

About the BI-RTGS System

In 2000, Bank Indonesia introduced stakeholders in the national banking system to a concept known as real time gross settlement (RTGS). The BI-RTGS system is a process for settlement of individual payment transactions that operates in real time. Using the BI-RTGS mechanism, member accounts can be debited (or credited) multiple times daily in keeping with payment orders and incoming payments.

Transactions ordered by sending members are transmitted to the RTGS processing centre at BI to be processed for settlement. If the settlement process is successful, the payment information will be forwarded to the receiving member in an automatic, electronic process. For settlement to be completed, certain conditions must be met. The member bank ordering the transaction must have sufficient account balance at the central bank. Why is this? The BI-RTGS system allows members only to credit the accounts of other members.

Under these rules, RTGS member banks must keep close track of account balances at BI to ensure availability of sufficient funds. If this requirement is neglected, an RTGS bank with insufficient liquidity during the settlement process will be placed in the queue. Until when? That's right, until the RTGS member bank again has sufficient account balance to complete the transaction. BI-RTGS member

banks are therefore required to maintain a sufficient level of liquidity (account balance).

There are at least three important reasons for BI to process settlement using the RTGS. *First*, literature reviews and results of empirical studies indicate an emerging awareness among central banks all over the world on managing the risks of Large Value Transfer Systems (LVTS). The BI-RTGS system has the capacity to reduce systemic risk. Systemic risk is the risk of default by one member in settling liabilities when due and payable that could also place other member banks in jeopardy. Under extreme conditions, the default could potentially trigger financial difficulties on a wide scale threatening payment system stability.

The *second* reason is that the RTGS system can reduce the incidence of float, and thus improve bank supervision effectiveness. Similarly, sound liquidity management in the banking sector will also support monetary policy effectiveness. *Third*, the RTGS system offers opportunity for integration with various payment system applications. Just one example involves money market and capital market trading under the Delivery versus Payment (DVP) rule. Alternatively, cross border payments can be processed with the Payment versus Payment (PVP) application.

The BI-RTGS system was launched with a number of objectives. For example, the BI-RTGS system would provide faster and more efficient, reliable and secure funds transfers among members. In addition, it would at least offer assurance of more immediate settlement. The RTGS system would display comprehensive information on the settlement account balances of members in real time. RTGS members would also be required to manage their liquidity along disciplined and professional lines. Combined with the benefits of the RTGS system, all this was envisaged as minimising settlement risks.

Before settlement by RTGS was introduced to the public, the other means of settlement commonly used was the clearing system. The methods employed in the clearing system differ widely from the RTGS. The clearing system employs net settlement, a process in which payments are settled at the end of a period in what is called offsetting of payment liabilities against claims. In this way, there is only 1 (one) claim or liability to be settled for the account of each bank.

However, use of the clearing system has its risks. At end of day, a bank could be carrying a substantial clearing deficit. Before the launching of the BI-RTGS system, both retail and high value payments were processed through clearing in amounts that at times would exceed the available

account balance at BI. As a result, the bank would carry an overdraft. If the bank incurred a large overdraft, BI could face difficulties if the bank was unable to repay the overdraft on the next day. In contrast, the RTGS system employs the gross settlement method, in which each transaction is processed individually.

The BI-RTGS application is now in operation at all Bank Indonesia Regional Offices in Indonesia. The system has 150 members, of which 149 are banks and one is a non-bank institution. Indonesia is the eighth country in Asia to implement the RTGS system. Worldwide, the system is in operation in 30 countries. (*)