INTERNATIONAL MONETARY FUND

Lessons from the Bank of Ghana's Domestic Gold Purchase Programme

Guillaume Nolin

SIP/2026/084

IMF Selected Issues Papers are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed on July 10, 2026. This paper is also published separately as IMF Country Report No 26/213.

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Prepared by Guillaume Nolin

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ABSTRACT: This paper examines the legacy of the Bank of Ghana's Domestic Gold Purchase Programme, which helped formalize artisanal gold exports, rebuild reserves, and support foreign exchange market stabilization during Ghana's debt crisis. The programme scaled rapidly, making gold-related flows central to reserve accumulation and FX sales, but also generated sizable losses for the Bank of Ghana and exposed quasi-fiscal risks. With operations transferred to GoldBod, future gold sector policy should focus on reducing operational costs, strengthening transparency, improving responsible sourcing, and managing the macroeconomic, fiscal, and environmental risks from Ghana's expanding gold sector.

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GHANA

LESSONS FROM THE BANK OF GHANA'S DOMESTIC GOLD PURCHASE PROGRAMME

July 10, 2026

Approved By
African Department

Prepared By Guillaume Nolin

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FIGURES

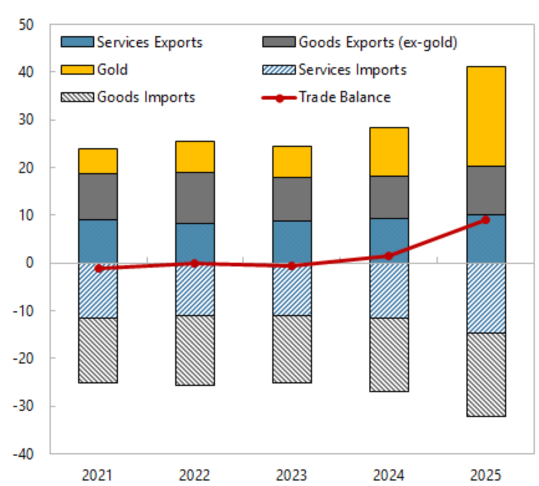
LESSONS FROM THE BANK OF GHANA'S DOMESTIC GOLD PURCHASE PROGRAMME[1]

This Selected Issues Paper addresses the legacy of the Bank of Ghana's (BoG) Domestic Gold Purchase Programme (DGPP), which was announced in 2021 and mostly phased out by end-June 2026. This paper examines how the DGPP was instrumental in exporting US$10.9 billion (9.5 percent of GDP) in artisanal gold in 2025 alone. The rapid expansion of the DGPP coincided and arguably contributed to a remarkable macroeconomic stabilization, but also large losses (US$1.7 billion, 1.5 percent of GDP in 2025). Lessons from the DGPP should inform future gold sector policies in Ghana, including GoldBod, which fully took over operations and costs of the DGPP in July 2026.

A. Gold Production in Ghana

1. Gold has become the dominant driver of Ghana's external position (Figure 1). The precious metal has long been the country's most important export, but the sharp increase in gold prices, coupled with a reduction in smuggling and an increase in production, has meant that gold now accounts for more than half of total exports, from just a fifth in 2021. The corresponding surge in its gold export value led to a drastic improvement in Ghana's current account balance, rapid exchange rate appreciation, and improved debt sustainability.

Figure 1. Trade Balance
(USD Billions)



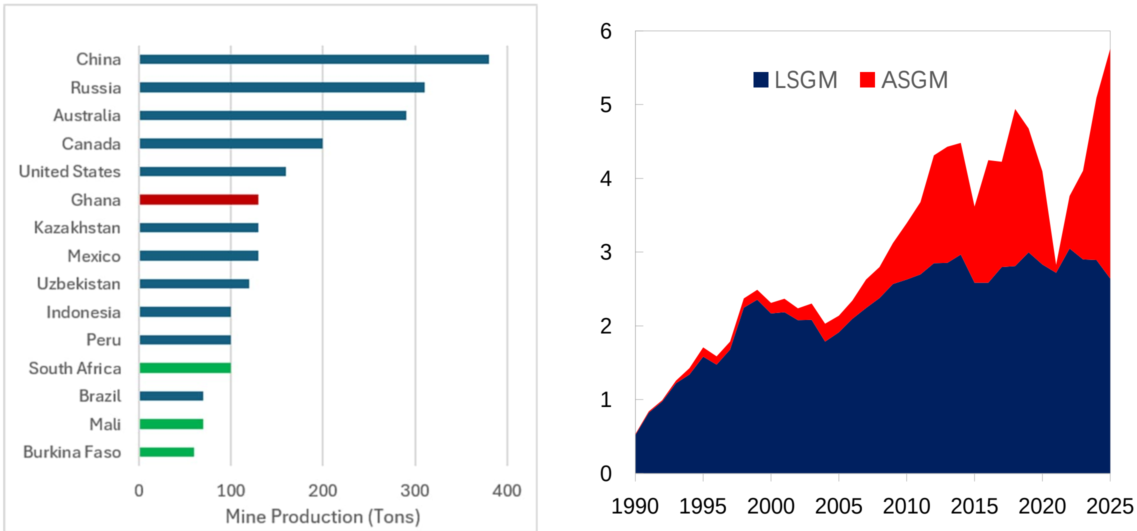
Source: Bank of Ghana, Staff calculations

2. Ghana is Africa's leading gold producer, and one of the most important globally (Figure 2). Ghana's gold production is split between long-established large-scale mines (LSGM), and artisanal and small-scale mines (ASGM). LSGM operators include large multinational firms such as Newmont, AngloGold and Gold Fields. Newmont's Ahafo South mine is one of Africa's largest, and produced over 10 million ounces since its opening in 2006. Long the largest segment of the sector by exports, it has been outpaced by the surge in ASGM exports in 2025. The ASGM sector covers a spectrum of smaller firms or individuals, some licensed and some informal or illegal. ASGM activities are largely exempt from some or all forms of taxation applicable to large scale miners.

[1] Prepared by Guillaume Nolin (AFR).

Figure 2. Annual Gold Production

World Production (Metric Tons) | LSGM & ASGM Production (Millions of Ounces)



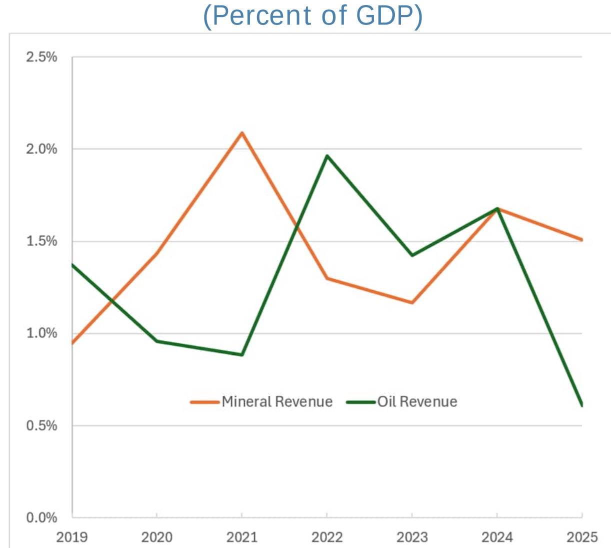
Source: U.S. Geological Survey

Source: Ghana Minerals Commission, Ghana Chamber of Mines

Large-Scale Gold Mining (LSGM)

3. LSGM is mature but contributes relatively little to fiscal revenues. Large-scale mining in Ghana is mostly operated by licensed multinational companies. The sector is mature, with output averaging between 2.5 and 3 million ounces annually for over a decade. Large-scale mining is subject to various forms of taxation, including royalties, corporate income taxes, the growth and sustainability levy and payroll taxes, as well as dividends from state participation in mining companies. Fiscal revenue from mining has fluctuated between 1 and 1.5 percent of GDP (Figure 3), which is comparable to fiscal revenues from the oil & gas sector, despite the latter's smaller output. The mining fiscal regime is considerably less transparent than that governing the oil & gas sector. Mining revenue reporting is incomplete and not timely, information

Figure 3. Natural Resource Revenue (Percent of GDP)



Sources: Ghana Chamber of Mines, Ministry of Finance.
Mineral Revenue includes royalties, dividends and corporate income tax (self-reported by large-miners).
Oil Revenue includes royalties, surface rental income, dividends and corporate income tax.

disclosure is fragmented across institutions, and is not fully integrated into

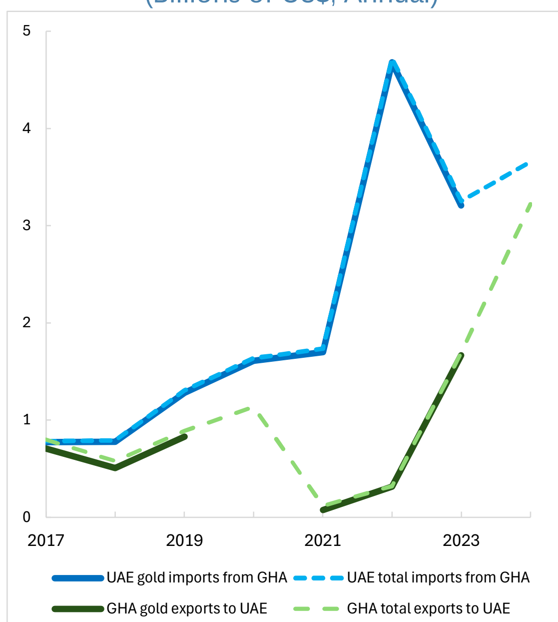
fiscal reporting or budget processes. In addition, although Ghana has adequate processes for openly and competitively awarding mining rights, they are rarely used. Several LSGM companies have also benefitted from fiscal stability agreements, often lasting more than 10 years, which have significantly lowered their tax burden. Important reforms to the mining tax regime are underway, including the introduction of a sliding scale for royalties in 2026 (see Fiscal Policy section of the Staff Report), which should significantly increase revenues.

Small-Scale Gold Mining (ASGM)

4. The ASGM sector is facing multi-faceted challenges. The ASGM sector has been present in Ghana for decades, although its share of total production did not exceed 10 percent until 2004.[2] ASGM production grew rapidly in the past two decades as the nominal price of gold decupled, and overtook LSGM production for the first time in 2025. Reports show that ASGM activity is intensifying and spreading to new regions.[3] The term "galamsey", from "gather them and sell", is often used colloquially to refer to illegal mining, even if it can sometimes refer to legal ASGM. The country has long faced challenges in formalizing its ASGM sector, including gold smuggling, difficulties in mobilizing fiscal revenue from the sector, and large-scale environmental degradation from illegal mining. Ghanaian authorities have repeatedly tried to address the problem, with initiatives such as legalizing ASGM in 1989, the early 1990s Small-Scale Mining Project, the creation of an Inter-Ministerial Committee on Illegal Mining in 2017 or the Community Mining Scheme launched in 2019.

5. Smuggling of ASGM production has been a critical problem in Ghana. The smuggling of ASGM gold outside of Ghana is estimated at 229 tons of gold worth US$ 11.4 billion, which are missing from official trade data between 2019 and 2024. In 2023, the discrepancy between exports reported by Ghana and imports reported by the United Arab Emirates was more than US$4 billion (Figure 4). To combat smuggling and to facilitate the

Figure 4. Trade Data Discrepancies & United Arab Emirates (Billions of US$, Annual)



Source: United Nations Comtrade

[2] As per official data. See Minerals Commission Ghana (2015). Artisanal & Small Scale Mining Framework.

[3] See, e.g., Hunter, M., & Ofosu-Peasah, G. (2025). Mapping Ghana's Expanding Gold Sector. Global Initiative Against Transnational Organized Crime

BoG's ASGM gold purchases, the government opted to remove all taxation on the ASGM sector in 2025 by eliminating a 1.5 percent withholding

tax on unprocessed precious minerals.[4] Further, in 2025, the government created a new entity, the Ghana Gold Board (GoldBod), whose mission is to regulate the gold sector, promote the responsible sourcing of gold, generate FX and support the accumulation of gold reserves by the Bank of Ghana (BoG). GoldBod was granted a monopsony on ASGM gold purchases, which it carries through a network of aggregators and traders, who source gold from miners.

6. ASGM gold mining is generating significant environmental degradation that increasingly carries significant macroeconomic costs. The rapid expansion and mechanization of ASGM has led to extensive land degradation and loss of vegetative cover, including on cocoa and food-crop farms and in forest reserves, reducing soil quality, raising erosion, and permanently withdrawing land from productive agriculture. This undermines a key export base, as cocoa farms in mining-affected districts are either abandoned or converted to short-lived mining sites. Widespread siltation (pollution of water by fine mineral particles) and contamination of rivers used for potable water are significantly raising costs for the Ghana Water Company. Environmental degradation could compound climate-related shocks by reducing watershed resilience, increasing flood and drought risks, and eroding ecosystems supporting agriculture and hydropower. Absent stronger enforcement and remedial measures, the environmental footprint of ASGM risks becoming a structural risk to agricultural productivity and long-term growth.

B. The Domestic Gold Purchase Programme (DGPP)

7. The DGPP was introduced in the context of the debt crisis. At the time of its launch in 2021, Ghana faced declining reserve buffers, exchange rate pressures, and tightening external financing conditions that led to a loss of access to international capital markets in 2022. The DGPP was thereafter used to procure fuel and rebuild international reserves, even as access to FX was severely constrained. Domestic gold purchase programs are not unique to Ghana: central banks and public agencies have used variants of domestic purchase windows, assaying and refining arrangements, and responsible-sourcing frameworks to formalize ASGM gold flows, improve traceability, and support reserve accumulation. The London Principles on Central Bank ASGM Domestic Purchase Programmes, signed by the central banks of the Philippines, Mongolia, Ecuador, and Colombia, aim to establish international best practices.

The DGPP has rapidly scaled up, making the BoG the intermediary in virtually all ASGM gold exports (Figure 8). Ghana's DGPP stands out for its scale, which has rapidly become larger than all London Principles' four signatories' combined volume by 2025. From 2024 onwards, as macroeconomic stability was restored, the DGPP vastly expanded to absorb virtually all ASGM gold production. In 2025, the BoG purchased and exported around 104 tons of ASGM gold for $10.9 billion (essentially all domestic output) as well as US$1.26 billion of gold bullion (around

[4] The 2025 Minerals and Mining (Royalties) Regulation Act introduces a 2 percent royalty on ASGM production starting in March 2026. It is unclear whether revenues have been collected so far.

12 percent of large-scale mine's output). By 2025, the BoG had become the intermediary to virtually all recorded ASGM gold export proceeds, with GoldBod handling most sourcing operations. From

8. the end of 2024, the DGPP's focus increasingly shifted from reserve accumulation toward FX sales to domestic banks, even if the BoG continued to significantly outperform ECF reserves targets.

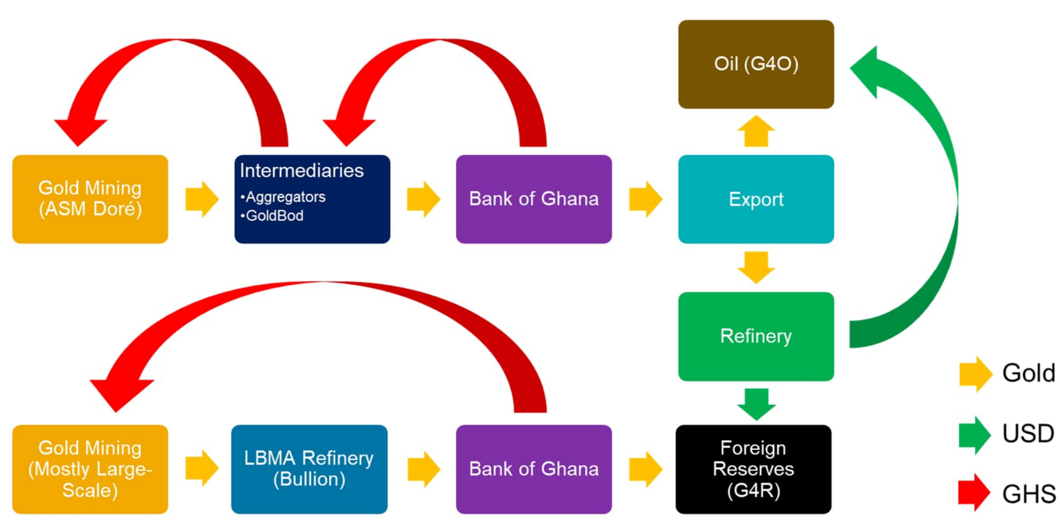
9. The DGPP is an umbrella term for central-bank gold-related operations. DGPP operations involve the purchase of gold in cedis by the BoG, with Gold-for-Reserves (G4R) initially aimed at building reserves (either as bullion or via FX from ASGM gold sales) and Gold-for-Oil (G4O) aimed at financing oil imports (G4O was discontinued in May 2025). DGPP operations can be summarized in the following way (Figure 5):

a. Bullion purchases are straightforward: Ghanaian gold is refined into bullion abroad, in LBMA-certified refineries (mostly in Europe). This gold is mostly purchased at market price from large-scale gold mines, with a negligible amount from ASGM gold miners (in part because of sourcing requirements). This gold is then held in external vaults at foreign central banks or in bullion banks, and counts toward foreign reserves.

b. ASGM doré gold purchases are more complex: gold is first acquired domestically through GoldBod (acting as a broker), who sources it from aggregators, and is exported through private off-takers. Under G4R, the proceeds are placed in the country's foreign international reserves.

c. G4O was a variant on the G4R doré gold purchase channel. Instead of accruing to foreign reserves, physical gold (under the "barter" channel) or the proceeds of gold sales to refiners were used to purchase refined oil products for imports. These oil products were then distributed by the Bulk Oil Storage and Transportation Company (BOST, now BOSTenergies), a Ghanaian state-owned enterprise, which was itself financed by the BoG.

Figure 5. Stylized DGPP Operations



10. **DGPP-related flows have become the predominant driver of BoG's FX cash flows and reserves accumulation.** Annual gold-related inflows increased from US$1.7 billion in 2023 to US$12.7 billion in 2025, including US$1.1 billion in net gains from gold bullion sales; most of this increase came from the scaling up of ASGM purchases, as gold bullion purchases from large-scale mines grew from US$800 million to US$1.2 billion. Over the same period, total BoG FX inflows from other sources rose from roughly US$6 billion to US$8.3 billion. The DGPP has therefore been operationally central to the eightfold increase in gross international reserves since the beginning of the ECF-supported program, to US$11.9 billion (about 4 months of imports) by end-2025—outperforming program goals by a significant margin.

11. **The DGPP has enabled the BoG to undertake large-scale FX sales.** The BoG, constrained by the inadequacy of its reserves, conducted FX sales for US$1 billion in 2023. It started rapidly scaling up its FX sales in 2024, and sold US$10.6 billion in 2025, or 9.2 percent of GDP. This amount is equivalent to 51 percent of total inflows, or 92 percent of DGPP-related inflows (excluding one-off bullion sales). The scaling up of FX sales improved FX market liquidity and coincided with a sharp appreciation of the cedi against the dollar (41 percent in nominal terms in 2025).

12. **The BoG adopted a new FX operations framework to improve the transparency of its FX sales (Figure 6).** In November 2025, the BoG implemented a new FX operations framework (with IMF TA). This framework envisages that inflows exceeding regular FX outflows, reserve accumulation needs, and FX intervention budgets would be "intermediated" to private banks through FX auctions. These auctions are pre-announced each month, a significant improvement in transparency from the previous ad hoc auctions or adjudications; the change helped the BoG reinforce the predictability of FX supply to the local FX market.

Figure 6. The BoG's New FX Operations Framework

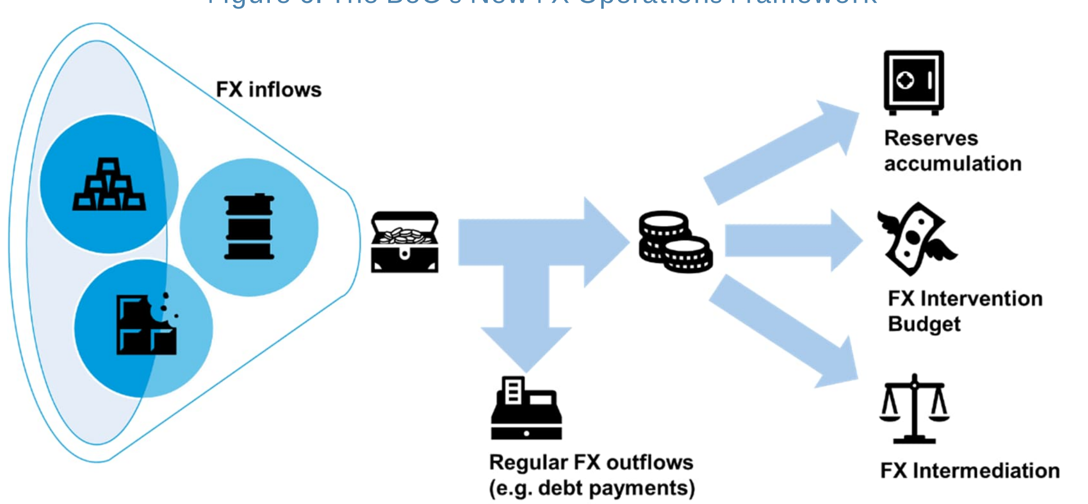
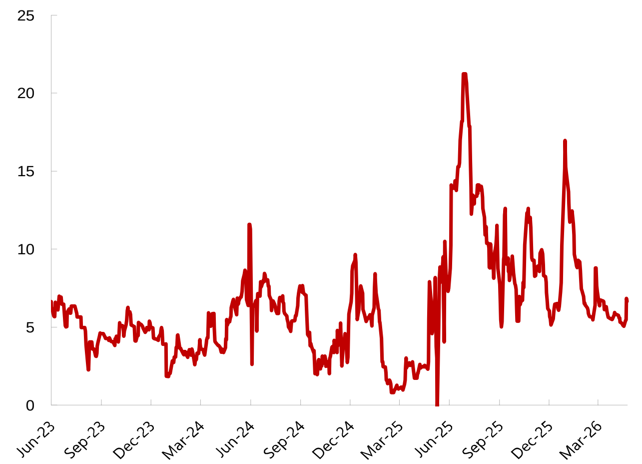


Figure 7. Spread Between Forex Bureau and BoG Reference Mid Cedi Rates
(Percent)



Note: Data from June 2023 to April 2026.

13. DGPP operations have generated significant losses for the BoG. Losses in 2024 were equivalent to almost US$400 million (0.5 percent of GDP), one third of which were related to G4O. In 2025, the significant scaling up of DGPP operations led to losses of over $1.7 billion (1.5 percent of GDP), almost entirely related to G4R doré purchases; this amounted to a loss of 17 percent of the value of doré gold sold by the BoG. Losses accrued on gold trades are a combination of service and assay fees paid to GoldBod, discounts on gold sold to off-takers (exporters) and, most importantly, exchange rate losses from the spread between the forex bureau rate paid to purchase gold and the cedi reference rate used for BoG accounting (Figure 7). Survey data suggests that Ghanaian ASGM prices are among the highest in the region. These accounting losses partly reflect valuation effects rather than economic costs, but they still weaken the BoG balance sheet and imply transfers to recipients of FX at the reference rate: the BoG itself (when it accumulates reserves) or the recipients of BoG FX sales done at the reference rate. Losses have also accrued in operations related to the DGPP, notably G4O-related claims on BOST that were partly written off in 2024. These losses do not include the cost of sterilizing the reserves accumulated using the DGPP. The BoG's negative equity was 6.7 percent of GDP at end-2025
(Figure 9).

C. Prospects for the DGPP

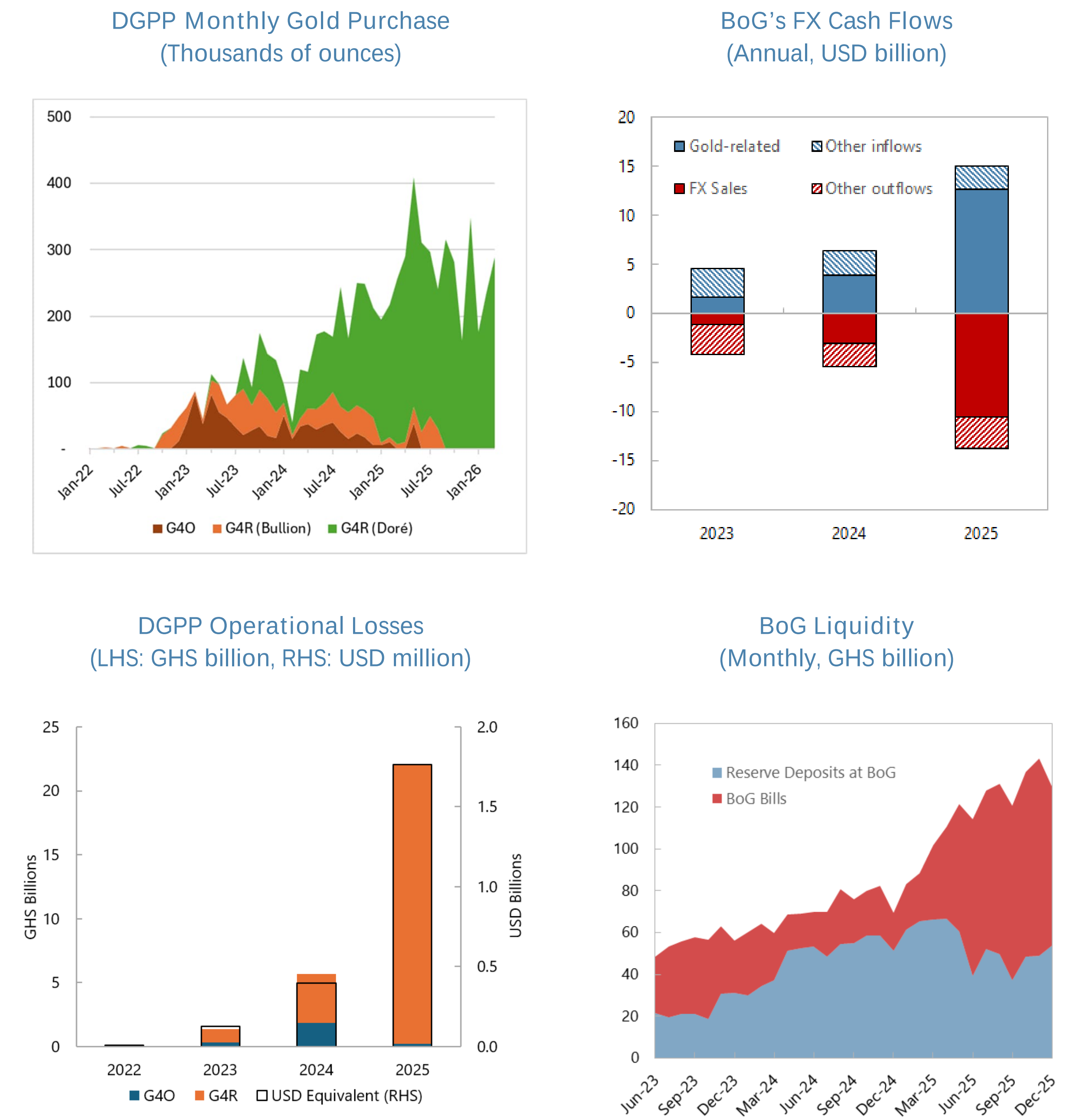
14. DGPP activities will be fully transferred to the GoldBod as of July 1, 2026. Under a memorandum of understanding, the BoG will fully exit the DGPP and will no longer be exposed to its quasi-fiscal financial risks in the future. It will continue to play a role as GoldBod's fiscal agent, and as a recipient of monetary gold for its reserves. All costs of the DGPP will be transparently assumed by the government. These costs are expected to be brought down to 5 percent of gold purchased; some progress has been made in 2026Q1, with these costs down from 14.5 percent (2025) to 11.4 percent. This was done notably through the halving of assay fees, service charges and other logistical costs. The spread between the forex bureau rate and the reference rate has also been reduced significantly in 2026Q2.

15. Ghanaian authorities intend to significantly scale up domestic gold purchases in coming years. Under the Ghana Accelerated National Reserve Accumulation Policy (GANRAP), domestic gold purchases will be the primary instrument to accumulate reserves to reach 15 months

of import coverage by 2028—significantly beyond Fund assessments of reserve adequacy requirements, which are estimated at 6 months of import coverage. The plan calls for the BoG to purchase twice as much LSGM gold as it had in the recent past, with a target of 30 percent of total output at a discount of 0.55 percent relative to international prices, refining it domestically, and validating it at a LBMA-certified South African refinery. This contrasts with earlier direct purchases by the BoG under G4R (up to 20 percent of volumes, but often significantly less), which were made at the international price and made once the gold was already refined. The plan also calls for slightly more ASGM gold purchases over the next three years than it did in 2025. The plan would have significant opportunity costs, but also significant sterilization costs: at 15 months of imports, the cost of open market operations alone would likely reach 3 percent of GDP (from 1 percent in 2025). GoldBod has also licensed a second aggregator to supplement Bawa-Rock, which supplied over 60 percent of ASGM gold exported in 2025.

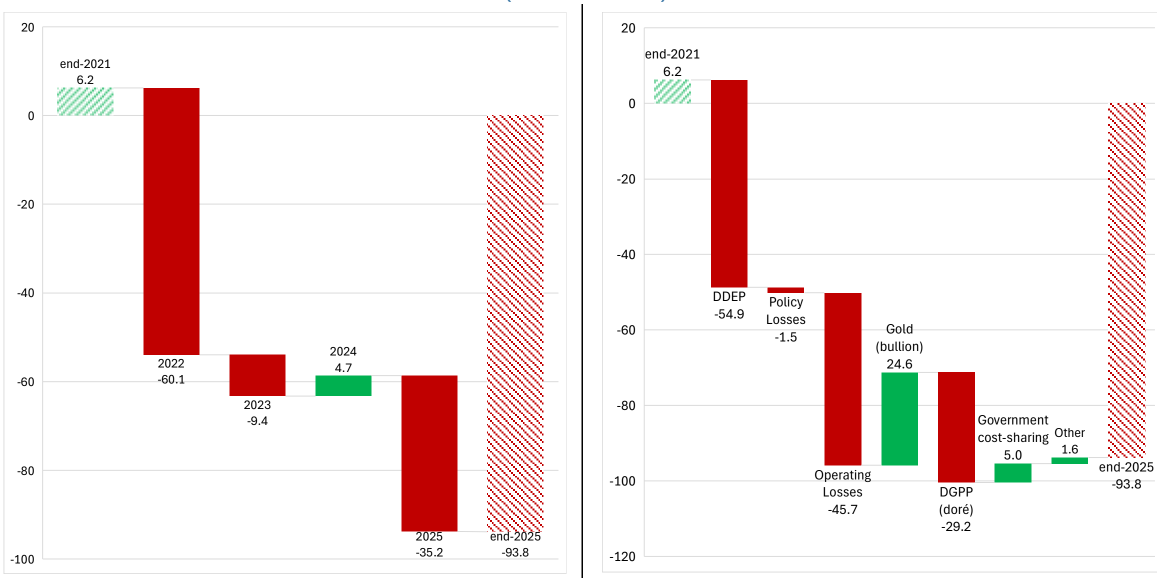
16. **Responsible sourcing should be a central pillar of GoldBod's operational framework.** GoldBod has committed to align its gold-sourcing practices with internationally recognized standards, including the OECD Due Diligence Guidance and the LBMA Responsible Gold Guidance, and to apply due diligence aimed at excluding gold linked to human rights abuses, forced or child labor, bribery, tax evasion, money laundering, terrorist financing, environmental violations, and labor-law breaches. GoldBod has also committed to assess suppliers' and customers' ESG practices, including environmental, health, labor, pollution-control, hazardous-chemical-management, community-relations, and fair-labor practices. These commitments build on the BoG's earlier responsible sourcing policy framework of the DGPP and should be operationalized through stronger KYC/AML-CFT controls, risk-based supplier onboarding, traceability from mine site to export, and transparent reporting on gold purchases, costs, and operations. If credibly implemented, these reforms would strengthen the sector's sustainability by reducing smuggling and illicit financial flows, improving transparency and auditability of ASGM gold flows, limiting environmental damage from galamsey, and progressively integrating Ghana's ASGM sector into responsible international gold supply chains.

Figure 8. The Bank of Ghana's Domestic Gold Purchase Program



Sources: Bank of Ghana, Staff calculations

Figure 9. The Evolution of BoG Equity, 2021–25
(GHS billions)



Source: Bank of Ghana financial statements, IMF Staff calculations.
Notes: DDEP figures include losses on Government of Ghana and Cocobod securities and loans.
Policy losses are equal to interest income minus the cost of open market operations (OMOs, repos).
Operating losses include all operating profits and losses, except DGPP operations.
Gold (bullion) includes the proceeds from refined gold sales and gold price movements.
DGPP (doré) includes losses from G4R (doré) and G4O operations, in net terms before 2025.
Government cost-sharing is the GHS 5 billion cost sharing receivable at end-2025.
"Other" includes fair value changes, exchange rate differences recorded in other comprehensive income, impairment losses and gains (other than DDEP-related), taxes, changes in other reserves.