Market Analysis: Silver

By: MW

1)World Silver Survey 2019, page 10; graphs on bottom of the page ; 2) Svedrup 2014, Sciencedirect
3) World Silver Survey 2019, page 8; 4) WSS pg 25, pg 10
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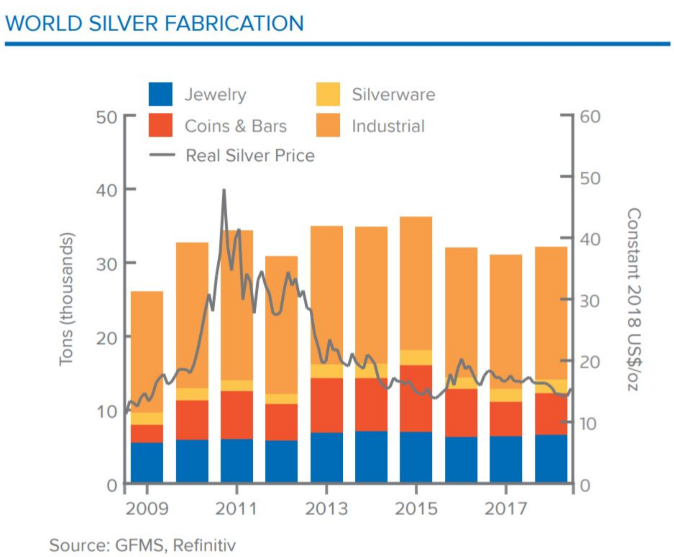
Introduction:

In this paper I will be taking a dive into the silver market to identify unique and unsettling prospects in the market for silver, and analyzing different aspects of the market such as its supply chain, history, and will be performing some technical analysis. Some of the earliest uses of standardized coinage originate from Asian Minor around Greece where they would strike coins, not from silver or gold, but only from a naturally occurring silver-gold alloy known as Electrum(or white gold). Modern tests show silver content being anywhere from 10-30% in the coinage.(Wallace 1987)However, today silver's primary use is as an industrial metal, with demand skyrocketing in certain sectors regarding technology, electronics, and silver even has its uses in the medical industry as an antimicrobial.



In this paper I will be analyzing silver as a commodity and currency, and I will be ignoring demand for Jewelry and Silverware, because, although they do contain the metal, their prices are influenced by other factors such as craftsmanship or branding, and they do not represent the market's true demand for cheap silver(silver at spot price).

On Future Supply:

According to Harald Sverdrup's analysis of future silver supply, discovery and extraction has peaked or will peak soon. The three different methods used to predict future discovery and extraction included the Hubbert's curve, which is a model that is "applied to create the simplest possible production curve for silver using copper and zinc assessments", predicted silver

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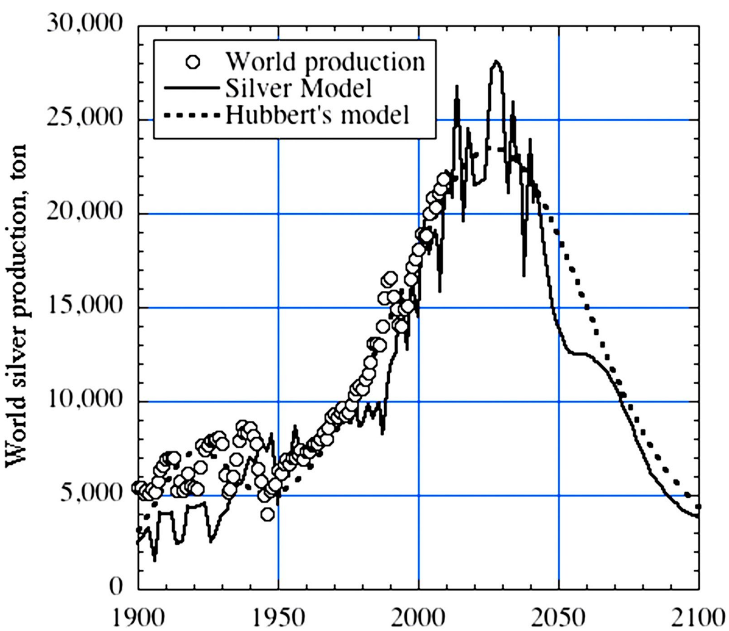
production to peak 2030; Svedrup adds “it is certain that after 2050, primary silver production will decline”.

The second model used was the “peak discovery delay shift” which assumes that there is generally a “40 year lag between the discovery peak and the production peak.” According to this model, maximum silver production will occur during 2025-2027.

Finally, the third model used was the research team’s own model named “SILVER”. This model would create an estimate of total silver production for 300 years -- from 1830 to 2130. This model would also predict a peak very similar to Hubbert's model. A graph with both overlayed is below.

According to Svedrup:

“With time, silver production has reached high volumes with the help of oil and modern technology as well as good prospecting technologies. The reserves left are not large and they are being depleted fast. Though it may appear that there is more and more silver available for mining, this impression may persist up to a moment very close to when the reserves suddenly are discovered to be near empty.”



Now this will pose an interesting challenge for industry. Silver has so many useful properties that companies exploit to create amazing products. These include being antimicrobial and being *the best* thermal and electrical conductors gives it a wide variety of uses such as: production of plastic in the creation of ethylene oxide and formaldehyde, the production of batteries that most electric vehicles use, as well as in photovoltaic cells and many other sectors(Ferre 2013). As more than half of all silver extracted annually is consumed(about 45% is preserved in bullion, jewelry, or silverware)[1], and we descend from peak production[2], *and* as solar panels, electric vehicles, and electronics continue to increase in usage[3] we will see a supply bottleneck develop. With a

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20-year slump in scrap production$_4$, which provides a portion of the silver used in industrial applications, we will see a shortage soon, unless the price rises to encourage recycling.

Interestingly enough,there is a large initiative to properly recycle e-waste. Though current motives behind much of the clean up are environment-focused, as we exhaust our below-ground silver, we will begin looking for other sources(CPM Group). Our dismally fast turnover of electronics has led a large portion of our above ground silver to be forgotten in landfills, and they are the logical answer to dwindling supplies. There is not much data on total discarded('lost') silver.

On Bullion:

After the 2008 Global financial crisis, there was a shift in annual demand for bullion. From 2000 to 2007, 'Coins & Medals' would consume around 30-40 million ounces of silver; however, from 2008 onward, there has been increases in the amount of bullion people are demanding per year every year until 2015, where demand peaked at 293.6moz. From 2010 to 2018, the demand for silver bullion stayed between 174moz and 293moz. If we take the average of every year from 2000-2008, and compare that to the average bullion demand from 2009-2018, we can see a dramatic increase of demand for physical bullion of about 433%(Silver Institute 2019 Survey).

In 2020, we saw another dramatic demand shock for physical bullion. Although there is not too much data out on this, we can analyze the sales figures provided by the US mint(UsMint.Gov 2020).

During February, the US Mint saw sales of American Silver Eagles(ASEs) of 650,000ozt. Then subsequently, in march the number climbed to 5,482,500ozt. The number climbed so quickly that in fact, the Mint had run out of coins to sell(Unsner). In the current year, metals have been quite volatile compared to their historic trends. From February 19th to March 19th Silver saw some of the quickest price action in the decade, reaching lows not seen since 2009. The price reached 11.74 on March 19th, from its previous high of 18.47 on February 19th,

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and then quickly rebounding back to around 15.25, making up some lost territory, but not all. With The US Mint's supply drying up(USMint.gov), The Royal Canadian Mint closing due to CoronaVirus(Mint.ca), and the sentiment of fear in the markets due to economic uncertainty, it would seem that precious metals are poised to take off.

Usually physical bullion investors must pay premiums to buy coins,bars or rounds. Many write this off as a premium charged to cover the fixed costs that surround storage, brick-and-mortar stores, and other costs. This usually means that there is a small disconnect between silver ETFs that one can purchase through an exchange such as COMEX, and physical bullion prices. In March of 2020, when silver prices were reaching lows investors flooded the bullion market. Premiums on silver were reaching 40-60%[5] on generic non-governmental rounds/bars and 80-120% on government silver such as ASEs and Canadian Maples[5].

A dip in price for precious metals before a bear market comenses is not unusual. Usually investors are liquidating what they can to cover margin calls or other losses. We did see this dip in the paper price, but physical prices soared. Physical bullion was retailing for almost double spot price, and this was coupled with long delivery delays ranging from 7-28 days.[6] This decoupling is still apparent, however much of the panic from consumers has subsided, so premiums have come down a bit. If taken at face value, the market for physical bullion is *not* the same market as 'paper silver'.

On Manipulation:

There are two well documented instances of the manipulation of the price of silver. Once in the 1980s was perpetrated by the Hunt Brothers. They sought to put upward pressure on the price by buying futures contracts and opting for delivery. They then leveraged this stockpile of silver to continue to purchase more silver. Price rose to more than 50$(Iskyan 2016). The hunt brothers were never charged with anything.

The second case is much more recent, and the investigation is ongoing against several traders at JPMorgan; according to Tom Schoenberg of Bloomberg "In the metals-manipulation matter, more than a dozen people participated in the scheme, prosecutors said. Two of them have pleaded guilty and are cooperating with authorities." This matter involved spoofing, "placing bids to buy or offers to sell contracts with the intent to cancel them before execution"(Alfilky

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2019). Why these two cases are important, is because they highlight the fact that it is *very* possible to manipulate precious metals for an extended period of time. The charges against JPMorgan are about manipulation from 2008 to 2017.

Silver in Politics:

In recent years, many mexican politicians have been pushing for a remonetization of silver and some interesting statements are said when explaining the reasonings for a silver standard. In this Initiative, presented by Deputy Jose Oscar Aguilar Gonzalez," on behalf of deputies and senators of different parliamentary groups", which took place in 2008 just after the financial crisis, mexican politicians recognized the need for a stable refuge for its citizens to save in; "*The monetization of silver offers the population a saving instrument with the characteristics required by a physical investment instrument with massive penetration and without transaction costs (contracts and fees for banking services)".* The Peso has lost more than 60% of it's purchasing power since 1990 and this devaluation has led to a lack of stability and caused poverty, according to Hugo Salinas Price, a prominent mexican billionaire.The proposed plan would allow the nominal value of the Peso to be "adjustable to multiples of five pesos", "To prevent speculative movements...would allow the Bank to maintain the last nominal value for a period of six months", and will be "introduced into the circulation of silver coins with no recorded nominal value"(Aguilar, 2008)

In the initiative, Gonzalez mentions: " We have more than a decade in which international demand is not reflected in future contracts. This manipulation of the markets makes Mexican silver undervalued"(Mazatlan Post 2014)

Mexico currently mines more silver than any other country in the world, and the remonetization would create a new market for silver that would undoubtedly take up a large portion of Mexico's current silver exports, and in turn consume a large portion of the world's available silver. (Silver survey 2019)

Silver has largely been forgotten by central banks. In 2005, central banks flipped their 40-year stance and became net buyers of gold rather than net sellers. This similar pattern

TOP 20 SILVER PRODUCING COUNTRIES

Rank (Moz) 2017	2018	Country	Output 2017	2018
1	1	Mexico	194.7	196.6
2	2	Peru	147.5	144.9
3	3	China	112.6	114.9
5	4	Russia	42.0	43.4
4	5	Chile	42.4	42.1
6	6	Bolivia	40.0	39.9
7	7	Poland	39.7	39.6
9	8	Australia	35.1	35.4
10	9	United States	33.7	28.0
11	10	Argentina	25.7	26.5
8	11	Canada	36.4	24.8

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hasn't followed with silver, but it only goes to show that even central banks recognize the value in precious metals, and have been hedging against their own dollar since 2005(Fickling 2020)

On Market Structure and COMEX:

Most silver is traded on commodity exchanges using ETFs. These are contracts that entitle one to bullion that can be traded without actually moving the physical bullion. Usually in the modern market physical bullion never exchanges hands, because there can be significant transaction costs including transportation, storage and security; due to this many investors opt to buy futures contracts in place of physical bullion.

However, recently a private COMEX correspondence to the CFTC, dated April 9 2020, explains, to some detail, their reporting standards. Under the section titled: "**Approved Depositories and Stock Reporting Requirements"** it explains "***While surveys conducted indicated no clear consensus as to how much gold is dedicated to long term investments****, the Exchange, in an effort to represent a conservative deliverable supply that may be readily available for delivery, made a determination at this time to discount from its estimate of deliverable supply 50% of its reported eligible gold items"* it continues " *the Exchange may...determine not to discount such stock or to* ***recognize a discount level that is more or less than 50% of reported eligible gold"***(wolfe 2020). This uncertainty should feel ominous for the average investor who bought these ETFs with the intention of owning a stable,secure asset.

Conclusion

Silver and gold have long been given intrinsic value by humans. This value was not unwarranted, given the vast uses for both of these precious metals. Today, silver is widely used in industries, however a large portion of the supply is still eaten up by speculative trade. Supply analysis has determined that we may be at peak silver production, which points towards lower and lower supply in future markets. Future events may change these numbers,but if we continue on the path that we are headed, then soon: " it may appear that there is more and more silver

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