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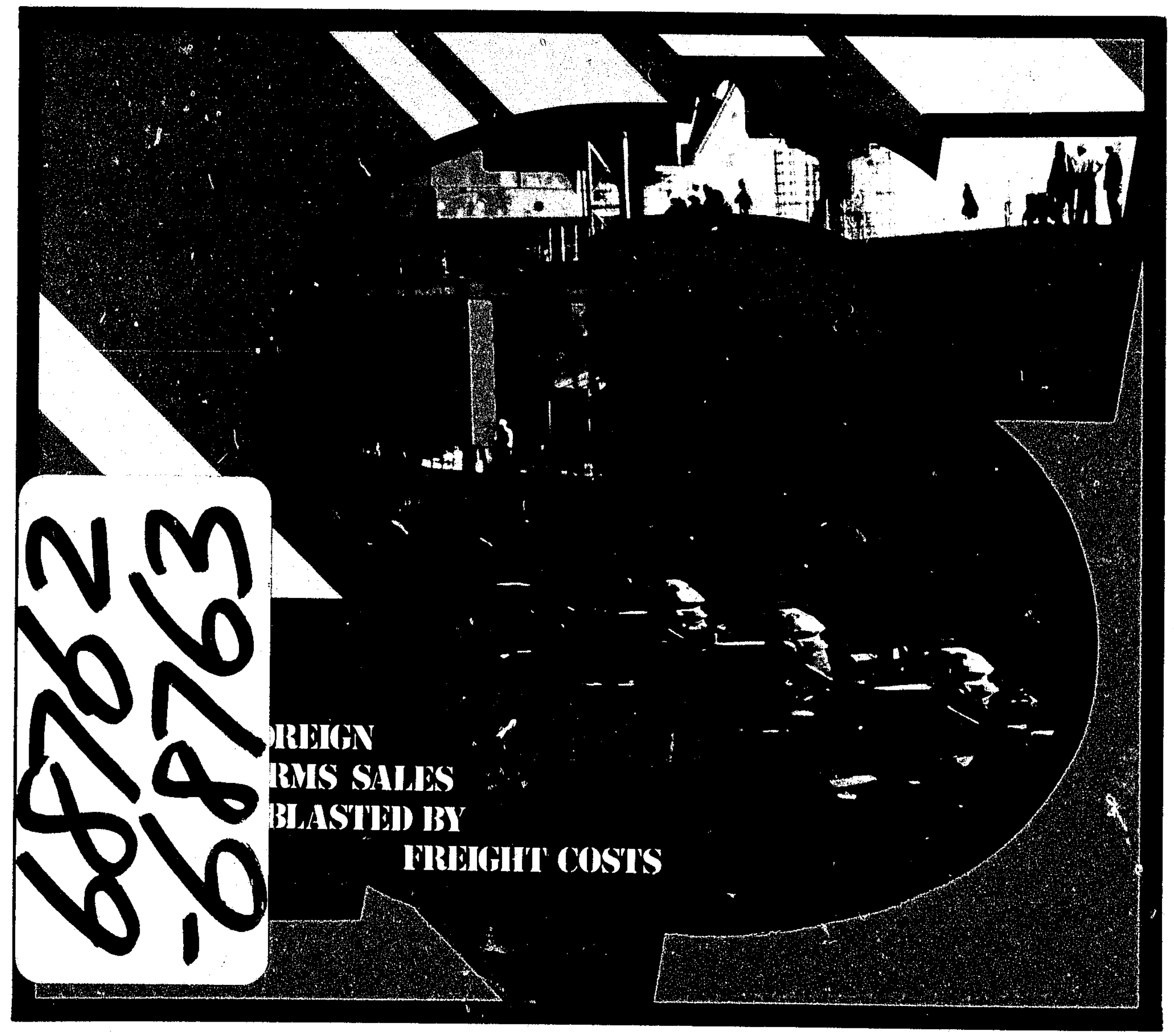

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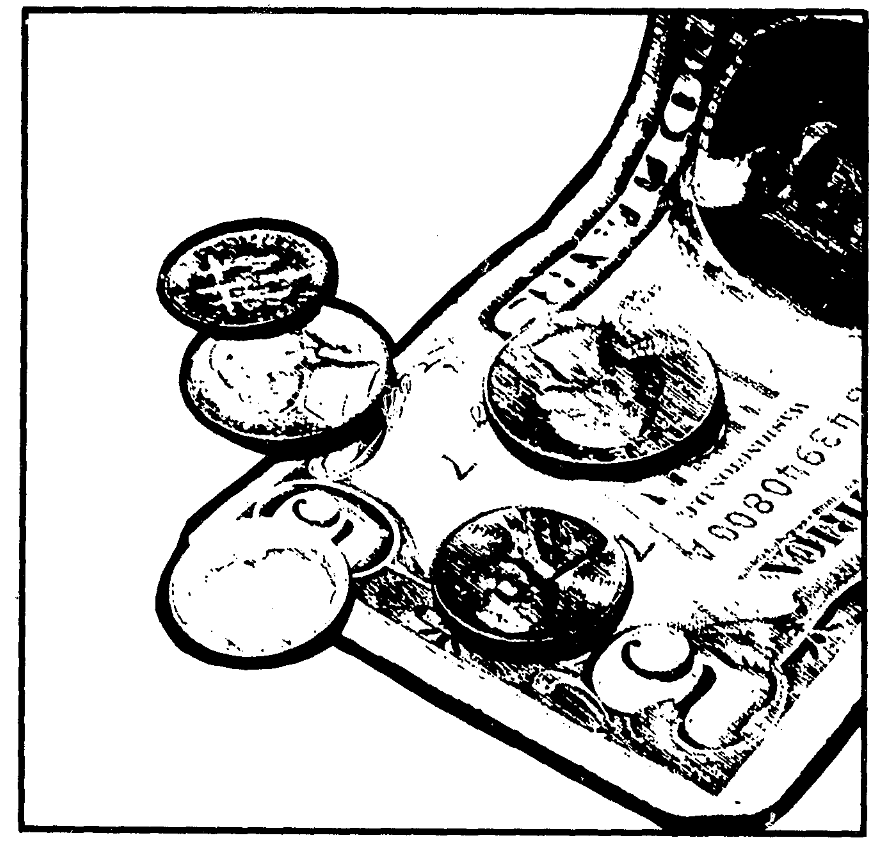
# Cash-Flow Analysis: A Technique for Detecting Cash Generation



This article is based on experience Mr. Doyal gained working on a congressional detail to investigate allegations of corruption in Government contracting. The substance of this article has been presented by Mr. Doyal during talks before various Intergovernmental Audit Forums.

## Description of the Technique

Cash-flow analysis is the systematic examination of only those transactions which result in debits or credits to cash accounts. Its purpose is to detect and demonstrate cash generation schemes when bribery, extortion, or kickbacks are suspected. Schemes for cash generation are important aspects of such cases because they shed light on all three elements of criminal proof—motive, method, and opportunity. While anything that motivates people—money, love and affection, social recognition, attention, etc.,—can be compensation for corrupt acts, few of these, other than money, can be measured or traced.

The cash-flow analysis is effective because ours is virtually a "cashless society." The volume of cash needed to encourage or compensate corrupt acts is not readily available in most legitimate firms. It must be generated through schemes disguised as legitmate transactions, and the analysis is a systematic approach to detecting such schemes.

Even though the analysis is a systematic approach, it is not a science. It relies heavily on the aggressiveness, imagination, and training of the persons who employ it. Because the analysis is rooted in financial books and records, well-trained auditors are usually well equipped to use it.

## When and Where To Use the Analysis

The cash-flow analysis is used when payoffs for corrupt acts are strongly suspected. The target of the analysis will generally be the organization which benefits most directly from the corrupt acts, even though the cash generation may actually take place in an organization far removed from where the cash ends up.

The normal approach to audit work is incompatible with cash-flow analysis. From the outset, most audit work requires some reliance on management representations. The auditor also relies on management for descriptions of systems and work flow and explanations of transactions. Additionally, normal audit work relies heavily on statistical and judgmental sampling and judgments about materiality.

Cash-flow analysis, however, rejects all management representations. This technique is applied when management is suspected of corrupt activity and management representations cannot be relied on. The persons performing the analysis must develop their own understanding of how systems work while examining both the form and substance of unusual transactions.

The analysis should be applied to the organization which would benefit directly from the suspected bribe, kickback, or other corrupt act. This does not mean that the cash generation scheme will be detected at this level. In fact, subcontractors or vendors often perform the acts which will generate the cash. Even so, the books and records of the primary beneficiary of the corrupt acts will contain evidence of the scheme.

## Examining Cash Transactions

Since the purpose of the analysis is to detect cash generation, there is little need to be concerned with any transaction that neither debits nor credits cash accounts. All bank statements, deposit slips, and cancelled checks for a predetermined period should be carefully examined. The first tasks, then, are to select a time period and assure that all the documents in the period are available for examination.

Selection of a period is based on judgment. Factors that can be considered in reaching such a decision include the length of the organization's normal business cycle (i.e., the time between ordering raw materials and receiving payment for finished goods), or the desirability of bracketing a certain event, such as a specific contract award date. Generally, when there is no other basis, selecting the most recently completed fiscal year is a safe choice and, if necessary, the time period can be changed later.

Assuring that all the documents are provided is a task that is never quite completed. The best that can be done is to set up a method for examining the documents that will highlight any absent records.

Cancelled checks are rather simple to control through a scheduling process based on check numbers. That is, begin with a schedule listing all possible check numbers. Information from each check, such as date, payee, amount, endorser, negotiation date, and whether cashed or deposited, can be recorded on the schedule.

When all available checks have been examined, missing checks will be easily identified. Additionally, the schedule will provide valuable information on patterns, such as out-of-sequence operations and a contemporaneous record of the auditor's observations.

Controlling deposit slips is more difficult. One method is a two-step approach which requires recording by date each deposit shown on the bank statement. Then each deposit slip is matched to the proper deposit date. As with the checks, recording contemporaneous observations on the control schedule will provide valuable insights and serve as a memory device.

## Selecting Unusual Transactions

Cash transactions are examined primarily to identify unusual transactions that could be part of a cash generation scheme, but other benefits also accrue. This process provides knowledge of the organization that cannot be gained in any other manner. It identifies the sources of cash, who received it, and, to a large extent, tells how the cash was used.

After examining only a few months' cash records, it becomes quite easy to distinguish between normal and unusual transactions. However, until this predictive capability is developed, other criteria for unusual transactions can be asserted. For example, the following transactions could be considered unusual:

- Check payable to cash.
- Deposit transaction where currency is created.
- Check for an even amount in excess of $50.
- Nonpayroll check endorsed by hand.
- Payroll check with a secondary endorsement.
- Check to a regular vendor that is cashed.
- Check to vendors whose services are difficult to measure after the fact (i.e., accountants, lawyers, consultants).
- Cash deposits in significant or even amounts.
- Nonpayroll check payable to or endorsed by a company employee.
- Interbank transfers or intercompany transfers.
- Noncheck withdrawals of cash.

Experienced auditors can add to this list, and the circumstances encountered will certainly alter these criteria. The point is to let the paper do all the explaining. That is, if the cash transaction is not clearly understandable on its face, consider it unusual for the purpose of this phase of the cash-flow analysis.

## Tracing Unusual Transactions

Once unusual transactions have been identified, the next step in the process is to trace each of the transactions from start to finish through the organization's books, records, and systems and across the organizational structure. The purpose of this process is to shed light on the legitimacy of each of the unusual transactions. Without doubt, many of the cash transactions identified as unusual in the first step will be determined legitimate and will be dropped as items of concern.

Tracing the unusual transaction will require reference to the many types of records that are usually kept by large organizations. For example, tracing transactions could involve reference to

- general journals;
- general and subsidiary ledgers;
- cash receipt and disbursements journals;
- petty cash journals and vouchers;
- vouchers, purchase orders, purchase journals, and receiving reports;
- employment and payroll records;
- sales journals, contracts, and subcontracts;
- stock transfer books and corporate minutes;
- bids and bid worksheets;
- rental purchase and leasing records for property and equipment;
- copies of tax returns;
- sales and purchase returns and allowance records; and
- written records of dealings with vendors and customers.

Additionally, the custodian of each set of records should be interviewed to determine who actually created the records for the unusual transactions. These interviews are not particularly critical; their primary purpose is to determine the source of the information in the books or records and to gain greater understanding of the organization's processes, systems, personnel, cash sources, and cash usage.

The tracing process is not confined to the books and records of the target organization. There is a high likelihood that a full understanding of the transactions will require examining the books and records of other parties to the transactions. However, if the tracing process requires moving outside the target organization, extra care must be taken not to get too deeply involved in outside organizations at this point in the analysis.

After the tracking process, unusual transactions not fully supported by the other records will be apparent. These transactions will probably have disclosed indications that they are, in fact, fraudulent. Among the indications of fraudulent transactions are such things as

- a second or supplementary set of books and records,
- concealed assets,
- missing or destroyed books and records,
- large and frequent currency transactions,
- payments to fictitious or closely related companies or persons,
- false or altered entries or documents,
- false invoices or bills,
- purchases at unreasonably high prices or sales at unreasonably low prices,
- large loans to employees or others,
- frequent use of noncheck withdrawals (i.e., cashier's checks, wire transfers, etc.),
- use of invoice or receipt copies rather than originals,
- payment of personal expenses with corporate funds,
- excessive billing discounts or spoilage,
- extensive use of holding, clearing, or exchange accounts,
- handwritten or other unusual endorsement on checks payable to corporations,
- vendor payments that are cashed rather than deposited,
- large bonus payments to officers, and
- second- or third-party endorsements on checks to corporations.

Like the criteria for selecting unusual cash transactions, this list of indicators of fraudulent transactions will be expanded by personal experience and the circumstances encountered. Remember, too, that the scheme for generating cash may not be fully evident in the target organization's books. For this reason, there is a need to consider the possibility that the remaining unusual transactions may facilitate cash generation at a different contractual tier (i.e., related parties, vendors, officers, or employees).

## Confrontation Interviews

The last phase of the analysis consists of in-depth interviews with the parties to the unusual transactions. The remainder of the analysis depends on interviewing skill and the luck that comes with preparation. The earlier phases of the analysis have equipped the performer with an extensive knowledge of the target organization, its vendors, its personnel, and the sources and applications of its cash. The interviewer has the understanding needed to propound initial questions, evaluate the responses, and pose the follow-on questions that will probe every facet of any cover story that is concocted.

Plan for the interview in advance. Ask all the questions and listen well to the answers. Once the subject understands the questions and realizes the depth of the interviewer's knowledge about the organization which resulted from the cash flow analysis, any pretense of cooperation will evaporate. The timing and location of the interviews, the persons to be interviewed, and the sequence of the interviews must be as well planned as the interview itself. Mistakes at this stage are seldom fatal, but recovery from them is extremely difficult. Questions that are unasked often remain unasked for extended periods.

One thing more about confrontation interviews. Keep in mind that this is not a sporting event. There will be no prizes given for sportsmanship. The interview subjects are suspected of bribery or extortion or of being a party to a conspiracy. Don't break the law, but by the same token, don't give the crook a break.

## A Case Study

The target company in this case study manufactures a line of products used in most business operations. The Federal Government buys more than 85 percent of the company's total output for about $20 million a year. The company is publicly owned and its shares are traded "over the counter." There are some 300 shareholders, but the firm's cofounders hold more than 90 percent of the outstanding shares.

Everything the company produces is subject to quality inspection by Government inspectors assigned to the plant. In earlier years, each item was inspected prior to shipment. More recently, the Government has applied statistical sampling and has allowed the company to operate as an approved quality manufacturer.

In hearings, Government witnesses' testimony raised serious questions about the quality of the company's products. At the same time, the company president testified under oath that the company produced quality products at a competitive price. The president also stated that the company had neither paid off Government employees nor offered gifts or gratuities. The company president also demanded an investigation to clear the company name and offered full and free access to the plant, books, and records.

## Initial Examination of Records

The team members had not fully developed an approach to the cash-flow analysis by the time of the first visit to the plant. During this visit, as the team members randomly traced transactions through some of the books and records and met and interviewed key company personnel, they began to understand the workings of the company. They also identified two or three potential cash generation schemes and noted that the company often did business with closely related firms. This initial visit lasted 8 days and raised more questions than it answered.

During the month that followed the first visit, the staff discussed at length how to proceed. They considered the suspected schemes and related party transactions, but because their approach had not been systematic, questions concerning intent, extent, and participants could not be answered. From these discussions grew a consensus on an approach keyed to considering only cash transactions.

## Second Visit

During a second visit to the plant, the investigative team began to examine and schedule all checks and deposits for a 1-year period. For 2 weeks, three persons examined every check written and every deposit made by the company for the selected period.

The team relied heavily on familiarity with company personnel and procedures they had gained during the first visit, and conducted no interviews with company personnel during the second visit. Their findings supported their suspicion of cash generation schemes and confirmed the related party transactions. As a result, subpoenaes were issued for the books and records of the company, its audit firm, and one of the related parties.

## Results of Examining Cash Transactions

The examination of cancelled checks and deposits disclosed the following unusual transactions:

- Numerous checks payable to cash.
- Nonpayroll checks issued to the cofounders and one other official.
- Sales commission checks payable to a person who was not considered a salesman.
- Large cash deposits.
- Substantial interbank and interaccount transfers.
- Checks signed by other than designated company officials.

Numerous other cash transactions raised questions, but these are sufficient to illustrate the effectiveness of the technique.

The team identified the transactions listed above by examining every nonpayroll check written by the firm on its 12 different bank accounts. Because the company was writing more than 1,000 payroll checks per week, the payroll checks were examined for only 4 pay periods during the year.

In total, payroll and nonpayroll, some 15,000 to 20,000 cancelled checks were examined. All cancelled checks and deposits were scheduled on forms that showed detail for all items on each bank statement.

## Tracing Unusual Transactions

Unusual transactions identified and listed above were traced through the company's books and records. Because the company's records were subpoenaed, interviews were not conducted with the custodians of the records. Nonetheless, tracing the unusual transactions disclosed indications of fraud.

### Large and frequent currency transactions

The team's first significant indications of fraud were the company's large and frequent cash transactions. For example, during the 5 years the investigation ultimately covered, the company generated $484,400 in cash. Except for 13 months during that 5-year period, the records showed that the cash on hand was in excess of $10,000 and at one time, the company had $258,900 in cash on hand.

The investigation team also noted with interest that the books showed the company had deposited $484,400 in cash during this same period. Company officials stated that the cash had been generated to buy equipment at auction. If unsuccessful at the auction, the company redeposited the cash.

The generated cash was recorded



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in the petty cash account. The checks to generate the cash were for $1000 each with up to 25 checks on 3 or 4 banks written and cashed during a single day. Like the checks, cash deposits of several thousand dollars would be made on a single day to several different bank accounts.

### Payments to closely related firms or persons

The next significant indicator of fraud was in the form of payments to related parties. The largest group of such payments was to the company's trucking firm. The trucking firm and the company were related in the following manner:

- The trucking firm was an Interstate Commerce Commission (ICC) contract carrier that served only the company.
- An employee of the company represented the trucking firm before the ICC in license applications and hearings.
- The trucking firm and its owner dealt with the company under several names.
- Some company checks to the trucking firm or its owner were cashed or reendorsed to others.
- The owner of the trucking firm was shown to be an incorporator and director of a wholly owned company subsidiary.

Besides the related party transactions, the checks from the company to the trucking firm showed other indicators of fraudulent transactions. For example:

- Some checks were endorsed by hand and cashed; others were rubber-stamped and deposited.
- Some checks contained second- and third-party endorsements.
- Some service rendered by the trucking firm could not be measured after performance.
- Services were billed on two different types of invoices.

### Petty cash transactions

Tracing the frequent checks payable to cash gave reason to examine the petty cash journal and petty cash vouchers. This process disclosed two items of interest:

- The petty cash vouchers showed that the company was paying a $5 tip to each truck driver who came to the plant. These tips totaled about $1,500 per month. The vouchers were often unsigned and showed neither the name of the truck driver nor the name of the trucking company.
- The company paid two sets of petty cash vouchers for meals each day. One set was supported by a counter check from a nearby diner. The other set was unsupported and amounted to about $400 per month.

### Commission payments

One official of the firm had been introduced as the firm's general counsel. However, the investigation team found no payroll record for him nor any payroll checks made payable to him. Rather, this person received a sales commission check each month, which was more than the salary paid to the cofounders. Further, all of the company's business was obtained through formally advertised sealed competitive bids.

### Other matters disclosed during the tracing process

Several other matters disclosed during the tracing process raised questions or provided other indications of fraudulent transactions:

- Even though the company maintained large amounts of cash on hand, they were in a dangerous cash position much of the time and all accounts receivable were factored at 6½ percent above prime.
- The company often had up to $2 million in undelivered checks to vendors. Some of these checks were more than 4 years old.
- Corporation principals' personal expenses were being paid from corporate funds.
- One employee received several substantial interest-free loans or advances.
- Travel and entertainment costs were allocated to expenses such as factory expense or shipping and selling expense, although there seemed little justification for making such allocations.
- All the company's internal control systems could be overridden by the comptroller and the two cofounders.

## Confrontation Interviews

The team had little opportunity for confrontation interviews with company officials. They conducted some interviews during the first visit, but at that time they had very limited understanding of the firm and its operations. Following delivery of subpoenaes, corporation principals hired lawyers to represent their interests. When called for an interview, the comptroller, whose testimony was important to a full understanding of the company and its records, asserted his right against self-incrimination.

Four lower level company officials did respond to requests for interviews and answered questions under oath. These interviews provided information on certain aspects of the firm's operations, particularly the suspected cash generation scheme. However, when called a second time, they too asserted their rights against self-incrimination.

Eventually, five company officials and three Government inspectors asserted their rights against self-incrimination. Although these assertions made the cash-flow analysis more difficult, the technique proved effective in that it detected and documented a currency generation scheme. Through circumstantial evidence and third-party testimony, later investigation confirmed the scheme identified by the analysis.

## The Currency Generation Scheme

Through 465 checks drawn to cash and styled auction expense, the company generated $484,400 in





cash during a 5-year period. Later investigation located a retired company employee who, in a signed statement verified by polygraph, said it was common knowledge that the company paid Government inspectors to accept low quality products.

The investigation also showed that the $484,400 in cash deposited by the firm was probably not the same currency that had been generated by the checks drawn payable to cash. Company officials who cashed the checks testified that they requested only the largest denomination of bills available, and bank officials stated that tellers who cashed most of the checks had enough large-denomination bills to respond as requested. However, on the one occasion the firm's CPAs counted the currency on hand and recorded the denominations, the firm had 3,600 $20 bills, 1,399 $100 bills, and 940 $50 bills. Further, the currency was a mix of mostly older bills bound with rubber bands rather than bank wrappers.

The cash the company used to pay off inspectors had to be replaced, and this was accomplished by cash kickbacks to the company by its trucking firm. The retired employee testified that when the company ran short of currency, the trucking firm was notified and currency was delivered. Further, the company sometimes made currency deposits shortly after the trucking firm cashed checks. For example, on one occasion, the trucking firm cashed several checks late on a banking day at a small branch bank office, receiving mostly small bills. A short time later, the company's CPA firm made a cash count and found $44,000 in small-denomination bills on hand.

## Conclusion

Cash-flow analysis is an effective way to disclose cash generation schemes, which are often a first step in engaging in corrupt acts. The analysis is not an end, but a means to an end. Done properly, and with the luck that comes with hard work, the analysis lays bare the scheme and provides a springboard to an effective prosecution.

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