HEYÓKHA BROTHERS

This Berlin woman, realizing that fuel costs money, is starting the morning fire with German Marks…

History: a better guide than good intentions

"When the wall starts collapsing, 10,000 people rush to push It down"

-Chinese Proverb-

2Q 2020

HEYÓKHA BROTHERS

Heyokha's bullion

History: a better guide than good intentions

Still in the spirit of turning challenges into our advantage, we use this COVID-19 moment to start a new relationship with matters that we previously considered impossible. After all, the degree with which the word unprecedented is being used to describe what is going on around the world is in itself unprecedented.

Web searches for keyword "unprecedented"

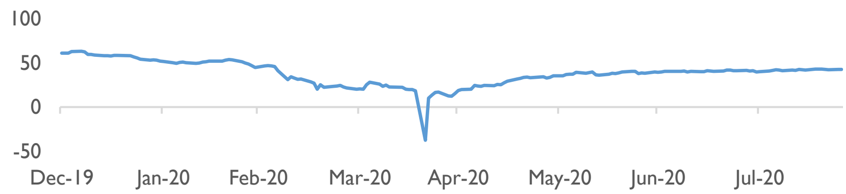
Source: Google Trends

Perhaps the negative oil prices observed in April this year is at the top of the most-unprecedented- list. Which leads us to wonder: if negative oil prices are possible, then what isn't possible in this era?

U.S. citizens must have adopted the "anything can happen" mindset as well, as U.S. gun sales are off the charts. Smith & Wesson boss says that the U.S. gun sales boom is "unparalleled". The company's overall net sales amounted to $278m, up from $123.7m a year previously, with a large portion of the demand being driven by "folks who are just fearful of their personal protection and safety, starting with the pandemic and moving on to the civil unrest".

There has never been a negative oil price before in the history

WTI Crude oil price, US$/bbl



Source: Bloomberg

Another thing generally considered very far-fetched is the return of inflation. The Bloomberg Businessweek "Is Inflation Dead?" cover in April 2019 captured this sentiment perfectly.

After four decades of disinflation and a bull market in government bonds, it is very natural to extrapolate this trend for the years and decades ahead.

"In a normal recession unemployment goes up, delinquencies go up, charge-offs go up, home prices go down; none of that's true here. Savings are up, incomes are up, home prices are up. So you will see the effect of this recession; you're just not going to see it right away because of all the stimulus."

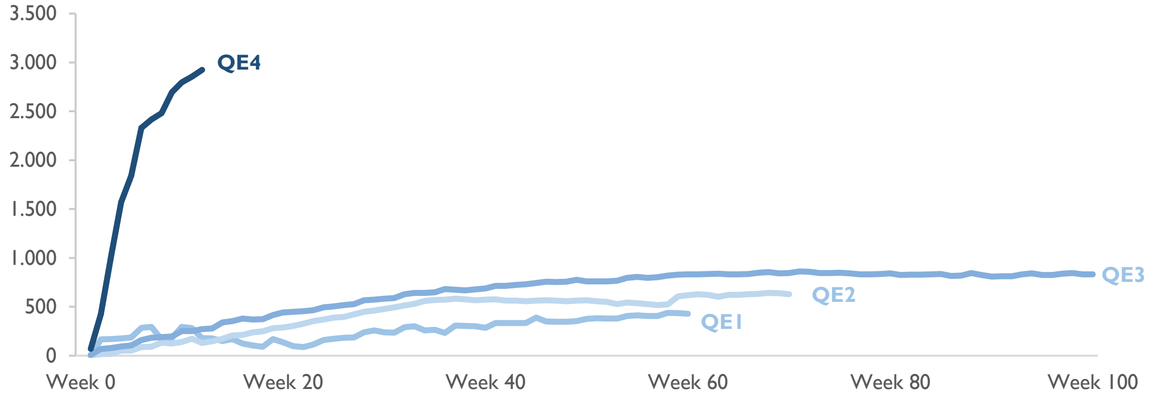
Jamie Dimon - CEO, JPMorgan Chase, on the unprecedented events in 2020

Yet, we believe that there is a very decent chance that we will see much higher inflation (in the CPI-sense) in the coming years. In our [1Q 2020 report](), we wrote about the possible return of inflation. We summarise the driving forces below:

Firstly, the pandemic is accelerating the prior existing trend of Federal Reserve balance sheet expansion. In just about four months, from March-June 2020, we have seen an increase of US$ 3 trillion. We believe there is more to come in the following quarters and years, as the Fed has become the main financier of the swelling budget deficits of the U.S. government.

Unprecedented speed and size of the latest QE dwarf all three previous QE combined

Cumulative weekly change in The Fed's balance sheet since QE announced, in US$ billion



Source: Google Trends

The more treasuries the Fed buys, the more unlikely it becomes that the U.S. government will pay these newly created dollars back. After quantitative tightening failed in 2019, it is time for investors to realise that the U.S. is financing its deficits through inflationary debt monetization.

Zero or even negative interest rates mean ones can build up debt and never have to pay it back. This massive debt build-up should be read as either debt will be written off at some point or paid with inflated fiat currency.

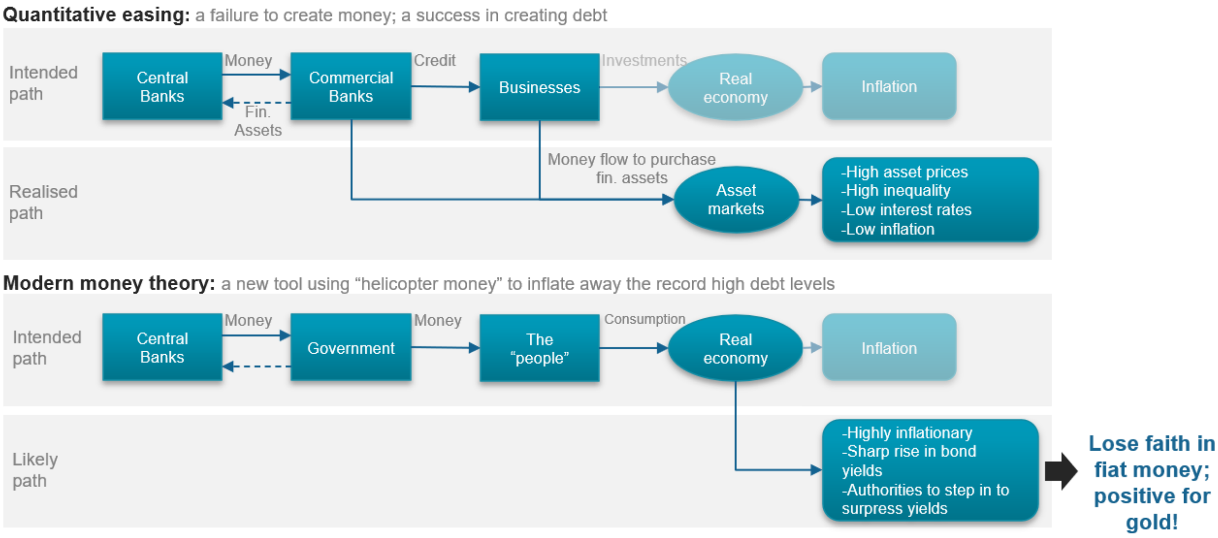
Post GFC, the Fed purchased financial assets with the intent to spur credit, which in turn should have stimulated the economy. But banks did not lend as much as expected. This time around, governments are making sure that the stimulus money will reach citizens and companies by providing lending incentives and guarantees to the commercial banks.

As a result, one notable difference from the GFC era is that this time commercial banks' loans grew, money supply has increased sharply and when the velocity of money returns one day, we are likely to see a new era of inflation.

Secondly, we see the advent of MMT as an inflationary force. (see the next page) for the summary of the difference between QE and MMT). The fact that the US Government is sending out helicopter checks to people that are ultimately paid for by issuing bonds that the Fed buys with newly-created dollars, is basically MMT in practice, especially if we assume there is no ability or intent to pay this back.

It is worth noting that the proponents (or prophets?) of MMT like Stephanie Kelton seem to overlook one big component, i.e. they conveniently neglect the role of reserve banking in the money creation process. The price of MMT will be paid by the savers who do not realize that MMT is a silent killer of both capitalism and the middle class through the deceitful tax of monetary inflation.

MMT is a financial repression that will destroy saving. Many smaller and less-informed savers will disproportionately see the value of their saving destroyed.



MMT will be a completely new uncharted monetary regime compared to QE. It places money directly from the government to the people to boost consumption. We believe this will be highly inflationary.

Thirdly, another factor that may contribute to the return of inflation is the reverse of globalisation or de-globalisation.

During globalisation's heyday, we were told that outsourcing is the way to lower the cost of production. Moreover, the sudden addition to the global pool of savings helped to lower the cost of funds. The result is 40 years of disinflation.

While we do not know how COVID19 will change the world, one result is evident: a marked further deterioration in relations between the two superpowers. China recently closed the US consulate in Chengdu, in retaliation for the US closing China's consulate in Houston. This is the first such move since the normalisation of relations in 1979.

Combining de-globalisation with the wreckage left by Covid-19, the outcome is the closest we have come to World War III, in the sense of disrupted supply chains, restricted movement in labour, and border lockdowns. All of these three factors are inflationary.

Fourthly, companies are in trouble and in need to make up for their losses during the lockdown. Even now, many companies are operating way below capacity, so they have no choice but to raise prices. It is a matter of survival.

"Since Federal Reserve resources were barely able to prevent complete collapse in 2008, it should be expected that an even larger collapse will overwhelm the Fed's balance sheet."

-James Rickards, author of The New Great Depression: Winners and Losers in a Post-Pandemic World and The New Case for Gold-

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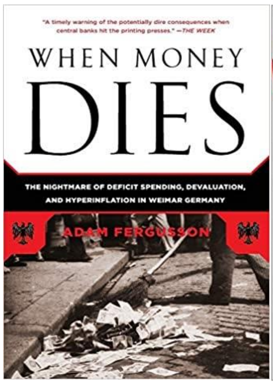
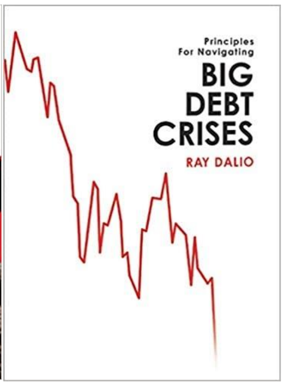
Dealing with inflation: lessons from history

We are hopeful that a study of history will help investors to be better prepared for scenarios in which inflation really takes off.

For this purpose, we are sharing with you some lessons learned from two books:

1. When Money Dies: The Nightmare of Deficit Spending, Devaluation, and Hyperinflation in Weimar Germany by Adam Fergusson; and
2. Principles for Navigating Big Debt Crises by Ray Dalio.





"The key is not to predict the future but to prepare for it".

-Pericles, a leading statesman of Athens and Ancient Greece in 500 B.C-

Learning from Weimar's Hyperinflationary era

What transpired in the Weimar republic was one of the most extreme inflation cases in the history of developed nations. While such scenario is not likely to occur today, its plot provides valuable insights in human tendencies.

To quote Mark Twain: "History doesn't repeat itself, but it often rhymes".

Below, we first share some selected quotations from the books with the objective to throw a light on the gripping situations during the Weimar Republic hyperinflationary era.

We attempt to capture some of the tensions surrounding that historical event, the uneasy feeling about how the era brought out the evil in people, and other dimensions that are not imaginable today. Second, we discuss the lessons learned for contemporary investors. Here we go.

"In the whole course of history, no dog has ever run after its own tail with the speed of the Reichsbank. The discredit the Germans throw on their own notes increases even faster than the volume of notes in circulation. The effect is greater than the cause. The tail goes faster than the dog."

-Lord D'Abernon, British Ambassador in Berlin 1920-26, From the book "When Money Dies, The Nightmare of Deficit Spending, Devaluation, and Hyperinflation in Weimar Germany"-

The president of the Reich asked his finance ministers to find new measures "to avert the complete collapse of our mark". The finance ministers replied "the complete collapse of the mark is already underway."

-Principles for Navigating Big Debt Crises by Ray Dalio-

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Some quotes from *When Money Dies* and *Big Debt Crisis*:

The fall of the currency, the mark:

- The mark's ***fall*** began ***gradually***. In the war years, 1914-1918, its foreign exchange value halved, and by August 1919 it had halved again. In early 1920, however, although the cost of living had risen less than nine times since 1914, the mark had ***only one-fortieth*** of its overseas purchasing power left. There followed ***twelve months of nervous fluctuation***, but ***then the mark sped downwards with gathering momentum***, dragging social misery and political disruption in its wake.[1]
- The ***mark's*** rate ***against the pound*** mounted startlingly ***from 800,000*** (July 7) to 900,000 (July 14) to 1,600,000 (July 23) ***to 5,000,000,*** or 21 million to the dollar.[1]

The evil nature of inflation:

- ***Social unrest*** was one of the obvious symptoms of inflation.1
- The Viennese rioted on December 2, consequent upon another severe fall in the krone. The ***amount of glass smashed*** in the city that day was ***enormous.*** The ***unarmed crowd of 30,000, many hooligans*** among them, ***wrecked*** and ***looted food shops, restaurants***, and ***cafes*** everywhere, and attacked the ***hotels*** in the main quarter.1
- Undoubtedly, though, ***inflation aggravated every evil***, ruined every chance of national revival or individual success, and eventually produced precisely the conditions in which ***extremists** of **Right** and **Left*** could raise the mobs against the State, set ***class against class***, ***race against race***, ***family against family***, ***husband against wife***, ***trade against trade, towns against country***... [1]

  Partly because of its ***unfairly discriminatory*** nature, it ***brought out the worst*** in everybody...It caused ***fear*** and ***insecurity***[1]
- The ***demonstrators' demands*** from the government included the ***seizure of all foreign currency*** – the medium which most shops in self-defence were insisting upon for purchases – and the State control of the securities market. They ***wanted all gold*** to be ***taken*** into State hands.[1]
- …. people in the grip of raging inflation should ***look about for someone to blame***. They picked upon ***other classes, other races, other political parties, other nations***.[1]
- 'The ***population is ripe***,' Joseph Addison wrote home to Alexander Cadogan, 'to ***accept any system of firmness*** or for ***any man*** who ***appears to know what he wants*** and issues ***commands*** in a ***loud, bold voice***.' [1]

Stock market speculation in the era of hyperinflation:

- ***Gambling*** on the ***stock exchange*** had become the fashion – the only way to avoid losing all one's money and perhaps to add to it.[1]
- In as much also as a fall in the value of the mark is inevitably accompanied by a ***rise in the quotation of industrial shares***, speculators are supposed to be operating systematically to depreciate the mark with a view to reaping the benefit of higher quotations in the ***share market***.[1]
- But in this respect conditions are hopelessly unhealthy, and the public will continue to be swayed by rumours and to ***speculate*** either in goods or in ***stocks and shares***.[1]
- As regards ***dealing in shares***, all classes of the population have for months been speculating with a ***fine disregard for common-sense***.[1]

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- ***Shares have been freely bought in totally unknown concerns***, in some cases with the object of exchanging valueless paper money for what was considered a good security, but generally in the hope of profiting by a ***rise in the stocks***.[1]

  Shares in respectable concerns which had paid a ***20 per cent dividend***, say, were ***pushed higher and higher***.[1]

- ***The stock market was one of the few remaining domestic escapes from the inflation.*** After declining 50 percent (in real terms) since June, stocks actually rallied in the second half of October – but like the fall of 1921, this rally had ***nothing to do with underlying economic conditions or the future prospects of the economy***. In fact, in the fall of 1922, real profit margins were collapsing as the chaos of the hyperinflation hit productivity. The rally was also ***extremely small in the context of the overall real*** stock market ***decline during the debt crisis***.[2]

- Once again, this ***bull market*** was ***not driven by improving economic fundamentals, or a more optimistic discounting of future economic conditions.*** It reflected ***a rush to get out of money or to get short money (i.e., borrow it) against a long "stuff" position.***[2]

- *"**Stock market speculation today is the organized flight from the mark**…at a time when the return on an investment diminishes in the same ratio as the value of the paper mark and when therefore even the solid capitalist, if he does not want to impoverish himself from day to day, must acquire real values.*[2]

  This alone has led to an extraordinary increase in the stock market business."[2]

Debt, swiftly wiped out by inflation

- What they (village people) were doing with all the money they were squeezing out of the townspeople. They replied candidly that they were ***paying off their mortgages***.[1]

- ***Inflation*** provided the answer to the ***equation***. If a budget did not balance, the deficit had to be made good somehow. In October 1920 Germany's national debt stood at 287,800 million marks. At the old 1914 parities this sum equalled £14,400 million; but at the new it represented only £1,200 million. A year before ***Germany's great inflation*** is generally thought to have started, ***Germany's national debt had all but been wiped out***.[1]

- He ***paid the debt*** in the autumn ***with the sale of less than half the crop*** of one of his potato fields. In June of the same year, when prices were shooting up ahead of the mark, he ***bought 100 tons of maize*** from a dealer for ***8 million marks*** (then about £5,000). ***A week later***, before it was even delivered, he sold the whole load back to the same dealer for ***double the amount, making 8 million marks*** without raising a finger. 'With this sum,' he said, 'I ***furnished the mansion house of my new estate*** with ***antique furniture…'*** [1]

- ...whether ***to help those who are long the currency*** (i.e., ***creditors*** who hold debt denominated in it) ***or those who are short it*** (i.e., ***debtors*** who owe it). ***In economic crises, policies to redistribute wealth from "haves" to "have-nots" are more likely*** to occur. This is because the conditions of the "have-nots" become intolerable and also because there are more "have-nots" than "haves".[1]

Velocity of Money

- ***Shortage of liquid cash***, indeed, was ***acute***, and the July emergency money law was coming into its own. Large industrial concerns began to ***pay their workmen*** partly in notes and ***partly in coupons of their own***, which were accepted by local tradesmen on the ***understanding*** that they ***would be redeemed within a very short time***.

  Municipalities, too, started to ***issue*** their ***own currencies***, aware that any delay in receiving their pay packets would dangerously ***aggravate workers*** whose ***main concern*** was to ***spend them before they depreciated***.[1]

- This was ***simple commerce: the only thing to do with cash by that time was to turn it into something else as quickly as possible. To save was folly***.[1]
- Anyone who was alive to the ***realities of inflation***, he said, could ***safeguard himself against losses in paper currency*** by ***buying assets which would maintain their value****:* houses, real estate, manufactured goods, raw materials and so forth.[1]
- ***Notes were held for as short a time as possible***. Private-account cheques were hardly accepted. ***Anyone receiving money for goods quickly converted it back into other goods***, and the ***money never stopped moving***, doing the work of ***ten times the amount*** moving a tenth as fast.[1]

How Extreme It Was

- In October 1923 it was noted in the British Embassy in Berlin that the number of marks to the pound equalled the number of yards to the sun. Dr Schacht, Germany's National Currency Commissioner, explained that at the end of the Great War one could in theory have bought 500,000,000,000 eggs for the same price as that for which, five years later, only a single egg was procurable.[1]

  When stability returned, the ***sum of paper marks needed to buy a gold mark was precisely equal to the quantity of square millimetres in a square kilometre***.[1]
- ***Restaurant meals*** which ***cost more when the bills came than when they were ordered***. A ***5,000-mark cup of coffee would cost 8,000 marks by the time it was drunk***.[1]
- *Professor (John Maynard)* ***Keynes's prediction 15 months earlier that the mark would fall by a point a day until it reached 1,000 to the pound*** *had been out by a* ***factor of 13 in less than two-thirds of the time***.[1]
- ***In the month*** following May 20, the ***price of an egg rose from 800 marks to 2,400; of a litre of milk from 1,800 to 3,800, of a kilo of flour from 2,400 to 6,600, of pork from 10,400 to 32,000***. In the Ruhr, too, while ***salaries doubled*** (a workman's wage rose from 3,300 an hour to 6,800) the ***cost of commodities trebled***.[1]
- The ***disparity between the rise in the cost of living and the rise in wages*** had now **become very marked.** Whereas since the war ***the former*** had gone ***up*** by about ***1,500 times***, the ***wages*** of the miner – in November 1922 the best paid worker – had gone ***up by barely 200 times***.[1]

Daily life in the era of hyperinflation:

- The proprietor and his helper were surly and didn't seem particularly happy when ***all the cakes*** were ***sold***. The ***mark*** was ***falling faster than they could bake***.[1]
- ***Only the country people*** were ***surviving*** in Germany in any comfort: anyone who ***lived off the land*** had the readiest ***access to real values***.[1]
- Labour, wholly or partially educated labour, has already begun to rule in Germany, and there is no demand for brains: that is to say, ***brains have no longer a marketable value***.[1]
- A new element had joined the economic crisis. For the first time the ***wages paid for labour began to lag behind the rise in prices***.[1]
- You could ***go to the baker in the morning and buy two rolls for 20 marks***; but go there in the ***afternoon*** and the same two rolls were ***25 marks***. The ***baker didn't know how it happened … His customers didn't know …***[1]
- …in Austria, there were ***many farmers*** who ***behaved outrageously***. Dr Schact's account of the inflationary years recalled that ***farmers' used their paper marks to purchase as quickly as possible all kinds of useful machinery and furniture – and many useless things as well***.

That was the period in which ***grand and upright pianos*** were to be found in the ***most unmusical households***.[1]

The Return of Stability

By ***late 1923***, the hyperinflation had created ***intolerably painful conditions*** within Germany.[2]

German policy makers ***took five crucial steps to curb inflation***:

- To ***offload*** the ***reparation burden*** that ***started the crisis in the first place***, ***renegotiated payments*** with the Allies.[2]
- A ***new currency*** was ***introduced***, the ***rentenmark***, which was ***backed by gold***-denominated assets and ***land*** and pegged to the ***dollar***.[2]
- ***Strict limit*** were placed on the ***amount of renternmarks that could be printed*** and the ***amount of debt that could be monetized***.[2]
- The ***German government*** took action to ***raise its revenues*** and ***cut*** its ***expenditures***, making deep, extremely ***painful cuts***. Similarly, the ***central bank capped the amount they would loan*** to businesses and ***raised borrowing rates***.[2]
- The ***central bank built large reserves*** of foreign currency assets, by borrowing from the Allies and encouraging German citizens to repatriate their savings.[2]

By ***1924,*** the ***crisis was largely over***. Germany would enter ***a brief period of recovery*** before ***the Great Depression*** hit it harder a decade later. This second crisis was ***not only economically devastating*** but fueled the rise of right wing and left wing to power, ***Hitler's rise to power***….[2]

Other Important Notes

- ***What really broke Germany*** was the constant taking of the ***soft political option in respect of money***. The take-off point therefore was not a financial but a moral one; and the political excuse was despicable, for no imaginable political circumstances could have been more unsuited to the imposition of a new financial order than those pertaining in November 1923, when inflation was no longer an option.[1]
- ***Currency weakness*** was ***leading inflation***, which was ***leading money supply growth***-not the other way around. ***Reckless money printing was less the cause of the hyperinflation than what was required to prevent massive deflationary defaults by banks (and just about everyone else) and a deflationary economic collapse.***[1]
- ***Inflation*** is the ***ally of political extremism****, the* ***antithesis of order***.[1]
- In all three cases, ***after inflation*** reached a certain ***advanced stage***, ***financial and economic disaster*** seems to have been a ***prerequisite of recovery***.[1]
- In ***hyperinflation*** a kilo of ***potatoes was worth***, to some ***more than the family silver***; a side of ***pork more than the grand piano***; ***warmth*** was ***finer than honour, clothing more essential than democracy, food more*** needed ***than freedom***.[1]
- Anyone who during the first six months of the year had ***sought a haven for money in domestic shares*** would at least have lost little of it in real terms…... At that point, ***in terms of the paper mark the dollar had risen 1,525 times, but nominal share prices had increased only 89 times***.[1]

Learning summary:

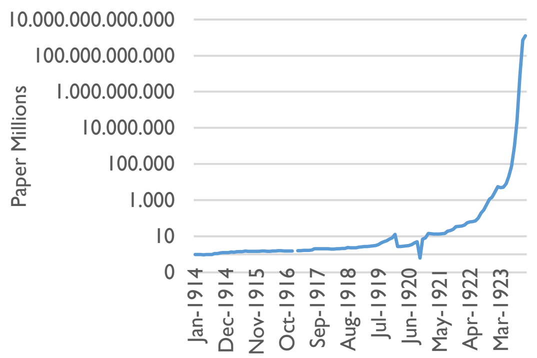
We summarise the lessons learned below.

1) We can't possibly time the market

Things can go really wild really quickly. For example, in July 1922 prices rose by 43.1% MoM. The year after, prices rose every hour and barter became common. From July 1922 until November 1923, the mark depreciated 99.9999999905% versus the dollar and price rose by 722 billion percent.

The big spike in inflation only occur in 1922

German wholesale price index in log scale



Source: WISTA 1923 by the German Federal Statistical Office

To put this into perspective, the Weimar Republic left the gold standard in 1914 to allow flexibility when the war started. As a result, the amount of banknotes and coins rose dramatically during the war, from 6 bn marks in 1913 to 45bn marks after the war ended in 1919. By October 1923, the entire stock of money in 1913 would just get you a one kilo-loaf of bread.

Fiat money may initially fall gradually, then it falls suddenly. In today's context, we believe that the politicians' move to print money is highly unlikely to stop anytime soon. It is part of the so-called "new normal" and may trigger a very significant debasement of fiat money.

Learning from history, we understand that we should not try to trade in and out when the train is fast approaching. Instead, for the years to come, we probably just have to sit on an asset class that benefits from the destruction of fiat money, i.e. exposure to precious metals.

2) The evil nature of inflation

We have seen how hyperinflation in Weimar Republic aggravated every evil in people: nasty political manoeuvres, rioting and looting, speculation, food-hoarding, tax evasion, playing the blame game, and eventually the rise of extreme nationalism.

One can imagine the pain, agony, and trauma that Germans experienced at that time. This painful experience would later be used by Nazi politicians to criticize the disastrous Weimar era. Hyperinflation played a part in nurturing the seed of Nazism. A decade later, after Germany enjoyed a brief period of recovery, the Great Depression led Hitler's rise to power.

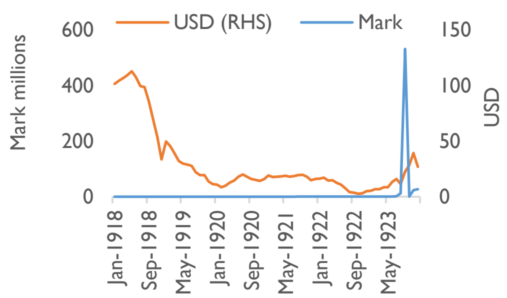
In today's context, COVID-19 has led to tremendous amounts of pain and thus a combustible environment globally. We wonder if this will be the event that will accelerate the rise of the right- and left-wing populists in many corners of the world.

3) Stock speculation and the currency weakness

Stock speculation is often the favourite pastime when paper money devalues quickly. Shares have been freely bought without any fundamentals. Investors simply wanted to switch out of paper money.

The stock market recorded magnificent gain in Marks but staggering loss in USD

Weimar Era Stock Price



Source: WISTA 1923 by the German Federal Statistical Office

It is important to note that between January 1918 to December 1922, measured in Marks, German stocks recorded a magnificent gain of 2,134,269,841,170%! However, the ugly truth is unveiled when we measure that gain in a hard currency that was still linked to gold, such as USD.

In the span of four years during the Weimar era, the stock market registered a staggering 74% loss in USD terms, in sharp contrast to the performance measured in Marks.

In today's era, we see a phenomenon whereby the tidal wave of liquidity unleashed by central bankers has managed to lift people's savings rate, since the lockdown and the "new normal" meant less opportunity to spend. A lot of these savings went into unprecedented speculative activity.

We learn from Weimar history that while stock investors and speculators may make very good returns in fiat currency terms, the real measure of success in the era of inflation will be in hard currency terms.

Unlike in the Weimar era during which the USD was still linked to gold, today there is a legitimate concern about the value of USD and other fiat currencies. Relentless money printing by the central bankers may result in fiat money to eventually break down, in particular against precious metals.

After all, we want to remember the lesson from Weimar-era hyperinflation: that currency weakness was leading inflation, which was leading money supply growth. It was not the other way around.

Another point we would like to add is that the age of inflation and MMT is also an age of repression and serious distortion of capitalism. We wonder if these two factors will allow the equity market to perform well in the coming years.

"The inflation is unjust and deflation is expedient. Of the two perhaps deflation is the worse, because it is worse in an impoverished world to provoke unemployment than to disappoint the rentier (i.e. the capitalist lender)."

-The legendary British economist John Maynard Keynes, on the choice between inflation and deflation-

4) Debt and bond investors: totally wiped out

Inflation has proven to be very effective to wipe out debt, including government debt. Inflating away debt is an easier way out as compared to having a massive depression. As such, politicians will not give up pushing up broad money and nominal GDP growth.

Learning from Weimar hyperinflation history, investors should be reminded of the importance of return of capital (preservation aspect of capital).

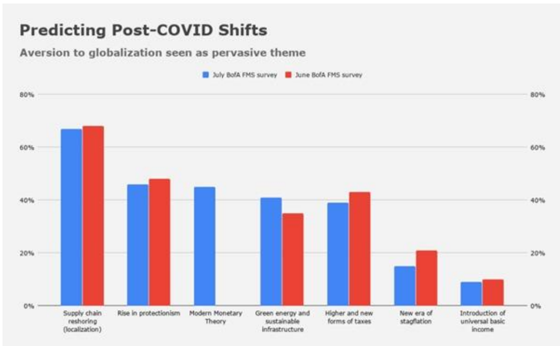
5) On Velocity of Money

As we write this, the velocity of money has slumped to an all-time low. Maybe, it's because of the trauma the economic recession brought. Expecting the economies to quickly return to pre-COVID-19 era right after a lockdown is akin to expecting someone who is placed into an induced coma to be able to start running again, right after waking up.

However, Weimar history suggests that investors may attempt to safeguard themselves against losses in paper currency by buying assets which would maintain their value. Under this scenario, velocity may pick up strongly and quickly. Combining this with very high broad money growth, we will get an inflationary cocktail.

6) What really broke Weimar Republic and MMT

What really broke Weimar Republic was the constant taking of the soft political option in respect of money. With all the talks by the MMT proponents that there is no true limitation to how much a currency-issuing-government can spend, we wonder if the world is currently committing the same mistake: soft political option.



MMT was nowhere to be discussed in June, but became is one of the main pervasive themes in July, Unprecedented?
Source: BofA FMS Survey

In essence, MMT promotes the seductive but delusional idea that governments, which have no concept of opportunity cost, can prescribe prosperity.

"The promise of something for nothing will never lose its luster. MMT should be viewed as a form of political propaganda rather than any kind of real economics or public policy. And like all propaganda, it must be fought with appeals to reality. MMT, where deficits don't matter, is an unreal place."

Jeff Diest, President - The Ludwig von Mises Institute for Austrian Economics

Another delusional aspect of MMT is that it believes that investors will continue to hold interest-bearing securities, even when their values will be eroded or wiped out by inflation.

Unless MMT can really create real GDP growth, it will be a silent killer of both capitalism through financial repression and the middle class' savings through the tax of monetary inflation.

We also learn from Weimar history that in October 1922, the Weimar government tried to curb inflation by applying capital controls (a form of repression). It is important to note that such moves by governments are rarely successful.

Ray Dalio in *Big Debt Crises* argues that the reasons such repressions are typically ineffective is that (a) capital controls have limited effectiveness at best because they are usually pretty easy to get around and (b) trying to trap people typically leads them to wanting to escape even more.

7) Transfer of wealth from cities to the countryside: a new bull market in soft commodity about to start?

There is a story about a farmer in Pomerania who repaid his debt in the autumn 1922 with the sale of less than half the crop of one of his potato fields. Also, many farmers behaving outrageously, such as grand pianos bought by the most unmusical households.

The middle class that lived in the urban areas suffered the most, as farmers rejected payment in the form of paper currency. Conflicts between German cities and countries were recorded during the era and no less than two million people emigrated from urban areas to the countryside.

In the age of inflation, commodity prices are highly likely to move up. And that is likely to include the long underperforming soft commodity space.

How to Invest?

With lessons learned above, and if we are right about much higher inflation going forward, the next natural question is: which asset class is particularly interesting to buy and hold, the one(s) that tends to do well under such a scenario.

"It's nice but will it be a hedge against inflation?"

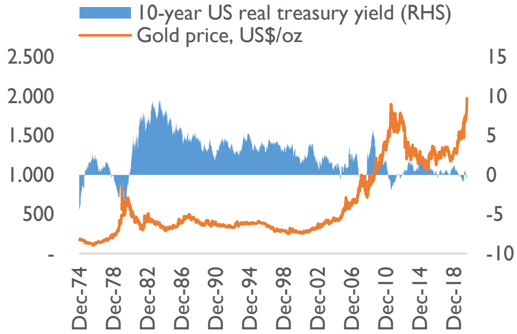
We have been writing in our past reports that precious metals have the potential to be an important asset class in the coming years. This view was not widely adopted, yet the recent new highs of gold in USD terms has now caught people's attention.

It is interesting that Mohamed El-Erian, the former Chief Economic Advisor at PIMCO, recently stated that "gold is starting to become everything to everybody".

The narrative of gold is becoming similar to the narrative of the big tech, in the sense that it gives us everything. "People like it because it's defensive. People like it because it's a reflationary trade. People like it because its inflation protection."

Gold price has negative correlation with US treasury real yield

Gold price in US$ oz vs. 10-year US treasury headline CPI adjusted yield (%)



Source: Bloomberg

Well, gold might become everything to everybody, but we want to own it chiefly for one reason: because gold is the ultimate protection from the coming inflation and financial repression. In turn, these two factors, inflation and repression, influence real interest rates.

Real interest rates are interest rates minus inflation. So, all things equal, higher inflation leads to lower real interest rates. The first component of the equation, interest rates, are USUALLY also the by-product of inflation.

Central banks or fixed income markets will USUALLY drive interest rates up when the consumer price index (CPI) is rising fast, if there is inflation.

The key word here is USUALLY.

The problem is that we live in, dare we say, an unprecedented time.

We are entering a repression era and negative real rates are at the center of such an era. To deal with the gigantic macro challenges, politicians may embark on many forms of financial repression such as yield curve control, capping deposit rates, capital controls, or even forcing higher ownership of financial assets denominated in local currency.

The net result would be a failure for interest rates to keep up with the rising CPI rates. In other words, real interest rates will be more and more negative.

As for the relationship between real interest rates and the gold price, we would like to point out an article titled *"Demystifying Gold Prices"*[1] in which PIMCO specialist Nicholas J. Johnson identifies real yields as the single most important factor driving gold prices.

Meaning that the more negative real rates are, thanks to higher inflation and repressed interest rates, the higher the gold will price be[2].

The big question is what is the best to own in the gold space? Will it be the yellow metal out-right, gold mining companies, or even the poor man's gold Silver? We will discuss this in the next section.

[1] https://www.pimco.com/en-us/insights/viewpoints/demystifying-gold-prices/

[2] Truth be told, this real yield-price relationship is still being debated among scholars, as the standard claim that "correlation does not imply causation" is hard to dismiss (id both variables could be driven by some other influence). Yet, as real yield differentials have been shown to impact exchange rates, it makes sense to us that it also impacts the USD / gold "exchange rate".

Gold equities vs. gold bullion, what is a better investment?

Many believe that gold equities represent a levered investment in gold, meaning that the return on gold equities will be greater than the percentage change in the value of gold bullion.

Intuitively, that would be the case, assuming there is no change in the production level, operating cost, and capital expenditure requirement. Unfortunately, these assumptions are not always valid.

Gold bullion securitization impact to gold mining stocks

Gold equities were favored over gold bullion and coins due to lower transaction costs. This has obviously changed with the issuance of physical gold ETFs. Since the issuance of SPDR Gold Trust ETF (GLD) in 2004, the liquidity of gold equities declined, and their adverse selection risk increased (Yue Zhang, 2015[3]).

After Physical Gold ETFs issuance, the adverse selection risk of gold mining companies has increased as it lured the uniformed traders away. As such, the shareholders of gold mining companies are dominated by the investors with depth knowledge of gold mining industry.

With declining interest from the generalist, gold miners stock liquidity has dropped, and the ask-bid spread is widened. As such, the journal concluded that the GLD ETF issuance had a negative impact on gold equities share price. Some analyst[4] indicates that physical gold ETFs issuance has also somewhat dragged gold equities performance relative to gold bullion during 2006-2013.

There are many respected investors such as Kevin O'leary (yes, that Mr. Wonderful from Shark Tank) who have been very critical on gold equities given their poor track record. In Kevin's opinion, gold mining companies seem unable to control their operating cost; hence, they destroy capital.

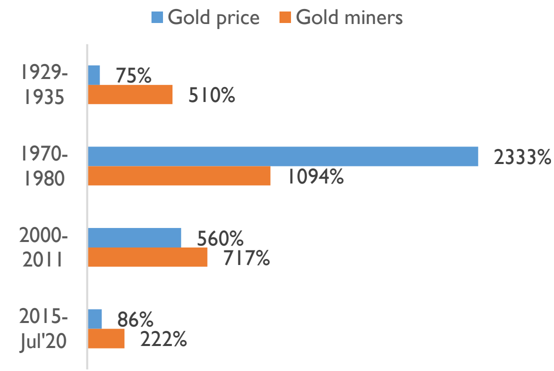
Indeed, there is little love for the gold mining industry, which could be an opportunity if this sentiment is no longer justified. As such it is important for investors with interest in this space to learn more about the relative performance of gold equities and gold bullion in the previous gold bull markets. For this purpose, we study three gold market bull markets in recent history.

- The Great Depression during 1929-1935
- High inflation during 1970-1980
- Commodity bull market during 2000-2011

More specifically, we explore (i) when and how gold mining equities started to underperform the yellow metal itself, and (ii) what has changed since the previous gold bull market.

Gold bullion vs. gold equities return

Gold price vs. gold miners stock return (for the companies list please refer to the next page)



Source: Bloomberg, goldchartrus.com

Our conclusion is that gold equities can indeed outperform gold bullion to a great extent, provided that these firms remain disciplined in their capital allocation.

Based on company reports and earnings call transcripts of gold mining companies, we conclude that – unlike in previous bull markets - project assessment criteria have not loosened so far. Therefore, we see gold mining companies as an interesting investment proposition if your aim is to obtain a levered exposure to gold.

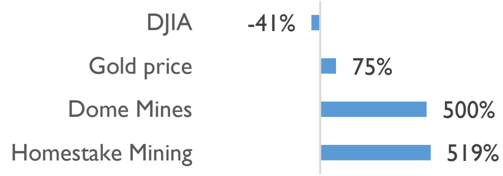
[3] Zhang, Yue (2015). The securitization of gold and its potential impact on gold stocks. *Journal of Banking & Finance*.

[4] Beristain, J., Ortiz, W., & Martin, D.S. (2013). The end of big gold?. Deutsche Bank

The Great Depression 1929-1935: The miners outperform gold price during the deflation shocks

The miners outperformed the bullion

Gold price vs. gold miners stock return during 1929-1935

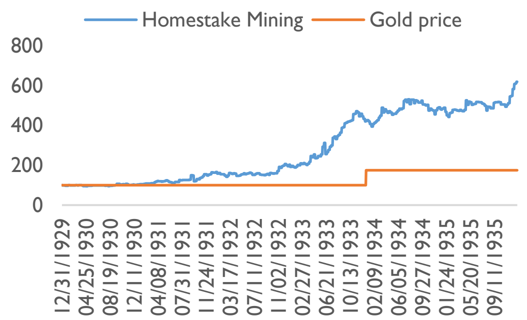


Source: Bloomberg, goldchartrus.com

During the Great Depression, gold stocks outperformed the gold bullion hands down. The gold companies were able to benefit from gold price adjustment in 1933.

Homestake Mining share price outperformed the bullion

Homestake Mining vs. gold bullion return (indexed, base 100)

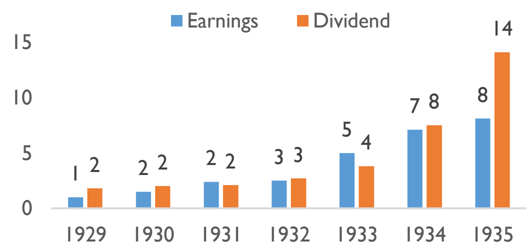


Source: Bloomberg, goldchartrus.com

Case in point, Homestake Mining, the largest gold mining company in 19th century saw rapid earnings growth and rising dividends by 710% and 683% respectively between 1929-1935.

Homestake Mining saw staggering growth in earnings and dividend

Homestake Mining financials in US$ million



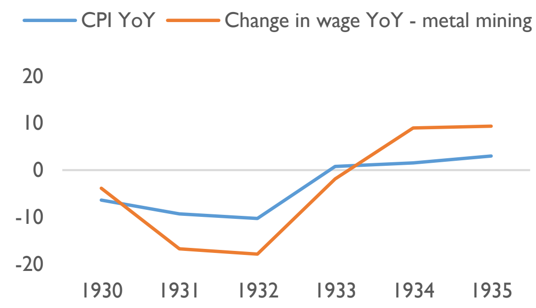
Source: International Monetary Fund

And that is not unique to Homestake Mining. For example, another listed gold mining company, Dome Mines also saw massive outperformance relative to gold price.

We believe the gold mining companies also benefited from declining wages and input cost during steep deflation in the period of the Great Depression.

Steep deflation has benefited the mining companies

US CPI YoY and change in US wage YoY for metal mining industry



Source: Bloomberg, goldchartrus.com

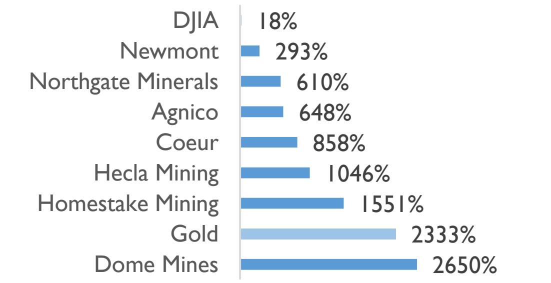
In addition, we trust that this share price performance is very much linked to a historical event in history: gold bullion confiscation, by US President Franklin D. Roosevelt's Executive Order signed on April 5, 1933. This order forbade "the hoarding of gold coin, gold bullion, and gold certificates within the continental United States".

Following the confiscation of physical gold, the only way Americans could own gold was by owning shares in gold mining companies.

High inflation during 1970-1980: Most gold miners underperformed the gold bullion

Most of miners underperformed the bullion

Gold miners vs. gold price return during 1970-1980



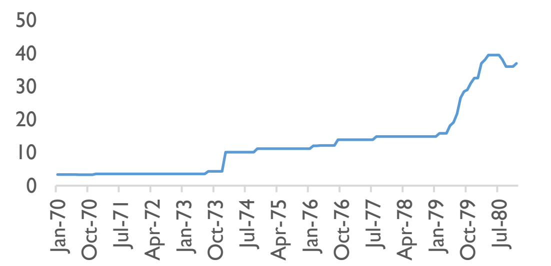
Source: Bloomberg, goldchartrus.com

Most gold stocks underperformed the gold bullion significantly. Given that data available for this period is limited, we could not find any conclusive reasons behind the underperformance.

We suspect that the combination of surging oil prices and high inflation during the period has led to significant mining cost escalation.

Oil rose by more than 10x during the period could possibly led to cost escalation

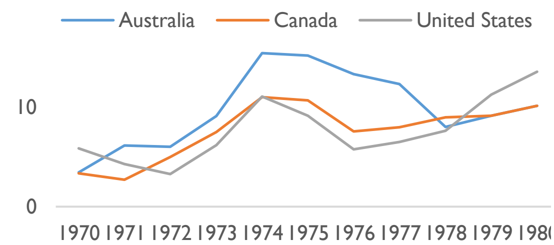
WTI crude oil price during 1970-1980



Source: St. Fed Louis

High inflation in the major gold producing countries

Annual inflation rate in percentage



Source: Bloomberg, goldchartrus.com

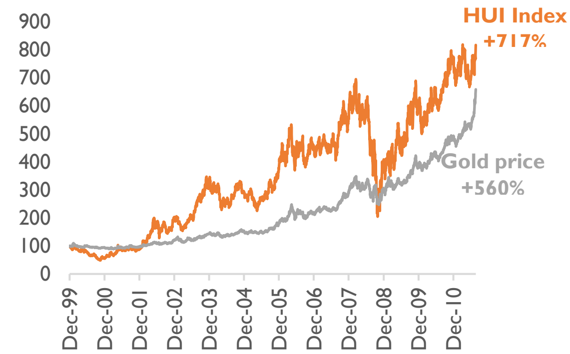
To be specific, oil surged by more than 10x, while the inflation rates in major gold producing countries averaged around high single digits to low teens during this period.

However, it should be noted that gold stocks still generated a 12x return on average, while the DJIA was only up +18% over the 1970-1980 period. Not bad at all.

Gold bull during 2000-2011: gold stocks outperformed the gold bullion slightly

Gold stocks index outperformed the gold bullion slightly

NYSE Gold BUGS index vs. gold price (2000-2011)



Source: Bloomberg

Given the small outperformance, we also take a closer look on selected gold stocks as shown in the chart below. In this period, we could also breakdown on precious metals royalty/streaming companies' performance vs. the gold miners.

What is precious metal streaming & royalty company?

Precious metal streaming companies pay an upfront payment to a mining project operated by a mining company, in exchange to receive all or part of the project's future precious metals production. The metals to which streaming companies have rights are usually a by-product of what the mining company is actually "digging for".

So, let's say it is copper mining project which also has some gold resources, then the streaming company may invest in the project in exchange for a right to obtain (a share of) the future gold production. The reason why mining companies are willing to extend such rights, besides obtaining early funding for the project, is to share the risk of the mining project.

Royalty companies, on the other hand, also provide upfront payment to a mining project, but instead of receiving a part of production, the receive a royalty on the by-product sales of the mining project. As the two business models are fairly similar, we will just refer to them as streaming companies. There are two main appealing characteristics of the metal streaming business model:

- Less risk and lower capital requirement as compared to mining companies, while generating stronger cash flows.

  Streaming companies purchase produced metals at a fixed price from the project regardless of the cash cost of the project, and there is no additional capital requirement after an initial investment.

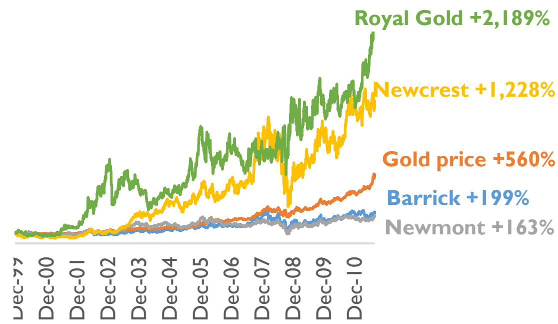
- Free perpetual option on miners' increase in reserve and future discoveries

  When streaming companies make a deal with the mining company, only the prospects of the initial project phases are considered in the IRR calculations. However, a lot of money can be made in the later phases of the project. So, the ultimate payoff for streaming companies occurs when a project proceeds beyond the initial phases. Another upside is when precious metals price rise, which increases the reserves that can be mined economically by the mining company.

Streaming companies are reckoned as the safest play to leverage on gold price.

Gold stocks performance varied greatly

Gold stocks price vs. gold price (2000-2011)



Source: Bloomberg

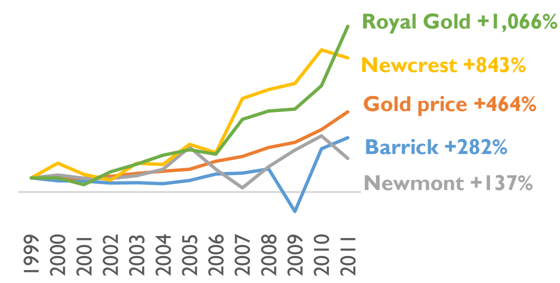
During this period, the streaming companies like Royal Gold, outperformed miners and gold bullion. The streaming companies are insulated from the increase in mining operating costs, which enabled them to fully capitalize on the gold price appreciation.

It is interesting to note that the outperformance is not only exhibited by the precious metal's streaming company. For instance, the largest Australian gold mining company, Newcrest, was also a standout. The key to outperformance can be discovered in their financials.

In the chart below, we display the gold mining companies cumulative EBITDA per share growth vs. with the cumulative increase in annual average gold price.

Gold stocks performance varied greatly

Gold stocks EBITDA/share vs. average gold price (2000-2011)



Source: Bloomberg

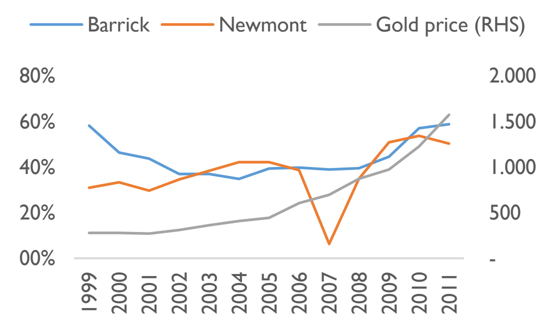
Notably, the chart looks quite similar with their share price performance.

What went wrong with the underperformers such as Barrick Gold and Newmont Mining?

1) Minimum EBITDA margin improvement despite substantial increase in gold price

Barrick and Newmont's margin did not expand as much as increase in gold price

EBITDA margin vs. annual average gold price (2000-2011)



Source: Bloomberg

The use of overoptimistic gold price assumptions in project assessments

From 2000 to 2011, both companies' EBITDA margin is relatively stable and only increase moderately compared to the robust increase in gold price. According to GFMS Gold survey[5], the rise in operating cost is attributed to changes in their mine plan to mine lower grade materials aimed to increase the life of mine.

While this is a good strategic move, they were flying too close to the sun. For instance, Barrick and Newmont gold price assumption increased by 3.5x to US$ 1,400 during 2005-2012, following which a lot of resources seemed profitable to mine. Yet, actual gold prices did not meet expectations, resulting in below par IRR.

Poor project management

Beyond changes in the mine plans, the operating cost escalation was also caused by poor management as pointed out by a McKinsey report[6]. Based on their research, McKinsey found 2/3 of projects exceeded budgets by 60% and half of the projects experienced delays between 1-3 years.

Ignoring relevant costs in project assessments

Some analysts suspect this is because the gold mining companies' measurement bias through "mine-only" focus accounting, which masks true operating cost.

So, what does this mean? Previously, when gold mining companies were doing feasibility studies, the mining cost estimates only included mine-level cash cost (known as C1), which covers the costs of mining, processing, and administration.

However, the "true" costs incurred during mine developments (which can take up to 10 years) also include expenses like care-and-maintenance of land, social acceptance spending during pre-construction, additional exploration drilling, and R&D expenses. Obviously, not accounting for these expenses led to poor returns on their investments.

[5] O'connel R., Tankard, W., Alexander, C., et al. GFMS Gold Survey 2012. *Thomson Reuters*

[6] Callaway, G. & Ramsbottom O., Can the gold industry return to the golden age?. McKinsey & Company

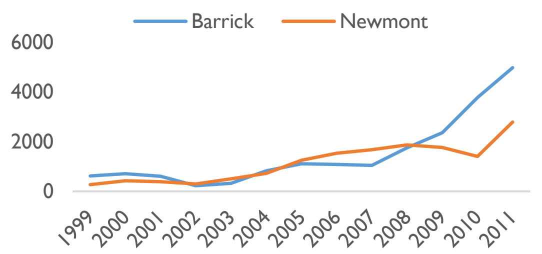
It is worth noting that the foregoing has led to the adoption of a new cost measurement metric by the gold mining industry (via co-ordination of the World Gold Council) called "All-In Sustaining Costs" (AISC). The costs according to the AISC metric are about twice as high as compared to the CI metric.

Mine-level (C1) operating costs	All-in Sustaining Cost (AISC)
- Mining cost - Processing cost - G&A expense - By-product credits	- C1 operating costs - Royalties - Sustaining capital costs - Near-mine exploration and evaluation - Corporate overheads

2) Aggressive capex and M&A led to increase in net debt and significant equity dilution

Aggressive capex during 2000-2011

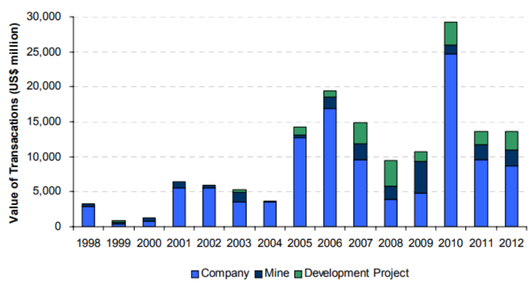
Capex, in US$ million



Source: Bloomberg

M&A spree in the gold mining industry

Total transaction in the gold mining industry, US$ million



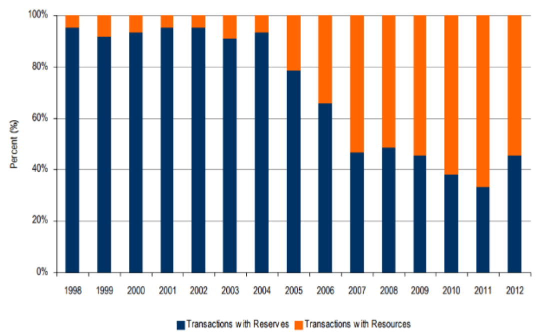
Source: Deutsche Bank research

Aggressive capital expenditure has elevated the debt level. According to McKinsey research[7], the capital expenditure by large gold companies increased tenfold between 2000-2012.

Miners engaged in more risky acquisitions, shifting their focus to resources and away from reserves in the later part of gold bull market in 2000-2011:

Acquisition had becoming riskier as there are more transaction relying on resources instead of reserves data

EBITDA margin vs. annual average gold price (2000-2011)



There is no guarantee that resources can be converted to reserves.

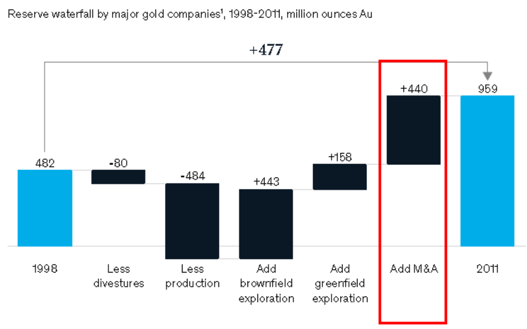
Source: Deutsche Bank research

The gold mining industry also saw over 1,000 acquisitions with a combined value of US$ 121 billion during the 2000-2010 period, a more than fourfold increase compared to the prior decade.

The acquisition spree was led by the large gold mining companies which paid hefty premiums to increase their reserves.

Large part of the reserve replenishment was coming from M&A

Major gold companies' reserve movement from 1998-2011 in million ounces



Source: McKinsey research

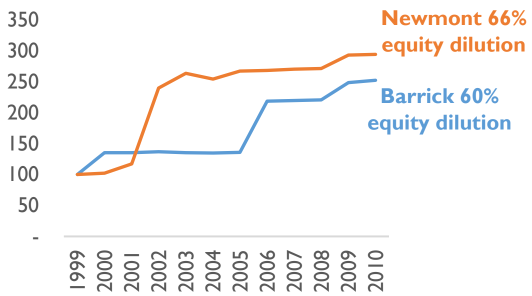
[7]Callaway, G. & Ramsbottom O., Can the gold industry return to the golden age?. McKinsey & Company

Many of these deals were made under the assumption that the gold price would continue to increase. Some industry experts even predicted that the gold price could rise above US$ 5,000, at the time.

The actual gold price development was below expectation, and thus so were investment returns. To finance their capex (including the acquisitions), some large gold mining companies raised equity, which resulted in significant dilution for existing shareholders.

Barrick and Newmont's margin did not expand as much as increase in gold price

Barrick and Newmont no. of outstanding share, indexed base 100

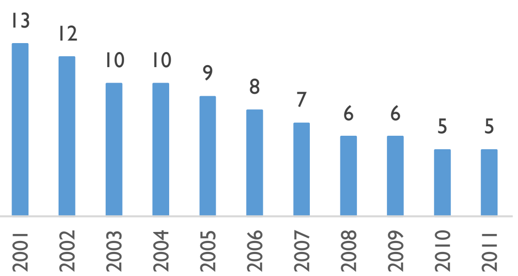


Source: Bloomberg

To top it all off, the production growth following the M&A activities did not offset the dilution incurred by the shareholders. When you look at the production volume per share, for instance, there was a clear downward trend in the period.

The production growth failed to offset the equity dilution

North American production per total outstanding share, in oz/1,000 shares

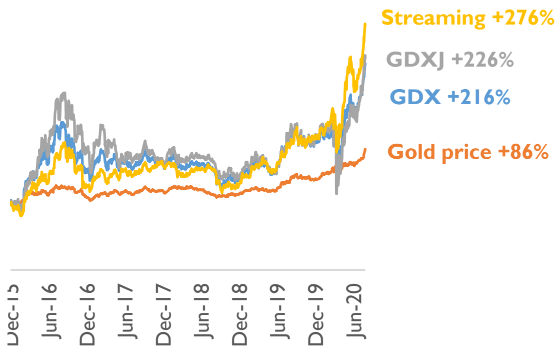


Source: Bloomberg

Gold recent bull (2015-present)

Gold equities significantly outperformed gold price

Gold stocks vs. gold bullion (2015 - present), indexed base 100

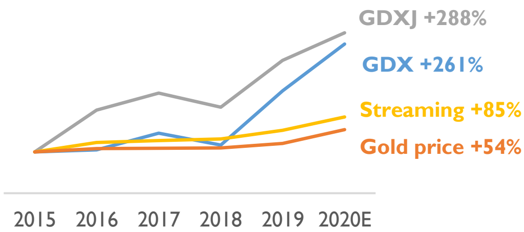


Source: Bloomberg

Gold miners' ETFs have outperformed the gold price significantly since the gold price bottomed in 4Q 2015. It is worth noting that the EBITDA per share of the top 5 members of the gold miners' ETFs, grew faster than the gold price.

The production growth failed to offset the equity dilution

Gold stocks EBITDA/share vs. average gold price (2015-2020E)



Source: Bloomberg

The chart above is based on weighted average of their market cap weighting in respective ETF. Please note that the performance varies significantly between gold mining companies.

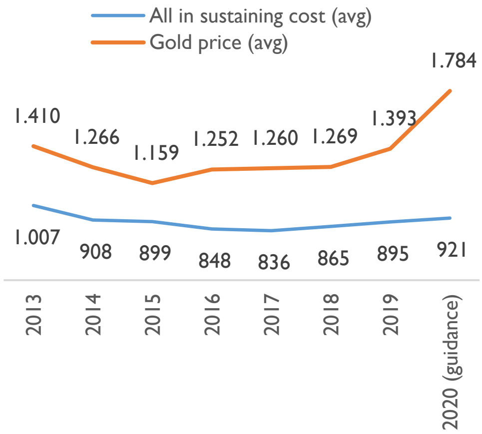
Among the five largest gold mining companies in GDX (Newmont Mining, Barrick Gold, Agnico Eagles, Kirkland Lake, and Newcrest Mining) there is only one company whose EBITDA per share grew slower than the gold price.

What has changed since the previous gold bull cycle?

- **Improved cost efficiency**

Cost have improved and it has not increased substantially despite the rising gold price

Large gold mining companies AISC vs. average gold price/oz



Source: Company presentations, Bloomberg

After the decline of gold prices during the 2011-2015 period, gold companies initiated cost efficiency improvement projects. Examples are asset portfolio optimization and operational improvements such as contract and labor management. The following decline in cash cost was also supported by a stronger US dollar and lower oil prices.

Even after the gold price started to surge in 2019, the cash cost only increased moderately. Of course, looking at just one year may not be sufficient to draw strong conclusions, but from company reports and earnings call transcripts we observe that the gold mining companies have not changed their long-term gold price assumption used in project assessments.

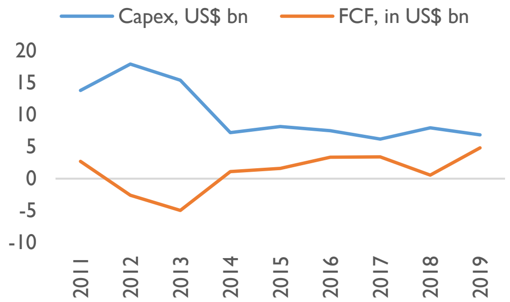
- **Capital expenditure rationalization**

Gold mining companies have significantly reduced capital spending to improve their balance sheet position. In particular, the exploration budget was dramatically reduced.

Those mining companies which are still spending on exploration focus more on brownfield projects or extending their existing mine life, basically converting their resources to reserves.

Rationalisation of capex

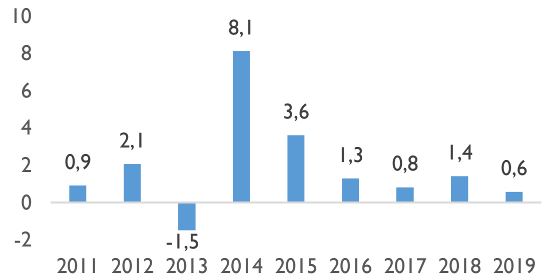
Large gold mining companies' capex and free cash flow, US$ bn



Source: Bloomberg

Leverage ratio has also improved substantially

Large gold mining companies net debt/EBITDA, x



Source: Bloomberg

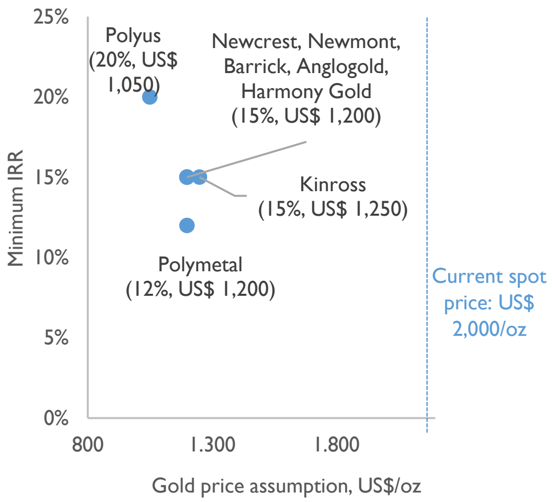
For instance, the share of capex allocated to brownfield projects by large gold miners has increased from 40% in 2012 to 57% in 2017. Brownfield projects are already de-risked significantly as such projects are located in the where all permits and infrastructure are already in place.

With the recent gold price appreciation, what is the risk attitude of gold mining companies?

Gold mining companies' investment criteria remain very conservative despite the increasing gold price.

Gold companies still maintain strict investment criteria

Gold mining companies' investment criteria



Source: Company presentations, Bloomberg

For instance, Polyus, the largest Russian gold producer, and the 4th largest producer in the world, maintains a minimum IRR of 20% based on a long-term gold price assumption of US$ 1,050/oz. according to their corporate presentation in July 2020.

When we are writing this report, we have not seen any large gold companies revising their long-term gold price assumptions for investment project selections.

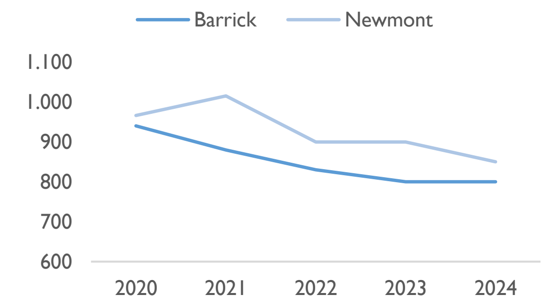
It is also worth noting that most large gold companies are still using a long-term gold price assumption of US$ 1,200/oz when calculating the value of their reserves as reported in their FY 2019 financial statements.

<u>How does the conservative stance impact to their production guidance, cost, and capital expenditure?</u>

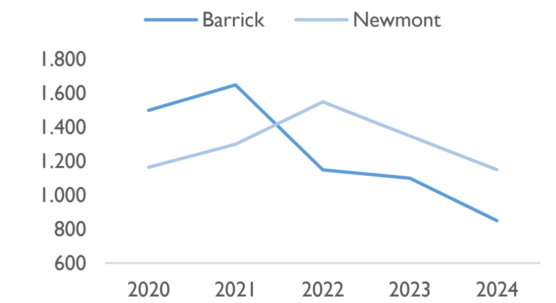
For instance, Barrick Gold and Newmont have laid out 5-10 years guidance and both projected a declining all-in sustaining cost and capital expenditure, while maintaining their production level! In line with their investment criteria, both companies still assume a long-term gold price of US$ 1,200/oz.

Barrick Gold and Newmont 5-year guidance: declining cost and capex while maintain (even increase) production level

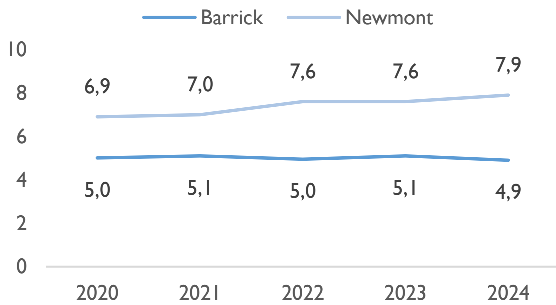
<u>All-in-sustaining cost, US$/oz</u>



<u>Capex, US$ million</u>



<u>Production, in million ounces</u>



Source: Companies annual report

If both companies could achieve their guidance, we will see tremendous growth on EBITDA and free cash flow.

Our on the back of an envelope calculations based on 2024 guidance and the current gold spot price of US$ 2,050/oz, indicate that Newmont free cash flow would be around US$ 8.4bn in 2024. This is similar to the FY 2019 free cash flow of BHP Billiton, which is currently the most valuable mining company in the world, with a market capitalization that is more than 2.4x larger than that of Newmont.

With such solid cash flow trajectory and low debt levels, gold mining companies have indicated to increase their dividend payout.

Obviously, it is still a big IF they could perform as guided, or whether they are tempted increase their long-term gold price assumption substantially.

We will closely monitor how gold companies will change their guidance, particularly in respect of their operating cost and capital expenditure, as mismanagement in this area was the cause of previous underperformance relative to gold bullion.

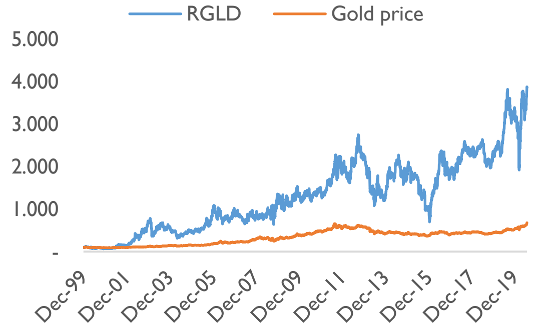
From earnings call transcripts we infer that the large gold mining companies included in the miner ETFs (excluding the streaming companies), are all still sticking with their gold price assumption. Here are some comments made in 2Q 2020 earning calls:

- Mark Bristow, CEO of Barrick Gold - *I must just reinforce, we still allocate capital at $1,200 (gold price assumption).*
- Nancy Buese, CFO of Newmont Mining - *Lastly, while the recent rise in gold prices notable, we will continue to use our conservative assumptions around $1,200 mine plan and continue our discipline around capital allocation.*
- Anthony Makuch, CEO of Kirkland Lake Gold - *I think at this point in time, we probably are going to stay with where we are. (responding to analyst question on US$ 1,300/oz gold price assumption for reserve). We're not planning to increase the – lower the grades that we mine just because the gold price is higher.*
- Sean Boyd, CEO of Agnico Eagles Mine - *It's up to the industry to maintain that conservatism in terms of the reserves and resources, and we're at US$ 1,200. So, we're not going to be tempted to go a lot higher.*

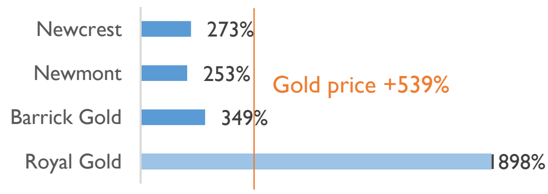
Precious metals streaming/royalty companies has proven to be the safest leverage play on gold

Example 1: Royal Gold

Royal Gold share price vs. gold price



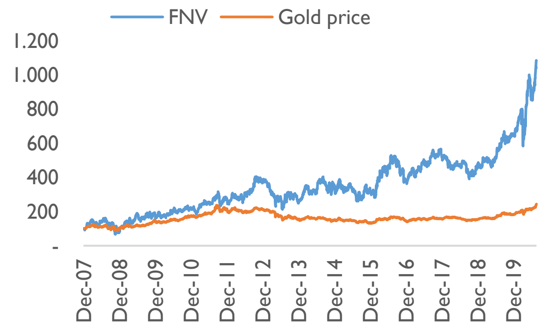
Cumulative EBITDA/share growth since 2000



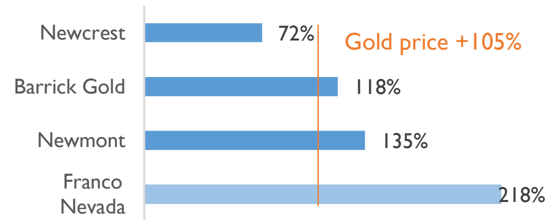
Source: Bloomberg

Example 2: Franco Nevada

Franco Nevada share price vs. gold price



Cumulative EBITDA/share growth since 2008

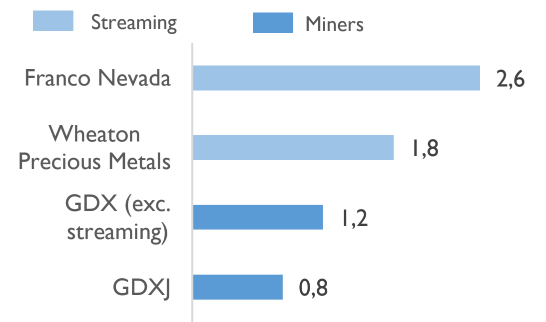


Source: Bloomberg

Precious metals royalty/streaming companies have an outstanding track record in outperforming both gold miners and gold bullion. Cost predictability and free perpetual optionality have served them right in the previous gold bull market. Given their popularity, royalty/streaming companies are trading at significant premium to gold mining companies.

Precious metals streaming companies' valuation are substantially higher than the miners

Price/NPV multiples based on spot price - July'20



Source: Bloomberg

Investment implication

We believe gold equities could still provide levered investment on precious metals. Diversifying between precious metals royalty/streaming and gold mining companies could be an attractive combination to benefit from rising gold price.

Precious metals royalty companies offer the safest way for investors to leverage on rising gold price as it eliminates the risk from mining cost escalation.

The free perpetual option without additional capital call provides further upside beyond the increase in the gold price. However, the valuation is substantially higher than the gold mining companies.

We believe gold mining companies risk-reward is attractive at the current level. Despite of the sluggish track record, the fundamentals of gold mining companies seem to be improving significantly after the steep gold price decline during the 2012-2015 period.

This is exemplified by their profit growth, which outpaced the increase in gold prices. As such, this has translated in significant outperformance of gold miner stocks return vs. gold since the last bottom of gold price in 2015.

We will closely monitor how the gold mining companies change their business plans as the gold price continues to rise.

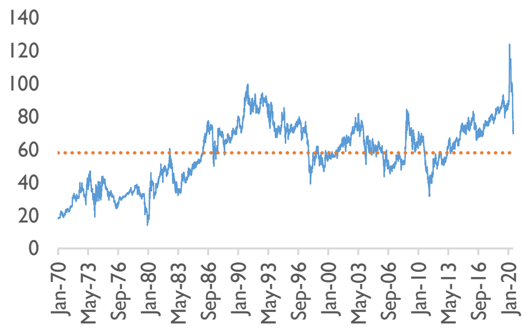
Silver – poor man's gold

The silver price has risen recently on the back of higher inflation expectations and US dollar depreciation. An increase in silver prices was "due" as the gold-to-silver ratio was at a record high of 120x.

After the recent increase in the silver price, the ratio is now at 75x, which is still well above the long-term average of 59x. If the long-term ratio is of any relevant reference, then there would still be room for a further upside in silver prices.

Despite the recent rally in silver price, gold to silver ratio is still above the historical average

Gold to silver ratio



Source: Bloomberg

We like silver for its gold-like features, such as the potential to hedge against inflation. An extra plus is that there are fewer records of governments confiscating silver, as compared to gold in times of financial repression.

Silver confiscation in 1934

There is a noteworthy scenario of silver confiscation in the 1934 when 32nd US president Franklin Roosevelt once signed Executive Order 6814 requiring the surrender of silvers in exchange for 50 cents per troy ounce. This was done to collect all possible "idle" silver bullion and silver mine deposits for coinage.

In history there are no apparent cases of silver confiscation apart from the previous purpose. This gives us confidence that the probability of silver confiscation is low.

Aside from historical precedents, it would currently not make sense to confiscate silver because the main use of silver is as a raw material (as opposed to a store of wealth).

Industry accounts for 49% of total silver demand, while it accounts for only 7% of total gold demand. However, this may change in case silver will be hoarded as a store of value.

In a scenario where silver is widely kept as store of value, basically poor man's gold, we expect that the silver price could be substantially higher than it is now.

It would be interesting to see how the demand for silver would be affected if silver ETF AUM would close in on gold ETF AUM. In the table below we simulate silver demand scenarios under different assumptions for the size of silver ETF AUM, as a percentage of total gold ETFs AUM.

Country	Event of Confiscation	Year	Authority
USA	Executive Order 6102: Confiscation of gold	1933	Franklin D. Roosevelt
USA	Executive Order 6814: Confiscation of silver	1934	Franklin D. Roosevelt
Italy	Gold for Fatherland: In exchange for "Gold for Fatherland" steel wristband	1935	Benito Mussolini
Czech Republic	German Occupation of Czechoslovakia: $97 million worth Czech owned gold forced to Reichsbsbank	1939	Nazi Regime
Australlia	Press Release No. 29: Legalization of gold seizure from citizens	1959	Phillip Lynch
UK	4 Precious Coins: Requiring liscense to own more than 4 metal (gold) coins	1966	UK Labor Government

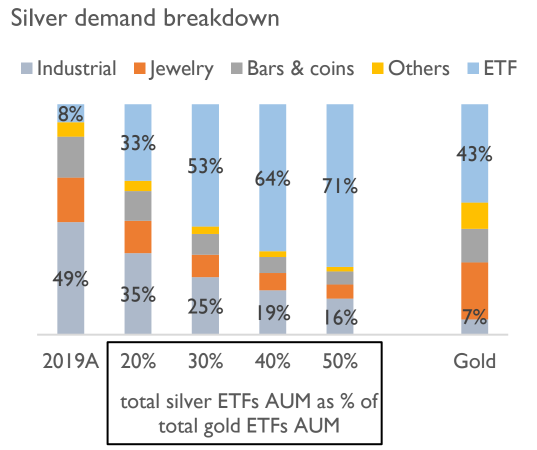
Currently, total silver ETFs AUM as % of gold ETFs AUM is about 12%

Silver ETFs AUM as % of Gold ETFs AUM	Silver ETFs AUM, US$ bn	Increase in silver ETF holdings, Moz	% increase from FY19 silver demand
20%	30.2	479	50%
30%	45.3	1,089	113%
40%	60.5	1,698	176%
50%	75.6	2,308	240%

Given the low base of silver ETFs AUM, the demand for silver could increase significantly. For instance, if we were to assume total silver ETFs AUM reached 50% (US$ 75.6bn – AUM) of total gold ETFs AUM, the demand for silver would more than triple compared to FY 2019 total silver demand.

If total silver ETFs AUM is 30% (or above), silver would be seen as a store of value because demand contribution for investment will be similar to gold

Silver vs. gold demand breakdown



Source: Bloomberg

In summary, three factors contribute to our positive view on silver: (i) the current high gold-to-silver ratio, (ii) negligible history of confiscation by governments and (iii) a lot of upside potential in silver demand from silver ETFs.

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-The End-

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