



THE GREEN FINANCE MARKET EMERGING IN BRAZIL

Leading players, products, and main challenges

Short version

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GIZ Brasília Branch

SCN Quadra 01 Bloco C Sala 1501

Ed. Brasilia Trade Center

70.711-902 Brasília/DF

T + 55-61-2101-2170

giz-brasilien@giz.de

www.giz.de/brasil

Prepared by

Matthias Knoch and Colin Van der Plasken, assisted by Sebastian Sommer and Álvaro Silveira

Revision

Julia Staunig

Graphic design

Barbara Miranda

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I INTRODUCTION

Given the challenging public health and economic scenario resulting from the Covid-19 pandemic, the Ministry of Economy has first focused on ensuring the necessary resources for public health are available, and second, on adopting policy aimed at protecting the economically vulnerable population as well as mitigating the impact of the crisis on companies and workers.

Focusing on the short-term emergency does not mean overlooking the challenge of resuming and accelerating economic growth over the medium and long term, which will require an increase in investment, especially in infrastructure. Brazil invests less than 2% of its Gross Domestic Product (GDP) in infrastructure. In order for the infrastructure to be capable to sustain economic growth and meet the population's expectations this investment needs to be doubled at the very least.

The required resources will not predominantly come from the State, which faces a challenging fiscal environment with recurring primary deficits and a public debt that, driven by the necessary extraordinary expenses to face the pandemic, is heading to 90% of the GDP. In fact, after the emergency, the State will have to resume its fiscal consolidation agenda.

This is the context in which we need to develop private funding mechanisms for infrastructure investments. Based on this premise the federal government recently issued Decree 10,387, of June 5, 2020, which seeks to streamline the issuance of debentures with tax benefits for infrastructure projects with environmental and social benefits, such as basic sanitation or urban mobility projects. These are projects that tend to not only improve the quality of life of citizens, but also preserve the environment.

Green finance is an innovation with the potential to play a relevant role in infrastructure financing. SPE has been closely monitoring the developments in this market.

In this scenario, this report on the green finance market in Brazil is a welcome one. The country is one of the largest green finance markets in Latin America, with nearly USD 6 billion in green debentures issued since 2016. However, this is still small compared to total global issuances. In order to identify the potential and the barriers towards developing this market in Brazil, this report includes a survey—conducted with banks, managers, consulting firms, public entities, and other industry agents—that has found that while demand for green products is still incipient in Brazil, it displays strong growth potential.

I wish you good reading, and may this report be of use to all those interested in this topic.

Adolfo Sachsida
Secretary of Economic Policy of the
Ministry of Economy June 2020

II EXECUTIVE SUMMARY

- Driven by the growing global concern for the preservation of the environment and for climate change, the concepts of sustainable financing and investment have broadened in recent years. The Paris Agreement has reinforced the urgency of adopting climate change policies, while the current pandemic has accelerated the dissemination of public and private initiatives as well as the search for investments in this market.
- One of the biggest challenges in the financial sector is the definition of terms such as “green” and “sustainable,” as there is still no single and uniformly implemented international standard, even though several organizations have dedicated themselves to the subject. The main risk is “greenwashing”, meaning products that are presented as sustainable for marketing purposes only.
- Brazil is one of the largest green markets in Latin America with almost USD 9 billion issued in green, transition and sustainable bonds both domestically and internationally (September 2020).
- In addition to the Paris Agreement, Brazil belongs to 14 important international green finance and sustainable development initiatives either through the government, private companies or industry organizations. The Brazilian government participates in four actions via institutions that regulate or supervise the financial sector.
- Green bonds are fixed income securities designed to raise funds for projects with a positive environmental impact. The Brazilian financial market has several instruments that can be labeled as green, depending on their characteristics, including debentures, Agribusiness Receivables Certificates (CRA), and Real Estate Receivables Certificates (CRI) among others.
- From 2015 to September 2020, 35 issuances were made in Brazil, totaling over BRL 9.5 billion. In the same period, Brazilian companies placed eight green bonds, one sustainable transition bond and one sustainability-linked bond on the foreign market, raising USD 6.4 billion.
- 2019 was the best annual performance recorded in that period with 16 bonds issued that raised nearly USD 3.1 billion. However, in 2020, even with the Covid-19 pandemic in full swing, 13 bonds were issued by September, further demonstrating this growing trend in the country.
- There are several cases of investment funds considered green or that integrate Environmental, Social and Governance (ESG) analysis. This study covers different cases that have not necessarily been assured or subject to a second-party opinion.
- Public and private banks in Brazil operate in green finance through credit facilities for the acquisition of sustainable goods and services, such as photovoltaic solar panels, and energy or water-efficient systems and equipment. Public development banks, notably the Brazilian Development Bank (BNDES), play a major role in this segment.
- The effects of the current pandemic seem to have stimulated the integration of ESG risks in the financial sector as demonstrated by new “green” initiatives and the creation of specialized departments. Another element is the proliferation of several new ESG and sustainable products for both institutional and private investors

- Fintechs are mostly focused on payment operations in Brazil with little engagement in green or impact projects, but they have great potential for originating collective loans (crowdfunding) for sustainable businesses.
- In order to improve the analysis of the green market in Brazil, this report includes research conducted with banks, managers, consulting firms, public entities, independent organizations, scholars, and other industry agents.
- An important finding of this research is the mismatch between the sustainability statements issued by the financial institutions and their actions to implement a Social and Environmental Responsibility Policy (PRSA), as per the Central Bank of Brazil's regulations. Some of the main barriers for the implementation of PRSAs, according to the institutions, are cost, the complexity of the ESG analysis, and the lack of specially qualified employees.
- This research also emphasizes the fact that most financial institutions do not have a full-time dedicated team to analyze ESG risks or structure green products.
- Overall, the respondents say the demand for green products is still incipient and lower than the demand for traditional investments, though acknowledge its strong growth potential.
- Some of the gaps for the development and consolidation of the green market in Brazil are the uncertainty about which assets and projects qualify for green financing, not to mention the lack of financial instruments; the complexity and cost of transactions; the lack of a preferential tax treatment for green products; specialized teams for the analysis of ESG considerations; financial education; and the consolidation and standardization of legal instruments and jurisdiction.
- On the other hand, the Brazilian market offers outstanding opportunities for green product development. The government is committed to a liberal economic reform agenda and supports the recognition and promotion of infrastructure projects with green potential.
- Over the past few years, the country has benefited from a steady supply of financial resources enabled by blended finance. Furthermore, the financial and business communities have started to work together to develop new green financial products and instruments.



North
Atlantic
Ocean

***“Life can only
be understood
backwards; but
it must be lived
forwards.”***

– Soren Kierkegaard, Danish philosopher

1 MARKET OVERVIEW

The United Nations’ Sustainable Development Goals (SDG) and the [Paris Agreement](#) have made urgent issues of the adoption of initiatives and policies to finance social and economic development, as well as the fight against climate change. The private sector and the capital market have become indispensable actors towards increasing and redirecting investment flows to meet sustainability goals.

Driven by the growing global concern for the preservation of the environment and for climate change, the concepts of sustainable finance and investment have broadened in recent years, and consequently the “green finance products” industry has developed. Green bonds, green loans, social bonds, social loans and sustainability-linked loans have become this market’s main instruments.

Globally, the sustainable debt market reached an unprecedented issuance amount of USD 1 trillion from 2010 to 2019, as shown in the figure below. Issuances totaled USD 319.8 billion in 2019 alone. Green bonds are the most popular

assets and issuances amounted to USD 788 billion from 2010 to 2019, corresponding to 77% of the green market.

Since 2014, Latin America and the Caribbean have issued nearly USD 18 billion in green bonds, reaching record high transactions in 2019. Unlike other regions of the world, where most of these investments are made by financial institutions, in Brazil companies in the productive sector have been the most active issuers thus far. The country has become one of the largest markets in the region, with nearly USD 8.8 billion in green bonds issued since 2016.

Brazil needs to implement additional policies to meet its sustainable development goals. Investments in infrastructure projects (railways and electric mobility), renewable energy generation (photovoltaic and wind) and sustainable agriculture (recovery of degraded areas and agroforestry systems) are the most promising.

Sustainable and green debt issued by type of instrument (USD billion)

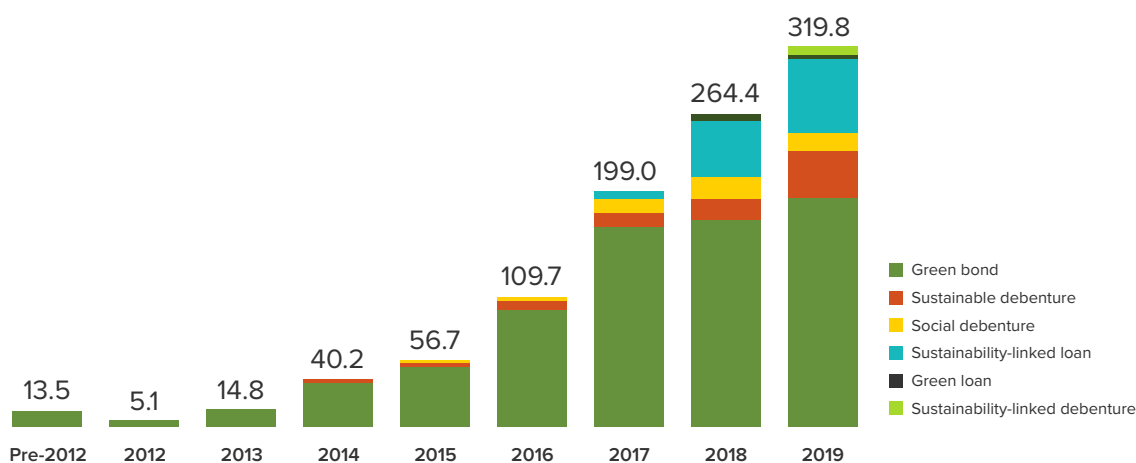


Figure 1: Sustainable debt growth up to 2019. Source: Bloomberg NEF.

1.1 What is “green” and “sustainable”?

One of the biggest challenges in the financial sector is the definition of terms such as “green” and “sustainable,” as there is still no single and uniformly implemented international standard.

One of the most important contributions is the “[Taxonomy for Sustainable Economic Activities](#),” currently under development in the European Union (EU). An important milestone in the taxonomy project was achieved with the [publication](#) of the first set of sustainability criteria in March 2020. The European Parliament approved this taxonomy in June 2020. By the end of the year, the European Commission will adopt delegated acts that contain technical criteria for a specific assessment, complementing the principles established in the regulation and determining which economic activities are eligible for each environmental goal.

The main risk such uncertainty poses for investors and society is “greenwashing”, which is when products are only presented as sustainable for marketing purposes. A specific external audit methodology called

“second-party opinion” helps mitigate this risk as it investigates an investment’s sustainable aspects and verifies the use of proceeds. Most cases with green bonds presented here have had a second-party opinion.

“Sustainable finance” is a broader concept, often synonymous with sustainable responsible investments. It can also refer to ESG analysis, which assesses the environmental, social and governance aspects of products. ESG investments do not have a unique feature—there are different approaches to incorporate these principles, and the methodology varies according to the financial agent. The most accepted approaches can be found in the United Nations’ Principles for Responsible Banking ([PRB](#)), as described in the table below.

In this study, green finance means investments that have positive and verifiable outcomes for the environment, and whose implementation does not significantly harm any of the other sectors (*Do-No-Significant-Harm principle*).

Definitions of ESG risks:



Environmental

Issues related to the quality and functioning of the natural environment. These include: biodiversity loss; GHG emissions; climate change; renewable energy and energy efficiency; air, water or resource depletion or pollution; waste management; ozone layer depletion; changes in land use; ocean acidification; and changes to the nitrogen and phosphorus cycles.



Social

Issues related to the rights, well-being and interests of people and communities. These include: human rights; labor rights; child, slave and bonded labor; workplace health and safety; freedom of association and freedom of expression; human capital management and employee relations; diversity; relations with local communities; activities in conflict zones; health and access to medicine; HIV/AIDS; consumer protection; and controversial weapons.



Governance

Issues related to the governance of companies and other investee entities. For listed companies, these include: board structure, size, diversity, skills and independence; executive pay; shareholder rights; stakeholder relations; reporting; business ethics; bribery and corruption; internal controls; and risk management. This category may also include matters of business strategy, encompassing its implications for environmental and social issues, and how it will be implemented.

1.2 International initiatives

The financial sector was included in the global initiatives on climate change and sustainable development by the United Nations Conference on Environment and Development ([UNCED, Earth Summit](#)), through the creation of the UN Environment Programme Finance Initiative ([UNEP-FI](#)). However, it was not until the 2000s that similar actions multiplied, usually made up of government agents, multi-lateral agencies, and international financial sector associations, reflecting a new global awareness.

After the Kyoto Protocol (a 1997 international treaty with commitments to reduce greenhouse gas emissions), the most important achievement for the creation of market instruments that limit climate change was the Paris Agreement, launched in 2015, especially its article 6, which established a framework that should enable the creation of an international carbon market. Also, for the first time, all nations joined efforts to combat climate change and adapt to its effects, and to support developing countries.

Other important international actions are listed in the figure below.

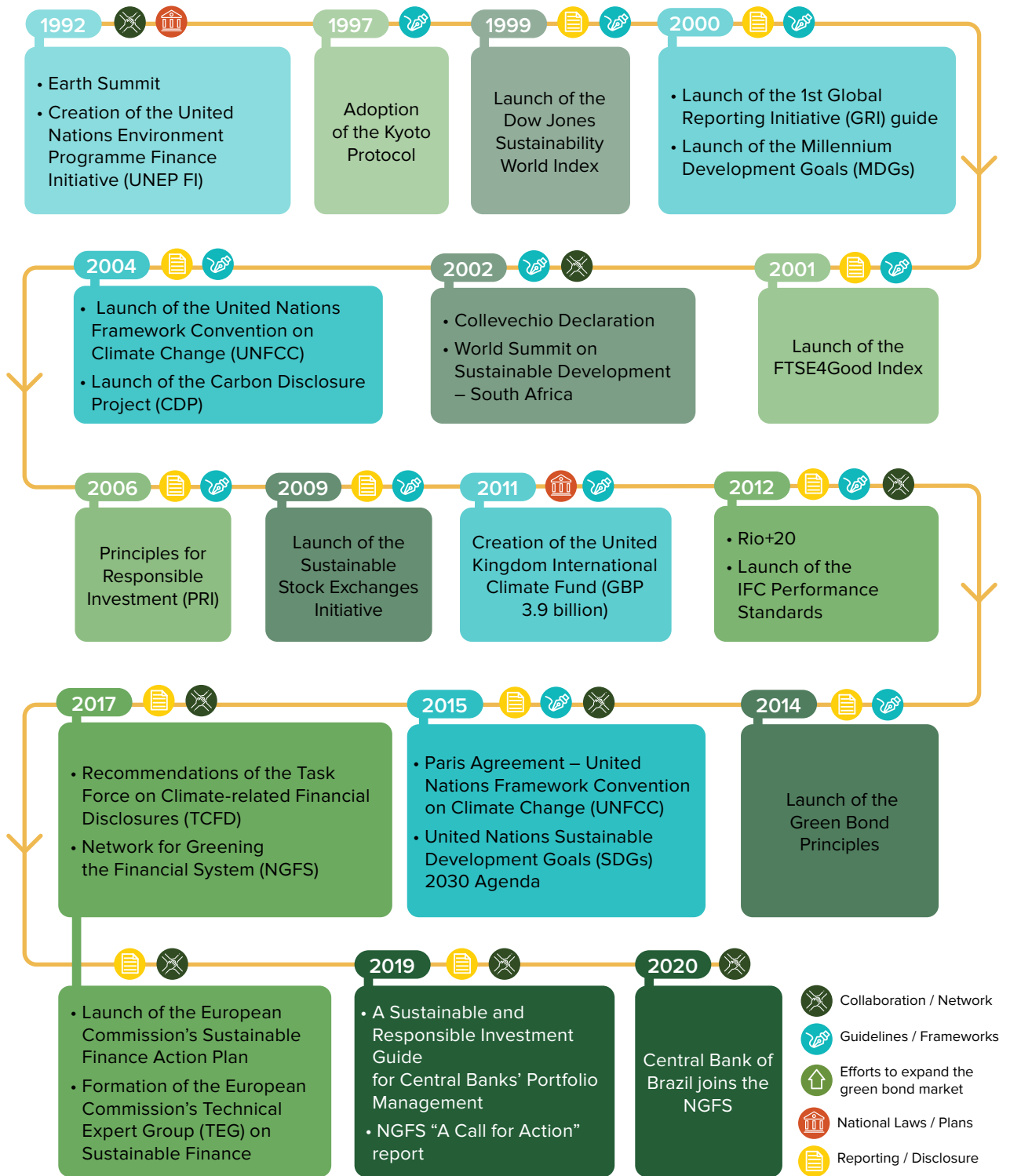


Figure 2: International Green Finance initiatives

An analysis of Brazil’s presence in the global context shows that in addition to the Paris Agreement the country participates in 14 important international green finance and

sustainable development initiatives, whether through the government, private companies or industry organizations.

The Brazilian government participates in four actions through institutions that regulate or supervise the financial sector. The Central Bank of Brazil (BCB) has been a member of the Sustainable Banking Network (SBN) since 2012, and in the first quarter of 2020 it joined the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), supported by the FiBraS project. The Brazilian Securities and Exchange Commission (CVM) is a member of the International Organization of Securities Commissions' (IOSCO) Working Group on Sustainability in Emerging Markets, aiming to improve the assessment and monitoring of ESG risks in the financial sector. The Brazilian Superintendence of Private Insurance (Susep) is a member of the Sustainable Insurance Forum (SIF).

1.3 National initiatives

In Brazil, the financial sector engagement was led by the public sector. A milestone in the development of sustainability policies was the creation of the Green Protocol in 1995, an initiative developed by BCB and state-owned banks such as Banco do Brasil (BB), the Brazilian Development Bank (BNDES), Caixa Econômica Federal (CEF), Banco do Nordeste (BNB), and Banco da Amazônia (BASA). Private institutions joined the protocol in 2009, through FEBRABAN.

In 2014, through Resolution No. 4.327/2014 of the National Monetary Council (CMN), BCB became one of the first central banks to address social and environmental responsibility policies to be implemented by financial institutions.

If on the one hand the public sector engaged in green finance by coordinating major actions, on the other hand the private sector engaged spontaneously by offering products. In 2004, Itaú Unibanco launched the first social and environmental investment fund (Fundo Itaú Excelência Social – FIES), followed by Santander's Ethical equity fund in 2005.

More recently, the government, the financial market and civil society have developed integrated actions aiming to promote sustainable finance in the country and to create innovative financing solutions to leverage private resources and strengthen this segment. In this context, two initiatives stand out: the Brazilian Green Finance Initiative, led by the Brazilian Business Council for Sustainable Development (CEBDS), and the creation, of the Laboratory of Financial Innovation (LAB), which today can be considered the largest Brazilian platform for dialogue on this theme.

In September 2020, the Central Bank of Brazil officially launched its ambitious [sustainability agenda](#) recognizing that climate risks were a serious threat to the financial stability of the country. The BCB aims to incorporate socio-environmental variables into the management of its international reserve, provide “sustainable liquidity” credit lines to financial institutions backed by private loans or securities, create a rural credit center and monitor climate risks through stress tests. *BCB also said that it will make mandatory for banks to disclose risks in line with the TCFD.*

Last July, the three main private banks (Itaú, Santander, Bradesco) created a joint consultative committee for the sustainable development of the Amazon region. The plan consists of several actions that aim to stop financing agribusiness companies that contribute to deforestation and instead stimulate local sustainable activities and infrastructure through preferential loans.

It is important to note that there are also international organization initiatives specifically designed for Brazil. One example is the [Amazon Fund](#), created in 2008, implemented in cooperation with the Brazilian government, and mainly financed by the governments of Norway and Germany. The fund is managed by BNDES, and supports projects for preventing, monitoring and combating deforestation of the Brazilian Legal Amazon, and for the sustainable use of the region.



Figure 3: National initiatives on Green Finance

2 PRODUCTS AND LEADING ACTORS IN THE BRAZILIAN THE GREEN FINANCE MARKET

2.1 Recent economic scenario

The Brazilian economy had been gradually recovering from a severe economic recession since 2017, but this process was interrupted by the emergence of the new coronavirus pandemic, which has impacted the global economy. Brazil lost its investment grade in 2015 and is currently three grades below the level widely considered as “investment grade”. In April and May 2020, risk rating agencies downgraded the outlook for the Brazilian public debt from neutral to negative ([BB- by Fitch and Standard&Poor's](#)). The public debt dramatically changed during the Covid-19 crisis. The gross public debt-to-GDP ratio, which was 80%, climbed to nearly 95.9% as a result of the cash benefit emergency program for low income families.

Despite the challenging scenario, Brazil has been advancing its agenda to transition to a low carbon economy. The country has been taking steps to comply with the GHG reduction commitments of the Paris Agreement, such as the commercialization of decarbonization credits, provided for in the Brazilian Biofuels Policy ([RenovaBio](#)), or the future creation of another marketplace for environmental reserve quotas.

A transformation on this scale will require massive financial resources: according to the International Finance Corporation ([IFC](#)), a member of the [World Bank](#), Brazil will need [USD 1.3 trillion](#) to implement the measures and meet the goals of its Nationally Determined Contributions (NDCs).

Naturally, the government will not be able to fill this gap alone, and it will be crucial to engage the private sector in order to make the financial flows consistent with a low carbon economy.

There are numerous opportunities to be found in the most diverse sectors, especially infrastructure, which has suffered a delay in investments and maintenance for several decades. There are also new emerging prospects in agriculture, where technologies can increase production without causing environmental degradation — and even help recover the soil, forests, rivers, and different ecosystems. This scenario makes the Brazilian financial market a favorable environment for expanding the offer of sustainable investments through sustainable and green financial products.

2.2 Green Bonds

Green bonds are fixed income securities designed to raise funds for projects with a positive environmental impact. To be certified or labeled as green, the bond must comply with international principles ([Green Bond Principles](#), ICMA, and others), and undergo an independent external audit to assess the project’s environmental features and use of proceeds.

The Brazilian financial market has several instruments that can be classified or labeled as green, depending on their characteristics: [debentures](#), [Agribusiness Receivables Certificates \(CRA\)](#), and [Real Estate Receivables Certificates \(CRI\)](#) are some examples. Despite the variety, green bonds still represent a small share of fixed income investments in Brazil, as shown in the following figure.

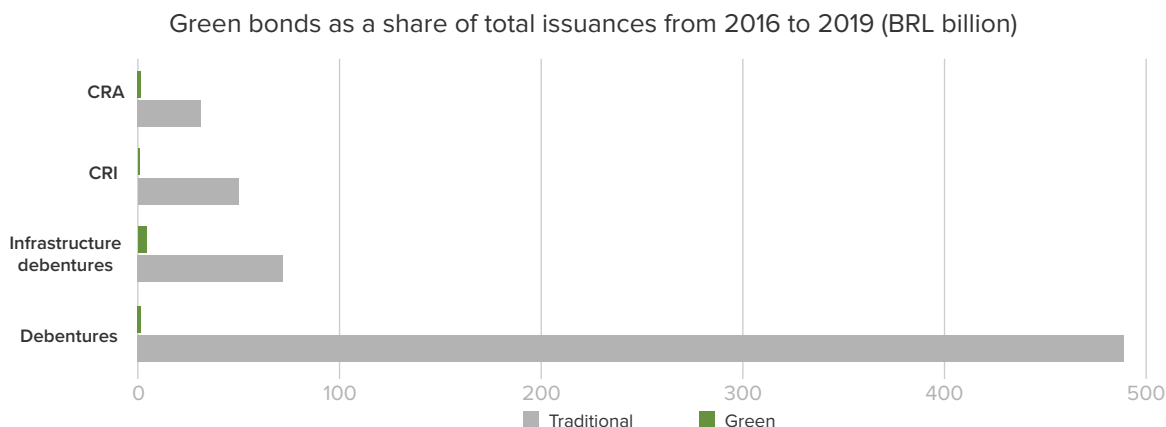


Figure 4: Green bonds as a share of total issuances. Source: internal, CBI, and companies’ notices to the market.

Debentures	Infrastructure debentures	CRI	CRA
Bond issued by public or private company. The investor receives interests, also called coupons, that are periodic or fixed.	Bond designed to exclusively finance infrastructure projects as defined by Law No. 12,431. It is exempt from income tax for individuals and foreign investors.	Fixed income security backed by real estate transactions. It is exempt from income tax for individuals. These are issued exclusively by a securitization company.	Fixed income security backed by business receivables between rural producers, their cooperatives, and third parties. It is exempt from income tax for individuals. These are issued exclusively by a securitization company.

Table 1: Fixed income products that can be labeled as green bonds. Source: Anbima.

In 2019, 14 green bonds and one social bond were issued in the domestic market, totaling nearly BRL 4.8 billion—the best annual performance ever recorded. From 2016 to 2019, domestic issuances totaled BRL 9.5 billion. Local currency green bonds are mostly issued by non-financial companies, 76% of which operate in the renewable energy sector, and the remainder being pulp & paper, and food companies.

From 2015 to September 2020, 10 green bonds, one transition bond, and one sustainability-linked bond were placed in the foreign market, totaling USD 6.4 billion. Even though foreign currency securities represent the smallest portion of issuances (22%), they have raised an amount of resources that is almost three times as large as domestic issuances.

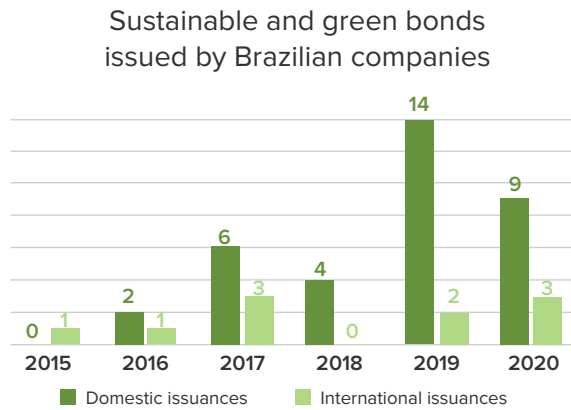


Figure 5: Green bonds issued by Brazilian companies.

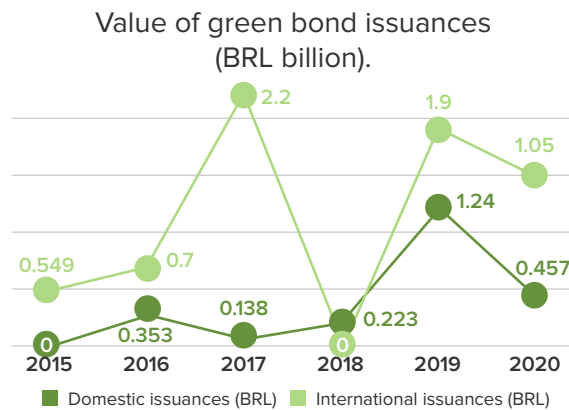


Figure 6: Value of green bond issuances.

Note: Issuances in USD/EUR translated at the exchange rate on the date of the respective offerings. Source: Companies' disclosure the market, SITAWI.

CPFL Energias Renováveis and the first Brazilian green bond

This was the first green bond offered in Brazil, in 2016, for the construction of wind power units with a 231 Megawatt capacity in Rio Grande do Norte.

- CPFL became the first company in South America to issue a green bond certified by the *Climate Bonds Standard Board*.
- Traditional debenture worth BRL 200 million, yielding 126% of CDI, with a 5-year maturity.
- External audit (second-party opinion) carried out by SITAWI.

2.2.1 Infrastructure debentures and traditional debentures

In 2019, 371 transactions with traditional debentures raised nearly BRL 185 billion. This is the largest amount of proceeds and number of transactions carried out in the last six years, an increase of 143% compared to 2014 (baseline of the capital market bulletin of the [Brazilian Financial and Capital Markets Association](#)). Furthermore, 76 infrastructure debentures were issued last year, totaling BRL 33.7 billion, an increase of 600% compared to 2014.

Infrastructure debentures are issued to raise funds to be invested exclusively in this sector and are the leading instrument in the Brazilian capital market for the issuance of green bonds. From 2016 to September 2020, 20 green infrastructure debentures were issued in the amount of BRL 7.2 billion, mostly to fund wind energy projects. However, this only represents about 8% of the overall issuances of this asset class.

Recent analyses indicate that the domestic scenario is conducive for the federal government to encourage green bond issuances. In 2019, in partnership with the [Ministry of Infrastructure](#), the Climate Bonds Initiative (CBI) estimated that approximately 16% of the Investment Partnership Program portfolio (PPI) can be considered green. The institution has also mapped 57 other projects that have green potential in different industries (transportation, renewable energy, sanitation, and waste recycling). This is why the government intends to encourage the companies interested in these projects to seek financing through green infrastructure debentures.

Within the scope of the Capital Market Initiative (IMK), the Ministry of Economy, supported by LAB, has reformulated Decree No. [8,874](#), which regulates the list of infra-

structure projects that have tax benefits for the issuance of infrastructure debentures. Decree No. [10,387](#), published in June 2020, fast tracks the issuance of infrastructure debentures with environmental or social benefits, by reducing bureaucratic procedures (additional details can be found in the box below).

On another front, the Ministry of Mines and Energy (MME) published a decree in October 2019 that added the biofuels sector to the areas covered by infrastructure debentures. The National Biofuels Policy ([RenovaBio](#)), which came into force in early 2020, offers additional revenue through decarbonization credits (CBio) to ethanol and biodiesel producers that reduce greenhouse gas emissions). In April 2020, these credits [started trading](#) on B3, enabling fossil fuel distributors to offset their CO₂ emissions.

Decree No. 10,387

- In June 2020, the government issued Decree 10,387, which includes infrastructure projects with social or environmental benefits that can be financed through infrastructure debentures.
- Initiative of the Ministry of Economy within the scope of IMK, supported by LAB.
- Projects in the following sectors are eligible:
 - **Urban mobility** – non-motorized and low-carbon public transportation.
 - **Energy** – renewable technologies for solar & wind power generation, energy-from-waste generation, and small hydroelectric power plants.
 - **Basic sanitation** – water supply, sewage, rainwater management and drainage, urban solid waste, among others.
- Issuers are not required to obtain a green certification.
- It is the country's first legal action for fostering the issuance of green or social debentures.

2.2.2 Agribusiness Receivables Certificates (CRAs)

Agribusiness Receivables Certificates ([CRAs](#)) are fixed income securities backed by business receivables between rural producers, their

cooperatives, and third parties. The potential to expand the offer of CRAs is significant, given the importance of agribusiness in the

Brazilian economy and the industry's funding needs. According to ANBIMA, 64 issuances were made totaling BRL 6 billion in 2018. In 2019, 88 transactions raised BRL 12.5 billion—almost twice as much as the previous year. From January to August 2020, 36 CRA were issued raising BRL 8.7 billion, an increase of 23% in volume in compared to the same period the year before.

Only four green CRAs have been issued in Brazil to date, the first in 2016 by [Suzano Papel & Celulose](#), structured by securities issuer [Ecoagro](#). A fifth issuance was planned by biofuel company Usina Colorado, but canceled due to a lack of demand caused by the pandemic.

The public sector also stands out as the driver of investments in the agricultural industry. In November 2019, the Ministry of Agriculture

signed a memorandum of understanding with CBI for the development of the green bond market in the Brazilian agricultural industry. This was enabled by the publication of Provisional Measure 897 (converted into [Law 13,986](#), in April 2020), which allows for the issuance of CRAs backed by foreign currency, registered abroad and consequently without taxation on exchange rate variation. The new legislation will allow Brazilian producers to access foreign investors, offering more competitive rates in a scenario of growing demand for green bonds. In June 2020, the same Ministry published in partnership with CBI a pipeline of projects and assets that are eligible for green financing. According to the report, the investment potential for Agriculture in Brazil will reach USD 163 billion (BRL 692 billion) by 2030.

EcoAgro and the first green CRA in Brazil



• Securitization company Ecoagro was the first to issue, in 2016, a green CRA in the domestic market, for [Suzano Papel & Celulose](#).

- The issuance was worth BRL 1 billion, yielding 96% of CDI, maturing in 5 years.
- External audit (second-party opinion) carried out by SITAWI.
- According to Suzano, the company managed to negotiate a lower interest rate compared to the traditional CRAs issued previously because the instrument was green.



2.2.3 Real Estate Receivables Certificates (CRIs)

Real Estate Receivables Certificates ([CRIs](#)) are backed by real estate transactions and are also income tax free for individuals, in addition to being long term and having low liquidity. According to ANBIMA, 147 CRI issuances raised BRL 8.84 billion in 2018, and 337 issuances raised BRL 16.48 billion in 2019.

In September 2019, the first green CRI was issued in the domestic market by fast food chain Burger King, in partnership with [H2Energy](#). The goal is to develop solar power generation plants to supply clean electricity to the chain's units.



Burger King and Brazil's first green CRI

- CRI issued by True Securitizadora (Ápice Group) to finance the construction of five photovoltaic solar power plants in the states of Rio de Janeiro, São Paulo, and the Federal District.
- The issuance amounted to BRL 18.6 million, yielding 96% of CDI + 4.5% p.a., maturing in 12 years.
- The plants will supply clean electricity to more than 60 units of the food chain.
- An external audit (second-party opinion) was carried out by Resultante.

2.3 Green investment funds

As in many countries, investment funds in Brazil form a very diverse category, with their own policies, strategies, and management fees. In August 2020, this industry had over BRL 5.7 trillion in Assets Under Management (AUM), according to the table below. From March 2020 to August 2020, the industry grew by over BRL 500 billion with around BRL 186 billion allocated into fixed income funds and BRL 160 billion allocated into equities funds. This increase is partly explained by the rock

bottom interest rate (Selic 2%) and investors looking for higher returns.

This study covers different cases that have not necessarily been labeled as green or had a second-party opinion. These initiatives deserve to be emphasized for their integration of ESG considerations or of the SDGs, and because they focus on economic sectors with green potential.

Period	Fixed income	Equities	Multi-market	Foreign Exchange	Pension	ETF
Aug. 2020	2,194,406.9	515,695.2	1,330,658.0	6,549.6	968,929.2	27,489.8

Period	FIDC	FIP	FII	Offshore	Total
Aug. 2020	186,534.0	312,676.2	138,694.9	53,490.0	5,735,123.9

Table 2: AUM of investment funds by class (BRL million). Source: Anbima.

2.3.1 Receivables Funds (FIDCs)

FIDCs are used by companies to raise funds through the securitization of receivables with asset-backed securities. These instruments are quite suitable for funding clean and renewable energy projects, such as solar or wind power plants, which usually have receivables and other long-term lease contracts.

In August 2020, this asset class had over BRL 186 billion in AUM. Over the past five years, net

inflows into FIDCs rose 153%, with issuances amounting to BRL 21.4 billion in 2019 alone.

In 2017, BNDES launched the “sustainable energy” FIDC to fund assets and projects in the renewable energy sector. The fund has 13 assets in the portfolio and provides exposure to different sectors (wind, hydro, and solar power; highways, energy transmission and distribution). It is managed by Vinci Partners.



BNDES and the first green FIDC in Brazil

- This was the first national initiative to direct resources from large investors.
- The fund was the first partner of CBI in Brazil.
- BRL 500 million in AUM (42% of which are the bank’s own capital through BNDESPar), 15-year maturity, and cumulative profitability of 21.87% up to 5/14/20 (equivalent to IPCA + 9%).
- It primarily invests in infrastructure debentures.
- Rated by Fitch as high quality (A).
- Similar initiatives in the sanitation sector are being studied.

2.3.2 Exchange-traded Funds (ETFs) and commingled funds

ETFs, or Exchange Traded Funds, invest in an equity portfolio that seeks to replicate the performance of a given index. In August 2020, ETFs had BRL 27.5 billion in AUM.

environmental balance, social justice, and corporate governance. The Carbon Efficient Index (ICO₂) discloses information on signatory companies’ greenhouse gas emissions.

B3 has developed two sustainability indexes that can guide the structuring of ETFs focusing on social and environmental issues. The Corporate Sustainability Index (ISE) helps investors identify an equity portfolio that meets the criteria of economic efficiency,

Compared to IBOVESPA, the Brazilian stock exchange’s main index, ETFs linked to sustainability indexes have performed slightly better in recent years (graph below), even after the sharp drop in B3 in the first quarter of 2020 due to the coronavirus pandemic.



Figure 7: Performance of ISE indexes (green), ICO₂ (blue), and IBOVESPA (red). Source: Yahoo Finance.

Itaú Unibanco's [It Now ISE fund](#), created in 2011, is an example of an ETF that follows the ISE. Despite being an equity fund, asset manager Warren's [Warren Green fund](#), uses the Corporate Governance (ISG), ISE and ICO₂ indexes as criteria to choose which Brazilian stocks to allocate resources to.

There are also initiatives that allow investors to access indexes abroad that integrate ESG considerations. BrasilPrev was the first private pension company to allocate BRL 120 million to three sustainable ETFs (*iShares MSCI Global Impact ETF, Global X Conscious Companies ETF and Invesco WilderHill Clean Energy ETF*). Asset manager JGP has recently made its first ASG fund available to qualified investors on different platforms. Broker [XP Investimentos](#) has also launched its first retail ESG fund. The investors' resources will be allocated into three ETFs abroad.

In July 2019, English asset manager Sustainable Investment Management ([SIM](#)) announced the first mechanism for financing sustainable agriculture in Brazil: a fund that will issue green bonds listed on the London stock exchange. Even though it is still being structured, it is already known that the fund will be supervised by an environmental committee. This initiative aims to raise up to USD 1 billion to finance the responsible production of soy and corn in consolidated or degraded areas in Brazil. The instrument will help reduce deforestation in new areas, encourage the restoration of approximately 1.5 million hectares of natural habitats, and contribute to the protection of the cerrado biome. The project is expected to help reduce 250 million tons of CO₂ emissions.

The IT NOW ISE fund



- ETF created in 2011 that seeks to replicate the ISE, an index that has the following selection criteria: 200 stocks with the highest tradability on the stock exchange; the stocks must have been traded in at least 50% of the trading sessions in the previous 12 months; sustainability standards defined by the ISE board.
- ETF managed by Itaú Unibanco, with nearly BRL 23 million in AUM, and a management fee of 0.4% p.a..
- Cumulative returns of 88.54%.


2.3.3 Private Equity Funds (FIPs)

FIPs invest in public, private or limited liability companies. These products are intended for qualified or professional investors only. Up to August 2020, FIPs had BRL 312.7 billion in AUM, with net inflow of BRL 15.8 billion since the beginning of the pandemic in the country. According to ANBIMA, this asset class's AUM grows continuously, having increased by 63% in the last five years.

These investments have proven to be an interesting instrument for the acquisition of securities or shares of companies in the forestry industry. Forestry FIPs have multiple positive impacts: they reduce carbon emissions, increase the recovery and conservation of forests and their natural resources, and encourage sustainable timber production (mainly pine and eucalyptus). This sector also offers other opportunities, such as the production of electricity from eucalyptus biomass.

For example, the [Timberland Investment Group](#) (TIG), a subsidiary of bank BTG Pactual, is one of the largest global managers of investments in forestry assets, with nearly USD 3.5 billion in assets under management. Brazil is TIG's largest market, with 820,633 acres. Asset manager Mogno Capital, in partnership with Iniciativa Agronegócios, launched its first


forestry FIP in 2014 aiming to raise BRL 80 million for the purchase of land for eucalyptus plantations in the state of Mato Grosso do Sul. The project resulted in the sequestration of 40,000 tons of carbon per year. The company is currently fundraising its second forestry FIP, worth BRL 100 million.



MOGNO
CAPITAL

FIP Projeto Florestas – [Mogno Capital](#) and [Iniciativa Agronegócios](#)

- Structured FIP for the acquisition of 4,100 hectares (including 3,100 hectares of planted forests) for planting eucalyptus in the city of Água Clara, in Mato Grosso do Sul.
- Funding of BRL 80 million, and 15.1% return (from June 2014 to December 2018).
- Carbon sequestration of 40,000 annually, and social projects in the region.
- Timber and sustainability certification.




2.3.4 Impact Funds

Impact private equity (PE) and venture capital (VC) funds invest directly in private companies (that is, not listed on stock exchanges), or offer private credit facilities. These funds are used to finance projects with a significant social and economic impact for low-income families as well as projects that encourage more efficient use of natural resources. According to [KPMG](#), these funds invested almost BRL 23 billion in 2019.

This segment has several agroclimatic intelligence initiatives that focus on sustainable agriculture. In recent years, this theme has


caught the attention of domestic and foreign investors. Since 2017, French fund [Moringa](#), owned by the Rothschild group, has invested more than EUR 5 million in the company Floresta Viva's agroforestry project in the interior of the state of São Paulo. In October 2019, [Mirova Natural Capital](#), a company headquartered in England, announced it had raised BRL 400 million through Althelia Biodiversity Fund Brazil ([ABF Brazil](#)) to be invested in sustainable activities that protect, restore or improve the livelihood of communities in the Legal Amazon..

The Moringa Fund



The Moringa Fund

- The fund has invested EUR 5 million in the São Pedro farm, in Vale do Ribeira, in the state of São Paulo.
- With one thousand hectares of total area, the farm has a 220-hectare agroforestry area for the production of organic and sustainable products.
- With 84 employees, the farm cultivates peach palms, bananas, eucalyptus, and hardwood.



2.4 Public and private banks

In Brazil, almost 1,800 financial institutions are authorized to operate by the Central Bank (March 2020), 157 of which are commercial and multiple banks, and 925 of which are [cooperatives](#). However, nearly 80% of the market is controlled by five banks: public banks Banco do Brasil and Caixa Econômica, and private banks Itaú, Bradesco and Santander.

Public and private financial institutions in Brazil operate in green finance through credit facilities for the acquisition, by individuals and companies, of sustainable goods and services, such as photovoltaic panels and equipment and systems for the efficient use of energy or water.

Public banks play a key role in credit supply, especially rural loans (56%) and real estate loans (77.5%). In 2019, public banks had an average market share of 55.8%, considering loans both to individuals and companies.

In this scenario, public development banks play a major role in promoting the green market; in particular, BNDES, which has the largest share in loans to companies (18.3%).

Regional banks receive resources from specific constitutional funds created to foster the development of the least developed regions. Banco da Amazônia and Banco do Nordeste (BNB) also offer loans for projects that generate energy from sustainable sources. BNB was a pioneer in the creation of a specific green credit facility ([FNE Verde](#)), and was largely responsible for funding the first wind farms in the Northeast. The Brazilian Association of Development Banks ([ABDE](#)) is currently leading a discussion on how to bolster green investment flows, given the current scenario where public funds have seen a reduction in resources.

Public banks have also striven to propose new financing solutions. The Development Bank of

Minas Gerais ([BDMG](#)) intends to offer a credit facility via an online platform, to allow micro, small and medium-sized companies to finance energy efficiency projects. Banco da Amazônia is studying the development of green loans for crop-livestock-forest integration, seeking to reduce the deforestation in the Amazon region.

Another more ambitious credit facility offers loans at variable interest rates linked to the borrower's sustainable performance, which consider broader sustainability criteria, such as social and governance issues. In April 2019, Alunorte, the largest alumina refinery outside China, was the first Brazilian company to negotiate such loans, though for an undisclosed amount denominated in dollars. So far, four other companies¹ have already raised such loans, with two denominated in dollars and two in reals, raising more than USD 400 million.

While the conditions of this type of transaction remain confidential, the rates are estimated to decrease or increase by 0.25% to 0.5% depending on whether the company meets the sustainability indicators. Even though the variation seems small at first glance, it is significant if we consider that half of these transactions were worth more than USD 1 billion abroad. In practice, depending on its social and environmental performance, it means the company can save up to USD 2.5 - 5 million.

Financial institutions also participate in the Brazilian green market through other specialized services, such as financial advice for green bond structuring and issuance. In 2019, according to CBI Itaú Unibanco, Banco do Brasil and ING participated in the issuance of 13 green bonds and one sustainability bond, totaling USD 1.5 billion. [The management of sustainable investment funds](#) is another path where the experiences of Itaú Unibanco (ETF It Now ISE fund) and Banco do Brasil (BB Actions Carbono Sustentabilidade FIA fund) stand out.

¹ Alunorte, Votorantim Cimentos, LDC Sucos, Terreos, FS Bioenergia

Rabobank has taken a different path: it launched in partnership with the United Nations Environment Program ([UNEP](#)) a USD 1 billion public-private partnership global fund ([AGRI3FUND](#)). The main goal is to offer low interest credit facilities to finance sustainable agriculture and forest protection, with technical assistance from the Sustainable Trade Initiative ([IDH](#)). In Brazil, the fund seeks to support small and medium-sized producers that operate in green livestock and in the sugar and alcohol industry.

A decisive way for private financial institutions to expand their operations in the market would be through the direct issuance of green bonds. Bank Deposit Certificates ([CDBs](#)), Agribusiness Credit Bills ([LCAs](#)) and Real Estate Credit Bills ([LCIs](#)) are the main fixed income products issued specifically by banks. In 2019, these banking funding products had approximately BRL 1.25 trillion. However, none of them were intended to finance green activities or projects.



[BNDES's green bonds](#)

- First Brazilian bank to issue a green bond on the international market.
- USD 1 billion issuance, maturing in 7 years, and yielding 4.8% p.a..
- Demand for this issuance reached USD 5 billion, with the participation of more than 370 interested investors.
- Proceeds allocated to fund solar and wind energy projects.

2.5 Fintechs

Financial market technology companies, or fintechs, are mainly focused on payment operations services in Brazil with little engagement in green or impact projects. However, they have great potential for originating collective loans (crowdfunding) for sustainable businesses.

In 2019, SITAWI raised more than BRL 1 million for five projects with a social and environmental impact, and is currently studying how it can offer green business solutions to retail investors. Impact investing firm Vox Capital, in partnership with Trê Investimentos plans to launch a similar product towards the end of 2020.

Another outstanding initiative is [Moeda Seeds](#), a fintech that operates in different areas (financial inclusion, impact funds, project acceleration, and credit programs, among others). In 2017, Moeda Seeds issued 19.628 million tokens, each worth USD 1, which were purchased by people all around the world. The proceeds were allocated to 18 projects, with loans ranging from USD 500 to USD 300,000. Using technologies such as blockchain and cryptocurrency, the company funds impact projects, and monitors the projects' disclosure, outcomes, and SDG-related impacts.

SITAWI and sustainable business crowdfunding

- Over BRL 1 million raised and invested in five projects with a social and environmental impacts.
- Investments starting at BRL 1,000, and return of 12% p.a..
- The investor acquires a CDB linked to a bank bill of credit issued by Banco Topázio.
- 100% online process.
- The FIBraS project currently supports the platform's professionalization process.



3 MARKET RESEARCH FINDINGS

In order to improve the analysis of the green market in Brazil, research was conducted with banks, managers, consulting firms, public entities, independent organizations, scholars, and other industry agents. An online questionnaire examined the level of information and adequacy of the institutions to meet the demands for green investments, as well as their level of commitment to the principles of sustainability and social and environmental responsibility.

An important finding of this research is the mismatch between the sustainability statements issued by the financial institutions and their actions to implement a Social and Environmental Responsibility Policy (PRSA)—provided for in BCB regulations, through [CMN Resolution 4,327/14](#)—and to meet the demand for green products. One of the key findings of the research highlights this contradiction: most financial institutions do not have a dedicated, full-time team to analyze ESG risks or to structure products for this market. Some of the main barriers to the implementation of PRSAs, according to the institutions, are cost, the complexity of the ESG analysis, and the lack of employee knowledge on the matter.

As a result, some of the biggest challenges for the development of green instruments are a lack of employee technical capacities, and the complexity of ESG risk analysis. Additionally, the companies mention the prioritization of other projects as a major barrier.

Overall, the research shows the demand for green products is still incipient and lower than the demand for traditional investments, but it has strong growth potential. In addition to direct customer demand, institutions say that image risks and the recommendation of the company's senior management are the main reasons for offering such instruments.

Regarding the risks of financing and investing in green projects, the research highlights different perspectives within the financial market. While half of the other institutions (consulting firms, public entities, and NGOs, for example) believe green products pose lower risks, this share drops to 25% among financial institutions—with 35% considering risks to be higher, and 40% relatively equal. As a result of this assessment, 35% of financial institutions indicate that a higher risk premium is needed to make green finance viable.



4 CHALLENGES FOR THE GREEN FINANCE MARKET IN BRAZIL

By analyzing products, participants and gaps in the industry, this study shows that Brazil has a vast, but little explored, green market, offering countless opportunities for investors. That said, a variety of challenges and barriers remain in the current political and economic scenario that need to be overcome for the migration to a low carbon economy to happen at the right pace.

Definition of assets and projects that qualify for green financing – The global green market has evolved to a large extent due to international initiatives to establish green taxonomy criteria. The main challenge for public and private agents is to consider the specificities of the Brazilian market while aligning them with international criteria (a “tropicalization” of the green taxonomy). The definition of what “green” means for the financial market in Brazil is crucial and will demand great attention by the market participants. An effort of this scale is essential to prevent “greenwashing” and damage to the credibility of institutions that structure or offer new products.

Shortage of financial instruments – Among the challenges the Brazilian market faces are the need to develop attractive instruments, and efficiently inform investors on the availability of green products. As previously mentioned, there is a dearth of green fixed income investments through widely consolidated instruments in the Brazilian market (CDB, LCI, LCA), including government bonds. This also implies low liquidity in the green financial sector, which limits transactions and more significant funding. It also results in wider spreads.

The offer of investment funds with green assets in their portfolios is also minimal. Although the pandemic seems to have slightly increased the offer of ESG funds in the country, this scenario makes it impossible for investors to make a broad comparison, according to their profitability and diversification objectives, while taking into account sustainability criteria.

This causes a chain reaction: an incipient green market has a low volume of assets, with limited liquidity and less attractive profitability, resulting in little investor interest in learning about the benefits of these products. With no significant demand, companies’ interest in structuring new instruments for this market is similarly reduced.

Complexity and cost of operations – Operations in the Brazilian market are quite complex, especially for foreigners, who also face bureaucratic barriers to opening accounts, performing international money transfers and capital repatriation.

The BCB is aware of these challenges and has sent a bill to the National Congress that seeks to streamline the registration of capital from foreign individual investors for small amounts. The proposal for a new legal framework for the foreign exchange market ([PL 5387/19](#)) is awaiting Congress’s approval. Other measures to improve the Brazilian legislation in order to make the Brazilian capital market more attractive are also pending.

From a corporative perspective, a structuring model must be found that reduces the cost of issuances for small and medium enterprises. It is also difficult for these companies to disclose corporate governance and business stability information to the market—with the necessary transparency—which weakens the guarantees of their issuances.

Finally, obtaining a second-party opinion or assurance for green products from an audit firm is quite expensive. This type of assessment by specialized independent companies costs a minimum of BRL 40,000, an amount that can be even higher for projects that are more complex, geographically distant, or difficult to access.

Companies' internal structure – The necessary expansion of the green market increasingly requires companies to have a representative or a specialized team trained in the analysis of ESG considerations. It also involves different functions, such as financial, legal, operational, and sustainability. This gap can be filled either by promoting employee training on sustainable issues and connecting them to the company's business, or by outsourcing to consulting firms.

Legal uncertainty – A major challenge is the consolidation and standardization of legal instruments and jurisprudence in lawsuits. Legal uncertainty is a common obstacle to investments in Brazil. This is even more evident in the green market, which is still in its early days of development, and as a result of the poor regulation and standardization there is a high risk that norms may change.

Also, there are still few legal professionals with specific knowledge of the sector. As a result, companies fear they may suffer financial losses derived from poorly drafted legal contracts, or from sanctions and indemnities for failure to comply with all the environmental and social requirements for the issuance of green financial instruments.

5 OPPORTUNITIES AND PROSPECTS FOR THE GREEN FINANCE MARKET

At the time of the wrap-up of this study (September 2020), the Brazilian GDP faced a dramatic decline of 9.7 % for the second trimester of the year.

Nevertheless, the opportunities in Brazil's green finance market significantly outweigh the challenges in the medium and long term. There are good prospects for this sector to develop and expand, as listed below.

Offer of financial resources via blended finance for structuring new green finance products – Over the past few years, Brazil has benefited from an increasing supply of financial resources through blended finance, which seeks to raise and direct private capital to fund the development of emerging markets.

Most of these resources are partially non-refundable and available in the form of technical assistance or capital for structuring new green finance products.

Therefore, there is an opportunity to reduce operating costs or to mitigate risks in the development of innovative green financial instruments. Such resources can be used, for example, to cover the expenditures in consulting, advisory services (legal, accounting, financial, or operational), disclosure, and marketing. In financing, these resources can also be used to reduce interest rates charged on first losses or to cover partial risks of the transactions.

Economic and social trends in the market – Companies that adopt ESG practices tend to

be more resilient to market changes, as they evaluate, deeper and faster, new demands from different social actors when it comes to social and environmental requirements. A survey conducted by JP Morgan in the United States shows the attention given to sustainable investment is at a high level. 85% of investors reported interest in this segment—a percentage that rose to 95% among millennials (ages 18 to 37).

As a result, new generations are more willing to drive the future of sustainable investment, as they believe that sustainability is no longer a niche but has become a priority. The Brazilian financial industry will need to adapt as international markets become more sophisticated, with companies pressed to take on additional responsibilities, given the greater social demand for green investments. Failing to face this new reality will mean missing a window of opportunity.

Innovation Labs – The financial and business communities have started to work together to develop new green finance products and instruments. The development of green finance think-tanks in the country will accelerate the development of new instruments through the discussion of regulatory, legal and operational concerns, among others.

The work of these institutions enables the exchange of information and experiences between Brazil's different economic segments and the international financial markets. This will speed up the implementation of financial solutions towards a low carbon economy.

Support from the federal government in identifying and publicizing the leading green assets and projects in the country

– The Investment Partnership Program has identified nearly 105 projects as investment opportunities, totaling BRL 1.4 trillion in the coming years. Some of these projects in the infrastructure and agricultural sectors have the potential to adjust, adapt and evolve to become green . As a result, they can be financed through existing solutions of the capital or banking markets (for example, green bonds or green loans).

The participation of international investors and the local private sector in these investment opportunities will be key to the structural development of the country's economy.

These teams' work enables the exchange of information and experiences between Brazil's different economic segments and the international financial markets. This will speed up the implementation of financial solutions towards a low carbon economy.



6 DISCLAIMER

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Even though this report discusses the implications of legislative, regulatory and economic policy development for industrial sectors and the economy in general, includes corporate consulting strategies and has broad social implications, it does not recommend any individual security or investment in any specific stock and should not be relied upon when making investment decisions relative to stocks or individual securities.

The sole purpose of this report is to provide information and examples on existing traditional and green financial instruments in the Brazilian financial market, and does not constitute or should be construed as an offer or request to buy or sell any financial instrument, or to participate in any specific business strategy.



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