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## USAWC MILITARY STUDIES PROGRAM PAPER

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DEBT-FOR-PRODUCT: MEETING FOREIGN MILITARY SALES AND STRATEGIC AND CRITICAL MATERIALS STOCKPILE REQUIREMENTS

AN INDIVIDUAL STUDY PROJECT

by

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#### ABSTRACT

AUTHOR: Isiah Moore, Jr. LTC, USA

- TITLE: Debt-For-Product: Meeting Foreign Military Sales and Strategic and Critical Materials Stockpile Requirements
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Current United States budget deficits and other fiscal pressures seriously impact the national security interests of the United States by placing at risk critical national defense programs. Two of these programs are the Security Assistance Program (SAP) and the Strategic and Critical Materials Stockpile Program (SCMSP). This study provides an analysis of SAP and SCMSP budgetary requirements and financing options. It suggests that, in spite of budgetary constraints, a debt-for-product financing option may offer each program complementing resources that could sustain both programs' vitality. Congressional budgetary constraints limit the programs to partial and inadequate funding. This partial funding prevents the programs from meeting their objectives and places at risk the country's national security. National security program planners must evaluate creative financing mechanisms for national security programs. A debt-for-product financing option would allow the program planner to supplement SAP and SCMSP funding.

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### INTRODUCTION

Current United States budget deficits and other fiscal pressures seriously impact the national security interests of the United States by placing at risk critical national defense programs. Two of these programs are the Security Assistance Program (SAP) and the Strategic and Critical Materials Stockpile Program (SCMSP). This study provides an analysis of SAP and SCMSP budgetary requirements and financing options. It suggests that, in spite of budgetary constraints, a debt-for-product financing option may offer each program complementing resources that could sustain both programs' vitality.

#### BACKGROUND

Congressional appropriations currently fund the SAP and SCMSP. However, budgetary constraints increasingly limit the programs to partial and inadequate funding. This partial funding prevents the programs from meeting their objectives and places at risk the country's national security. In an effort to make every budget dollar go further, national security program planners must evaluate creative financing mechanisms for national security programs. A debt-for-product financing option would allow the program planner to supplement SAP and SCMSP funding. These two strategically important programs offer the potential for complementary resourcing; specifically, debt-for-product, a relief option for debt and debt service in SAP and a product (materials) acquisition option in SCMSP. This study makes no attempt to present the exact costing mechanism or set of procedures. Instead, by using as examples the countries of Zaire and Peru, and two materials, cobalt and copper, a qualitative calculation and argument is made for the debt-for-product financing option, that demonstrates how each program's goals may be furthered using existing resources.

#### SAP, SCMSP, AND NATIONAL SECURITY

The United States national security strategy depends on many programs to serve as instruments of national security policy. SAP and SCMSP are two of these programs and both support United States national interests in the world arena.

Congress established the SAP in the 1976 Arms Export Control Act to promote "common defense" between the United States and friendly countries. Under the SAP, the United States pledges by international agreement to provide resources for other countries' programs and projects. These resources allow the cooperative exchange of military assistance support. This military assistance support includes data sharing, research and development, production, and materiel acquisition support. Congress designed SAP to meet specific national defense objectives of mutual concern to the United States and friendly 1 countries.

As designed, SAP meets these objectives by promoting regional stability, aiding United States friends and allies, maintaining defense alliances, defending democratic values, and supporting the economies of friendly countries. From its enactment the SAP advanced these tenets as the proper course to follow in order to facilitate deterrence, common defense, and economic growth.

For over four decades, various forms of SAP provided a key element in the United States strategy of deterring aggression and providing defense throughout the world. As an example, military assistance to countries like Israel and Egypt enhanced regional security and in turn stabilized world economic markets. The SAP allows the United States to benefit directly from this stability.

SAP produces direct domestic benefits and has a positive net impact on the domestic economy. For example, a portion of the United States defense industry receives job orders as a result of arms sales to friendly countries. These sales provide jobs for American workers and contribute to the balance of payments through exports. Additionally, the sales allow the industries to have longer production lines. The longer production lines enable manufacturers to reduce the cost of weapons systems and thereby provide savings to the United States armed Forces.

Like SAP, the SCMSP addresses a national security issue. Strategic materials are essential to the national security interests of the United States. In the Strategic and Critical

Materials Stock Piling Act, Congress states that certain national resources are lacking or not adequately developed to meet national defense requirements. These national resources are strategic and critical materials that the military, industrial, and essential civilian sectors would require in a 4 national defense emergency. Complicating this situation is the fact that the United States routinely imports over 28 5 critical minerals.

The United States depends largely on imports for over 64 minerals and metals that are essential to the economy. As a net importer of these materials, the United States is finding itself in competition with other countries as global industrial development increases the requirements for raw materials. This dependence is made more precarious when a single source produces a significant share of the world's supply of a material. For example, more than 40 percent of global cobalt supply is produced by a country labeled as politically unstable, namely Zaire. During the late 1970s cobalt from Zaire was subjected to a significant supply disruption as a result of the Shaba II invasion by rebels from Angola. The short term disruption of production that resulted from the invasion caused the price of cobalt to increase from approximately \$7 a pound to over \$50. Although the United States mining industry has moved to reopen domestic cobalt mines, they have proved uneconomic and cobalt import reliance has not diminished significantly.

During the 1980s, reports show that the United States imported from 85 to 95 percent of its cobalt consumption. In

addition to Zaire, the United States imports cobalt from Canada, Norway, Japan, and Zambia. This reliance is expected to decrease as new domestic mines and refineries begin to operate 8 However, like many of the other strategic and critical materials of which the United States is a net importer a guaranty of supply can only be assured by maintaining a stockpile.

SAP and SCMSP are key to a credible deterrence and military strength. Both programs promote readiness, surge capability, and flexibility in military options. Since these programs provide links between the military and industry, they are sensitive to the budgetary troubles of a slow economy.

## SAP, SCMSP, AND BUDGET ISSUES

Although tailored to meet their program charters, SAP and SCMSP are directly threatened by budget cuts. In times of a slow economy, national security programs that address and fund foreign issues, like SAP, will have a lower priority than programs aimed at domestic issues. Similarly, with the end of the Cold War, SCMSP is viewed by some as a nice-to-have program; fully funding the stockpile is not warranted during peacetime. Therefore, SAP and SCMSP are the first programs to come under scrutiny for possible reduction or curtailment. SAP and SCMSP compete with domestic programs for funding and often are implemented under serious budget constraints that place the program's objectives at risk. For example, a recent FY 1991

Congressional presentation for Security Assistance Programs stated that, "the reductions, [in security assistance budget], ... continue to jeopardize our ability to maintain a much-needed American presence and influence in many countries and regions."

From FY 85 to FY 90 the total SAP funding received deep cuts. The FY 90 budget was decreased over \$1 billion from the 9 FY 85 level. Similarly a 1990 report to Congress on SCMSP funding stated that "to fill the statutory [stockpile] goals would require acquisition of additional materials valued at approximately \$14.7 billion." In spite of this apparent stockpile shortfall, Congress has approved only about \$700 million since the inception of the National Defense Stockpile Transaction Fund in 1979, for the purchase of materials for the 10 stockpile.

## BUDGETING FOR SAP

The SAP budget covers a range of programs. The key appropriated elements of the SAP are Foreign Military Financing (FMF), Economic Support Fund (ESF), International Military Education and Training (IMET), and Peacekeeping Operations (PKO). For this study, FMF represents the "debt" in the debt-for-product option. In SAP, the FMF provides financing for defense purchases. Most of the FMF in the 1974-1984 period was provided by guaranteed loans at high interest rates. With the worldwide recession of the 1980s, a number of developing

11 countries experienced debt servicing problems. Because of this, current FMF budget proposals are difficult to support through the budget process.

In the budget process, Congress receives an annual FMF budget proposal from the President. The Department of State and Department of Defense coordinate on the proposal and provide 12 detail projections and programs descriptions. These descriptions also recommend the type loans each country should receive.

For example, FMF provides assistance through direct and guaranteed loans. The direct loans are used to appropriate defense articles and are labeled "on-budget." Guaranteed loans do not require full appropriations and are primarily 13 "off-budget." Since FMF loans require repayment by the recipient country, many low to middle income countries experience an increase in their total debt and dept service obligations.

Although SAP contributes to the debt of developing countries, the program also addresses necessary debt relief and reform. This debt relief allows countries to remain in good-standing with the United States and international lending institutions. FMF debt relief involves billions of dollars and takes the form of debt rescheduling and forgiveness of loans.

At the beginning of FY 89 as many as 29 countries were overdue in the payment of FMF loans. The total debt of these loans amounted to almost \$800 million. More than 60 percent of 14 this amount was over 90 days overdue. In addition, from

1985-1988 the United States forgave over \$11 billion in loan repayments to relieve debt due to FMF obligations. In spite of these efforts, debt of developing countries continued to increase in the 1980s.

This rising debt centers on two unique groups of countries that are essential to the national security interests of the United States. One group has large debts with commercial panks, and the other with debts mainly to other governments. These groups align closely with the middle-income Latin American 15 countries and the low-income Sub-Sahara African countries. Respectively, Peru and Zaire are members of these two groups.

By the end of 1989, Peru had a foreign debt of over \$17 13,17 billion and Zaire's year end debt exceeded \$7.5 billion. Both of these countries are participants in the SAP and are the recipients of debt relief initiatives.

At the end of FY 89, the United States rescheduled over \$8 million of Peru's outstanding repayments to the FMF program. Similarly, Zaire underwent a \$126 million rescheduling of its FMF debt. This rescheduling avoids government defaults and the imposition of sanctions.

The Brooke Amendment requires imposition of sanctions on countries that remain in default of FMF loans in excess of 12 months. These sanctions terminate <u>all</u> foreign security assistance to a government in default. As late as September 18 1988, Peru was under the Brooke Amendment sanction. Complicating the FMF debt, Peru and Zaire are highly indebted to the international community through the International Monetary

Fund (IMF) and World Bank. Both countries are seeking additional IMF loans and are attempting to comply with IMF preconditions

The IMF preconditions address economic stabilization and structural adjustment programs. Despite earlier resistance to reforms, Zaire and to a lesser extent Peru are adopting new investment codes, disciplining government spending, and 19,20 reforming public enterprises or parastatals. Although experts agree that these reform measures and rapid economic growth are the correct way to rebuild the credit status of 12 countries , other measures, like debt-for-product take advantage of the national resources of the country and can have mutual benefits for the lending and borrowing government.

#### BUDGETING FOR SCMSP

The Strategic and Critical Materials Stock Piling Act authorizes the budget for the acquisition of materials for the national defense stockpile. By acquiring these materials, the United States decreases its dependence on foreign sources of supply in time of national emergency. In its current form since 1979, the SCMSP has yet to fully funded by Congress.

The huge \$14 billion cost of the fully funded SCMSP prevents the program from meeting its stockpile goals. Budgets shortfalls limit purchases of stockpile materials. These limitations prevent maintenance of the stockpile and hinder efforts to ensure the proper grade and type material is available when needed by industry. The Assistant Secretary of

Defense reported to Congress that in spite of the \$10.4 billion inventory of materials in March 1989, less than \$.5 billion represents new material acquisitions over the past fifteen years. Variations in the capacity of the domestic industry and requirements of new manufacturing techniques make selected parts of the stockpile inventory obsolete. Even under budget constraints, SCMSP administrators must seek funds to constantly 22 improve the quality and form of the on hand inventory.

In the past, the SCMSP administrators used innovative methods, such ... bartering and excess material sales, to supplement stockpile budgeting. Although the government relies on open market purchases to build the stockpile, bartering is authorized to acquire materials when it is in the best interest of the nation. During the 1950s and 60s, the United States Department of Agriculture conducted a barter program that provided materials for the stockpile. Under this program the stockpile acquired at least 60 strategic and critical materials from over 50 countries. The barter program represented a \$1.6 billion supplemental funding initiative for the SCMSP. In exchange for the stockpile materials the participating countries received various agricultural products. For example, in 1983 the United States bartered surplus dairy products for one million tons of Jamaican-type bauxite. Similar barter programs assisted the Soviet Union in achieving self-sufficiency in strategic materials.

In regards to strategic materials, the Soviet Union is the most self-sufficient in the world. However, barter arrangements

between the Soviets and countries in Africa have improved their position. At least 11 Sub-Sahara African countries received economic aid in return for repayments of strategic 25 materials. In addition to bartering, excess stockpile materials are used as payment material for upgrading existing inventories.

During the late 1980s this financing method funded a large 26 part of the ferroalloy upgrade program. In this program chromite ore and manganese ore are converted to high-carbon ferrochromium and ferromanganese. The conversion reduces the time needed for conversion during an emergency. It also allows the country's ferroalloy industry furnaces and refining capability to remain active. Payments to the contractors were in excess stockpile materials and cash. Thus, there is a history of using creative financing to upgrade the stockpile inventory.

## STATUS OF THE STOCKPILE INVENTORY

Detailed information on the composition of the National Defense Stockpile inventory is prepared in a regular report to Congress. The National Defense Stockpile Manager prepares the semiannual report in accordance with the Stock Piling Act. The report covers the administration of the SCMSP, stockpile acquisition and disposal, and the financial status of National Defense Stockpile Transaction Fund.

Based on the 1989 report, the total stockpile inventory is

valued at \$10.4 billion; to fill the statutory goals would require acquisition of additional materials valued at approximately \$14.7 billion. Since the inception of the stockpile fund, only \$573.8 million has been obligated to finance the purchase of needed materials from various world 27 sources. Clearly, alternative methods of upgrading the stockpile are required; the debt-for-product alternative is one method worth close examination.

The analysis of two materials of special concern, copper and cobalt, will demonstrate the value of this method. With a stockpile shortfall of more than \$2 billion for copper and an almost total reliance on foreign sources of supply for cobalt, there is ample reason to pursue creative methods of acquisition for these important materials.

#### COPPER

Complicating the 970,000 short ton deficit in the copper stockpile, the Bureau of Mines expects the demand for copper to increase significantly in times of national emergency. This increase in demand results from a need for copper in many types of defense-related items. Within the military and civilian sectors copper use will increase significantly with the manufacture of electrical equipment and supplies. In addition, copper use will increase as the demand for ammunition increases. The domestic copper source is the principal source  $\frac{28}{28}$ 

29 reserves are more than 16 percent of the world reserves. World production of copper is led by Chile, United States, Canada, USSR, and Zaire with 1418, 1270, 767, 630, and 564 30 thousands of metric tons, respectively. In spite of this large reserve the United States has not diminished its import reliance.

United States copper import reliance increased 31 significantly in recent years. While net imports vary from zero to 20 percent from year to year, the net import reliance in 32 1988 was over 13 percent. Compounding the import problem, The United States is losing its copper mining capacity.

Over the past 10 years two national economic downturns seriously impacted on the domestic copper industry. The duration and severity of these two recessions are likely to cause the industry to lose its ability to maintain self-sufficiency in the event of an emergency. With many mines closing permanently, this scenario is becoming more probable and places the nation at increased risk. These concerns are not tempered by the fact that the United States is nearly self-sufficient in copper resources and if supplies were disrupted an immature industry could initiate production.

### COBALT

Cobalt is a critical material to the defense industry. It is an essential material in the manufacture of superalloys that are used in industrial and aircraft gas turbine engines,

magnetic materials used in electrical equipment, and high grade 33cutting and mining tools. For metallurgical applications there are no effective substitutes for cobalt. Given this constraint and the fact that the United States is totally dependent on foreign sources of supply, cobalt is a strategic 34and critical metal.

The United States has a cobalt import reliance of over 95 percent. It produces an additional 5 percent by recycling cobalt scrap metal. Although not a primary producer of cobalt, reports indicate the United States could only produce at 3,000 35 short tons of cobalt per year from domestic mines. The Bureau of Mines estimates the United States will conduct new cobalt mining and refining production by the first half of the 1990s, but this will depend upon higher cobalt prices.

Generally cobalt is recovered as a by-product in the mining of copper or nickel. New mining processes have reduced the cost of cobalt production. In 1988, the price of cobalt varied from \$6.25 to \$7.25 per pound. Prices are also affected by the political uncertainties in the regions that include major \$6 suppliers of cobalt. In this regard, the United States is at serious risk due to its more than 50 percent cobalt dependence from Sub-Sahara Africa. There is a high potential for supply disruption in politically and economically unstable countries like Zaire. This situation is complicated further by the dominant cobalt market position of Zaire and the large \$77consumption of cobalt in the United States. During the 1980s, United States cobalt imports varied from 12 million to 25

## THE NEED FOR CONSISTENT AND FLEXIBLE FUNDING

The Administration's FY 1990 budget request for the security assistance program highlighted the need for Congress to provide more consistent and flexible funding. This is especially true in Africa and Latin America where indebtedness is a major threat to economic stability in the region. For example, as of September 1989 outstanding principal of Zaire and Peru's long-term foreign loans and credits to United States government agencies, amounted to over \$1.3 billion and \$2.3 billion, 39 respectively. Much of this debt resulted from the 1980's global economic problems.

With the end of the 1980s, the 17 highly indebted middle-income and low-income countries owed financial institutions more than \$200 billion. Defaulting on these debts could threaten the survival of the global financial system. Large transfer of funds to meet debt and debt-servicing repayments has prevented the debtors from putting adequate capital into their domestic economies and threatened their 40 political stability. Shortages of funds also made it difficult for debtors to trade in global markets. Finally, efforts designed to address mutual security concerns are hindered by sanctions for nonpayment.

#### ZAIRE: DEBT, COBALT MINING, AND SECURITY ASSISTANCE

Although Zaire is a highly indebted low-income country, it undertook measures to restructure its economic program in 1989. The country is experiencing positive signs of slow economic recovery. Exports earnings from minerals increased from the recessionary levels of the mid-1980s. However, a heavy dependence on mineral exports makes Zaire vulnerable to fluctuations in market prices. In 1989 Zaire had an outstanding debt of \$7.6 billion. More than 73 percent of this debt is owed to bilateral government lenders. The United States forgave some of this debt under its debt forgiveness plans in 1989 and 1990. In spite of this, debt service continues to increase the overall debt burden. In 1989 Zaire paid more the \$172 million in debt service and still owed \$989 million. This debt service burden represents 13 percent of the government's total 1989 expenditures. In addition, the prospects of sustained economic growth diminish since it is expected that future export prices for commodities from its mining industry will decline on 42 the open market.

Mining is vital to the economy of Zaire. Mineral exports contribute more than 80 percent of the country's export receipts. In 1989, Zaire exported at least 10,000 metric tons of cobalt. Of this amount, the United States may have imported as much as 7 million pounds of cobalt. Zaire's mining industry is not without problems.

The large government-owed mining firm (Gecamines) no doubt will be hindered in its ability to expand production. This is a result of the large government debt and a reluctance on the part of external investors to provide spending capital.

This reduction in spending capital also impacts Zaire's national defense. Without external security assistance, the country finds it difficult to provide territorial security and internal order. Recent United States FMF budget proposals contained a grant for \$3 million in military assistance to Zaire. This is in addition to an outstanding Foreign Military 43 Sales debt of more than \$130 million.

## PERU: DEBT, COPPER MINING, AND SECURITY ASSISTANCE

As a highly indebted middle-income country, Peru ended the 1980s with a foreign debt of more than \$17 billion. The debt service alone is expected to be more than \$2 billion. This situation is not helped by Peru's confrontational position with government and commercial lenders. Peru's confrontation policies hinder its economic progress. For example, Peru continues to limit repayments of loans to 10 percent of export earnings. It also has placed unilateral, partial moratoriums on debt service payments. As a result, the IMF and World Bank 44 suspended further credits and programs to Peru in 1989. To relieve some of its debt Peru must rely heavily on its mining industry.

Mining is a traditional market in Peru. Mining products

provide more than 60 percent of the nation's foreign exchange 45 currency. In spite of labor unrest, mine production increased in 1989. During this year the production of copper rose more than 22 percent.

Peru has traditionally been a major supplier of copper to the United States. In the 1980s Peru provided up to 12 percent of the imported copper. Peru's internal security is, therefore, of interest to the United States and efforts are made to provide security assistance funds.

Peru, like Zaire, finances much of its United States military assistance through the Foreign Military Financing program. The 1991 SAP budget proposal included \$39 million for an FMF grant to Peru. This grant supports Peru's efforts to equip the armed forces to fight drug traffickers and insurgent groups. At this time, Peru has an outstanding foreign military sales debt of more than \$32 million.

## DEBT-FOR-PRODUCT EXAMPLE

The debt of foreign countries prevents the United States from realizing the full potential of its security assistance programs. Increasing debt and debt service hinders countries from purchasing equipment and services under SAP. Some of these countries possess critical natural resources that United States would like to purchase under the SCMSP. However, budget constraints limit the amount of purchases and prevent the United States from obtaining its stockpile goals. This situation

supports the argument that the national security aims of the United States are serve better by a complementing option, specifically, debt-for-product.

The debt-for-product option requires countries that have resources desired for the stockpile and outstanding security assistance debts. Because of the situation above, the SAP and SCMSP programs are two excellent candidates for creative financing using debt-for-product.

As shown, Zaire and Peru could benefit from a payment program that reduces capital flight and relieves debt. Both countries also have significant natural resources that would allow them to participate in debt-for-product if it doesn't disrupt their mining industry. For Zaire and Peru the impact of debt-for-product is expected to be minimal For example, the \$3 million FMF grant to Zaire equates to more than 400,000 pounds of cobalt at an average price of \$7 per pound. This is 5 percent of the cobalt imports from Zaire and only 2 percent of Zaire's total exports. Any fraction of the \$3 million grant that is replaced with cobalt, for the stockpile, enhances the national defense posture of the United States. For Peru, the SAP budget proposal for 1991 was a \$39 million grant. At a market price of about \$1 per pound the grant represents 500 short tons of copper per \$1 million of assistance. Again, debt-for-product offers a solution for both countries.

Zaire and Peru could reduce, as a minimum, their debt service obligations to the United States. Additional materials could be made available as country supplies and excess capacity

exceed market demands. The United States benefits by reducing its 32 million pound shortfall in cobalt and its 970,000 short ton deficit in copper.

## FURTHER REQUIREMENTS

Programs selected for debt-for-product must have the potential for sufficient savings. The total SAP foreign military sales financing budget for 1990 was \$4.8 billion. The total SCMSP shortfall is approximately \$14.7 billion. SAP dept and debt service could be partially resolved with material-to-stockpile payments.

Programs will require constant monitoring. Debt-for-product opportunities will require program managers to continually survey the commodity markets to identify countries that may be candidates for exchange. Complicating this, foreign trade markets may not be able to provide timely response to debt-for-product initiatives. In addition, market prices for minerals will vary and agreeing upon some fix equivalent price/costs will be difficult.

Debt-for-product is complicated by unstable or fragile foreign markets. Severe labor unrest and highly active insurgencies could eliminate some countries as candidates.

In 1988 twenty-nine countries were in arrears on foreign military sales loans totaling \$768 million. Many of these countries could have future sales terminated under the sanctions of the Brooke Amendment. If so, some likely countries may not

be able to participate in debt-for-product.

Not all of the national security programs could benefit from a debt-for-product. Like the SAP and SCMSP, complementing not competing issues will govern the degree of success. Congressional impact will be felt through priorities, mandates, and set-asides. Finally, any debt-for-product scneme must be closely examined for its economic impact on the domestic market.

#### CONCLUSION

The enormous debt owed the United States by foreign countries is a national security issue. The requirement for creative financing alternatives is valid and time sensitive. With proper analysis, national defense programs can be matched to take advantage of complementing requirements. The complementing budgetary requirements of the SAP and SCMSP make them well-suited for a debt-for-product financing scheme. Debt-for-product can provide additional funding for the SAP, augment funds previously obligated to meet SCMSP stockpile goals, should be considered as a viable method of enhancing national security.

#### ENDNOTES

1. U.S. Congress, House, <u>International Security Assistance</u> and Arms Export Control Act of 1976, pp. 729-769 (hereafter referred to as "SAP Act 1976").

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δ. Susan Buchanan, et al., 1989 CRB Commodity Year Book, p. 33.

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