The Gold market future perspectives

Point of View

July 2020

Contents

Executive Summary

BDO

Did you know that?

250 kg
is the weight of the world's largest Gold bar

78%
of the world's yearly supply of Gold is used in jewellery

771 Tn USD
estimated worth of Gold that lies hidden in the ocean

1,064 °C
The melting point for Gold

6 grams
(~1%) of Gold must be contained in Olympic Gold medals and - at least 92.5% of silver

There is enough Gold in the
Earth's core
to coat its entire surface

497,000
The number of Gold bars held by the US Federal Reserve[1]

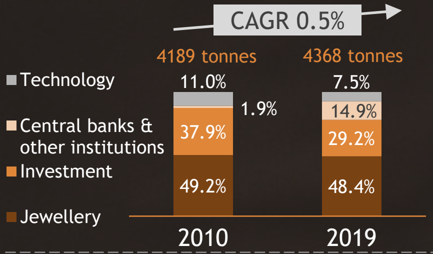
Gold has been discovered on
every continent
on the Earth

Source: Kitco; World Gold Council; Toi Gold Museum; Federal Reserve Bank of New York; Forbes; Business2community
Notes: (1) As of 2019

Gold market overview

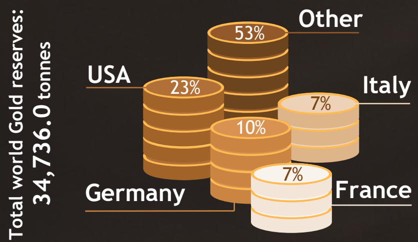
Gold demand

Gold demand by categories, tonnes



- Demand reached **4,368.0** tonnes at the value of **195.0** Bn USD in 2019
- Central Banks[1] demand grew by **721.6%** in 2019 since 2010

Countries with the largest Gold reserves[2]



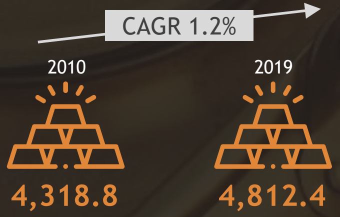
Top Gold consumers in 2010-2019

China 27.0%

India 23.0%

Gold supply

Gold supply, tonnes



- The supply increased by **2.5%** year-on-year in 2019 from **4,693.8** tonnes in 2018
- In 2019, above-ground stocks reached **197.6** thousand tonnes

Top Gold producer country

China remains the largest producer in the world with **420.0** tonnes in 2019

Top Gold producer company

Newmont

Newmont, USA

Revenue 2019: 9.7 Bn USD

Newmont produced **6.3** million ounces of Gold in 2019 and remained a global leading Gold producing company

Notes: (1) And other financial institutions; (2) As of December 2019

The Gold market future perspectives

Five last year vs. Five future year Gold Price in USD per troy ounce

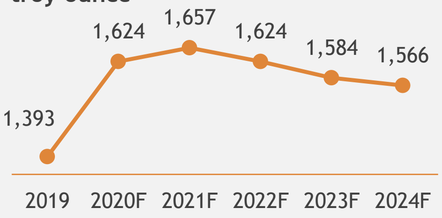
Gold price shows huge growth since Q4 2015, USD per troy ounce

1,106.0
Q4 2015

+43.1%

1,583.0
Q1 2020

Gold price projections, USD per troy ounce



Future of Gold

Trends

- Adoption of ESG[1] principles
- Investment process digitalisation
- Technological advances in mining

Risks

- Rise of cryptocurrencies
- High production costs
- Climate impact of mining

How crises impact on Gold

Price

- Heightened uncertainty leads to higher Gold prices
- Compared to other commodities, Gold price typically rises before a decline

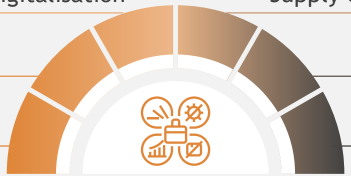
Return

- Gold is a well-known safe-haven asset in times of market turbulence
- Gold outperformed risk assets in major market downturns

COVID-19 impact on the Gold market

Opportunities and challenges for Gold mining companies

New projects and digitalisation
Lower energy costs
Rising demand for Gold



Supply chain interruptions
Decline in production
Decrease in profitability

Source: World Gold Council; Toi Gold Museum; Federal Reserve Bank of New York; Forbes
Notes: (1) Environmental, social and governance

Chapter 1: How the role of the Gold was evolving from a historical perspective?

First gold coins were introduced in 560 B.C. in Lydia and were used as a currency before the introduction of paper money

First use of Gold to make decorative objects, jewellery and coins

While pieces of natural Gold have been discovered in Spanish caves that dates to 40000 B.C., **the first use of Gold is dated back to 4000 B.C.**

4000 B.C

A **culture, which existed** in defined today as **Eastern Europe area, begins to use Gold to make fashion** decorative objects

560 B.C.

The first coins made purely **from Gold** were issued in Lydia, a kingdom of Asia Minor

Further use of Gold in the international monetary system

Before the classical Gold standard, **the Gold specie standard** arose from the widespread acceptance of **Gold as a currency.**

1284

Venice introduces **the Gold Ducat**, which soon **becomes the most popular coin in the world**
Great Britain issues its first major Gold coin, the **Florin**

1792

The Coinage Act places the USA on a **bimetallic silver-Gold standard**

International adoption of the Gold standard has lasted for a century

By 1900 the majority of countries[1] have accepted a **Gold standard**. The country's money supply was linked to Gold.

1816

Great Britain officially ties the **pound to a specific quantity of Gold** at which British currency is convertible

1900

The Gold Standard Act places the USA officially on the Gold standard

The classical Gold standard has linked country's money supply to Gold and existed until the World War I

Source: National Mining Association; World Gold Council; GoldPrice
Notes: (1) Apart from China, and some Central American countries

Bretton Woods system broke down in 1971 with the end of Gold standard in the USA, and today the Gold is traded freely

The end of classical Gold standard after the World War I

By the end of **1913**, the classical Gold **standard was at its peak**, but the World War I became a reason for many countries to suspend or abandon it.

1914-1919: A **strict Gold standard is suspended** by several countries, including USA and Great Britain, during the World War I

1934: **The Gold Reserve Act** gives the government the permanent title to all monetary Gold and halts the minting of Gold coins

The Bretton Woods system after the World War II

Bretton Woods established a system of payments based on the dollar, which defined all currencies in relation to the dollar, itself convertible into Gold.

1944: The Bretton Woods Conference establishes a Gold exchange standard

1961: The London Gold Pool is formed to defend the Gold price of 35 USD per ounce[1]

Post Bretton Woods Gold-pegged exchange rate system

The problem of the US deficit intensified and, therefore, the Bretton Woods system collapsed.

1971: The US terminates all Gold sales or purchases. While the Smithsonian Agreement is signed by the Group of Ten (G-10), creating a new dollar standard

2003: On the Australian Securities Exchange, the first Gold-backed ETF[2] is launched

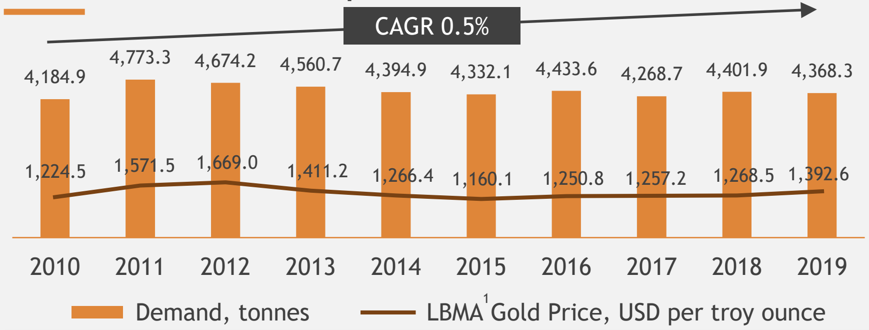
2019: ECB[3] and other 21 Central Banks decide not to renew the Central Bank Gold Agreement

Source: National Mining Association; World Gold Council; GoldPrice
Notes: (1) 1 USD in 1961 is equivalent in purchasing power to about 8.58 USD in 2020; (2) Exchange traded fund; (3) European Central Bank

Chapter 2: What is the current state of the Gold market worldwide?

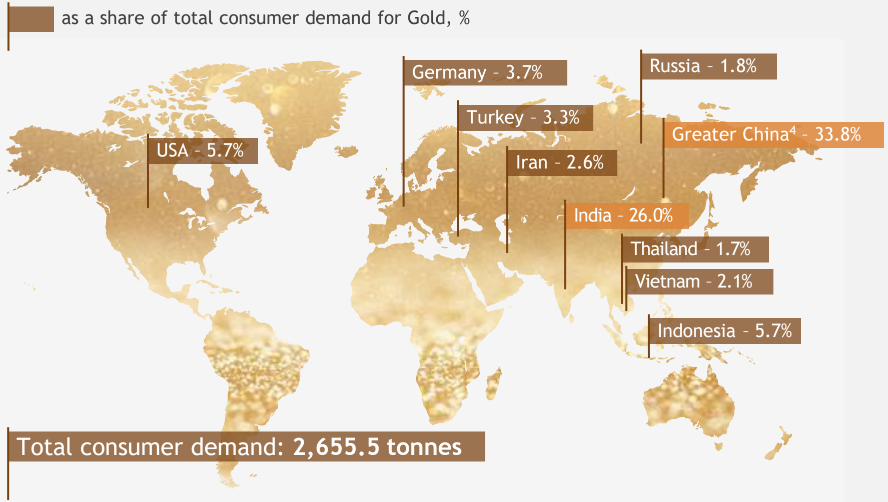
Gold demand remained almost equal during the last 9 years with a minor 1% slump in consumer demand in 2019

Global Gold demand and price



- **1%** decrease in Gold demand in 2019 was due to the rise of investments into ETFs[2]
- In 2019, Gold-backed ETF reached the highest inflows in history by **438.4%** compared to 2018 and demand reached 401 tonnes due to the monetary easing and investors' geopolitics concerns

TOP-10 leading Gold consumer countries in 2019[3]

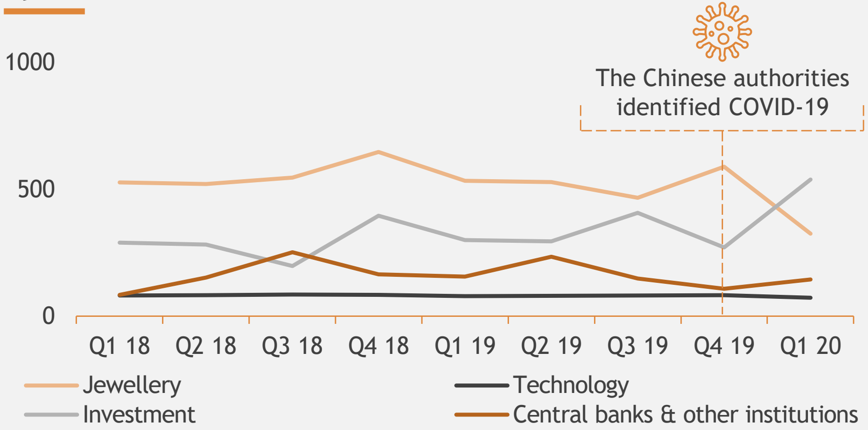


Gold has emotional, cultural and financial value and different people across the globe buy Gold for different reasons, often influenced by national socio-cultural factors, local market conditions and wider macro-economic drivers.

Source: World Gold Council; Refinitiv GFMS; Metals Focus
Notes: (1) The Global Authority for Precious Metals; (2) Exchange-traded fund; (3) By consumer demand of Gold; (4) Includes data for Hong Kong, Macau, and Taiwan

COVID-19 pandemic boosted safe-haven ETF inflows, but undermined consumer-focused sectors of the Gold market

Dynamics of Gold demand, tonnes



- Gold demand in value terms reached **55 Bn USD** (1083 tonnes) in Q1 2020— the highest since Q2 2013. The price also reached new record highs in Indian rupees and Turkish lira
- Gold-backed ETFs reached the highest quarterly inflows for four years and reached **3,185 tonnes** by the end of Q1 2020

Gold demand trends in response to COVID-19

Demand for Gold coins grew by **36%** in Q1 2020 to **76.9 tonnes** due to the safe-haven buying by Western retail investors. Total bar and coin investment fell by **-6%** y-o-y.

Jewellery demand fell to the lowest on record in Q1 2020, led by a **65%**[1] decline in China – the largest jewellery consumer and the first market to succumb to the outbreak.

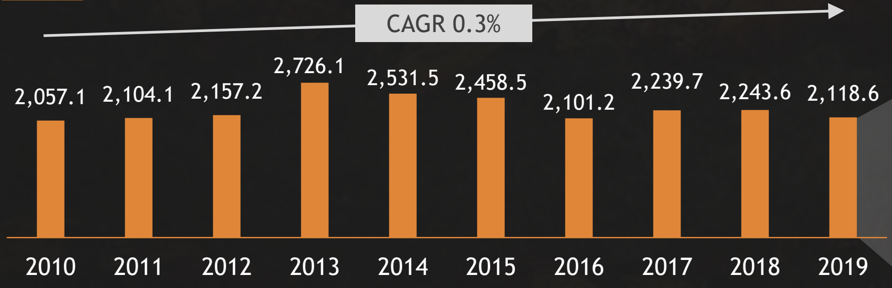
Central Bank net purchases were equal to **145 tonnes** in Q1 2020. Six Central Banks made net purchases of a tonne or more, compared with ten in Q1 2019.

Russia announced that it would suspend its long-term buying programme from April, reporting signals of a sharp **slowdown in global net buying.**

Source: World Gold Council; Metals Focus; World Health Organisation
Notes: (1) In Q1 2020 compared to Q1 2019

Jewellery makes up to 50% of the global Gold demand, but its demand volumes usually decline during crises

Jewellery Gold demand, tonnes

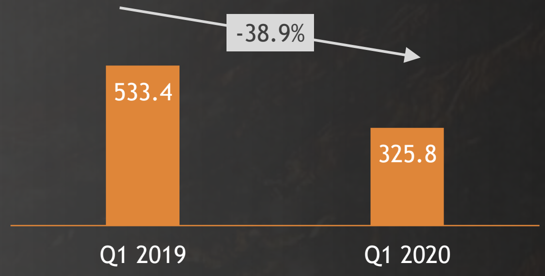


- In 2019, global Gold jewellery demand volumes fell by 5.6% due to the big Q3 2019 jump in the Gold price, which impacted on Gold affordability
- In terms of value, Gold jewellery demand grew by 3% to a five-year high of 94.3 Bn USD[1]

Top countries by jewellery demand in 2019, % of the world total demand

Indonesia	Russia	USA	India	China
2.1%	2.4%	6.9%	28.8%	36.1%

Jewellery Gold demand impacted by COVID-19, tonnes



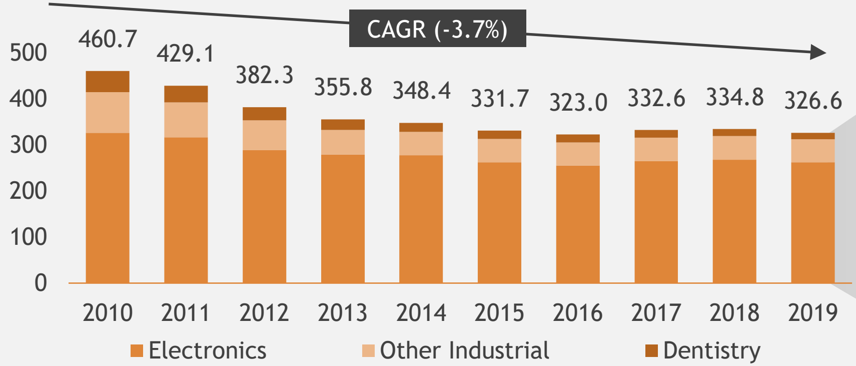
- Due to the COVID-19 pandemic, the world jewellery demand decreased by 38.9% to the record low level of 325.8 tonnes. In terms of value, global demand sank by 26%, to 16.6 Bn USD — the lowest level since Q2 2010 in the aftermath of the Global Financial Crisis
- In China, where it is the largest jewellery market, the gold demand fell by 65% y-o-y to 64 tonnes, while in India the gold demand showed a decline of 41% to 73.9 tonnes in Q1 2020

Source: World Gold Council

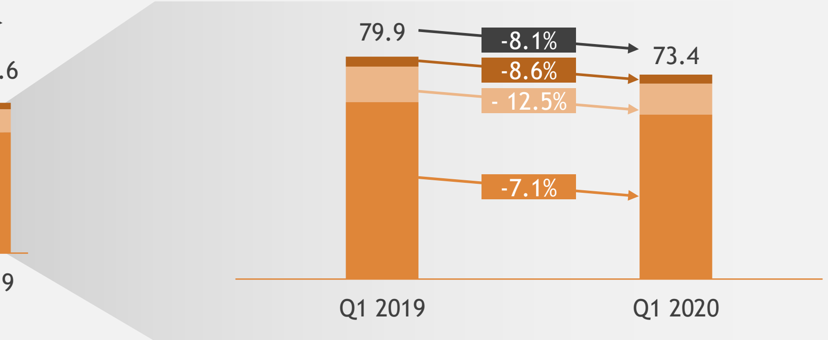
Notes: (1) Much of this came from a 9% y-o-y increase in Q4 demand, which reached 27.8 Bn USD — a seven-year high

The Gold demand in technology fell notably in the last 10 years and had an adverse effect because of the COVID-19

Technology Gold demand, tonnes



Technology Gold demand impacted by COVID-19, tonnes



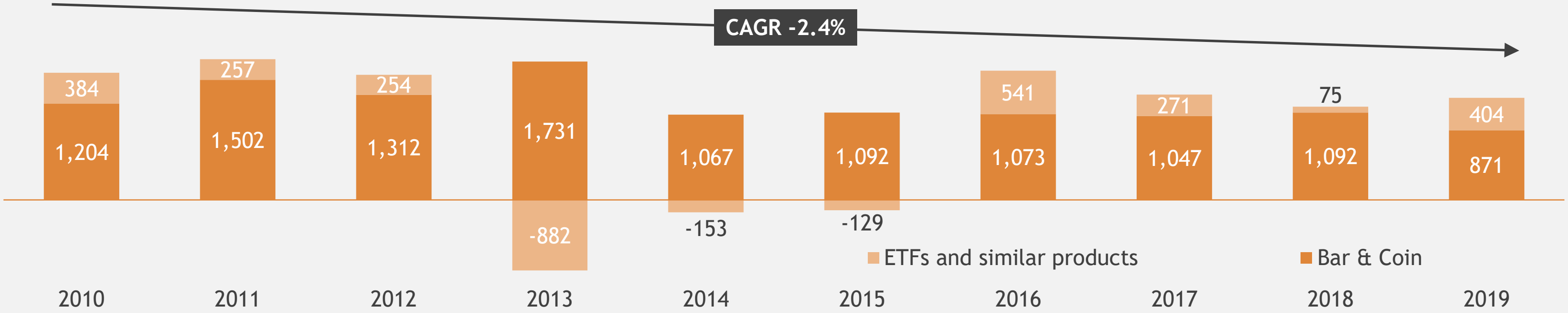
- Gold has been vital for a long time for innovations in electronics, for medicine, engineering and environmental management
- In 2019, the electronics industry was tenuous, and, as a result, there was a 2.4% fall in demand for Gold in the whole technology sector
- Dental demand continued to decline, as Gold loses its market share to more cost-effective and cosmetically-sympathetic alternatives

- Demand in the technology sector fell by 8.1% to 73.4 tonnes in Q1 2020 compared to Q1 2019
- 3 major electronics fabrication hubs recorded falls in demand in Q1 2020: China and Hong Kong (-20%), South Korea (-4%) and Japan (-3%)
- Other industrial applications fell to 11.2 tonnes as a result of COVID-19 negative impact on key markets

 Source: World Gold Council

Nevertheless, Gold makes up less than 1% of the investment portfolio globally, it might become a reliable store of value

Investment Gold demand, tonnes[1]



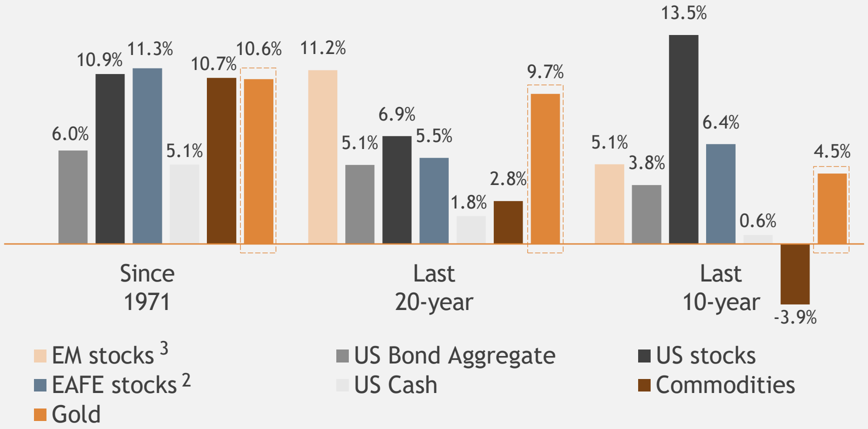
- The volume of Gold bought by investors has decreased with a CAGR of **2.4%** over the last decade
- Annual demand for Gold bars and coins dropped **20%** y-o-y to 870.6 tonnes – the lowest level since 2009, mainly due to the economic slowdown in India and China
- Demand for ETFs and similar products increased by **375%** y-o-y in 2019 encouraged by momentum-driven inflows

Source: World Gold Council

Notes: (1) Negative numbers in ETFs and similar products are the result of outflows from ETFs

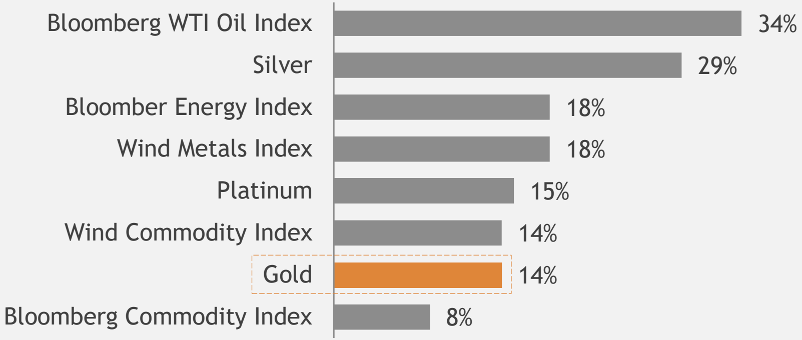
Gold has delivered positive returns over the long run, outperforming the key asset classes

Average annual return of key global assets[1]



Gold is a beneficial asset during periods of uncertainty as it generates long-term positive returns. For the last 50 years, average returns of Gold reached 10.6%, outpacing the US CPI[4].

Annualised volatility of commodities and Gold, 2009-2019

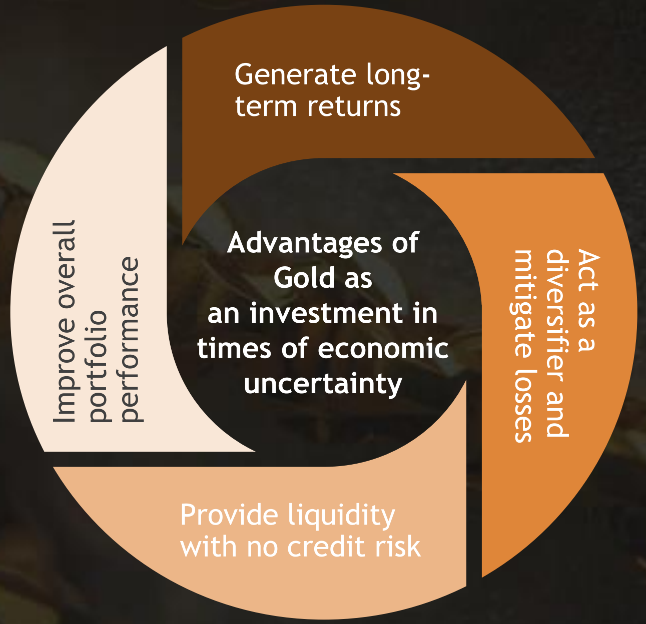


Gold is one of the most effective commodity investments in terms of volatility, outperforming other metals, individual commodities and broad-based commodity indices.

Source: World Gold Council – The relevance of Gold as a strategic asset – [12 February 2020]
Notes: (1) As of 31 December 2019; (2) Europe, Australasia and Far East stocks; (3) Emerging market stocks; (4) Consumer Price Index

Gold might be used in portfolios to protect purchasing power and to minimise losses during the market stress

Gold investment instruments	Advantages	Disadvantages	Examples
Bar & Coin	▸ Direct exposure ▸ Tangible ownership	▸ Storage ▸ Can be difficult to liquidate	Collectible coins Bullion
Gold certificates	▸ Direct exposure ▸ No need to own physical gold	▸ Fees ▸ No upside beyond Gold price changes	Perth Mint Certificates
ETFs and mutual funds	▸ Direct exposure ▸ Highly liquid	▸ Fees ▸ No upside beyond Gold price changes	SPDR Gold Shares[1]
Gold Futures and Options	▸ Little up-front capital required ▸ Highly liquid	▸ Highly leveraged ▸ Contracts are time-limited	Futures contracts from the Chicago Mercantile Exchange
Gold mining stocks	▸ Upside from mine development ▸ Usually tracks Gold prices	▸ Mine operating risks ▸ Exposure to other commodities	▸ Barrick Gold[2] ▸ Goldcorp[3] ▸ Newmont Goldcorp[4]



Liquidity — Up-front capital required — Easiness of acquiring — Additional mark-ups

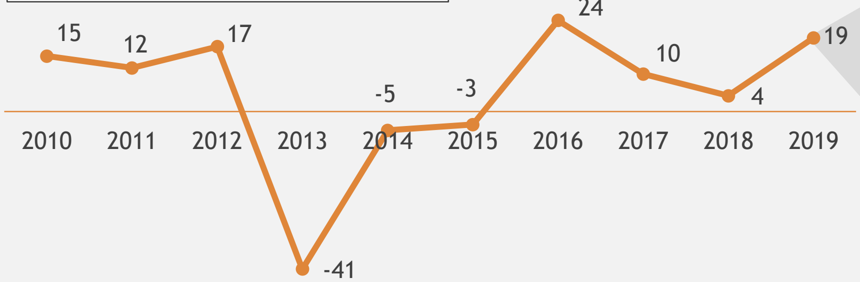
Source: World Gold Council; Morgan Stanley

Notes: (1) NYSEMKT: GLD; (2) NYSE: ABX; (3) NYSE: GG; (4) NYSE: NEM

The COVID-19 pandemic was the key driver of the sharp safe-haven rise of investment into ETFs in Q1 2020

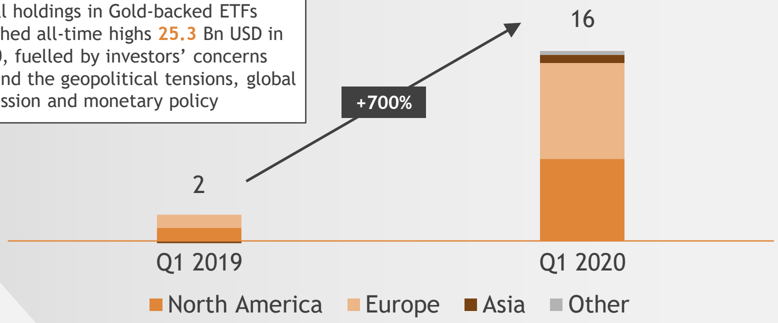
ETFs investment flow, Bn USD

Physically-backed Gold ETFs, ETCs[1] and similar funds account for approximately **1/3** of investment Gold demand.



ETFs investment flow, Bn USD

Total holdings in Gold-backed ETFs reached all-time highs **25.3** Bn USD in 2020, fuelled by investors' concerns around the geopolitical tensions, global recession and monetary policy



Country ETF flows[2]

- The USA 19.2 Bn USD
- The UK 7.7 Bn USD
- Germany 1.5 Bn USD
- Switzerland 0.3 Bn USD
- Canada 0.3 Bn USD

y-o-y growth in 2019-2020

Top ETF flows[2]

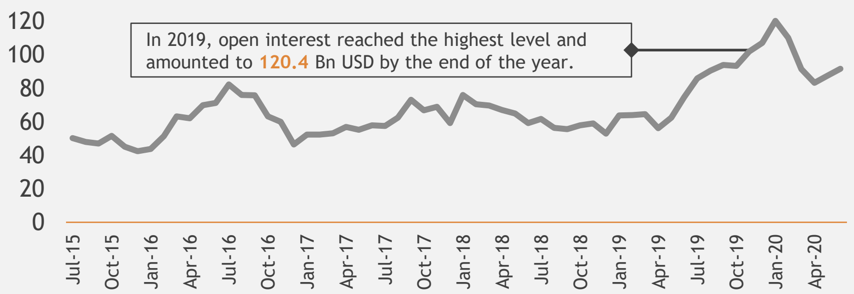
- iShares Physical Gold ETC 4.3 Bn USD
- iShares Gold Trust 4.2 Bn USD
- Xtrackers[3] 0.6 Bn USD
- Xetra-Gold 0.7 Bn USD
- Sprott Physical Gold Trust 1.0 Bn USD

Source: Bloomberg Company Filings; ICE Benchmark Administration; World Gold Council

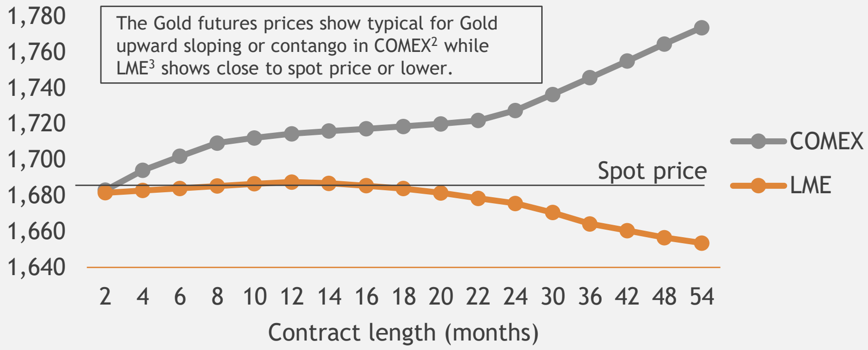
Notes: (1) Exchange-traded commodities; (2) Year to date as of 22 May 2020; (3) Physical Gold Euro Hedged ETC

Open interest in Gold futures has significantly increased in 2019 and remains on the high level

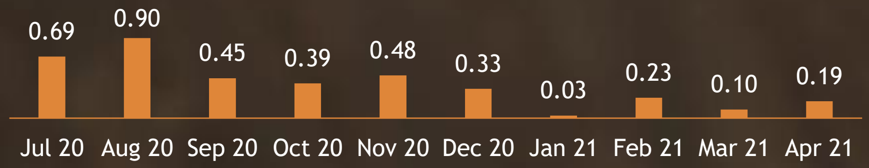
Gold futures open interest COMEX[1], Bn USD



Gold futures curve as of 5 June 2020, USD per troy ounce



Put/Call Open Interest Ratio[4]



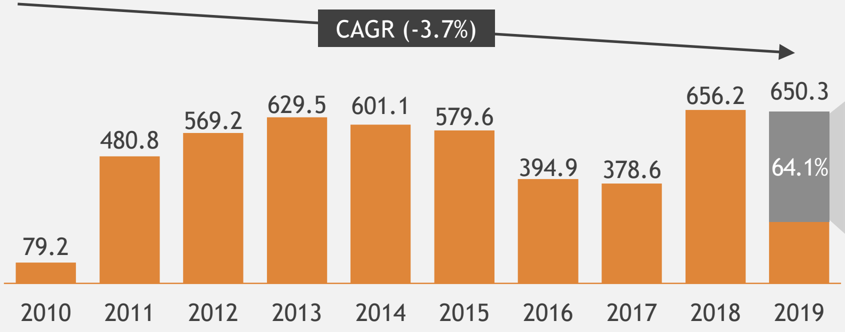
Put/Call Open Interest Ratio of Gold Options[5] on the Chicago Mercantile Exchange remains below 1 that suggests that bullish sentiment is building on the market. Investors are speculating on the fact that the market will move higher in the nearest future.

Source: World Gold Council; CME Group; Barchart

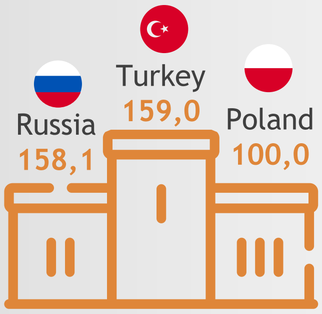
Notes: (1) As of the first day of each month; (2) Commodity Exchange, part of Chicago Mercantile Exchange; (3) London Metal Exchange; (4) Calculated as Put Open Interest Total divided by Call Open Interest Total; Data as of 18 June 2020; (5) American Options

Safety, liquidity, and returns of Gold encourage Central Banks to use this precious metal as the reserve asset

Global Central Banks net purchases of Gold, tonnes



Top-3 buyers of Gold among Central Banks in 2019, tonnes



Safety: Gold, which is held in a Central Bank's own vault or on an allocated basis, is the only reserve asset that is entirely free from default risk.

Liquidity: Gold tends to increase in price during financial crises, adding to its appeal as a liquidity management tool during periods of crises.

Return: Gold can enhance the risk/return profile of a Central Bank portfolio. Lack of correlation to other reserve assets makes it an effective portfolio diversifier.

Impact of COVID-19 on Gold demand among Central Banks

In Q1 2020, Central Banks continued to buy Gold to prevent growing global volatility.

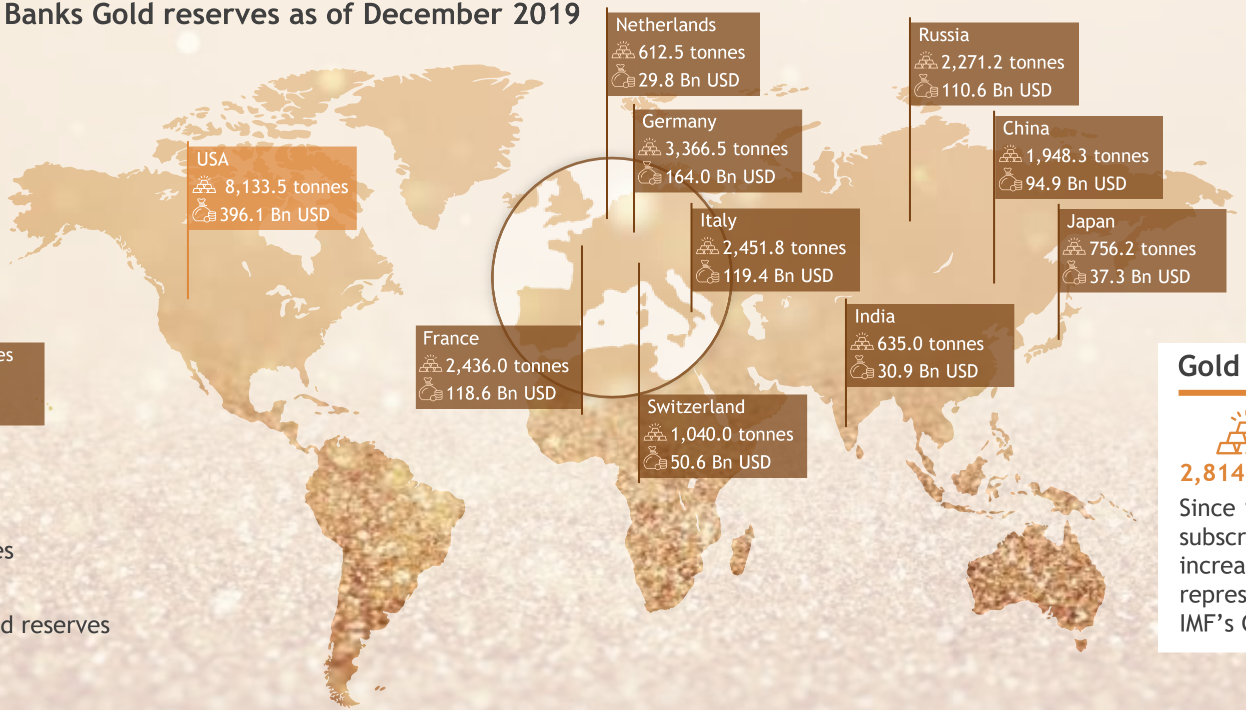
Net purchases amounted to 145 tonnes showing -8% decrease in comparison with Q1 2019.

Source: World Gold Council

Notes: (1) Based on the survey all central banks that currently hold Gold (42) conducted by World Gold Council in 2019; (2) Data as of May 2020; (3) Over-the-Counter market; (4) In 2020

Central banks increase Gold reserves to provide protection against both domestic and external shocks of the economy

Top-10 Central Banks Gold reserves as of December 2019



Total world Gold reserves
34,736 tonnes
1,691,655.1 USD

Gold reserves

Value of Gold reserves

Gold reserves of the IMF[1]

2,814 tonnes

130 Bn USD

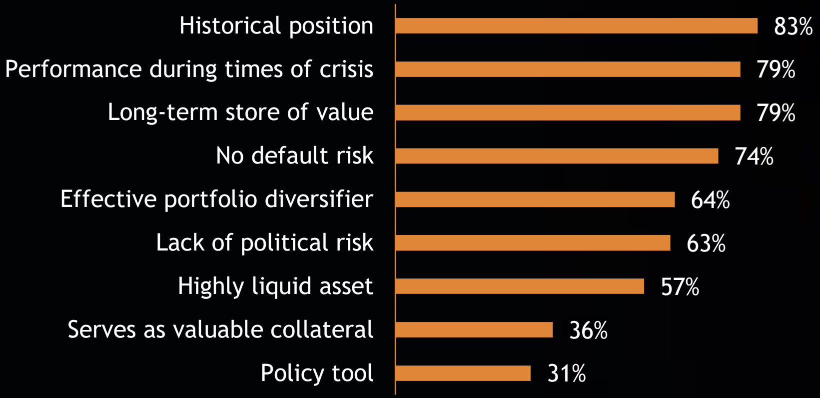
Since 1944, 25% of initial quota subscriptions and subsequent quota increases were paid in Gold that represents the largest source of the IMF's Gold.

Source: World Gold Council; IMF

Notes: (1) International Monetary Fund

Gold as a monetary asset held by a Central Bank plays a prominent role in reserve asset management

Reasons to hold Gold among Central Banks in 2020[1,2]



Why are Central Banks buying Gold?

Manage risk and promote stability

Hedge against the US dollar

Hedge against inflation

The instruments commonly used in managing Gold reserves[1]

60% Swaps

47% Deposits

13% Forwards

13% Options

13% Gold as a collateral

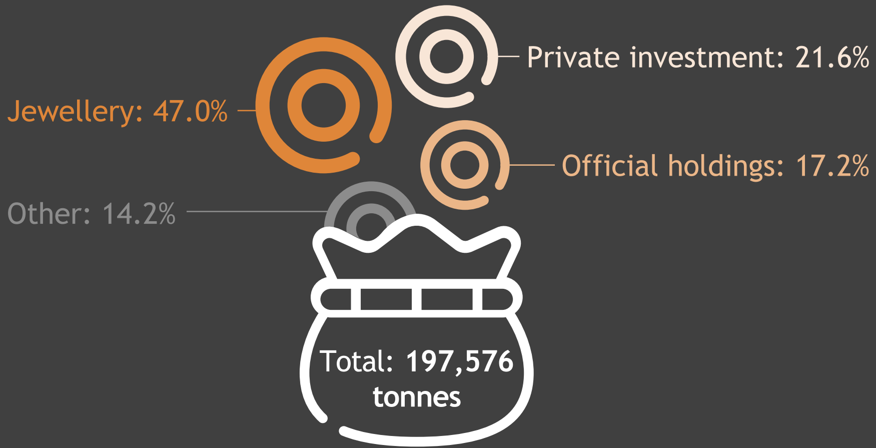
Central Banks Gold agreements

Between 1999-2019, sales by European banks were regulated by the Central Bank Gold Agreement. These agreements (last agreement was on May 2014) limited sales from 15 of the world's largest holders of Gold to a rate the signatories felt the market could absorb with minimal disruption.

Source: World Gold Council
Notes: (1) Based on the survey all central banks that currently hold Gold (42) conducted by World Gold Council in 2019; (2) Data as of 12 May 2020

Total amount of mined Gold amounts to almost 200 K tonnes as of 2019 with nearly half of it used for jewellery

Total amount of Gold that has been mined as of 2019



- Each year, global Gold mining adds approximately 2,500-3,000 tonnes to the overall above-ground stock of Gold
- If every single ounce of mined Gold were placed next to each other, the resulting cube would measure around 21 metres on each side, which is equal to '7-floors building'

Gold supply trends in 2019

Mine production

Production growth has appeared mostly from greenfield and brownfield development

This was outweighed by declines in some top producing nations

Net producer hedging

Modest hedging reaction to substantial Gold price rises

Net producer de-hedging was mainly influenced by options expirations and closing of existing hedging positions

Recycled Gold

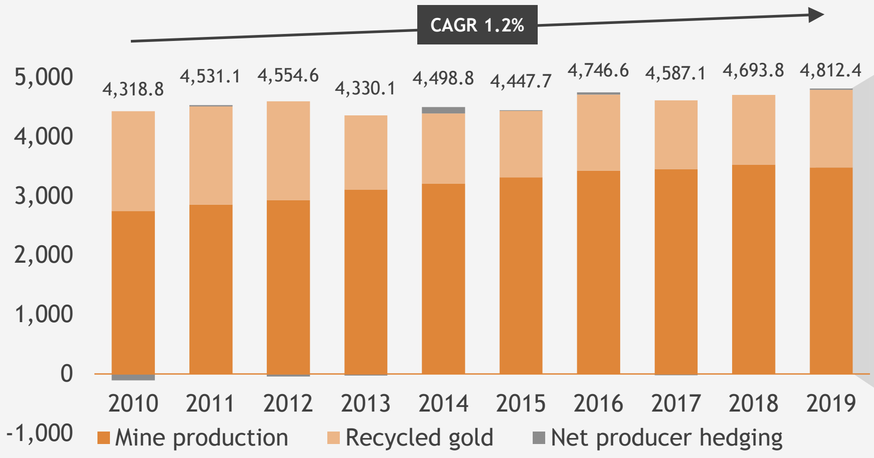
While demand faltered, recycled Gold supply jumped in response to price gain

Recycled Gold supply has reached sizeable increases in South and East Asia, as well as in the Middle East

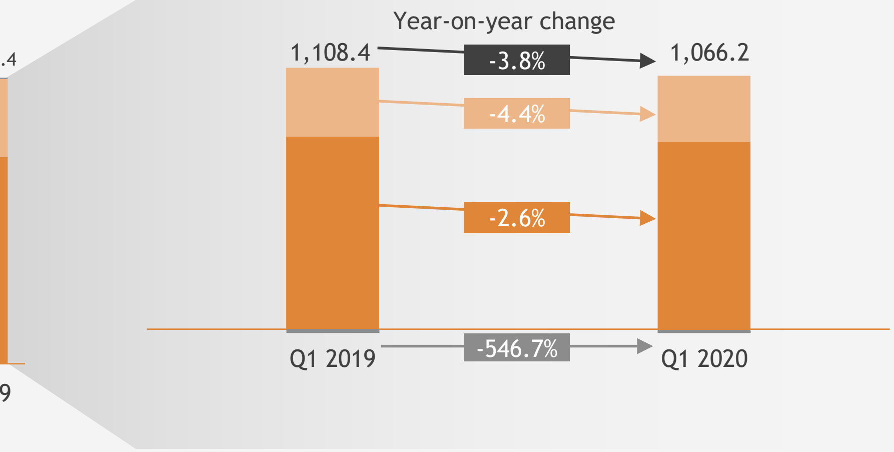
 Source: World Gold Council

In 2019, Gold supply grew due to a rise in recycling and producer hedging despite a drop in mine production

Global Gold supply, tonnes



Gold supply impacted by COVID-19, tonnes



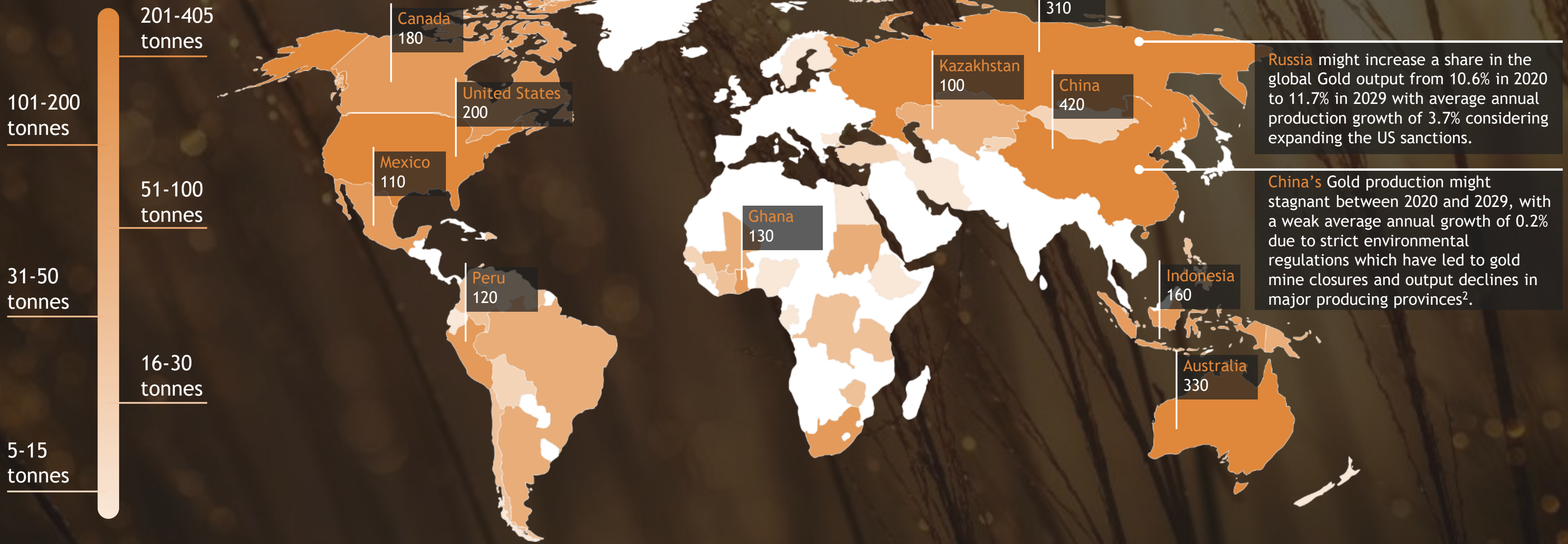
Supply increased by 2.5% year-on-year in 2019 to 4,812.4 tonnes, the second consecutive marginal increase in annual supply.

Significant disruption caused by the COVID-19 has turned into total supply fall 3.8% y-o-y to 1,066.2 tonnes in Q1. This is the lowest level of quarterly Gold supply since Q2 2013.

 Source: World Gold Council

At a country level, China was the largest Gold producer in 2019 with about 12% of the global total volume

Gold mine production in 2018-2019[1], tonnes



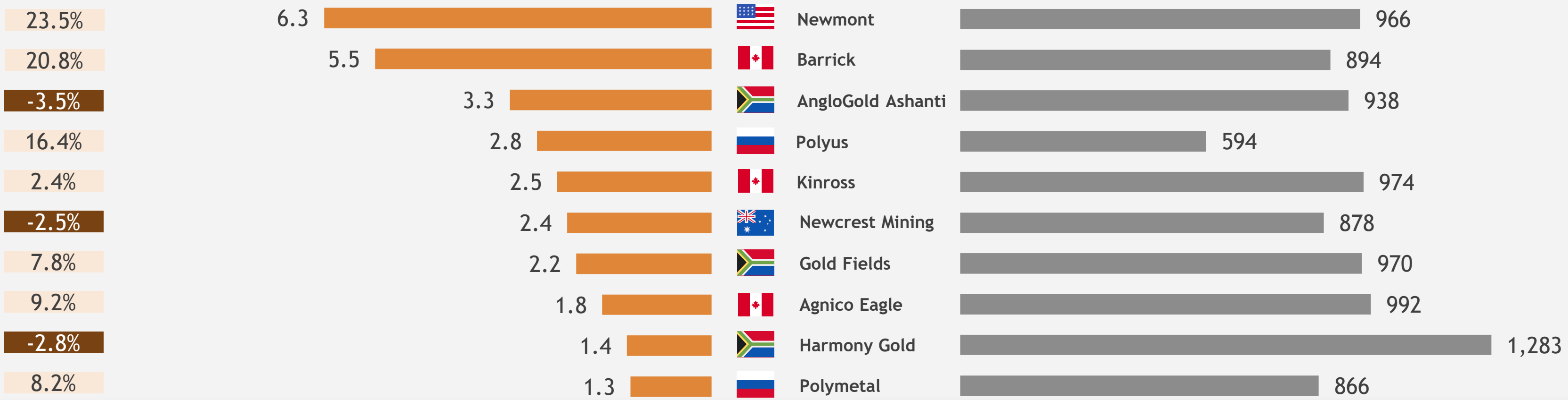
Source: World Gold Council; Statista
Notes: (1) Top-10 producers is estimated data as of 2019, rest of the world as of 2018;
(2) Including Shandong, Jiangxi and Hunan

Among Gold mining firms, Newmont raised its Gold output by 23.5% and strengthened its top Gold producer status

Leading Gold producing companies worldwide by Gold output in 2019, million ounces

Year-on-year change, 2018-2019

Leading Gold producing companies worldwide by expenses on production (by AISC[1]) in 2019, USD per troy ounce



Seven out of ten Top Gold producing companies increased their production output in 2019 compared to 2018. Newmont faced the largest positive change in output while AngloGold Ashanti — the largest negative.

With AISC of 594 USD per troy ounce in 2019, Polyus was the lowest cost top tier Gold producer, well ahead of its competitors. Polyus and Gold Fields were the only two Gold mining firms that managed to insignificantly reduce costs.

Source: Mines and Metals

Notes: (1) The 'all-in sustaining costs' (AISC) measure includes other expenses such as general office spending and capital used in mine development and production to create a benchmark of a company's operating efficiency

In the coming years digital innovations could provide a breakthrough in improving productivity of Gold mining

Adoption of four different technologies clusters is accelerating

- Data, computational power, and connectivity
- Analytics and intelligence
- Human-machine interaction
- Digital-to-physical conversion

Digital innovations for different applications

Operations
- Deeper understanding of the resource base
- Increase in mechanisation through automation
- Monitoring of real-time performance vs plan

Equipment supply
- Improved purchasing analytics
- Internet of Things — enabled R&D into cost-efficient equipment design

Equipment
- Improved anticipation of failures maintenance
- Reduced unscheduled breakdowns
- Longer equipment life

Human productivity and safety
- Augmented reality
- Task-based activity monitoring
- Minimised exposure to dangerous conditions

Leading Gold mining companies provide innovations to improve processes

Newmont

Newmont, the USA

Newmont's team worked to deploy the first commercial application of the **Vulcan optimiser** — an automated, revenue-based ore control software that reduces variability while optimising ore recovery and cutting down on waste.

Harmony

Harmony Gold, South Africa

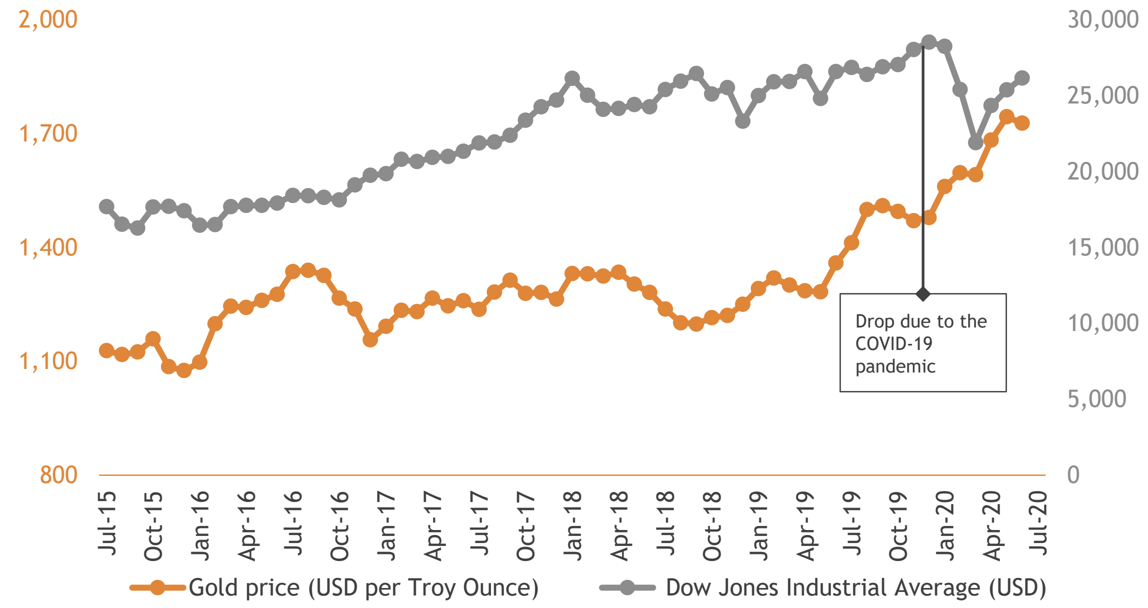
Harmony realised more than **200 initiatives over the past five years** to improve efficiency and reduce environmental impact. Implemented technologies included intelligent real-time energy management systems and twinning and simulation technologies.

Source: McKinsey, Newmont, Harmony

Chapter 3: What are the future factors which will have an impact on the Gold price?

Gold price surged by 18% since December 2019 and continues rising as the coronavirus upends the global economy

Average monthly Gold price vs Dow Jones Industrial Average[1]



Dow Jones Industrial Average (DJIA)

The value of the DJIA amounted to 25,383.11 USD at the end of May 2020, up from 21,917.16 at the end of March 2020.
Global panic about the coronavirus epidemic caused the drop in March 2020, which was the worst drop since the collapse of Lehman Brothers in 2008.

Gold price

The Gold price increased by almost 18% from December 2019 to May 2020.
Some Gold bulls even see the price of bullion breaking the record high set in 2011 when it briefly topped 1,900 USD, roughly 25% higher than current levels. Robust buying by Central Banks, a weakening of the US dollar, and growing political tensions could combine to fuel further gains.

Source: Statista; Yahoo Finance; Barron's
Notes: (1) On the first day of the month

The Gold price is determined and adjusted based on financial overview of different factors such as…

Central Bank reserves

Central Banks hold paper currencies and Gold in reserve. As the Central Banks diversify their monetary reserves — away from the paper currencies that they are accumulated and into Gold — the price of Gold typically rises.

Value of the US dollar

The price of Gold is generally inversely related to the value of the US dollar because the metal is dollar-denominated.
Gold is seen as a hedge against inflation. As inflation ratchets up, so the price of Gold does too.

Jewellery and industrial demand

Gold prices can be affected by the basic theory of supply and demand (due to price increases of consumer goods such as jewellery and electronics, the cost of Gold can rise). In 2019, jewellery accounted for approximately 50% of the Gold demand.

Gold production

The world's Gold production affects the price of Gold. The fact that the Gold is more challenging to access, as a result, raises additional problems. Thus, it costs more to get less Gold. This is added to the costs of Gold mine production, resulting in higher Gold prices.

Investment demand

Gold gets demand from exchange-traded funds that hold the metal and issue shares, which investors can buy and sell. Gold purchases from various investment vehicles represent approximately 25% of the total demand for Gold.

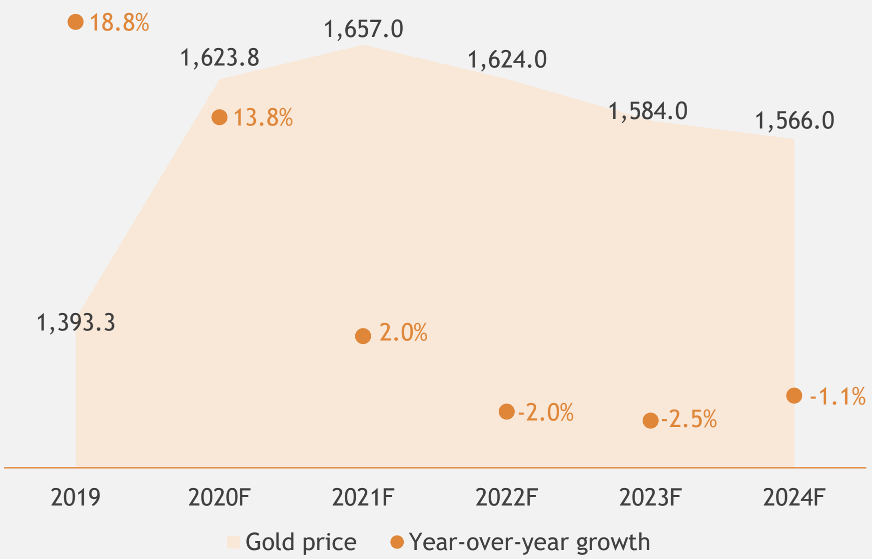
Wealth protection

More people turn to invest in Gold because of its enduring value. When the expected or actual returns on bonds, equities, and real estate fall, the interest in Gold investing can increase, driving up the Gold price.

 Source: Media overview, January-June 2020

Gold price is expected to increase in 2020 due to Gold hedging qualities that perform across multiple scenarios

Forecast of average annual Gold prices, USD per Troy Ounce



The primary factors that will impact on the rise of Gold price in 2020

The US dollar

Gold and the US dollar are inversely correlated. The US dollar index ended in 2019 with its smallest-ever annual move up just by 0.24%.

Central Bank buying

It is expected that buying will continue. Central Banks continued accumulation, which is a major source of support for the Gold price.

New mine supply

If demand rises, and new supply is falling, the Gold price will respond to this basic supply/demand equation and will grow.

Investment demand for physical Gold

The demand for physical metal has been soft in the USA, but overall investment demand for Gold has surged.

What could push Gold down

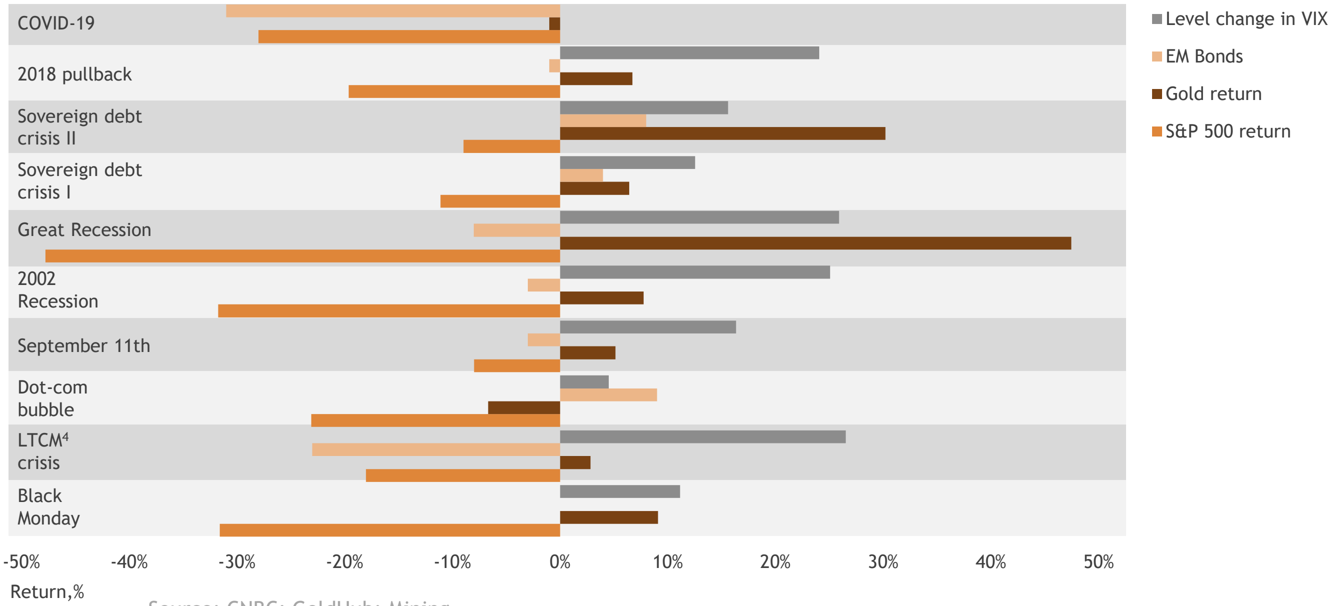
The primary things that could weigh on Gold would be the stock market continuing to soar, and no increase in inflation. If those things happen and the other catalysts are subdued, then the price of Gold is likely to decrease.

 Source: Reuters, World Gold Council; GoldSilver

Chapter 4: Is there a possibility for the Gold to become an investors' protector during the crises?

During the past three decades, Gold has outperformed risk assets in nearly every single major market downturn

Gold's performance during historic financial stress events[1]



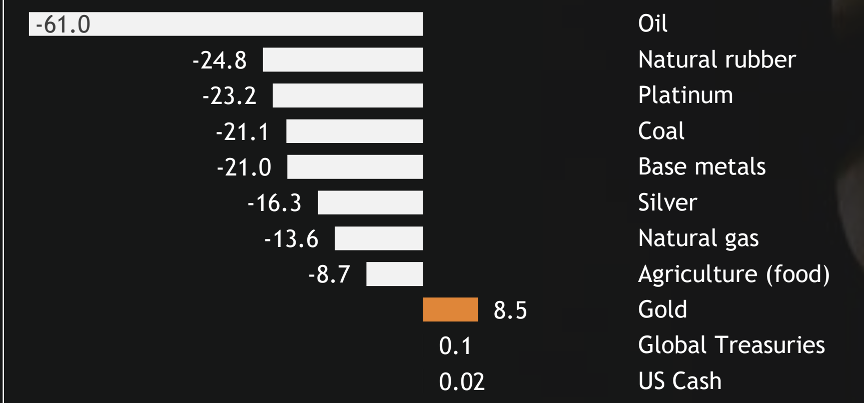
- While physical Gold is a well-known safe-haven asset which investors flock to in times of market turbulence as a way of protecting their wealth, Gold is also the ultimate asset to own and possess in times of crisis and emergency
- Crisis situations can range from episodes in which fiat currencies collapse, to times in which Gold buys safe passage across international borders, and even to periods in which only Gold can bail out and rescue an entire nation
- Compared to an investment in stocks, an investment in Gold often seems less risky

Source: CNBC; GoldHub; Mining

Notes: (1) The VIX is available only after January 1990. For events occurring prior to that date annualised 30-day S&P 500 volatility is used as a proxy. Dates used: Black Monday: 9/1987-11/1987; LTCM: 8/1998; Dot-com: 3/2000-3/2001; September 11: 9/2001; 2002 Recession: 3/2002-7/2002; Great Recession: 10/2007-2/2009; Sovereign debt crisis I: 1/2010-6/2010; Sovereign debt crisis II: 2/2011-10/2011; 2018 pullback: 10/2018-12/2018.(2) Emerging market; (3) The CBOE Volatility Index; (4) Long Term Capital Management Fund

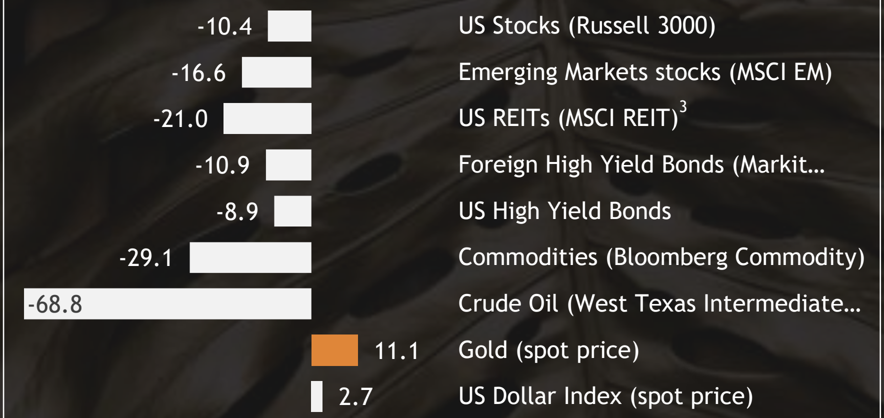
COVID-19 has had a substantial impact on commodity prices, with declines in most commodities except Gold

Commodity price changes in 2020[1], % change



COVID-19 caused widespread declines in commodity prices in 2020. However, Gold had significantly outperformed major commodities in terms of price, demonstrating its resilience to crises and the ability to deliver better long-term, risk-adjusted returns than other commodities.

Total returns on different assets year to date[2], % change

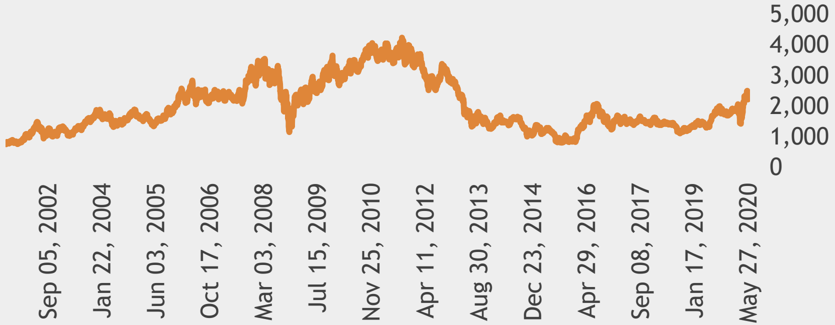


Gold is leading by returns so far in 2020: the metal is posting a solid 11.1% year-to-date gain. Most assets, except the US Dollar Index, show negative returns year-to-date.

Source: World Bank; Capital Spectator
Notes: (1) From 20 January 2020 (the date of the first confirmed human-to-human transmission) to 17 April 2020; (2) As of 30 April 2020; (3) Morgan Stanley Capital International Real Estate Investment Trust

Supply chains disruptions and production shutdown were the main issues faced by Gold companies during COVID-19

FTSE Gold Mines Index[1], 2000-2020



Although the short-term negative effect of the COVID-19 pandemic caused liquidity-driven selling on the Gold market, the FTSE Gold Mines Index shows a positive performance of Gold mining companies' shares in recent months.

Gold companies' challenges and opportunities posed by COVID-19

Challenges

- Decline in production due to the coronavirus-related lockdown measures
- Negative impact on companies' profitability and operating results
- Supply chain interruptions

Opportunities

- Lower energy costs as the looming global recession push oil demand lower
- Rising demand for Gold as a safe-haven asset
- New projects and rise of digitalisation

Source: Miners and Investors; Mining Review Africa

Notes: (1) The FTSE Gold Mines Index tracks the performance of Gold mining companies' shares. The FTSE Gold Mines Index encompasses all Gold mining companies that have a sustainable, attributable Gold production of at least 300,000 ounces a year and that derive 51% or more of their revenue from mined Gold

Top players on the Gold market provide support to local communities while trying to continue their operations

Leading market players

Barrick, Canada

AngloGold Ashanti, South Africa

530 K USD was donated to support Zambian government in the fight against the pandemic.

1 Mn USD donated to the Solidarity Response Fund, a government-backed fund run by the WHO to fight against COVID-19.

- AngloGold Ashanti made two of the company's mining hospitals available to the provincial governments in South Africa
- Barrick established 1.5 Mn USD support programme to help the Democratic Republic of Congo
- AngloGold Ashanti distributed 5,000 care parcels to Imbumba Foundation

Mid-market companies

Evolution Mine, South Africa

Teranga Gold Corporation, Canada

Hecla mining company, The USA / Canada

Saracen, Australia

Northern Star, Australia

- Activation of crisis management protocols
- Increase of flexible working arrangements
- Reduction of the operating 'footprint' in order to minimise the number of people at sites
- Payment of dividends deferment
- Guarantee of the strong balance sheet and financial flexibility

The COVID-19 related restrictions disrupted the operations on the Gold mining market. While mid-market Gold companies took immediate measures to maintain business continuity and safeguard the business, leading industry players have managed to support the local communities to prevent the spread of the pandemic.

 Source: Gold mining companies' websites

Chapter 5: What are the Gold market long-term prospects?

Future of Gold market is shaped by technology advances, high production costs and the rise of Asian economies

Trends that are shaping the future of Gold

Consumer side

Expanding middle-class

An expanding middle class in emerging markets (such as China and India), combined with broader economic growth might support the demand for Gold in the long-term perspective.

Investment process digitalisation

Mobile apps for Gold investment, which allow individuals to buy, sell, invest and gift Gold, will develop rapidly on the main Gold consuming markets – India and China.

Technology-generated demand

Demand for high-end electronic components used in IoT and electric vehicles will support the Gold's position as a material of choice. However, Gold's role in technology continues to be very low compared to other elements.

Production side

Declining mine production

Mine supply is projected to decline, hit by rising costs[2] and additional ESG expenses. Moreover, the industry could run out of minable Gold in the next 20 years. Therefore, recycling has to take a larger role in the Gold industry[3].

Adoption of ESG[1] principles

ESG issues will play an increasing role in re-shaping mining production methods. Innovations in Gold mining will boost sustainability in local communities shifting focus from mine-based job creation to wealth creation.

Technological advances in Gold mining

Technological advances in the areas of AI, automation and blockchain are beginning to penetrate the industry. Adoption of digital technologies might make the industry more productive, efficient, and profitable.

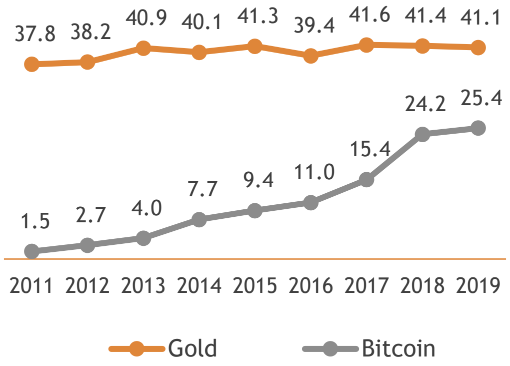
Source: World Gold Council; Kitco
Notes: (1) Environmental, social and governance; (2) Costs rose with a CAGR of 10% over the past 15 years; (3) Currently recycling accounts for approximately 25% of Gold's yearly supply

Nevertheless, there are a lot of risks which the Gold market may face including regulatory and climate challenges

Risks that are faced by Gold

Cryptocurrency is marketed as 'digital Gold' and offer life-changing returns
Bitcoin's Stock to flow ratio is growing to Gold's level. High level of this ratio makes asset much more resistant to market conditions by decreasing inflation rate. That might make cryptocurrencies more attractive for investors than Gold.

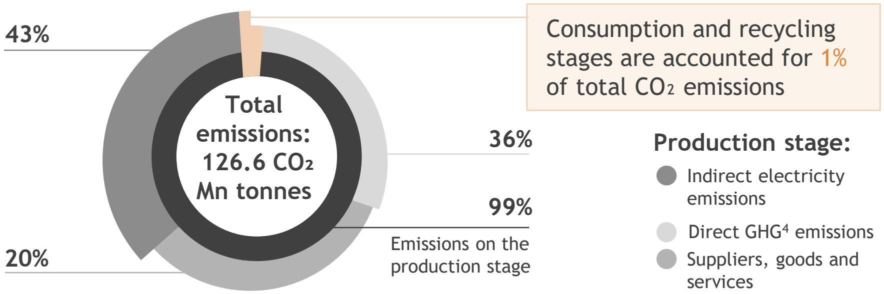
Stock to flow ratio[1]



Climate-related risks

Gold mining companies might be impacted by changes in climate regulations. In rapid transition scenarios, many mines may not have the financial resources to fast decarbonise and to be compliant with ESG[2] principles. This may result in mines shutting down or reducing production due to, for example, high carbon taxes.

Global Gold market greenhouse gas (GHG) emissions[3]



Other risks for Gold

Regulatory risks
An increased regulatory control that governs how capital is invested

Lack of skilled workforce
Limited pool of people with required skills mix

High energy costs
Energy costs remain a significant part of mine operating expenses

Risk of cyberattacks
Possible cyber threats due to digitalisation process.

Source: World Gold Council
Notes: (1) Calculated as existing supply divided by annual supply; (2) Environmental, Social, and Governance; (3) World Gold Council estimation as of 23 October 2019; (4) Greenhouse gas

Chapter 6: What news may influence on the Gold market players' expectations?

In the spotlight: the recent idea of Gold private ownership government ban to control inflation attracts public attention

Private ownership of Gold

Historical evidence

There is a precedent when the US government forced purchases of private bullion holdings in 1933 as part of a devaluation of the dollar. The price of Gold was raised from 20.67 USD per troy ounce to 35 USD per troy ounce, where it remained until the USA ended the Gold standard in 1971.

Current state

Crispin Odey, one of Europe's highest-profile hedge fund managers, said[1] that governments may ban private Gold ownership if they lose control of inflation during the coronavirus crisis. The governments may do this if they feel the need to create a stable unit of account for world trade.

Low possibility of ban

With major currencies no longer linked to Gold, there is no indication that governments or Central Banks are considering any similar move.
A difference from 1933 is that the US dollar was directly tied to the value of Gold. Possible excessive hoarding of Gold would not affect the US dollar today.

Source: Bloomberg
Notes: (1) 20 May 2020

In the spotlight: political statements and COVID-19 have led to the intentions of returning to the Gold standard

Gold standard

The forces that have held the current fiat system together look fragile and could collapse in the 2020s. That will start to lead to a backlash against fiat money and demand for alternative currencies, such as Gold or crypto could soar.
Coronavirus has influenced on the fiat currencies and may bring forward the eventual reintroduction of Gold and Gold standards.

Political statements

Malaysia's prime minister Mohammad Mahathir restated his long-held desire for an international currency system based on Gold. He has served as a representative of the smaller Asian countries, and the Islamic world

China and Russia have been making Gold-friendly statements, backing this up with the increase of their Gold reserves

Members of Congress voice the idea that every US dollar should be hedged by a small amount of Gold

Pros and cons of returning to the Gold standard

+	–
Gold retains a value that has been recognised across the globe throughout history.	The value of Gold fluctuates widely and would not provide the price stability necessary for the economy.
A Gold standard puts limits on government power by restricting its ability to print money at will.	Gold-backed currency could not expand fast enough to maintain a healthy rate of international trade.
Returning to a Gold standard would lower inflation rates and slow the rise in consumer prices.	The Gold standard caused many financial panics, bank failures, and prolonged the Great Depression.
Returning to a Gold standard would stabilise the price of oil and help slow the rise in gasoline prices.	A Gold standard would increase the environmental and cultural harms created by Gold mining.
A Gold standard self-regulates to match the supply of money to the need for it.	A Gold standard makes the supply of money vulnerable to the ups and downs of Gold production.

 Source: Forbes; Bloomberg; Media overview

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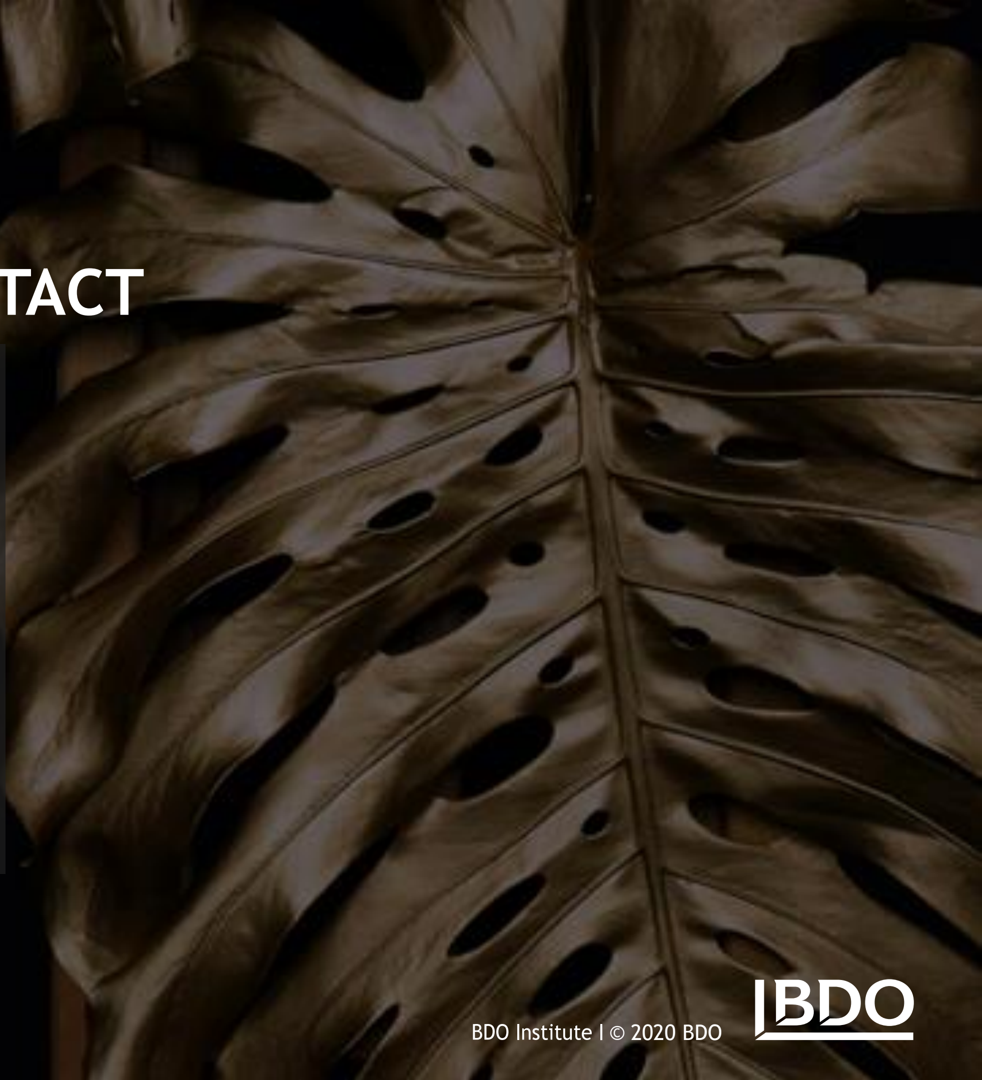

Glossary

Term	Description
AISC	All-in sustaining costs, the measure includes other expenses such as general office spending and capital used in mine development and production to create a benchmark of a company's operating efficiency
CAGR	Compound annual growth rate
CBOE	Chicago Board Options Exchange
COMEX	Commodity Exchange, part of Chicago Mercantile Exchange
COVID-19	Coronavirus disease 2019
CPI	Consumer Price Index
EAFE stocks	Europe, Australasia and Far East stocks
ECB	European Central Bank
EM stocks	Emerging Market stocks
ESG	Environmental, social and governance

Term	Description
ETC	Exchange-traded commodities
ETF	Exchange-traded fund
FTSE Gold Mines Index	Financial Times Stock Exchange Index that tracks the performance of Gold mining companies' shares
GHG	Greenhouse gases
IoT	Internet of Things
LBMA	London Bullion Market
LME	London Metal Exchange
LTCM	Long-Term Capital Management Fund
OTC market	Over-the-Counter market
REIT	Real Estate Investment Trusts

Interesting 'Gold facts'

Golden Lamborghini
Carved out of a 500-kilogram block of solid Gold, the finished model contains 25 kilograms of the precious metal.
Starting price for the eventual auction was set at **7.5 Mn USD**

Diamond shoes
(by Passion Jewellers and Jada Dubai)
High-heels made of leather, silk, Gold, and diamonds — including two D-flawless, 15-carat diamonds. A price tag of **17 Mn USD**

Famous Gold cars
Elvis Presley owned three cars manufactured by Stutz Motor Company, in which every part that is normally **chrome was converted to Gold.**

1,000,000 USD worth coin
In 2007, Canada made a 100 kilogram (3,217 troy ounce), 0.99999 Gold coin with a **nominal value of 1,000,000 USD.**

Investment options

- Bars
- Coins
- Certificates
- Exchange-traded products
- Accounts (such as gold IRA[1])
- Derivatives

The most expensive coin

Flowing Hair Silver / Copper Dollar (1794/5)
10 Mn USD

The cutest Gold coin

30g China Panda 2020 Gold Coin
1,892.03 USD

Source: World Gold Council; Media overview
Notes: (1) Individual Retirement Account