

Board of Governors of the Federal Reserve System

The Board's Currency Shipment Process Is Generally Effective but Can Be Enhanced to Gain Efficiencies and to Improve Contract Administration



Office of Inspector General
Board of Governors of the Federal Reserve System
Bureau of Consumer Financial Protection



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Executive Summary, 2018-FMIC-B-021, December 3, 2018

The Board's Currency Shipment Process Is Generally Effective but Can Be Enhanced to Gain Efficiencies and to Improve Contract Administration

Findings

The Board of Governors of the Federal Reserve System's (Board) currency shipment process is generally effective; however, the process can be enhanced to gain time and cost efficiencies. Streamlining the currency forecasting process could save time and minimize the potential for human error. Selecting different transportation modes for certain currency shipment routes and evaluating alternatives to transport shipping equipment could potentially yield transportation cost savings.

Additionally, the Board can improve the administration of its armored carrier contracts. Specifically, monitoring armored carrier insurance could help ensure that the Board is adequately protected against loss or damage during shipments, providing a copy of the *Board Information Security Program and Policies* to armored carriers could help ensure that they are adequately protecting Board data, and updating contract requirements and monitoring armored carrier performance could help ensure that the Board is receiving the expected level of service.

Recommendations

Our report contains recommendations designed to help the Board seek additional efficiencies in the currency shipment process and to improve the administration of armored carrier contracts. Specifically, our recommendations include streamlining the Board's forecasting process to create time efficiencies, evaluating opportunities to potentially achieve cost savings, and establishing processes to ensure that armored carriers comply fully with contract terms. In its response to our draft report, the Board concurs with our recommendations and describes actions that have been or will be taken to address our recommendations. We will follow up to ensure that the recommendations are fully addressed.

Purpose

The objective of this audit was to assess the efficiency and effectiveness of the Board's management of the currency shipment process and to assess the effectiveness of related contracting activities.

Background

Section 16 of the Federal Reserve Act grants the Board the authority to issue Federal Reserve notes to the Federal Reserve Banks. The Reserve Banks then distribute the currency to depository institutions in order to meet public demand. The Board and the Reserve Banks work together to maintain the integrity of and confidence in Federal Reserve notes.

Within the Board's Division of Reserve Bank Operations and Payment Systems, the Banknote Issuance and Cash Operations section is responsible for the currency shipment process. This process includes monitoring and forecasting the demand for currency and planning and executing the issuance of currency to Reserve Bank cash offices.

To carry out its issuance responsibilities, the Board contracts with armored carriers to transport currency. During 2017, the Board executed a total of 3,361 currency shipments, and the transportation costs for those shipments totaled approximately \$21.2 million.



Office of Inspector General

Board of Governors of the Federal Reserve System
Bureau of Consumer Financial Protection

Recommendations, 2018-FMIC-B-021, December 3, 2018

The Board's Currency Shipment Process Is Generally Effective but Can Be Enhanced to Gain Efficiencies and to Improve Contract Administration

Finding 1: The Board's Management of the Currency Shipment Process Is Generally Effective but Can Be Enhanced to Gain Time and Cost Efficiencies

Number	Recommendation	Responsible office
1	Evaluate opportunities to streamline the forecasting process and finalize the <i>Currency Desk Training Guide</i> accordingly.	Division of Reserve Bank Operations and Payment Systems
2	Consider modifying the <i>Currency Issuance Policies and Procedures</i> to encourage selecting the lowest-cost mode of transportation within capacity requirements.	Division of Reserve Bank Operations and Payment Systems
3	Evaluate alternatives for transporting shipping equipment to reduce transportation costs.	Division of Reserve Bank Operations and Payment Systems, in conjunction with Division of Financial Management

Finding 2: The Board Can Improve Its Administration of Armored Carrier Contracts

Number	Recommendation	Responsible office
4	Establish a process to ensure that the COR obtains and reviews the armored carriers' insurance certificates throughout the period of performance.	Division of Reserve Bank Operations and Payment Systems
5	Establish a process to ensure that BISP requirements are communicated to armored carrier personnel who are accessing the currency shipment system.	Division of Reserve Bank Operations and Payment Systems
6	Review the current armored carrier contract terms, such as the number of guards, the way in which the routes were priced, and the services received. Determine whether the Board received the level of service for which it paid and seek reduced prices going forward if appropriate.	Division of Reserve Bank Operations and Payment Systems, in conjunction with Division of Financial Management
7	Update the technical requirements in the armored carrier contracts to reflect current expectations, and ensure that the COR is familiar with these requirements.	Division of Reserve Bank Operations and Payment Systems, in conjunction with Division of Financial Management
8	Establish a process to ensure that armored carriers comply with contract terms and to communicate key requirements to BEP and the Reserve Banks.	Division of Reserve Bank Operations and Payment Systems, in conjunction with Division of Financial Management



Office of Inspector General

Board of Governors of the Federal Reserve System
Bureau of Consumer Financial Protection

MEMORANDUM

DATE: December 3, 2018

TO: Matthew J. Eichner
Director, Division of Reserve Bank Operations and Payment Systems
Board of Governors of the Federal Reserve System

Ricardo A. Aguilera
Chief Financial Officer
Board of Governors of the Federal Reserve System

FROM: Timothy Rogers *Timothy Rogers*
Acting Associate Inspector General for Audits and Evaluations

SUBJECT: OIG Report 2018-FMIC-B-021: *The Board's Currency Shipment Process Is Generally Effective but Can Be Enhanced to Gain Efficiencies and to Improve Contract Administration*

We have completed our report on the subject audit. We conducted this audit to assess the efficiency and effectiveness of the Board of Governors of the Federal Reserve System's management of the currency shipment process and to assess the effectiveness of related contracting activities.

We provided you with a draft of our report for review and comment. The Division of Reserve Bank Operations and Payment Systems developed a response to our draft report in coordination with the Division of Financial Management, which you reviewed and approved. This response states that you concur with our recommendations and outlines actions that have been or will be taken to address our recommendations. We have included the response as appendix B to our report.

We appreciate the cooperation that we received from the Division of Reserve Bank Operations and Payment Systems and from the Division of Financial Management. Please contact me if you would like to discuss this report or any related issues.

cc: Jeffrey Marquardt, Deputy Director, Division of Reserve Bank Operations and Payment Systems
Michael Lambert, Associate Director, Division of Reserve Bank Operations and Payment Systems
Stephen J. Bernard, Deputy Director, Division of Financial Management
Christine Fields, Associate Director, Division of Financial Management
Tina White, Senior Manager, Compliance and Internal Control, Division of Financial Management



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Introduction

Objective

The Board of Governors of the Federal Reserve System's (Board) currency shipment process is essential to fulfilling its role as the issuing authority for Federal Reserve notes and ensuring that the Federal Reserve System meets the public demand for currency. We conducted this audit to assess the efficiency and effectiveness of the Board's management of the currency shipment process and to assess the effectiveness of related contracting activities. The scope of our audit covered January 1, 2017, through December 31, 2017; during this time period, there were a total of 3,361 currency shipments that cost the Board \$21.2 million. Details on our scope and methodology are in appendix A.

Background

Roles and Responsibilities in the Board's Currency Shipment Process

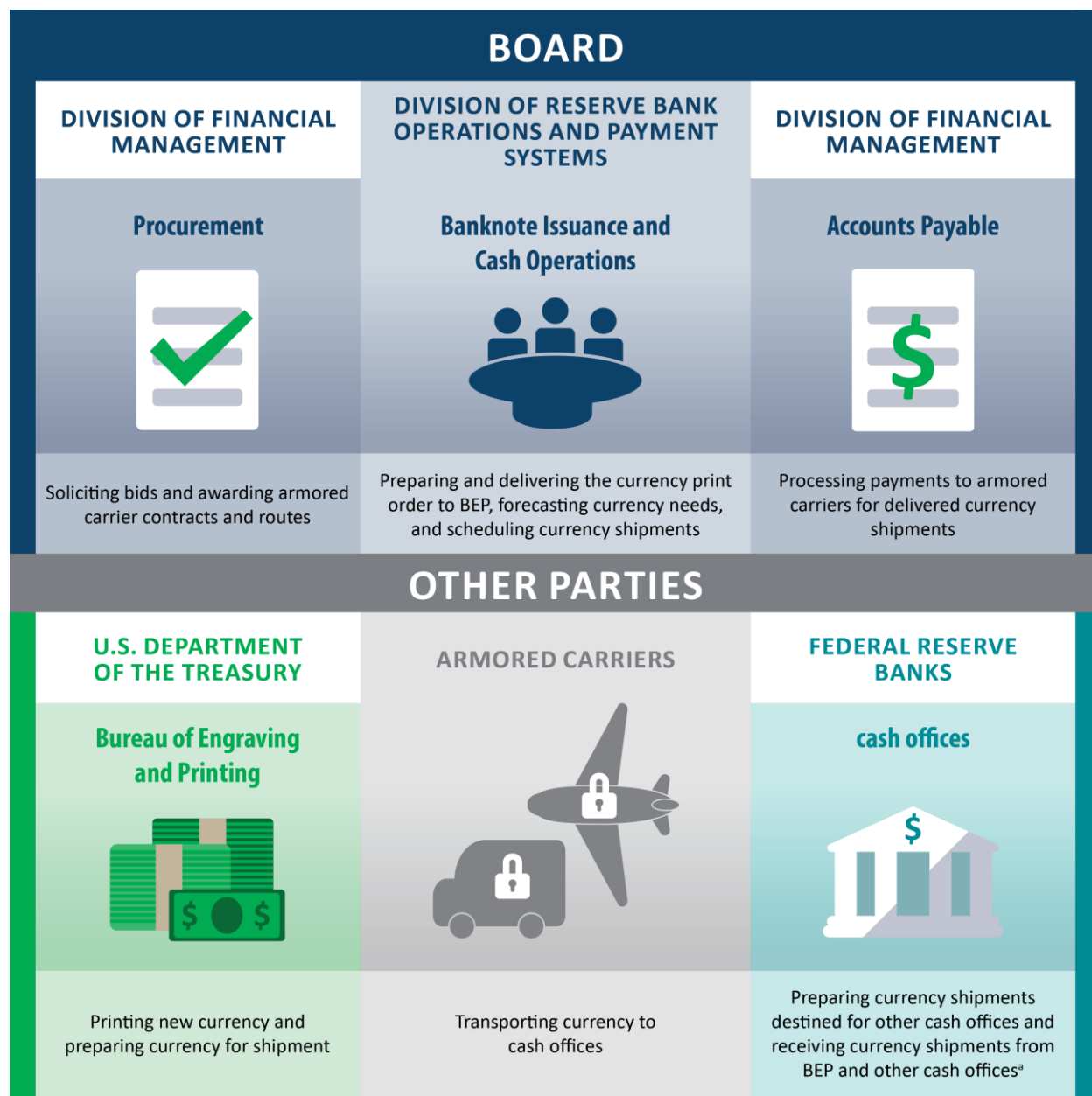
As the issuing authority for Federal Reserve notes, the Board is responsible for ensuring that Reserve Banks have a sufficient currency supply.¹ The Board issues currency to the Reserve Banks, and the Reserve Banks fulfill currency orders from depository institutions. Together, the Board and the Reserve Banks work to maintain the integrity of and confidence in U.S. currency. Within the Board's Division of Reserve Bank Operations and Payment Systems (RBOPS), the Banknote Issuance and Cash Operations (BICO) section is responsible for monitoring and forecasting demand for currency and planning and executing the issuance and shipment of currency from the U.S. Department of the Treasury's Bureau of Engraving and Printing (BEP) to Federal Reserve Bank cash offices and between cash offices.² Additionally, BICO is responsible for preparing and delivering the currency print order to BEP, and BEP prints currency in accordance with the order. BICO also works with the Division of Financial Management's Procurement function, which is responsible for soliciting bids and awarding armored carrier contracts, and the Division of Financial Management's Accounts Payable function, which is responsible for processing payments for delivered armored carrier shipments.

To carry out its currency issuance responsibilities, BICO must coordinate with several parties, as shown in figure 1.

¹ For the purposes of this report, the word *currency* is synonymous with Federal Reserve notes.

² BEP is responsible for printing new currency, which the Board issues to the Reserve Banks.

Figure 1. Roles and Responsibilities in the Board's Currency Shipment Process



Source. Compiled by the Office of Inspector General (OIG) based on Board documents.

^a Reserve Bank cash offices are primarily responsible for fulfilling currency orders from depository institutions. Currency shipments between cash offices and depository institutions were not within the scope of our audit.

In addition, the Board uses certain information technology systems to carry out its currency issuance responsibilities.

- The Board's currency shipment system is a web-based application used to schedule currency shipments to the Reserve Bank cash offices and to approve transportation costs for currency shipments.
- The Board's currency inventory system is a web-based application used to monitor currency inventory levels at cash offices. Cash offices report their inventory levels, payments to depository institutions, and receipts from depository institutions to a financial data repository. BICO uses the currency inventory system to query the cash office inventory information from the repository.
- The Board's accounting system is used to process approved invoices for completed shipments.

Contracting With Armored Carriers

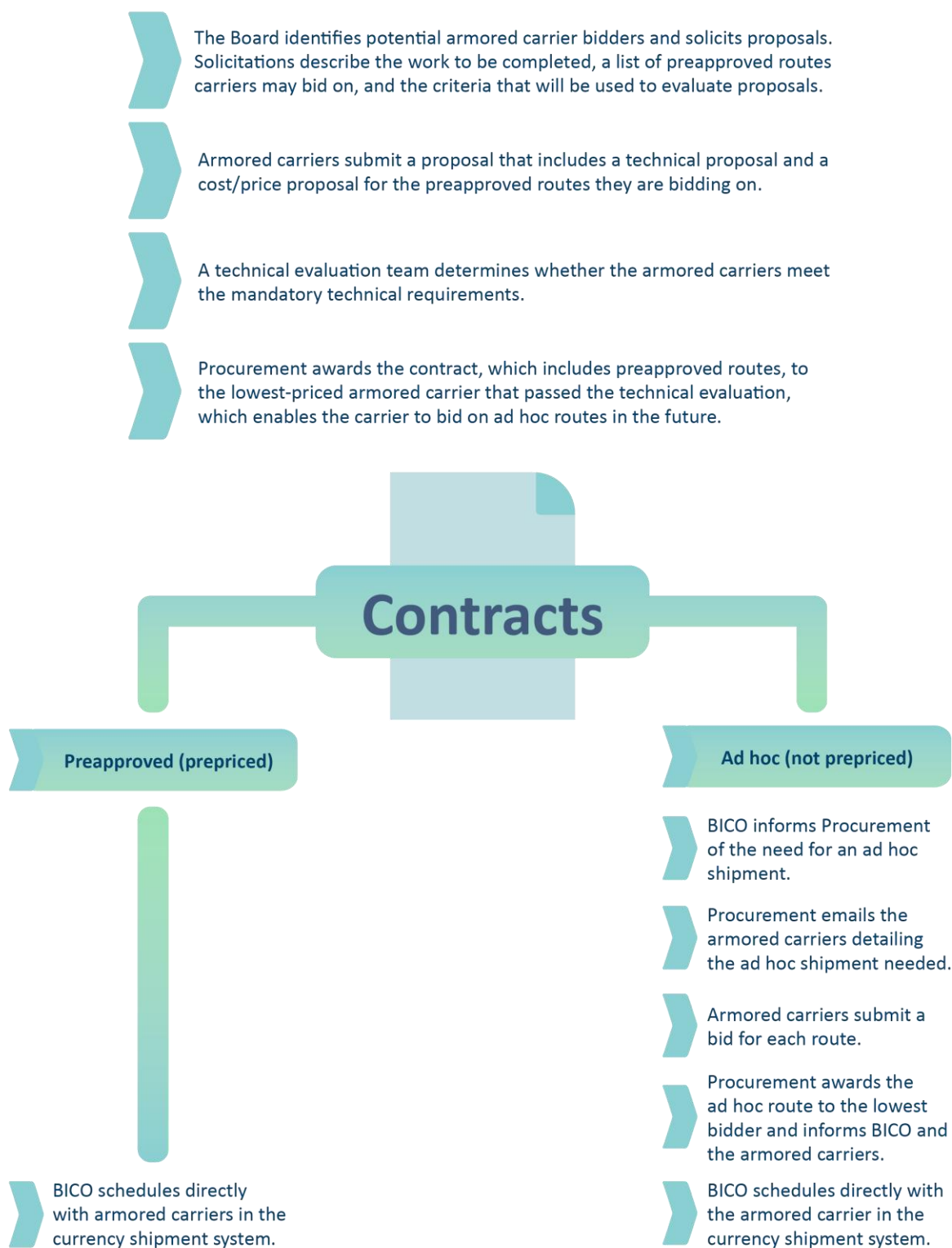
Armored Carrier Contract Overview

The Board contracts with armored carriers to transport currency. During 2016, the Board entered into contracts with five armored carriers to provide currency transportation services.³ The initial period of performance under the contracts was from January 1, 2017, through December 31, 2017, with four 1-calendar-year option periods of performance. The Board chose to exercise the 2018 option year.

The contracts authorize each armored carrier to deliver currency in two ways: (1) preapproved routes and (2) ad hoc routes. Preapproved routes are included in the contract at a fixed price, and ad hoc routes are competed and awarded later, as needed, as one-time shipments and are not prepriced. Figure 2 provides an overview of the contracting process.

³ During 2017, two of the armored carriers merged after one acquired the assets of the other. Because of the merger, the Board modified its contract with the acquired armored carrier and recognized the acquirer as the contract holder.

Figure 2. The Armored Carrier Contracting Process



Source. Compiled by the OIG based on the Board's *Acquisition Procedures*, documents from the 2016 solicitation, and discussions with Procurement and BICO personnel.

The contracts also specify three possible modes of transportation:

- Over-the-road transportation uses armored tractor-trailers.
- Direct surface transportation uses armored vehicles, which have a smaller capacity than tractor-trailers, to pick up and deliver currency within the same day.
- Air transportation involves the carrier using direct surface trucks to pick up currency and take it to an airport. After the currency is loaded onto an airplane and reaches its destination airport, the carrier uses direct surface trucks to transport it to the destination cash office.

In addition, the contracts identify requirements for armored carriers to follow when making shipments. Specifically, the contracts define pick-up and drop-off procedures as well as requirements for armed guards, background checks, vehicle armaments, weapons, and insurance coverage. The contracts require that armored carriers sign a shipping manifest when picking up shipments to acknowledge acceptance of custody for the shipment; in addition, the contracts specify that armored carriers assume the risk of loss for the shipment from the time they sign the shipping manifest to the time the receiving cash office signs a manifest acknowledging receipt of the delivery.

Further, the contracts designate a contracting officer from Procurement and a contracting officer's representative (COR) from BICO. The contracting officer has the required delegated authority to sign contracts on behalf of the Board. The COR represents the contracting officer in administering the technical details of the contract.

The Currency Shipment Process

The currency shipment process includes three main activities: (1) the currency inventory forecasting process, (2) the currency shipment scheduling process, and (3) the currency shipment payment process (figure 3).

The Currency Inventory Forecasting Process

BICO schedules shipments based on a forecasting process that involves multiple factors:

- **40-days-payable inventory target.** BICO generally manages currency inventories to 40 days payable at each cash office because that is approximately the amount of time it takes BICO to order new currency from BEP and receive it at the cash office if BEP runs out of a denomination.
- **Weekly trend analysis.** BICO conducts a weekly trend analysis of inventory levels at each cash office using a forecasting spreadsheet. The forecasting spreadsheet is designed to calculate upcoming currency levels for a 4-week horizon using currency information from the currency inventory system and the currency shipment system. BICO uses the currency inventory system to query the cash office inventory information and manually copies this information into the forecasting spreadsheet. BICO also obtains the upcoming shipment information from the currency shipment system for BEP and the cash offices and manually enters this information into the spreadsheet. BICO uses the forecasting spreadsheet to calculate a cash office's inventory level, at a certain point in time, based on that cash office's payments to depository institutions, receipts from depository institutions, and upcoming shipments for each denomination at each cash office.

- **Continuous communication with cash offices.** BICO regularly communicates with the cash offices to confirm inventory needs, vault space limitations, and special requests and makes shipment decisions accordingly.

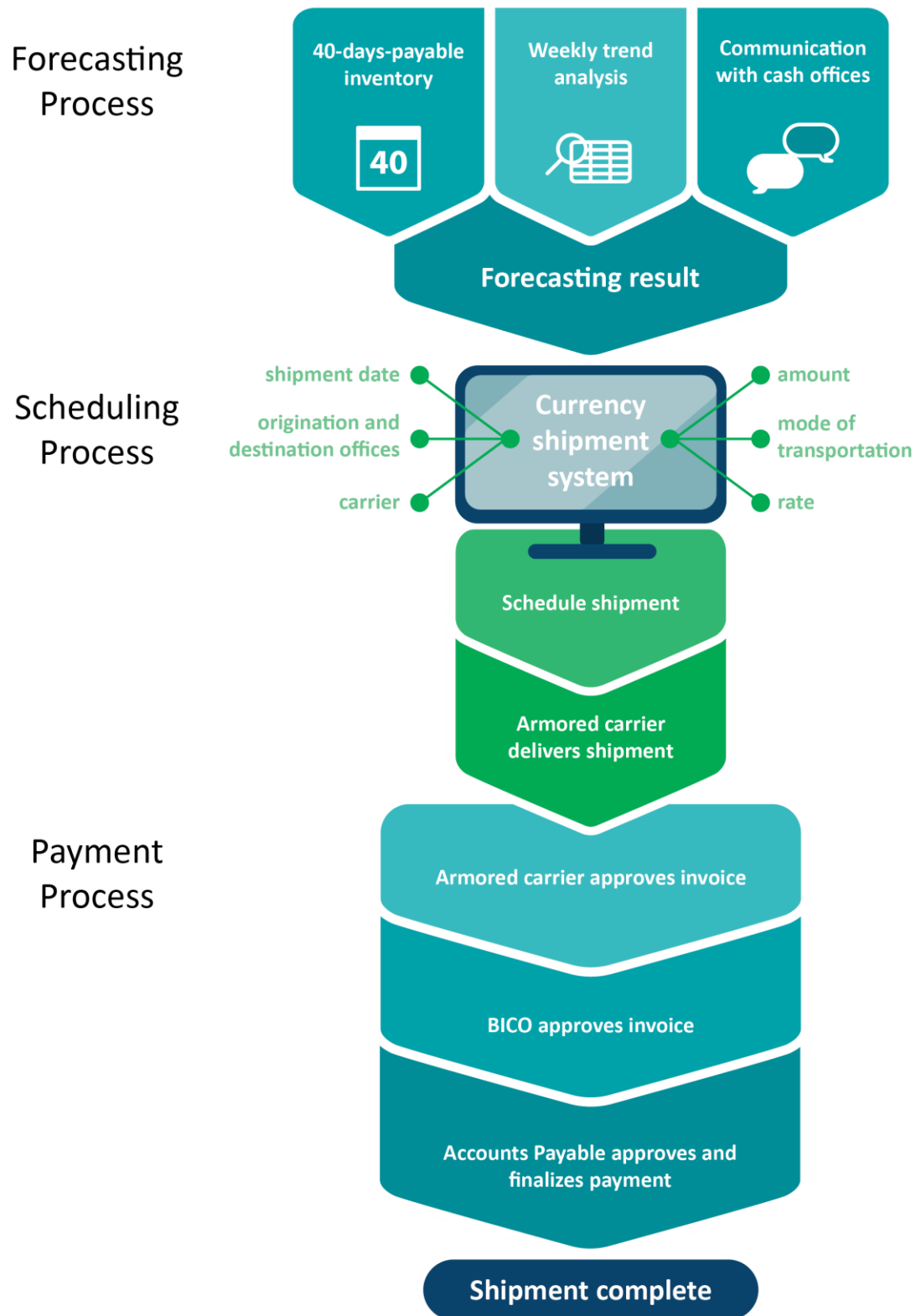
The Currency Shipment Scheduling Process

Based on the forecasting results, BICO schedules currency shipments using the currency shipment system. To schedule shipments, BICO always enters the shipment date, the origination and destination offices, the mode of transportation, the denomination, and the quantity of currency. In addition to the shipment information, the armored carrier and rate information is either automatically generated or manually input at the time the shipment is scheduled. For preapproved routes, the carrier and the rate are automatically populated based on contract information manually entered into the currency shipment system every year. For ad hoc routes, BICO manually enters the carrier and rate based on the ad hoc award information provided by Procurement. BICO indicated that the currency shipment system automatically emails the cash offices and the armored carriers to notify them of shipments scheduled.

The Currency Shipment Payment Process

After currency shipments have been delivered, the currency shipment system automatically generates carrier billing statements. Armored carriers approve carrier billing statements in the currency shipment system, and then BICO approves them. Accounts Payable staff members use the approved carrier billing statement to create an invoice in the accounting system, and the Accounts Payable Supervisor reviews and approves for payment the invoice in the accounting system.

Figure 3. Currency Shipment Process



Source. Compiled by the OIG based on *Currency Issuance Policies and Procedures*, the currency shipment system *User Guide*, and discussions with Accounts Payable staff members.

Applicable Laws, Regulations, and Guidance

Section 16 of the Federal Reserve Act establishes the Board's authority to issue Federal Reserve notes to the Reserve Banks. Section 1-049 of the *Federal Reserve Administrative Manual* authorizes the RBOPS Director to oversee the issuance of new currency and the currency shipment contracts.

BICO established the following policies and procedures for managing currency shipments:

- The February 2014 *User Guide* is the instruction manual for using the currency shipment system. Specifically, the guide provides directions on how to place an order, schedule shipments, generate reports, and approve carrier billing statements in the currency shipment system.
- The December 2017 *Currency Issuance Policies and Procedures* serves as a framework for currency inventory management and decisionmaking related to scheduling shipments. BICO began developing the *Currency Desk Training Guide* in 2018 and indicated that the guide will replace the *Currency Issuance Policies and Procedures*.

The *Federal Acquisition Regulation* is the primary regulation guiding federal executive agencies in their acquisition of supplies and services and provides uniform acquisition policies and procedures with which most federal agencies must comply. The Board is not required to follow the *Federal Acquisition Regulation* but generally follows the spirit of the regulation.

The Board developed its *Acquisition* policy to govern its procurement of goods and services. The Board's *Acquisition Procedures* includes instructions for processing purchase requisitions and the resulting contracts in accordance with the Board's *Acquisition* policy.

The *Board Information Security Program and Policies* (BISP) sets forth the Board's enterprisewide information security program and describes the principles and practices the Board uses to secure information. Its objective is to ensure that the Board's information assets are protected from abuse, misuse, malfeasance, and cybersecurity threats.



Finding 1: The Board's Management of the Currency Shipment Process Is Generally Effective but Can Be Enhanced to Gain Time and Cost Efficiencies

In general, the Board is effectively managing the currency shipment process; however, the process can be enhanced to gain time and cost efficiencies. Specifically, the forecasting process is time consuming and manually intensive; some of the data are manually entered, and formulas are manually adjusted in the forecasting spreadsheet. In addition, BICO selects the mode of transportation based on denomination, as stated in the *Currency Issuance Policies and Procedures*, rather than on the lowest-cost option that meets capacity requirements. BICO also uses armored carriers to transport shipping equipment because the armored carriers have established routes between Reserve Banks and the nonarmored carriers it used previously did not provide reliable service. Streamlining the currency forecasting process could save time and minimize the potential for human error, and selecting different transportation modes for certain currency shipment routes and evaluating alternatives for transporting shipping equipment could potentially yield transportation cost savings. These efficiencies would support RBOPS's strategic goal of fostering the efficient use of public funds.

The Board's Management of the Currency Shipment Process Is Generally Effective

Although the *Currency Desk Training Guide* had not been finalized as of the end of our fieldwork, the forecasting process is documented and repeatable. At the beginning of our audit, we noted that the forecasting process was not sufficiently documented in the *Currency Issuance Policies and Procedures*. BICO subsequently began developing the training guide and made two revisions to the guide to clarify the methodology for the forecasting process. In addition, BICO is actively training the currency desk backups on the forecasting function. We observed that the currency desk backups were able to perform the forecasting function, and one of the backups referred to the draft training guide to conduct part of the forecasting process.

The Board also properly paid the armored carriers for delivered shipments. Specifically, contract rates entered into the currency shipment system were accurate, and the total costs in the currency shipment system matched the total invoices for each armored carrier in the accounting system. Further, the armored carriers signed the shipping manifests at the shipments' point of origin and assumed the risk for loss of currency shipments. Lastly, BICO generally followed its policies and procedures and the *User Guide* for the currency shipment system when scheduling shipments. For example, none of the shipments exceeded the insurance limit or was scheduled during blackout dates.

BICO Can Enhance the Currency Shipment Process to Gain Time and Cost Efficiencies

Although the Board's management of the currency shipment process is generally effective, the process can be enhanced to gain efficiencies. One of RBOPS's strategic goals is to foster the efficient use of public funds. To help support this goal, we identified opportunities for time and cost efficiencies in the currency shipment process. Specifically, the Board can save time by streamlining aspects of the forecasting process and can reduce transportation costs by (1) modifying its policy regarding selection of a mode of transportation and (2) evaluating alternatives for transporting shipping equipment.

Streamlining Aspects of the Forecasting Process Can Save Time and Minimize the Potential for Human Error

The process for preparing the forecasting spreadsheet is time consuming and manually intensive. The process requires obtaining information from two separate systems and manually entering data. The forecasting spreadsheet contains multiple formulas that calculate inventory levels based on currency inventory queries from the currency inventory system; these formulas need to be manually adjusted on a weekly basis. The forecasting spreadsheet also requires the user to manually enter upcoming shipment information from the currency shipment system.

Streamlining aspects of the forecasting process to reduce manual entry can create time efficiencies and minimize the potential for human error. Upon inquiry, BICO officials expressed an interest in integrating the forecasting function into the currency shipment system to improve functionality, and the section has begun work to identify areas for automation.

Modifying the Policy Regarding Selection of a Mode of Transportation Could Yield Minor Transportation Cost Savings

BICO's *Currency Issuance Policies and Procedures* states that the shipment mode selected is based on the currency denomination: Lower denominations are shipped over the road, and higher denominations are shipped direct surface or air. For most preapproved routes, the over-the-road mode of transportation is less expensive than the direct surface or air modes of transportation. However, we identified 24 of 2,792 preapproved over-the-road shipments for which the preapproved direct surface or air transportation cost would have been less expensive. In 2017, BICO could have reduced its \$21.2 million in transportation costs by approximately \$23,000 if it had selected direct surface or air rather than over the road for the 24 shipments we identified. Thus, scheduling shipments based on the lowest-cost option that meets capacity requirements could yield minor transportation cost savings.

Evaluating Alternatives for Transporting Shipping Equipment Could Potentially Yield Transportation Cost Savings

Currently, BICO uses armored carriers to transport shipping equipment. Shipping equipment includes empty containers, which are transported among cash offices, and pallet tops and bottoms, which are transported from the cash offices to BEP. BICO noted that it previously used a government bill of lading, which typically is used to obtain quotes from moving companies for personal relocation services; BICO

found that the process was unreliable and that deliveries took longer than expected. As such, BICO chooses to transport shipping equipment using the already-established armored carrier contracts.

Evaluating alternatives for transporting shipping equipment could potentially yield transportation cost savings. During 2017, BICO paid its armored carriers approximately \$379,000 for 136 shipments of shipping equipment. In a couple cases, the Board spent more in shipment costs than the containers are estimated to be worth. For example, in one case, the Board spent \$10,900 to ship empty containers valued at approximately \$4,500.

Recommendations

We recommend that the Director of RBOPS

1. Evaluate opportunities to streamline the forecasting process and finalize the *Currency Desk Training Guide* accordingly.
2. Consider modifying the *Currency Issuance Policies and Procedures* to encourage selecting the lowest-cost mode of transportation within capacity requirements.

We recommend the Director of RBOPS, in conjunction with the Chief Financial Officer,

3. Evaluate alternatives for transporting shipping equipment to reduce transportation costs.

Management's Response

The Board concurs with our recommendations. Specifically, the Board states that it will evaluate opportunities to streamline the forecasting process and finalize the *Currency Desk Training Guide*. The Board also states that it will consider modifying the *Currency Desk Training Guide* to document the practice of selecting the lowest-cost mode of transportation based on business requirements and document business exceptions. The Board indicated that it has begun to enhance the currency shipment system to automatically select the lowest-cost mode of transportation based on business requirements. Lastly, the Board indicates that it will evaluate alternatives for transporting shipping equipment.

OIG Comment

We believe that the actions described by the Board are responsive to our recommendations. We will follow up to ensure that our recommendations are fully addressed.



Finding 2: The Board Can Improve Its Administration of Armored Carrier Contracts

The Board's processes to solicit bids and award contracts to armored carriers are generally effective; however, the Board should improve its administration of its armored carrier contracts. Although BICO is responsible for overseeing armored carrier compliance with the contract technical requirements, it did not ensure that armored carriers complied with insurance, BISP, or other technical requirements. BICO did not ensure compliance because it was relying on other parties to do so, and it was not familiar with those technical requirements. In addition, BICO noted that certain requirements in the contract were carryovers from previous contracts and had not been updated during the last recompet. If the armored carrier contracts are not properly administered, BICO cannot ensure that the Board is adequately insured against loss or damage to shipments, that armored carriers understand and comply with the Board's information security requirements, and that the Board is receiving adequate service or pricing from armored carriers.

The Board's Processes to Solicit Bids and Award Contracts to Armored Carriers Are Generally Effective

During its 2016 contract solicitation and award of armored carrier contracts, Procurement solicited bids from eight armored carriers, received bids from six, and awarded contracts to five. The technical evaluation team conducted technical evaluations of armored carrier proposals, wherein it evaluated armored carrier proposals against as many as 52 technical requirements.⁴ Procurement also conducted price evaluations and awarded routes to the armored carriers that bid the lowest price for each route and had been awarded a *pass* rating during their technical evaluations.

BICO Can Improve the Administration of Its Armored Carrier Contracts

Although the Board has generally effective processes to solicit bids, evaluate proposals, and award contracts, BICO should take steps to improve the administration of its armored carrier contracts. BICO is responsible for developing contract technical requirements and ensuring that armored carriers comply fully with these requirements. However, BICO did not ensure that armored carriers were complying with insurance requirements, did not provide the armored carriers with information they would need to

⁴ The exact number of technical requirements that were evaluated for each carrier ranged from 29 to 52 and depended on the types of routes the armored carriers bid on. In general, the technical requirements pertained to armored carrier equipment, vaults, insurance, and past performance. Although the technical evaluation team consisted of BICO employees, Procurement and the Board's Legal Division assisted by evaluating insurance-related technical requirements.

ensure their compliance with the BISP, and did not update certain technical requirements and monitor armored carrier performance against them.

Monitoring Armored Carrier Insurance Could Help Ensure That the Board Is Adequately Protected Against Loss or Damage

BICO relies heavily on insurance to mitigate risks in the currency shipment process, but it did not properly monitor insurance coverage to ensure that armored carriers comply with insurance requirements. The armored carrier contracts require armored carriers to maintain insurance throughout the contract's period of performance. They also state that the COR should assure that contractor performance complies with technical requirements throughout the contract's period of performance. However, we learned that the COR had not been requesting and reviewing insurance coverage after the initial insurance review during the technical evaluation process, with the exception of a review of insurance pertaining to a merger of two carriers. Although the COR is responsible for overseeing the technical requirements of the contract during the period of performance, the COR believed that Procurement was collecting the insurance certificates. A Procurement representative stated that Procurement does not collect or review insurance certificates for this contract.

When we reviewed armored carrier cargo insurance policies in place as of August 2018, we identified two changes to one carrier's insurance certificate that the Board was unaware of but likely would have discovered if BICO had been monitoring insurance throughout contracts' period of performance.

- The carrier stopped naming the Board as an insured party on its insurance certificate, even though naming the Board as an insured party is required to ensure that the Board can file claims directly with the armored carrier's insurer in the event that a shipment is lost or damaged.
- The carrier, which was approved to bid on certain ad hoc routes, had reduced its insurance coverage to an amount below that required by contract for such routes. Although this carrier was not awarded any such routes during the time that its insurance coverage was reduced, the Board was unaware of the change and could have unknowingly awarded that carrier ad hoc routes for which a portion of the shipment would have been uninsured.

The carrier ultimately provided updated insurance certificates that named the Board as an insured party and contained the appropriate insurance coverage for all routes. Nevertheless, if BICO does not monitor armored carrier insurance throughout contracts' period of performance, it cannot be assured that the carriers are adhering to the contract requirements and that the Board is protected against loss or damage to shipments.

Providing BISP Requirements to Armored Carriers Could Help Ensure That Armored Carriers Are Adequately Protecting Board Data

The Board provides armored carriers limited remote access to its currency shipment system so that they may access their upcoming shipment data and billing information; however, the Board did not provide the armored carriers with the information necessary to enable them to comply with information security

requirements stated in the BISP. The contracts state that to the extent that armored carriers provide services that include storage of Board information, such services must comply with the BISP. The BISP requires the currency shipment system owner (who is a member of BICO) to ensure that the carriers are appropriately complying with the program.

Although BICO is responsible for ensuring that contractors comply with the BISP, BICO staff members informed us that they thought Procurement had provided the contractors with a copy of the BISP as part of the contract award process. Procurement staff members informed us that they did not provide contractors with a copy of the BISP. If armored carriers do not have a copy of the BISP, the Board cannot expect them to understand and comply with its information security program, which increases the risk that contractors may lose or mishandle Board data.

Updating Contract Requirements and Monitoring Armored Carrier Performance Could Help Ensure That the Board Receives the Expected Level of Service

The COR did not ensure that armored carriers complied with certain contract technical requirements. For example, the contracts require that a certain number of guards be used for over-the-road, direct surface, and direct air routes; however, carriers were using fewer than the required number of guards.

The COR is responsible for developing the requirements for the services that armored carriers are to provide and for ensuring that armored carriers comply with those requirements. However, when we informed BICO representatives that armored carriers were using fewer than the required number of guards, they indicated that they were not familiar with that particular contract requirement. The COR noted that certain requirements in the contract, including the number of guards, were carryovers from previous contracts and were not updated during the last recompetes. The COR also stated that BICO would need to review the guard requirements and determine the number of guards that are necessary.

Further, because the COR cannot be physically present at all shipments, he relies on BEP and the Reserve Banks to monitor the carriers' performance. We learned, however, that the relevant BEP and Reserve Bank representatives were not familiar with the contract requirements and did not know to notify the COR of deviations in armored carrier performance, such as when armored carriers send fewer than the required number of guards. If the COR does not ensure that contract terms are up to date and are being followed by the armored carriers, the Board may be overpaying for the services it receives or may not be receiving the expected level of service.

Recommendations

We recommend that the Director of RBOPS

4. Establish a process to ensure that the COR obtains and reviews the armored carriers' insurance certificates throughout the period of performance.
5. Establish a process to ensure that BISP requirements are communicated to armored carrier personnel who are accessing the currency shipment system.

We recommend that the Director of RBOPS, in conjunction with the Chief Financial Officer,

6. Review the current armored carrier contract terms, such as the number of guards, the way in which the routes were priced, and the services received. Determine whether the Board received the level of service for which it paid and seek reduced prices going forward if appropriate.
7. Update the technical requirements in the armored carrier contracts to reflect current expectations and ensure that the COR is familiar with these requirements.
8. Establish a process to ensure that armored carriers comply with contract terms and to communicate key requirements to BEP and the Reserve Banks.

Management's Response

The Board concurs with our recommendations. Specifically, the Board states that it will establish a process to obtain and review armored carrier insurance certificates throughout the period of performance and improve its process to communicate BISP requirements to armored carrier personnel who access the automated currency shipment system. Additionally, the Board (1) will review the current armored carrier contract terms to help ensure that future contract rebids reflect updated requirements and seek prices that reflect the Board's updated requirements, (2) will review contract technical requirements and incorporate updated technical requirements into future contract rebids, and (3) will establish a process to share key contract requirements with appropriate BEP and Reserve Bank staff.

OIG Comment

We believe that the actions described by the Board are responsive to our recommendations. We will follow up to ensure that our recommendations are fully addressed.



Other Matter for Management's Consideration

Although the Board solicited and received several bids to ensure competition for its armored carrier contracts, it can take additional steps to enhance competition during future recompetes of armored carrier contracts. The Board's *Acquisition* policy notes that providing vendors with a fair opportunity under competitive acquisition methods helps the Board acquire the highest-quality services at the best-possible value. The U.S. Government Accountability Office also notes that competition is critical for agencies to achieve the best return on their investment.⁵

Fostering competition for armored carrier contracts is a challenge because of the limited number of carriers that can meet the Board's requirements. Competition is further limited because not all carriers bid on all routes. Specifically, in 2016, of the five armored carriers that passed the technical evaluation, four bid on over-the-road routes, two bid on direct surface routes, and three bid on air routes. Further, the number of armored carriers has been declining over time. During our audit, two of the companies that bid in 2016 merged and two more announced that they plan to merge. Should the planned merger take place, the number of armored carriers that the Board has under contract after the merger would be reduced to three.

During the last solicitation, two large armored carriers did not submit bids. BICO noted that not receiving a bid from these carriers was unusual, but it did not follow up with them during the solicitation. After the solicitation, one of the armored carriers contacted Procurement to discuss how it might be able to bid on routes in the future. From this conversation, Procurement learned that its point of contact at the carrier had left, so the carrier never realized that it received the invitation to bid. Procurement does not know why the other carrier did not bid.

Because of the small number of armored carriers that meet the Board's requirements, it is important for Procurement to follow up with those armored carriers to encourage competition. In future recompetes for armored carrier contracts, Procurement should consider confirming with armored carriers that do not submit bids that they do not wish to do so. This follow-up will ensure that all armored carriers that want to compete have the opportunity to bid and may help the Board to get the best possible pricing.

⁵ U.S. Government Accountability Office, *Federal Contracting: Opportunities Exist to Increase Competition and Assess Reasons When Only One Offer Is Received*, GAO-10-833, July 26, 2010.



Appendix A: Scope and Methodology

Our objective was to assess the efficiency and effectiveness of the Board's management of the currency shipment process and the effectiveness of the related contracting activities. The scope of our audit included the shipment data and the armored carrier contracts in effect from January 1, 2017, through December 31, 2017. During 2017, there were a total of 3,361 currency shipments, and the transportation costs for these shipments totaled approximately \$21.2 million.

To assess the efficiency and effectiveness of the currency shipment process, we

- reviewed relevant criteria, including the Federal Reserve Act, the *Federal Reserve Administrative Manual*, the currency shipment system *User Guide*, and *Currency Issuance Policies and Procedures*
- conducted interviews with BICO officials and staff, Accounts Payable staff, Procurement staff, designated currency desk backups, and Reserve Bank staff
- performed walkthroughs of the currency shipment process, including the forecasting, scheduling, and payment processes
- developed detailed flowcharts and narratives of the currency shipment process
- analyzed 2017 shipment data in the currency shipment system and payment information in the accounting system
- completed data reliability testing of the currency shipment system reports we relied on and gained reasonable assurance that they are sufficiently accurate and complete to support our audit conclusions

We tested seven attributes and, where sampling was used, selected a statistical sample so that the results can be projected to the population, as shown in table A-1.

Table A-1: Testing Attributes, Methodology, Population, and Sample Size

Testing attribute	Methodology	Population	Sample size
A second checker verifies whether the contract rates were entered into the currency shipment system correctly.	We compared the rates in the currency shipment system to the contract rates for preapproved routes.	2,792	2,792
A Procurement staff member sends an award email to authorize an ad hoc shipment.	We verified whether ad hoc shipments had an award email.	569	51 (statistical sample)
A BICO staff member manually enters the ad hoc shipment rate into the currency shipment system.	We confirmed whether the costs in the award emails were entered into the currency shipment system correctly.	569	51 (statistical sample)
A BICO staff member approves the billing statement in the currency shipment system; an Accounts Payable staff member reviews the billing statement and approves it for payment in the accounting system.	We compared the total costs in the currency shipment system to the invoice totals in the accounting system.	3,361	3,361
Signatures on the manifests confirm the transfer of liability.	We confirmed whether shipments had signed manifests.	3,361	75 (statistical sample)
The currency shipment system does not allow shipments to be scheduled on blackout dates.	We verified whether shipments were scheduled on weekends, holidays, and other restricted days.	3,361	3,361
Shipment value does not exceed the insurance limit.	We compared the shipment value to the insurance limit for each route.	3,361	3,361

Source. OIG analysis.

To assess the effectiveness of the related contracting activities, we

- reviewed the Board's armored carrier contracts
- reviewed applicable criteria, including the *Acquisition* policy, *Acquisition Procedures*, and the BISP
- interviewed Procurement, BICO, Reserve Bank, and BEP officials and staff
- observed a judgmental sample of 9 shipments of 957 total shipments that occurred from March 2018 to June 2018; our observations were at the Washington, DC, BEP facility; the

Fort Worth BEP facility; the Federal Reserve Bank of Dallas; the Federal Reserve Bank of Richmond (Baltimore branch); and the Federal Reserve Bank of San Francisco (Los Angeles branch)⁶

- During our observations, we noted whether armored carriers met contract terms, such as whether the correct number of guards was used, guards were approved to transport currency, vehicles were equipped to carry currency, and shipping manifests were accurate and complete.
- reviewed technical and price evaluations
- reviewed contract monitoring documents, such as armored carrier insurance certificates (cargo, workers' compensation, and automobile liability); approved armed guards lists; and background investigation certifications
- reviewed contract modifications and correspondence resulting from the merger of two carriers in 2017

We conducted our fieldwork from March 2018 to September 2018. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

⁶ At the Fort Worth BEP facility, we observed two instances in which armored carriers used one truck to pick up two different shipments. Therefore, although we observed nine shipments, we actually saw seven different armored carrier pickups and drop-offs.



Appendix B: Management's Response

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

DIVISION OF RESERVE BANK OPERATIONS AND PAYMENT SYSTEMS

November 16th, 2018

Dear Ms. Gray,

Thank you for the opportunity to review and comment on the Office of Inspector General's (OIG) draft report titled "*The Board's Currency Shipment Process is Generally Effective but Can Be Enhanced to Gain Efficiencies and to Improve Contract Administration.*" We have reviewed the report and concur with the recommendations provided regarding opportunities to gain efficiencies and improve contract administration.

Your report indicates that you found that the RBOPS currency shipment process is generally effective, but that our processes could be streamlined to potentially save time and money. Your report also notes that we can improve our currency transportation contract administration. We take the findings and recommendations seriously, and will continue to pursue efficiency opportunities and improve contract administration as recommended.

We appreciate the professionalism your staff demonstrated throughout the review. We have provided comments for each recommendation.

The report recommends that the Director of RBOPS

1. Evaluate opportunities to streamline the forecasting process and finalize the Currency Desk Training Guide accordingly

Management Response 1: RBOPS concurs with this recommendation. RBOPS will evaluate opportunities to streamline the forecasting process and finalize the Currency Desk Training Guide.

2. Consider modifying the Currency Issuance Policies and Procedures to encourage selecting the lowest-cost mode of transportation within capacity requirements.

Management Response 2: RBOPS concurs with this recommendation. RBOPS will consider modifying the Currency Desk Training Guide to document the practice of selecting the lowest-cost mode of transportation based on business requirements, and document exceptions. RBOPS has requested that Board Information Technology enhance the currency shipment system to select automatically the lowest-cost mode of transportation based on business requirements.

The report recommends that the Director of RBOPS, in conjunction with the Chief Financial Officer,

3. Evaluate alternatives for transporting shipping equipment to reduce transportation costs.

Management Response 3: RBOPS and the CFO concur with this recommendation. RBOPS and DFM will collaborate to evaluate alternatives for transporting shipping equipment.

The report recommends that the Director of RBOPS

4. Establish a process to ensure that the COR obtains and reviews the armored carriers' insurance certificates throughout the period of performance.

Management Response 4: RBOPS concurs with this recommendation. RBOPS will establish a process to obtain and review armored carrier insurance certificates throughout the period of performance.

5. Establish a process to ensure that Board Information Security Program and Policies (BISP) requirements are communicated to armored carrier personnel who are accessing the currency shipment system.

Management Response 5: RBOPS concurs with this recommendation. RBOPS will improve the existing process to communicate BISP requirements to armored carrier personnel who are accessing the automated currency shipment system.

The report recommends that the Director of RBOPS, in conjunction with the Chief Financial Officer,

6. Review the current armored carrier contract terms, such as the number of guards, the way in which the routes were priced, and the services received. Determine whether the Board received the level of service for which it paid and seek reduced prices going forward if appropriate.

Management Response 6: RBOPS and the CFO concur with this recommendation. RBOPS and DFM will collaborate to review the current armored carrier contract terms and see what can be done to ensure that future rebids of currency transportation contracts reflect updated requirements and seek prices that reflect the Board's updated requirements.

7. Update the technical requirements in the armored carrier contracts to reflect current expectations, and ensure that the COR is familiar with these requirements.

Management Response 7: RBOPS and the CFO concur with this recommendation. RBOPS and DFM will collaborate to review the technical requirements in the armored carrier contracts and incorporate updated technical requirements into future rebids of currency transportation contracts. RBOPS will ensure that the COR is familiar with the requirements.

8. Establish a process to ensure that armored carriers comply with contract terms and to communicate key requirements to BEP and the Reserve Banks.

Management Response 8: RBOPS and the CFO concur with this recommendation. RBOPS will establish a process to share key contract requirements with appropriate BEP and Reserve Bank staff.



Brian A. Lawler
Assistant Director



Abbreviations

BEP	Bureau of Engraving and Printing
BICO	Banknote Issuance and Cash Operations
BISP	<i>Board Information Security Program and Policies</i>
Board	Board of Governors of the Federal Reserve System
COR	contracting officer’s representative
OIG	Office of Inspector General
RBOPS	Division of Reserve Bank Operations and Payment Systems

Report Contributors

Jackie Ogle, OIG Manager
Margaret An, Project Lead
John Galvin, Senior Auditor
Monica Cook, Auditor
Gary Vargas, Auditor
Hau Clayton, Forensic Auditor
Fay Tang, Statistician
Cynthia Gray, Senior OIG Manager for Financial Management and Internal Controls
Timothy Rogers, Acting Associate Inspector General for Audits and Evaluations
Melissa Heist, Associate Inspector General for Audits and Evaluations (retired)

Contact Information

General

Office of Inspector General
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue NW
Mail Stop K-300
Washington, DC 20551

Phone: 202-973-5000
Fax: 202-973-5044

Media and Congressional

OIG.Media@frb.gov



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OIG Hotline
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue NW
Mail Stop K-300
Washington, DC 20551

Phone: 800-827-3340
Fax: 202-973-5044