

117336

REPORT BY THE

RESTRICTED — Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.

Comptroller General

OF THE UNITED STATES

RELEASE

National Defense-Related Silver Needs Should Be Reevaluated And Alternative Disposal Methods Explored

Using 1978 Federal Emergency Management Agency data, Congress authorized disposal of over 105 million troy ounces, or about 75 percent, of the 139.5 million troy ounces of silver in the National Defense Stockpile. However, this disposal has been suspended pending a July 1, 1982, redetermination that the silver is excess to stockpile requirements.

GAO found that conditions have changed since 1978. projected defense-related demand for silver has increased, while silver from existing domestic mines and processors has decreased. GAO also examined alternatives to disposing of silver by auction and found that one—a bullion coinage program—appeared to be an attractive alternative that should be considered.

GAO recommends a number of factors the Director, FEMA, should consider in making the legislatively required redetermination to dispose of the silver. Congress should also consider requiring the Department of the Treasury to study the bullion coinage alternative.



117336

EMD-82-24
JANUARY 11, 1982

220297

Request for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760**

Telephone (202) 275-6241

The first five copies of individual reports are free of charge. Additional copies of bound audit reports are \$3.25 each. Additional copies of unbound report (i.e., letter reports) and most other publications are \$1.00 each. There will be a 25% discount on all orders for 100 or more copies mailed to a single address. Sales orders must be prepaid on a cash, check, or money order basis. Check should be made out to the "Superintendent of Documents".



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

B-205617

The Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate

The Honorable Charles E. Bennett
Chairman, Subcommittee on Seapower
and Strategic and Critical Materials
Committee on Armed Services
House of Representatives

As requested in your letters dated July 7 and 9, 1981, and in subsequent discussions with your offices, this report addresses the sale of 105.1 million troy ounces of silver from the National Defense Stockpile as authorized under title II of the Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35) and disposal alternatives. We recommend that the Director of the Federal Emergency Management Agency consider changes in supply and demand relationships that have occurred since 1978 in redetermining that the silver is excess to stockpile requirements. We also point out that the Congress should consider requiring the Department of the Treasury to thoroughly study the feasibility of disposing of any excess silver by minting bullion coins.

As requested by your offices, we did not obtain official agency comments. Views of agency officials were obtained, however, and are presented in the text of the report where appropriate. Their remarks do not, however, represent the official positions of their agencies.

As further arranged with your offices, we plan no further distribution until 10 days from the date of this report. At that time we will send copies to the Director, Federal Emergency Management Agency, the Secretary of the Treasury, the Administrator of General Services and other interested parties upon request.

A handwritten signature in black ink that reads "Charles A. Bowsher".

Comptroller General
of the United States

Enclosure

C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Stockpile legislation	1
	The history of the silver stockpile	2
	Management of the stockpile	4
	Objectives, scope, and methodology	4
	Prior reports	7
2	THE STOCKPILE SILVER GOAL SHOULD BE REDETERMINED BASED ON CHANGES IN SUPPLY AND DEMAND RELATIONSHIPS	9
	Defense-related demand for silver has increased	9
	Uncertainties relating to silver supplies and costs	10
	Domestic mining and processing estimates may be high	12
	Other domestic sources of silver are available but possibly at higher prices	12
	Foreign supplies will still be essential to our national defense	14
	Uncertainty surrounds the potential long-term impact of the disposal	17
3	CONGRESSIONAL GOALS HAVE NOT BEEN MET	18
	A sale should depress the short-term price of silver	18
	Any impact on domestic producers and consumers will be limited to the short-term	19
	Domestic consumption cannot be assured	20
	The silver is not affordable to most American families	21
	The disposal may not maximize revenues to acquire other strategic and critical materials	21
4	ALTERNATIVE METHODS FOR DISPOSING OF THE STOCKPILE SILVER	23
	All alternatives appeared to have advantages and drawbacks	23
	Advantages of numismatic and bullion coins	24

		<u>Page</u>
CHAPTER		
	A coinage program may better meet congressional goals	25
	The implications of face value must be thoroughly considered	26
	The coinage program should not substitute for a planned increase in the money supply	26
	Past precedent would require that both the value of the silver and the face value of the coins be covered by the sale price	29
	Problems associated with past coinage programs must be overcome to stimulate demand	32
	Combining several factors could stimulate demand	33
	The Bureau of the Mint could produce the coins	34
5	CONCLUSIONS AND RECOMMENDATIONS	36
	Conclusions	36
	Recommendation to the Director of the Federal Emergency Management Agency	38
	Matters for the Consideration of the Congress	38
APPENDIX		
I	Letter dated July 7, 1981, from the Chairman, Senate Committee on Energy and Natural Resources	40
II	Letter dated July 9, 1981, from the Chairman, Subcommittee on Seapower and Strategic and Critical Materials, House Committee on Armed Services	42
III	Title II of the Omnibus Budget Reconciliation Act of 1981	44
IV	List of Federal agencies and silver producers, experts, and traders contacted	47

GLOSSARY

bid	An offer to purchase at a price in an auction or as terms in a competition to secure a contract.
bullion	Gold or silver in mass, usually in the form of bars or ingots.
cartel	An international syndicate formed to regulate prices or output in a field of business.
concentrate	Ore that has been treated to increase the percentage of valuable metal(s) within it.
critical	Refers to the essentiality of a material.
face value	The value printed on the face of a financial instrument or document.
fungible commodity	A moveable good, any unit or part of which can replace another unit.
ingot	The casting obtained when melted metal is poured into a mold.
legal tender	Currency which may be lawfully tendered or offered in payment of money debts and which may not be refused by creditors.
minting	The process of making or fabricating coins by stamping metal.
mint mark	Small letter designating where a coin is made.
mint set	Specially packaged specimens of each year's coins for every denomination issued from each mint. Unlike proofs, they are normal coins intended for circulation and are not minted with any special consideration for quality.
numismatics	The science of coins and medals.
ore	A natural mineral or mineral aggregate containing metals in such quantity, grade, and chemical combination as to make extraction profitable.
primary production	The production of metals from ores, natural brines, or ocean water.

ABBREVIATIONS

FEMA Federal Emergency Management Agency

GSA General Services Administration

GAO U.S. General Accounting Office

proof	The method of manufacture to obtain superior sharpness of detail and brilliant mirror-like surfaces.
refining	Operations performed after crude metals have been extracted from their ores to produce the metal in higher levels of purity.
secondary production	Production of metals recovered from scrap by remelting and refining.
smelting	The process in which a mineral is separated from impurities or other minerals with which it may be chemically combined or physically mixed.
strategic	Refers to the relative availability of a material.
troy ounce	A measure of weight equal to 31.103 grams.

7

1. The first part of the document
 2. discusses the general principles
 3. of the proposed system.
 4. It is intended to provide a
 5. clear and concise overview
 6. of the key components and
 7. objectives of the project.

The second part of the document
 details the specific implementation
 of the system, including the
 hardware and software
 requirements, and the
 proposed architecture.

D I G E S T

To prevent a dangerous and costly dependence on foreign supply sources during national emergencies, the United States maintains a National Defense Stockpile of materials to avoid military setbacks and economic damage in wartime.

In 1976 and again in 1980, the Federal Emergency Management Agency determined that the supply of silver from domestic production and reliable imports exceeded the estimated quantity required to sustain the United States for a period of not less than 3 years in the event of a national emergency. Therefore, the Agency concluded that the 139.5 million troy ounces of silver in the stockpile were not needed for national defense.

The Omnibus Budget Reconciliation Act of 1981, Public Law 97-35, authorized the disposal of 105.1 million troy ounces or about 75 percent of the stockpile silver in fiscal years 1982 through 1984. However, the fiscal year 1982 Defense Appropriations Act, signed by the President on December 29, 1981, suspends the disposal pending a July 1, 1982, redetermination that the silver to be disposed of is excess to stockpile requirements and congressional approval of any proposed disposal.

In July 1981, the Chairmen of the Senate Committee on Energy and Natural Resources and the Subcommittee on Seapower and Strategic and Critical Materials, House Committee on Armed Services, asked GAO to evaluate the impending disposal of silver from an overall availability perspective and report the results to their Committees by the end of 1981. (See app. I and II.) Both expressed concern that the broad implications of the sale had not been adequately considered and subsequently asked GAO to address all aspects of the sale, including changes which have occurred since the sale was last justified and alternatives to disposing of any excess silver. The fiscal year 1982 Defense Appropriations Act includes a specific requirement that GAO's findings and recommendations be considered in the July 1982 redetermination referred to above.

FACTORS USED TO ESTABLISH A ZERO
SILVER STOCKPILE GOAL HAVE CHANGED

Stockpile goals were last published in 1980 based on 1978 supply and demand data. Several factors used to establish stockpile goals for all strategic and critical materials, including a zero silver goal, have changed. These changes have

--increased projected defense-related demand for silver during national emergencies (see p. 9), and

--reduced the availability of silver from existing domestic mines and processors. (See p. 12.)

Moreover, silver from other sources, including recycling and foreign suppliers, may cost more (in constant dollars discounted to present value) during wartime than the revenues to be realized from the sale of the stockpile silver. This could lead to a costly and dangerous dependence. (See pp. 12 and 16.)

Further, all three of the United States' major foreign suppliers, while generally considered reliable, have protested the disposal. Even though a sale's impact will be limited to the short-term, Canada, Mexico, and Peru have expressed their concerns through diplomatic channels, alleging that a sale will depress the market price, resulting in decreased employment and foreign exchange earnings. However, the effect, if any, of their concerns on the future availability of foreign supplies during wartime is unclear. (See p. 14.) In redetermining if the silver to be disposed of is excess to stockpile requirements, projected increased U.S. dependency on foreign silver sources and the possibility that a silver stockpile goal could be reestablished in the future should be considered. (See p. 17.)

CONGRESSIONAL GOALS HAVE NOT BEEN MET

To comply with the enabling legislation, the General Services Administration held weekly auctions where up to 1.25 million troy ounces of silver were offered for sale by sealed bid. The minimum bid accepted was for eight

1,000 troy ounce ingots. While this disposal method is expedient and complies with legislatively mandated competitive procedures, it has not met other congressional goals to

- minimize or eliminate any short-term market price disruption because all else remaining the same or constant, a sale will depress the short-term price of silver relative to what it would have been (see p. 18), and
- assure that the disposal is for domestic consumption because the ingots can displace other silver bullion held domestically which can then be shipped out of the country or the ingots can be reprocessed and readily exported thereafter. (See p. 20.)

The General Services Administration rejected all bids at its fifth and sixth weekly auctions because they were all below market price and subsequently received a congressional waiver from the domestic consumption requirement. An unrestricted silver sale was held on December 16, 1981, but again all bids were rejected.

Moreover, the disposal may not maximize revenues to acquire other strategic and critical materials currently below stockpile goal levels. The disposal is ill-timed, occurring when the price of silver is already depressed. (See p. 21.)

A BULLION COINAGE PROGRAM APPEARS TO BE A VIABLE DISPOSAL ALTERNATIVE

Because selling the silver at auction has not met all the goals of the Congress, GAO explored disposal alternatives including coinage programs, small silver bars, transferring or selling the silver to the U.S. Treasury, and leaving the silver in the National Defense Stockpile. While all alternatives appeared to have advantages and drawbacks (see p. 23), a bullion coinage program appeared to be an attractive alternative that should be considered. Effectively implemented, a coinage program may

- minimize or eliminate any short-term market price disruption by developing new demand to offset the increased supply (see p. 25),
- better assure that the disposal is for domestic consumption by making the silver

more attractive, affordable, and accessible to first-time investors from a wide range of American income groups (see p. 26), and

--increase Federal revenues to acquire other strategic and critical materials over selling the silver at auction in a depressed silver market. (See p. 26.)

The success of a coinage program is contingent, however, on public demand. Problems such as limiting the market to coin collectors, limiting the number of coins per customer, and complex and time consuming ordering procedures have dampened public demand for past coins. Therefore, an effective marketing strategy that includes an economical, readily accessible, and simplified channel of distribution must be developed to overcome problems associated with past U.S. coinage programs. (See p. 32.) The implications of (1) placing a face value on the coins (see p. 26) and (2) making them legal tender (see p. 34) must also be thoroughly studied.

RECOMMENDATION TO THE DIRECTOR OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY

Since the Federal Emergency Management Agency will have lead responsibility in advising the President with respect to the redetermination required by the fiscal year 1982 Defense Appropriations Act, GAO recommends that the Director of the Federal Emergency Management Agency, in evaluating various factors and information, specifically consider (1) the most recent war scenario hypothesized in terms of participants, war fronts, type of military action, and warning time, (2) defense-related uses of silver during past national emergencies, (3) reduced expansion from existing mines during wartime, (4) decreasing domestic smelting capacity, (5) the cost of silver from recycling, domestic stocks, and foreign suppliers, (6) the impact that selling the silver at auction may have on relations between the United States and its major foreign suppliers, and (7) long-term uncertainties relating to projected increased U.S. dependency on foreign silver sources and the possibility that a silver stockpile goal could be reestablished at some future date. (See p. 38.)

MATTERS FOR THE CONSIDERATION
OF THE CONGRESS

GAO's work indicates that a bullion coinage program is possibly an attractive alternative method for disposing of the stockpile silver. In considering such a program, further study is required regarding the probability of developing an effective marketing strategy which would develop new demand and participation by first-time investors from a wide range of income groups. Pertinent factors to be considered include the implications of placing a face value on the coins and making them legal tender. To have such information available at the same time as the July 1982 redetermination required by the fiscal year 1982 Defense Appropriations Act, the Congress should consider requiring that the Secretary of the Treasury conduct the appropriate study and provide the results to them by July 1, 1982. (See p. 38.)

AGENCY COMMENTS

In the interest of the timely release of this report, the requestors' offices directed that GAO not obtain official agency comments. Views of agency officials were obtained, and are presented in the text of the report where appropriate. Their remarks do not, however, represent the official positions of their agencies.

CHAPTER 1

INTRODUCTION

The United States cannot produce certain strategic and critical materials in sufficient amounts to support its requirements during periods of national emergency. To prevent what could be a dangerous and costly dependence on foreign supply sources during these crises, the United States maintains a National Defense Stockpile of materials to avoid military setbacks and economic damage in wartime. As of October 1, 1981, the stockpile contained 139.5 million troy ounces of silver.

Stockpile goals represent the estimated material requirements for the first 3 years of a conventional war, above those which could be expected to be available from domestic production and reliable imports. In 1976 and again in 1980, the Federal Emergency Management Agency (FEMA), which determines stockpile policy and goals, concluded that the silver in the National Defense Stockpile is not needed to meet national defense requirements and set the goal at zero.

Beginning in fiscal year 1982, 105.1 million troy ounces or about 75 percent of the stockpile silver were authorized for disposal. In July 1981, the Chairmen of the Senate Committee on Energy and Natural Resources and the Subcommittee on Seapower and Strategic and Critical Materials, House Committee on Armed Services, asked GAO to evaluate the impending disposal of silver from an overall availability perspective and report the results to their Committees by the end of 1981. (See app. I and II.) In their letters, they expressed concern that the broad implications of the sale had not been adequately considered. Subsequently, their offices asked us to address all aspects of the sale, including changes which have occurred since the sale was last justified and alternatives to disposing of any excess silver.

STOCKPILE LEGISLATION

The first major Federal program to stockpile strategic and critical materials was authorized and initiated under the Strategic Materials Act of 1939 and amended by the Strategic and Critical Materials Stock Piling Act of 1946 (50 U.S.C. 98 et seq.). Materials were procured under this act to support U.S. industrial and military needs during an emergency. However, except for the transfer of 165 million troy ounces of silver from the U.S. Treasury in June 1968, no significant additions to the stockpile were made between 1959 and 1979, and the Congress had not authorized the disposal of excess stockpile materials since 1973.

The Strategic and Critical Materials Stock Piling Revision Act of 1979, Public Law 96-41, revised and updated the 1946 act to conform to current stockpile policy and to strengthen the legislative role in stockpile matters. The 1979 act restricts the use of stockpile materials to national defense and precludes their use for economic or budgetary purposes. It also established a separate fund in the U.S. Treasury--the National Defense Stockpile Transaction Fund--where all moneys received from the sale of stockpile materials are deposited. Moneys in the Transaction Fund are only for the acquisition of strategic and critical materials.

Section 6 of the Strategic and Critical Materials Stock Piling Act, as amended, requires that stockpile materials must be disposed of by formal advertising or competitive negotiation procedures and that to the maximum extent feasible

- competitive procedures be used,
- efforts be made to avoid undue disruption of the usual markets of producers, processors, and consumers of such materials,
- efforts be made to protect the United States against avoidable loss, and
- the disposals be for domestic consumption.

Title II of the Omnibus Budget Reconciliation Act of 1981, Public Law 97-35, enacted August 13, 1981, made further improvements in stockpile management. It requires all moneys received from the sale of stockpile materials to remain in the Transaction Fund until appropriated and provides that moneys in the Fund, when appropriated, remain available until expended, unless otherwise provided in appropriation acts.

THE HISTORY OF THE SILVER STOCKPILE

Silver is very important to a conventional war effort. Its essentiality to photographic and electrical applications requires that the United States assure its availability during national emergencies.

In June 1968, 165 million troy ounces of silver were transferred from the U.S. Treasury to the Strategic and Critical Materials Stockpile (renamed the National Defense Stockpile by Public Law 96-41) in accordance with the provisions of Public Law 90-29 adopted in 1967, authorizing adjustments in the amounts of outstanding silver certificates. Subsequently, 25.5 million troy ounces were transferred back to the Treasury for use in the Eisenhower coinage program in accordance with section 202 of the Bank Holding Company Act amendments of 1970 (84 Stat. 1768). This transaction reduced the stockpile silver to 139.5 million troy ounces.

Based on FEMA's 1976 and 1980 determinations that the stockpile silver is not needed to meet national defense requirements, title II of the Omnibus Budget Reconciliation Act of 1981 authorized the disposal of 105.1 million troy ounces of silver-- 46.5 million troy ounces in fiscal year 1982, 44.7 million troy ounces in fiscal year 1983, and 13.9 million troy ounces in fiscal year 1984. However, the fiscal year 1983 and 1984 authorizations were contingent on the President, not later than September 1, 1982, determining that the silver to be disposed of in those fiscal years was in excess of stockpile requirements as of that date. In making such a determination, the President was mandated to consider certain factors relevant to domestic supply of and demand for silver, potential U.S. dependency on foreign suppliers, and the impact of the disposal on the silver market as well as domestic and foreign producers. Further, authority to dispose of the silver expires at the end of the fiscal year in which the disposal is authorized. (See app. III.)

At September 17, 1981, hearings before the Subcommittee on Seapower and Strategic and Critical Materials, House Committee on Armed Services, Congressman Lawrence P. McDonald requested the General Services Administration (GSA) to consider disposing of the silver in a manner affordable to most American families. At the hearings, GSA officials assured Congressman McDonald that bids of 1,000 troy ounces would be considered.

To dispose of the silver, GSA, which has this responsibility, held weekly auctions where up to 1.25 million troy ounces of silver were offered for sale by sealed bid. The minimum bid accepted was for eight 1,000 troy ounce ingots with 10 percent of the bid price provided as down payment. Bids that met this criterion were evaluated based on (1) the market price of silver on the day of the auction, (2) the quality of the silver to be sold (all the silver is at least 99.9 percent pure), (3) the location where the silver is stored (either San Francisco, California, or West Point, New York), and (4) the price of the competing bids received. Successful bidders were required to take delivery at the location where the silver is stored.

Under an amendment to the fiscal year 1982 Defense Appropriations Act signed by the President on December 29, 1981, the weekly silver auctions were suspended pending a July 1, 1982, redetermination by the President that the silver to be disposed of is excess to stockpile requirements. In making such a determination, the President is mandated to consider certain factors including the findings and recommendations in this report. As in the past, FEMA will be delegated lead responsibility in making the redetermination.

The act also requires that the President report to the Senate and House Committees on Armed Services on alternative methods to dispose of any silver found to be in excess of stockpile requirements, including his recommended disposal method. No disposal action can be taken, however, prior to congressional approval.

MANAGEMENT OF THE STOCKPILE

FEMA is responsible for planning, programming, and reporting on the stockpile. The President, through the National Security Council, provides FEMA guidance on developing stockpile policy. GSA's Federal Property Resources Service is responsible for purchasing, storing, maintaining, transferring, rotating, distributing, protecting, and disposing of the materials.

Although FEMA determines stockpile policy and computes the goals, it relies on information from other Federal agencies for supply and capacity projections, probable effects on foreign relations, special defense requirements for materials, probability of access to world sources for materials during wartime, and domestic mineral reserves. The major advising agencies are the Departments of Commerce, State, Defense, and the Interior.

OBJECTIVES, SCOPE, AND METHODOLOGY

To respond to the congressional requests our review objectives were to evaluate (1) if FEMA currently considers potential economy-wide supply and demand imbalances for silver over the next 20 years and the impact the proposed sale may have on such imbalances, (2) the budgetary impact which may occur if silver has to be reacquired within the next 20 years, (3) local and regional displacements and the impact the ongoing and past Federal sales have had on the silver industry, including production, exploration, price, and international supply patterns, (4) supply constraints that existed during past silver sales, (5) how potential allied and friendly nations may affect silver requirements in wartime, (6) projected U.S. import dependency and the probability of a cartel disrupting supply or sharply increasing price during a national emergency or when silver is in short supply, (7) changes which have occurred since the disposal was last justified, and (8) alternatives to disposing of any excess silver which may better meet congressional goals. Included in our objectives were the factors which the President was to consider in determining that the silver to be disposed of in fiscal years 1983 and 1984 is in excess of stockpile requirements as of September 1, 1982. (See p. 45.) Our review was performed in accordance with GAO's current "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."

In an April 10, 1979, report entitled, "National Defense Requirements for a Silver Stockpile," (LCD-79-410), we stated

that the modeling methodology used by FEMA to determine stockpile goals is a "reasonable approach representing a variation of the generally accepted state of the art for this type of economic analysis." Therefore, we limited the scope of our supply and demand evaluation to identifying changes to the model's "inputs" which have occurred since 1978 which could, in turn, change the stockpile silver goal. We also identified possible needs for silver that have not been considered.

In evaluating if the disposal method selected by GSA meets the goals of the Congress to the maximum extent feasible, we limited our scope to GSA's compliance with the legislative guidelines of section 6 of the Strategic and Critical Materials Stock Piling Act, as amended (see p. 2) and Congressman McDonald's concern that the silver be disposed of in a manner affordable to most American families. (See p. 3.)

We explored alternatives to selling the stockpile silver at auction, including coinage programs, small silver bars, transferring or selling the silver to the U.S. Treasury, and leaving the silver in the National Defense Stockpile despite the zero goal. We identified the apparent advantages and disadvantages of each alternative, selected a bullion coinage program as the most viable alternative, and evaluated the potential benefits to be derived and the problems which must be overcome. We then identified components of a marketing strategy which addresses the problems identified.

Our analysis was somewhat limited, however, by the lack of documentation on the viability of the various alternatives. For example, section 5 of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1604) requires the Secretary of Commerce to submit to the Congress by October 21, 1981, a report which assesses the need for economic stockpiles to meet specific materials needs related to national security, economic well-being, and industrial production. However, as of December 31, 1981, the report was still not available. Similarly, there is no recent precedent that can be used to determine the potential for success of a silver bullion coinage program.

The methodology we used varied somewhat depending on the issue being examined. However, we relied extensively on both interviews with and analysis of documents provided by Federal officials, industry representatives, consulting firms, user organizations, coin and bullion dealers, market analysts, and others. (See app. IV.)

To determine if the defense-related inputs to the FEMA model were current and complete, we compared the stockpile's planning assumptions with the assumptions in the most recent "Defense Guidance" used by the Department of Defense to program general purpose forces for a conventional war. We also contacted

Defense, Interior, and FEMA officials who provided both written and verbal information on defense-related uses of silver during national emergencies which are not reflected in FEMA's estimated demand. We then obtained the views of FEMA officials concerning these matters.

To identify uncertainties relating to domestic silver supplies and costs, we compared FEMA's projections with written and verbal information obtained from Interior's Bureau of Mines; officials of domestic mining companies currently producing over 85 percent of U.S. silver; one of the three largest silver processing and fabricating firms, Handy and Harman; and the Commodity Futures Trading Commission.

The reliability of and availability from our major foreign silver suppliers--Canada, Mexico, and Peru--were determined primarily by interviews with FEMA, State, Treasury, Defense, and Interior officials as well as information provided by representatives of a domestic mining company owning mines in Peru. However, a current assessment of the reliability of our major foreign silver suppliers based on the same factors used by FEMA in determining the zero stockpile goal was not readily available.

In determining the sale's impact, we examined studies prepared by Charles Rivers and Associates (a consulting firm), Commerce, and the Commodity Futures Trading Commission on factors affecting silver prices and the economics of the silver industry. We contacted domestic mining company representatives, silver experts, commodity brokers and dealers, market observers, the Silver Users Association, and Commerce and Commodity Futures Trading Commission officials to obtain their views on the sale's impact on market prices, current operations, and future investment decisions. Included were officials of the Bunker Hill Company which is planning to close in the near future. We also questioned market experts and observers on the probability that the auctioned silver will be maintained for domestic consumption and that the selected disposal method will maximize revenues. In addition, we attended the first six weekly auctions to observe the procedures being employed, potential bidders, and bid prices.

To obtain an international perspective, we reviewed official correspondence between the Department of State and Canada, Mexico, and Peru concerning the sale. We also discussed the sale's impact with State officials and Peruvian embassy representatives in Washington, D.C.

Because our analysis of alternative disposal methods was limited by the lack of documentation, our approach was confined primarily to interviews with FEMA, GSA, Treasury, and Commerce officials. We reviewed available studies by the Office of Technology Assessment and the National Commission on Supplies

and Shortages on the need for economic stockpiles to meet specific materials needs. To evaluate the coinage alternatives, we contacted representatives from the silver industry and coin and bullion dealers in New York as well as Treasury and GSA officials to obtain relevant data on minting capacity, minting and marketing costs, ongoing small scale silver coinage programs by the Bunker Hill and Sunshine Mining Companies, problems with past coinage programs, and factors that could increase public demand. We also discussed various coinage alternatives with representatives of the Federal Reserve to obtain a better understanding of potential implications on the inflation rate and monetary policy.

Our evaluation was coordinated with the Congressional Research Service which issued a November 12, 1981, report entitled "The Sale of Silver From the National Defense Stockpile: Budget-Wise or Strategically Foolish?" (81-250 ENR).

PRIOR REPORTS

In an April 10, 1979, report entitled "National Defense Requirements for a Silver Stockpile" (LCD-79-410), and in July 25, 1979, testimony before the Subcommittee on Seapower and Strategic and Critical Materials, House Committee on Armed Services, we concluded that based on FEMA's projections an excess of silver supply from domestic and reliable foreign sources existed over projected wartime requirements. Therefore, we agreed with FEMA that the 139.5 million troy ounces of silver stored in the stockpile were not needed to support estimated national defense requirements. This conclusion, however, was tempered by the possibility that changes in projected silver requirements and supply relationships could occur which could revise the silver stockpile goal.

We have also issued two recent reports on the National Defense Stockpile. In a July 27, 1978, report entitled "The Strategic and Critical Materials Stockpile Will Be Deficient for Many Years" (EMD-78-82), we stated that an estimated 15 to 20 years would be required to build the strategic and critical materials stockpile so it will contain the necessary amounts of metals, ores, and drugs to prevent a dangerous and costly dependence on foreign sources during a national emergency. The report made five recommendations to improve the management effectiveness of the existing stockpile program. The Federal Preparedness Agency (now FEMA) agreed with and implemented most of our recommendations.

On November 24, 1980, we issued a second, classified report entitled "Actions Needed to Improve the Viability of the Strategic and Critical Materials Stockpile" (C-EMD-81-1). The report

addressed the planning assumptions on which the stockpile is based and the viability of the stockpile during national emergencies. We reported that as of November 1980, goals had been established for 93 materials valued at \$17.7 billion, but materials valued at only \$6.7 billion were on hand. For example, inventories as a percentage of goals were only 4 percent for copper, 48 percent for cobalt, 34 percent for platinum, and 24 percent for titanium. Alternatives to stockpiling for a national emergency were analyzed and we recommended that the National Security Council examine the various issues and problems addressed in the report. In a July 13, 1981, letter, the Assistant to the President for National Security Affairs advised us that a number of separate studies were underway to address the issues and problems. He also stated that the problems related to the stockpile will be elevated to the highest levels of Government.

CHAPTER 2

THE STOCKPILE SILVER GOAL SHOULD BE REDETERMINED BASED ON CHANGES IN SUPPLY AND DEMAND RELATIONSHIPS

Stockpile goals were last published in 1980 based on 1978 supply and demand data. New goals will be published in mid-1982. In the interim, several factors used by FEMA to establish stockpile goals for all strategic and critical materials, including a zero silver goal, have changed. These changes have (1) increased projected defense-related demand for silver during national emergencies and (2) reduced the availability of silver from existing domestic mines and processors, while possibly increasing the cost of silver from other domestic and foreign sources. Further, major foreign suppliers, while generally considered reliable, have protested the sale of stockpile silver at auction, which could have adverse political repercussions. This could affect the availability of imports during wartime.

DEFENSE-RELATED DEMAND FOR SILVER HAS INCREASED

FEMA's zero silver stockpile goal is contingent, in part, on a war scenario hypothesized in terms of participants, war fronts, type of military action, and warning time. Therefore, changing the war scenario will change projected silver requirements.

Although the details are classified, the scope of the war scenario has increased since 1978. Based on the methodology used to establish stockpile goals, the quantity of silver and other strategic and critical materials required to sustain the United States during a 3-year national emergency has increased. FEMA officials informed us that the most recent change in the Department of Defense war scenario for a conventional war will be included in their ongoing redetermination of stockpile goals to be published in mid-1982.

Further, not all defense-related uses of silver during past national emergencies are reflected in FEMA's estimated demand. For example, the United States provided almost 411 million troy ounces of silver to allied and friendly countries during World War II under the lend-lease program. If the 105.1 million troy ounces of silver authorized for disposal are sold, only 34.4 million troy ounces will remain in the stockpile. Coupled with the 39 million troy ounces currently in the U.S. Treasury for coinage, the remaining stockpile silver may preclude these uses of silver during future national emergencies.

FEMA officials informed us that legislative mandates preclude the stockpiling of silver for allied and friendly nations. They cited section 2 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98a) which states that the stockpile

"preclude when possible, a dangerous and costly dependence by the United States upon foreign sources for supplies of such materials in times of national emergency." (Emphasis added.)

While there is nothing in the statute and legislative history dealing explicitly with this point, we have already reported that the needs of allies and friendly nations should be considered. In a November 24, 1980, report entitled "Actions Needed to Improve the Viability of the Strategic and Critical Materials Stockpile" (C-EMD-81-1), we reported that present Department of Defense policy does not call for the United States to singlehandedly counter all conventional military threats. Instead, reliance is placed on our allies who are doing little to assure adequate supplies of raw materials during national emergencies. While this does not necessarily imply that the United States should stockpile materials for its allies, we concluded that their deficiencies could lead to some difficult options for the United States, including imposing more severe austerity measures on U.S. civilians than presently planned, in order to free materials for U.S. and allied consumption.

We also explored the potential need for silver as a medium of payment to foreign troops and workers in areas of the world where there may be little confidence in paper currency in times of uncertainty. FEMA officials believe that the quantity of silver in the stockpile is too small to be used for this purpose and that there is an adequate supply of gold in the U.S. Treasury that can be used in lieu of silver. However, the viability of substituting gold for silver is contingent on the ability to mint a high purity coin that would be accepted as a store of value in a denomination small enough to pay foreign troops and workers. Further, since gold is considered to be the medium of payment in wartime, it may be needed to buy petroleum and other commodities. Such competing demands for gold may constrain its availability for use in coinage.

UNCERTAINTIES RELATING TO SILVER SUPPLIES AND COSTS

Wartime supply projections are computed separately from demand. The projections, performed primarily by commodity experts within the Department of the Interior's Bureau of Mines, are combined with judgmental reliability factors provided by the Departments of Defense and State to estimate wartime silver supply.

FEMA's 1978 supply and demand estimates used to justify a zero silver stockpile goal show that 179 million troy ounces, an increase of only 12 million troy ounces, or 7 percent of the 167 million troy ounces produced domestically or imported from foreign sources in 1978, would be needed to meet projected wartime requirements during the first year. These requirements decrease during the second and third year to where demand is actually less than 1978 supply.

Domestic mining and processing estimates may be high

FEMA projects that domestic silver production from existing mines could increase from 39 to 57 million troy ounces, or by 46 percent, during the first year of a national emergency. We found that planned new mines could increase domestic peacetime production by about 5.5 million troy ounces, or by 13 percent, by 1983. However, industry officials we contacted stated that their existing mines are operating at close to capacity and production could be increased only slightly during a national emergency. Since at least 3 to 5 years lead time is required to bring on a new mine, FEMA's domestic mine production estimates may be much higher than what can actually be produced.

Before minerals can be used, they must be processed. If domestic processing capacity is reduced, an increase in stockpile goals may be needed or the stockpile materials upgraded to a more useable form. Domestic smelting capacity, the process in which silver is separated from impurities or other minerals with which it may be chemically combined or physically mixed, has decreased steadily over the past decade. Major domestic silver producers we contacted advised us that, beginning in 1983, domestic capacity will be inadequate to smelt both predominantly silver ores as well as copper, lead, and zinc ores from which silver is derived as a by-product.

In 1979, five major smelting and refining companies processed the bulk of the silver ores supplied by the more than 225 U.S. mines. However, in 1980, one of the five--the Anaconda Company--closed its 6 million troy ounce smelting capacity, choosing instead to ship its ore concentrates to Japan for processing. Another large refiner--the Bunker Hill Company--intends to close its 10 million troy ounce smelting capacity soon. Together, the 16 million troy ounces comprise an over 30 percent reduction in U.S. smelting capacity.

Since several years are required to bring additional capacity on line, silver ores and concentrates may have to be shipped out of the country for processing during national emergencies. Thus, FEMA's domestic wartime silver production estimates may be further reduced.

Other domestic sources of silver are available but possibly at higher prices

In redetermining that the silver to be disposed of in fiscal years 1983 and 1984 is in excess of stockpile requirements, the President was to consider the domestic supply of silver in each of the next 10 years as a function of price. The ability of these domestic producers to meet FEMA's estimated 58 percent increase in recycled silver from 40 million troy ounces to 63 million troy

SILVER
(in million troy ounces)

	<u>Wartime projections</u>			
	<u>1978</u>	<u>1st year</u>	<u>2nd year</u>	<u>3rd year</u>
Demand				
Defense	6	39	51	51
Nondefense	153	140	123	113
Total demand	<u>159</u>	<u>179</u>	<u>174</u>	<u>164</u>
Supply				
U.S. production:				
primary (mine)	39	57	58	58
secondary (recycled)	40	63	65	67
	<u>79</u>	<u>120</u>	<u>123</u>	<u>125</u>
Foreign imports:				
Canada	42	46	47	50
Mexico	20	36	38	39
Peru	18	20	20	21
Other	8	30	34	38
	<u>88</u>	<u>132</u>	<u>139</u>	<u>148</u>
Total supply	<u>167</u>	<u>252</u>	<u>262</u>	<u>273</u>

FEMA's projections clearly show that the 12 million troy ounce increase together with virtually any increase resulting from revisions in the war scenario could be met by increased domestic mine production, recycling, or foreign imports. However, FEMA's domestic mining and processing estimates appear higher than what can actually be produced and silver from other sources such as recycling, domestic stockpiles, and foreign suppliers may cost more per troy ounce (discounted to present value in constant dollars) than the revenues to be realized from the sale of the stockpile silver.

ounces appears feasible, but possibly at a higher price per troy ounce than the revenues to be realized from the sale of the stockpile silver.

Secondary scrap silver is recycled by several large primary refiners and a number of smaller refiners. Secondary silver is also recovered by several major trading and fabricating firms, and to some extent it is recycled by end-product manufacturers. Historically, increases in secondary production have been tied directly to increases in the price of silver. In 1974, when the price of silver rose substantially, secondary production rose by 62 percent to over 56 million troy ounces. Similarly, in 1980, when the price of silver had reached an all time high, secondary production rose to about 53 million troy ounces, or by 39 percent. In both instances, increased secondary production alone could account for FEMA's estimated 12 million troy ounce increase in wartime demand over 1978 peacetime supply.

Processing capacity for secondary silver production also appears adequate to meet FEMA's projected wartime needs. While silver scrap recycled by the large primary refiners remains relatively constant during periods of sharp price increases, secondary production by silver processing and fabricating firms increases. A representative of one of the three largest firms, Handy and Harman, informed us that together they have enough capacity to meet FEMA's projected wartime needs and that the lead time to increase this capacity is minimal. For example, only 6 to 7 months were required to increase secondary production capacity to handle the 39 percent increase that occurred in 1979 and 1980.

FEMA officials stated that there are several other domestic sources of silver totaling over 170 million troy ounces that have not been considered in establishing the stockpile goal. In addition to the 39 million troy ounces retained by the U.S. Treasury and the 34.4 million troy ounces in the stockpile not authorized for disposal, about 97 million troy ounces of so-called "visible" commercial stocks are held by industry and traders in the Commodity Exchange, Inc., and the Chicago Board of Trade.

Another 290 million troy ounces in unreported bullion and silver coins are estimated to be held in private stocks, and FEMA officials contend that it is not unreasonable to assume a significant fraction of these stocks could be called in if supplies did not materialize during an emergency. However, this silver could cost considerably more per troy ounce, even discounted to present value, than the revenue realized from the sale of the stockpile silver and could, in fact, be unavailable during national emergencies. First, the amount of unreported silver is very speculative. In a 1980 report to the Congress, the Commodity Futures Trading Commission stated that the secrecy surrounding investor holdings makes the probability of obtaining an estimate of private stocks very small. According to the Commission's

report, national emergencies and other times of political uncertainty are precisely when people can be expected to turn to silver as a "store of value." For example, the Commission cited the Iranian hostage situation, seizure of the Grand Mosque in Saudi Arabia, and Soviet Union invasion of Afghanistan as contributing along with general economic conditions to the price of silver rising from \$16.50 to \$48.00 per troy ounce between October 1979 and January 1980. Therefore, even a mandatory program by the Federal Government may not call in a significant amount of unreported silver during an emergency.

Foreign supplies will still be essential to our national defense

In his redetermination of the silver stockpile goal, the President was also required to consider potential U.S. import dependency in each of the next 10 years to meet national defense-related needs. FEMA's 1978 estimates show that only a maximum of 51 million troy ounces would be required in any given year to meet production of all basic military hardware. (See p. 11.) Even though domestic mining and smelting production may be below FEMA's estimates, total primary and secondary domestic production should be sufficient to meet these projected defense-related needs.

Domestic production will not, however, meet essential civilian uses tied directly to the war effort. FEMA officials informed us that meeting these civilian requirements is also important because industries do not produce just defense or civilian products. A single factory could produce products in both categories. Past experience indicates that severe economic disruptions occur when industries providing indirect inputs to critical defense and nondefense production are not adequately supported. Thus, foreign supplies will be critical to our wartime mobilization capabilities.

The United States' major foreign suppliers of silver--Canada, Mexico, and Peru--are generally considered reliable foreign sources. The majority of opinions we obtained supported the availability of foreign imports of silver. FEMA, State, Treasury, Defense, and Interior officials all commented that imports should remain available during wartime. They cited reasons such as geographic proximity, U.S. economic influence, complementary objectives, likelihood of common causes, and the fact that selling silver to the United States may be in the best interests of the exporting countries, as reasons why silver imports would be available. Furthermore, Interior's mineral specialists for Canada, Mexico, and Peru all believed that any traditional ties to other countries, such as Canada to Great Britain, would have little effect on silver exports to the United States. Also, they could see no effect on silver exports due to increased internal requirements by the producing countries.

Canada, Mexico, and Peru have, however, protested a sale of stockpile silver at auction. Even though a sale's impact will

be limited to the short-term, the countries have expressed their concerns through diplomatic channels, alleging that a sale will depress market prices, resulting in decreased employment and foreign exchange earnings.

Mexico, with 1980 production of 51 million troy ounces, is the free world's largest primary silver producer. The Mexican government is concerned that small and medium-sized mines, which are operating at or near break-even levels (\$8.00 to \$10.00 per troy ounce), would be forced to close should prices drop further. The government maintains that the number of jobs dependent on silver prices is substantial, and that possible unemployment resulting from the sale would be serious, particularly in areas where no alternative employment is available.

Peru, the free world's second largest primary silver supplier, produced 47.9 million troy ounces in 1980. The Peruvian government believes silver prices are currently depressed due to a silver surplus. They further believe that if the authorized yearly disposal quantities are sold, prices will remain depressed through 1984. Peruvian government officials have estimated that the country will lose \$470 million in exchange earnings in 1981 due to depressed silver prices, and that further severe price depression would cause mines to close, eliminating nearly 15,000 jobs in areas prone to extremist agitation and political instability.

Canada, producing 33.3 million troy ounces in 1980, ranked as the third largest primary silver producer in the free world. The Canadian government believes the disposal "will exert downward pressure on world silver prices and therefore adversely affect Canadian producers and mining communities" and has sought "assurances that releases of silver from the U.S.A. stockpile will be carried out in such a way that market disruption is minimized."

Since one of the primary reasons for a zero stockpile silver goal is the reliability of our foreign suppliers, the degree to which the perceived adverse impact of the silver disposal may weaken economic and political bonds between the United States and its major foreign silver suppliers must be recognized in considering the international implications of the auction disposal method.

Some public and private officials also questioned the availability of foreign supplies for other reasons. Concern was raised over extremist agitation and political instability in Peru's silver producing areas. For example, officials of a U.S. mining company informed us that one of their mines in Peru had already experienced sabotage. The reluctance of Canada and Mexico to fully cooperate with the United States in increasing oil production and their growing attitude towards self-reliance were also raised. Further, the potential of Canada adopting a nationalized energy policy and its ramifications on nonfuel

minerals were pointed out. The impact these changes may have on the availability of foreign supplies could not be determined, however, because current reliability data was not readily available.

Another concern that has been expressed is that silver imports during wartime could have a high price. For example, the Deputy Undersecretary of Defense for Research and Engineering in November 14, 1978, testimony before the Senate Committee on Banking, Housing and Urban Affairs stated that during a national emergency price escalates very rapidly. He concluded that foreign suppliers could "stick you well for it," especially when they know you need it within a short time frame.

The probability of a cartel to
disrupt supply appears remote

While increased demand during national emergencies may increase the price of imported silver, a speculative "cartel" that excludes the United States appears remote. The probability of a silver cartel is dependent on such factors as (1) the share of world mine production concentrated in the participating countries, (2) the opportunity for entry and expansion by other producing countries, (3) substitution of other minerals and materials and reduced consumption, and (4) the economic, political, historical, and cultural bonds among the participating nations.

The United States is one of the four largest primary silver producers in the free world. In 1978 the United States and Canada together produced about 30 percent, and combined with Mexico and Peru, they produced about 63 percent of the free world's silver. The remaining 37 percent was produced by some 50 countries with widely divergent political and economic backgrounds. Therefore, a cartel to successfully control the silver market would almost have to include the United States and/or Canada.

U.S. secondary recycled silver production is about equal to domestic mine production, and over 170 million troy ounces are available from other domestic sources. (See p. 13.) These additional sources of supply provide a buffer against cartel-type actions. Further, other minerals and materials can be substituted for silver in many applications such as stainless steel in flatware; aluminum in mirrors; and tantalum in surgical plates, pins, and sutures. Similarly, since about 20 percent of the silver consumed domestically is for flatware; jewelry and arts; and coins, medallions, and commemorative objects, voluntary conservation in the form of reduced consumption would help mitigate any supply disruption.

Another factor reducing the probability of a cartel against the United States is that Peru is heavily dependent on revenues from its silver exports to maintain employment levels and balance

of trade. In 1980, for example, 16 percent of Peru's total export earnings were derived from silver. This, when coupled with the above factors, reduces substantially the probability of a long-term supply disruption or sharp price increase during periods other than national emergencies.

UNCERTAINTY SURROUNDS THE POTENTIAL LONG-TERM IMPACT OF THE DISPOSAL

Both July 1981 congressional requests asked us to identify potential silver supply and demand imbalances over the next 20 years. They also asked that we examine the potential impact of the disposal and the possibility that the silver may have to be reacquired for the stockpile. (See app. I and II.) Bureau of Mines projections show increased domestic demand for silver over the next 20 years outstripping increases in domestic primary production, thus increasing U.S. dependency on foreign silver sources. A silver stockpile goal could also be reestablished at some future date based on changes in the war scenario and/or the reliability of foreign suppliers. These long-term uncertainties could result in the silver being reacquired for the stockpile.

Attempting to compare the disposal with future budgetary impact if the silver has to be reacquired is difficult. The price of any future acquisition must be discounted to its present value in constant dollars. If the price of silver increases at approximately the same rate as the market interest rate, discounting the future price of silver to its present value results in no adverse budgetary impact. This is because the discount rate is identical to the rate of silver's appreciation. For example, if the market interest rate is 15 percent per annum, the price of silver must appreciate by greater than 15 percent per annum before there can be an adverse budgetary impact.

In redetermining if the silver to be disposed of is excess to stockpile requirements, projected increased U.S. dependency on foreign sources of silver and the possibility that a silver stockpile goal could be reestablished at some future date should be considered. To accomplish this, however, assumptions will have to be made concerning the future budgetary impact of projected silver supply and demand imbalances.

CHAPTER 3

CONGRESSIONAL GOALS HAVE NOT BEEN MET

To dispose of the stockpile silver, GSA was holding weekly auctions where up to 1.25 million troy ounces of silver were offered for sale by sealed bid. The minimum bid accepted was for eight 1,000 troy ounce ingots with 10 percent of the bid price provided as down payment. Successful bidders were required to take delivery at the location where the silver is stored. The disposal was suspended after the December 16, 1981, weekly auction pending the July 1, 1982, redetermination that the silver is in excess of stockpile requirements.

While weekly auctions are expedient and comply with the competitive procedures required by section 6, they have not met congressional goals to (1) minimize or eliminate any short-term market price disruption, or (2) assure that the disposal is for domestic consumption. Further, they do not make the silver available to most American families. Moreover, the disposal may not maximize revenues to acquire other strategic and critical materials.

A SALE SHOULD DEPRESS THE SHORT-TERM PRICE OF SILVER

GSA officials informed us that changes in price, levels of production, and imports are used as criteria to measure whether a sale of a stockpile material is causing an "undue disruption of the usual markets of producers, processors, and consumers." They noted that since the silver sale was announced, domestic production and imports have remained relatively stable and therefore, market price is the primary criterion to measure any adverse impact.

Historically, the supply and demand economics of silver have been strongly influenced by actions of the Federal Government. Previous Federal Government silver sales served to keep prices pegged at artificially low levels and led to large imbalances between production and consumption. Between 1959 and 1970, releases of Federal Government stocks supplied over a billion troy ounces of silver to the marketplace at prices ranging from 91 cents to about \$2.50 per troy ounce. During this same period, about 510 million troy ounces were added to inventories and speculative holdings and became a source of supply to the market during the 1970s. According to one silver expert, the restraining effect of these sales on price made the opening of new silver mines uneconomical until the mid-1970s, when the price of silver rose substantially.

In the late 1960s, after decades of Federal intervention effectively controlling prices, silver began a transition from a primarily monetary metal to a commercial and industrial commodity with a freely determined price. Silver's recent history has been characterized by extreme fluctuations in price, which generally have been attributed to heightened speculative interest in the metal. Because silver is both an industrial commodity and a precious metal, market economics are heavily influenced by unpredictable investor and speculator actions which can overshadow traditional supply and demand considerations at any given point in time.

Given the complexities of the silver market, the stockpile sale's impact on price is not completely clear. However, all else remaining the same or constant, a sale will depress the short-term price of silver relative to what it would have been. With this caveat, knowledgeable market observers, including mining company officials, commodity trading firm representatives, and silver experts, provided the following views and opinions on the sale.

Most observers believed that the first year's disposal of 46.5 million troy ounces was largely discounted by the marketplace. They noted that on September 17, 1981, when GSA announced firm plans to commence the weekly silver auctions, the price of silver on the Commodity Exchange, Inc., in New York, fell by \$1.24, or 11 percent, to \$9.72 a troy ounce. The price continued to fall, closing at \$8.69 in New York on September 25, 1981, and averaged \$9.25 a troy ounce for October 1981.

Several experts believed that approval of subsequent years' disposals will further depress prices and, according to one expert, may combine with other factors (e.g., continuation of high interest rates and tight monetary policies), to prevent a near-term resurgence in speculative interest in the metal. Most observers, however, believed that since the stockpile represents the last major silver holding in nonprivate hands, the long-term price outlook is bullish. One believed that silver prices may start rising in earnest as early as the middle of fiscal year 1983, the second disposal year.

ANY IMPACT ON DOMESTIC PRODUCERS AND CONSUMERS
WILL BE LIMITED TO THE SHORT-TERM

Most observers we interviewed believed that a stockpile sale will result in slight reductions in imports and primary and secondary domestic production, and that the remainder will be added to inventories and other private holdings. For this reason, one silver expert believed a sale would intensify the existing domestic supply and demand imbalance by delaying the price from rising to a level needed to bring on new lower-grade mine production.

Some mining industry officials informed us that lower silver prices have resulted in adjustments to some companies' operations. For example, an open pit mining company is extracting only high grade ores to increase its gross revenues, and another company has delayed construction of a silver refinery by 1 year. Conversely, the Silver Users Association, which represents silver users and consumers, maintained that a sale will dampen speculative fever, thereby reducing the cost to consumers of such articles as photographic products, electrical appliances, silverware, and dental and medical supplies, while maintaining employment levels in industries producing high silver content products.

Regardless of any short-term benefits or disadvantages, the quantity of silver to be disposed of is too small to have any long-term effects on the industry. The disposal of 105.1 million troy ounces represents only about 60 percent and 24 percent of total 1979 domestic and world consumption, respectively, and does not signal a long-term market change.

Representatives of silver mining companies said that decisions to invest in new mining capacity are based on the long-term industry outlook. Thus, the stockpile disposal has not affected future investment decisions or significantly influenced long-term operations. In fact, few company officials voiced any opposition to the disposal. Even though they believe the disposal may depress short-term prices, they prefer to get it over with so that the last remaining nonprivate stock overhanging the market will be eliminated once and for all.

Officials of the Bunker Hill Company stated that Gulf Resources and Chemical Company's decision to close their Bunker Hill subsidiary was not precipitated by the GSA silver sale. Gulf Resources had been trying to sell the subsidiary for 2 years because of problems that had been building up over the last several years. These problems included difficulties in obtaining ore concentrates, reduced profits from ore processing operations, competition from foreign smelters, environmental costs, and depressed silver prices. However, higher silver prices created temporary profits and obscured many of the company's problems in 1979 and 1980. Bunker Hill lost over \$7 million during the first 6 months of 1981.

DOMESTIC CONSUMPTION CANNOT BE ASSURED

In accordance with section 6 of the act, all initial and subsequent purchasers of GSA-auctioned silver were required to use the silver for domestic consumption. Several market experts and observers we met with, however, stated that this requirement cannot be assured under any disposal alternative.

Silver is a fungible international commodity; that is, it is a moveable good, any unit or part of which can replace another unit. Thus, the 1,000 troy ounce ingots of stockpile silver can displace or free up other silver bullion held in domestic company inventories or as investments which can then be sold and shipped out of the country. Alternatively, the ingots could be resmelted or otherwise reprocessed and readily exported thereafter.

THE SILVER IS NOT AFFORDABLE
TO MOST AMERICAN FAMILIES

At September 17, 1981, oversight hearings, Congressman McDonald expressed concern that the stockpile silver should be made affordable to most American families. However, the minimum of 8,000 troy ounces meant that a bidder needed over \$60,000 to participate in the auction. Thus, most Americans were precluded from bidding on the silver. Through the sixth weekly auction, awards were made only to large precious metals dealers, banks, and investment companies. While private individuals could ultimately acquire this silver, no private individuals even bid at four of the six weekly auctions.

At the hearings, GSA officials assured Congressman McDonald that bids of 1,000 troy ounces would be considered. If this assurance was to be met, between \$8,000 and \$10,000 would have been required, making it somewhat easier for some American families to acquire the silver. Yet, the silver still would not have been accessible to many.

THE DISPOSAL MAY NOT MAXIMIZE
REVENUES TO ACQUIRE OTHER
STRATEGIC AND CRITICAL MATERIALS

Auction revenues are to be placed in the National Defense Stockpile Transaction Fund to acquire other strategic and critical materials currently below stockpile goal levels. Since acquiring these materials provides the United States with a buffer to mitigate adverse impacts due to supply disruptions or sharp price increases during national emergencies, it is imperative to maximize the revenues to the Transaction Fund.

Most market observers we contacted expressed the opinion that the disposal is ill-timed if revenue maximization is a consideration. It makes little economic sense to dispose of the silver near the bottom of a commodity-wide market cycle. The price of silver is already depressed and the disposal will serve to lower it further. Since moneys in the Transaction Fund cannot be obligated or disbursed unless first appropriated by the Congress, the revenues from the disposal will not likely be used quickly enough to take advantage of the commodity-wide cyclical low in market price.

Several market experts and an industry official we met with also stated that the legislative mandate requiring that the silver be used for domestic consumption was counterproductive to maximizing revenues. For example, silver traded on the Commodity Exchange, Inc., is not limited to domestic consumption. Therefore, its officials determined that because of the domestic consumption stipulation, stockpile silver did not meet contract specifications and therefore was not deliverable against contracts traded on the exchange. This determination obviously detracted from the stockpile silver's marketability and may have had a limiting effect on auction prices realized because a major silver outlet was removed from the stockpile silver's potential market.

GSA rejected all bids at its fifth and sixth weekly auctions because the bids were all below market price. GSA requested a waiver from the domestic consumption requirement which was approved by the Senate and House Committees on Armed Services. An unrestricted silver sale was held on December 16, 1981, but again all bids were rejected. Unrestricted silver sales permit the silver to be delivered against contracts traded on the Commodity Exchange, Inc., thus possibly increasing bid prices. However, it assures that the silver will not to the maximum extent feasible be for domestic consumption and that the sale will exclude most American families.

CHAPTER 4

ALTERNATIVE METHODS FOR DISPOSING OF THE STOCKPILE SILVER

Because GSA's legislatively mandated competitive disposal method has not met all the goals of the Congress, we explored alternative methods to dispose of the stockpile silver. These alternatives included coinage programs, small silver bars, transferring or selling the silver to the U.S. Treasury, and leaving the silver in the National Defense Stockpile. One-- a bullion coinage program--appeared to be an attractive alternative that should be considered. Effectively implemented, it may (1) increase Federal revenues to acquire other strategic and critical materials over selling the silver at auction, (2) minimize or eliminate any short-term market price disruption, (3) better assure that the disposal is made for domestic consumption, and (4) make the silver available to more American families.

ALL ALTERNATIVES APPEARED TO HAVE ADVANTAGES AND DRAWBACKS

All the alternatives we considered appeared to have both pros and cons. For example, since 165 million troy ounces of silver were originally transferred to the stockpile from the U.S. Treasury in June 1968, and 25.5 million troy ounces were subsequently transferred back for use in the Eisenhower coin program, we considered transferring the remaining 139.5 million troy ounces back to the Treasury. While both this alternative and the alternative of leaving the silver in the National Defense Stockpile even if it is found to be in excess of stockpile requirements would maintain a stockpile of silver, they did not seem viable because both would preclude the availability of any revenue to acquire other strategic and critical materials. Further, while the purpose of the stockpile is to preclude, whenever possible, a dangerous and "costly" dependence by the United States on foreign suppliers during national emergencies, leaving the silver in the stockpile for other than defense purposes appeared to be contrary to the principles of section 3(b)(1) of the Strategic and Critical Materials Stock Piling Act, as amended (50 U.S.C. 98b), which precludes using the stockpile for economic or budgetary purposes.

Selling the silver to the U.S. Treasury also did not appear viable because it is no longer needed for circulating coinage, and Treasury officials informed us that it may be many years before the 39 million troy ounces currently in the Treasury can be consumed. Since constraints in the Transaction Fund method of financing have precluded the filling of the defense stockpile, establishing an economic silver stockpile did not

appear justified. Further, the amount of silver to be disposed of is too small to have any long-term effects as an economic buffer.

Disposing of the silver in coins appeared to have advantages over resmelting or otherwise reprocessing the 1,000 troy ounce ingots into small silver bars (e.g., 1 troy ounce). Coins carrying the year of mintage and the seal of the U.S. Government would be more readily recognized, convenient, and easily traded. Further, if the coins are minted with artistic beauty, commemorating an important historical event, person(s), or place, demand may be increased by numismatic coin collectors. Also, the coins could be produced by the U.S. Mint. Finally, since the United States is currently one of the few major countries in the world without commemorative or bullion coinage, the coins would create a new market as opposed to increasing the supply of silver in an existing market. However, problems associated with past coinage programs which reduced public demand must be overcome.

ADVANTAGES OF NUMISMATIC AND BULLION COINS

Generally, coinage programs are either numismatic or bullion. Numismatic coins derive their value from their beauty, variety, and/or physical condition. For example, the Federal Government realized premiums on yearly proof and uncirculated mint sets totaling about \$181 million from 1960 to 1980. Numismatic coins may also be issued to honor persons, places, or events of national significance. These commemorative coins appeal strongly to coin collectors who favor the historical side of numismatics, and they are usually sold at a price above their face value. For example, in 1972, West Germany issued five types of silver coins, including one to commemorate the 1972 Olympic games. A total of 81 million coins was distributed through normal banking channels and coin dealers at a slight premium above face value. According to congressional testimony by a foremost numismatic expert, West Germany's silver coinage profits were \$200 million in 3 years--the same time period currently authorized for the disposal of the stockpile silver.

The United States is one of the few major countries in the world without current commemorative coinage. From 1892 through 1954, however, the Federal Government issued 60 different commemorative coins. U.S. commemorative coinage was discontinued following the 1951 to 1954 issue of 2.4 million 50 cent coins honoring Booker T. Washington and George Washington Carver.

The value of numismatic coins can fluctuate for reasons quite unrelated to the value of their bullion content. As with historical, artistic, and/or esthetic medals, medallions, and commemoratives issued without face value, a subjective element enters into the price collectors are willing to pay.

Bullion coins, on the other hand, are bought primarily by investors for their silver or gold content although they may also have limited artistic or fashion appeal as jewelry. Bullion coins command a premium over their bullion value, which includes the cost of minting and distribution and is justified by the advantages of coins over other forms of gold and silver. Coins are recognized, convenient, portable, and easily traded. A spot check of coin dealers in the Washington, D.C., area on November 23, 1981, showed the premium charged for bullion silver to be between 16 and 26 percent over the silver value, exclusive of minting costs.

Bullion coins may also be issued with a face value and/or as legal tender to enhance their marketability. Currently, both Canada and Mexico assign a face value and legal tender status to some of their gold coins to stimulate demand and to give them the appearance of money. The Canadian Maple Leaf Program calls for 5 million gold coins to be issued world-wide over a 3-year period, while Mexico has sold over 75 million gold bullion coins worldwide.

A COINAGE PROGRAM MAY BETTER MEET CONGRESSIONAL GOALS

GSA auctions may not to the maximum extent feasible avoid short-term market price disruptions or assure that the silver is for domestic consumption. A bullion coinage program, on the other hand, could develop new demand to offset the increased supply. Investment and numismatic experts we contacted believed that the bullion coins that are bought will be held by the general public and numismatic coin collectors. Thus, the silver would not become an immediate source of supply to the market. This would reduce potential adverse price impacts by minimizing increases in market supply.

Domestic silver mining company officials we questioned were unanimous in their approval of a bullion coinage program. Even representatives of the Bunker Hill and Sunshine Mining Companies, which are issuing silver bullion coins, favored the program because they believed that the benefits to be derived by reducing the sale's impact on market price are greater than the net revenues to be derived from their coinage programs.

While we did not obtain the views of Canadian, Mexican, and Peruvian officials, any attempt to develop new demand to offset the increased supply of silver caused by the sale, we believe, would be perceived as strengthening the economic and political bonds between the United States and its major foreign silver suppliers. It could provide the assurance sought by the Canadian government that the disposal will be carried out in such a way that market disruption is minimized.

Any short-term price benefit derived by major silver users from the sale of the stockpile silver in 1,000 troy ounce ingots would have to be weighed against the adverse impact on silver

producers and processors. Since disposals from the stockpile should avoid to the maximum extent feasible undue market disruptions, the benefits to be derived by consumers at the expense of producers should not be a determining factor.

A bullion coinage program could also better assure that the disposal is made for domestic consumption by making the silver more attractive, affordable, and accessible to first-time American investors of modest financial means in addition to large precious metals dealers. Less than \$20, instead of over \$60,000, would be required to participate in the sale. Further, successful bidders at GSA's weekly auctions must take delivery at either San Francisco, California, or West Point, New York, where the silver is stored. Coins, on the other hand, could be distributed through commercial banks and coin dealers.

Finally, depending on the premium, that is, selling price less the value of the silver content and minting and marketing costs, the sale of the stockpile silver in a coinage program could generate revenues for the National Defense Stockpile Transaction Fund higher than that of the existing competitive bid disposal method where silver is sold at close to the market price on the day of auction. Any increase in revenues would be advantageous in that they could be used to acquire other strategic and critical materials substantially below stockpile goal levels. (See p. 8.) Acquiring these materials would mitigate U.S. vulnerability to supply disruptions and/or sharp price increases in those markets during national emergencies. As such, this would protect the United States against the avoidable loss associated with not having these materials when needed.

THE IMPLICATIONS OF FACE VALUE
MUST BE THOROUGHLY CONSIDERED

Investment and numismatic experts with whom we talked agreed that all the stockpile silver could be disposed of by minting legal tender bullion coins with a face value equal to or higher than the value of their silver content and selling them at a slight premium above face value. The face value would serve as a "floor," that is, the minimum value for which the coins could serve as a medium of exchange. Thus, it would appear that increased revenues to the Transaction Fund over selling the silver at auction could be virtually assured by placing a high face value on the coins. However, the implications of a high face value on Federal Reserve monetary policy must be recognized and thoroughly considered.

The coinage program should not substitute for
a planned increase in the money supply

Coins issued with a face value increase the money supply and their impact on inflation and consequently on Federal Reserve

monetary policy must be considered. Under the Federal Reserve System, 12 Federal Reserve Banks provide direct and indirect services to all of the Nation's commercial banks under the supervision of a Board of Governors. In influencing U.S. money supply toward the goal of stable economic progress, the Board plays the primary role through its authority over changes in member bank reserve requirements, its participation in open market operations, and its approval of changes in discount rates at the Federal Reserve Banks.

Federal Reserve open market operations represent the most important single instrument of credit control. Federal Reserve purchases of government securities directly increase commercial bank reserves, making it possible for the banks to lend more money. Conversely, Federal Reserve sales of government securities reduce commercial bank reserves.

While not operated for profit, the Federal Reserve Banks turn over to the U.S. Treasury, after payment of expenses and dividends, all earnings over and above the amount required to maintain a surplus equal to their paid-in capital. Thus, whenever the Federal Reserve increases the money supply by buying government securities, there is an opportunity to reduce interest costs to the U.S. Treasury. Conversely, when the Federal Reserve decreases the money supply by selling government securities, the net interest cost on the national debt rises.

Coins without face value

Bullion coins, minted and marketed without face value, do not increase the money supply and could be issued independent of Federal Reserve policy. As such, the premium would be the selling price less the value of the coins' silver content and minting and marketing costs. Any increased revenues to the Transaction Fund derived from selling the coins at a premium would also increase Federal revenues realized from the disposal of the stockpile silver.

The actual selling price of the coins would likely fluctuate based on the market price of silver. The price paid for a coin on a given day would reflect both the value of the silver at a given point in time (e.g., the previous day's closing price or the current day's opening price), plus a premium that covers minting and marketing costs. Both Mexico and South Africa use a fluctuating selling price based on market price in their bullion coinage programs.

This type of coinage program is also being successfully employed on a small scale by the Bunker Hill Company through a series of five limited-edition silver medallions commemorating events in the company's history. The coins, each graded "brilliant uncirculated" and containing 1 troy ounce of 99.95 percent fine silver, have minting and marketing costs of between \$1.50 and \$2.00 per coin.

The Bunker Hill Company sold 30,000 of the first medallions to its employees for \$15.00 each plus \$.75 for handling, insurance, and postage, and also to a commercial bank which, in turn, sold them to the general public for \$17.00 a coin. The company is planning to mint and market only between 20,000 and 24,000 of the second medallions because it intends to cease operations soon.

The Sunshine Mining Company has begun a coinage program where the price of the coin depends on the market value of the silver. Based upon its success, the company plans to mint the coins indefinitely. The coin is 1 troy ounce of 99.95 percent fine silver, bearing the year of mintage. It is sold at a fixed premium--about \$1.40--tied to the market price of silver. From the premium must be deducted minting costs of about 40 cents. Other fixed program costs such as overhead and marketing are not attributable on a per-coin basis because of the unlimited number of coins to be produced.

The company sells the coin only to dealers, employees, and shareholders. The dealers are required to purchase a minimum of 5,000 troy ounces. They are then free to add their markup in normal competitive retailing. The company expects the initial market for the coin to be between 1 million and 2 million troy ounces.

Coins with face value

Numismatic experts with whom we talked agreed that placing a face value on the coins may stimulate demand by coin collectors. While assigning a face value to the coins may increase their marketability, it could also reduce funds available to acquire other strategic and critical materials.

The potential inflationary impact of issuing coins with face value would be considered by the Federal Reserve Board in determining monetary policy. If the Board concludes that the impact is such that a planned increase in the money supply should be reduced by a sum equal to the face value of the coins, the coinage program would constitute a lost opportunity to reduce interest costs to the U.S. Treasury. This is because the Federal Reserve would not increase its holdings of government securities by the face value of the coins, thus losing an opportunity to reduce the net interest cost to the Treasury to service the national debt. The interest on these securities would serve to reduce the revenues derived from the coinage program. This decrease in revenues may be at least partially offset, however, by increasing the premium charged coin collectors for proof and uncirculated coins.

Conversely, if the face value of the coins does not substitute for a planned increase in the money supply by the Federal Reserve, the net interest cost to service the national debt will

not be affected by the coinage program. In this instance, the revenues to the Transaction Fund would not have to be offset by the interest on the securities.

The schedule on the next page shows that coins having no face value or a face value greater than the value of their silver content could substantially increase revenues to the Transaction Fund above those to be derived from selling the silver at auction, depending on the selling price. Conversely, if the coinage program is substituted for a planned increase in the money supply, revenues to the Transaction Fund must be reduced by the present value of the interest lost on government securities not acquired and held by the Federal Reserve. This could substantially decrease revenues to the Transaction Fund compared to that to be derived from selling the silver at auction. Thus, if the coins are issued with a face value, the coinage program must be implemented in such a way that it does not impact on Federal Reserve monetary policy.

Past precedent would require that both the value of the silver and the face value of the coins be covered by the sale price

Before the Federal Government discontinued their issuance in 1954, commemorative coins were authorized by special acts of the Congress to help finance a celebration or monument to a historical person, place, or event of national significance. ^{1/} The private commission in charge of the celebration or monument purchased the coins from the Bureau of the Mint at face value. The coins were then sold at a premium above their face value with the net proceeds accruing to the commission.

All past commemorative coins were of the standard face value, metal composition, and fineness of circulating coins of the period in which they were minted. However, not many were circulated because of the premium paid by the buyers. For example, the 1951 Booker T. Washington Memorial set of three 50 cent coins sold for \$10.

^{1/}The Eisenhower dollar (1971-1974) and the Bicentennial dollar, half dollar, and quarter (1976) are not considered true commemorative coins. The copper-nickel clad coins were intended for general circulation. The revenues from the 40 percent silver-clad collectors' coins went to the U.S. Treasury, not a private commission. Public Law 93-441, October 11, 1974, did, however, authorize the transfer of 10 percent of the moneys derived from the sale of Eisenhower proof dollars to the Eisenhower College, Seneca Falls, New York.

COMPARISON OF BULLION COINAGE PROGRAMS
WITH SELLING THE STOCKPILE SILVER AT AUCTION

(in million dollars)

	<u>Bullion Coinage Program</u>		
	<u>No face value</u>	<u>\$10.00 face value In Fed (note a)</u>	<u>Out Fed (note b)</u>
Gross revenues	\$1,500	\$1,500	\$1,500
Less market value of silver at auction	(900)	(900)	(900)
Less minting and marketing costs	(100)	(100)	(100)
Less present value of interest lost on government securities	<u>-0-</u>	<u>(1,000)</u>	<u>-0-</u>
Increase (decrease) in net revenues to Transaction Fund	<u>\$ 500</u>	<u>\$ (500)</u>	<u>\$ 500</u>
Increase in money supply	<u>-0-</u>	<u>\$1,000</u>	<u>\$1,000</u>

Assumptions

- 100 million troy ounces are sold.
- Selling price per coin equals \$15.00.
- Each coin contains 1 troy ounce of silver.
- Average market value of silver over the program's life equals \$9.00.
- Minting and marketing costs per coin equal \$1.00.
- Administrative costs to manage the alternative programs are equal.
- Present value of interest lost on government securities equals the face value of the coins.

a/Face value of coins used by Federal Reserve to offset a planned increase in the money supply resulting in a lost opportunity to acquire and hold government securities.

b/Face value of coins not used by Federal Reserve to offset a planned increase in the money supply.

Because they were identical to circulating coins in face value, metal composition, and fineness, the Federal Government "contributed" the Mint's manufacturing costs, including the value of the coins' metal composition, to the private commission by including them in, instead of adding them to, the face value purchase price. A Booker T. Washington 50 cent coin contained .36169 troy ounce or about 30 cents worth of silver which was contributed as part of the Mint's manufacturing costs to perpetuate his ideals and teachings and to construct memorials to his memory. The net result was a 20-cent profit to the Federal Government less other manufacturing costs.

Consumption of silver for U.S. coinage began to rise sharply in 1961, reaching 112 million troy ounces in 1963. Further, soaring industrial and coinage demand increased the price of silver to \$1.2929 a troy ounce--a situation where a silver dollar was worth a dollar of silver. U.S. Treasury supplies, which had held the market price at \$1.2929 beginning in September 1963, faced total depletion by June 1965. If the price of silver rose above \$1.3824, the silver content of dimes, quarters, and half dollars would equal their face value and the coins would begin to disappear from circulation. Drastic action was required.

The Coinage Act of 1965, Public Law 89-81, eliminated silver from circulating dimes and quarters, reduced the silver content of half dollars from 90 percent to 40 percent, and specified that no silver dollars be minted for 5 years. Starting in 1971, the composition of circulating half dollars and dollars was also changed to copper-nickel clad bonded to an inner core of pure copper.

No silver dollars were minted between 1935 and 1971 when copper-nickel clad Eisenhower dollars were coined for circulation. Kennedy half dollars, containing .14792 troy ounce of silver were coined from 1965 through 1970. Since the average annual price of silver was \$1.77 in 1970, the value of the coin's silver content was about 26 cents. Beginning in 1971, copper and nickel were substituted for silver, reducing the value of the half dollar's content to less than 2 cents.

Since past commemorative coins were made identical to circulating coins in metal composition, past precedent would require that coins issued today under a commemorative program be made of copper and nickel as opposed to silver. If stockpile silver is substituted for copper and nickel, the value of the coins' content would increase substantially. The profit per coin to the Federal Government would equal that raised by issuing a copper-nickel coin only if the coin's sale price was increased to equal its face value plus the value of the silver content less the cost to mint an equivalent coin of copper and nickel.

For example, the current cost of the metal composition of a copper-nickel clad Eisenhower dollar would be about 5 cents. Therefore, the profit to the Federal Government would be about 95 cents per coin. If \$9.00 of stockpile silver is substituted for the copper and nickel, a dollar coin would have to be sold for \$9.95 just to equal the profit that could have been raised by issuing a copper-nickel coin.

Applying the past precedent of minting commemorative coins identical in metal composition to circulating coins and selling them at face value becomes particularly important if their face value is equal to or higher than the value of their silver content. For example, minting a \$10.00 commemorative coin comprised of 5 cents worth of copper and nickel and selling it for \$10.00 would result in a \$9.95 profit to the Federal Government (the \$10.00 selling price less the 5 cents to mint the coin). Precedent would require that if \$9.00 of stockpile silver is substituted for the 5 cents of copper and nickel, the coin should be sold for \$18.95.

While past precedent would argue for a sale price that covers both the face value of the coins and the value of their silver content, consideration would have to be given to the effect the sale price may have on demand for the coins. Setting a face value equal to or greater than the value of the silver content allows the face value to serve as a "floor" or minimum value, since the coin could be used as circulating money. But if there is a wide disparity between the sale price and face value, a buyer would give little consideration to the floor as an attribute because that disparity would constitute a loss to the buyer if the coin would be used as circulating money. This is not a serious drawback if the sale price is close to the value of the bullion content, which can be accomplished by assigning only a nominal face value.

If, however, the requirement to dispose of the stockpile silver is seen as allowing past precedent to be overlooked, the sale price may then be equal to or only slightly higher than face value. Setting the face value only slightly above the silver value would then virtually assure the coins' marketability.

Past precedent should be considered in a market analysis for a coinage program. However, adherence to it must be weighed against the need for a successful coinage program because of the benefits to be derived. (See p. 25.)

PROBLEMS ASSOCIATED WITH PAST COINAGE PROGRAMS MUST BE OVERCOME TO STIMULATE DEMAND

The alternative of selling the stockpile silver in the form of coins is not new. However, Treasury officials, citing the less than expected demand for the Eisenhower silver dollar and the American arts gold medallion, doubt whether sufficient demand exists to dispose of the silver through coinage.

We identified problems associated with past coinage programs which correspondingly reduce demand. We believe that these problems must be corrected if a coinage program is to be successful. For example, the 40 percent silver-clad Eisenhower dollar authorized to be minted in December 1970, is considered a numismatic issue, not a bullion coin. Therefore, it was marketed primarily towards numismatic coin collectors. The coin was not bought by investors for its silver content because it contains only .31625 troy ounce of silver, but sold for \$10.00 per proof coin and \$3.00 per uncirculated coin. Since the average market price of silver was \$1.58 per troy ounce in July 1971, when orders for the coin were first accepted, the silver content was worth only about 50 cents or 5 percent and 17 percent of the proof coin's and the uncirculated coin's selling price, respectively. Order blanks, not the coins, were distributed to banks and post offices with orders at first limited to five proof and five uncirculated coins per customer. Although up to 150 million Eisenhower silver dollars were authorized, the limited market and number of coins per customer together with the ordering requirements resulted in only about 21 million or 14 percent being minted before the program was halted in 1974.

Poor merchandising and marketing efforts have also resulted in less than expected demand for the American arts gold medallions. The 1978 act authorized 1 million troy ounces of gold per year for 5 years to be minted into troy ounce and half troy ounce 90 percent fine gold medallions. However, the medallions lack a U.S. Government mint mark and do not specify weight or troy ounces. These are crucial attributes which limit the medallions' marketability. Furthermore, the ordering procedures are complex and time consuming. A purchaser must (1) call a toll-free number to obtain the daily price, (2) obtain an ordering form from a Post Office, (3) obtain a certified check or money order from a financial institution, (4) assure that the form is post marked on the same day that the price was quoted, and (5) wait up to 6 weeks for delivery. While the program has generated revenues for the Federal Government, only 435,920 or 44 percent of the 1 million troy ounces of gold authorized for the 1980 program were sold. As of November 1981, less than 100,000 troy ounces or 10 percent had been sold during the 1981 program.

Combining several factors could stimulate demand

The premium to be derived from selling the stockpile silver as coinage is contingent on public demand. Market analysts we interviewed stated that with an effective marketing strategy the entire 103 million troy ounces still to be disposed of could be sold as coinage within 3 years, including a 1-year lead time to mint and market the coins. The marketing strategy should be directed toward developing new demand and participation

by investors of modest financial means. This strategy could include issuing the coins

- in a price range affordable to most American families;
- with artistic beauty, commemorating an important historical event, person(s), or place or associated with coins having numismatic value (e.g., the historic Carson City silver dollar);
- with a high percentage of silver purity (e.g., 99.95 percent fine silver) and in easily tendered amounts (e.g., precisely 1 troy ounce), creating a buy-back market;
- bearing the year of mintage and in a condition similar to that of other coins issued for general circulation, giving them the appearance of money; and
- through an economical, readily accessible, and simplified distribution system such as commercial banks and coin dealers.

If the coins are issued without face value, market analysts believe that they could still (1) carry the year of mintage and the seal of the U.S. Government, (2) be accepted as legal tender, and (3) be redeemable at a price based on the current market value of silver at any commercial bank. A similar marketing strategy is being employed by Mexico in selling its "The Golden Coins of Mexico" series. However, making the coins legal tender and redeemable at commercial banks may require continual Federal involvement in the redemption and reissuing of the coins. Since the number of coins would be limited to the stockpile silver as opposed to the coinage programs of Canada and Mexico which are of a continuing nature, Federal involvement could be limited to the initial minting and distribution of the coins. Redemption and reissuance would then become functions of the normal silver bullion and numismatic markets.

Market analysts agreed that the coins should be distributed without the necessity of order forms and special packaging, but suggested that a small percentage of the coins could be marketed as proofs at premium prices to the numismatic public. Making the coins easier to obtain than other forms of silver could increase participation by first-time and small investors.

The Bureau of the Mint could produce the coins

The number of silver bullion coins to be issued is insignificant compared to the quantity of coins struck by the Bureau of the Mint in any given year. The Mint issued 13.6 billion, 15.4 billion, and an estimated 15.0 billion domestic

pieces in fiscal years 1979, 1980, and 1981, respectively. Funds requested by the Mint for fiscal year 1982 would permit production of approximately 18.2 billion coins. Thus, 34 million coins per year for 3 years would comprise less than .3 percent of the Mint's issuances.

In a December 6, 1976, report entitled "Alternatives to Constructing A New Denver Mint" (LCD-76-458), we reported that the Mint had several options to increase its coinage capacity to over 50 billion coins a year. Therefore, the bullion coinage program may not displace planned production. Further, in considering the priorities of the Mint, we believe that the proposed silver bullion coinage program should take precedence over producing coins for foreign countries. The Mint manufactured 27.6 million coins, on a reimbursable basis, for the Dominican Republic, Haiti, and Panama during fiscal year 1979. Mint officials estimate production of foreign coins to be 15 million and 31.5 million pieces in fiscal years 1980 and 1981, respectively.

According to Mint officials, the Mint has the capacity to issue 100 million silver bullion coins over a 3 to 4 year period in addition to the requirements in Senate bill S. 1230 (51.4 million Olympic coins) and House bill H.R. 3484 (10.0 million George Washington commemorative coins). However, most of the coins would have to be uncirculated because the Mint's capacity to manufacture proofs is about 30 million coins, of which about 24 million is used to produce yearly proof sets. Proof coin capacity is limited primarily because each coin is hand fed into the coinage press individually and receives two blows from the dies to bring up sharp, high-relief details. The process is done at slow speed and finished proofs are sonically sealed in special plastic cases requiring additional time and labor.

Mint officials noted that the Mint would have to be reimbursed for manufacturing the coins. We believe that since the revenues will be used to acquire other strategic and critical materials, the minting costs should be paid for out of the National Defense Stockpile Transaction Fund.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The United States cannot produce certain strategic and critical materials in sufficient amounts to support its requirements during periods of national emergency. To prevent what could be a dangerous and costly dependence on foreign supply sources during these crises, the United States maintains a National Defense Stockpile of materials to avoid military setbacks and economic damage in wartime. As of October 1, 1981, the stockpile contained 139.5 million troy ounces of silver.

Stockpile goals represent the estimated material requirements for the first 3 years of a conventional war, above those which could be expected to be available from domestic production and reliable imports. In 1976 and again in 1980, FEMA, which determines stockpile policy and goals, concluded that the silver in the National Defense Stockpile is not needed to meet national defense requirements and set the goal at zero.

Beginning in fiscal year 1982, 105.1 million troy ounces, or about 75 percent of the stockpile silver, were authorized for disposal. However, the fiscal year 1982 Defense Appropriations Act suspended the disposal pending a July 1, 1982, redetermination that the silver to be disposed of is excess to stockpile requirements and congressional approval of any stockpile disposal. As in the past, FEMA will be delegated lead responsibility in making the redetermination.

CONCLUSIONS

Several factors used to establish stockpile goals for all strategic and critical materials, including a zero silver goal, have changed since the stockpile goals were last published in 1980 based on 1978 supply and demand data. These changes have (1) increased projected defense-related demand for silver during national emergencies and (2) reduced the availability of silver from existing domestic mines and smelters. Moreover, silver from recycling, domestic stocks, and foreign suppliers may cost more (in constant dollars discounted to present value) during wartime than the revenues to be realized from the sale of the stockpile silver. Further, all three of the United States' major foreign suppliers--Canada, Mexico, and Peru--while generally considered reliable, have protested a sale of stockpile silver at auction. They have expressed their concerns that a sale will depress the market price of silver, resulting in decreased employment and foreign exchange earnings. This could have adverse political repercussions and could affect the availability of imports during wartime. Finally, long-term uncertainties relating to projected increased U.S. dependency

on foreign silver sources and the possibility that a silver stockpile goal could be reestablished at some future date have not been considered. Therefore, we believe that the July 1, 1982, redetermination that the silver to be disposed of is excess to stockpile requirements should consider the above silver demand and supply relationships.

The disposal at auction of any silver found to be in excess of stockpile requirements, while expedient and in compliance with legislatively mandated competitive procedures, has not met other congressional goals to (1) minimize or eliminate any short-term market price disruption because, all else remaining the same or constant, a sale will depress the short-term price of silver relative to what it would have been, and (2) assure that the disposal is for domestic consumption because the ingots can displace other silver bullion held domestically which can then be shipped out of the country or the ingots can be reprocessed and readily exported thereafter. Further, it does not make the silver available to most American families. Moreover, it may not maximize revenues to acquire other strategic and critical materials because the disposal is ill-timed, occurring when the price of silver is already depressed.

The fiscal year 1982 Defense Appropriations Act requires that the President report to the Senate and House Committees on Armed Services on alternative methods to dispose of any silver found to be excess to stockpile requirements, including his recommended disposal method. No disposal action can be taken, however, prior to congressional approval.

Because the weekly auctions used by GSA to dispose of the silver have not met all the goals of Congress, we explored alternative methods to dispose of the stockpile silver. These alternatives included coinage programs, small silver bars, transferring or selling the silver to the U.S. Treasury, and leaving the silver in the National Defense Stockpile. While all alternatives appeared to have advantages and drawbacks, a bullion coinage program appeared to be an attractive alternative that should be considered. Effectively implemented, it may (1) increase Federal revenues to acquire other strategic and critical materials over selling the silver at auction in a depressed silver market, (2) minimize or eliminate any short-term market price disruption by developing new demand to offset the increased supply, and (3) better assure that the disposal is made for domestic consumption by making the silver more attractive, affordable, and accessible to first-time investors from a wide range of American income groups. Therefore, we believe that the feasibility of disposing of any silver found to be in excess of stockpile requirements by combining the numismatic, commemorative, and bullion attributes of coins deserves serious consideration.

In developing a coinage program, the implications of placing a face value on the coins and making them legal tender must be thoroughly studied. Our analysis indicated that the face value of the coins should not be such that the program is substituted for a planned increase in the money supply by the Federal Reserve. Further, while past precedent would argue for a sale price that covers both the face value of the coins and the value of their silver content, consideration would have to be given to the effect such a price may have on demand for the coins. Finally, although accepting the coins as legal tender at a price based on the current market value of silver may stimulate public demand, the degree of desired Federal involvement beyond the initial minting and distribution of the coins must be considered in determining the coins' legal tender status.

The success of any coinage program is contingent, however, on public demand. Problems such as limiting the market to coin collectors, limiting the number of coins per customer, and complex and time-consuming ordering procedures have dampened public demand for past coins. Therefore, an effective marketing strategy that includes an economical, readily accessible, and simplified channel of distribution must be developed to overcome problems associated with past U.S. coinage programs.

RECOMMENDATION TO THE DIRECTOR OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY

Since the Federal Emergency Management Agency will have lead responsibility in advising the President with respect to the redetermination required by the fiscal year 1982 Defense Appropriations Act, GAO recommends that the Director of the Federal Emergency Management Agency, in evaluating various factors and information, specifically consider (1) the most recent war scenario hypothesized in terms of participants, war fronts, type of military action, and warning time, (2) defense-related uses of silver during past national emergencies, (3) reduced expansion from existing mines during wartime, (4) decreasing domestic smelting capacity, (5) the cost of silver from recycling, domestic stocks, and foreign suppliers, (6) the impact that selling the silver at auction may have on relations between the United States and its major foreign suppliers, and (7) long-term uncertainties relating to projected increased U.S. dependency on foreign silver sources and the possibility that a silver stockpile goal could be reestablished at some future date.

MATTERS FOR THE CONSIDERATION OF THE CONGRESS

Our work indicates that a bullion coinage program is possibly an attractive alternative method for disposing of the stockpile silver. In considering such a program, further study is required regarding the probability of developing an effective marketing strategy which would develop new demand and participation by first-time investors from a wide range

of income groups. Pertinent factors to be considered include the implications of placing a face value on the coins and making them legal tender. To have such information available at the same time as the July 1982 redetermination required by the fiscal year 1982 Defense Appropriations Act, the Congress should consider requiring that the Secretary of the Treasury conduct the appropriate study and provide the results to them by July 1, 1982. Further, the study's findings would also be applicable to other coinage programs and to disposing of the 39 million troy ounces of silver currently held in the U.S. Treasury for coinage.

JAMES A. MC CLURE, IDAHO, CHAIRMAN
 MARK D. MATTFIELD, OREGON
 LOWELL P. WEICKER, JR., CONN.
 PETE V. DOMENICI, N. MEX.
 MALCOLM WALLOP, WYO.
 JOHN W. WARNER, VA.
 GORDON J. HUMPHREY, N.H.
 FRANK H. BRUNSWICK, ALASKA
 DON NICOLLE, OLA.
 JOHN P. BAST, R.I.
 JOHN HEINE, PA.

NICHOLAS D. HATHAWAY, STAFF DIRECTOR
 CHARLES A. TRUMBART, CHIEF COUNSEL
 D. MICHAEL HARVEY, CHIEF COUNSEL FOR THE MINORITY

HENRY M. JACKSON, WASH.
 J. BENNETT JOHNSON, LA.
 DALE BUMPERS, ARK.
 WENDELL H. FORD, KY.
 HOWARD M. METZENBAUM, OHIO
 SPARK M. MATSUHARA, HAWAII
 JOHN HELMSER, MONT.
 PAUL E. TONKAS, MASS.
 BILL BRADLEY, N.J.

United States Senate

COMMITTEE ON
 ENERGY AND NATURAL RESOURCES
 WASHINGTON, D.C. 20510

July 7, 1981

The Honorable Milton J. Socolar
 Comptroller General of the United States
 General Accounting Office
 Washington, D.C. 20548

Dear Mr. Socolar:

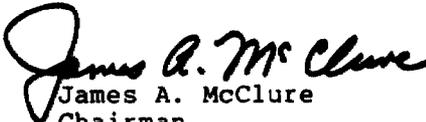
The availability of some nonfuel minerals is becoming more uncertain. I am deeply concerned that these minerals will be inaccessible when needed to sustain our industrial economy. In this regard, on July 2, 1981, representatives of your staff met with my staff to discuss their ongoing and planned efforts relating to future minerals supply and demand. During the discussion, several issues were raised that appear to be directly applicable to the impending sale of silver from the strategic and critical materials stockpile.

Congressional approval is imminent for the billion dollar sale over the next four fiscal years for all 139.5 million troy ounces of silver currently in the stockpile. Justification for the sale is based primarily on projections by the Federal Emergency Management Agency that domestic silver demand during the first three years of a major conventional war could be met by domestic production and reliable imports. However, I am concerned that the broader implications of the sale have not been adequately considered. These issues address the need for silver from an overall minerals availability perspective as opposed to the adequacy of supply to meet U.S. industrial demand under wartime mobilization conditions. For example:

- Do projections currently identify potential economy-wide supply and demand imbalances for silver over the next 20 years and what impact might the proposed sales have on such imbalances?
- What budgetary impact would potential imbalances have if silver has to be reacquired within this period?
- Could you identify any local or regional displacements or other adverse impacts that have occurred during past periods of stockpile sales?

As presently proposed, the legislation authorizing the silver sale will permit the Congress to re-evaluate its decision at the end of fiscal year 1982. A timely response by GAO to the above questions and other issues concerning the sale would assist in this deliberation. Therefore, I am requesting that GAO undertake an evaluation of the impending sale from a broad, overall availability perspective and report the results of this effort to this Committee by the end of this calendar year.

Sincerely,


James A. McClure
Chairman

CHARLES E. BENNETT, FLA.
SAMUEL S. STRATTON, N.Y.
RICHARD C. WHITE, TEX.
BILL NICHOLS, ALA.
JACK BRINKLEY, GA.
ROBERT M. MOLLOHAN, W.VA.
DAN DANIEL, VA.
G. V. (SONNY) MONTGOMERY, MISS.
LES ASPIN, WIS.
RONALD V. DELLUMS, CALIF.
PATRICIA SCHROEDER, COLO.
ABRAHAM KAZEN, JR., TEX.
ANTONIO S. WON PAT, GUAM
LARRY McDONALD, GA.
BOB STUMP, ARIZ.
BEVERLY S. BYRON, MD.
NICHOLAS MAVROULES, MASS.
EARL HUTTO, FLA.
IRE BELTON, MO.
MARVIN LEATH, TEX.
DAVE MCCURDY, OKLA.
THOMAS M. FOULIETTA, PA.
ROY DYSON, MD.
DENNIS M. HERTZEL, MICH.
(VACANCY)

U.S. House of Representatives
COMMITTEE ON ARMED SERVICES
Washington, D.C. 20515
NINETY-SEVENTH CONGRESS
MELVIN PRICE (ILL.), CHAIRMAN

July 9, 1981

WILLIAM L. DICKINSON, ALA.
S. WILLIAM WHITENURST, VA.
FLOYD SPENCE, S.C.
ROBIN BEARD, TENN.
DONALD J. MITCHELL, N.Y.
MARDONIS E. HOLY, MD.
ROBERT W. DANIEL, JR., VA.
ELWOOD HILLIS, IND.
DAVID F. IDERTY, MAINE
PAUL TRIBLE, VA.
ROBERT E. BADHAM, CALIF.
CHARLES F. DOUGHERTY, PA.
JIM COURTER, N.J.
LARRY J. HOPKINS, NY.
ROBERT W. DAVIS, MICH.
REN KRAMER, COLO.
DUNCAN L. HUNTER, CALIF.
JAMES L. NELLISAM, PA.
THOMAS F. HARTNETT, S.C.
JOHN J. FORD, STAFF DIRECTOR

Honorable Milton Socolar
Acting Comptroller General
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Socolar:

The availability of some nonfuel minerals is becoming so uncertain that I am concerned these minerals will be inaccessible when needed to sustain our industrial economy. In this regard, on July 2, 1981, representatives of your staff met with my staff to discuss their ongoing and planned efforts relating to future minerals supply and demand. During the discussion, several issues were raised that appear to be directly applicable to the planned sales of silver from the National Defense Stockpile.

Congressional approval appears imminent for sale of at least 75 percent of the 139.5 million troy ounces of silver currently held in the National Defense Stockpile. Justification for the sale is based primarily on projections by the Federal Emergency Management Agency that domestic silver demand during the first three years of a major conventional war could be met by domestic production and reliable imports. However, review of the testimony presented during the hearings and further study gives me concern that the broader implications of the sale should be given more consideration.

Some of the issues that need to be addressed include:

- Do current projections identify a potential for supply and demand imbalances for silver over the next 20 years and the impact the proposed sale might have on such imbalances?
- How have past sales of silver from the stockpile affected the silver industry, including production, price and international supply patterns?
- What were the supply constraints during such sales?
- How would potential allies or supporting friendly nations with silver-based currencies (such as oil producing countries), affect the requirements for silver in wartime?
- Could a speculative "cartel" tie up sufficient supplies to prevent easy access to silver in times of short supply, or in wartime?

-2-

I am requesting, therefore, that GAO undertake an evaluation of the impending sale from a broad, overall availability perspective and report the results of this effort to the subcommittee as soon as reasonable but not later than the end of calendar year 1981.

Sincerely,



CHARLES E. BENNETT
Chairman, Subcommittee on Seapower
and Strategic and Critical Materials

CEB:dpb

95 STAT. 380

PUBLIC LAW 97-35—AUG. 13, 1981

TITLE II—ARMED SERVICES AND DEFENSE-RELATED PROGRAMS

Subtitle A—Strategic and Critical Materials

AUTHORIZATION OF DISPOSALS

Effective date.
7 USC 98d note.

Sec. 201. (a) Effective on October 1, 1981, the President is authorized to dispose of the following quantities of materials currently held in the National Defense Stockpile established by section 3 of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98b), such quantities having been determined to be excess to the current requirements of the stockpile:

- (1) 1,000,000 pounds of iodine.
- (2) 1,500,000 carats of diamonds, industrial crushing bort.
- (3) 710,253 pounds of mercuric oxide.
- (4) 50,000 flasks of mercury.
- (5) 6,000,000 pounds of mica, muscovite splittings.
- (6) 25,000 pounds of mica, phlogopite splittings.
- (7) 46,537,000 troy ounces of silver.
- (8) 1,000 short tons of antimony.
- (9) 2,000 short tons of asbestos chrysotile.
- (10) 50,000 pounds of mica muscovite film, first and second qualities.
- (11) 50,000 pounds of mica muscovite block, stained and lower.
- (12) 700 long tons of vegetable tannin extract, wattle.

Effective date.

(b) Effective on October 1, 1982, the President is authorized to dispose of the following quantities of materials currently held in the National Defense Stockpile, such quantities having been determined to be excess to the current requirements of the stockpile:

- (1) 44,682,000 troy ounces of silver.
- (2) 1,000 short tons of antimony.
- (3) 2,000 short tons of asbestos chrysotile.
- (4) 1,500,000 carats of diamond stones.
- (5) 1,000,000 pounds of iodine.
- (6) 50,000 pounds of mica muscovite film, first and second qualities.
- (7) 50,000 pounds of mica muscovite block, stained and lower.
- (8) 697 long tons of vegetable tannin extract, wattle.

Effective date.

(c) Effective on October 1, 1983, the President is authorized to dispose of the following quantities of materials currently held in the National Defense Stockpile, such quantities having been determined to be excess to the current requirements of the stockpile:

- (1) 13,900,000 troy ounces of silver.
- (2) 1,000 short tons of antimony.
- (3) 6,000 short tons of asbestos amosite.
- (4) 2,000 short tons of asbestos chrysotile.
- (5) 1,500,000 carats of diamond stones.
- (6) 197,465 carats of diamonds, industrial crushing bort.
- (7) 213,000 pounds of iodine.
- (8) 50,000 pounds of mica muscovite film, first and second qualities.
- (9) 50,000 pounds of mica muscovite block, stained and lower.

Expiration.

(d)(1) The authority to enter into contracts for the disposal of materials in the stockpile under the disposal authorizations contained in paragraphs (7) through (12) of subsection (a) expires on September 30, 1982.

PUBLIC LAW 97-35—AUG. 13, 1981

95 STAT. 381

(2) The authority to enter into contracts for the disposal of materials in the stockpile under the disposal authorizations contained in subsection (b) expires on September 30, 1983.

Expiration.

(3) The authority to enter into contracts for the disposal of materials in the stockpile under the disposal authorizations contained in subsection (c) expires on September 30, 1984.

Expiration.

(e) Any disposal under the authority of subsection (a), (b), or (c) shall be carried out in accordance with the provisions of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 et seq.).

(f)(1) The authority contained in subsections (b)(1) and (c)(1) shall not become effective unless the President, not later than September 1, 1982, determines that the silver authorized for disposal by such subsections is excess to the requirements of the stockpile as of that date.

(2) A determination by the President under paragraph (1) shall be based upon consideration of such factors as the President considers relevant, including the following factors:

(A) The demand for silver in each of the next ten years for the industrial, military, and naval needs of the United States for national defense.

(B) The domestic supply of silver for each of the next ten years, as a function of price, that would be available to meet the demand identified under subparagraph (A).

(C) The potential dependency of the United States on foreign supplies of silver in each of the next ten years to meet the demand identified under subparagraph (A).

(D) The effect of disposal under subsections (b)(1) and (c)(1) on (i) the world silver market (in terms of price and supply), (ii) the domestic and international silver mining industry (in terms of exploration and production), (iii) international currency and monetary policy, and (iv) long range military preparedness.

(3) If the President makes a determination described in paragraph (1), he shall promptly report to the Committees on Armed Services of the Senate and House of Representatives that he has made such determination and shall include a detailed discussion and analysis of the factors set forth in paragraph (2) and other relevant factors.

Report to congressional committees.

AUTHORIZATION OF APPROPRIATIONS

SEC. 202. (a) Effective on October 1, 1981, there is authorized to be appropriated the sum of \$585,000,000 for the acquisition of strategic and critical materials under section 6(a) of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98e(a)).

50 USC 98d note.

(b) Any acquisition using funds appropriated under the authorization of subsection (a) shall be carried out in accordance with the provisions of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 et seq.).

IMPROVEMENTS IN STOCKPILE MANAGEMENT

SEC. 203. (a) Section 5(a) of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98d(a)) is amended—

(1) by inserting "(1)" after "(a)";

(2) by inserting "and other incidental expenses" after "transportation";

(3) by striking out "for a period of five fiscal years, if so provided in appropriation Acts" and inserting in lieu thereof

95 STAT. 382

PUBLIC LAW 97-35—AUG. 13, 1981

“until expended, unless otherwise provided in appropriation Acts”; and

(4) by adding at the end thereof the following new paragraph:

50 USC 98h-2.

“(2) If for any fiscal year the President proposes certain stockpile transactions in the annual materials plan submitted to Congress for that year under section 11(b) and after that plan is submitted the President proposes (or Congress requires) a significant change in any such transaction, or a significant transaction not included in such plan, no amount may be obligated or expended for such transaction during such year until the President has submitted a full statement of the proposed transaction to the appropriate committees of Congress and a period of 30 days has passed from the date of the receipt of such statement by such committees or until each such committee, before the expiration of such period, notifies the President that it has no objection to the proposed transaction. In computing any 30-day period for the purpose of the preceding sentence, there shall be excluded any day on which either House of Congress is not in session because of an adjournment of more than three days to a day certain.”

(b) Section 5(b) of such Act (50 U.S.C. 98d(b)) is amended—

(1) by inserting “(1)” after “from the stockpile”; and

(2) by striking out the period at the end and inserting in lieu thereof “, or (2) if the disposal would result in there being a balance in the National Defense Stockpile Transaction Fund in excess of \$1,000,000,000 or, in the case of a disposal to be made after September 30, 1983, if the disposal would result in there being a balance in the fund in excess of \$500,000,000.”

(c) Section 6(a)(6) of such Act (50 U.S.C. 98e(a)(6)) is amended by inserting “subject to the provisions of section 5(b),” after “(6)”.

(d)(1) Section 9(b)(1) of such Act (50 U.S.C. 98h(b)(1)) is amended by striking out “or until” and all that follows in such section and inserting in lieu thereof a period.

(2) Section 9(b)(3) of such Act (50 U.S.C. 98h(b)(3)) is amended to read as follows:

“(3) Moneys in the fund, when appropriated, shall remain available until expended, unless otherwise provided in appropriation Acts.”

(e) Section 11 of such Act (50 U.S.C. 98h-2) is amended—

(1) by inserting “(a)” after “Sec. 11.”; and

(2) by adding at the end thereof the following new subsection:

Report to congressional committees.

“(b) The President shall submit to the appropriate committees of the Congress each year with the Budget submitted to Congress pursuant to section 201(a) of the Budget and Accounting Act, 1921 (31 U.S.C. 11(a)), for the next fiscal year a report containing an annual materials plan for the operation of the stockpile during such fiscal year and the succeeding four fiscal years. Each such report shall include details of planned expenditures for acquisition of strategic and critical materials during such period (including expenditures to be made from appropriations from the general fund of the Treasury) and of anticipated receipts from proposed disposals of stockpile materials during such period.”

Effective date.
50 USC 98d note.

(f) The amendments made by subsection (a) shall apply with respect to funds appropriated for fiscal years beginning after September 30, 1981.

LIST OF FEDERAL AGENCIES AND SILVER PRODUCERS,
EXPERTS, AND TRADERS CONTACTED

Federal Agencies

Department of Commerce

Bureau of Industrial Economics

Commodities Futures Trading Commission

Economics and Education Division

Department of Defense

Office of the Under Secretary of Defense for
Research and Engineering, Acquisition
Management-Industrial Resources

Federal Emergency Management Agency

Stockpile Policy and Objectives Division

Federal Reserve Board

Office of the Staff Director
for Monetary and Financial Policy

General Services Administration

Federal Property Resources Service

Department of the Interior

Bureau of Mines

Department of State

Country Desk Officers for Canada,
Mexico, and Peru

Industrial and Strategic Materials
Division

Department of the Treasury

Bureau of the Mint

Deputate for Commodities and Natural Resources

Deputate for International Monetary Affairs

Silver Producers

AMAX Inc.

2 Greenwich Plaza

Greenwich, Connecticut 06830

The Anaconda Company

4 Landmark Square

Stamford, Connecticut 06901

ASARCO Incorporated

120 Broadway

New York, New York 10271

The Bunker Hill Company
834 McKinley Avenue
Kellogg, Idaho 83837

DeLamar Silver Mine
P.O. BOX 52
Jordan Valley, Oregon 97910

Handy and Harman
850 Third Avenue
New York, New York 10022

Hecla Mining Company
Hecla Building
Wallace, Idaho 83873

Homestake Mining Company
650 California Street
San Francisco, California 94108

Kennecott Corporation
161 E. 42nd Street
New York, New York 10017

Occidental Minerals Company
777 S. Wadsworth Boulevard
Denver, Colorado 80211

Phelps Dodge Corporation
300 Park Avenue
New York, New York 10022

Sunshine Mining Company
P.O. Box 1080
Kellogg, Idaho 83837

Silver Experts and Traders,
Including Coin Dealers

J. Aron and Company, Inc.
160 Water Street
New York, New York 10038

CRU Consultants, Inc.
33 West 54th Street
New York, New York 10019

Deak and Company
29 Broadway
New York, New York 10006

Manfra, Tordella, and Brookes, Inc.
59 W. 49th Street
New York, New York 10112

10

11

12

13

14

15

16

17

18

19

20

21

22

AN EQUAL OPPORTUNITY EMPLOYER

**UNITED STATES
GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548**

**OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300**

**POSTAGE AND FEES PAID
U. S. GENERAL ACCOUNTING OFFICE**



THIRD CLASS