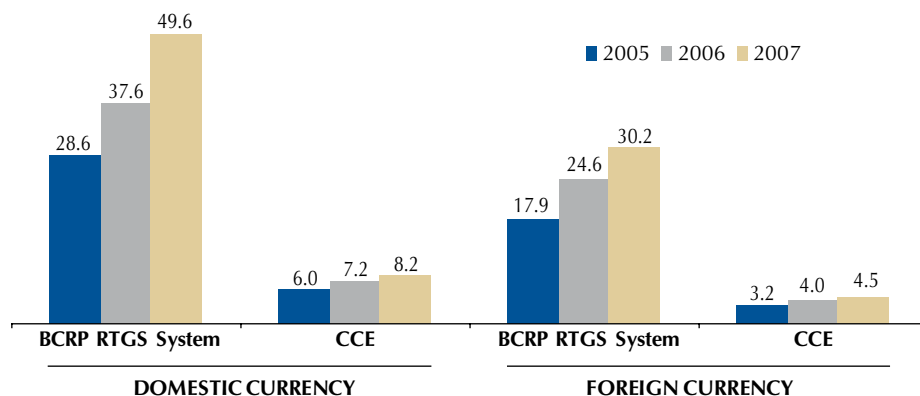


## Expansion of the Use of Electronic Payment Systems

In 2007, the total value of the payments carried out through the Real Time Gross Settlement system (RTGS)<sup>1</sup> and the Cámara de Compensación Electrónica (CCE) increased by 25.9 percent compared to 2006. This was the result of a 28.7 percent increase of payments in domestic currency and a 21.5 percent increase of payments in foreign currency. In this way, payments in domestic currency represented 62.5 percent of interbank payments in 2007 (61.1 percent in 2006), while the rotation of payments in GDP terms rose from 2.9 times in 2006 to 3.3 times in 2007, reflecting that payments grew at a faster pace than economic activity.

**GRAPH 13**  
**ELECTRONIC TRANSFERS**  
(Monthly average in billions of S/.)



Expansion of the Use of Electronic Payment Systems

### RTGS System

The BCRP ensures the safety and effectiveness of payment systems since interbank payment operations are settled through these systems. Therefore, following the recommendations of the Bank for International Settlements (BIS), the Central Bank has implemented measures aimed at fostering the use of electronic means of payment, at continuing to modernize the system, and at maintaining the safety and operational reliability of the RTGS system.

The transactions carried out through this system increased in 2007. The amount of transfers grew 28.2 percent in a context of continuous economic expansion. The number of operations increased 3.6 percent, with transactions in foreign currency and domestic currency accounting for 8.0 percent and 0.6 percent of this increase respectively.

<sup>1</sup> Including Multibank Settlement of Securities.



### Cámara de Compensación Electrónica (CCE S.A.)

The Cámara de Compensación Electrónica operates under a net and deferred payment scheme, in which participants' orders are first compensated and then settled at the BCRP. Checks and credit transfers<sup>2</sup> are currently settled through this system.

After having grown 13.1 percent, the value of the operations processed through the CCE showed a lower dynamism than the operations carried out through the RTGS system. However, it is worth pointing out that credit transfers through the CCE increased 31.1 percent, although they still represent a low percentage of the low-value payments (5.1 percent) processed through the CEE.

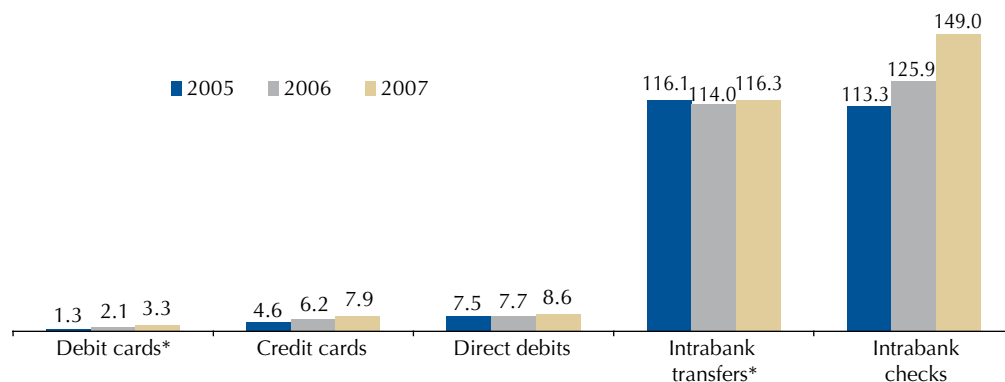
The volume of operations increased 6.8 percent in 2007, especially due to the higher acceptance of credit transfers (39.9 percent) and, to a lesser extent, to the expansion of checks (3.6 percent). However, the latter still accounts for 88.2 percent of the transactions processed through the CCE.

### Payment mediums other than cash

In addition to the payments processed through the RTGS and the CEE, other payment systems via banks include debit cards, credit cards, and transfers and checks processed in a single bank (intrabank operations).

The main currency used in these payment mediums is the nuevo sol, which accounts for 61 percent of total transactions. Credit cards are the main payment means used for retail payments (with a value lower than S/. 150 on average), and concentrate 52 percent of the transactions processed through these systems.

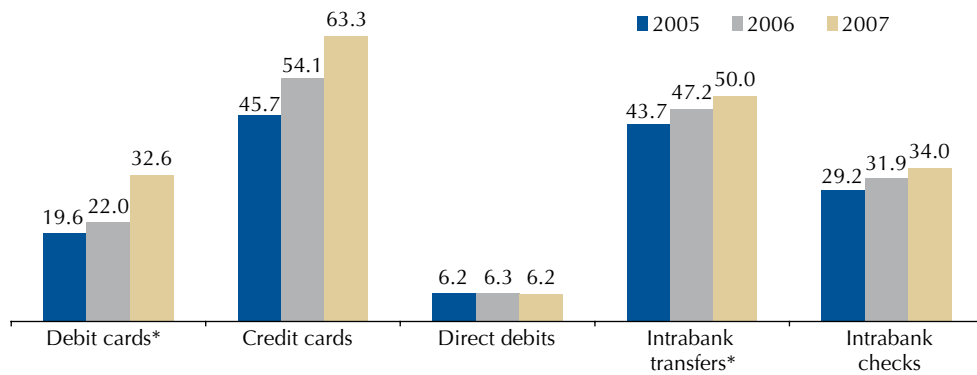
**GRAPH 14**  
**MEANS OF PAYMENT: VALUE OF THE OPERATIONS IN DOMESTIC CURRENCY**  
 (Billions of S/.)



\*Preliminary data for 2007.

<sup>2</sup> Credit transfer: Payment instrument whereby a Participating Entity of Origin is instructed to transfer an amount of money to a Recipient Participating Entity in favor of a beneficiary.

**GRAPH 15**  
**MEANS OF PAYMENT: NUMBER OF OPERATIONS IN DOMESTIC CURRENCY**  
 (Millions)

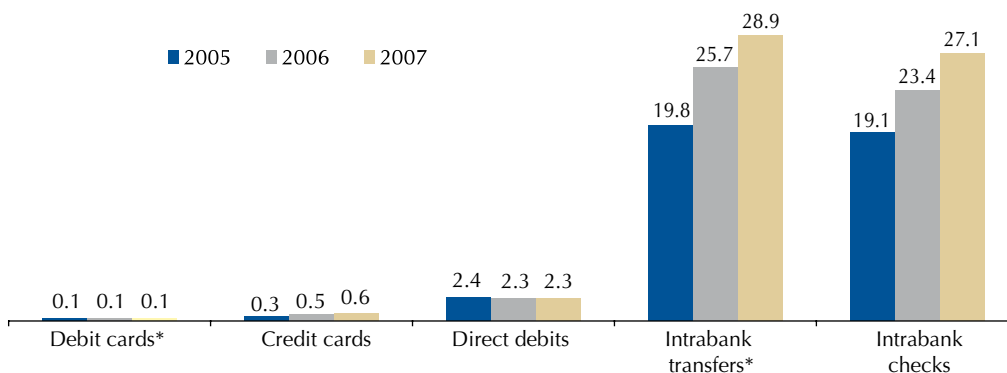


\*Preliminary data for 2007.

On the other hand, credit cards in foreign currency are less used for retail payments, as reflected in the relative lower use of this instrument compared to the use of credit cards in domestic currency. It should be pointed out that payments in foreign currency are mostly used in intrabank transactions, with checks being the most commonly used instrument.

Expansion of the  
 Use of Electronic  
 Payment Systems

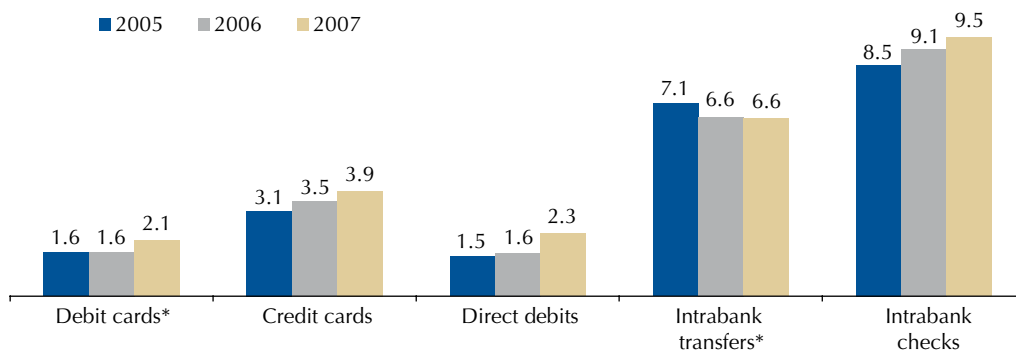
**GRAPH 16**  
**MEANS OF PAYMENT: VALUE OF THE OPERATIONS IN FOREIGN CURRENCY**  
 (Billions of US\$)



\*Preliminary data for 2007.



**GRAPH 17**  
**MEANS OF PAYMENT: NUMBER OF OPERATIONS IN FOREIGN CURRENCY**  
 (Millions)



\*Preliminary data for 2007.

**Innovations in the payment system**

Several actions were implemented during the year to increase the safety and efficiency of both high-value and low-value payment systems. Actions regarding the former included the approval of the new scheme for Multibank Settlement of Government-Issued Securities and the Amendments to the Operational Regulations for the RTGS system, while actions regarding the latter included approving the standardized procedure for incorporating non-bank participants into the CCE, as well as improving the compilation and accuracy of statistical data on payment systems other than cash.

**Multibank Settlement System for Securities Issued by the National Government**

This new settlement system started operating in July 2007 following coordinations between the Central Bank and CAVALI, and between the latter and CONASEV. Thus, in January 2007 the Board of CONASEV approved amending CAVALI’s Internal Regulations in order to allow the settlement of securities issued by the National Government through the RTGS system.

Securities issued by the National Government and listed in CAVALI are traded through the Centralized Public Debt Negotiation Systems and other systems of negotiation and recording of operations.<sup>3</sup> The centralized system currently used is administered by Datos Técnicos S.A. (DATATEC).

<sup>3</sup> Not supervised by the CONASEV.

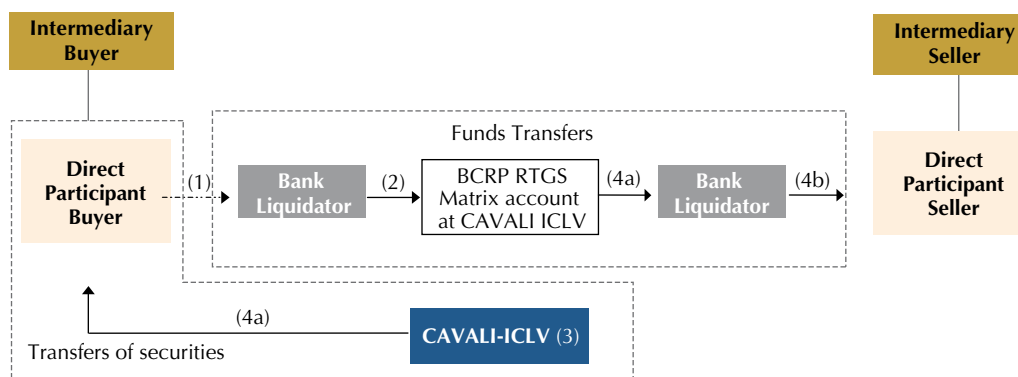


In order to implement a delivery versus payment (DVP) system to settle securities issued by the National Government, the recording system used for these securities (CAVALI) was connected to the RTGS system using a scheme similar to that of the Multibank Security Settlement System. This system is currently used to settle transactions of securities traded at the Lima Stock Exchange through the RTGS system.

The system uses the DVP model 1, in which securities and cash are settled at gross value (trade by trade). This modality was adopted given the nature of fixed-income operations, which imply greater systemic risk due to their high value. Therefore, securities and cash are exchanged simultaneously through this scheme.

Although this model requires participants to have more liquidity, the mechanism of intra daily facilities of the RTGS system<sup>4</sup> allows maintaining a fluent flow of operations. These operations are currently settled the day after the transaction is made, but the system is prepared so that operations may be settled on the same day.

**GRAPH 18**  
**PROCESS OF OPERATION SETTLEMENT (T+1)**



**PROCESS**

- (1) The Direct Participant Liquidator Buyer instructs the Bank Liquidator to deposit funds in the account of CAVALI-ICLV in the BCRP.
- (2) Bank Liquidator transfers funds to the account of CAVALI-ICLV in the BCRP through the RTGS System.
- (3) CAVALI-ICLV verifies the funds delivery and the availability of securities by the Direct Participant Liquidator and if its correct, proceed to the DVP liquidation.
- (4a) CAVALI-ICLV grants the the availability of securities to the Direct Participant Liquidator Buyer and through the RTGS transfers funds to the Bank Liquidator.
- (4b)]The Bank Liquidator transfers the respective funds to the Direct Participant Liquidator Seller.

<sup>4</sup> Temporary purchases of dollars, Central Bank securities, and Public Treasury securities.

Transactions through this system, which began operating in July 2007, amounted to S/. 1,547 million in the year.

**TABLE 8**  
**TRANSACTIONS CARRIED OUT THROUGH MULTIBANK**  
**SECURITY SETTLEMENT SYSTEM**  
(Millions of S/. and millions of US\$ )

	2005	2006	2007	Chg% 07/06
<b>Domestic currency</b>				
<b>Equities <sup>1/</sup></b>				
Value of the operations	135	1,944	3,131	61.1
Number of operations	281	2,306	2,554	10.8
<b>Fixed Income <sup>2/</sup></b>				
Value of the operations	0	0	1,547	-
Number of operations	0	0	352	-
<b>Foreign currency</b>				
<b>Equities <sup>1/</sup></b>				
Value of the operations	11	192	541	181.8
Number of operations	224	2,355	2,553	8.4

1/ It began operations in November 2005.

2/ Multibank Security Settlement System of government securities began operations in July 2007.

### Amendments to the Operational Regulations of the RTGS System

The amendments made in terms of the Operational Regulations of the RTGS system (Circular N° 013-2007-BCRP) were associated with two aspects: a) Amendment of the RTGS fees, and b) Obligation of crediting funds to final beneficiaries and of confirming the bank of origin that the deposit has been made.

#### a. Amendment of the RTGS fee scheme

One of the main principles of Systemic Important Payment Systems recommends that these systems should provide efficient payment instruments (Basic Principle VIII, BIS)<sup>5</sup>. A payment system is efficient when the costs of making payments are minimized, and when the system encourages users to choose the most convenient instrument to carry out transactions.

In this sense, the BCRP modernized its IT platform, which allowed reducing operational costs and translated into lower rates for transfers. Thus, both the monthly fixed charge and the variable commission were reduced by 36 percent and 43 percent, respectively. The former was set at S/. 525.00, while the latter for transactions carried out before 15:00

<sup>5</sup> "Principios básicos para los sistemas de pago de importancia sistémica", January 2001, Bank of International Settlements.

hours and transactions carried out after 15:00 was set at S/. 4.00 and S/. 6.00 respectively. This division by time blocks is aimed at deconcentrating transactions since banks tend to make settlements at the close of the day given their liquidity management policy.

The minimum amount for BCRP transfers on behalf of clients was also reduced from S/ 15,000 to S/. 10,000 and from US\$ 5,000 to US\$ 3,500, thus extending the services offered by the BCRP.

**b. Obligation of crediting funds to final beneficiaries and confirming the bank of origin that a deposit has been made**

The RTGS system currently provides facilities for the automation of bank operations through the special programs –or interfaces– that the Central Bank offers for this purpose. Thus, fund transfers may be automatically sent and received between the banks' internal applications and the RTGS system without having to modify or copy the information contained therein. These interphases are used in different degree by the participants of the RTGS system.

In order to promote the automation of payment processes and thus improve their efficiency, transfers to clients have to be credited in their accounts within the 30 minutes following the reception of funds.

**Procedure for the approval of new participants in the CCE**

Because of constant requests of non-bank financial entities, particularly municipal banks and financial firms, to participate in the clearance and settlement services provided by the Cámara de Compensación Electrónica (CCE), the BCRP decided to standardize the evaluation process of potential participants in the CCE in order to accelerate this process.

Non-bank financial entities are only entitled to use two settlement instruments: credit transfers and the payment of checks issued by other bank entities.

It should be pointed out that the services provided by the CCE to Municipal Savings and Credit Banks (CMAC), Rural Savings and Credit Banks (CRAC) and other non-bank financial firms allows them to have a better, more timely and more efficient flow of settlements, thus favoring their safer management of liquidity with a lower cost. Moreover, the participation of these entities in the CCE allows low income people living in areas other than main cities to have access to safer and more efficient financial instruments.

The risks generated by the use that these entities make of these settlement instruments were analyzed to determine the criteria for approving or rejecting the entities wishing to participate in the CCE. A risk rating was considered to be the most appropriate criterion. Entities are required to have a "B" or higher rating for a period of at least 12 months, given that entities with lower ratings may show deficiencies, such as a vulnerable business level, weak financial indicators, or an unstable environment to develop their activities.



**Improved gathering and accuracy of statistical data on payment means other than cash**

A greater breakdown and standardization of statistical data on payment means other than cash was approved through Circular N° 018-2007-BCRP.

Likewise, in order to promote competition among low-value payment systems, information was disseminated about the commissions charged for interbank payment services. It should be pointed out that although financial entities publish this information on their web sites, it is dispersed and not easily accessible.