

Electronic funds transfer

Q 5-04. What are the principal systems for electronic payments?

There are two basic systems for electronic funds transfer, a *real time gross settlement system* and an *automated clearinghouse network*. Their main difference is whether they process transactions individually or in batch mode.

Real time gross settlement (RTGS)

Q 5-04.01. What are the uses of real time gross settlement systems?

Real time gross settlement systems are usually wire transfer systems that effect an almost instantaneous or a same-day transfer of funds from an account at one bank to an account at another bank.

A financial institution initiates a RTGS transfer by sending instructions to the central bank to charge the reserve account of the originating institution and to credit the reserve account of the receiving institution. In the U.S., using the Federal Reserve's Fedwire system, the message also states the reason for the transfer, such as "credit account #12345 I/N/O John Smith." The central bank notifies the receiving institution of the transfer by sending an electronic message.

Automated clearinghouses

Q 5-04.02. What is the automated clearinghouse (ACH) network?

A clearinghouse is a system for exchanging checks and, consequently, credits and balancing debits among the accounts of the member banks. The same function, viz. net settlement at appointed times among all members, can be applied without the necessity of paper checks to exchange. Such value exchange without paper documents defines an automated clearinghouse (ACH.)

An ACH network is a batch processing, store-and-forward system. Transactions received by the financial institution during the day are stored and processed later in a batch mode. Rather than sending each payment separately, ACH transactions are accumulated and sorted by destination for transmission during a predetermined period. This provides significant economies of scale. It also provides faster processing than paper checks, which must be physically handled. Instead of using paper to carry necessary transaction information, ACH transactions are transmitted electronically between financial institutions through data transmission.

Q 5-04.03. Who are the parties in an ACH transaction?

There are four major participants to an ACH transaction.

- **Originator.** This may be any individual, corporation or other entity that initiates entries into the Automated Clearing House Network.
- **Originating Depository Financial Institution (ODFI).** This is a participating financial institution that originates ACH entries at the request of and by (ODFI) agreement with its customers.
- **Receiving Depository Financial Institution (RDFI).** This is any financial institution qualified to receive ACH entries.
- **Receiver.** This is an individual, corporation or other entity that has authorized an Originator to initiate a credit or debit entry to a transaction account held at an RDFI.

In ACH terminology, Originator and Receiver refer to the participants that initiate and receive the ACH entries rather than the funds.

There may be third-party service providers. These are entities other than the Originator, ODFI, or RDFI that performs any function on behalf of the Originator, ODFI, or RDFI with respect to the processing of ACH entries.

Q 5-04.04. What is the process flow in ACH settlement?

An ACH transaction is communicated electronically between computers. The transaction, therefore, must be structured according to set formats to allow the computers to interpret the communication. The design of the formats includes sufficient information about the transaction to assist the parties in identifying the purpose of the transaction for proper accounting. The coincident flow of information enhances the utility of ACH.

Q 5-04.05. How does an ACH transaction differ from other payment methods?

An ACH transaction differs from checks in that the latter are demand instruments. The former can be value dated. An ACH funds transfer is final at a specified time.

Unlike a check, which is always a debit instrument, an ACH entry may either be a credit or debit entry. By examining what happens to the Receiver's account, one can distinguish the difference between an ACH credit and an ACH debit transaction. If the Receiver's account is debited, then the entry is an ACH debit. If the Receiver's account is credited, then the entry is an ACH credit. Conversely, the offset to an ACH debit is a credit to the Originator's account and the offset to an ACH credit is a debit of the Originator's account.

The ACH system allows transactions to be batched, i.e., multiple transactions are initiated with one action, rather than one transaction at a time as with an RTGS.

A particularly valuable feature is that ACH transactions can be warehoused or entered into the system but scheduled to move at some future date. Together, these features make a useful tool that allows the cash manager to schedule funds movements for future dates and to supply accounting information automatically with the transaction.

Q 5-04.06. How does an ACH differ from a traditional check clearinghouse?

Apart from the absence of paper, the main difference between an ACH and a check clearinghouse is that the ACH allows banks to initiate credits (payments to) and debits (collections from) against other accounts and banks. Because a bank can initiate a flow in either direction, the terminology must change to make it less restrictive in defining roles. The bank that initiates the funds transfer, regardless of direction, is the Originating Depository Financial Institution (ODFI) or originator. The bank whose accounts are the object of the ODFI's action is the Receiving Depository Financial Institution (RDFI) or receiver.