The Impending Eruption Crisis----Silver Extinction

Xiaojun Bai, China 25 Sep. 2021

--Our concern

China is one of the world's five largest silver consumers, with an average annual silver demand of 6300 tons in the last decade. According to the 2011-2020 data released by the U.S. Geological Survey (USGS), China's average annual silver mineral production is only 3350 tons, and about 3000 tons of supply gap depends on imports.

The key point of our anxiety is that China's proven silver resource reserves was only 41,000 tons by 2020. From this year, if the current mining rate would keep un-change, there will be only 11 years of silver mining life. By 2032, China's silver resources reserves will be exhausted and underground silver deposits will extinct.

From 2033, 6300 tons of China's static silver demand will all rely on imports and the relationship between global silver supply and demand will be worse dramatically.



Links

- More information: Publisher Index Page (via DOI)
- Document: Report (11.1 MB pdf)
- Related Works:
 - o Mineral Commodity Summaries Prior to 2021
 - o Commodity Statistics and Information
- Download citation as: RIS | Dublin Core

-- Our concern is also world's concern

According to the data released by USGS of the U.S., the global silver production was 25,000 tons and the reserves was 500,000 tons in 2020. According to the current

mining speed, the underground silver resources would disappear in 20 years! Mine output wou be reduced to zero.

The situation in Mexico is more serious. Mexico is currently the country with the highest silver production in the world, with an average annual output of 5,600 tons in the last decade, and only 37,000 tons of resource reserves by 2020. According to the current mining rate, the mine will be exhausted by the end of 2026, and the output will be reduced to zero. The panic of silver crisis is only five years away!

It is 57,000 tons of total silver resource reserves compared to 3,500 tons of the total annual mining in other countries behind the top ten silver producing countries in the world. By 2036, these countries will have no silver to mine and the silver deposits will be extinct!

Only because of the silver resources extinction of China, Mexico and the countries behind the top ten silver producing countries, the global annual supply of silver will be reduced by 15,450 tons. In other words, by 2036, the global silver production will be less than 10,000 tons meanwhile the demand will still remain above 30,000 tons.

The following is a time table of silver resources extinction in the top ten silver producing countries according to the data released by USGS (calculated from this year):

the U.S. 25 years 19 years Chile 11 years China 6 years Mexico 53 years Poland 26 years Peru Bolivia 19 years Australia 67 years Russia 24 years other countries 15 years

Silver depletion does not occur at an average rate in various countries. Different countries have different resource reserves and mining speeds, and therefore the order of silver depletion is also different. In 2026, when silver resource in Mexico, the largest silver producer, dries up, there will be a silver panic. As China's silver resource dries up, it will exacerbate the silver panic. In the following years, silver producing countries will be continuing to announce the depletion of

silver, and the panic would continue to spread all over the world until the complete disappearance of silver underground deposits. Mankind will face the extinction of an important natural resource for the first time!

SILVER

World silver mine production decreased by 6% in 2020 to an estimated 25,000 tons, principally as a result of decreased production from mines in China, Mexico, and Peru, primarily owing to shutdowns in the first half of the year in response to the COVID-19 pandemic. Domestic silver mine production increased slightly in 2020 compared with that in 2019 principally from increased production at mining operations in Alaska. The COVID-19 pandemic did affect silver production in the United States; however, the ending of the strike at the Lucky Friday Mine in January offset the production losses.

World Mine Production and Reserves: Reserves for Australia, Peru, Poland, and the United States were revised based on information from Government and industry sources.

	Mine pro		Reserves ⁹		
	<u>2019</u>	<u>2020°</u>			
United States	977	1,000	26,000		
Argentina	1,080	1,000	NA		
Australia	1,330	1,300	¹⁰ 88,000		
Bolivia	1,160	1,100	22,000		
Chile	1,350	1,300	26,000		
China	3,440	3,200	41,000		
Mexico	5,920	5,600	37,000		
Peru	3,860	3,400	91,000		
Poland	1,470	1,300	70,000		
Russia	2,000	1,800	45,000		
Other countries	3,920	3,500	57,000		
World total (rounded)	26,500	25,000	500,000		

World Resources: Although silver was a principal product at several mines, silver was primarily obtained as a byproduct from lead-zinc mines, copper mines, and gold mines, in descending order of production. The polymetallic ore deposits from which silver was recovered account for more than two-thirds of U.S. and world resources of silver. Most recent silver discoveries have been associated with gold occurrences; however, copper and lead-zinc occurrences that contain byproduct silver will continue to account for a significant share of reserves and resources in the future

<u>Substitutes</u>: Digital imaging, film with reduced silver content, silverless black-and-white film, and xerography substitute for traditional photographic applications for silver. Surgical pins and plates may be made with stainless steel, tantalum, and titanium in place of silver. Stainless steel may be substituted for silver flatware. Nonsilver batteries may replace silver batteries in some applications. Aluminum and rhodium may be used to replace silver that was traditionally used in mirrors and other reflecting surfaces. Silver may be used to replace more costly metals in catalytic converters for off-road vehicles.

From USGS Mineral Commodity Summaries 2021

--- The concern aggravates our crisis awareness

According to the 2011-2020 data released by the UK Silver Institute, China's industrial demand for silver currently accounts for about 60%, up to 3,500 tons. Over the past silver demand of China's the industry has increased by more than 50%, which is the fastest growing country in the world and one of only two growing countries, the other is UK. China has just formulated and released the 14th five year plan which contains the outline of long-term goals for 2035. High tech industries and green energy will be greatly improved, including 5g, 6G, AI, computer chips, solar energy, clean energy power stations, electric vehicles, smart appliances, medical technology, space stations, etc. in a period of rapid development. China's industrial demand for silver will continue to grow at a high speed. The industrial demand will exceed 5,500 tons by 2030.

Facing the global panic of silver crisis triggered by the silver depletion in Mexico in 2026 and the exhausted of silver in China in 2032, China has to answer how to

ensure the realization of the national 2035 high-tech development strategy? How to solve the problem of serious shortage of silver resources?

China has a strong sense of crisis.

The dilemma of industrial demand will also appear in silver industrial demand countries such as the U.S., Germany, UK, Japan and South Korea etc. By 2030, the world's total demand for silver will rise to 35,000 tons; Because Mexico's silver minerals will return to zero and China will be very close to zero, the global supply will drop to 16,000 tons, and the serious shortage of supply will aggravate the silver resource crisis.

Industrial Der	mand										
Million ounces	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Y/Y
Europe											
Germany	32.0	28.6	28.9	29.4	28.9	29.1	30.1	31.2	31.0	29.2	-6%
United Kingdom	12.8	13.8	13.9	14.5	12.7	13.2	16.6	16.6	19.0	17.7	-7%
France	10.4	9.5	9.5	9.1	8.6	8.4	8.7	9.1	9.3	8.5	-9%
Italy	8.8	8.4	8.3	8.5	8.5	8.4	8.7	9.1	9.2	7.9	-14%
Others	12.7	12.0	12.6	12.2	11.9	12.0	12.4	12.7	12.7	11.4	-10%
Sub-total	76.6	72.4	73.1	73.7	70.7	71.2	76.5	78.7	81.2	74.7	-8%
North America											
United States	150.6	114.3	107.8	96.2	103.1	119.5	124.2	126.7	123.0	126.2	3%
Others	5.7	5.7	5.8	4.6	5.7	6.0	5.6	5.7	5.9	5.0	-16%
Sub-total	156.3	120.0	113.6	100.8	108.8	125.5	129.9	132.4	128.9	131.1	2%
South Asia											
India	48.3	44.0	40.3	37.9	35.7	35.9	37.3	40.2	37.8	26.7	-29%
Sub-total	48.3	44.0	40.3	37.9	35.7	35.9	37.3	40.2	37.8	26.7	-29%
East Asia											
China	85.4	85.6	92.3	97.3	100.2	105.0	117.4	121.3	121.3	111.4	-8%
Japan	84.6	73.4	86.7	87.0	90.5	104.6	108.7	93.6	99.1	99.9	1%
South Korea	20.6	21.9	22.2	20.2	19.0	18.0	19.1	19.1	18.4	17.4	-5%
Taiwan	12.2	11.1	10.5	10.5	10.2	10.0	9.4	9.7	8.8	9.0	2%
Others	1.0	1.0	1.3	1.0	1.8	1.4	1.3	1.5	2.0	2.2	13%
Sub-total	203.7	193.1	213.0	216.1	221.6	239.0	255.8	245.2	249.5	240.0	-4%

From UK The Silver Institute

---Our debate

It is said that alternative materials would be found to reduce the demand of the silver industry. The physical and chemical properties of silver are unique. Its high ductility, high conductivity, high thermal conductivity and optimal reflectivity determine its irreplaceable role in high-tech electronic industry and green energy. Perhaps mankind could find new metals to replace silver in the future, or scientific and technological development would innovate materials and processes, but these visions cannot be completed within 20 years. At this time, silver will be nearly exhausted!

It is said that the silver resource reserves in Poland and Australia would have a mining period of more than 50 years at the current mining rate, and the situation would

not be so bad. Yes, we say that the silver resource crisis refers to the disappearance of resources in major silver producing countries, which leads to the deterioration of global supply and demand. Individual countries with high reserves and little exploitation would postpone the depletion period, but their production is far from meeting the world demand. A little bit silver supply is not of a little bit value and significance to the development of global industry and the continuation of civilization.

Some people say that the supply of silver can be increased and the relationship between supply and demand can be eased by expanding the production scale. Note that we are concerned with the depletion of silver resources. The more we dig, the faster the depletion of silver and the earlier the crisis will break out.

---Our thinking

No matter what monetary policy the Fed adopts, and no matter how the US labor report data and CPI data change, it can neither change the fact that silver is about to dry up nor prevent the outbreak of silver depletion crisis. Human beings can only seek new mineral resources, find new substitutes and develop innovative materials and processes to get rid of the blow of silver depletion. But it takes time!

Measures must be taken to delay the silver depletion period and it's best more than 40 years so as to human beings to find alternatives and developing new materials and processes.

The most effective way is greatly increasing the price of silver and meanwhile strictly controlling the amount of silver mining. It will delay the depletion period of silver. The long-term extremely low price is the basic reason for the waste of silver resources and the serious lag of recycling technology. If the price of silver reaches three or four digits an ounce, the waste will be greatly reduced and the research and development of silver recycling technology will make significant progress.

A substantial increase in the price of silver will restrain the demand in non-industrial fields, such as jewelry, silverware, silver coins and bars, in order to ensure the needs of industrial applications.

The construction of China Space Station has begun to take shape, and recently completed a series of space

scientific research and material transportation tasks. 17 countries have applied and been approved to enter China Space Station. China's 2035 high-tech development plan has formulated the 2035 lunar landing plan, which will establish a lunar base and resource development company to expand the space for finding new resources and materials.

It's time to face the silver crisis seriously! The extremely low price that seriously deviate from the principle of resource balance value should be corrected immediately! In accordance with the DODD FRANK ACT passed by the U.S. Congress on July 15, 2010, the naked short selling to manipulate the price of silver should be strictly prohibited and classified as a crime.

For the first time, mankind will face a extinction disaster

of natural resources. We have only one earth. The silver resource of the earth is very limited and will be exhausted. Protecting silver resources is to continue human civilization. Take action! Build a protective wall of price and overcome the silver crisis with the silver revolution!

Appendix

UK the silver institute link:
https://www.silverinstitute.org/

Mineral Commodity Summaries 2021 link: https://pubs.usgs.gov/periodicals/mcs2021/mcs2021.pdf

U.S. Geological Survey (USGS) link: https://www.usgs.gov/