Challenges faced by payment system modernisation in improving efficiency and reducing risk: the Peruvian experience

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The initial phase

Although at the international level this issue has been receiving attention for some years, its importance has only been truly recognised in Peru since 1996, following the participation of members of our staff in two seminars held under CEMLA and BIS sponsorship in Mexico. Until that time, payment system reform had only been seen in terms of the modernisation of computer systems. Reading the G-10 "Red Book" inspired us to write our own "Red Book", and this became our first task. The detailed description of our payment system and its operation enabled us to detect many of its weaknesses, especially in the light of the experience of more advanced payment systems. While not yet marking the start of a modernisation process, this allowed us to make improvements to security without a major outlay of resources investment, and to build up a database which would make it possible to assess the size and structure of the Peruvian payment system.

With this information on hand, we have been able to initiate a public awareness campaign on this subject, since, although it is a matter of current debate amongst bankers, policy-makers and researchers, it is not general knowledge, nor does it form part of the economics degree curriculum. Nevertheless, given the numerous system participants, the lack of a real comprehension as to why modernisation is needed makes the task very difficult to implement. The campaign was initially launched amongst central bank staff, the financial system at large and the universities.

Our second task consisted of answering the following three questions:

- (a) Why should our payment system be modified?
- (b) How should it be done and what should be the central bank's role in the process?
- (c) When should we do it?

Answering the first question allowed us to understand what we wanted to change as well as to set our final goal. To answer the "how" question, we requested international cooperation through an IMF technical mission. Their help was invaluable, not only in their evaluation of our system and their recommendations, but also because, by contacting the main participants as well as the public bodies, they impressed upon them the urgent need for reform.

Concerning the role to be played by the central bank in the new system, we decided that its participation should definitely be active, including not only the clear issue of rules and procedures, but also the implementation and supervision of an efficient settlement process. Nevertheless, the schedule we initially proposed was affected by certain events which forced us to alter our answer to the question of "when" to "immediately".

Globalisation seems to easily break down all frontiers. The payment system modernisation means assigning tasks not only to the central bank and the financial system, but also to the various economic agents that can assist the modernisation process, in particular those involved in the management of information systems. Although each payment system is unique and requires its own particular solutions, the international companies involved in these issues try to sell their solutions to other countries. In this case, if the central bank does not assume a leading role in the reform, in order to sell their products these companies will emphasise only the advantages to the potential buyer. Thus, late participation by the central bank means that the investments undertaken by all, or at least part, of the banking system may prove eventually to be different from those required by a proper modernisation. In this context, a reform designed by the central bank will be even more difficult to accept. This is precisely what happened in our country.

The low-value payment system

One of the characteristics of the Peruvian banking sector is its high concentration. Four banks, out of a total of 26, together account for 64% of the system's total assets. With the new banking law enacted late last year, which permitted the establishment of private clearing houses, the three largest banks set up a firm with the aim of undertaking electronic

cheque clearing and started offering its services to the rest of the system, but without finding acceptance. Simultaneously, two international firms which had been working on similar projects for other countries also offered their services to the other banks. The Banking Association tried to assume leadership in this area without much success, since the banks, being fairly ignorant of the project's significance, did not designate high-ranking staff as their representatives on the evaluating commission. The banks eventually tired of this as they perceived no real progress. Against this background, the central bank started to act as a leader in the reform process, gaining acceptance owing to its neutral status and proven leadership capability.

It is interesting to note how the banks understood the reform: only as the establishment of electronic clearing, with the liquidity risk being assumed completely by the central bank. Moreover, the banks initially considered electronic clearing as a process which would be advantageous to them, with the speeding-up of cheque settlement providing them with a larger float, since their intention was not to enable their clients to benefit from quick availability of funds.

A private clearing house or one operated by the central bank?

The central bank had to decide whether or not to allow private ownership of the electronic clearing system. Reviewing the literature and experiences of other countries, we did not find any detailed study of the two alternatives. Among the advantages, private management of cheque clearing would adopt current competitive standards and would include new products more frequently, more in accordance with the system's progress. Moreover, the quality of the payment service and the frequent technology changes required by this service should be a constant matter of concern to the banking system, which is privately owned.

One disadvantage would be the danger that the highly concentrated banking system could lead to the development of systems which would tend to discriminate against the small banks, imposing on them technology restrictions or prices for the use of those clearing services out of their reach. Another disadvantage would be that, as a result of these differences, the creation of various private clearing houses would be encouraged, meaning higher costs for the whole economy, especially given the limited size of our financial market.

Finally, and taking into account the necessity to reform the high-value payment system, which we consider will absorb much of our effort, it was decided that there should be a single electronic clearing house operated in a centralised manner. Regarding risks, these should be assumed by the participants, while the clearing house should implement the Lamfalussy security standards. The central bank will, according to its statutes, have the power of veto over the regulations which will be proposed to govern the clearing house and over the agreements taken up by the clearing house itself. The Interbank Payment System Reform Commission, headed by the central bank, has recently been established.

The high-value payment system

Peru is a small country with a financial system which, although it has grown significantly in the last few years, is still small. After a serious crisis at the beginning of the 1990s, the Banking Law and the Central Bank Law were amended. The fear of a repetition of the fiscal and monetary mismanagement of the previous years, which led to high inflation and a recession, resulted in the new law on the central bank establishing as its sole purpose the preservation of monetary stability. Responsibility for the payment system, which is explicitly enacted in the laws governing other central banks, is not prescribed by our legislation.

The financial system reform undertaken aimed at strengthening the financial system, but the risk inherent in the payment system was not considered as a factor which could set off a crisis in the sector. Although the banking crisis happened fairly recently, it seems that some have already forgotten its consequences. Looking back, we find that the reform would have been accepted more readily at the time of the crisis. Settlement risks are more readily appreciated by all the participants in times of crisis than once the crisis has passed, since then they are less likely to occur and appear less significant.

No decision has yet been taken regarding the implementation of the settlement system as part of the reform. Our preference is for real-time gross settlement, given its lower risk. Nevertheless, a subject of concern is the high liquidity level required by such a system. Obviously, banks would prefer to go on operating as before, that is with the entire risk assumed by the central bank. In Peru, high-value operations are processed on an individual basis, hence to this extent ours is a gross settlement system but not a real-time one, since settlement takes place at the end of the day. One could say that, only in a notional way, the central bank grants intraday credit to the system. We use the term "notional" because, although operations are processed during the day, they are settled at the end of the day when the accounting day closes, only then becoming irrevocable. Thus, if there is a need for credit from the central bank, this will be an overnight credit. Since up to now there has only been such a settlement system, no other sector of the economy, except the securities market, appears to be demanding a real-time payment settlement system.

Concerning the operation of the high-value system, one of the measures adopted for the purpose of instilling discipline in the system has been to strictly enforce the operation time schedule. As the central bank assumed the liquidity risk, the funds needed by a particular bank at the end of the day were granted by the central bank through its rediscount operations. The availability of such a facility was seen by the system as a dependable financing source. Added to this, the fact that the operations tended to concentrate towards the end of the day resulted in the operations closure process being continually deferred, inducing irresponsible behaviour on the part of bank treasurers. We experienced some extreme situations in which the accounting services of the central bank had to remain open until the next day, owing to the fact that the credit request from a particular bank did not arrive on time. This is not an automatic and immediate credit line; each time it is requested, guarantees have to be furnished to the central bank to secure its approval.

The review of the traditional rediscount operations enabled a more precise evaluation of the risks involved. In the first place, notwithstanding their denomination, these credits are not really rediscount credits, since they are granted against first-class commercial securities. As there is no secondary market for such securities, these cannot be made liquid and hence the only possibility for the central bank is to accept them as guarantees. Secondly, operational discipline became more difficult to instil, owing to the fact that monetary policy was not implemented through market mechanisms. Thus, during periods of general illiquidity, the central bank ended up not only as lender of last resort but also as the sole lender to the system.

In these circumstances, the central bank decided to widen the range of its short-term monetary instruments, starting to conduct open market operations through the issue and placement in the market of its own deposit certificates issued in local currency, which do have a secondary market, although it is still limited. Subsequently, repos were created with the same instruments as well as currency swaps. The granting of credit backed by securities has not disappeared, but our goal is to establish a type of Lombard credit, although the volume of securities which could serve as a guarantee for this type of credit is still small.

Another problem we faced has to do with the dollarisation of our economy. Foreign currency liquidity represents 61% of total liquidity, the marginal reserve requirement for foreign currency being 45%. The reserve requirement for local currency is 7% and can be constituted by cash as well as deposits with the central bank. This means that foreign currency poses no liquidity problem for us, while local currency does entail a liquidity problem, especially in the case of banks with a large office network, since these cover their reserve requirements almost entirely with their cash funds, thus not being obliged to keep deposits at the central bank for that purpose. On the other hand, although reserve funds cannot be legally seized and therefore the average reserves held by banks are substantial (which suggests that the liquidity risk should be very small), the liquidity risk in local currency cannot be covered with foreign currency funds deposited at the central bank.

Additionally, we need to modernise our information technology, which will be selected according to our new system requirements. We also face the usual legal problems, such as having a very old cheques and securities law, which, together with many other regulations, needs to be reformed in order to give legal status to the electronic clearing and settlement of the payments and to enable the financial institutions and their clients to use the system.