



## GREEN FINANCE



GREEN  
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There is no internationally agreed definition of green finance. The term describes a wide range of financing for environmentally oriented technologies, projects, industries or businesses. A narrower definition of green finance refers to environmentally friendly financial products or services, such as loans, credit cards, insurance or bonds. Green investing recognises the value of the environment and its natural capital and aims to improve human wellbeing and social equity, while reducing environmental risks and improving ecological integrity. Other terms used to describe green finance are 'environmentally responsible investment' and 'climate change investment'.

Green industries and technologies are at different levels of maturity, requiring different levels of funding from different sources of capital. In general, there are three sources:

- national public finances,
- international public finance and
- private sector finance.

Domestic public finance refers to direct government funding, while international public finance refers to funding from international organisations and development banks. Private sector finance includes both domestic and international sources of funding.

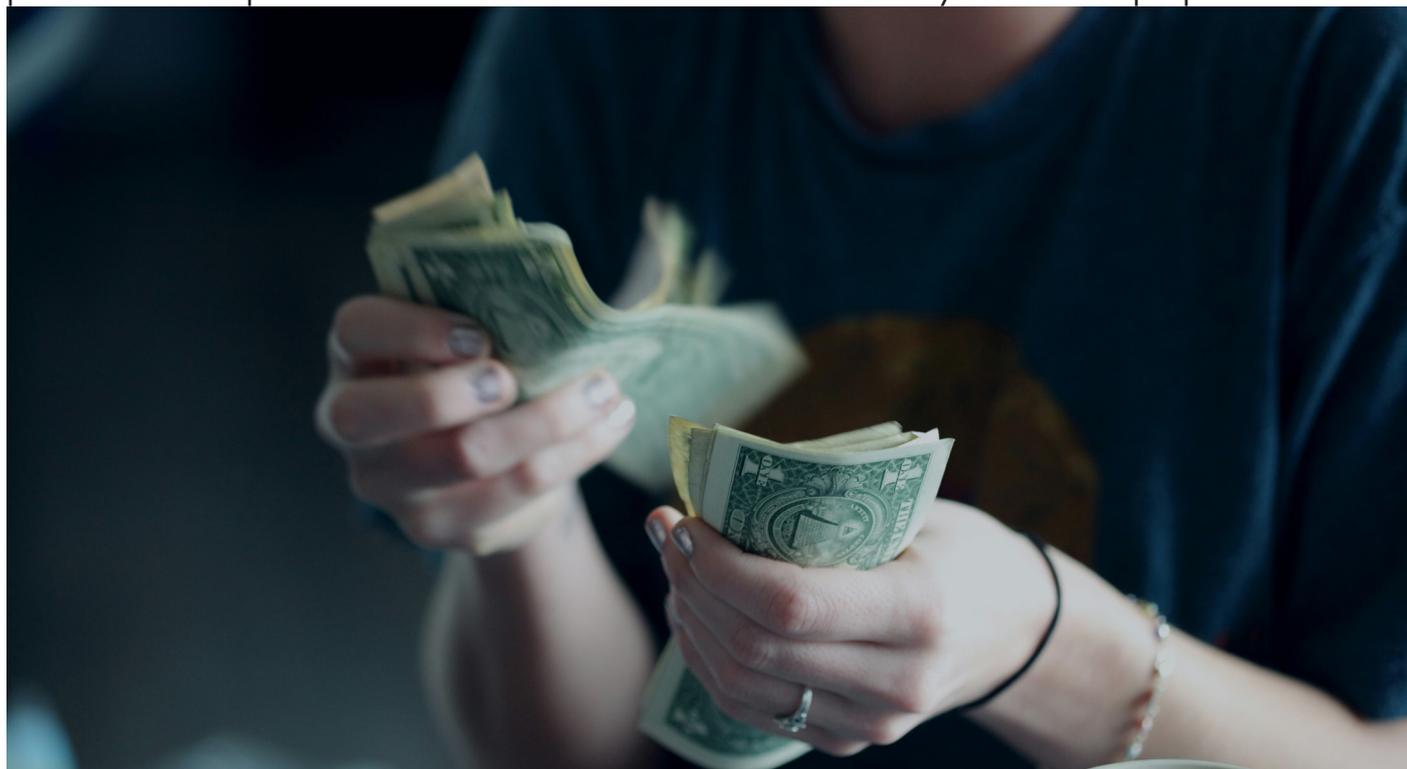
Green finance can be combined in different ways through different investment structures. Green finance is a key part of low-carbon green growth because it brings together the finance industry, environmental improvements and economic growth:

The only missing link between 'knowledge' and 'action' in the transition to a green industry is 'green finance'.

All green industry proposals cost money, and many green industry business models are usually unproven or unconventional. Therefore, financing these green industrial proposals can be difficult or commercially unattractive for traditional finance.

Green finance covers many sectors and products. The three categories of green finance are: infrastructure finance, financial assistance to industry or companies and financial markets.

Green financing related to climate change includes mitigation and adaptation investments. Many private investors perceive the risks associated with environmentally sustainable projects as excessi-



ve and not likely to yield the expected returns. Public financing mechanisms can tip this balance in favour of perceived profitability; for example, by offering senior loans or guaranteeing loans from private banks. Public funding can help stimulate private investment.

The United Nations Environment Programme estimates that \$10 billion worth of public funding for climate change mitigation could spur \$50-150 billion worth of private investment. Even if public investment is small compared to private funds, it can catalyse corresponding private sector action. Direct government funding for green growth can also take place through sustainable procurement and eco-efficient investment in public buildings and businesses.

In general, governments pursue the following objectives through green financing measures:

- Establishing and securing financing for green industry and green growth
- Supporting low-carbon, green growth through the development of new financial products
- Attracting private investment to build and maintain green infrastructure
- Strengthening corporate disclosure of green management practices and extending financial support to companies that adopt them
- Establishing markets for environmental goods and services, such as carbon markets that include carbon credits..

If past trends can be taken as an indicator, then green investment has huge potential for growth in the future, especially in promoting clean energy.

Much of the public investment in green growth is in infrastructure. Governments in developing countries now have the opportunity to mobilise infrastructure that will result in better long-term resource management, which in turn will channel the private sector into these investments. Infrastructure financing is essentially project-based, with renewable energy and energy efficiency projects accounting for the largest share of financial capital.

Some green industries need government financial assistance to mature or become more competitive with established ,brown' industries. Governments can provide financial assistance to encourage companies to invest in emerging green industries. They can also develop regulatory policy frameworks to facilitate access to finance from private investors or financial markets.

Financial markets are an important source of green financing for listed companies. Many institutional investors have embraced responsible investment as part of their investment process, particularly related to climate change. Government support for social environmental stewardship programmes provides credibility to programmes such as the Carbon Disclosure Project and eco-labelling initiatives, and encourages companies to be more environmentally responsible and thus benefit from green financing programmes.

Institutional investors are often the largest source of funds for green investments. They are believed to control \$110 trillion in funds worldwide, including more than \$12 trillion in pension funds. In general, institutional investors have a limited tolerance for risk, so they look for long-term policy stability in the countries where they intend to invest their money. Institutional investors invest in companies whose approach to corporate social responsibility suggests that they have the potential for stable, long-term and sustainable growth. Additionally, they often take board positions in larger companies to encourage them to move in this direction.

### Strengths of green finance

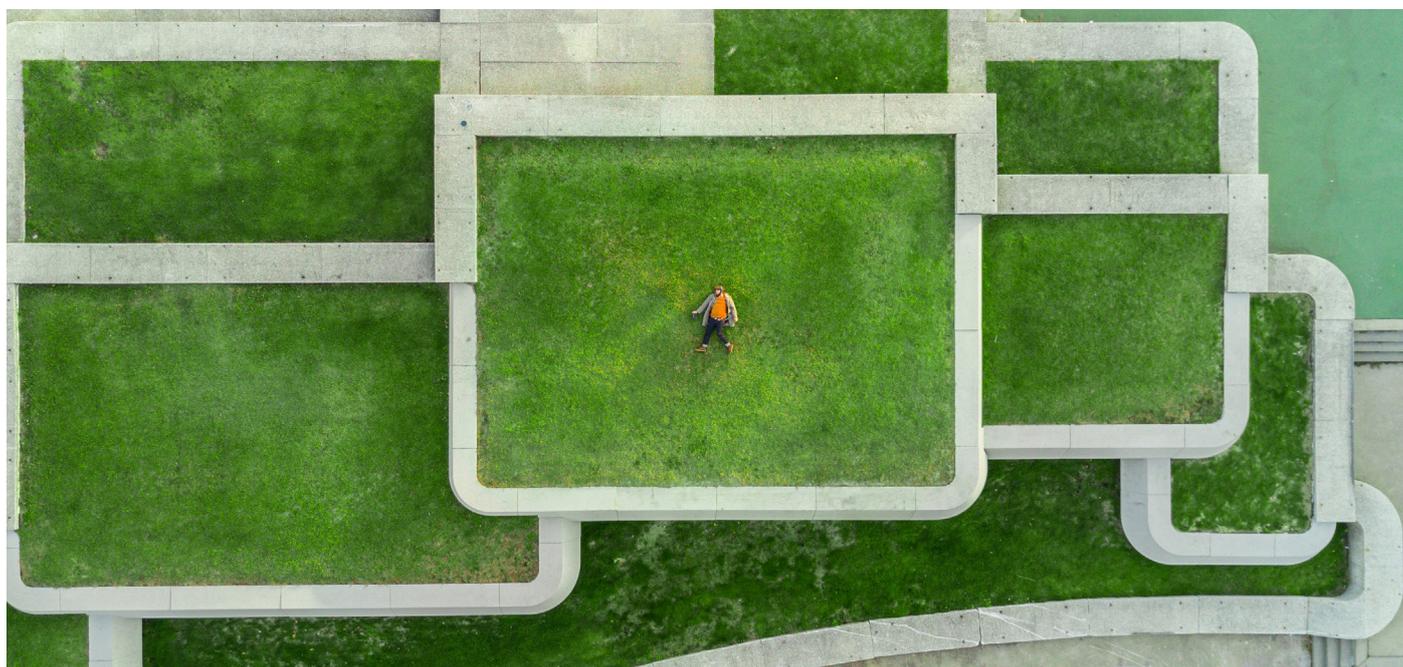
- It promotes technology diffusion and green infrastructure: Investment in environmentally friendly technologies, such as clean energy, can help lower their costs and accelerate the wider diffusion of technologies. Developing countries can avoid the ,grow first, clean up later' development model,

as much of the green investment goes into infrastructure. This situation gives the country a chance to move towards a green-efficient infrastructure. It then falls on governments to develop infrastructure that will lead to better long-term resource management, which in turn will increase a country's competitiveness and channel private sector capital into domestic green markets.

- It creates a comparative advantage: Low-carbon green growth may inevitably shift from its current voluntary nature to a mandatory strategy in response to increasing pressures from climate change and other environmental and economic crises. Today's expansion of green finance will mean a comparative advantage when environmental standards become more stringent.
- Added value: Companies, organisations and corporations can add value to their portfolio by reinforcing and publicising their commitment to green finance. In doing so, they can give their company a green edge and thereby attract more environmentally conscious investors and customers.
- It enhances economic prospects: Governments that promote green finance help protect their societies from a time when resources become scarce by creating and promoting domestic markets for alternative resources and technologies. They further enhance their economic prospects by entering new markets that hold enormous potential for job creation. As governments are primarily interested in maximising the well-being of multiple generations, green financing mechanisms are particularly attractive because they support projects and investments that deliver sustainable benefits, especially in the medium to long term.

#### Challenges for green finance

- Current and projected competitiveness: Private investment in green growth in developing countries is constrained by both activity-specific and country-specific barriers that adversely affect the attractiveness of such investments, both in terms of return on investment and risk management. Increasing private investment in green growth will depend on the extent to which such investments become attractive compared to other opportunities, both domestically and internationally. As international investors may seek opportunities in different countries, governments may need to implement a range of public interventions to make green investment opportunities more attractive.
- Mispricing and lack of risk pricing: A country's overall investment and policy environment affects its effectiveness in attracting private investors. Capital markets in some countries are not effective in pricing green growth risks. A barrier is the extent to which the market misprices these risks or refuses to price them. In general, these risks include those associated with new technologies or processes that are not well understood, and those associated with the design, stability and transpa-



rency of national policies.

- **Market distortions and shortcomings:** As long as fossil fuel subsidies and the lack of internalisation of environmental externalities continue to distort the market price of energy, green energy investments will struggle to provide investors with attractive returns. This is compounded by the limited number and variety of green financial products and suitable markets in which to trade them.
- **Competing objectives:** While private investors seek to maximise the risk-adjusted return on their investments, public providers of green finance seek to achieve the greatest possible environmental improvement, and host country decision-makers are interested in achieving the best development prospects.
- **Limited capital and limited awareness:** many small and medium-sized enterprises are characterised by limited liquidity and access to capital, making it difficult for them to participate in the green finance sector. The prevailing short-sighted time horizon of business strategies that ignore the benefits of the green industry lying in the distant future is another fundamental obstacle to private investment. Added to this is the lack of experts who understand the complex links between environmental issues and financial markets.
- **Regulatory gaps:** Another obstacle to the development of green finance is the gap in the appropriate regulatory and technical infrastructure to measure, evaluate and analyse green business strategies and financing.

