needs. Concepts such as natural wealth and the circular, green economy have moved from the margins to become the substance of economic strategies and policies for businesses and nations. Clean energy will underpin tomorrow's global energy system and there is little doubt that the challenge, although considerable, is essentially one of transition.

With this in mind, UNEP established the Inquiry into the Design of a Sustainable Financial System, mandated to explore options for aligning the financial system with sustainable development, and guided by an international Advisory Council.

The Inquiry's findings and proposals for action drawn from its work through dozens of partners both at the national and international level, indicate that the financial system can be transformed to better serve the needs of sustainable development. Moreover, the Inquiry has highlighted the simple truth that such a transformation is essentially a matter of public choice – a positive choice that is being made in an increasing number of countries and across a growing portion of the financial system.

Progressing the alignment of the financial system with sustainable development will involve new actors, coalitions and instruments. Whilst much remains to be done, we believe that UNEP's Inquiry has established a grounded appreciation of the practical potential, and of the policy choices that can be made in setting out to realizing that potential.



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ADVISORY COUNCIL COMMENTARY

Recognition is growing of the pressing challenge of financing sustainable development, and the opportunity it offers for channeling financial capital to productive, profitable and more broadly beneficial uses. Making this happen needs financial and capital markets to be aligned to sustainable development outcomes, the topic taken on by the United Nations Environment Programme's Inquiry into the Design of a Sustainable Financial System.

As Advisory Council members, we share a commitment to connecting the agendas for financial reform and sustainable development. We have provided guidance to the Inquiry in its approach to its work, the assessment of its findings, and the implications for action. Our engagement has been collective as well as through advice and active collaboration of individual Council members. Our diverse backgrounds and perspectives have enriched the Inquiry's ultimate report, as well as reflecting differing views on some specific aspects of the analysis and proposals. Reflecting on the Inquiry's almost two year journey, of greatest significance is that it has opened up a new arena in efforts to secure adequate financing for sustainable development, notably by:

- Chronicling emerging leadership in including sustainability factors in the policies, regulations, standards and norms that govern the financial system.
- Building a baseline from which policymakers can work to achieve wider adoption of emerging good practice.
- Helping to build a growing community of practitioners focusing on these linkages.

The Inquiry's specific findings and associated proposals effectively establish a foundation for action to be taken – both amplifying and systematizing high potential measures, pointing the way towards further areas for knowledge development, and opening the way to new approaches to learning for both developing and developed countries and international cooperation. This report's key insights sum up the bottom line, that it is possible and indeed necessary to improve key parts of the financial system for it to more effectively serve the purpose of supporting the transition to an inclusive, green economy.

The Advisory Council sees the Inquiry's global report not as the end of a process, but as a launch pad for the continued development of this field of analysis and action. Much remains to be understood, tested and elevated to the broader road map for tomorrow's financial and capital markets. We hope that the Inquiry's grounded, collaborative approach is one that can be carried forward to ensure that further developments happen in practice.

UNEP, finally, is to be congratulated in establishing this Inquiry into the Design of a Sustainable Financial System. Building on its earlier sustainable finance and green economy work, UNEP has demonstrated its commitment to exploring new fields of action for advancing sustainable development.

INQUIRY IN BRIEF

Financing for sustainable development can be delivered through action within the financial system, as well as the real economy.

Policy innovations from developing and developed countries demonstrate how the financial system can be better aligned with sustainable development.

Systematic national action can now be taken to shape a sustainable financial system, complemented by international cooperation.

1. HARNESSING THE FINANCIAL SYSTEM

Our economies, societies and environment are inextricably linked. Challenges in one sphere invariably echo in others. Immense environmental challenges increasingly imperil lives - and livelihoods - across the globe. Yet solutions, too, straddle economic, social and environmental dimensions. And support for integrated responses to the most difficult problems has never been greater. The international consensus on the Sustainable Development Goals and the 2030 Agenda has highlighted the imperative to act on the major challenges issues of our time, and to find the sustainable pathways that will support long-term solutions to these challenges.

The full potential of the financial system needs to be harnessed to deliver the transition to sustainable development. Whilst the effects of the 2008 financial crisis continue to haunt the global economy, an unprecedented recognition has emerged of the need to shape a financial system that is both more stable and more connected to the real economy. Now a new generation of policy innovation is aiming to ensure that the financial system serves the needs of inclusive, environmentally-sustainable, economic development. These innovations in financial and monetary policies and regulations, along with wider market standards are creating a critical nexus between the rules that govern the financial system and sustainable development. The United Nations Environment Programme (UNEP) *Inquiry into the Design of a Sustainable Financial System* has been established to explore this nexus and formulate options for aligning the financial system with sustainable development.

FINANCING SUSTAINABLE DEVELOPMENT

*Financing sustainable development will require capital flows to be redirected towards critical priorities and away from assets that deplete natural capital.*¹ Recent decades have seen progress in the integration of sustainability factors into financial decision-making along with shifts in capital deployment, for example towards clean energy. But environmental deterioration is continuing. Natural capital is declining in 116 out of 140 countries and at current rates, these trends are expected to further erode global natural wealth by over 10% by 2030, causing considerable human harm, threatening development models, and damaging irreversibly, in some instances, vital life support systems.²

The international consensus on the Sustainable Development Goals and the 2030 Agenda has underscored the imperative to find pathways that support long-term solutions to these challenges. Investment estimated at US\$5-7 trillion a year is needed to realize

“From India onwards, all developing countries will have to industrialize without recourse to growing fossil fuel consumption. No country has done this. Innovations are needed in every kind of financial market.”

Rathin Roy, Director, National Institute of Public Finance and Policy, India³

Sustainable development requires changes in the deployment and relative value of financial assets and their relationship to the creation, stewardship and productivity of real wealth.

A sustainable financial system is therefore one that creates, values and transacts financial assets in ways that shape real wealth to serve the long-term needs of an inclusive, environmentally sustainable economy.

Inquiry-In-Action

The United Nations Environment Programme (UNEP) Inquiry into the Design of a Sustainable Financial System was established in early 2014 to explore how to align the financial system with sustainable development, with a focus on environmental aspects.

Inquiry's 3 Core Questions

- **Why** – under what circumstances should measures be taken to ensure that the financial system takes fuller account of sustainable development?
- **What** – what measures have been and might be more widely deployed to better align the financial system with sustainable development?
- **How** – how can such measures best be deployed?

The Inquiry has considered aspects of financial and monetary policies and financial regulations, and standards, including disclosure requirements, credit ratings, listing requirements and indices. The Inquiry has focused on the roles of financial system's rule-makers including central banks, financial regulators, finance ministries, other government departments, standards institutions, and market-based standard-setters such as stock exchanges, and key international organizations and platforms.

The Inquiry has explored innovative experiences in advancing sustainable development through the actions of the financial system's governing institutions, notably central banks and financial regulators, government bodies and standard setters. Such experiences have been examined in some depth in Bangladesh, Brazil, China, Colombia, the European Union, France, Kenya, India, Indonesia, the Netherlands, South Africa, Switzerland, the UK and the USA.

The Inquiry has also drawn on extensive international engagement and research on topics as diverse as green bonds, value-based banking, fiduciary responsibilities, human rights and electronic trading (a full list of research papers is included in Appendix IV). A high-level Advisory Council has guided the Inquiry, which has also drawn on UNEP's green economy activities⁴ and its Finance Initiative (UNEP FI).⁵

The Inquiry has contributed to a growing number of real-time initiatives seeking to integrate sustainable development with the evolution of financial and capital markets, from co-convening China's Green Finance Task Force with the People's Bank of China to catalyzing and supporting the Swiss Government in launching a national consultation with the Swiss Sustainable Finance Initiative. Other activities include supporting a national inquiry into the green economy and the financial system by Brazil's banking association, the Federação Brasileira das Associações de Bancos.

the Sustainable Development Goals, including infrastructure, clean energy, water and sanitation and agriculture.⁶ Developing countries face an annual investment gap of US\$2.5 trillion, while on current trends major economies face a long-term investment deficit of US\$10 trillion annually by 2020.⁷ Likewise, some investments need to be scaled back, for example, by an estimated US\$6 trillion by 2030 in high polluting energy development and power generation.⁸ One part of this capital switch will be the reform of resource pricing, for example, to respond to the US\$5.3 trillion in annual energy subsidies identified by the International Monetary Fund.⁹

Public finance will be critical to closing the financing gap, but estimates suggest this contribution will be limited. Finance needs to access private capital at scale, with banking alone managing financial assets of almost US\$140 trillion and institutional investors, notably pension funds, managing over US\$100 trillion, and capital markets, including bond and equities, exceeding US\$100 trillion and US\$73 trillion respectively.¹⁰

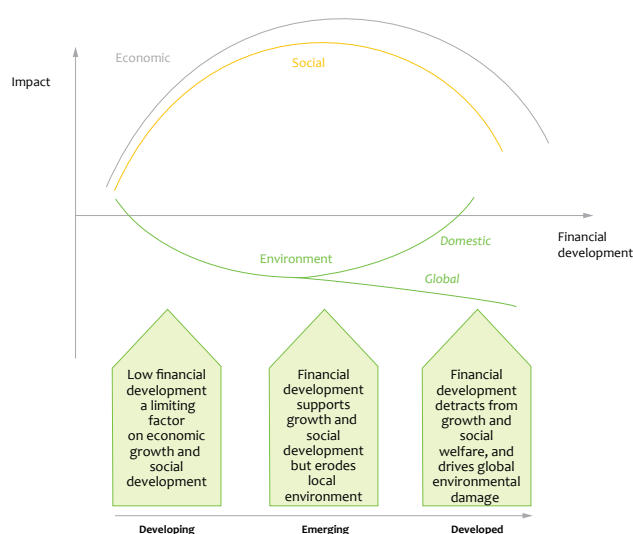
The financial system will need to evolve to play its role in financing sustainable development. Billions of people and millions of small businesses lack access to financial services. Reforms in the wake of the financial crisis have improved financial stability, but remain an “unfinished business”. Short-termism and excessive leverage remain significant drivers of instability and reasons why longer-term sustainability-related risks are being sidelined in financial decision-making. Replicating today’s most developed financial systems is not the answer. Indeed, over-sized, over-complex financial systems, can negatively impact economic growth and income equality.¹¹

Environmental and social outcomes will be impacted by financial system development. Adopting the IMF and BIS’s schematic approach, a working hypothesis is that a business-as-usual scenario will see negative environmental outcomes increase rapidly as financial systems develop. Such externalities might reduce at higher levels of development for their respective domestic, host economies, but continue to rise globally as more

developed financial systems increasingly internationalize their financing and footprint.

There is an historic window of opportunity to develop a sustainable financial system. Across the world, the value of capital committed to more responsible financial practices is growing. Policy and regulatory responses to the crisis demonstrate the will and capacity of governing institutions to act in unconventional ways, rapidly, at scale and in a concerted fashion, when faced with serious, systemic challenges.¹² The growing influence of emerging economies in international financial affairs places the linkage between financial market development and national development priorities more centrally in the policy debate. Technology disruption across the financial system is challenging incumbent practices across the world of financial intermediaries, opening new avenues for inclusion and connectivity.¹³ Finally, a transformation in public and policy awareness of sustainable development has placed environmental and social issues increasingly at the heart of economic policymaking.

FIG 1 FINANCIAL SYSTEM MISALIGNMENT WITH SUSTAINABLE DEVELOPMENT



Emerging Practice in Embedding Sustainable Development into the Financial System

ENHANCING MARKET PRACTICE

- **Reporting for equities:** The Johannesburg Stock Exchange (JSE) and Brazil's BOVESPA stock exchange were two of the earliest innovators in requiring sustainability disclosures.¹⁴
- **Sustainability information in market analysis:** Standard & Poor's Ratings Services identified climate change as a key mega-trend effecting sovereign bonds.¹⁵
- **Integrating environmental risks into financial regulation:** Brazil's banking regulations require socio-environmental risk management.¹⁶

UPGRADING GOVERNANCE ARCHITECTURES

Internalizing sustainable development into financial decision-making can be consistent the existing mandates of financial regulators and central banks:^{17,18}

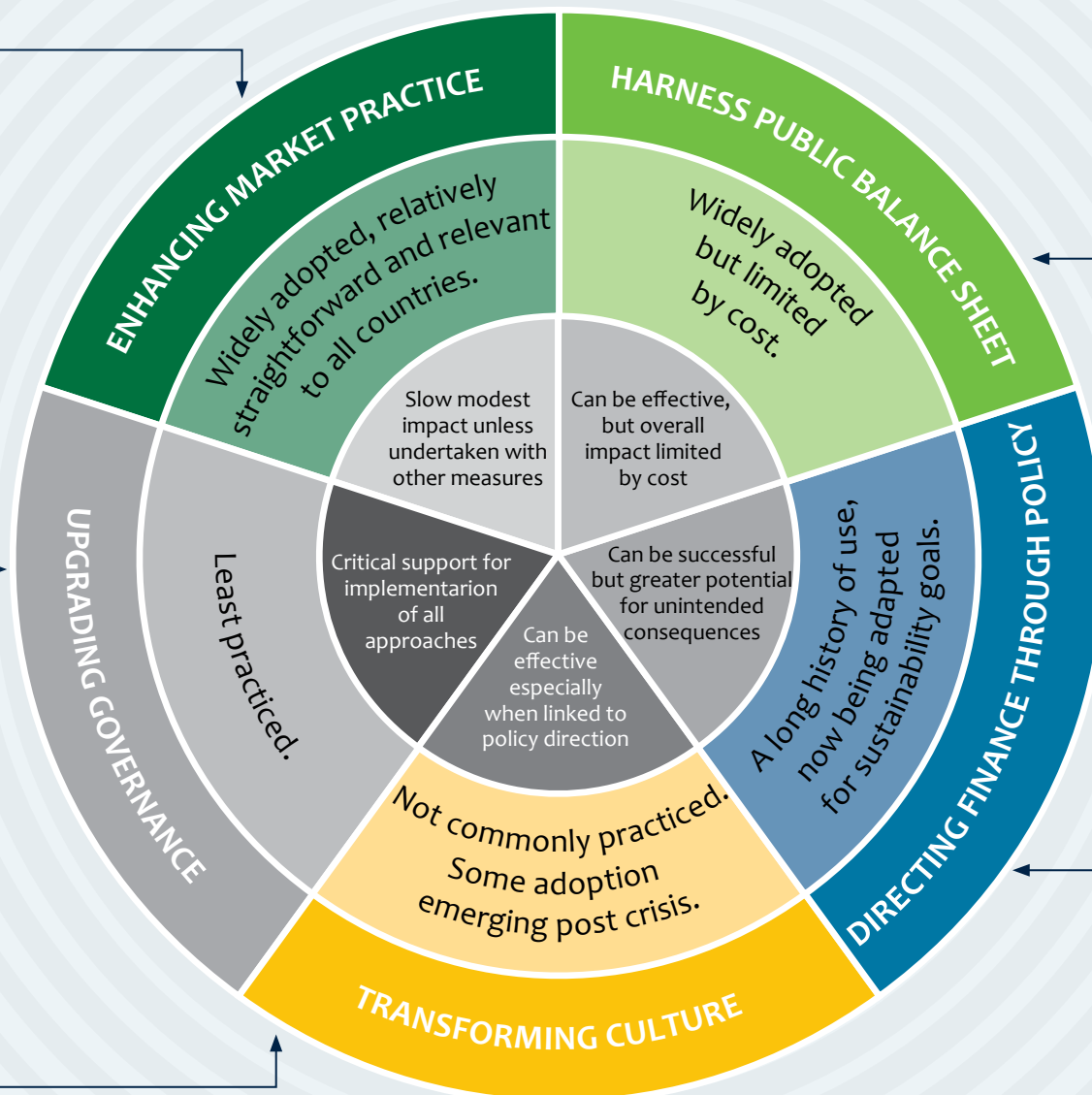
- The Central Bank of Brazil's focus on socio-environmental risk management flows from its core functions as a prudential bank regulator.
- The Bangladesh Bank argues that its support for rural enterprises and green finance contributes to financial and monetary stability.
- The Bank of England's prudential review of climate risks to the UK's insurance sector is based on a connection between its core prudential duties and the UK Climate Change Act.

ENCOURAGING CULTURAL TRANSFORMATION

- **National compacts and road maps:** South Africa's financial charter, China's Green Finance Committee,¹⁹ the Swiss Sustainable Finance initiative.²⁰
- **Values-based finance institutions:** Dutch bankers pledge to balance the interests of all stakeholders.²¹ Impact investing, and faith-based finance continue to grow.²²
- **Action to enhance the current skill set of financial professionals and regulators:**²³ Indonesia's Sustainable Finance Roadmap focuses on sustainability skills of professionals.²⁴

HARNESSING THE PUBLIC BALANCE SHEET

- **Fiscal incentives for investors:** Widely used in the US, from tax relief on municipal bonds for local infrastructure to incentives targeted at renewable energy investments.
- **Blended Finance:** Many public financial institutions are combining public and private finance to close the viability gap for investors in green projects.²⁵
- **Central banks:**²⁶ The People's Bank of China making equity investments in policy-directed investment vehicles.²⁷



DIRECTING FINANCE THROUGH POLICY

- **Priority sector lending programmes:** From India's priority sector lending requirements²⁸ and the US Community Reinvestment Act.
- **Directed finance is often linked to incentives:** Bangladesh Bank's green finance lending requirements have favourable capital adjustments²⁹. Implementation of South Africa's Financial Charter is connected to public procurement.³⁰
- **Liability regimes:** The US 'superfund' system provides 'safe harbours' for lender liability based on adequate due diligence. China is reviewing its rules on lender liability.³¹

FIG II DEVELOPING A 21ST CENTURY FINANCIAL SYSTEM

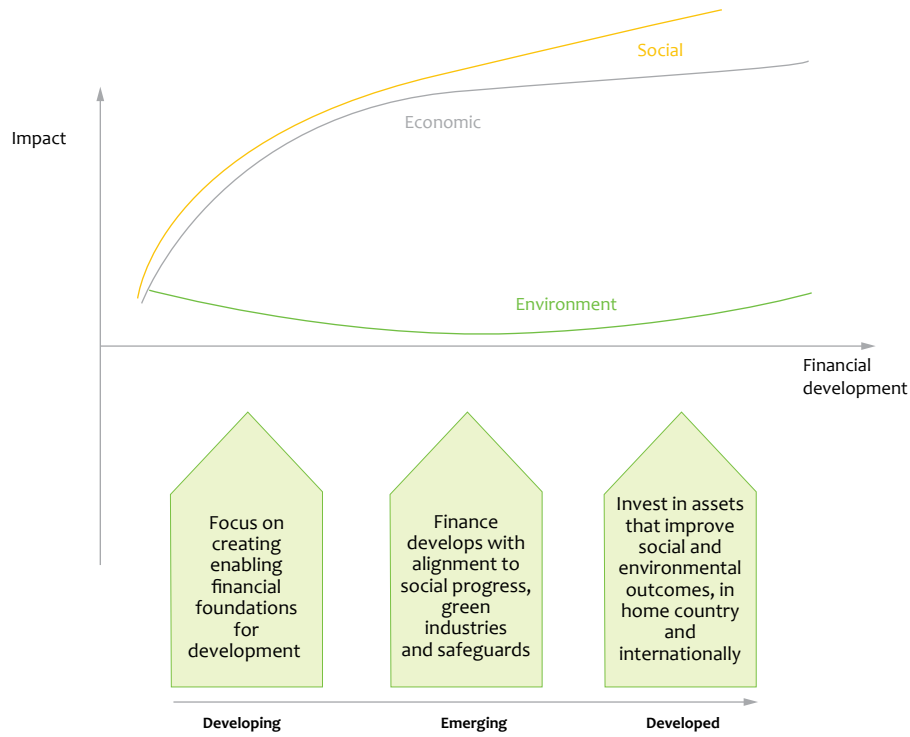
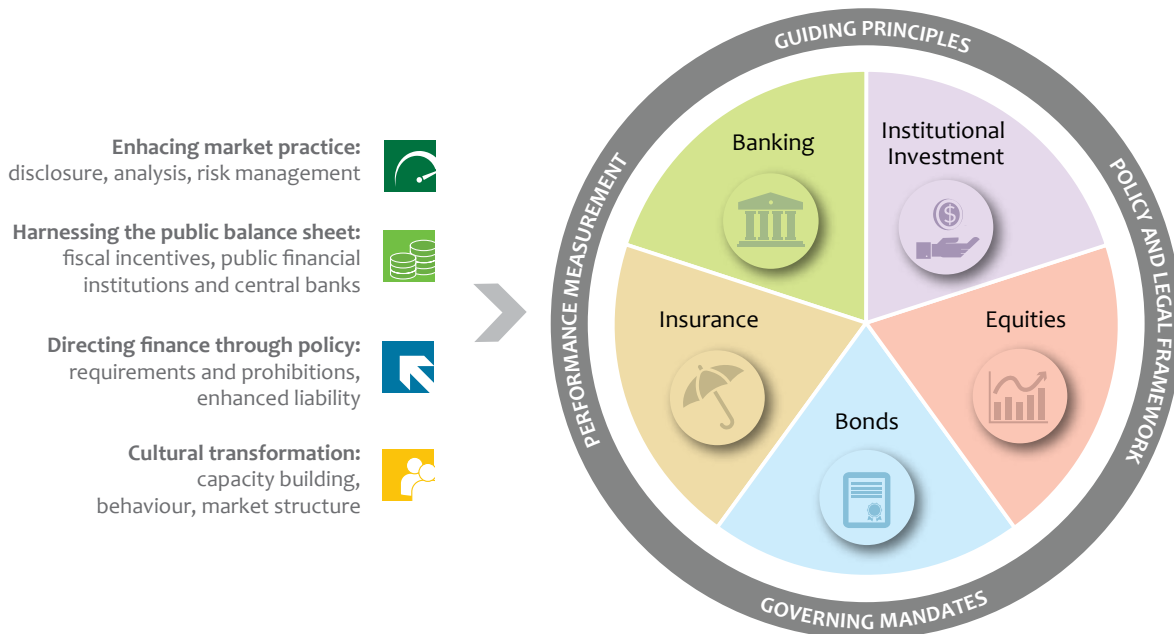


FIG III TOOLBOX-FROM-PRACTICE AND POLICY PACKAGE OPTIONS



2. QUIET REVOLUTION

The Inquiry's core finding is that there is a "quiet revolution" seeking to integrate sustainable development into the fabric of the financial system. The Inquiry found over 100 examples of policy measures across 40 countries targeting each of the main asset pools and actors, as well as the underlying governance of the financial system. Developing and emerging economies are leading this revolution, driven by a focus on economic transformation, social inclusion and local environmental priorities. Champions are also emerging in the developed world, driven more by market efficiency and stability concerns, and in response to global risks such as climate change. International cooperation is growing rapidly, catalyzing learning and shared approaches.

The quiet revolution is being led by those governing the financial system, often in collaboration with market actors. Innovative measures are being advanced by central banks, financial regulators and standard setters including credit rating agencies and stock exchanges. Measures taken vary widely:

- *Nationally*, from South Africa's leadership in embedding sustainable development into listing requirements, to Brazil's banking regulations governing environmental risk, Bangladesh's central bank refinancing to support green investment, China's leadership in advancing green credit guidelines and the Bank of England's prudential review of climate risk.
- *Internationally*, from principles-based coalitions such as the Sustainable Banking Network for Regulatory and the Sustain-

able Stock Exchange Initiative, to S&P Rating Services' climate-sensitized sovereign credit ratings, and the Financial Stability Board's consideration of the role of central banks in addressing climate-related risks.

Integrating sustainable development into the evolution of financial systems provides both short and long-term potential benefits. In the short to medium term:

- *Developing countries* have the opportunity to increase financial access, reduce environmental pollution with associated improvements in public health, and improve financial flows to clean energy and other new sources of economic development.
- *Developed countries* have opportunities for improving market integrity, aligning the financial sector more closely to the of the real economy, enhancing financial and monetary resilience, and addressing policy goals such as financing the energy transition.

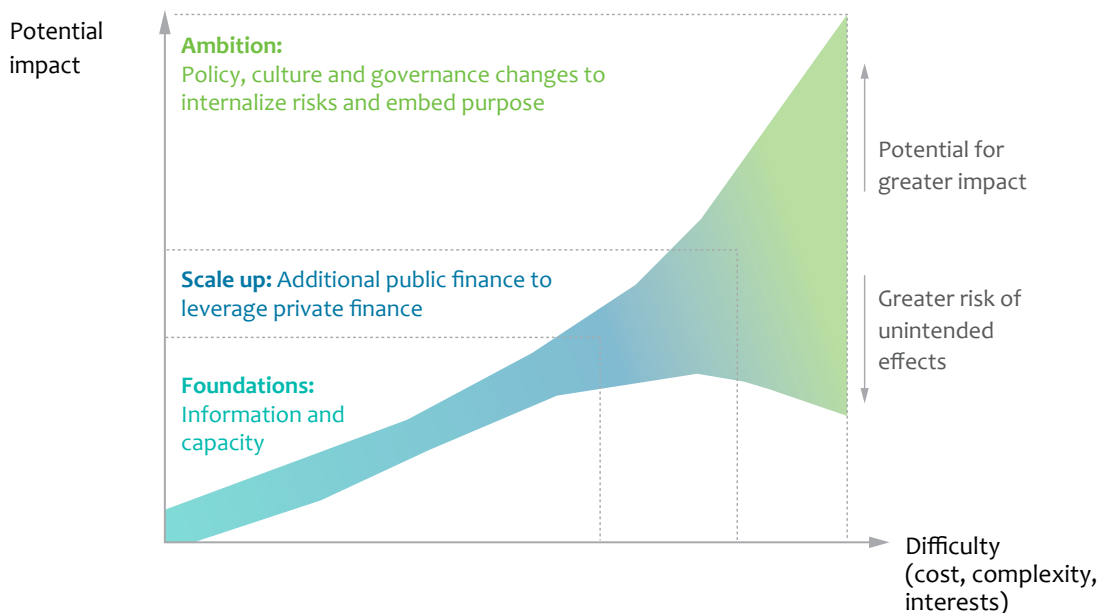
At stake is the potential to shape a financial system fit for the 21st century. The longer-term opportunity for both developed and developing economies is to evolve efficient financial systems that are more effective in serving the needs of inclusive, sustainable economies and societies. Measures identified by the Inquiry, taken one by one, are unlikely to protect society from other financial system weaknesses that enable mispricing, rent-taking and instability. However, the cumulative impacts of such measures can be more than the sum of their parts. Implemented with ambition and engagement, they can trigger broader, system-level shifts.

3. FRAMEWORK FOR ACTION

Aligning the financial system with sustainable development requires a systematic approach. Developing a sustainable financial system will only be achieved by going beyond both business-as-usual approaches to financial market development, and the adoption of ad hoc innovations. The Inquiry's Framework for Action provides a systematic approach to building practical pathways, drawing on a toolbox of measures based on country experience. The framework proposes policy packages for each of the major pools of assets and associated actors: banks, bonds, equities, institutional investors and insurance. Furthermore, it sets out four recommendations for action in aligning financial system governance with sustainable development.

Designing policy packages and implementation pathways requires a balance to be struck between ambition, practicality and risks. Comparatively simple measures to improve market practice such as enhanced disclosure may be useful starting points but alone will not deliver the quantum changes required. Measures such as priority lending and strengthened environmental liability, on the other hand, may over time drive greater change, but need careful design and market preparation to avoid unintended consequences. Ultimately, what is needed is a package of measures that trigger broader changes in the behavioural, cultural and market dynamics of the financial system.

FIG IV POTENTIAL IMPACT AND PRACTICALITY OF IMPLEMENTATION



4. NEXT STEPS

The Inquiry's findings provide a powerful basis for taking the next steps in developing a sustainable financial system at the national and international levels. Critically, the momentum observed and supported by the Inquiry needs to be built on, through both national leadership and international cooperation. The findings suggest two related arenas for action:

- *Nationally:* a starting point is a high-level diagnosis of needs and opportunities within the financial system and the development of a broad-based social compact of public agencies, financial institutions and civil society to develop a shared approach to required action.
- *Internationally,* cooperation, and specifically 10 areas identified by the Inquiry, four focused on specific asset pools and actors, five on developing the governing architecture to deal more explicitly with sustainable development, and finally the establishment of an international research consortium to take forward under-explored topics and themes.

Implementing the Inquiry's findings will require the involvement of many actors. Critical to success is the active involvement of stewards of the financial system, including central banks, regulators and prudential authorities, standard setters, government bodies including ministries of finance and market-based rule-setters including stock exchanges and credit rating agencies. Yet the Inquiry's findings also highlight the critical role of other actors, notably:

- *Market actors:* from banks to pension funds and analysts – contributing through exemplary leadership, knowledge development and expert guidance, coalition building and advocacy.
- *Sustainable development community:* from environmental ministries to think tanks, civil society and agencies such as UNEP – bringing expert knowledge, coalition and public awareness building.
- *International organizations:* those involved in financial system development – for policy reforms, knowledge development, norm building and standards development, and coordination.
- *Individuals:* as consumers of financial services, as employees of financial institutions and as participants in civil society - bringing unique skills and perspectives on how to connect the financial systems with human needs and aspirations.

The Inquiry has highlighted the importance of coalitions in advancing a sustainable financial system. Many of the above actors need to engage in such coalitions in their respective roles, nationally, regionally and internationally. The Inquiry's findings point to continuing deficit in knowledge and capabilities: first, regarding the

“Bangladesh Bank and a number of other developing economy central banks have been trying to address the risks of instabilities and imbalances at sources, by promoting socially responsible inclusive and environmentally sustainable institutional ethos in financing.”

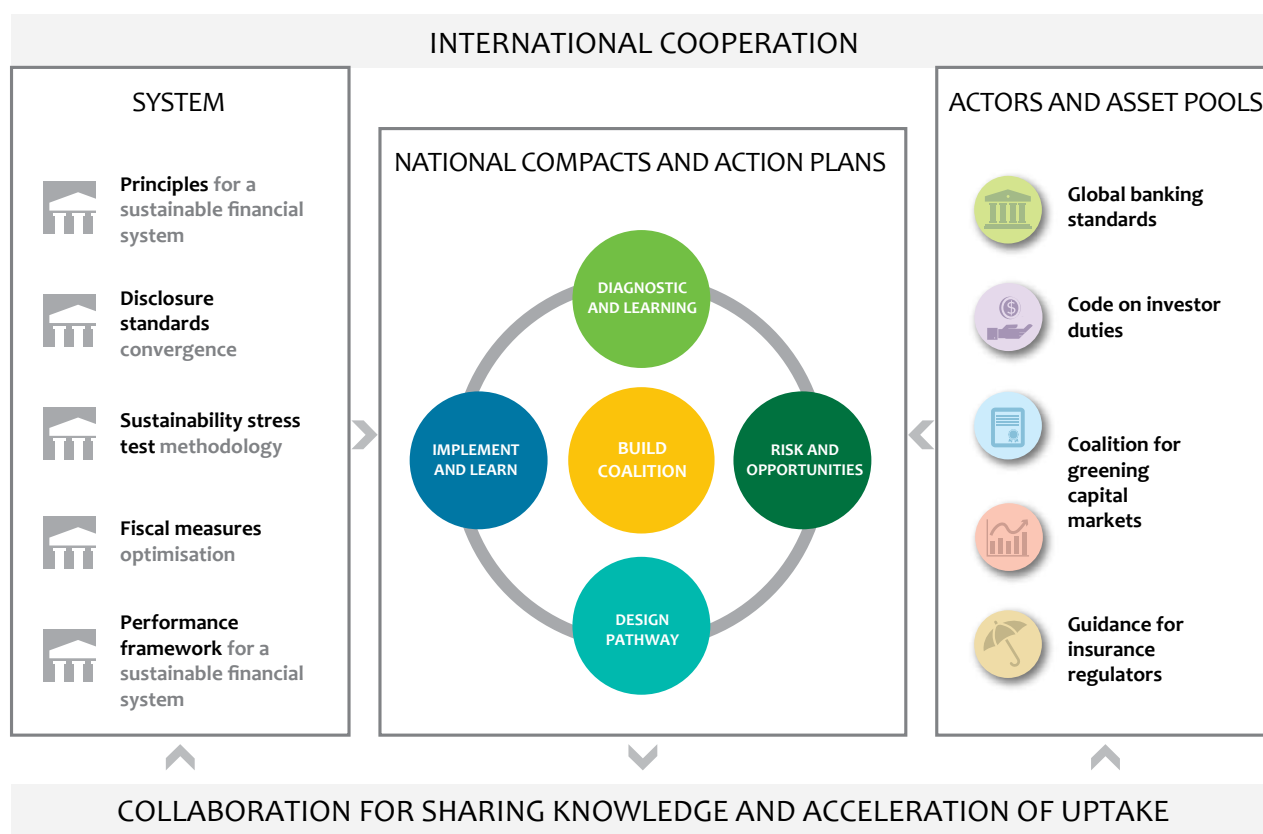
Dr Atiur Rahman*, Governor, Bangladesh Bank

“The central bank time horizon is relatively short - but the real challenges to prosperity and economic resilience from climate change will manifest well beyond this. We face a tragedy of horizons.”

Mark Carney, Governor, Bank of England³²

financial system for citizens groups and the environmental and broader sustainable development community; and second, for financial system experts when it comes to environment sustainability. New coalitions are particularly important to overcome these deficits and thereby *create shared understandings of how to deliver effective strategies for change.*

FIG V NEXT STEPS FOR NATIONAL ACTION AND INTERNATIONAL COOPERATION



5. TOWARDS A SUSTAINABLE FINANCIAL SYSTEM

UNEP's Inquiry has revealed both the need and the potential to align the financial system with, and so deliver financing for, sustainable development. Today's dispersed, practical experience can form the basis of a systematic approach to advancing such an alignment. Practical pathways can be designed that over time can trigger systemic change. Such approaches can be crafted by coalitions, informed and further amplified through international cooperation. Failure to grasp this opportunity would make it difficult to achieve the Sustainable Development Goals.

Progressing a sustainable financial system may improve the efficiency, effectiveness and resilience of the system itself. Individuals measures that have been highlighted, taken one by one, are unlikely to protect society from other financial system weaknesses that enable mispricing, rent-taking and instability. However, change in complex, adaptive systems such as finance can be triggered by the development of new behavioural norms anchored in a renewed sense of purpose. The impacts of such measures can be more than the sum of their parts. Implemented with ambition, care and engagement, such measures can trigger broader, system-level shifts. An initial focus on specific goals, such as financial inclusion, air pollution or climate change, can reveal fresh ways of achieving traditional goals for the system in new contexts.

Realizing this potential is essentially a matter of public choice. The shape of today's financial system is a result of many historical choices. There was never a blueprint, certainly, but the system was formed by the evolution of societal needs and expectations, associated policy decisions and the dynamic response to changing conditions by market actors. The Inquiry's findings point to a new generation of such public choices being made by institutions whose task is to shape tomorrow's financial system.

At stake is the potential to shape a financial system fit for the 21st century purpose of serving the needs of sustainable development.

“The sustainable finance program is not only intended to increase financing but also to improve resilience and competitiveness of financial institutions. . . sustainable finance is a new challenge as well as an opportunity in which financial institutions may gain benefits of growing and developing more stably.”

Muliaman D. Hadad, Chairman of Indonesia Financial Services Authority (OJK) Board of Commissioners

“The People's Bank of China is spearheading the drafting of the 13th Five Year Plan for the reform and development of China's financial sector; green finance will be a key element of this plan.”

Pan Gongsheng, Deputy Governor, People's Bank of China³³

References

- 1 UNEP (2011). *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication*. Nairobi: UNEP. Retrieved from: <http://www.unep.org/greeneconomy/GreenEconomyReport/tabid/29846/Default.aspx>
- 2 Inquiry estimates based on UNU-IHDP/UNEP (2014). *The Inclusive Wealth Report 2014*. Cambridge University Press. Retrieved from: <http://inclusive-wealthindex.org/>.
- 3 Roy, R. (2015). Presentation at the UNEP Inquiry/Axa Event: New Rules for New Horizons, 3 July 2015, Paris. As quoted in Thimann, C. and Zadek, S. (2015) *New Rules for New Horizons: Report of the High Level Symposium on Reshaping Finance for Sustainability*. UNEP Inquiry/Axa. Retrieved from: http://apps.unep.org/publications/index.php?option=com_pub&task=download&file=011747_en
- 4 UNEP (2011). *Ibid.*
- 5 UNEP FI's membership includes 200 financial institutions, principally banks, insurance companies and investors: <http://www.unepfi.org>
- 6 UNCTAD (2014). *World Investment Report 2014 - Investing in SDGs*. Geneva: UNCTAD
- 7 G30 (2013) *Long-term finance and economic growth*. Washington, D.C.: G30 http://www.group30.org/images/PDF/Long-term_Finance_hi-res.pdf
- 8 See IPCC (2014). *Climate Change 2014 Synthesis Report –Section 4.4.4 Investment and finance*. Retrieved from: http://www.ipcc.ch/pdf/assessment-report/ars5/syr/SYR_AR5_FINAL_full.pdf; International Energy Agency (IEA) (2014). *World Energy Investment Outlook 2014*. Paris: IEA. Retrieved from: <http://www.iea.org/publications/freepublications/publication/WEIO2014.pdf>; and Global Commission on the Economy and Climate (2014) *New Climate Economy Report: Better Growth, Better Climate*. Retrieved from: <http://newclimateeconomy.report/>
- 9 Coady, D., Parry, I., Sears, L. and Shang, B. (2015). *How Large Are Global Energy Subsidies?* IMF Working Paper <http://www.imf.org/external/pubs/ft/wp/2015/wp15105.pdf>
- 10 <http://www.world-exchanges.org/insight/reports/global-equity-trading-volumes-rise-36-1st-half-2015>
- 11 The report suggests that very high levels of finance can have negative impacts due to increased frequency of 'booms and busts', a diversion of talent to the financial sector and potential rent extraction: Sahay, R., Čihák, M., N'Diaye, P., Barajas, A., Bi, R., Ayala, D., Gao, Y., Kyobe, A., Nguyen, L., Saborowski, C., Svirydzenka, K. and Yousefi, S.R. (2015). *Rethinking Financial Deepening: Stability and Growth in Emerging Markets*. SDN 15/08. Washington, D.C.: IMF. Retrieved from: <http://www.imf.org/external/pubs/ft/sdn/2015/sdn1508.pdf>
- 12 Mackintosh, S. (forthcoming). *Making the Jump: How Crises Affect Policy Consensus and Can Trigger Paradigm Shift*. UNEP Inquiry Working Paper.
- 13 World Economic Forum (2015). *The Future of Financial Services How disruptive innovations are reshaping the way financial services are structured, provisioned and consumed*. Geneva: WEF. Retrieved from: http://www3.weforum.org/docs/WEF_The_future_of_financial_services.pdf
- 14 Sustainable Stock Exchanges Initiative (2014). *Report on Progress*. Retrieved from: <http://www.sseinitiative.org/wp-content/uploads/2012/03/SSE-2014-ROP.pdf>
- 15 Standard and Poor's (2014). *Climate Change is a Global Mega-trend for sovereign risk*, 15 May 2014
- 16 Alexander, K. (2014). *Stability and Sustainability in Banking Reform: Are Environmental Risks Missing in Basel III?* Cambridge: CISL & Geneva: UNEP FI. Retrieved from: <http://www.unepfi.org/fileadmin/documents/StabilitySustainability.pdf>
- 17 Volz, U. (forthcoming). *The Role of Central Banks in Enhancing Green Finance*. UNEP Inquiry Working Paper. UNEP Inquiry.
- 18 Monnin, P. and Barkawi, A. (2015) *Monetary Policy and Green Finance – Exploring the Links*. In *Greening China's Financial System* (Zhang, C., Zadek, S., Chen, N. and Halle, M. (Eds.)). DRC/IISD with UNEP Inquiry.
- 19 Huang, C. (2015). *Green Finance: Seeking a way out of China's pollution crisis*. London: Trucost. Retrieved from: <http://trucost.com/blog/140/China/green-finance>
- 20 http://www.sustainablefinance.ch/en/who-we-are_content--1--1033.html
- 21 Nederlandse Vereniging van Banken (2015). *Future-Oriented Banking Social Charter, Banking Code, Rules of Conduct (English Version)*. NVB: Amsterdam.
- 22 Myers, T.A. and Hassanzadeh, E. (2015) *The Interconnections Between Islamic Finance and Sustainable Finance*. IISD also see SC (2014) *SC introduces the first Sustainable & Responsible Investment Sukuk framework*. Securities Commission Malaysia, 28 August 2014. http://www.sc.com.my/post_archive/sc-introduces-sustainable-and-responsible-investment-sukuk-framework/.
- 23 See Ceres (2014). *Gaining Ground: Corporate Progress on the Ceres Roadmap for Sustainability*. Ceres and Sustainalytics, April 2014. <http://www.ceres.org/roadmap-assessment/progress-report>; PRI (2014). *Integrating ESG Issues to Executive Pay: A review of global extractives and utilities companies*. September 2014; GMI Ratings (2014). *Sustainability Metrics in Executive Pay: Short-term focus for a long-term issue*. April 2014; and Glass, L. (2014). *Greening the Green: Linking Executive Compensation to Sustainability*. <http://www.glasslewis.com/blog/glass-lewis-publishes-greening-green-2014-linking-compensation-sustainability/>
- 24 OJK (2014). *Roadmap to Sustainable Finance in Indonesia*. Jakarta: OJK. Retrieved from: <http://www.ifc.org/wps/wcm/connect/587a700047f4b31baa63ff299ede9589/Roadmap+Keuangan+Berkelanjutan.pdf?MOD=AJPERES>
- 25 See for example WEF (2015). *Blended Finance Vol. 1: A Primer for Development Finance and Philanthropic Funders*. Geneva: WEF. Retrieved from: http://www3.weforum.org/docs/WEF_Blended_Finance_A_Primer_Development_Finance_Philanthropic_Funders_report_2015.pdf, <http://www.convergence.finance/> and Rogerson, A. (2011). *What if Development Aid Were Truly Catalytic*. London: ODI.
- 26 Sheng, A. (2015). *Central Banks can and should do their part in funding sustainability*. CIGI.
- 27 China Green Finance Taskforce (2015). *Establishing China's Green Financial System*. UNEP Inquiry/People's Bank of China.
- 28 Times of India (2015). *RBI changes priority sector lending norm*. 25 April 2015. Retrieved from: <http://timesofindia.indiatimes.com/business/india-business/RBI-changes-priority-sector-lending-norms/articleshow/47034036.cms>
- 29 Barkawi, A. and Monnin, P. (2015). *Monetary Policy and Sustainability – the Case of Bangladesh*. UNEP Inquiry Working Paper. UNEP Inquiry/CEP.
- 30 Hawkins, P. (2015). *Design Options for a Sustainable Financial Sector*. UNEP Inquiry Working Paper. UNEP Inquiry.
- 31 Sampaio, R.S., Diniz, E., Maristrello Porto, A.J. and Martins Lopes, L.D. (forthcoming). *Lender's and Investor's Environmental Liability: How Much is Too Much?* UNEP Inquiry Working Paper. UNEP Inquiry/FGV.
- 32 Carney, M. quoted in UNEP Inquiry (2015). *The Coming Financial Climate. Update Report 4: April 2015*. Geneva: UNEP.
- 33 Gongsheng, P. in *Foreword to: China Green Finance Taskforce (2015)*.



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