

9th Annual Conference of the BCC Program

Digital Payments and Currencies

Panel 2: Digital currencies impact on financial cycle and financial stability

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Banco de la República de Colombia
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Digital Payments vs Digital Currencies

- For *Banco de la República* (BanRep) **the development of a digital payments' system is a priority**. The Bank is currently working on this.
- A digital payment system **does not necessarily imply the development of CBDCs**.
 - ✓ CBDCs could be beneficial to this process, but their issuance is not required.
- The widespread adoption of **private digital currencies may generate several risks** and its benefits are not yet clear.
 - ✓ It is crucial to develop an appropriate regulatory framework to mitigate those risks
 - ✓ Cryptocurrencies threaten to shift payments out of the supervised financial sector



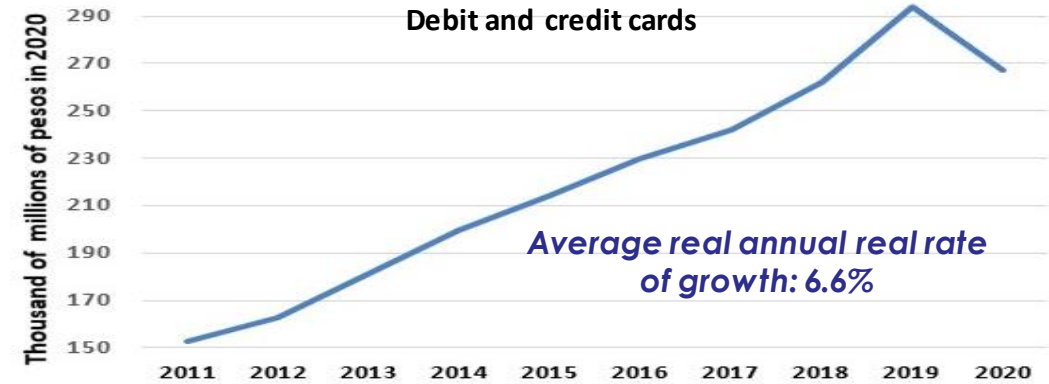
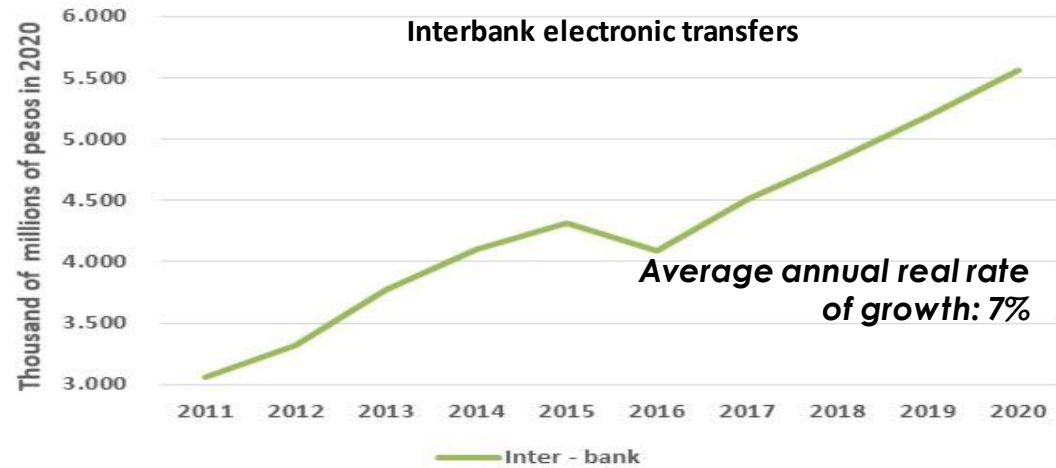
Agenda

- I. Progress of Digital Payments and Future Challenges.
- II. The Role of BanRep in a Potential CBDC Implementation and Related Work.
- III. Concerns Related to Private Digital Currencies and Regulation.



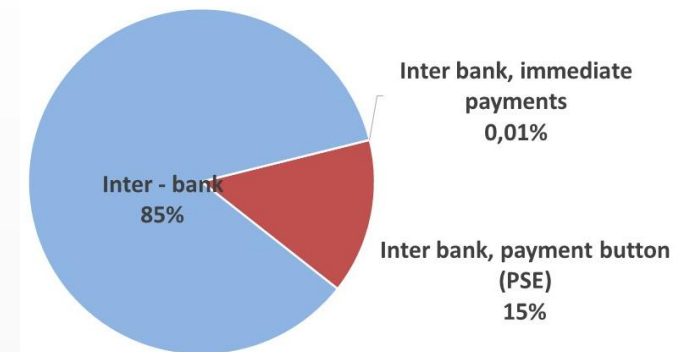
I. Progress of Digital Payments and Future Challenges

Use of electronic payments - market for goods and services (daily average value)



- **Payment button (PSE)** Annual 20% growth rate, in average, over the last 10 years, but represents only 15% of interbank transfers
- **Immediate Payments (Transfiya)** Starting in 2020, the private ACH offers the immediate payment, but only for P2P and represents 0.01% of interbank transfers.
- **Digital initiation systems via mobile devices** (QR and mobile wallets) are becoming more popular, but in non-interoperable schemes.

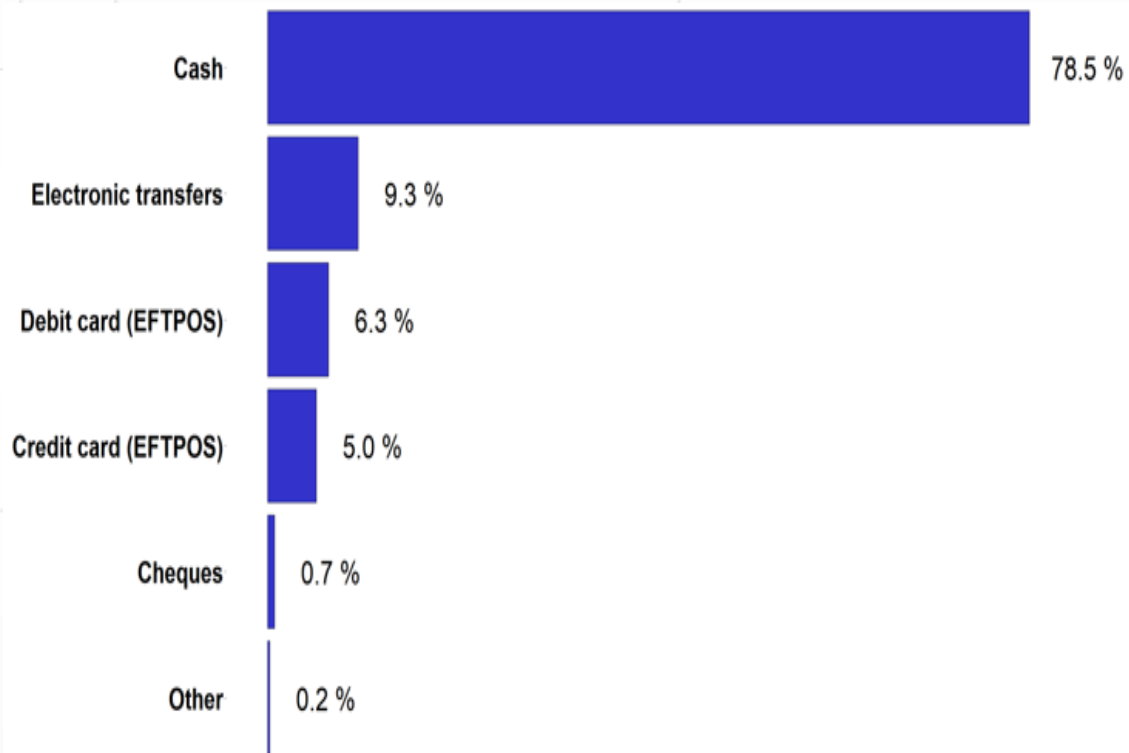
Interbank transfers 2020: COP 5,6 billion



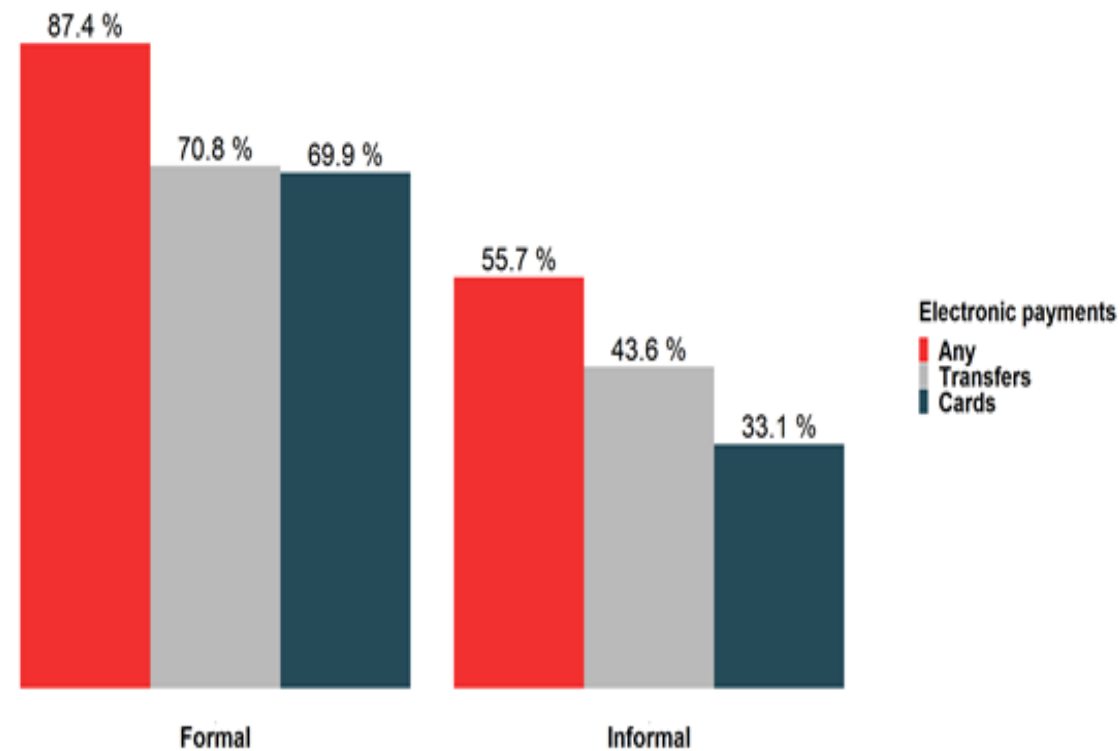
Cash is still the predominant payment method, specially among micro and small merchants

The pandemic has encouraged merchants' acceptance of electronic payments, even in the informal sector

Value share by payment instrument

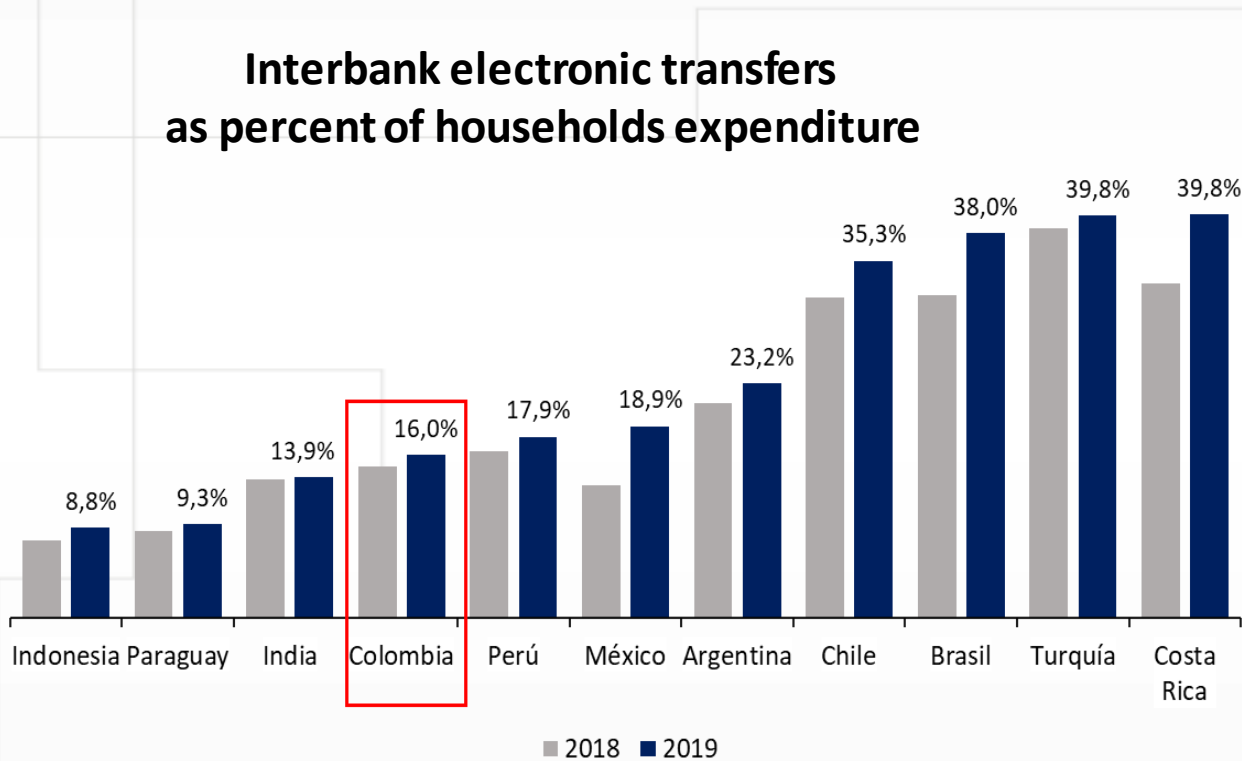


Merchants acceptance of electronic payments

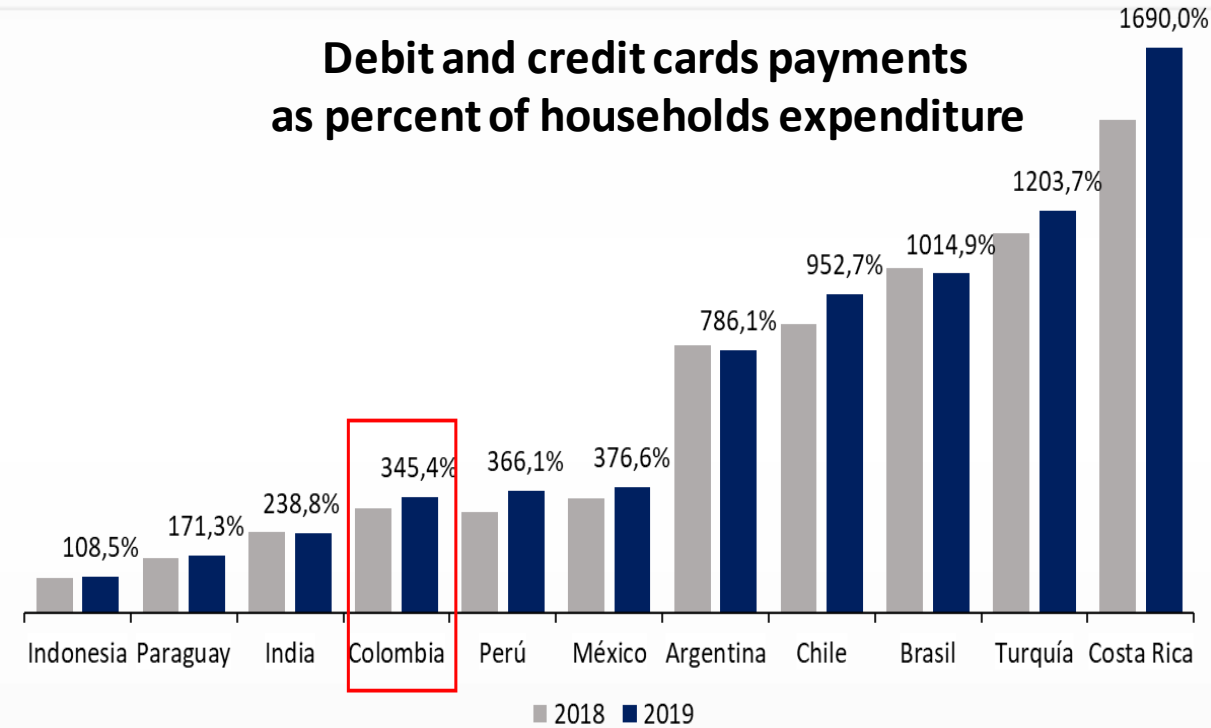


Colombia falls behind many emerging economies in the use of digital payments

Interbank electronic transfers as percent of households expenditure



Debit and credit cards payments as percent of households expenditure

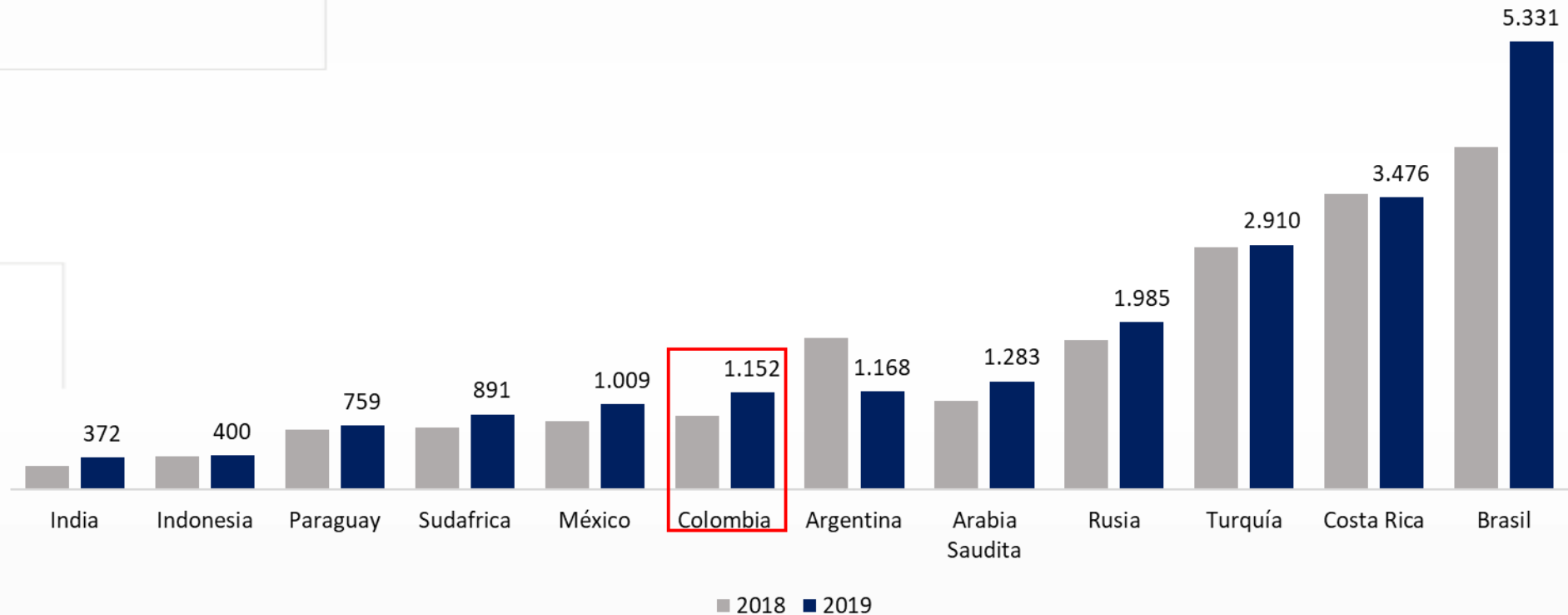


Source: BIS Red Book, CEMLA Yellow Book and World Bank.



Merchant acceptance of traditional digital payments is low in Colombia compared to its peers

POS terminal per 100,000 inhabitants



Source: BIS Red Book, CEMLA Yellow Book and World Bank.



Future Challenges in Digital Payments

- BanRep has the legal mandate of ensuring the normal operation of domestic and external payments.
- **Goal: to support the development of a faster payment system** in order to make electronic payments **easier, cheaper, and faster**
 - As in other countries, in Colombia there is a gap between the time in which a consumer initiates an electronic payment and its finality, which mostly affects merchants access to funds.
 - Current digital payment alternatives are expensive for buyers and sellers.
 - There are many mobile payment schemes, yet with limited interoperability.
 - Interbank transfers in the batch ACHs are cumbersome and expensive.
- BanRep seeks for a **complete supply of electronic payment channels:**
 - Generate synergies with other participants of the payments ecosystem by modernizing the payments offered by the ACH Cenit (administered by BanRep).
 - A faster payment system integrated into a mobile payment initiation service.



II. The Role of BanRep in a Potential CBDC Implementation and Related Work

2018

- Initial plans to develop **exploratory tests** with CBDC.
- Since then, 5 short **technological experiments (sprints)** have been carried out to explore its implementation with Colombian banks, and the support of SFC and Asobancaria.

End-2019

- Last experiment with CBDC: virtual wallets were created for a mobile app and tests of operations with CBDC were carried out.
- Successful experiment: proved technological capacity of BanRep and financial institutions to implement a decentralized, hybrid or intermediated CBDC.

2020

Theoretical work:

- Understand different architectures to implement a CBDC: Token/accounts, direct/hybrid /interm., central or distributed registry.
- Analyze legal and regulatory challenges to implement any of the CBDC architecture alternatives.
- Analyze potential monetary implications.

Taking stock

- BanRep has **no plans in the short term to develop a CBDC project.**
- **After the implementation of an instant payments' system, BanRep will analyze if there are remaining needs in the economy that could be solved with a CBDC.**
- Objective: continue learning, analyzing, and assessing CBDC developments, and determine its benefits and risks.



II. CBDCs - Risks and Opportunities (1)

- A direct retail CBDC model may generate a **disintermediation process**:
 - It may affect the private banks' deposit base. Lenders would have to find **other sources of funding to back their loans** with higher costs.
 - It may increase the frequency and amplitude of runs. In periods of crisis, facilitating **runs to the Central Bank in a flight-to-safety** recourse.



II. CBDCs - Risks and Opportunities (2)

Depending of the design of CBDCs, they may affect the division of labor between central banks and the private sector :

- May imply a significant operational burden for Central banks in the ***know your customer (KYC) analysis***.
- **May discourage private sector innovation.**
- Central banks could become significant players in the market, **distorting the playing field.**

A **hybrid or intermediated CBDC model could mitigate these risks**, which are higher in a direct retail CBDC model.



II. CBDCs - Risks and Opportunities (3)

Cross-border dimension: opportunities

- **Cross-border payments** are generally **expensive, slow, and have limited access and insufficient transparency**. The average remittances fee rate in 2020 was around 6.75% (World Bank).
- CBDCs have a great **potential to allow for faster payments and lower costs in remittances**. This is particularly relevant for emerging countries, where remittances are sizable relative to GDP.
- BanRep's strategic plan for 2022-2025 includes the assessment of efficient and secure alternatives to expand cross-border payment options.
- **CEMLA has created a regional innovation network** aiming to study the feasibility and convenience of cross-border CBDC systems.
- BanRep has held preliminary meetings with the **Central Bank of Chile** to **explore cross-border digital payments initiatives**.
- BanRep is part of the **innovation network of the Bank for International Settlements (BIS-IN)**, to investigate different arrangements for the interconnection of immediate payment systems and national CBDCs.



III. Private Digital Currencies - Concerns

- BanRep's statements about private digital currencies :
 - I. They are not recognized as currency or unit of account and do not hold a legal tender status. The peso issued by BanRep is the only legal tender in the country.
 - II. They are not a foreign currency, as they have not been recognized as currency by any international monetary authority and are not backed by central banks.
 - III. They are neither cash nor cash equivalents.
 - IV. There is no obligation to receive them as payment instruments.
 - V. They are not financial assets or investment property in accounting terms.



III. Private Digital Currencies - Concerns

- The Colombian Financial Superintendency (SFC) has **not authorized any supervised entity to custody, invest, intermediate, or operate with such instruments.**
- In 2020, the SFC launched a **pilot** that enables financial institutions to interact with local crypto exchanges in order to test cash-in and cash-out of funds under a controlled environment (sandbox). This **aims at assessing the effectiveness of recent technological developments regarding digital identity and the traceability of transactions.** Nine alliances between financial institutions and exchanges have been approved for testing.
- *“It is up to each person to know and assume risks inherent to this type of digital currencies, as they are not covered by any type of private or state guarantee, nor are its operations susceptible to coverage by the deposit insurance.”*



III. Private Digital Currencies - Concerns

High crypto-activity in Colombia?

- Based on crypto activity estimates by country, **some private reports suggest that Colombia is a dynamic crypto-market.**
- However, **Colombian monetary credibility is high**, with negligible use of foreign currencies or cryptos as payment instruments in day-to-day transactions.
- Is crypto-market dynamism linked to illegal activities and lack of traceability? More research on that is required.



Key takeaways

- i. BanRep is **committed to the development of a digital immediate-payment system in Colombia**. Neither the issuance of a CBDC, nor the adoption of private digital currencies is required for this process.
- ii. BanRep intends to **continue exploring potential benefits of CBDCs** while being aware of its risks.

Preliminary results:

- **Advantages of intermediate or hybrid models**, vis-à-vis direct ones.
 - **Certain common parameters across countries would make CBDCs interoperable, allowing greater efficiency and lower costs for cross-border payments**, especially for remittances.
- iii. Regarding private digital currencies, BanRep will continue **monitoring the risks and assessing the need to develop an appropriate regulatory framework** to mitigate those risks.

