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BACKGROUND FOR THE 1963 GOLD AND MONEY SESSION

By Pierre R. Hines*

Economics, especially that which deals with monetary problems, is not an exact science. Some economists have reduced their theories to mathematical formulas which aid in grasping their meaning but which, when applied to the solution of economic problems, do not yield precise answers. The subject raises endless arguments and controversies, the answers to which can, in most cases, be learned only by actual test and experience. The object of this article is to give a brief account of the basic acts and laws governing the monetary policies of the United States for the benefit of those interested in following the discussions in the April 26, 1963 Gold and Money Session of the Pacific Northwest Metals and Minerals Conference.

The results of our monetary policies are readily seen in the collapse of the gold mining industry, as mine after mine shut down until now only a few are operating out of several thousand producers in 1940. These same policies are acting upon the whole economy of the United States, but the corrosive action is slower and not so readily perceived. It is everybody's problem, not just the gold producer's.

The serious outflow of our gold to other countries and our rapidly diminishing gold reserves have called increasing attention to our fiscal policies. Many plans have been proposed to control our debts, stabilize the dollar and the level of prices, and place our finances on a sound basis. The intent here is to explain the situation, not to advocate any particular plan or solution, and to show the relative place of gold in the national monetary objectives.

The Domestic Monetary Policy of the United States

The domestic monetary policy of the United States is administered under Acts of Congress by the U.S. Treasury and the Federal Reserve System and by consultation between them and with other governmental agencies. It is not the purpose of this article to go into all of their operations. Only

* Mining engineer, Portland, Oregon.

those policies and powers which apply to money management will be considered.

Federal Reserve System

The Federal Reserve System was established by Congress under the Federal Reserve Act of 1913. Its object was to provide a Central Banking System which could expand or contract the money supply in accordance with the state of business and industry, to provide a central reserve to withstand the shocks to the financial system, and to prevent the recurring panics and hard times. When established, it was authorized to issue Federal Reserve notes secured by 40 percent gold and 60 percent sound commercial paper.

World War I interfered with the primary purpose of the Federal Reserve System and it was used to finance the cost of the war. So it was not until after World War I that it commenced to operate as intended. R.F. Harrod^{1/} said, "In 1922 they (Americans) inaugurated what should be called the system of 'managed currency'." The results from certain moves in managing the currency were recognized and furnished an empirical knowledge which was not derived from theory or opinion.

U. S. money was based upon the gold standard until 1932, when the Glass-Steagall Act^{2/} was passed by Congress which authorized the use of United States bonds and securities as backing for the Federal Reserve notes. This act was extended many times until 1945, when it was made permanent.

The Reserve Act of January 30, 1934 abolished private ownership of all monetary gold and authorized the President to reduce the weight of gold in the dollar by not less than 40 percent and not more than 50 percent. The President officially reduced the gold content of the dollar and thereby raised the price of a troy ounce of gold from \$20.67 to \$35. This was the end of the "Gold Standard" and the start of inconvertible paper money.

The power to manage the currency passed from the Federal Reserve System to the U.S. Treasury in 1933 and, except for an interval from 1936 to 1937, remained there until 1941. In 1945 the gold reserve for the Federal Reserve notes was reduced from 40 to 25 percent.

During World War II the Federal Reserve System was used to support the price of U.S. bonds and to keep interest rates low. It was impossible

^{1/} R. F. Harrod, 1958, *Policy Against Inflation*: St. Martins Press, New York, p. 58.

^{2/} J. M. Bell and W. E. Spahr, 1960, *A Proper Monetary and Banking System for the United States*, Ronald Press, New York, p. 161.

for the Federal Reserve System to manage the domestic money supply and at the same time support the U.S. bond market, since they conflicted with each other. The Accord of March 1951 between the U.S. Treasury and the Federal Reserve System released the Federal Reserve from its obligation to support U.S. bond prices and low interest rates and permitted it to return to the free operation of its normal purpose.

The experience accumulated in the past 50 years by the managers of the Federal Reserve System is variously interpreted. Even the economists do not agree on the value and the application of its several powers. Unfortunately, only a few members of Congress are thoroughly acquainted with its workings and purpose and the need to keep it independent of politics, consequently acts are passed which are inimical to its intent.

The Federal Reserve System now has four principal controls:

(1) Regulating the percentage reserves required from the commercial banks which, in turn, determines the amount of their deposits and consequently the amount of the loans and investments they can make. It is used only for long trend regulation.

(2) Regulating the discount rate upon first class commercial paper of short maturity which is accepted from commercial banks as security for loans to them. While this was the original purpose of the Federal Reserve Act, now government securities are usually substituted. At first it was thought a change in the discount rate would exert a powerful influence upon the money market and credit, but it did not work out that way. However, as an indicator of the Federal Reserve's opinion upon the current state of business and industry as well as the probable action the Reserve Board will take in the near future, this control is both heeded and respected.

(3) Control by open market operations which permit the purchase and sale of securities in the open market. The Federal Reserve at the present time confines its operations largely to Treasury bills maturing within 90 days or similar securities. Federal Reserve purchases of government securities increase the reserve balances of member banks and sales reduce them, which controls directly the amount they can loan or invest. Because of the small percentage of their reserves required to be deposited with the Federal Reserve by the member banks, its effect upon them is five or six times the amount of the open market operation.

(4) Regulating the amount of margin customers must put up when purchasing the listed securities.

The relative independence of the Federal Reserve System from political direction, together with its freedom from use for political ends in the management of the currency, is its greatest strength. The Chairman of the Board of Governors in 1957 made the following statement before the

"Broadly, the Reserve System may be likened to a trusteeship created by Congress to administer the Nation's credit and monetary affairs - a trusteeship dedicated to helping safeguard the integrity of the currency. Confidence in the value of the dollar is vital to continued economic progress and to the preservation of the social values at the heart of free institutions.

"The Federal Reserve Act is, so to speak, a trust indenture that the Congress can alter or amend as it thinks best. The existing system is by no means perfect, and experience prior to 1914 suggests that either it or something closely approximating it is indispensable."

The United States Treasury

The United States Treasury is one of the administrative branches of the Federal Government. The Secretary of the Treasury is a member of the President's cabinet. He supervises the collections of taxes and revenues of the Federal Government and disburses them according to acts of Congress.

The Secretary's most difficult job is the management of the national debt, which is now 300 billion dollars, and the refunding of these debt obligations when they become due. He also finances the national budget of around 100 billion dollars, borrowing when the receipts do not cover the outgo, as is, unfortunately, most often the case. The large amounts required for the Treasury's financing is a big factor in money management. Much of the effects of this financing depends upon the size of the loan, whether long or short maturity, and where it is borrowed - that is, from the Federal Reserve System, commercial banks, or private investors. The Treasury can increase or decrease a bank's reserves, and consequently the bank's loans and deposits, by the amounts which it keeps with the Federal Reserve banks or other banks.

The Secretary of the Treasury is authorized, under the Gold Reserve Act of 1934, to buy and sell gold at rates that are most advantageous to the public interest. This same act also authorized the President to fix the weight and fineness of the United States gold dollar, which President Roosevelt did at \$35 an ounce; but the President's authority to make further change has expired.

^{3/} The American Assembly, United States Monetary Policy, 1958: Columbia University, New York, p. 44-45.

The United States, under the Bretton Woods Agreement, obligated itself to maintain the weight and fineness of the U.S. gold dollar at \$35 an ounce, and promised to make no change except by an act of Congress. The Treasury maintains the gold price at \$35 an ounce and buys or sells unlimited amounts to foreign governments and central banks - that is, at a one-quarter percent premium when selling and at a discount of one-quarter percent when buying.

The Treasury has two controls on gold reserves - it can require an export license and it can also "neutralize" a gold purchase by carrying it as a debt on its books, in which case the purchase is financed by tax collections or selling securities rather than the normal way of issuing a "gold certificate" to the Federal Reserve Bank and thus becoming part of the gold reserves.

The Treasury tries to keep the interest rate down on U.S. bonds, Treasury bills, and obligations. During time of war, the Treasury has the enormous task of financing the cost, and uses the Federal Reserve System to support the market on U.S. bonds in order to keep the interest rate down. This wartime policy suspends the "open market" operations of the Federal Reserve for money management purposes. Likewise, in the great depression of the thirties the controls of the Federal Reserve failed to stimulate business and industry and the Treasury had to finance the Administration's "pump priming" policy. An exception to the Treasury's management occurred in the years 1936-37, when the Federal Reserve took over and put on the brakes too hard, thus reversing the slight gains already made.

So both the U.S. Treasury and the Federal Reserve System share responsibility for executing our domestic monetary policies. Neither is perfect and many think that both need overhauling. An effort to solve some of the problems was made by the Commission on Money and Credit. It studied our monetary policies and submitted a report in 1961 for the Board of Trustees of the Commission for Economic Development, New York. Unfortunately, the large number of members (27), selected for their positions in industry, banking, and labor instead of their knowledge of or actual experience in monetary management, prevented their arriving at any noteworthy recommendations or conclusions.

Monetization of the National Debt

Monetization of the debt is a term which should be understood by everyone interested in U. S. monetary policies.

The only limitation now placed upon the issuance of Federal Reserve notes is the requirement that they be backed by 25 percent gold reserves.

The Glass-Steagall Act of 1932 authorized the use of Federal Government securities and obligations for the other 75 percent. Further, it authorized their use for the reserve deposits made by member banks with their reserve banks.

The national debt has grown so large in the past 30 years that the purchase of new and refunding issues has been more than private investors could handle or absorb. Consequently, the Federal Reserve System and commercial banks have had to assist, and now hold about 30 percent of the total debt; private investors, corporations, and insurance companies hold 34 percent; the remainder is held by Federal, state, and other public agencies and miscellaneous investors.

Commercial banks own about 20 percent of the government obligations, but they can expand this into loans, investments, and credits by many times this amount. They can do this because they are required to deposit only a small percentage of their deposits with their Federal Reserve Bank as a reserve. Thus the national debt is the basis for the issuance of both Federal Reserve notes and also for the creation of credit by member banks. This is what is meant by "monetization of the debt." The great danger from it lies in the possibility that the 25 percent gold backing may be reduced further or completely abolished by act of Congress. This would remove all restraints to the unlimited printing of paper money.

The monetary policies responsible for the monetization of the debt were the principal factors which wrecked the gold mining industry in the United States. Until these policies are corrected it will be impossible to restore the gold mining industry to permanent prosperity. While the action is slower, the same thing that happened to gold mining is happening to the thrifty, and those who have savings, pensions, insurance, annuities, and similar holdings.

United States International Monetary Policy

The United States gold dollar is the present international unit of value and standard for exchange of 73 national currencies. The United States agreed at the Bretton Woods Conference in 1944 and in the Act of July 31, 1945 to maintain the par value of the U.S. dollar at the corresponding price of \$35 an ounce for gold. It further agreed the par value could be changed only by an act of Congress. Gold coins are not now issued by the U.S. Treasury; the equivalent in gold bars is used to pay international balances and is called the Gold Bullion Standard.

International Monetary Fund

The International Monetary Fund was the outcome of the Bretton Woods Conference in 1944, which was held to arrange ways and means for rebuilding post-war Europe and restoring international trade after World War II. The Allies established both the International Monetary Fund and the International Bank for Reconstruction and Development, as well as cooperating in the formation of the General Agreement on Tariffs and Trade. Of these agencies, the IMF is the most pertinent to this article.

Per Jacobsson,^{4/} the Managing Director of the Fund, has stated its objectives as follows:

"Its task is to promote cooperation between the monetary authorities, so that conditions will be established and maintained that are likely to facilitate the expansion of international trade. The Fund's work in fact, combines two main elements; an agreement on foreign exchange policies and a pooling of resources to assist countries to carry out those policies. The Fund Agreement sets as an objective for each country, the establishment and maintenance of a convertible currency at a fixed par value, free of restrictions on current payments and without discrimination in relations with other member countries.

"The Fund has very substantial resources; Out of these resources, the Fund will, in cases of need, extend assistance to member countries, for a period usually not exceeding three to five years, to give them time to take such action as is required to correct maladjustments in their balance of payments without resorting to measures destructive of national or international prosperity, such as exchange restrictions or discriminatory currency arrangements. The Fund in fact provides members with a 'second line of reserves' under adequate safeguards....

"Through the application of the principles which have been adopted by the Fund, a measure of monetary discipline is ensured."

U. S. Balance of Payments

Europe had to be rebuilt and international trade restored at the end of World War II. The United States furnished raw materials, finished products, and credit to do this. The U.S. Government gave large amounts in direct aid to the European countries and also spent similar amounts there as military

^{4/} Per Jacobsson, *The Market Economy in the World Today*, The Jayne Lectures for 1961, The Amer. Philosophical Soc., Philadelphia, p.26/7.

aid. The International Monetary Fund, the International Bank for Reconstruction and Development, the General Agreement on Tariffs and Trade, the Marshall Plan, the European Payments Union Agreement of 1950, and other agencies all contributed to this end.

Immediately following the war, U. S. exports were much greater than U. S. imports, making a large trade balance in favor of the United States as well as creating a scarcity of dollar exchange. This favorable trade balance made it possible for the United States to spend the large amounts abroad in economic and military aid. The outflow of gold from 1949 to 1957, amounting to 1.7 billion, and dropping of the United States gold reserves from 24.6 billion to 22.9 billion, gave no concern.

While the international trade balance by 1957 was still favorable to the United States, it had greatly diminished and was not large enough to support the huge expenditures in economic and military aid to foreign countries. Europe had recovered and its production had reached pre-war levels and was growing vigorously. The European countries were exporting more and importing less. The American economic and military aid to foreign countries continued at the same rate, so gold was required to settle the difference. United States gold reserves were 22.9 billion in 1957, but they lowered to 16 billion in 1962, a drop of 6.9 billion in 5 years. The backing for Federal Reserve notes requires 12 billion in gold, leaving only 4 billion to satisfy foreign claims of three times that amount. This is the "balance of payments problem."

The present balance-of-payments situation and the unending financing of our government deficits by issuing more and more paper affects both the financial standing of the United States and the U. S. dollar. The U. S. gold dollar is the world standard of value and cannot be trifled with. Both of these problems will have to be solved eventually by sound financial management free from political influence.

* * * * *

GOLD AND MONEY SESSION SCHEDULED

The Second Gold and Money Session is a part of the Northwest Metals and Minerals Conference, jointly sponsored by AIME, ASM, NACE, and AWS. The conference will be held April 24-27 at the Multnomah Hotel, Portland. The Gold and Money Session is to be all day April 26 and is open to the public. Registration for the conference is \$7.50 or \$5 for the Gold and Money Session only. The complete program for the conference will appear in the March ORE BIN.

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LAND WITHDRAWALS AND TERMINATIONS

Four land withdrawals totalling 2,403.83 acres were proposed during the month of December. They are as follows:

8.83 acres in Klamath County for the Klamath wildlife administrative site at the request of the U.S. Bureau of Sport Fisheries & Wildlife.

80 acres in Harney County for access to the Chickahominy Reservoir. Withdrawal made by the U.S. Bureau of Sport Fisheries & Wildlife at the request of the Oregon Game Commission.

160 acres in Multnomah County to preserve the historic area of the Columbia River Gorge "for its scenic and recreational values."

A total of 2,155 acres in the Fremont, Wallowa, and Whitman national forests for 23 recreation areas. The withdrawal is being made at the request of the U.S. Forest Service.

A total of 1,062.63 acres was proposed for withdrawal during January and February, as follows:

81.2 acres in Lane County for reservoir and road relocation along Fall Creek by the U.S. Army Corps of Engineers.

981.43 acres in aggregate total are desired for recreation areas and an administrative site by the Department of Agriculture. These areas are in the Rogue River, Willamette, Whitman, and Umatilla National Forests.

Notice has also been received that the proposed withdrawal of two areas totalling 5,610.64 acres in Malheur County has been terminated. Localities involved are the Nigger Rock area in Ts. 21 and 22 S., R. 43 E., and the Disaster Peak area in T. 40 S., R. 40 E. These are the two remaining areas in the original 20,000-acre withdrawal in Malheur County which would have prevented the removal of petrified wood and other semiprecious gem material (see October 1961 ORE BIN). All of these withdrawals have now been terminated.

* * * * *

RARE METALS EXHIBITED

Wah Chang Corp. of Albany has placed on display at the department's museum in Portland a group of rare and exotic metals. Samples on display include small sheets, bars, slabs, and tubing of zirconium, hafnium, tantalum, niobium (columbium), molybdenum, and tungsten. These new metals are new only because they are manufactured to the higher standards of

purity which are demanded by today's uses, which require strength at high temperatures, superior corrosion resistance, and nuclear reactor capability.

Each of these metals must be purified in a vacuum arc furnace, or the more complicated electron-beam melting furnace which works like a giant X-ray tube. Later operations, such as making castings, are also done in a vacuum or inert gas atmosphere, so that the hot metal will not pick up impurities such as oxygen, hydrogen, or nitrogen from the atmosphere.

In addition to the Albany Division, the Wah Chang Corp. has plants in Texas, Alabama, and New York. The company is one of the largest processors of tungsten and molybdenum from ores to finished metal products.

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BANTA REAPPOINTED TO BOARD

Governor Mark O. Hatfield reappointed Mr. Harold Banta to the Governing Board of the Department of Geology and Mineral Industries February 25, 1963, for a second four-year term. Mr. Banta, senior partner in the law firm of Banta, Silven, Horton, and Young of Baker, Oregon, has a long history of interest in mining and mining law. He has been active in the Western Governors Mining Advisory Committee on matters pertaining to mineral law and public lands; is a member of the Oregon State Bar Committee on Mineral Law, and a member of the Legal Committee of the Interstate Oil Compact Commission.

Other members of the department's Governing Board are Mr. Frank C. McCulloch, Chairman, Portland, and Mr. Fayette I. Bristol, Grants Pass. The Governing Board, by law, is a citizen group, serving without pay, that has direct charge and control of the department.

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SPECTROGRAPH GETS SPARK UNIT

During 1962 an additional source unit was added to the spectrograph at the Portland laboratories of the department. This is a high-voltage AC spark unit, which will be used in place of the carbon arc for analysis of high melting point metals and alloys. The AC spark is the preferred source when greater precision rather than extreme sensitivity is desired. For this reason, the spark is generally used to determine the percent of alloying elements in metals. Another advantage of the spark for certain types of analysis is that it is non-destructive, as compared to the carbon arc, in which at least part of the sample must be burned up completely.

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LEGISLATION OF INTEREST TO THE MINERAL INDUSTRIES

State

Senate Bill 222: Would abolish the Rogue River Coordination Board.

Senate Bill 259: Strengthens the air and water pollution laws by allowing the State Sanitary Authority to institute a suit at law or in equity to abate or restrain threatened or existing pollution without the necessity of prior administrative procedures or hearing.

House Bill 1233: Would establish a Department of Natural Resources having seven divisions, as follows: Parks and Recreation, Small Boats and Harbors, Mineral Resources, Fish and Game, Forestry, Water Resources, and Agriculture. All divisions would be under a Director appointed by the Governor and the division heads would be appointed by the Director. The department would have a nine-man advisory committee appointed by the Director.

House Bill 1329: Would establish a procedure for purchase of county-owned mineral rights by the owner of the surface rights.

House Bill 1366: Establish a procedure for exploration of ground on which the county owns the mineral rights but the surface rights are owned by someone else.

House Bill 1369: Would limit the size of a mill-site claim to 5 acres of non-mineral land. The location for this claim would be the same as other claims and would require filing within 30 days.

House Bill 1190: Changes the status of the shore (between mean high tide and mean low tide) of the Pacific Ocean from "public highway" to a "state recreation area" and changes the administration from the State Highway Commission to the State Parks System, a division of the State Highway Department.

Federal Legislation on Gold

H.R. 279 - Gold procurement and sales agency: Baring (Nev.) - Committee on Interior and Insular Affairs. Would (1) require the Secretary of the Interior to survey the domestic gold mining industry and determine the price

(not to exceed \$105 per troy ounce) required to be paid to domestic producers in order to achieve maximum production of gold from domestic mines, and (2) establish in the Interior Department a Gold Procurement and Sales Agency.

Identical bills: H.R. 489, Hagen (Calif.); H.R. 990, Chenoweth (Colo.); H.R. 1095, Johnson (Calif.).

H.R. 281 - Increase depletion rate for domestic gold: Baring (Nev.) - Committee on Ways and Means. Would increase the percentage depletion rate for gold ores from deposits in the United States to 100 percent of the gross income from the property, without any limitation as to the net or taxable income from the property.

H.R. 284 - Free market subsidy for gold: Baring (Nev.) - Committee on Banking and Currency. Would (1) permit the free marketing of gold by any person or Government instrumentality and (2) authorize and direct the Secretary of the Treasury to pay \$70 per fine ounce for all gold domestically mined and tendered to the Treasury subsequent to the bill's enactment.

H.R. 286 - Authorize \$35 per ounce subsidy for domestically mined gold: Baring (Nev.) - Committee on Banking and Currency. Would (1) establish a free market for gold within the United States and (2) authorize and direct the Secretary of the Treasury to pay an incentive of \$35 per fine ounce above the established monetary value for all gold domestically mined and tendered to the Treasury subsequent to the bill's enactment.

Identical bill: H.R. 315, Chenoweth (Colo.)

H.R. 310 - Free market for gold: Chenoweth (Colo.) - Committee on Banking and Currency. Would (1) establish a free market in the United States for gold domestically mined or imported after the bill's enactment, with no restrictions on its exportation, and (2) provide that all gold held or bought by the United States Treasury, mints, or Federal Reserve Banks "shall be construed to be monetary gold and none of said gold may be hereafter sold for commercial use or for the arts."

H.R. 459 - \$35 Per ounce gold subsidy: Chenoweth (Colo.) - Committee on Interior and Insular Affairs. In order to encourage the discovery, development, and production of domestic gold, would direct the Secretary of Interior to make incentive payments of \$35 an ounce to producers of gold mined in the United States, its territorial possessions, or the Commonwealth of Puerto Rico. Would authorize necessary appropriations.

H.R. 642 - End 25 percent gold backing of currency: Multer (N.Y.) - Committee on Banking and Currency. Would (1) eliminate the requirement that Federal Reserve Banks maintain gold certificate reserves of at least 25 percent against deposit and note liabilities, and (2) permit domestic banks to pay interest on time deposits of foreign governments at rates differing from those applicable to domestic deposits.

S. 158 - Prohibit government sales of gold for commercial use: Allott and Dominick (Colo.) - Committee on Banking and Currency. Would provide "That all gold held or bought by the United States Treasury, or mints, or assay offices, or by the Federal Reserve banks, shall be construed to be monetary gold. Such gold shall not hereafter be sold for commercial use or for the arts, and no gold shall hereafter be sold by the Treasury, or by the Federal Reserve banks, or for the account of the Treasury or of such banks, directly or indirectly, in the United States, its territories or possessions, for the purpose of depressing the market in gold or lessening the price and value of gold."

(American Mining Congress Legislative Bulletin No. 63-1, Feb. 5, 1963)

Note: Other bills of interest now in Congress will be reported on in later issues of The ORE BIN.

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EXPANDED AGGREGATE STUDY MADE

"Resources for making expanded aggregate in Western Washington and Oregon," by Henry M. Harris, Karle G. Strandberg, and Hal J. Kelly was recently published as Report of Investigations 6061 by the U. S. Bureau of Mines. Low-carbon shales from 65 deposits and 11 sources of coal-mine waste in western Oregon and Washington were tested in a rotary kiln for their suitability as raw material for expanded aggregate. Shales from 41 sources produced crushed, expanded aggregates weighing less than 65 pounds per cubic foot. These materials are judged according to processing qualities, physical properties, and size and uniformity of the source. Properties of lightweight concretes made from these materials are compared with those of concrete shapes made with commercial aggregates, and with sand and gravel.

Report of Investigations 6061 may be obtained free of charge from the Publications Distribution Section, U. S. Bureau of Mines, 4800 Forbes Ave., Pittsburgh 13, Pa.

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FULL CIRCLE - SOON?

Following World War II, Congress decided that never again should the United States become entirely dependent on an overseas supply for the strategic minerals and metals so vital to the conduct of a hot or cold war. This decision was based on the fact that our overseas supply lines had been severed early in the war and a great amount of our war effort had to be diverted to open the sea lanes and thereafter to protect the vulnerable cargo carriers. The decision was strengthened when early in the 1950's Russia, the major source for manganese ore used in the United States, summarily stopped all shipments of this mineral. Before new sources of supply of manganese, which is absolutely necessary for the making of steel, could be established, some steel plants were within just a few weeks of closing for lack of it. Consequently, a mammoth program for the procurement of strategic minerals to be placed in a stockpile was put into high gear.

The result of this stockpile program was the domestic production of tungsten to more than meet the needs of the United States (heretofore Korea and China had been the principal sources of tungsten ore); opening of manganese mines; and production of cobalt, columbium, tantalum, nickel, chrome, and mercury. Of as great a benefit as the actual procuring of a stockpile of ore was the information obtained on our mineral resources (in southwestern Oregon alone, more than 300 chrome deposits were catalogued by this department) and the economic benefit that accrued to the community from payrolls of the mining operations and to the state from taxes.

As the stockpile became filled and metal prices became "normal," most of the domestic strategic metal mines closed because they were not competitive. At the present time, only a token amount of manganese is being produced and but one nickel mine and four mercury mines are operating in all of the western states, and it seems likely that the active mercury mines will be down to two before the year is out. Once again the United States is wholly dependent on overseas sources of supply for the strategic minerals. Unfortunately, these sources become more tenuous all the time. For example, it is well known in mining circles that for some time now a substantial amount of our antimony, part of our tungsten, and possibly some of our mercury has found its way into American markets through devious routes from behind the Iron Curtain. The latest ore to receive publicity as coming from a Russian source is chrome. The E&MJ Metal and Mineral Markets of February 11, 1963 reports as follows:

G.H. Parkinson, president of the Chamber of Mines of Rhodesia, sharply criticized the U. S. Government for allowing the Soviet Union to ship chrome ore into the U. S. at prices which he said will drive Rhodesian producers out of business.

He said that for the last 3 or 4 years the Russians have been concentrating on the European market and have consistently undersold all competitors. They have now obtained some 70 percent of the European market and are selling at prices which are sub-economic for themselves and completely out of range for economic competition by either Turkey or Rhodesia, hitherto the traditional suppliers to the European market, he said.

The U.S. has long been Rhodesia's main customer, taking 53 percent of total production in 1961....

In the last 4 months, Parkinson said, the Russians have offered two grades of ore to the American market:

1. Hard Lumpy Metallurgical, guaranteed at 56 percent Cr_2O_3 and 4.0:1 Cr:Fe. The price asked for this ore is \$34 a long dry ton delivered c.i.f. with no premiums, but a penalty of 70 cents for each unit or part thereof of Cr_2O_3 below 56 percent.

2. Chemical Fines, guaranteed at 53 percent Cr_2O_3 and 3.3:1 Cr:Fe. The price asked for this ore is \$15.50 a long dry ton delivered c.i.f. with a premium or penalty of 50 cents per unit of Cr_2O_3 above or below 53 percent....

During the last 3 months, contracts for some 80,000 long tons of Russian ore, mainly Hard Lumpy, have been signed; and three or four 10,000-ton shipments have arrived, Parkinson estimated. Four out of the seven ferroalloy producers have signed contracts; two of these producers have also ordered trial shipments of the Russian fines, Parkinson said. The alloy manufacturers who have signed these contracts claim that European and Japanese producers have been buying cheap Russian ore for some years and then shipping the alloy to America. The only way for American alloy producers to compete is also to use similar Russian cheap and high-grade ore.

It would appear obvious, Parkinson said, that the Russians have carefully priced their two ores, without regard to economic cost, somewhat lower than competitors, with the sole intention of forcing competition into bankruptcy. With the knowledge that the Russian ore is produced deep in the Urals with long rail haulage and lengthy sea freight, it would appear that their prices are sub-economic and set by a Communist-run state with the sole intention of becoming the world's only supplier of chrome ore, he said.

Parkinson said that freight costs in moving chrome ore from a mine in Rhodesia to U. S. ports exceed \$14 per ton.

Even at the present time, he said, nearly all Rhodesian chrome producers are producing at a loss in preference to closing down and re-opening later.

"If, however, these types of Russian ore are allowed to enter the American market at the prices quoted, then it appears certain that the majority of Rhodesian chromemines must close down before the end of 1963," he maintained.

With this groundwork laid, Parkinson accused the U. S. Government of assisting Russia's economy at the expense of her allies. He said this chrome ore marketing is part of Premier Khrushchev's policy of economic warfare against the West.

"If the West's major producers of chrome ore are forced to discontinue operations through the loss of their major markets, not only will the economies of those producing countries be adversely affected, but American consumers will be forced to rely on supplies from Russia. The fate of the American ferroalloy producers would then be in the hands of Russia," he said.

This latest development in the chrome market is of particular significance to Oregon, for one of the stockpile procurement depots was located in Grants Pass for purchase of West Coast metallurgical grade chrome. The

recent Senate investigation of stockpile purchases brought out that the price paid for the ore was three times the market price. What the investigation did not reveal was that a similar price was paid for foreign ore, largely from Rhodesia.

This department has recently learned* that of the 5.6 million long dry tons of metallurgical-grade chrome in the government stockpile, 4 million tons came from foreign sources, 1.1 million tons from domestic sources, and approximately one-half million tons from "other government agencies," probably the agriculture barter program. Stockpiled metallurgical chrome purchased from foreign sources cost us in excess of \$400,000,000. The per-ton cost is \$101, which represents the price of the material only and does not include freight and other capitalized costs. Chrome purchased from the West Coast at the Grants Pass depot amounted to 200,000 long dry tons at a per-ton cost of \$93. Ore obtained through the Grants Pass stockpile program averaged 46 percent Cr_2O_3 with a 2.7 to 1 chrome-iron ratio. This is good metallurgical-grade chrome, but probably not as high grade as the ore obtained from foreign sources. Experiments run on domestic ore by the U.S. Bureau of Mines indicated that "The energy requirement (for producing ferrochrome) is relatively low...the ferrochromium produced will contain about 60 percent chromium."

Our West Coast chrome mines closed because they were not competitive with Free World chrome - either in grade or price. It appears now that the Free World chrome mines will close for the same reason. At that point the United States will have gone the full circle on this particular strategic mineral - from reliance on a hostile source, to a friendly foreign source, to partial dependence on a domestic source, and back again. And, unfortunately, this is but one of the strategics in which this is taking place.

We now have the stockpile to fall back on, which is something we did not have in 1950 or 1940. But how long we can rely on this is questionable, for plans are under way to dispose of "surplus" amounts. What is surplus and what is a sufficient amount depends on who does the planning. There is little question but that this country faces some real problems in the strategic metals area - problems that would not be as serious if there were a healthy domestic strategic mining industry. It might cost a little more to have this industry than to obtain minerals on the open market, but cost is relative and includes many things. Ask the Rhodesia chrome miners - they can vouch for that.

Hollis M. Dole
Director

*Letter from John M. Kelly, Assistant Secretary of the Interior.

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