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Kyrgyzstan's Gold: Post-Nationalization Export Disruption, Central Bank Accumulation, and the Domestic Refining Pathway, 2019–2024

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Abstract

The Kumtor gold mine has accounted for approximately 10% of Kyrgyzstan's GDP and 40% of merchandise exports for most of the past quarter-century. Its May 2021 nationalisation and the July 2022 Global Settlement that transferred full ownership to the Kyrgyz state disrupted not only the mine's governance but also the statistical record of the country's most important export commodity. Using UN Comtrade data for HS 7108 (unwrought gold) over 2019–2024, this article documents a near-total collapse in reported gold exports in 2022—falling from 24.6 tonnes to just 0.3 tonnes—and traces the recovery to pre-nationalisation levels by 2023. We argue that the 2022 data gap reflects three simultaneous post-nationalisation dynamics rather than a simple reporting pipeline failure: (a) disruption in the customs-to-Comtrade reporting pipeline during the transition from external management to sovereign ownership; (b) significant absorption of domestically refined gold by the National Bank of the Kyrgyz Republic, whose gold assets increased by 63% in som-denominated terms; and (c) the reorganisation of Kyrgyzaltyn JSC's international sales operations following its reinstatement to the LBMA Good Delivery list. The analysis further demonstrates that the observed partner rotation (United Kingdom → Switzerland → United Kingdom) reflects Kyrgyzaltyn's evolving choice of commercial sales counterparties for domestically refined gold, not a "refinery carousel" of foreign toll-refining contracts—a finding grounded in the operational reality of the Kara-Balta refinery and Kyrgyzaltyn's LBMA accreditation. Unit-value benchmarking against the LBMA gold price confirms that, in normal reporting years, Kyrgyzstan's declared export prices track the international benchmark within ±3%, validating the underlying Comtrade data quality. The article contributes to the empirical literature on resource governance in transition economies by demonstrating how trade microdata, combined with central bank balance-sheet evidence and production disclosures, can disaggregate an apparent statistical anomaly into distinct economic behaviours with different policy implications.

Keywords: Kyrgyzstan; gold exports; Kumtor mine; nationalisation; UN Comtrade; central bank reserves

1. Introduction

Kyrgyzstan, a landlocked Central Asian republic of roughly seven million people, occupies a distinctive position in the global gold economy. Though the country's GDP ranks among the lowest in the former Soviet space, it has consistently ranked as one of the world's top twenty gold producers by volume—a ranking attributable almost entirely to a single asset: the Kumtor gold mine. Perched at over 4,000 metres

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in the Tian Shan mountains of Issyk-Kul Province, Kumtor has produced in excess of 14 million ounces of gold since commercial operations began in 1997, and for most of the past quarter-century it has accounted for approximately 10% of Kyrgyzstan's gross domestic product and roughly 40% of its merchandise export earnings (World Bank, 2021; EITI Kyrgyzstan, 2024).

That extraordinary concentration of economic weight in one mine, operated under one joint-venture agreement between the Kyrgyz state and a Canadian publicly listed company, made Kumtor not merely a commercial concern but a permanent fixture in the country's political economy. Disputes over profit-sharing, environmental damage, tax arrears, and the terms of the original 1992 investment agreement accumulated across successive presidencies, and by early 2021—with the global gold price trading above US$1,700 per troy ounce—the government of President Sadyr Japarov moved decisively. On 17 May 2021, Kyrgyzstan imposed "external management" on the mine, effectively seizing operational control from Centerra Gold Inc. and transferring it to the state-owned entity Kumtor Gold Company (KGC).

The ensuing period of legal confrontation was resolved more rapidly than most observers anticipated. On 4 April 2022, the Kyrgyz Republic, Kyrgyzaltyn JSC, and Centerra Gold Inc. signed a Global Settlement Agreement, and on 29 July 2022 the parties exchanged closing documents, transferring 100% of KGC and Kumtor Operating Company shares to Kyrgyzaltyn JSC (Kumtor Gold Company, 2022; Centerra Gold Inc., 2022). External management was formally terminated on 23 August 2022, and the mine has operated under fully sovereign ownership since that date.

This article asks whether the 2021 nationalisation and the subsequent settlement left a detectable imprint on Kyrgyzstan's gold export statistics as recorded in the United Nations Comtrade database. Using HS 7108 (unwrought gold, gold powder, and semi-manufactured gold) reported by Kyrgyzstan under reporter code 417 for the six-year window 2019–2024, we trace annual export volumes, declared values, implied unit prices, and bilateral partner concentrations. The analysis is driven by two empirical questions. First, does the trade record reveal a disruption coincident with the nationalisation and settlement events? Second, how should the observed partner rotation (United Kingdom → Switzerland → United Kingdom) be interpreted in light of Kyrgyzstan's domestic refining capacity and the documented absorption of gold by the central bank?

The findings are instructive but require a more nuanced interpretation than a simple "data pipeline failure" narrative. The 2022 trade year records a near-total collapse in reported gold exports, falling from 24.6 tonnes in 2021 to just 0.3 tonnes (approximately 290 kg). This figure, however, cannot be attributed solely to a breakdown in export reporting. Kumtor's official production report for the first nine months of 2022 documents 379,551 ounces (approximately 11.8 tonnes) of gold sold to Kyrgyzaltyn JSC for processing at the domestic Kara-Balta refinery (Kumtor Gold Company, 2022). The same year, the National Bank of the Kyrgyz Republic (NBKR) recorded a 63% increase in its gold assets—from 50,159,119 to 81,833,825 thousand som—suggesting that a substantial portion of domestic production was absorbed into official reserves rather than exported (National Bank of the Kyrgyz Republic, 2023). Meanwhile, partner rotation in the export record reflects changes in Kyrgyzaltyn's destination markets for refined gold sales, not a "refinery carousel" of foreign toll-refining contracts: Kyrgyzaltyn, reinstated to the London Bullion Market Association (LBMA) Good Delivery list in 2022, refines Kumtor's doré domestically at the Kara-Balta refinery and then sells refined gold to international buyers (London Bullion Market Association, 2022).

The 2022 data gap thus reflects a confluence of three post-nationalisation factors: (a) disruption in the customs-to-Comtrade reporting pipeline during the transition from external management to full sovereign ownership; (b) significant absorption of domestically refined gold by the NBKR, which removed those volumes from the export record; and (c) the reorganisation of Kyrgyzaltyn's international sales arrangements following its reinstatement to the LBMA Good Delivery list. The recovery of export volumes to

pre-nationalisation levels in 2023 and 2024, with unit values tracking the LBMA benchmark within ±3%, confirms that the underlying production and international sales machinery has been restored.

This article contributes to the empirical literature on resource governance in transition economies by demonstrating how trade microdata, when combined with central bank balance-sheet evidence and official production disclosures, can disaggregate a large apparent statistical anomaly into distinct economic behaviours—each with different policy implications (Arezki et al., 2013; Berman et al., 2017). It also adds country-level specificity to the literature on resource nationalism in Central Asia (Pomfret, 2019). The remainder of the paper is structured as follows. Section 2 provides background on Kumtor, Kyrgyzstan's gold sector, and the domestic refining pathway. Section 3 describes the Comtrade data and analytical methods. Section 4 presents results across annual aggregates, partner distributions, unit-value benchmarking, and the NBKR gold-absorption hypothesis. Section 5 discusses governance implications and the structural vulnerability of a single-mine gold economy. Section 6 acknowledges limitations, and Section 7 concludes.

2. Background: Kumtor, the Settlement, and Kyrgyzstan's Gold Sector

2.1. Discovery and Development

The Kumtor deposit was discovered in 1978 by Soviet geological surveys prospecting for gold in the Tian Shan metallogenic belt. The deposit is a large-tonnage, low-to-moderate-grade orogenic gold system hosted in metamorphosed sedimentary rocks of the Upper Proterozoic age, with mineralisation extending over a strike length exceeding 2 kilometres and to depths beyond 1,000 metres (Nikonorov et al., 2013). At the time of its discovery, Kumtor was one of the largest gold finds in the Soviet Union, though its high-altitude location—above the tree line in a glaciated valley—posed formidable engineering challenges that deferred development until after independence.

Following the dissolution of the USSR in 1991, the newly sovereign Kyrgyz Republic moved rapidly to secure foreign investment for Kumtor's development. The 1992 investment agreement between the Kyrgyz government and Cameco Corporation (a Canadian uranium and gold mining company) established the Kumtor Operating Company and granted a package of tax stabilisation, royalty, and profit-sharing terms that would remain politically contested for the next three decades. In 2004, Cameco's gold assets were spun out into Centerra Gold Inc., which listed on the Toronto Stock Exchange and became the mine's indirect operator. The Kyrgyz government retained a significant equity stake in Centerra—at times exceeding 30%—creating an unusually entangled relationship between host state and foreign operator (Gullette, 2015).

2.2. Production History and the Domestic Refining Pathway

Kumtor's production ramp-up was steady: from approximately 500,000 ounces of gold per annum in the late 1990s, output rose to a peak of roughly 720,000 ounces in 2005 before settling into a long plateau of 500,000–600,000 ounces per year. By 2021, cumulative production exceeded 14 million ounces, placing Kumtor among the world's fifty largest gold mines by lifetime output.

Two newer mines have modestly diversified Kyrgyzstan's gold supply. Jeruy (operated by the Russian-owned Alliance Altyn) commenced production in 2021 with an annual capacity of approximately 100,000 ounces; Taldybulak Levoberezhny (operated by the Chinese-backed Full Gold Mining) produced roughly 60,000–80,000 ounces in 2023. Together, Jeruy and Taldybulak account for perhaps 15–20% of national gold output. Kumtor remains overwhelmingly dominant.

A critical feature of Kyrgyzstan's gold sector—and one that is frequently mischaracterised in the secondary literature—is the existence of a domestic refining pathway. Kyrgyzstan is **not** a country that must export all of its gold as unrefined doré for processing abroad. The Kara-Balta refinery, located

approximately 60 km west of Bishkek, is an operational precious-metals refinery owned and operated by Kyrgyzaltyn JSC, the state gold enterprise. Under the Revised Gold and Silver Sales Agreement (RGSSA) signed between KGC, Kyrgyzaltyn, and the Government of the Kyrgyz Republic in 2009, doré bars produced by the Kumtor mine are purchased by Kyrgyzaltyn JSC for processing at the Kara-Balta refinery. Kyrgyzaltyn then holds the exclusive right to sell refined gold and silver both domestically and internationally (Kumtor Gold Company, 2022).

The quality and credibility of this domestic refining pathway received a significant institutional endorsement in 2022, when the LBMA reinstated Kyrgyzaltyn JSC to its Good Delivery list—the globally recognised standard for gold bar quality and refinery integrity (London Bullion Market Association, 2022). Good Delivery accreditation means that gold bars refined by Kyrgyzaltyn at Kara-Balta are accepted for settlement in the London bullion market, the world's largest gold trading centre. This reinstatement is central to understanding Kyrgyzstan's post-nationalisation export patterns: once refined domestically, Kyrgyzaltyn's gold can be sold to any Good Delivery-accepting counterparty worldwide, and the choice of destination partner reflects commercial sales arrangements, not refining contracts.

2.3. The Disputes, the 2021 Nationalisation, and the 2022 Settlement

The legal architecture of the 1992 agreement was from the outset a source of friction. Successive Kyrgyz governments alleged that the terms provided excessive concessions to the foreign investor, that Centerra under-declared revenues, and that the mine's environmental footprint—particularly its discharge of waste rock into the Kumtor River basin, which feeds the transboundary Syr Darya system—was inadequately mitigated (Torogeldi & Omuraliev, 2021). Centerra, for its part, maintained that it operated in full compliance with the investment agreement and that Kyrgyz political actors were using the mine as a pressure point in domestic power struggles.

The dispute escalated sharply in early 2021. In February, a Bishkek court fined Centerra US$3.1 billion for alleged environmental violations; in April, the Kyrgyz parliament passed legislation authorising the temporary imposition of external management on companies operating under contested investment agreements. On 17 May 2021, the government appointed an external manager for Kumtor Gold Company, and Centerra's shares in the operating subsidiary were effectively seized. Centerra withdrew its personnel, ceased consolidating Kumtor in its financial statements, and initiated arbitration under the auspices of the Permanent Court of Arbitration in The Hague.

Contrary to earlier published accounts that characterised the arbitration as ongoing, the dispute was resolved within fourteen months. On 4 April 2022, a Global Settlement Agreement was signed between the Kyrgyz Republic, Kyrgyzaltyn JSC, Centerra Gold Inc., KGC, and Kumtor Operating Company. On 29 July 2022, the parties exchanged closing documents, and on 2 August 2022 an independent registrar registered Kyrgyzaltyn's ownership of 100% of KGC and KOC shares. External management was formally terminated on 23 August 2022 (Kumtor Gold Company, 2022; Centerra Gold Inc., 2022). The settlement extinguished Centerra's arbitration claims, ended all litigation between the parties, and transferred full ownership of Kumtor to the Kyrgyz state. The mine has operated under sovereign ownership continuously since that date.

2.4. The National Bank of the Kyrgyz Republic and Official Gold Reserves

A further structural feature of Kyrgyzstan's gold economy that bears directly on the interpretation of export statistics is the role of the NBKR as a purchaser of domestically refined gold. Under Kyrgyz law, the NBKR has the right to purchase gold from domestic producers for inclusion in the country's official international reserves. Such purchases constitute domestic transactions that do not appear in merchandise export statistics, since the gold does not cross an international customs frontier.

The NBKR's annual reports disclose gold assets within its reserve portfolio. Between year-end 2021 and year-end 2022, NBKR gold assets increased from 50,159,119 thousand som to 81,833,825 thousand som—a rise of approximately 63% in som-denominated terms (National Bank of the Kyrgyz Republic, 2023). While a portion of this increase reflects the revaluation of existing gold holdings at higher world prices, the magnitude of the increase—at a time when domestic production was robust and international exports were negligible—strongly suggests that the NBKR absorbed a meaningful share of Kumtor's 2022 output. This absorption channel must be incorporated into any analysis of the apparent 2022 export gap.

3. Data and Methods

3.1. Source Data

All trade figures in this article are drawn from the United Nations Comtrade database, accessed through the API for HS 2017 revision, commodity code 7108, reporter code 417 (Kyrgyzstan), covering calendar years 2019 through 2024. Code 7108 encompasses three sub-categories: 7108.11 (gold powder, non-monetary), 7108.12 (unwrought gold in other forms, non-monetary), and 7108.13 (gold, semi-manufactured). Because Kyrgyzstan's reporting to Comtrade at the six-digit sub-code level is incomplete across the study period, we rely primarily on the four-digit aggregate 7108 and note the aggregation constraint among the limitations in Section 6.

The flow is configured as reporter = Kyrgyzstan, partner = all, trade flow = exports, mode of transport = "all" (motCode = 0). All values are expressed in current US dollars (FOB for reporter exports). The 2024 world-total API response confirms data integrity at the aggregate level: total exports of 17,790 kg valued at US$1,405,979,506 (netWgt and fobvalue both marked isNetWgtEstimated = false), consistent with the partner-disaggregated totals used throughout this study (United Nations Statistics Division, 2024).

Production data are drawn from the Kumtor Gold Company's official nine-month 2022 production report, which disclosed sales of 379,551 ounces (11,805 kg) of gold to Kyrgyzaltyn JSC for the period January through September 2022 (Kumtor Gold Company, 2022). NBKR gold asset figures are taken from the NBKR's published annual financial statements (National Bank of the Kyrgyz Republic, 2023).

3.2. Unit Value Calculation and LBMA Benchmarking

For each calendar year we compute the implied unit value as total declared export value divided by total declared quantity in kilogrammes, yielding a US-dollar-per-kilogramme price. We benchmark this against the LBMA annual average gold price, converted from US dollars per troy ounce (1 troy ounce = 0.0311034768 kg) to US dollars per kilogramme. The ratio of the unit value to the LBMA benchmark provides a simple diagnostic for data quality: refined gold sold at international market prices should trade close to the LBMA benchmark, with small deviations reflecting timing differences between the annual average price and the specific dates of individual shipments.

3.3. Caveats and Anticipated Limitations

Three limitations are identified at the outset. First, the 2022 trade year is the period of maximum uncertainty: the nationalisation and subsequent settlement disrupted the administrative pipelines through which export declarations flow to the national customs service and onward to Comtrade. A near-zero export figure for portions of 2022 should be interpreted as reflecting a combination of reporting disruption and NBKR absorption, not a cessation of mining activity. Second, the partner coding for 2021 is compromised by the systematic use of the residual code "Areas, not elsewhere specified" (partner code 899), which accounted for 78% of Kyrgyzstan's declared gold exports by value in that year. Third, the four-digit HS 7108 aggregate necessarily conflates sales of varying form; finer sub-code analysis would improve precision but is precluded by the reporting gaps noted above. Fourth, NBKR gold asset data are reported only

at annual frequency and in som-denominated terms, making it impossible to isolate the price-revaluation component from the physical-acquisition component without access to the NBKR's internal accounts.

4. Results

4.1. Annual Aggregates

Table 1 presents the annual export statistics for HS 7108 from Kyrgyzstan, 2019–2024, alongside the LBMA benchmark and the implied unit-value ratio.

Table 1. Kyrgyzstan Gold Exports (HS 7108), 2019–2024

Year	Quantity (tonnes)	Value (US$ billion)	Unit Value (US$/kg)	LBMA Annual Avg (US$/kg)	Unit Value / LBMA
2019	18.7	0.83	44,480	44,790	99.3%
2020	17.7	0.99	55,857	56,880	98.2%
2021	24.6	1.41	57,339	57,800	99.2%
2022	0.3	0.013	45,051	57,900	77.8%
2023	20.2	1.28	63,533	62,440	101.8%
2024	17.8	1.41	79,031	76,730	103.0%

Sources. UN Comtrade (HS 7108, reporter 417); LBMA annual average gold price (2019: US$1,393/oz; 2020: US$1,770/oz; 2021: US$1,799/oz; 2022: US$1,802/oz; 2023: US$1,943/oz; 2024: US$2,387/oz). Converted at 1 troy ounce = 0.0311034768 kg.

Three features of Table 1 command attention. First, in the pre-nationalisation years (2019–2021), Kyrgyzstan's reported gold exports are substantial and stable: 17.7–24.6 tonnes per annum, valued at US$0.83–1.41 billion. The 2021 spike to 24.6 tonnes may reflect pre-nationalisation stock drawdowns—Centerra may have accelerated shipments of inventory ahead of the seizure—or it may represent normal annual variation, as production in 2020 was affected by COVID-19 operational disruptions and some output may have been deferred.

Second, the 2022 figure is an unmistakable outlier: 0.3 tonnes, valued at US$13 million. No gold mine of Kumtor's scale ceases producing for an entire calendar year. Kumtor's own production report confirms that 379,551 ounces (approximately 11.8 tonnes) of gold were sold to Kyrgyzaltyn JSC in the first nine months of 2022 alone, generating US$679.8 million in revenue (Kumtor Gold Company, 2022). Annualised, this implies total sales of approximately 15.7 tonnes. The near-total collapse in reported exports therefore reflects a combination of three factors: (a) disruption in customs-to-Comtrade reporting during the transition from external management (May 2021) through settlement (July 2022) to full sovereign ownership (August 2022); (b) absorption of domestically refined gold by the NBKR, whose gold assets increased by 63% in som terms during 2022; and (c) the reorganisation of Kyrgyzaltyn's international sales operations following its reinstatement to the LBMA Good Delivery list.

Third, the recovery in 2023 and 2024 is unambiguous: exports of 20.2 and 17.8 tonnes respectively, valued at US$1.28 and US$1.41 billion. These volumes are consistent with pre-nationalisation trends and with KGC's stated production. The data pipeline has been restored, and Kyrgyzaltyn's international gold sales have normalised.

4.2. Unit Value vs LBMA: The Price Diagnostic

The ratio of unit value to LBMA is a particularly useful sanity check. For 2019–2021 and 2023–2024, the ratio falls within ±3% of the LBMA benchmark—a remarkably tight band for an aggregated trade statistic. This suggests that, in normal reporting years, the Comtrade data for HS 7108 accurately captures Kyrgyzstan's gold exports at prices consistent with internationally traded refined gold.

The 2022 value of 77.8% is the exception. A ratio this low is inconsistent with refined gold trading at international market prices. The 2022 unit value of US$45,051/kg—against an LBMA benchmark of US$57,900/kg—combined with the tiny quantity of 290 kg suggests that the residual exports recorded in 2022 represent atypical small-lot transactions, possibly jewellery scrap or sample shipments, rather than the main flow of refined gold. The bulk of domestically refined gold that year was either absorbed by the NBKR or exported through channels whose declarations were not transmitted to Comtrade.

The slight premium above LBMA observed in 2023 (101.8%) and 2024 (103.0%) likely reflects timing effects: the annual average LBMA price is a simple arithmetic mean of daily fixes, whereas the trade data captures shipments on specific dates whose individual spot prices may diverge from the annual mean, particularly in a rising market.

4.3. The Partner Rotation: Destination Markets, Not Refining Contracts

Table 2 presents the distribution of Kyrgyzstan's HS 7108 exports by partner country and by the residual "Areas, nes" code for each year.

Table 2. Partner Concentration in Kyrgyzstan Gold Exports, 2019–2024

Year	Top Partner	Share of Exports	Second Partner	Share	All Others
2019	United Kingdom	84%	Switzerland	14%	2%
2020	United Kingdom	98%	—	—	2%
2021	Areas, nes	78%	Switzerland	12%	10%
2022	Hong Kong	70%	Turkey	29%	1%
2023	Switzerland	84%	Hong Kong	9%	7%
2024	United Kingdom	84%	Hong Kong	10%	6%

Source. UN Comtrade (HS 7108, reporter 417, by partner). "Areas, nes" = partner code 899. 2022 shares calculated from the residual 290 kg; the total is too small for meaningful partner analysis.

The pattern is stark: in every year except 2021 and 2022, a single destination accounts for at least 84% of Kyrgyzstan's gold exports. This concentration reflects the commercial reality that Kyrgyzaltyn, as the sole legal exporter of refined Kyrgyz gold, typically maintains a primary sales relationship with one major international buyer or trading hub at a time.

The identity of that destination rotates—UK (2019–2020), Switzerland (2023), UK again (2024)—but the rotation must be interpreted in light of the domestic refining pathway documented in Section 2.2. Kyrgyzaltyn refines Kumtor's doré at the Kara-Balta refinery. Once refined to Good Delivery standard, the gold bars are sold to international buyers. The choice of destination partner reflects Kyrgyzaltyn's commercial sales arrangements—which counterparty, in which trading hub, offers the most favourable terms for refined gold—not a contract with a foreign refinery to toll-process doré. The distinction is material: under the domestic refining model, the partner country is the *buyer* of refined gold, not the *refiner* of Kyrgyz doré.

The 2021 partner record is compromised: 78% of declared exports are coded to "Areas, not elsewhere specified" (partner 899), a residual category used when the country of destination cannot be determined or is not reported. This is a strong signal of administrative disruption at the point of export declaration during the nationalisation year.

The 2023 concentration in Switzerland (84% of exports) is consistent with Kyrgyzaltyn establishing a primary sales relationship with a Swiss-based bullion bank or trading house following its LBMA Good Delivery reinstatement. Switzerland hosts both major gold refineries and the trading desks of global bullion banks, making it the world's largest physical gold trading hub (Pieth, 2018). The 2024 return to the United Kingdom as the dominant destination (84%) suggests a further commercial reorientation, possibly reflecting more competitive pricing or logistical terms offered by UK-based counterparties.

What the data does **not** show is a ”refinery carousel” of Kyrgyz doré being shuttled between foreign refineries. The refining happens domestically at Kara-Balta. The partner rotation reflects Kyrgyzaltyn’s evolving choice of international sales counterparties—a routine commercial matter for any state gold enterprise—not a governance failure or a sign of contractual instability in refining arrangements.

4.4. The NBKR Absorption Hypothesis

Table 3 juxtaposes the Comtrade export record against Kumtor’s disclosed production and the NBKR’s reported gold assets. The purpose of this comparison is not to construct a precise material balance—the data granularity does not permit that—but to assess whether the ”unexplained” 2022 export gap can be partially attributed to central bank accumulation.

Table 3. Production, Exports, and Central Bank Gold Assets, 2019–2024

Year	Comtrade Exports (tonnes)	Kumtor Annual Production Estimate (tonnes)	NBKR Gold Assets (thousand KGS)	Year-on-Year Change in NBKR Gold Assets
2019	18.7	~18.0	—	—
2020	17.7	~17.0	—	—
2021	24.6	~17.5	50,159,119	—
2022	0.3	~17.0*	81,833,825	+63.1%
2023	20.2	~17.5	—	—
2024	17.8	~17.0	—	—

Sources. UN Comtrade (HS 7108); Kumtor Gold Company (2022) for 2022 production; National Bank of the Kyrgyz Republic (2023) for gold assets. Production estimates for years without direct disclosure are extrapolated from the 500,000–600,000 oz/year range. *2022 estimate: 379,551 oz actual sales in 9 months, annualised to ~15.7 t; mine production ~17 t including unsold inventory. NBKR gold asset data available only for 2021 and 2022 from published annual reports.

The NBKR’s gold assets increased from 50.2 billion to 81.8 billion som between year-end 2021 and year-end 2022. A portion of this increase—perhaps 10–15 percentage points—reflects the revaluation of existing gold holdings at higher world prices (the LBMA gold price rose from US$1,799/oz in 2021 to US$1,802/oz in 2022, a modest 0.2% increase in USD terms, though som depreciation against the dollar would amplify the som-denominated valuation effect). The remaining increase of approximately 48–53 percentage points, equivalent to perhaps 3–5 tonnes of gold at prevailing prices, is consistent with physical acquisition of domestically refined gold.

If the NBKR acquired 3–5 tonnes of refined gold from Kyrgyzaltyn in 2022—a volume that would not appear in Comtrade because it never crossed a customs frontier—then the true ”export gap” narrows from 17.0 tonnes (production minus reported exports) to 12–14 tonnes. The residual gap of 12–14 tonnes is attributable to the reporting disruption during the May 2021–August 2022 transition period. This interpretation aligns the available quantitative evidence: production continued, a portion was stocked by the central bank, and a portion was exported through channels whose declarations were not transmitted to Comtrade.

4.5. Gold Price Uplift and the Value-Volume Distinction

The LBMA gold price rose from US$1,393 per troy ounce in 2019 to US$2,387 per troy ounce in 2024—an increase of 71.4% in nominal US dollar terms. This extraordinary price appreciation means that Kyrgyzstan’s export revenue from gold does not map linearly onto export volumes. The 2024 export value of US$1.41 billion was achieved with roughly the same physical volume (17.8 tonnes) as the 2020 export value of US$0.99 billion—a 42% increase in revenue on flat volumes, attributable entirely to the gold price.

This price effect carries significant analytical implications. First, it means that Kyrgyzstan's macroeconomic vulnerability to gold price fluctuations has increased in absolute terms even as dependence on gold as a share of exports has remained roughly constant. A US$500/oz decline in the gold price would now subtract approximately US$285 million from annual export earnings—equivalent to roughly 2.5% of GDP—compared to US$200 million at 2019 prices. Second, the price uplift has temporarily masked the long-term decline in Kumtor's ore grades and production capacity; the rising price has allowed KGC to report healthy revenues even as volumes trend slightly downward from the 2021 peak.

4.6. Comparison with Other Central Asian Gold Exporters

Kyrgyzstan is not the only Central Asian gold producer, but it is unique in the degree of its dependence on a single mine and in the volatility of its reporting. Uzbekistan, the region's largest gold producer with annual output of approximately 100 tonnes (largely from the Muruntau mine operated by Navoi Mining and Metallurgical Combine), reports its gold trade through Comtrade with far greater opacity: Uzbekistan's HS 7108 exports are either unreported or aggregated under broader codes. Tajikistan, which operates several smaller gold mines including the Chinese-operated Taror and Jilau deposits, reports modest gold export volumes (typically 3–5 tonnes per annum) without the year-to-year volatility observed in the Kyrgyz data (United Nations Statistics Division, 2024).

Kazakhstan, which produces approximately 70–80 tonnes of gold annually from multiple polymetallic and dedicated gold mines, reports its exports transparently and consistently, with unit values that track LBMA within narrow bands and partner distributions that reflect stable refining and sales relationships. The contrast between Kazakhstan's stability and Kyrgyzstan's 2022 disruption is instructive: Kyrgyzstan's anomaly is specific to the governance transition at Kumtor, not a systemic feature of Central Asian gold trade statistics.

5. Discussion

5.1. The 2022 Data Gap: Multiple Factors, Multiple Implications

The most consequential finding of this analysis is that the near-total disappearance of Kyrgyzstan's gold exports from the Comtrade record in 2022 is not attributable to any single cause. It is the product of three simultaneous post-nationalisation dynamics: disrupted statistical reporting, central bank gold absorption, and the reorganisation of the state gold sales apparatus.

Each component carries different governance implications. The reporting disruption is, in one sense, the most benign: it is a temporary administrative failure that appears to have been resolved by 2023. The NBKR absorption of domestically refined gold is, in itself, a legitimate and common practice among gold-producing countries—South Africa, Russia, and China all channel portions of domestic mine output into official reserves—and does not indicate wrongdoing. It does, however, remove those volumes from the trade record, complicating any analysis that relies exclusively on Comtrade data to assess the health of the gold sector.

The reorganisation of Kyrgyzaltyn's international sales operations following its LBMA Good Delivery reinstatement is, if anything, a positive governance development: a state gold enterprise with internationally recognised refinery accreditation and established commercial relationships is fundamentally more transparent and accountable than one operating outside the Good Delivery framework. The partner rotation observed in 2023–2024 is consistent with a newly accredited refiner and seller establishing and adjusting its international commercial relationships—a process that, while generating statistical churn, is a normal feature of the global gold market.

5.2. Domestic Refining Capacity: A Misunderstood Asset

The existence of an operational domestic refinery at Kara-Balta, and Kyrgyzaltyn's LBMA Good Delivery status, fundamentally recasts the interpretation of Kyrgyzstan's gold export statistics. Under the previous prevailing narrative—that Kyrgyzstan lacks refining capacity and must export all doré to foreign refineries—the partner rotation (UK → Switzerland → UK) appeared to signal contractual churn in refining arrangements, with potential governance implications: who selects the refiner, on what terms, and with what transparency?

Under the corrected narrative—that Kyrgyzaltyn refines domestically and sells refined gold to international buyers—the partner rotation reflects ordinary commercial choices about where to sell the final product. The LBMA Good Delivery accreditation provides an institutional guarantee that the refining process meets international standards of quality and integrity. The remaining governance question—how Kyrgyzaltyn selects its international sales counterparties and whether those selections are made on arms-length commercial terms—is important but qualitatively different from the question of whether a foreign refinery is being chosen through opaque or politically influenced processes.

Kyrgyzstan's domestic refining capacity is, in this sense, an underappreciated governance asset. It concentrates the value-adding stage of the gold supply chain within the country, subjects it to LBMA's Good Delivery oversight, and simplifies the chain of custody between mine gate and international market. The 2022 reinstatement of Kyrgyzaltyn to the Good Delivery list, following what the LBMA described as a period of suspension related to ownership and operational changes (London Bullion Market Association, 2022), should be understood as a significant but under-reported milestone in the normalisation of Kyrgyzstan's gold sector governance after the nationalisation.

5.3. Kumtor's Future: Declining Grades and Finite Reserves

Kumtor's remaining mine life is finite. As of the most recent technical disclosures (prior to nationalisation), proven and probable reserves stood at approximately 3.5 million ounces of gold, with measured and indicated resources adding a further 3–4 million ounces (Centerra Gold Inc., 2020). At recent production rates of 500,000–600,000 ounces per year, the reserve life is approximately 6–7 years, extending to 10–15 years if resources are successfully converted to reserves. The open-pit operation has been progressively transitioning to deeper, lower-grade zones, and the capital expenditure required to sustain production into the 2030s—including a possible underground expansion—is likely to be substantial.

Kyrgyzstan's other gold mines—Jeruy and Taldybulak—are smaller and shorter-lived. Neither is capable of filling the fiscal gap that Kumtor's eventual depletion will create. The broader implication is stark: within the next decade to fifteen years, Kyrgyzstan will face the exhaustion of its single most important export commodity, and the country has no obvious replacement. The IMF and World Bank have repeatedly urged Kyrgyzstan to diversify its economy and to use the revenue window provided by elevated gold prices to invest in human capital, infrastructure, and non-mining tradable sectors (World Bank, 2021). The nationalisation and the subsequent management of Kumtor under state ownership do not, in themselves, alter this structural reality; they only determine who controls the revenue stream during the mine's final productive years.

5.4. Gold Dependency and Dutch Disease Risk

The academic literature on natural resource dependence has long identified a "resource curse" through which commodity-dependent economies experience slower long-run growth, weaker institutional development, and heightened macroeconomic volatility (Sachs & Warner, 2001; Van der Ploeg, 2011). The mechanisms include Dutch disease (real exchange rate appreciation that crowds out non-resource tradables), rent-seeking and corruption, and procyclical fiscal policy that amplifies commodity price shocks.

Kyrgyzstan exhibits several of these symptoms. Gold accounts for approximately 40% of merchandise exports, making the real exchange rate highly sensitive to gold price movements. The Kyrgyz som appreciated in real terms during the 2020–2024 gold price rally, placing competitive pressure on the country's small textile, agricultural, and light-manufacturing export sectors (National Bank of the Kyrgyz Republic, 2024). Remittances from labour migrants in Russia—the country's other dominant external flow—are independently volatile and weakly correlated with gold, providing only partial hedging.

The scale of the challenge is illustrated by a simple counterfactual: were the gold price to decline by 30% from its 2024 level (returning to roughly US$1,670/oz), Kyrgyzstan's export earnings from gold would fall by approximately US$420 million, or roughly 3.5% of GDP, in a single year. In an economy with limited fiscal buffers—general government debt was approximately 48% of GDP in 2023, and foreign exchange reserves stood at roughly US$3.5 billion (International Monetary Fund, 2024)—a shock of that magnitude would place severe pressure on the balance of payments and the state budget.

5.5. Comparative Perspectives: Other Single-Mine Economies

Kyrgyzstan's dependence on Kumtor has instructive parallels in other small, resource-dependent states. Suriname's Rosebel gold mine, operated by IAMGOLD and subsequently by Zijin Mining, accounted for approximately 30% of Suriname's export earnings until its depletion accelerated in the early 2020s. Papua New Guinea's Porgera mine, operated by Barrick Gold and Zijin Mining, was suspended from 2020 to 2023 during a dispute over benefit-sharing arrangements, with consequences for national revenue that were severe but temporary. Mali's Sadiola and Morila mines, once dominant contributors to Malian gold exports, have declined as ore grades fell, and the government has struggled to attract replacement investment amid deteriorating security conditions.

In each case, the governance of the mine—the terms of the concession, the transparency of revenue reporting, and the distribution of rents between the state, the investor, and local communities—has been as consequential for national welfare as the physical endowment of gold. Kyrgyzstan's nationalisation of Kumtor is an extreme instance of renegotiation by fiat. The 2022 data gap is a reminder that governance transitions, even when resolved through negotiated settlement, generate statistical turbulence that can obscure the economic reality for an extended period. The fact that Kyrgyzstan's gold sector has since stabilised—with production continuing, domestic refining accredited, international sales normalised, and Comtrade reporting restored—suggests that the turbulence was transitional rather than structural.

6. Limitations

This analysis is subject to several limitations, the most significant of which is the granularity of the available data. With only annual-frequency trade statistics, annual-frequency NBKR gold asset data, and one public production report (nine-month 2022) from Kumtor, the analysis cannot precisely partition the 2022 export gap into its three hypothesised components (reporting disruption, NBKR absorption, and sales reorganisation). The partition offered in Section 4.4 is a reasoned estimate, not a verified material balance.

Second, the four-digit HS 7108 aggregate obscures potentially informative variation across subcategories of gold trade. HS 7108.12 (unwrought gold), which almost certainly accounts for the overwhelming majority of Kyrgyzstan's shipments, cannot be cleanly separated from HS 7108.11 (gold powder) and HS 7108.13 (semi-manufactured gold) in Kyrgyzstan's reporting because sub-code data are incomplete.

Third, the partner coding anomalies in 2021—the heavy reliance on the "Areas, nes" residual category—mean that partner-based analysis of that year is necessarily speculative. The true destinations of Kyrgyzstan's gold in 2021 cannot be established from Comtrade alone.

Fourth, NBKR gold asset data are reported only in som-denominated aggregate terms in the central bank's annual financial statements. The absence of a published breakdown by volume (tonnes) versus

price revaluation prevents a definitive calculation of the physical quantity of gold the NBKR acquired in 2022.

Fifth, this article relies exclusively on publicly reported data and does not incorporate customs-level microdata, Kyrgyzaltyn's refinery production records, the NBKR's internal reserve management accounts, or KGC's complete production ledgers. Access to such records would transform the analysis from inferential to definitive.

7. Conclusion

This article has traced the trajectory of Kyrgyzstan's gold exports through the six-year window 2019–2024, using Comtrade data, central bank disclosures, and official production reports to interpret the imprint of the May 2021 Kumtor nationalisation and the July 2022 Global Settlement on the trade record. The central empirical finding is the documentation of three simultaneous post-nationalisation dynamics that together produced a near-total collapse in reported gold exports in 2022: disruption in the customs-to-Comtrade reporting pipeline during the transition to sovereign ownership; significant absorption of domestically refined gold by the NBKR, whose gold assets increased by 63% in som terms; and the reorganisation of Kyrgyzaltyn's international sales operations following its reinstatement to the LBMA Good Delivery list.

Three subsidiary findings reinforce and qualify the central narrative. First, the unit-value diagnostic confirms that, in normal reporting years, Kyrgyzstan's declared gold export prices track the LBMA benchmark within ±3%, validating the underlying data quality. Second, the partner rotation (UK → Switzerland → UK) does not reflect a "refinery carousel" of foreign toll-refining contracts, as earlier accounts suggested, but rather Kyrgyzaltyn's evolving choice of international sales counterparties for refined gold—a routine commercial process rendered more visible by the extreme single-partner concentration of Kyrgyzstan's gold trade. The domestic refining pathway through Kara-Balta, and Kyrgyzaltyn's LBMA Good Delivery accreditation, means that Kyrgyzstan refines its own gold and sells it as an accredited product. Third, the dramatic rise in the global gold price between 2019 and 2024 has temporarily masked the long-term structural vulnerability of an economy dependent on a single depleting mine.

For researchers, the priority is to monitor forthcoming Comtrade revisions for signs that Kyrgyzstan has back-filled the 2022 trade data, and to seek access to finer-grained data—quarterly or monthly trade statistics, NBKR gold purchase records, and Kyrgyzaltyn refinery production data—that would permit a rigorous material-balance reconciliation. For policymakers, two conclusions emerge. First, the 2022 data gap is not evidence of a governance catastrophe: production continued, domestic refining was accredited by the LBMA, and international sales normalised within two years. But neither is the gap benign: the fact that Kyrgyzstan's most important export commodity could effectively disappear from the international trade record for an entire year—in a country that is an EITI member and a recipient of substantial multilateral technical assistance—underscores the fragility of statistical capacity during governance transitions. Second, nationalisation solves no structural problems. It changes the identity of the rent recipient but not the fact of a depleting finite resource, a concentrated export basket, and an economy exposed to the vagaries of the global gold price. Kumtor will eventually be exhausted. The question for Kyrgyzstan is not who operates the mine in its final years, but what comes after.

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