

Inter-American Development Bank

STRANDED  
ASSETS

AND MULTILATERAL DEVELOPMENT BANKS

*Increasingly risk factors  
related to the environment  
are causing unanticipated  
or premature write-downs,  
devaluations, or liabilities*  
– **stranding assets.**

Over the last few years the topic of ‘stranded assets’ created by environment-related risk factors, including physical climate change impacts and societal responses to climate change, has loomed larger and larger.

Not only has it sparked off one of the fastest growing social movements in history –the fossil free divestment campaign– it has also prompted reaction from a wide-range of key global actors. Mark Carney, the Governor of the Bank of England,

became the latest major figure to [endorse this concept in a speech](#) at Lloyd’s of London on the 29th September 2015. Others have included US President [Barack Obama](#), UN Secretary-General [Ban Ki-moon](#), [Jim Kim](#) (President of the World Bank), [Christiana Figueres](#) (Executive Secretary of the UNFCCC) , [Angel Gurría](#) (Secretary-General of the OECD), [Lord Stern](#) of Brentford, and [Ben van Beurden](#) (CEO of Shell plc).

While stranded assets are a regular feature of economic systems and are a phenomenon inherent in the ‘creative destruction’ of economic growth, some of the causes of [asset stranding might be changing](#). Environment-related factors are increasingly stranding assets across a wide range of sectors and geographies and this trend [appears to be accelerating](#). The factors range from physical climate change, through to [new environmental regulations](#) (including climate policy), developments in clean energy technology, resource constraints, evolving social norms, and litigation.

As Carney and others have noted, physical climate change impacts are already affecting asset values in a wide range of sectors and this is one reason why inflation adjusted [weather-related losses in the insurance sector have been increasing](#). They have increased from an average of around US\$10 billion per annum in the 1980s to around US\$50 billion per annum [over the past decade](#). Societal responses to climate

change, which include policies and regulations to tackle carbon pollution, the development and deployment of low carbon technologies, and changes in what society thinks is acceptable, are also impacting asset values. Renewables are reshaping power markets, electric vehicles and hybrids are beginning to [disrupt the automobile sector](#), and the fossil fuel divestment campaign is managing to stigmatize fossil fuel companies making it harder for them to recruit and retain good people. There is also now the threat that some company directors could actually be sued for causing climate change or that fiduciaries are held liable for [not responding adequately](#) to climate risk.

These different, but related and potentially correlated environmental risk factors, could also pose a systemic risk to the financial system. On the 24th September 2015, the G20 Financial Stability Board (FSB) met to discuss climate change and stranded assets in London and on the back of this meeting may propose the creation of a new [Climate Disclosure Task Force](#) to help equip market participants and regulators with the disclosures required to manage these risks.

But stranded asset-related concerns may extend beyond material risks to investors and companies, or indeed systemic risks that may merit consideration by financial regulators. Low carbon development pathways, particularly for developing countries endowed with natural resources, could

also imply stranded assets in carbon-intensive sectors. The faster the pace of decarbonisation, the greater the chance of stranded assets in different sectors and the larger the likely economic, social, and political consequences that might need to be managed. This could destabilize low carbon transitions and prevent the realization of Intended Nationally Determined Contributions (INDCs). This is a scenario that national governments and other stakeholders should be keen to avoid.

Despite its growing prominence as a topic, there remains a need to carefully consider the insights a stranded assets analysis can provide to different economic, social, and environmental issues. To lay the foundation for practical and implementable approaches to stranded assets, especially from a multilateral development bank (MDB) perspective, we set out three main topics of consideration in this publication:

- Systemic climate risks implications for the financial sector and lessons for central banks and financial regulators
- Ensuring low carbon development pathways are resilient to asset stranding
- Managing investor exposure to stranded assets

# UNDERSTANDING SYSTEMIC CLIMATE RISKS:

IMPLICATIONS FOR THE FINANCIAL  
SECTOR AND LESSONS FOR CENTRAL  
BANKS AND FINANCIAL REGULATORS

The extent of global financial exposure to carbon-intensive investments could become a major problem as we transition to a low carbon economy.

At present regulators are not monitoring the concentration of these investments in the financial system and have no view on what level would be too high. While the exposure of listed companies is beginning to be understood, that of non-listed companies, bank loan books and institutional investor portfolios, is significantly less appreciated.

For many investors an exposure to carbon-intensive assets is not an active or an informed decision. Instead it is frequently driven by the fact that a large proportion of capital must flow into funds that aim to track the main indices. Many investors have little choice but to do this due to liquidity requirements and the desire to track average market performance.

The Bank of England has set out [three tests](#) as to whether stranded carbon assets could be a [systemic financial risk](#):

- That exposures of financial institutions to carbon-intensive sectors are large relative to overall assets;
- The impact of policy and technology is not already being priced into the market, either through lower expected returns or higher risk premia; and
- Any subsequent correction would not allow financial institutions to adjust their portfolios in an orderly manner.

While exposures to carbon-intensive sectors is certainly large to overall assets and there is significant evidence to suggest that investors face problems pricing environment-related risks because they are novel, non-linear, require interdisciplinary expertise to assess, and lack adequate data, the evidence to suggest that corrections would be disorderly is less clear cut. Though scenarios can be constructed that result in disorderly transitions and previous experience suggests that repricing risk on such a scale is unlikely to be a straightforward adjustment, more analysis is likely needed in this area.

#### **Questions worth considering:**

- What is MDB member country exposure to high carbon, extractive and environmentally unsustainable investments?
- How could exposure and relative values, between high carbon and low carbon investments, change over time and how this might affect different parts of the financial system and the system as a whole?
- If this is indeed akin to a systemic risk in our financial system, what macroprudential and microprudential instruments might be designed and deployed to help to restrain the build-up of risk?
- What is the role of financial regulators and what expertise do they require?
- What might we do to create sustainable, low carbon alternatives for investors with the right risk-reward profiles?
- How could we predict and manage the risks associated with sudden changes in exposures and relative values?
- What is the role of MDB member countries in the mooted FSB Climate Disclosure Task Force and in related international processes?

## **STRANDED ASSETS AND DEVELOPMENT:**

ENSURING LOW CARBON DEVELOPMENT  
PATHWAYS ARE RESILIENT TO ASSET  
STRANDING

Low-carbon development plans (LCDPs), particularly for developing countries endowed with natural resources, could imply stranded assets in carbon-intensive sectors. In the energy sector stranded assets could occur upstream (e.g. reserves), midstream (e.g. transmission), or downstream (e.g. generation). But other sectors could be affected too, for example forests (e.g. logging concessions), transport (e.g. ports), the built environment (e.g. offices), and agriculture (e.g. land-use change).

The faster the pace of decarbonisation, the greater the chance of stranded assets in different sectors and the larger the likely economic, social, and political consequences that might need to be managed. The mere threat of stranded assets could result in groups potentially affected actively or passively frustrating or destabilizing LCDPs. These groups could include the owners of assets potentially impacted, the businesses operating assets, communities hosting assets, and policy-makers reliant on tax revenues generated from assets.

The consideration of these factors may not have been sufficiently factored into the development of national LCDPs. This is a risk to plan implementation in the short, medium, and long-term and should be remedied to enhance plan robustness.

This is an under researched area. To date the majority of stranded assets research has been concentrated on developed countries and their financial markets.

**Possible guiding questions:**

- Which sectors are most likely to be affected by stranded assets under LCDPs in resource-rich MDB borrower member countries?
- Can we create a framework for systematically identifying potential stranded assets and the stakeholders that could be affected for these countries?
- How might stakeholders be affected by stranded assets and what might the impacts be over different time-horizons?
- How could governments ensure that the political and social support for low-carbon development is not undermined by the threat of stranded assets? What issues can be designed out and what requires active management over-time?
- How could LCDPs be optimized in light of analysis to maximize welfare, for example by adapting policies or introducing further ones?
- How could LCDPs minimize potential opposition from affected stakeholders, for example through targeted early support?
- What measures could be developed to support affected stakeholders?

# INVESTOR EXPOSURE TO STRANDED ASSETS:

## MANAGING INVESTMENTS AND PORTFOLIOS EXPOSED TO ENVIRONMENT-RELATED RISKS

Although a minority of investors is becoming acutely aware of how environment-related risk can strand assets and impact their portfolios, others remain unaware, or even in denial, about such risks. There are several explanations for why investors may be misperceiving the extent to which their assets are exposed. For example: 1) conventions, especially in terms of standard disclosures and wide-spread risk-measurement practices based on Modern Portfolio Theory; 2) endemic short termism; and 3) outdated interpretations of fiduciary duty.

New products and processes in the management and selection of investments are at the forefront of responses taken to address these issues by individual investment institutions.

Financial institutions in concert are also taking action. Many of these policy-change responses are voluntary, but some are – or are verging on becoming de facto – mandatory for investors.

### Examples of Individual Investor Responses

Response	Description and Examples
Screening	Investors choose to either 1) exclude some investments from their portfolios or 2) include some investments in their portfolios on the basis of specified environmental characteristics; examples include screening out certain companies in carbon-intensive industries, or that have histories of pollution
Divestment	Investors remove specific investments from their portfolios due to particular actions taken or not taken by companies to which those investments are related; examples include recent divestment by prominent university endowments (e.g., Stanford, Oxford, Cambridge) from some fossil-fuel companies for not making sufficient efforts to reduce their contributions to anthropogenic climate change
Hedging	Purchase by investors of specific derivatives contracts that protect them (either partly or fully) from environment-related risks; examples include total-return swaps and specific types of instruments that hedge against carbon prices
Enhanced Engagement	Closer involvement by investors in the governance processes of businesses in which they invest; examples include shareholder actions and Board participation in some corporations to ensure proper management of environment-related risks
'Green' Indices	Allocation of investments in a portfolio by giving partial or full consideration to their scoring according to an index of environmental or sustainable performance metrics; examples of indices include the FTSE4Good Index Series
Hiring Expertise	Employment by investors of in-house or outsourced (e.g., investment consultants) teams that have expertise in managing environment-related risks
Stress Testing	More rigorous analysis of portfolio exposures to environment-related risks through simulation and other forms of statistical perturbation; for example, investor may run (actual or hypothetical) portfolios through a larger number of and/or more extreme future scenarios, such as different ranges of carbon prices and policy outcomes

Notably, many of these collective-policy responses pertain to better disclosure practices.

### Examples of Collective Investor Responses

Response	Description and Examples
Disclosure Standards	Participation by investors in evolving disclosure practices that demand more transparent disclosure from investee companies, and also deliver more information to stakeholders of investors; examples include active involvement in standard setting and voluntary disclosure according to such guidelines as FASB and IASB (as well as GRI, WBCSD, SASB, ISAR, CDP, and AOSB)
Investment Frameworks	Signature or pledged involvement by investors in organized bodies that require members/signatories to pursue best practices or some specified changes in their practices/processes, which may include investment selection and management, or disclosure; examples include signature and adoption of the UN Principles for Responsible Investment
Lobbying	Involvement by investors in the development of regional, national, and international legislation on environmental change; examples include registering input on solicitations for feedback/consultation on candidate (changes to) legislation, gaining 'observer' (or equivalent status) on committees that develop policy, or partaking in public hearings about relevant issues to environmental risks
Joint Ventures	Cooperative investment pursuits by investors to develop investment opportunities/products in order to spread the risks and costs of mitigating or removing exposures to some environment-related risks; examples include joint investments in renewable-energy infrastructure, or the financing of schemes for sustainable development
Group Litigation	Joint legal action by investors against the management of investee companies on the grounds of exposing investments to unnecessary environment-related risks and/or destruction of shareholder value due to excessive exposure to environment-related risks (NB: this response has generally only been used as a prospective threat, but has not as yet been widely implemented through suits that are actually filed)

### Areas worth examining include:

- What can be done to encourage financial institutions in MDB borrower member countries to integrate environment-related risks into investment decision-making and due diligence? What impact would this have?
- Are there issues related to financial norms, conduct, and practice that if addressed could help to improve risk management?
- What voluntary and mandatory schemes might be desirable to ratchet up ambition and promote best practice?
- What is the role of active ownership and what are the changes required to make this more of a reality in MDB borrower member countries?
- What is the exposure of the MDB's own loan book and investment portfolio, and are there things the MDBs could do to better price environment-related risk into decision-making in order to avoid stranded assets?
- Are there investor coalitions or associations that could help financial institutions improve best practice in MDB borrower member countries?
- Is the lack of low carbon or 'green' alternative investments an issue in terms of diversifying risk in the Latin America and Caribbean regions? What can be done to improve liquidity, for example 'green' bonds?

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For more information on Stranded Assets and the IDB, please contact **Ana R. Rios arios@iadb.org**



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