

BACKGROUND

In 1992, the Defense Management Review Decision No. 904 (DMRD 904) required the services to procure and repair all depot-level reparable (DLRs) through their stock funds. Responding to this directive, the Army implemented its version of stock funding of DLRs under the Army Working Capital Fund (AWCF).¹ As a result, customers of the Army stock fund began paying for DLRs, which were previously financed through procurement appropriations and issued free to customers, based on their stated need. Customers also began receiving credits for DLRs returned to the stock fund. Both non-DLR consumables and field-level reparable (FLRs) were stock funded prior to 1992.²

¹In fiscal year 1992, the DoD combined the services' five industrial funds, four stock funds, and several appropriated-fund support activities—including the Defense Finance and Accounting Service (DFAS) and the Defense Commissary Agency (DECA)—into a single working capital fund and required these activities to recover their full costs through customer reimbursement. Initially, the Office of the Secretary of Defense (Comptroller) centrally managed the cash balance of the single revolving fund. However, in February 1996, responsibility for cash management was returned to the services and DoD components, and in December 1996, DoD established four separate funds: the Army Working Capital Fund (AWCF), the Navy Working Capital Fund, the Air Force Working Capital Fund, and the Defensewide Working Capital Fund. Collectively, these four funds are known as the Defense Working Capital Fund (DWCF).

²In the Army, consumables and depot maintenance were financed through working capital funds prior to 1992, but not DLRs. Under working capital funding, DLRs are capitalized into the funds, and operating costs are recovered through customer reimbursement rather than direct appropriation of funds. Although surpluses or deficits may develop in the funds from year to year, they must balance out over time. Working capital funds were created on a DoD-wide basis by the National Security Act

On a DoD-wide basis, implementing the requirement that DLRs be stock-funded reduced the demand for DLRs by approximately 20 percent, saving approximately \$500 million per year.³ Under working capital funding, Army units and installations were given a financial incentive to diagnose and repair as many items as possible at the Direct Support (DS) and General Support (GS) levels. They also had a new financial incentive to return unserviceable DLRs in exchange for new components and to return items no longer needed in local inventories. Army return rates have increased from approximately 80 percent to over 100 percent for some items.⁴

Although implementing working capital funding reduces Operations and Maintenance Army (OMA) expenditures by logistics customers,⁵ it is not clear that it reduces costs from an Army-wide perspective. Working-capital-funded activities depend on sufficient sales revenue from transactions to recover their overhead costs, so when customers take actions that reduce the sales revenue (i.e., go outside the system), the funds may not recover all their costs.

Figure 1.1 shows a simplified version of the flow of funds under the Army's implementation of stock funding and can be used to understand this problem. The three shaded boxes represent the AWCF. Starting on the left side of the figure, operating units at an installation receive funds for spare parts as part of their OMA budgets. OMA budgets also include funds for training, base operating support, and

Amendments of 1949. They can be classified as industrial funds or stock funds. Industrial funds finance the operating costs of industrial and commercial-type manufacturing and service activities, such as maintenance depots. Stock funds finance and hold inventories of parts, subsistence, fuel, and other supplies for sale to military units. See Office of the Under Secretary of Defense (Comptroller), *A Plan to Improve the Management and Performance of the Department of Defense Working Capital Funds*, September 1997.

³Ibid., p. 13. This report does not indicate the time period over which these savings have been measured. Army data on DLR demands by system (shown in Appendix B) indicate that these savings are ongoing but have been achieved gradually since 1992.

⁴Based on discussions with Tank-Automotive and Armaments Command (TACOM) personnel. There has obviously been a flushing of assets back into the accountability of the AWCF. Return rates above 100 percent were a temporary condition.

⁵The creation of the AWCF actually increased OMA funding to retail customers. It may have reduced their apparent flexibility because they now paid for many expensive items that were previously free issue, while total budgets declined.

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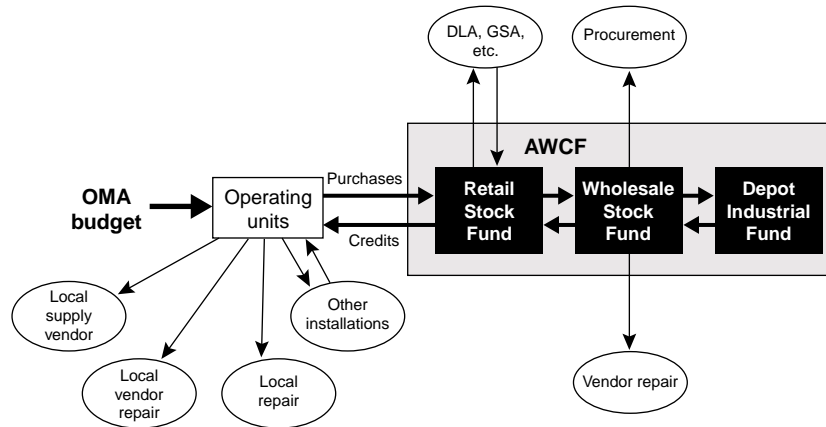


Figure 1.1—Flow of Funds in the Army's Stock Funding System

civilian personnel; thus, if operating units can reduce spending on spare parts, they can use these OMA savings to pay for other activities. As a result, operating units have a strong financial incentive to seek the lowest-cost sources of supply and repair.

Although the intent is to keep supply and repair—and the flow of funds—within the self-contained AWCF region shown in the shaded boxes and the bold arrows, logistics customers on installations have a number of different sources for supply and repair and for spending their funds. They can stay within the AWCF system and purchase spare parts and (in some cases) return items for credit to the Wholesale Stock Fund (WSF), the Defense Logistics Agency (DLA), and General Services Administration (GSA) wholesale supply systems. Financially, these transactions all pass through the Army's Retail Stock Fund (RSF),⁶ which has a branch office on each installation. For the most part, the RSF charges the same prices as the wholesale sources of supply, but it offers different credits.

⁶The Army is planning to merge its WSF and RSF into a single stock fund. The planned interim credit policy is similar to the current WSF credit policy, which is considerably different from the current RSF credit policy discussed in Chapter Three.

However, logistics customers in the operating units can also go outside the AWCF system. They can compare the prices and credits offered by the RSF with the costs of other sources of supply and repair (shown on the bottom left side of the figure), when they are available. Customers may be able to buy spare parts from a local vendor or have repairs made by a local vendor when items have commercial equivalents (such as diesel engines and HMMWVs). These types of “local purchase” have been facilitated by the availability of IMPAC⁷ credit cards. Using local vendors removes funds from the AWCF system and hence the Army.

In addition, instead of buying a new part and returning the unserviceable carcass, customers may have the capability and capacity to repair a part on the installation (using OMA funds for parts and labor). Moreover, since the advent of stock funding of DLRs, logistics customers have set up new channels of redistribution and repair. The Standard Army Retail Supply System (SARSS) can now redistribute items both within and between installations (as shown in the figure)—keeping the funds in OMA and, hence, within the Army but outside the AWCF system. This option is attractive if customers can resell items for more than the credit they would receive from the RSF.⁸ The Integrated Sustainment Maintenance (ISM) program allows installations to pool their repair capabilities and capacities, resulting in reduced purchases from, and returns to, wholesale suppliers. U.S. Army Forces Command (FORSCOM) has also set up major command (MACOM)-wide, OMA-funded redistribution and repair programs—the FORSCOM Materiel Management Center (FMMC) and the FORSCOM Contractor Maintenance Facility (FCMF).

As mentioned above, the shaded areas in Figure 1.1 represent the components of the AWCF. The RSF and the WSF comprise the Supply Management, Army (SMA) activity group. Logistics financial transactions between customers and wholesale sources of supply pass through the RSF. The RSF purchases most consumable items from DLA, GSA, and other sources, as shown on the figure. Most reparable items (i.e., DLRs and FLRs) are purchased from the WSF. U.S. Army Materiel Command’s (AMC) major subordinate commands (MSCs)—

⁷International Merchant Purchase Authorization Card.

⁸Similar transactions can occur among RSF accounts to avoid the WSF.

such as the Tank-Automotive and Armaments Command (TACOM) and the Communications-Electronics Command (CECOM)—manage wholesale inventories of DLRs, FLRs, and some Army-unique consumables. Wholesale supply managers in the WSF determine when to repair or procure to replenish wholesale inventories. Before the advent of stock funding of DLRs, the MSCs received appropriated funds to cover the costs of procurement and repair, as well as operating costs. Under stock funding, the MSCs must use WSF sales revenues, net of credits issued, to pay for procurement, repair, and operating costs.

As shown in the figure, wholesale supply managers have two main options for buying repairs. They can purchase repairs from the Army's maintenance depots, which are financed through the Depot Industrial Fund, or from commercial vendors, subject to constraints on the capability and/or capacity of these sources and to congressional constraints on the amount of workload that can be outsourced.⁹ Depot repairs come under the Depot Maintenance Activity group. The prices charged by the depots should cover the costs of labor, materials, and overhead. Wholesale supply managers have a financial incentive to choose the lowest-cost source of repair within the above-mentioned constraints, assuming that the quality and responsiveness of the repair sources are comparable.

AWCF financial managers are responsible for maintaining the solvency of the fund. Prices and credits for each activity group are set during the budgeting process so that its fund should break even during the coming budget year. If the activity group has a financial gain or loss during the execution year, it must adjust its future prices and credits to recover losses or return gains to customers. AWCF financial managers must also maintain a cash balance in the fund to cover "7–10 days of operating expenses (\$1.5 to \$2.1 billion) and cash adequate to meet 4–6 months of capital disbursements (\$0.5 to 0.9 billion)."¹⁰

⁹Workload can also be sent to other organic government sources of repair (e.g., ISM sites) that are approved for those specific workloads.

¹⁰*DoD Financial Management Regulation*, DoD 7000.14-R, Vol. 11B, p. 54-16.

Senior Army logistics managers have become concerned that the Army's implementation of working capital funding may not be resulting in cost-effective decisions, when evaluated from an Army-wide perspective. In fact, at the Fall 1998 meeting of the Velocity Group (VG),¹¹ the Repair Process Improvement Team reported specific evidence. Thirty-two percent of the 154 Class IX national stock numbers (NSNs) being repaired in the FCMF had wholesale serviceable assets above the requisitioning objective (RO). Apparently, FORSCOM found it less expensive to repair NSNs than to purchase them from the wholesale system, even though the wholesale system had an abundance of serviceable assets available for purchase. To put this another way, FORSCOM was spending money on parts and labor to repair assets that the Army already had in abundance.

OBJECTIVE AND APPROACH

Recognizing the need to better understand and improve the logistics financial management process, the Army decided to apply its VM approach—which had been examining logistics processes such as order and ship, repair, and stockage determination—to the financial process as well.¹² As a result, the Army established a Financial Management Process Improvement Team (FM PIT) to apply the VM methodology of Define-Measure-Improve (D-M-I) to the logistics financial management process. In this document, we present the work to date, which has focused on defining the financial management processes at the installation level, conducting exploratory measurements to test the utility of some candidate metrics, and suggesting improvements to financial management processes. Many of the financial management problems we illustrate result from Army policies that single installations or even major commands are unable to change. Therefore, the FM PIT's recommendations tend to focus on policy changes at the Headquarters Department of the Army (HQDA)

¹¹The Army Velocity Group is a coalition of general officers and civilian equivalents that exists to lead and coordinate changes aimed at dramatically improving logistics system performance. Appendix A discusses VM more fully.

¹²For more information on Velocity Management, the VG coalition, and the Define-Measure-Improve (D-M-I) methodology, see Appendix A and the publications by Dumond, Eden, and Folkeson (1995), Edwards and Eden (1999), and Girardini et al. (1996)

level rather than changes that can be made at the installation or MACOM level.

The initial focus of the FM PIT has been on the logistics financial management processes that occur on the Army's active-component installations, from the company level through the interface between the operating units or activities, which are funded by OMA appropriations and the supporting installation's RSF component of the AWCF.¹³ These processes include (1) reconciling supply and financial information, (2) monitoring spending relative to budgets, and (3) making financial checks to ensure that funds are available before requisitions are released.

Maintaining the VM process improvement approach helps the FM PIT to focus on customer needs and to integrate the efforts of logistics and financial personnel. Because the most visible interface between logistics and financial management occurs in the realm of automated data systems, there is a temptation to focus on systems problems and systems-based solutions. However, customers need financial information, not systems per se. A systems-based approach also tends to perpetuate functional stovepipes between logistics and financial personnel, because the Army controls logistics information systems, whereas DFAS controls financial information systems. Furthermore, since Standard Army Management Information Systems (STAMISs) may take years to change, the FM PIT focuses on continuous improvement within existing systems and the rapid implementation of such enablers as the Integrated Logistics Analysis Program (ILAP), which pulls information from existing STAMISs and presents it to customers in a more user-friendly format.

Thus, when looking for potential improvements to logistics financial management, the FM PIT must ask what the customers need and then propose changes to the systems and/or the training provided to system operators. The information needed for logistics financial processes should be accurate, timely, and presented in a useful for-

¹³In future work, the D-M-I methodology should be applied to financial management processes in the AWCF's Supply Management and Depot Maintenance activities.

mat. This approach is summarized by the FM PIT's guiding principles:¹⁴

1. Work toward the goal of a seamless logistics and financial management process. This entails facilitating versus impeding logistics support, providing visibility of budget execution status, providing accurate, consistent information rapidly to all customers, and providing useful versus exhaustive information and data.
2. Use stock fund price and credit policy to encourage desired behavior (e.g., reducing the financial penalty for incorrect orders—this would reduce the redistribution of items outside normal supply channels).
3. Continuously improve performance through rapid implementation of innovations.

ORGANIZATION OF THIS DOCUMENT

The remainder of this document is organized around the application of the D-M-I methodology to logistics financial management processes. Thus, Chapter Two discusses our efforts to “define” the logistics financial management process at the installation level by “walking through” the various steps in the process. Chapter Three discusses our efforts to “measure” this process in terms of three metrics. Finally, Chapter Four discusses our efforts to date to “improve” this process in terms of the three metrics. Appendix A provides a brief discussion of VM and the D-M-I approach. Appendix B displays the cost savings for several of the Army's major weapon systems that have been achieved under stock funding.

¹⁴The FM PIT briefed these principles to the VG on April 15, 1997, at Fort Lee, Virginia.