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# Pioneering Latin America's sustainable finance

# Executive summary

- A number of Latin American countries have been at the forefront of the development of sustainable finance through the creation of Green, Social, Sustainability, and Sustainability-Linked Bonds (GSSSBs).
- Brazil, Colombia, Ecuador, Mexico, Peru, and Venezuela together make up over one-third of the world's megadiverse countries, thus positioning Latin America as a potentially key provider of carbon credits.
- Chile issued the first sovereign green bond in the region in 2019 and the first sovereign sustainability-linked bond in the world in 2022; Ecuador issued the first sovereign social bond in the world in January 2020; Mexico issued the first sovereign bond linked to the United Nations Sustainable Development Goals (SDGs) in September 2020; Colombia issued the world's first green emerging market sovereign bond issued through auction in local currency in September 2021; and, in October 2022, Uruguay released its landmark US$1.5bn sustainability-linked bond, listed on the London Stock Exchange.
- GSSSB issuance by Latin American nations is expected to reach US$30bn-$40bn this year, led by sovereigns looking to forge ahead with decarbonisation plans under the Paris Climate Agreement.
- The issuers of GSSSBs need to do more to allay concerns about the impact of these bonds on sustainability by developing more ambitious targets and by improving the credibility of monitoring and reporting.
- Latin America is already the source of nearly 20% of the world's supply of carbon credits, with Peru, Brazil, and Colombia the primary suppliers. With the carbon-offset market forecast to grow to as much as US$250bn by 2050, from US$2bn in 2020, there are clearly huge further opportunities for the region.

## Introduction

As part of global efforts to curtail global warming, more than 20 states in Latin America have committed to climate pledges which entail significant cuts to emissions. In order to reach these goals, the region needs a huge amount of investment to decarbonise sectors such as energy and transport. To raise the necessary funds, an increasing number of states are turning to sustainable finance, which will constitute a key part of a climate-resilient future.

Latin America has become a global protagonist in the field, which has seen significant growth in recent years. Several Latin American countries have emerged as key innovators in sustainable finance through the development of Green, Social, Sustainability, and Sustainability-Linked Bonds (GSSSBs). These instruments are becoming an increasingly important part of global debt markets as nations look to fulfil their climate pledges under the Paris Agreement, as well as achieving the rest of the United Nations (UN) Sustainable Development Goals (SDGs). At the same time, GSSSBs allow climate-concerned investors to take environmental, social, and governance (ESG) considerations into account when making decisions about where to put their money.

The region is also seeing exciting developments in carbon pricing initiatives (CPIs), such as carbon taxes and carbon markets, which aim to reduce emissions while generating revenue that can be used to fund spending on sustainable projects. As home to the world's largest rainforest, and over one third of the world's megadiverse countries in Brazil, Colombia, Ecuador, Mexico, Peru, and Venezuela, Latin America is set to become one of the world's most important sources of carbon credits. With global interest in CPIs growing, the region is well-placed to benefit if authorities can develop credible initiatives that demonstrably contribute to climate goals.

Here we take a look at GSSSBs and their future prospects in the region, with a case study on Chile's exciting work so far, before examining carbon pricing initiatives (CPIs) and the example of Brazil, which is making the first steps towards realising its huge potential in the field.

## Sustainable bonds so far

GSSSBs comprise two main categories. The first is sustainability-linked bonds (SLBs), which are instruments that vary in financial or structural characteristics dependent on the achievement of sustainability goals. They are not associated with specific projects, but their terms depend on the achievement of predefined objectives. The second is use-of-proceeds bonds. Green bonds are used to finance projects with environmental benefits, such as renewable energy; social bonds finance projects aimed at improving areas such as health and education; and sustainability bonds finance projects that combine both social and environmental benefits.

The first green bonds were issued by the European Investment Bank and the World Bank in 2007-2008, creating criteria for issuance and reporting for the green bond market as a whole. Following this, the International Capital Market Association (ICMA) published its Green Bond Principles (GBP), voluntary guidelines, most recently updated in June 2022, that strengthen reporting standards on objectives and impacts. The ICMA has since published guidelines for all GSSSBs, which are updated annually. For SLBs, these components are as follows: selection of Key Performance Indicators (KPIs), calibration of Sustainability Performance Targets (SPTs), bond characteristics, reporting; and verification. These guidelines are important in promoting integrity in the market and thereby encouraging its future growth.

As shown in Figure 1, overall international bond issuance in the region stayed relatively steady from the turn of the century, crashed as a result of the 2008 financial crisis, and then recorded strong growth from 2009-2014. Issuances dipped in 2015 before increasing once again in 2016 and 2017, but they decreased once again in 2018. Another period of growth followed from 2019-2021, before dropping significantly in 2022.

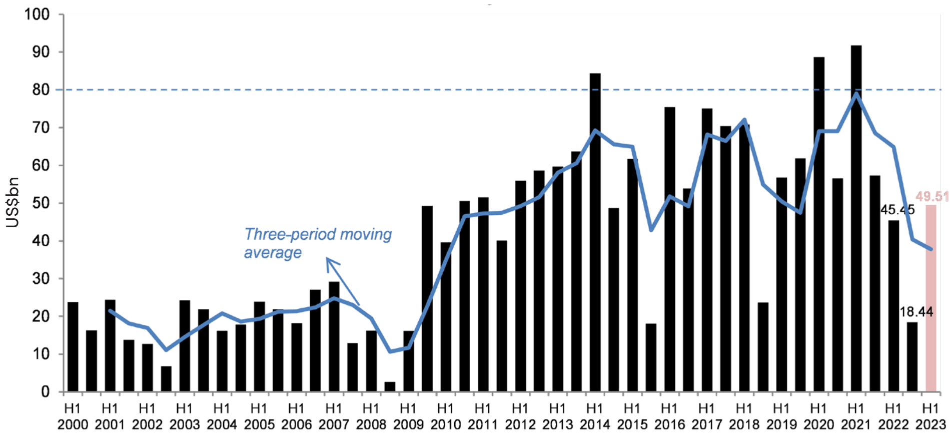
As for GSSSBs, Figure 2 shows their development from 2014, when the region's first international green bond was issued. GSSSBs grew from 2014-2017, dropped back in 2018, and saw a period of strong growth from 2019-2021 before falling once more in 2022, in line with the overall international bond issuance in the region. In terms of a percentage of total international issuance, in 2014 GSSSBs represented just 0.2% of the total, a proportion which increased steadily to 5.7% in 2017. In 2018 there was a drop to 0.6%, before a period of strong growth to 31.0% in 2021 and 32.0% in 2022.

As shown in Figure 3, green bonds represent the largest share of cumulative GSSSB issuance, followed by sustainability and social bonds. Sustainability-linked bonds have seen strong growth in recent years since the first issuance.

Figure 4 reveals in more detail how sustainability and social bonds increased in importance in 2021 and 2022, as well as showing the exponential growth in SLB issuances by companies in the region in 2021.

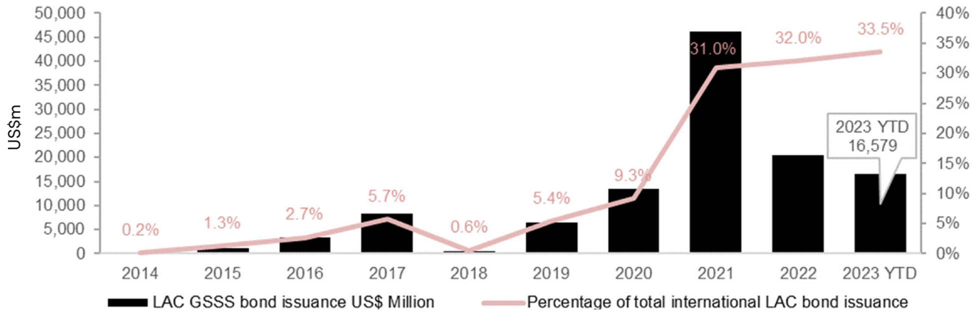
In the first half of 2023, there were 18 GSSSB issuances in international markets worth a total US$16.6bn. This represented 33.5% of total international bond issuance, the highest percentage on record. Sovereigns – Brazil, Chile, Costa Rica, Ecuador, Mexico, and Peru – represented a 69% share of the total, with corporates on 17% and supranational issuers making up the remaining 14%. Chile led the way with 35% of issuances, followed by Mexico on 30% and Peru with 15% of the total.

## Figure 1: Semi-annual international bond issuance



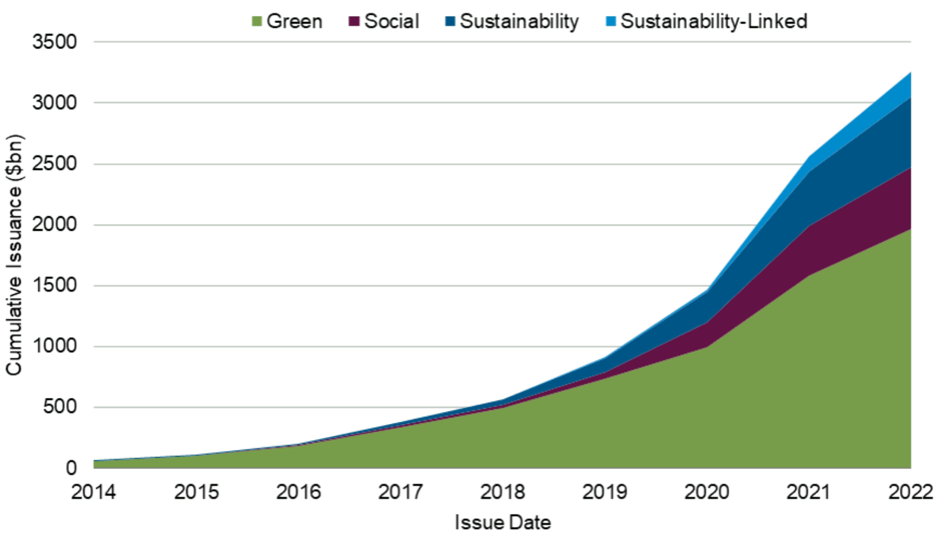

**Source:** ECLAC Washington Office, 2023

## Figure 2: International GSSSB issuance




**Source:** ECLAC Washington Office, 2023

## Figure 3: Use of three transportation modes




**Source:** Bloomberg, 2023

## Figure 4: Annual Latin America GSSSB issuance by instrument type

| Bil. $ | Green bond | Social bond | Sustainability bond | Sustainability-linked bond | Transition bond | Total |
|---|---|---|---|---|---|---|
| 2018 | 0.94 | 0.08 | 0.21 | 0.00 | 0.00 | 1.23 |
| 2019 | 4.11 | 0.00 | 1.73 | 0.00 | 0.50 | 6.34 |
| 2020 | 6.83 | 3.57 | 1.27 | 1.25 | 0.00 | 12.92 |
| 2021 | 6.42 | 14.41 | 11.04 | 14.97 | 0.00 | 46.84 |
| 2022 | 1.62 | 1.43 | 13.33 | 8.05 | 0.00 | 24.43 |

**Source:** S&P Global Ratings, 2023

## Chile: A trailblazer in sustainable finance

Chile is renowned as a pioneer in sustainable finance, and it was the first country in the Americas to issue green bonds in 2019. Then in March 2022 it issued the world's first sovereign sustainability-linked bond, listed on the London Stock Exchange. The US$2bn, 20-year bond is linked to Sustainability Performance Targets (SPTs) related to reducing greenhouse gas emissions, as well as achieving 60% of electricity generation from non-conventional renewables by 2032. If the SPTs are met, the coupon price will remain the same. However, if either target is missed the coupon will increase by 12.5 basis points, with a 25 basis point increase if both are missed. In 2022, Chile was the world's largest non-European sovereign GSSSB issuer, accounting for 9% of global issuance, according to S&P Global Ratings.

In July 2023 the Chilean government issued further bonds linked to reducing greenhouse gas emissions, and increasing the percentage of women on company boards. This means the country has issued US$39.7bn in GSSSBs since 2019, which has saved the country between US$77-$104m in interest payments compared to traditional bonds, according to Carola Moreno, a finance and international affairs expert at the finance ministry. According to Bank of America, Chile is the only sovereign that has issued all four types of GSSSBs.

This rapid progress is due to years of work behind the scenes. In its own words, the government of Chile "is strongly committed to climate action, environmental protection and sustainable growth," and it sees GSSSBs as a tool to support "the country's sustainable development path, low in carbon emissions, with strong climate resilience". In 2019 it published its Green Bond Framework, developed with the support of the Inter-American Development Bank, following it up with a Sustainable Bond Framework in 2020. "Labelled bonds have become fundamentals for financing of Chile, and they are totally incorporated into the general strategy of debt management," the finance ministry said in an April 2022 report.

Nonetheless, committing to a long-term bond that will have to pay a higher coupon if targets are not met is a significant public policy commitment.

The good news for Chile is that there appears to be mainstream political consensus about the benefits of the GSSSB strategy, which has been promoted during the governments of both centre-right President Sebastián Piñera (2010-2014; 2018-2022) and centre-left President Gabriel Boric (2022-present). The country also boasts strong institutions and bountiful environmental resources, which have made it into a renewable energy powerhouse and encouraged the development of a nascent green hydrogen industry.

Investors appear keen to back the country's plans, with demand for the 2022 SLB reaching more than four times the original placed amount. And the government has big plans for the future, working to make GSSSBs comprise around 50% of the country's total debt in the next four years.

## Future prospects for GSSSBs

GSSSB issuance by Latin American nations is expected to reach US$30bn-$40bn this year, led by sovereigns looking to forge ahead with decarbonisation plans under the Paris Climate Agreement. Major regional economies such as Mexico and Brazil have recently updated these plans, making them more ambitious, which will drive further opportunities for GSSSBs. The region's infrastructure gap means that many countries require a massive overhaul to decarbonise transport and industry, with huge amounts of investment needed in order for the region to meet its targets.

The region's incredible biodiversity also makes it attractive to investors, and programmes such as the High Ambition Coalition's 30x30 initiative, which aims to protect 30% of the planet for nature by 2030, are also seeing increasing involvement from Latin American countries. To attract the investment required, issuers must address concerns raised by market participants regarding the credibility of GSSSBs. For example, some say that targets need to be more ambitious in order to have an impact on sustainability, while tighter impact reporting and enhanced disclosure practices could also help to improve trust. This could go someway towards heading off a backlash against what some on the political right, particularly in the US, criticise as being politically driven investments. There are also challenges such as the poor availability of data and weaker corporate governance in some countries.

Global demands for greater harmonisation in order to enable better comparisons between national regulations must also be addressed. This could take the form of established definitions, standards, and criteria to form a standardised approach. There has been some progress in this area, with a Common Framework of Sustainable Finance Taxonomies for Latin America and the Caribbean launched by a number of international organisations and UN agencies on 10 July. The aim is to facilitate capital flows to sustainable projects, and to help investors make more informed decisions. While the framework provides guiding principles, governments need to formulate their own financial taxonomies. Chile and Peru are currently developing theirs, preparing to join existing efforts introduced by Brazil and Colombia.

More institutional capacity could be developed by sharing experiences in regional fora, as well as improving the wider policy environment for GSSSBs by introducing fiscal incentives, guaranteeing sustainable debt, or introducing green requirements for tenders and procurement. Another issue is political risk. Although this varies widely between countries it is generally high in Latin America compared to other world regions, which means that projects need to be able to withstand changes in government. While SLBs encourage continued government support by imposing financial penalties if targets are missed, there are still doubts in some quarters as to the effectiveness of these penalties.

Although there is plenty of work still to be done, the outlook is generally positive. Latin American countries have proven themselves capable of innovation in order to secure much-needed financing, with water-related bonds, or blue bonds, one area of growth. Ecuador is leading the way, releasing a new US$656m blue bond to channel investment flows into protecting the Galápagos Islands in May 2023. The issuance was the largest debt-for-nature swap in the world to date, reducing Ecuador's debt by more than US$1bn and following similar schemes in Belize, Barbados and the Seychelles. There is huge potential for future issuances in Latin America, where a quarter of the population lives along a coastline of more than 70,000 kilometres, and SDGs linked to water are the most underfunded as things stand, despite the fact that the ocean is a vital sink of heat and carbon. To help address this, the ICMA published a global practitioner's guide to blue bonds on 6 September.

Growing interest in sustainability also boosts investors' appetite for GSSSBs, and the region's many natural resources mean it has a lot to offer. International organisations such as multilateral lenders and development banks are already involved in myriad projects in the region, and they can help to improve technical knowledge and governance capabilities. Developments in standardisation and regulation in other regions such as Europe will also help to improve the situation in Latin America due to growing awareness of reputational risks.

## Carbon pricing initiatives so far

Carbon pricing initiatives (CPIs) offer a way of capturing the external costs of greenhouse gas (GHG) emissions and linking them to their source. There are two main forms: carbon markets and carbon taxes.

The first kind of carbon market is Emissions Trading Systems (ETS), also known as 'cap and trade'. They enable governments to incentivise emissions reduction by setting a limit on emissions for each firm, and issuing permits for each unit under the cap. Normally these units are equal to one tonne of carbon dioxide emitted. If a firm emits more than their allocated number of units, they can buy credits on the market, with proceeds destined for carbon-lowering schemes. This is known as a compliance market. It provides certainty as to the environmental impact, but its costs vary as the price of carbon credits fluctuates. ETS can be used to achieve legally binding emissions reduction targets such as those agreed under the Paris Agreement. Mexico launched the region's first ETS Pilot Programme between 2020 and 2021, and it entered the transition phase in 2022.

There are also voluntary carbon markets (VCMs) that operate on a national and international level. Buying credits lets firms offset their emissions and can therefore reduce overall net emissions, but VCMs do not directly contribute to emissions reduction targets. The carbon-offset market is expected to multiply from US$2bn in 2020 to US$250bn in 2050, according to Morgan Stanley. This presents opportunities for the region, which is home to the world's largest rainforest, and is already the second-largest provider of voluntary credits, with almost 20% of total global credit supply from the region in 2020 and 2021. Peru, Brazil, and Colombia have provided more than 80% of carbon credits in the region. Other initiatives include government-supported voluntary initiatives such as Colombia's national Carbon Neutral Program. Under the scheme, Colombian firms that calculate carbon footprints and establish targets are provided tax reduction incentives. A similar scheme in Panama is called 'Reduce Your Footprint'.

Then there are carbon taxes, a levy on the distribution, sale, or use of fossil fuels depending on their carbon content. This encourages the use of more environmentally friendly fuels by increasing costs. With carbon taxes, prices are fixed but the environmental impact is uncertain. In Latin America, national carbon taxes already stand in Argentina, Chile, Colombia, Mexico, and Uruguay. These taxes have slowly expanded in recent years. For example, Chile introduced a US$5 per ton of CO2 carbon tax in 2014, and then expanded it in February 2020 to include more of the power and industry sector as part of a broader tax reform. The country's carbon tax remains low by international standards, and it compares unfavourably to an average of nearly US$15 per ton in Mexico, which applies carbon taxes at the state level. The Chilean government is evaluating how to strengthen its carbon tax, and in January the International Monetary Fund (IMF) evaluated different strategies in order to do so. In Colombia, revenue from the carbon tax is paid into the Sustainable Colombia Fund, which works to implement projects in conflict areas.

Figure 5 provides a summary of ETS and carbon taxes in the region.

### Figure 5: CPIs in Latin America as of 2022


**Source:** World Bank, State and Trends of Carbon Pricing, 2022

# Brazil: huge untapped potential

Brazil is the most important supplier of carbon credits in Latin America and has huge potential due to the fact that it is home to important biomes such as the Amazon and the Cerrado.

Officials have been working on improving the regulatory environment, in the shape of the 2012 Forest Code, the 2021 national policy for payment of environmental services, and the May 2022 decree 11,075 establishing the National Greenhouse Gas Emissions Reduction System, which also seeks to develop regulations for carbon markets.

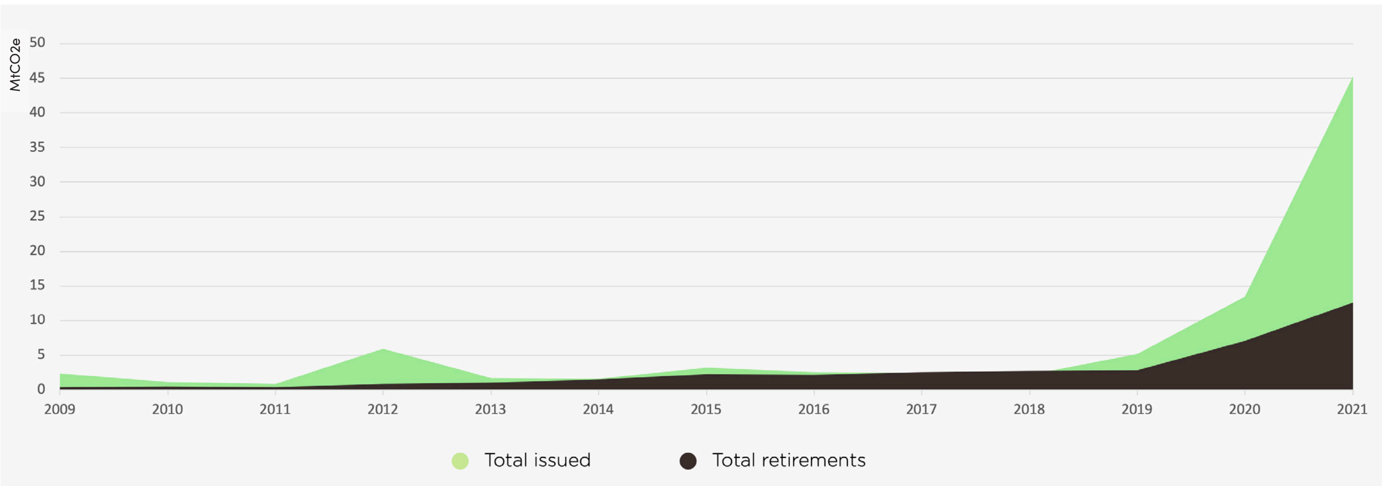
In the meantime, VCMs already operating in the country include the Biomas alliance, which comprises major companies Itaú Unibanco, Marfrig, Rabobank, Santander, Suzano, and Vale. It is working to restore and protect 4m hectares of native forest by commercialising carbon credits.

As shown in Figure 6, the number of issued and retired credits in VCMs saw slow but steady growth from 2011, before accelerating from 2019-2021. Credits are retired once its carbon value has been reduced from the purchaser's footprint, meaning they can no longer be traded.

While Brazil has long been involved in VCMs, efforts to implement compliance markets have stepped up a gear recently. In June, vice-president Geraldo Alckmin estimated that Brazil could earn US120bn by 2030 if the carbon market were regulated, thanks to the country's massive biodiversity, renewable energy resources, and available biomass. Both the government and the National Confederation of Industry (CNI) have proposed a 'cap and trade' model, and the Chamber for the Commercialisation of Electrical Energy (CCEE), a private non-profit operator of the Brazilian electric energy market, is working on proposed regulations. One of the main aims of regulation is to increase carbon prices. Right now, a carbon credit is worth around US$10. According to the World Bank, each ton of carbon would need to be priced at US$100-$150 in order for Brazil to achieve net zero.

Developments in the field are coming thick and fast. President Lula Inacio da Silva repealed decree 11,075 in June this year, instead favouring a substitution bill that proposes the creation of the Brazilian Greenhouse Gas Emissions Trading System (SBCE) and introduces concepts for system operations. The bill is expected to be approved by the senate by the end of September, following on from the approval of Bill 1415/2022 on 30 August, which regulates carbon capture and storage (CCS). These moves provide encouraging signs for the development of carbon markets in Brazil, which will present myriad opportunities.

## Figure 6: Issued and retired Brazilian carbon credits in VCMs




**Source:** ICC Brasil, 2022

## Future prospects for CPIs

In addition to Brazil's strides towards an ETS, other exciting developments in the region include Mexico's ETS. It is scheduled to enter a new operational phase this year following a successful transition phase, but there has been a delay in publishing rules that were meant to be released in June. In Colombia, authorities are working on an ETS outlined in the 2018 climate change management law, with a goal of being fully operational by 2030, and in Chile, the government is developing a pilot ETS for the energy sector as part of the 2022-2026 Energy Agenda published August 2022.

As for VCMs, there is a huge amount of potential. Despite its unrivalled biological assets, Latin America currently participates in just 20% of global voluntary carbon markets, according to Climate Impact Partners. Significant work is therefore needed to increase this involvement, while also dealing with issues that have arisen with existing schemes. For example, recent research claiming that more than 90% of rainforest offset credits from Verra, a carbon standard that is the most commonly used in the region, were 'phantom credits' that are not in fact carbon reductions. There are also concerns around human rights abuses, greenwashing, and double-counting of emission reductions which affect the credibility of VCMs. However, growing interest in VCMs should help to iron out these issues as best practices develop and improve standards across the board.

Another interesting prospect is the adaptation of VCM programmes and protocols into ETS or other compliance markets. VCMs offer opportunities for capacity building, as well as the identification of quality projects, which can then be repurposed. Colombia has shown that this is possible, while Chile and Peru are also exploring voluntary-to-compliance market policies.

Regional cooperation will also help to accelerate developments. For example, the Carbon Pricing in the Americas (CPA) platform is working on "identifying opportunities to increase the alignment and linking of carbon pricing instruments and carbon markets". The Pacific Alliance countries – Colombia, Mexico, Peru, and Chile – promote VCM alignment as part of the organisation's 2017 Cali Declaration. These efforts are also boosted by assistance from international organisations such as the World Bank, with its Partnership for Market Readiness (PMR), which is committed to providing technical assistance to 23 countries in the region to deploy CPIs.

These initiatives may also receive a boost from developments further afield, such as the European Union's European Carbon Border Adjustment Mechanism (CBAM). Under the mechanism, imported carbon-intensive goods, such as iron and steel, will face charges and requirements equivalent to those that an EU producer would have had to pay. The US and Canada are also exploring similar mechanisms, which could provide impetus for the development of carbon markets in Latin America.

In many respects the assessment of future prospects for CPIs depends on the stated aims. There is significant momentum towards creating new markets, and that momentum looks set to keep building with the implementation of more initiatives. However, whether or not CPIs will help to achieve emissions reductions is a separate question. Existing schemes are estimated to have reduced emissions by 0%-2% per year, and low carbon prices mean that large investments in technology and infrastructure required for more drastic cuts have not been forthcoming. Prices will need to rise in order to make larger investments realistic, but it is also worth underlining that carbon pricing is no silver bullet. Rather, it should be seen as part of a toolkit that governments use in conjunction with other regulations and policies.

## Conclusion

In summary, Latin America has great potential in sustainable finance, and certain countries have started to realise that potential.

When it comes to bonds, GSSSBs have grown in importance in recent years and now constitute around one third of total international issuances. Starting with green bonds and then later introducing social and sustainability bonds, Latin American countries found ways to raise funds for specific sustainable projects. Then came SLBs, with Chile leading the way with issuances in March 2022 and July 2023. The country looks set to continue at the vanguard of sustainable finance, with plans to have GSSSBs constitute around 50% of its total debt in the coming years. In the rest of the region, work to strengthen regulations and standards would make it easier to develop GSSSBs that are attractive to investors and have a real impact on sustainability.

As for CPIs, Mexico is an early frontrunner in implementing an ETS, while Chile, Colombia, and Peru are exploring options. However, Brazil is the country with greatest potential, and efforts to develop an ETS are moving ahead quickly. While designing and implementing CPIs is not simple, efforts to build institutional capacity are paying off in many countries in the region, and a wave of initiatives in other parts of the world could see Latin American efforts pursued with even greater urgency.

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