

**GBBC Open-Source Ideas:
Building Human-Centric Technology
Part I: Empowering Women and Girls through
Blockchain**



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Introduction

With all the progress made on gender inclusivity, it can be easy to forget how novel this concept is in the world of finance. For example, in the United States, women were denied the right to open independent bank accounts until the 1960s and denied fair access to credit until 1974.ⁱ These were critical steps in the march toward parity, but globally it is estimated that over a billion women – about 40 percent – still lack access to rudimentary financial services, often despite having a legal right to them.ⁱⁱ

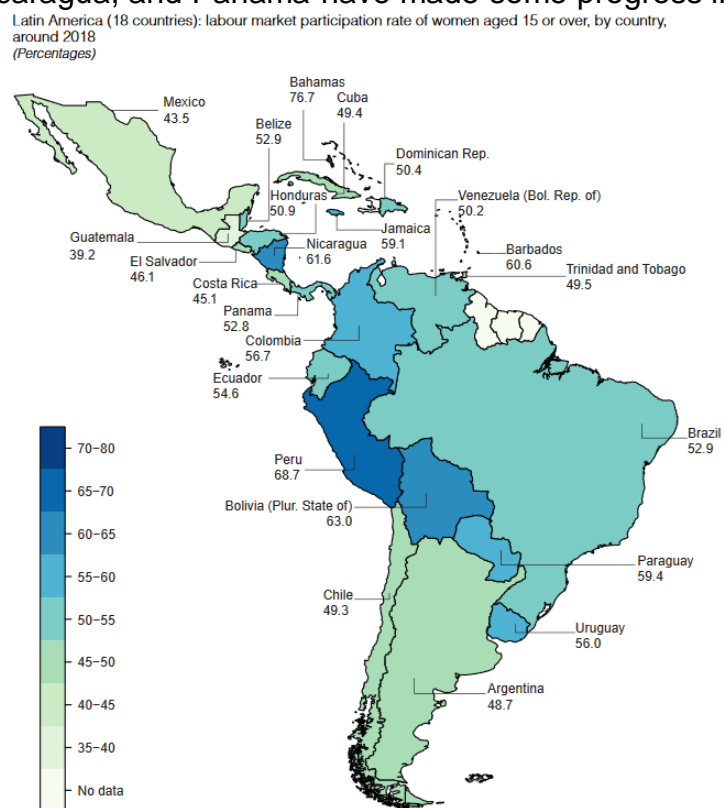
While progress has been made in achieving more equitable financial systems globally, much work remains to be done. The World Bank's Global Findex database reveals that 56 percent of all unbanked adults are women, and that the account ownership gender gap of 9 percentage points remained unchanged from 2011 to 2017.ⁱⁱⁱ In many places, even when accounts are under a woman's name, male relatives may control them.

Throughout this report we will identify some of the underlying challenges women and girls face as they seek to achieve financial inclusion and parity. We will identify impactful goalposts for achieving progress and outline new tools and technologies that may help achieve them. Much of this report will focus on efforts in and aimed at the Latin America and the Caribbean (LAC) region.

Problems

Central America trails the rest of Latin America in outcomes for women. Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama have made some progress in improving the social and economic outcomes of women, but the persistence of social norms that limit women's roles and their influence on household decisions remain a key obstacle to increasing parity throughout the region.^{iv}

None of these countries have laws protecting women against being paid less than men for work of equal value. Discriminatory family law, especially regarding early marriage, and institutional weaknesses in combating human trafficking are areas that could and should be improved in Central American countries. While institutional and legal steps have led to important advancements for women in some areas, too many others have not been addressed. Political representation and violence against women are two

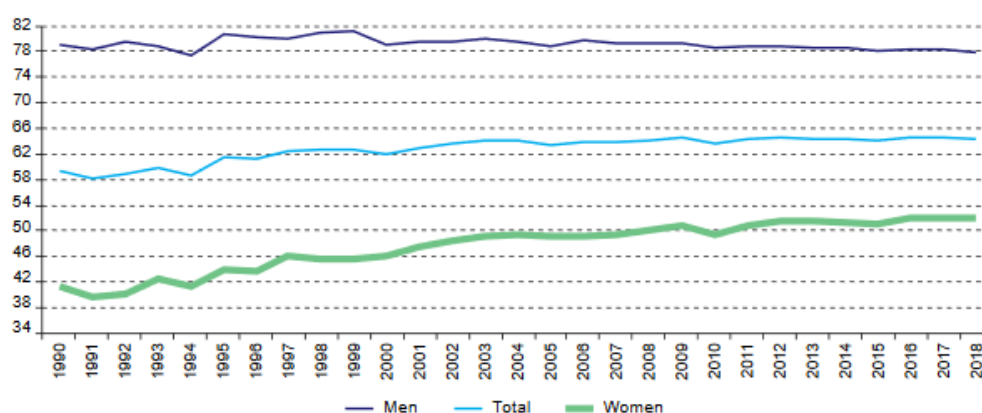


Source: Economic Commission for Latin America and the Caribbean (ECLAC) and International Labour Organization (ILO), on the basis of ILOSTAT Database [online] <https://ilostat ilo.org/>
Note: The data for Peru correspond to 2017; those for Cuba, Trinidad and Tobago, and Venezuela (Bol. Rep. of) are for 2016. The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

glaring oversights, perpetuated in part by a lack of financial parity in households and communities.^v

Women’s labor market participation in Latin America increased from 41 percent in the early 1990s to 52 percent in 2018, a trend that has had such far-reaching implications it has sometimes been dubbed the “quiet revolution.”^{vi} Bolivia, Nicaragua, and Peru have been the most successful, with women’s labor market participation rates increasing more than 20 percentage points from 1990.^{vii} It is important to note that these surveys “do not enquire into the work women do on family farms as unpaid workers or as own-consumption producers owing to the difficulty of gauging that economic activity and distinguishing it from household chores. Nevertheless, there is also evidence of an increase in rural women’s paid activities between 2005 and 2014 by 2 percentage points on average for the 16 countries for which information is available.”^{viii}

Latin America (18 countries): labour market participation rate of the population aged 15 or over by sex, 1990–2018^a
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC) and International Labour Organization (ILO), on the basis of ILOSTAT Database [online] <https://ilostat.ilo.org/>.

^a Simple average for the 18 countries: Argentina, Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Plurinational State of Bolivia and Uruguay. Data for Peru are included up to 2017 and for the Bolivarian Republic of Venezuela up to 2016.

“In Latin America, the monthly gender wage gap decreased from approximately 20 percent to 15 percent between 2005 and 2015, a trend identified in the three sub-regions analyzed. This occurred mainly because women’s wages grew at a higher rate than those of men (25 percent and 18 percent, respectively). Women continue to earn lower wages than men, however.”^{ix} Throughout the region, even where progress has been achieved, not all women have benefitted equally. Gender outcomes vary significantly between urban and rural women, between indigenous and non-indigenous women, and between women from different socioeconomic groups.^x

Perceptions and aspirations as well as social norms are fundamental drivers of gender outcomes and are likely behind the trends observed, although data on them is scarce. However, in 2020, the Inter-American Development Bank conducted a study that found loan requests submitted by women are 18.3 percent less likely to be approved, “with most of the gender effect coming from gender-biased officers, particularly males.”^{xi}

Attitudes and perceptions about certain aspects of gender equality are strongly correlated with specific outcomes, for instance, those related to women's roles in the labor force or intimate-partner violence. Central American countries have among the highest rates of child marriage in the LAC region, which can have significant negative impacts on women's accumulation of endowments and their ability to take advantage of economic opportunities.^{xii} Furthermore, the timing of first marriage and first birth has remained almost unchanged over the years.^{xiii} Women bear the brunt of household and caregiving duties, limiting the time which can be devoted to economic engagement even while their overall workload tends to be higher than that of men.^{xiv}

It is critical to note that the COVID-19 pandemic has exacerbated certain problems, with many countries reporting significant upticks in domestic violence calls. As stated by the World Bank:

Many women are engaged in informal work and other vulnerable forms of employment, such as self-employment in small subsistence businesses and domestic work. This can leave them out of formal social protection measures such as unemployment insurance... In addition, more women than men work in some of the hardest-hit industries, such as retail, hospitality, and tourism. In the Caribbean, where many economies depend heavily on tourism, some countries will see half of the working population lose their jobs.^{xv}

Benchmarks for Progress

These are complex problems without simple solutions. But concrete entry points exist to further progress in the three areas necessary for fostering the inclusion of women: endowments, economic opportunities, and voice and agency. With regards to endowments, ensuring that all women have access to effective healthcare, such as skilled birth attendants, especially for underserved rural and indigenous areas, would help to reduce high maternal mortality rates.^{xvi} Reworking curriculums and raising teachers' awareness on gender biases could help promote girls' interest in math and science and in occupations beyond those traditionally considered to be appropriate for women.^{xvii} To encourage more economic opportunities for women, while taking into account the allocation of labor within households, it is important to consider interventions aimed at reducing the labor-intensity of household and caregiving tasks, such as access to improved stoves and to affordable and reliable childcare, which would allow more women to work outside the home.

Facilitating the process by which property is registered under the names of both husband and wife would give women more control over her family's assets, as would extending women's access to banking and credit. In the area of voice and agency, focusing on the support and protection of victims of domestic violence, including consistent legal enforcement are important and urgent measures to be taken. With regards to political participation, lagging countries could increase rates of women in politics by following the example of other LAC region countries and introducing gender quotas.

Ultimately gender equality is about both men and women, and it stands to benefit society as a whole. As such, engaging men as partners in changing gender norms will be crucial for success.

Solutions

Technology can be a tremendous equalizer – leveling the playing field in areas that have been historically dominated by one demographic or another. Several promising solutions suggest a future for the LAC region where women and girls are empowered to succeed through new technological solutions. Some of the most compelling projects in the region are catalogued here:

Novi

When women are economically empowered, children, family households, and communities all benefit. Yet, of the 1.7 billion people that are unbanked around the world, the majority are women.^{xviii} Research shows that access to financial services can help people lift themselves out of poverty, especially women in developing economies. In the current economic climate, it is more important than ever to strive to close the gender gap and bring women the economic freedom they deserve. A simple, secure, and stable way to transfer money is empowering.

The digitization of cash has emerged as an impactful way to advance more equal access to financial services and bring more women into the global financial system. But the impact is limited by the constraints of our existing money networks, which are slow, expensive, and fragmented. To progress towards greater financial inclusion for women, a bolder approach is needed: a modern, global payment infrastructure that is low-cost, interoperable, and compliant.

The Libra payment system incorporates three elements that work together to create a more inclusive financial system: a secure, scalable, and reliable blockchain as the technological backbone of the payment system; Libra digital currencies that are backed by a reserve of assets made up of cash and short-term government securities; and governance by the Libra Association, an independent membership organization tasked with developing and operating the Libra payment system.

As a member of the Libra Association, Novi is launching a digital wallet designed to make sending money as easy as sending a message. When the Libra network is available, the Novi digital wallet will roll it out in an initial set of countries, with features that will make cross-border money transfers instant, secure, and with no hidden fees. This approach could help lower the barriers of access and create immense economic opportunities for people around the world.

Novi is committed to the Libra project to enable greater access to safe, affordable, and convenient financial services.

LACChain

LACChain, the global alliance for the development of the blockchain ecosystem, led by the Innovation Laboratory of the Inter-American Development Bank (IDB Lab), aims to accelerate the adoption of blockchain technology in Latin America and the Caribbean, and to maximize the social impact potential that the technology has to offer. LACChain focuses on two main areas: infrastructure and community. Regarding infrastructure, LACChain provides a free blockchain infrastructure for the region that includes public-permissioned

networks, self-sovereign identity, and regulated tokenized fiat money. LACChain also works with local, national, and regional communities to provide strategic and technical support in the development of blockchain-based solutions, organizes challenges and workshops, and provides free tools and resources, among other initiatives.

Ni1+ project

A 2020 study by the Pan American Health Organization (PAHO) and the Centers for Disease Control and Prevention (CDC) on violence against women in LAC found that “intimate partner violence against women is widespread in every Latin American and Caribbean country where [these Demographic and Health Survey and Reproductive Health Survey] were conducted, [and there] is widespread agreement in the Region with norms that reinforce gender inequality, discourage women from seeking help, or downplay the duty of bystanders to intervene in situations of abuse.”^{xix} LACChain is supporting with technical, legal, commercial, and financial assistance for Ni1+, a blockchain based-solution to mitigate the effects of gender violence. This application facilitates the production and self-management of administratively valid evidence of violent acts. The app is accessible from mobile devices and can be used to record evidence and notarization, streamlining administrative processes such as civil or penal complaints.

DAVID19

Countries around the world, including Bahrain, Colombia, Germany, and Switzerland, have deployed mobile apps to improve contract tracing and reduce coronavirus infections. DAVID19 is a digital solution which was initially developed to allow individuals to provide anonymous information related to COVID-19, used to combat the coronavirus pandemic in a secure and privacy-preserving manner. At present, the initiative has also incorporated the ability to have trusted authorities issue digital certificates and is being considered to enhance the traceability of vaccines. DAVID19 leverages the LACChain Blockchain Networks and the digital wallets developed by LACChain partners, such as World Data Inc. and Everis. Given that women perform about 76.2 percent of total hours of unpaid care work, make up about 86 percent of nurses in the Americas, and are often responsible for childcare if schools are closed, solutions that combat the coronavirus are a direct benefit to women.^{xx}

Conclusion

Improving outcomes for women and girls in the LAC region will require buy-in from a broad coalition of actors, including governments, businesses, NGOs, and individuals. There is positive momentum as certain governments have taken action to improve the wellbeing of marginalized groups. For example, beginning in 2015, Mexico implemented the Expanding Rural Finance Project, which established Participating Financial Intermediaries (PFIs) to service rural areas. The Rural Financial Development Agency has provided the PFIs with over \$123 million US D, which has generated 80,000 loans, 84 percent of which have gone to women.^{xxi} Moreover, businesses like Novi are working to create a fairer and more accessible financial system that will allow women to have greater autonomy over their finances. Finally, organizations like the Inter-American Development Bank are developing innovative blockchain-based tools to reduce violence against women and mitigate the spread of COVID-19 and other diseases. These projects, as well as future projects, have

the potential to dramatically improve the financial, physical, and emotional wellbeing of women and girls in the LAC region and around the world.

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- ⁱ <https://www.thestreet.com/personal-finance/credit-history-1970s-law-allowed-women-establish-their-own-credit-nw>
- ⁱⁱ <https://blogs.worldbank.org/voices/helping-worlds-one-billion-unbanked-women>
- ⁱⁱⁱ <https://openknowledge.worldbank.org/bitstream/handle/10986/29510/211259ov.pdf>
- ^{iv} <http://documents1.worldbank.org/curated/en/484401532010525429/pdf/Closing-Gender-Gaps-in-Latin-America-and-the-Caribbean.pdf>
- ^v Ibid
- ^{vi} Goldin, Claudia. 2006. "The Quiet Revolution That Transformed Women's Employment, Education, and Family." *American Economic Review*, 96 (2): 1-21.
- ^{vii} https://repositorio.cepal.org/bitstream/handle/11362/44917/1/S1900832_en.pdf
- ^{viii} Ibid
- ^{ix} https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/documents/publication/wcms_618120.pdf
- ^x <http://documents1.worldbank.org/curated/en/484401532010525429/pdf/Closing-Gender-Gaps-in-Latin-America-and-the-Caribbean.pdf>
- ^{xi} <https://publications.iadb.org/publications/english/document/Bad-Taste-Gender-Discrimination-in-the-Consumer-Credit-Market.pdf>
- ^{xii} <http://documents1.worldbank.org/curated/en/484401532010525429/pdf/Closing-Gender-Gaps-in-Latin-America-and-the-Caribbean.pdf>
- ^{xiii} Ibid
- ^{xiv} Ibid
- ^{xv} <https://www.worldbank.org/en/news/feature/2020/05/15/covid-19-could-worsen-gender-inequality-in-latin-america-and-the-caribbean>
- ^{xvi} <http://documents1.worldbank.org/curated/en/484401532010525429/pdf/Closing-Gender-Gaps-in-Latin-America-and-the-Caribbean.pdf>
- ^{xvii} Ibid
- ^{xviii} https://globalindex.worldbank.org/sites/globalindex/files/chapters/2017%20Index%20full%20report_chapter2.pdf
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- ^{xx} <https://www.weforum.org/agenda/2020/03/the-coronavirus-fallout-may-be-worse-for-women-than-men-heres-why/>
- ^{xxi} <http://documents1.worldbank.org/curated/en/484401532010525429/pdf/Closing-Gender-Gaps-in-Latin-America-and-the-Caribbean.pdf>