

Read the latest Payment Systems Report

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With the Payment Systems Report, every year, the Central Bank of Colombia provides a thorough overview of the local financial market infrastructure. Each edition of the Report has four objectives: 1) To disseminate in a consistent manner the evolution in figures of payment infrastructures, both of financial assets as of goods and services; 2) to present issues currently debated internationally that are of interest to the industry that provides clearing and settlement of payments services; 3) to offer the public a conceptual basis on the low-value payment processes as well as on the trends of retail payments made in the circuit of natural persons and enterprises; and 4) to present to the public, industry, and all other financial authorities the methodological advances achieved with the line of applied research regarding the analysis of the stability of the payment systems. This edition of the Report introduces changes in its structure intended to make it easier to read and more enjoyable.

In this, its 11th edition, the first sections analyze the statistics related to the evolution and performance of all the different financial market infrastructures, understood as multilateral systems in which the participating entities clear, settle, and register payments, securities, derivatives, and other financial assets.

Regarding 2019, it stands out that the large-value payments system (CUD) registered a lower dynamics than in the previous year, mainly due to the decrease in the amount of secondary market operations of public debt instruments, both in cash as in sell/buy-back operations, offset by an increase in operations with collective investment funds (FICs), and REPOS by *Banco de la República*. Consequently, the Central Securities Depository (DCV) exhibited lower activity due to the fall of the negotiations in the secondary market in public debt instruments. This trend was also registered in the private debt market, as can be evidenced by the decreases in average amounts cleared and settled in the Central Securities Depository of Colombia, S. A. (Deceval) and by the value of financial derivatives operations and transactions cleared and settled through the Central Counterparty Risk of Colombia (CRCC).

Section three presents an integral vision of the retail payments market, i.e., of transactions made in the circuit of natural persons and corporations. During 2019, electronic funds transfers increased, and payments made with debit and credit cards maintain a growing trend. In contrast, payments made with checks continue to decline, although its average daily value represents almost four times the value of purchases made with debit and credit cards.

This section also presents the results of the fourth survey on the perception of the use of instruments for small-value payments (for usual payments), which was applied at the end of 2019. The purpose of this survey is to identify the availability and preferences of the public in relation to these payment instruments and their acceptance by commercial establishments. It should be noted that cash continues to be the most widely used by the population for their usual monthly payments (88.1% regarding the number of payments and 87.4% as for their value). However, its use regarding value has fallen, given that the figure for 2017 was 89.6%. In turn, the level of acceptance by retail merchants for payment instruments different from cash is 14.1% for debit cards, 13.4% for credit cards, 8.2% for electronic funds transfers, and 1.8% for checks. The main reason for the use of cash is the absence of point-of-sale terminals in the business.

Considering that the market of retail payments around the world is influenced by permanent innovations in payment services, by the modernization of clearing and settlement systems, and the efforts of regulators to redefine the payment industry for the future, the fourth section of the report addresses these trends. An overview on the evolution of the innovation in financial payment services based on technology is presented, showing that, although it is not new, this topic has evolved, especially in regard to its origin and vocation. One of the boxes in

this section deals with some aspects of payments related to open banking and international experience in this field, which has granted the client of the financial institution sovereignty over their data, enabling them, under conditions of transparency and security, to authorize a third party different from their financial institution, to request information of their accounts in financial institutions for this third party to offer various financial services or to initiate payments. Innovation also awakens the interest of international agencies, central banks, and research groups concerning the creation of digital currencies. The last box discusses the recent international debate regarding the issuance of central bank digital currencies.

As for the results of the methodological advances achieved, the work done on the role of the central counterparties (CCPs) in the mitigation of the risks of liquidity and counterparty stands out. The fifth section of the Report explains the document that analyzes and corroborates the work of the CCP in the financial markets through the exercise built on the Central Counterparty Risk of Colombia (CRCC) in the Colombian market of peso-dollar non-delivery long-term exchange transactions, using the methodology known as network topology. The results provide empirical support to the different theoretical models developed to study the effect of CCPs on financial markets.

Finally, it also presents the results of the research that uses artificial intelligence with information from the large-value payments system. In this way, based on the payments made by financial institutions amongst themselves in the large-value payments system, the methodology allows to compare different payment networks, as well as to determine which can be considered as anomalous. The methodology shows signs that suggest when a network moves away from its historical trend with the purpose of being studied and monitored. A methodology similar to that applied to classify images is used to perform this comparison, which seeks to extract the main characteristics of networks and use them as a parameter for comparison.

Juan Jose Echavarría
Governor of the Central Bank