# The Impact of COVID-19 Shutdowns on the Gold Supply Chain

Chains are only as strong as their weakest link. The COVID shutdowns impacted every link in the gold supply chain.

**The Ripple Effect:** Stalling a Supply Chain

**PRODUCTION**
Some gold mines halted, reducing supply

→ **DELIVERY**
Decreased shipping capacity and increased costs

→ **REFINERY**
Lack of input and suspension of work

→ **METAL TRADER**
Constrained supply and increased cost of delivery

→ **THE END USERS**
Increased cost due to demand and reduction of supply

As the virus spread around the world threatening country after country, investors sought safe haven investments such as gold to weather the economic lockdown.

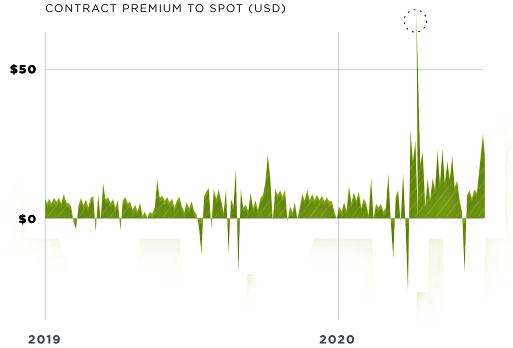
**This demand, in addition to the supply chain disruption, dramatically affected the four primary markets for gold.**

## FUTURES CONTRACTS
COMEX

A futures contract is an agreement for delivery of gold at a price in the future. A futures exchange such as the COMEX, standardizes the contracts.

During the initial period of the pandemic, gold futures spiked to reach a high of US$70 above the spot price of gold.

**FUTURE GOLD CONTRACT PREMIUMS**
CONTRACT PREMIUM TO SPOT (USD)

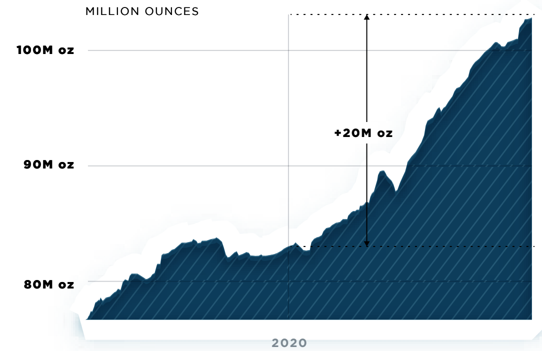



## ETFs
EQUITY MARKETS

From the beginning of 2020 to June, the amount of gold held by ETFs massively increased, from 83M oz to 103M oz.

The SPDR Gold Trust, the largest gold ETF, was forced to lease gold from the Bank of England when it couldn't buy enough to meet inflows.

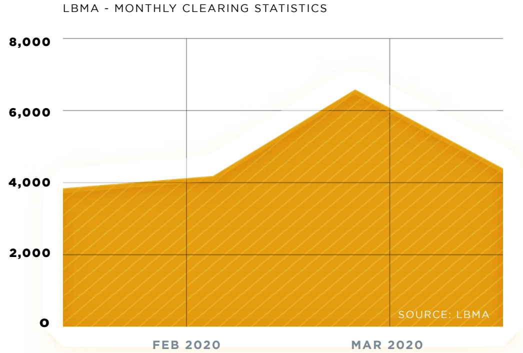
**GOLD ETF HOLDINGS**
MILLION OUNCES




## PHYSICAL GOLD FOR COMMERCE & FINANCE
LONDON OTC

The LBMA recorded 6,573 transfers of gold amounting to 29.2M ounces of gold worth $46.4B in March 2020. This was the largest amount of transfers since 1996.

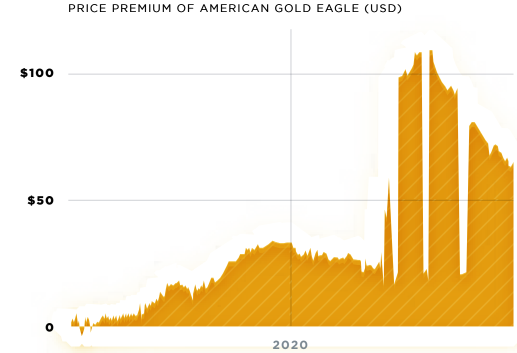
**NUMBER OF GOLD TRANSFERS**
LBMA - MONTHLY CLEARING STATISTICS




## COINS AND SMALL BARS
RETAIL DISTRIBUTORS

One ounce American Gold Eagle coins serve as a good proxy for the demand for physical gold from retail investors. The COINGEAG Index, which tracks the price premium on 1 oz Gold Eagles, spiked during the early stages of the lockdown.

**AMERICAN GOLD EAGLE COIN INDEX**
PRICE PREMIUM OF AMERICAN GOLD EAGLE (USD)




Each one of these requires physical gold, but COVID-19 restrictions disrupted delivery options.

**So how does gold get to customers during a time of crisis?**

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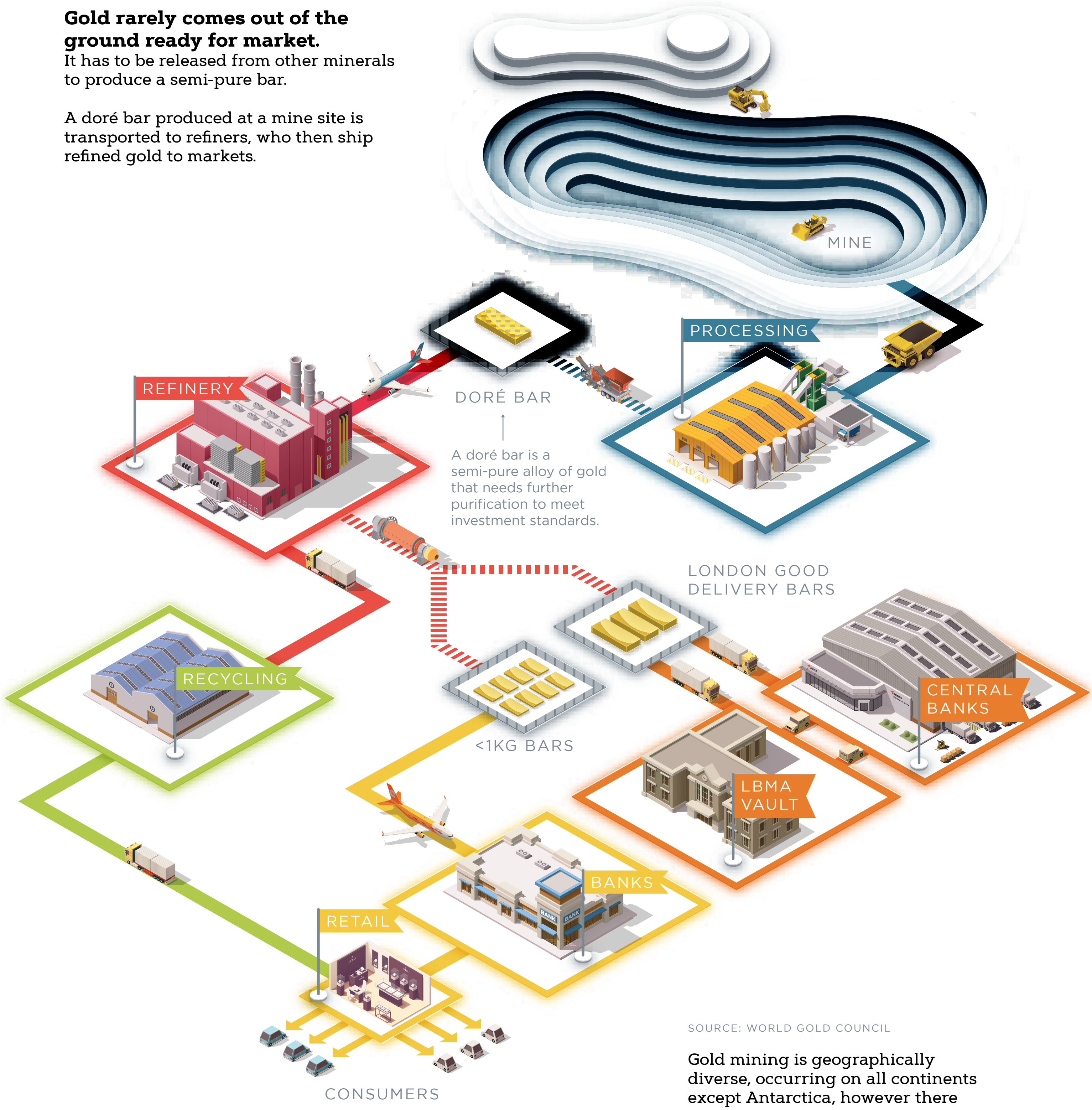
# Gold's Journey

FROM THE GROUND TO THE VAULT

**Gold rarely comes out of the ground ready for market.**
It has to be released from other minerals to produce a semi-pure bar.

A doré bar produced at a mine site is transported to refiners, who then ship refined gold to markets.




SOURCE: WORLD GOLD COUNCIL

Gold mining is geographically diverse, occurring on all continents except Antarctica, however there are few refineries around the world.

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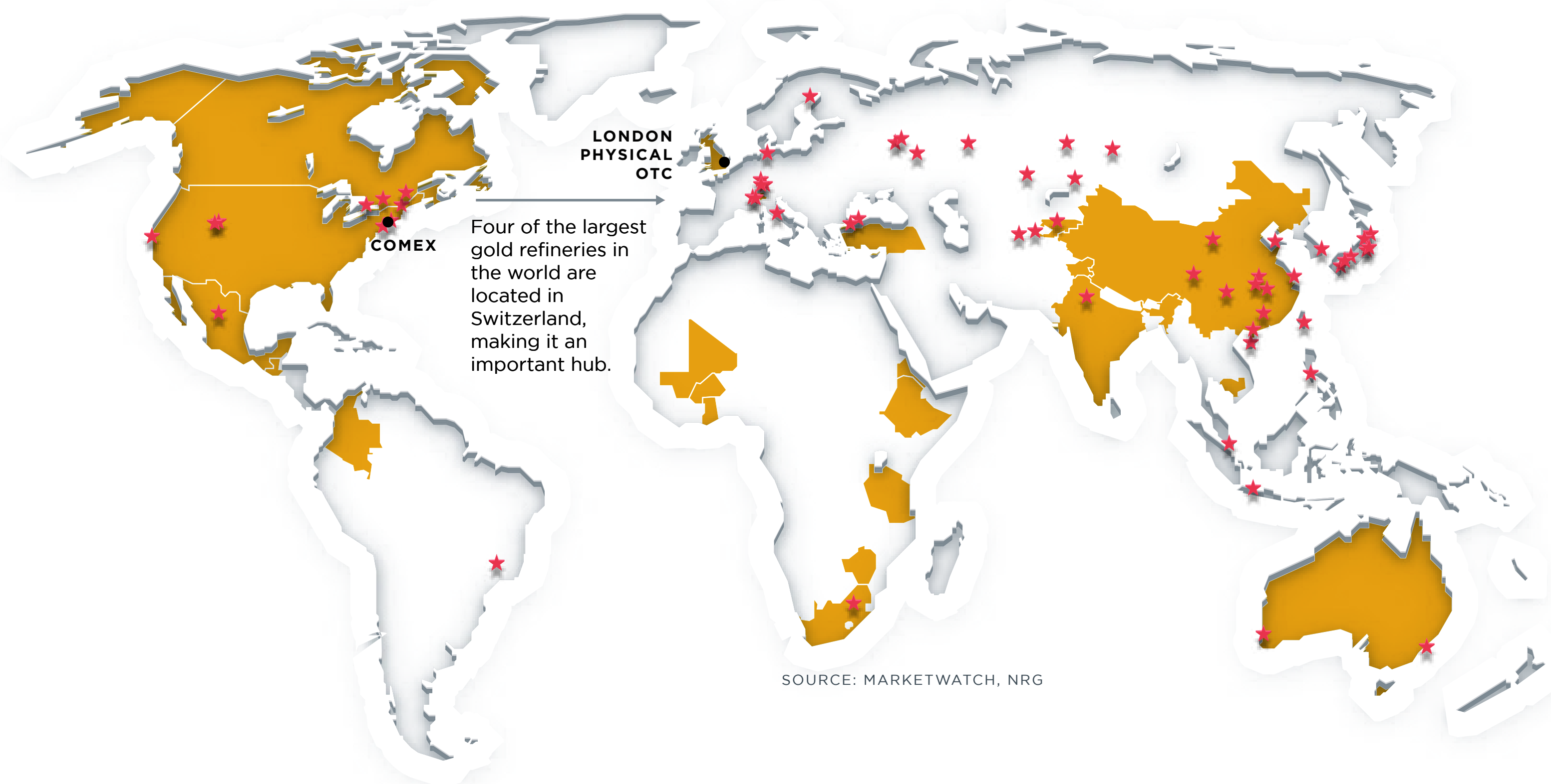
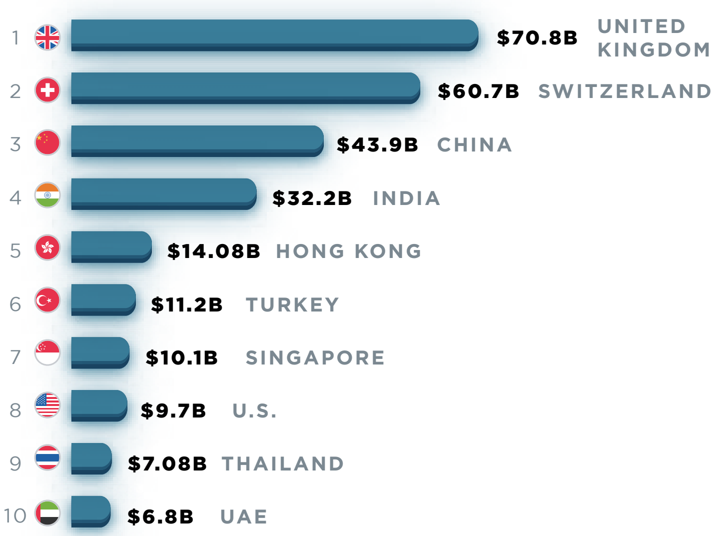
**TOP GOLD PRODUCING NATIONS → ★ REFINERIES → • GOLD FINANCIAL MARKETS**




Once it's refined, gold travels to financial hubs around the world. London is the largest gold hub with many vaults dedicated to gold and other precious metals.

## 2019 GOLD **IMPORTS** (US$)

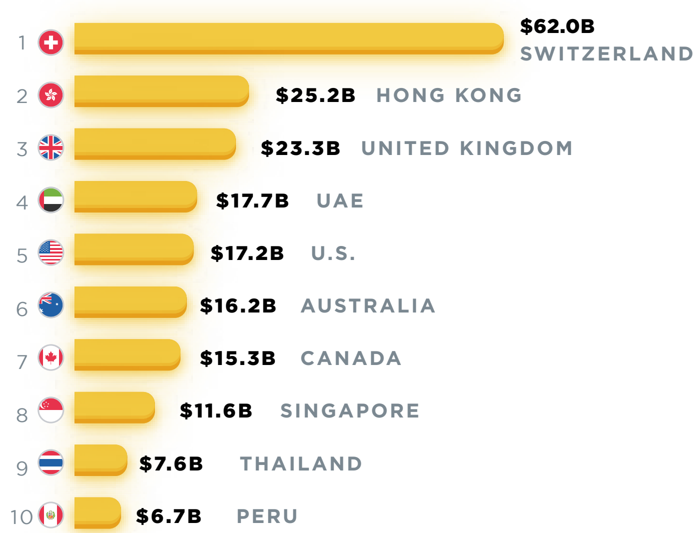
SOURCE: WORLD'S TOP EXPORTS




The U.K. vaults hold the world's largest commercial stockpiles of gold, equal to 10 months of global gold mine output.

## 2019 GOLD **EXPORTS** (US$)

SOURCE: WORLD'S TOP EXPORTS




Hong Kong, Singapore, and Dubai are also significant exporters/importers of the metal despite having no gold mines.

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There are three ways gold travels the world, each with their own risks and costs.

### [$] COMMERCIAL FLIGHTS

- Established passenger routes
- Small volumes
- Subject to spacing priorities

### [$$$$] CARGO PLANES

- Established routes
- Large/medium volumes
- Space subject to cost

### [$$$$$$$$] CHARTERED AIRLINES

- Not limited to major airport hubs
- Tailored to customer demand
- Dedicated space for shipping

Once gold has landed, it is shipped in armored trucks by security personnel to vaults and customers.

### NUMBER OF COMMERCIAL FLIGHTS


Strict travel restrictions, border closures, and a reduction in commercial flights impeded the flow of gold along the supply chain, forcing more expensive delivery.

But the diverse geography of gold mining helped to shield the primary supply of gold from a complete stall, as some countries did not halt gold production.

For the few airlines that still operated, gold was a low-priority cargo as any space was dedicated to personal protective equipment and medical devices.

Mine and airline closures created a risk for the delivery of gold, real or perceived.

**The Covid-19 pandemic created the perfect storm for gold by disrupting the global supply chain at a time when investor demand exploded.**

Despite the disruption to every part of the supply chain, the gold market managed to continue operating.