Analytic approaches to cash management

Q 4-09. What types of analyses can identify cash management problems?

Reviewing forecast variances, analyzing float in processes, and reconciling accounts with scheduled frequency are ways to identify bottlenecks in systems, delays in processes, and error sources.

Variance analysis

The difference between a forecast outcome and an actual result is a "variance."[1] Careful review to ascribe the cause of a variance can assist in identifying ways the errors can be minimized.

Q 4-09.01. What are the fundamental economic causes of variances?

Variances can be attributable to macroeconomic factors. Growth, for example, may be higher (or lower) than had been assumed. This can lead to higher (lower) than expected tax collections and a decrease (increase) in payments to citizens for social benefits.

Unforeseen economic changes in prices or interest rates can lead to increased borrowing costs or higher investment earnings. Unanticipated price level changes (inflation) can lead to higher rates of growth in indexed payments.

It is generally impossible to anticipate disasters or emergencies, but they can contribute greatly to variances.

A country may also experience variances attributable to foreign exchange impacts that affect the cost of imports (and customs duties) or of exports (and earnings) or the cost of financing for debt not denominated in one's own currency.

Q 4-09.02. What are the legal issues that affect variances?

The timing and final structure of legal or administrative changes that will affect cash forecasts are difficult to predict. One may need to adjust forecasts for changes to tax laws by legislature that affect revenue collections, payouts of settlements of court cases, court interpretations of existing tax laws or spending mandates, or sharing ratio of taxes between levels of government.

[1] Variance can also be referred to as "error" with, of course, no necessarily pejorative connotation.

Q 4-09.03. What are the technical or administrative issues that affect variances?

There are other causes of variations that may be attributable to internal process or to other causes.

A chief source of variance attributable to internal processes is transaction float caused by random events or by systemic bottlenecks either in collections systems or in payment systems. This is discussed further below.

Particularly difficult problems arise in anticipating calendar issues. It has long been known among statisticians that observed economic variables, such as monthly tax receipts, are highly dependent upon variations in the number of business days or trading days in a period and that these are purely a function of the calendar. For example, if most businesses pay their employees every second Friday and pay withholding taxes at the same time, the tax receipts for a month may vary by 50% depending on whether two or three paydays occur within that month. Holidays and weekends also exert a strong impact on trade.

Finally, there may be coding issues, i.e., misapplication of funds to an accounting classification, in automated systems that are detectible only when all other causes of variance have been ruled out.

Float

Q 4-09.04. What is "float" and how is it measured?

In the absence of instantaneous transfer of value between two parties, there is a period of time in which value may remain within the accounts of the paying party even though that party has already relinquished ownership. More importantly, the acquiring party may not have control of funds even though title to those funds has already been relinquished to the acquirer. Float refers to that period of time when the proper owner of the resources has no access to them. Float can be caused by delays in the collection process or in the disbursement process.

Float is measured in days by counting the whole-day time lapse between the transfer of ownership and the full acquisition of the funds. The value of funds measured for the duration of the float period is used as a measure of the cost of float.[2]

Q 4-09.05. What are the components of collection float?

[2] This explains why float is measured by whole days. Float costs are measured by opportunity costs for lost investment and there is yet no market rate for less-than-a-day funds.

Collection float is attributable to two causes: processing delays and transit delays. Processing float is the delay between when a payment is received and when it is available. Transit float is the delay between when a payment is available and the when the TSA is credited.

Q 4-09.06. What are the components of disbursements float?

Disbursements float is attributable to two causes: processing delays and clearing delays. Processing float is the delay between the time the payee receives the check and the time the check is deposited. Clearing float is the delay between the time the check is deposited and the time it is presented to the payer's bank for payment.

Q 4-09.07. What steps can be taken to reduce float?

The organization should undertake an analysis of its actual float experience and consider the causes of float. The purpose of analyzing disbursement and collection float is to shorten this to as few days as possible.

Reducing the time required for funds to be transferred from party A to party B and having information systems tracking this information every step of the way will lead to decreased costs. Shortening disbursement or collection float will likely be the result of using improved banking products or making changes in internal administrative processes.

Q 4-09.08. What management actions can be taken to improve funds control?

Examine the frequency of payment. Are they made on-demand or in batches, such as once-per-week disbursement? The former can cost much more in resources committed to constant availability.

Perform a vendor analysis. Are multiple payments going to one vendor from subsidiary units? These should be consolidated into a smaller number of gross payments, which are easier to forecast. Also, examine the payment terms to structure payments at the right moment.

Bank reconciliation

Q 4-09.09. What is daily cash reconciliation?

Daily cash reconciliation refers to the reconciliation, the matching of transactions and items, of daily cash activity on a bank statement to the cash position statement of the cash management unit. This process is performed as part of the daily cash positioning to insure that the prior day bank closing balances are the same as the cash management unit's balances.

The benefits of this daily function are that it provides accurate balances for daily cash positioning and prevents fraud and erroneous payments or receipt by identifying them within 24 hours and take corrective actions. Daily reconciliation also supports the month-end reconciliation process by reducing the scope of work required to review a full month's transactions in one sweep.

Actual daily cash flow could be linked to the cash flow projection to initiate a variance analysis when warranted.

Q 4-09.10. What is monthly account reconciliation?

With daily reconciliation, a working reconciliation of the prior day's transactions and balances of the primary government bank accounts should be performed. Late corrections and adjustments, however, may miss the window for daily reconciliation.

A final reconciliation of each bank account should occur at least monthly. In the monthly process, **all** variances must be documented and cleared by the next time the reconciliation is performed. To strengthen management control, the final monthly bank reconciliation is often performed outside the treasury department.