

## The use of Gold-Backed Loans to Benefit the Guyana Gold Board and Small and Medium-Scale Miners in Guyana

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### Abstract

*This study proposes establishing a “gold-backed” loan facility, a scheme that would benefit both the Guyana Gold Board (GGB) and small- to medium-scale gold miners, and, by extension, the economy. The study uses a case study approach, and financial modelling will be integrated to show how participants in the scheme would benefit and, as such, will not be reliant on the informal lending that seems to be pervasive in the gold mining sector. The gold-backed loan will lead to increased gold declarations, higher revenue, and greatly reduced informal borrowing by small- and medium-scale miners. The proposed facility is welcomed by many miners who were interviewed, as well as by their organised body, the Guyana Gold and Diamond Miners Association (GGDMA). Interviews were held with the said Association Executives (GGDMA) and the Key Managers of the Guyana Gold Board; all were very optimistic about the results to be derived from the establishment of the gold-backed loan facility. The findings clearly indicated that the programme would be worth the while, as benefits accrue to both the Guyana Gold Board and the small- and medium-scale miners who are participants in the scheme.*

**Keywords:** Finance Modelling, Gold-Backed Loan, Gold Miners, Small and Medium Scale.

### Introduction

For decades, gold mining has been the primary source of income for many households in Guyana and, by extension, a major contributor to the country’s foreign currency earnings. The Guyana Gold Board (GGB) was mandated by an Act of Parliament in 1981 to purchase all gold produced in Guyana and to carry on the business of trading in gold in gold, among other functions. Most notably, before oil, more specifically, in 2015, gold's contribution to Guyana’s Gross Domestic Product (GDP) was 10%. As of December 2024, it was 2.3% [5]. Gold declarations declined year after year except for 2024. For the year 2024, gold declarations increased by 0.49% compared to the previous year, 2023.

Revenue decreased mainly due to a decline in gold declarations reported in GGB’s Report [2].

Small and medium-scale mining is the main category of miners who sell gold to the Guyana Gold Board. The problem is that they often face challenges in benefiting from any form of credit facility to enhance their operations and achieve maximum yield; for example, if they want to buy state-of-the-art mining equipment or pay workers. The formal financial lending system, mainly the Commercial Banks in Guyana, concludes that risk exposure is way too high. While banks worldwide are risk-averse when lending to miners, some have risk management procedures in place to ensure that defaulters are kept in check. Miners who are not fully regularized – they mine on land/claims belonging to other miners; that is, they may have received verbal permission from the claim

owner to mine the 'tailings' of the operation. This group of miners, who may want to raise their mining standards, is definitely locked out of the formal system because the basic requirement is missing; as such, they will seek to enter the mainstream to benefit from the scheme. Most of the conditions imposed by formal lenders can only be met by large-scale miners.

This leads miners to resort to informal borrowing. Licensed gold dealers and other medium-scale miners who may be more financially affluent seize the opportunity to offer financial support to miners unable to access formal credit from financial institutions. The financial support is tied to miners selling their mined gold to lenders. This, for miners, maintains cycles of debt, as repayment conditions are unfavourable [3].

This study compared other countries that used gold-backed financing and found that this innovative solution helped connect miners with the formal financial system. Research shows that gold-backed loans let individuals and businesses use their gold as collateral, providing lenders with real security and enabling borrowers to access a more efficient lending process. In countries like India, Brazil, Peru, and the Dominican Republic, gold-backed, state-backed, and capacity-backed loans are programs designed to help close the gap between artisanal miners and the formal financial system [4, 5].

While Guyana's gold-backed system may be unique, stakeholders laud it as highly successful if it is implemented. The facility will benefit both the GGB and small and medium-scale miners. It will address the revenue issues GGB has experienced over the last decade, as well as the financial dilemmas miners face [1].

There must be buy-in from the Ministry of Natural Resources (Government), financial institutions, and the small- and medium-scale miners, who are integral to the project. A legal framework must be established, and risk management should be observed as well [1].

## Materials and Methods

The case study and financial modeling methods are combined to evaluate the feasibility of the proposed programme. This study uses a case study approach, combined with financial modeling, to assess the feasibility and impact of a gold-backed loan facility for the Guyana Gold Board and small- to medium-scale gold miners.

Writers argued that the case study approach is most effective in mining sector research for examining complex, situation-specific issues in detail. Studies have shown that this approach is highly applicable to mining research, enabling detailed analysis of complex, situation-specific issues. Other studies have also found that the case study approach is inherently multimodal; it can combine qualitative and quantitative data sources to provide a comprehensive understanding of the research's intricacies. Studies emphasized that case studies are naturally multimodal, combining qualitative and quantitative data to offer a thorough understanding of the phenomenon [5].

## Data Collection and Integration

Studies upheld the view that stakeholders' feedback ensures the practical relevance and validity of the findings. Therefore, this study employs primary qualitative data collected through semi-structured interviews and consultations with key stakeholders. Semi-structured interviews were conducted with four managers from the GGB: the Administrative Manager, the Finance Manager, the Senior Internal Auditor, and the Legal/Compliance Manager. Additionally, two executive members from the GGDMA were interviewed. Consultations also involved miners who visited the Georgetown office to conduct business, particularly those there to sell gold. Over the course of a three-week period, each day, clients were asked for 10 minutes of their time to discuss the proposed gold-backed loan facility – a total of 1,200 small and medium-scale gold miners were consulted in groups of 35 to 50;

however, it is estimated that a total of 1,500 miners would be informed of the proposed facility [1, 4].

Studies explained that using stakeholders' feedback is a best practice in case study research, as it ensures the practical relevance and validity of findings [9].

The interviews and consultations were systematically analyzed to identify common themes and inform the design of the loan facility [9].

### Finance Modelling

The quantitative analysis in this study involves developing a financial model to establish the parameters of the proposed loan facility. The eligibility criteria, program structure, risk management protocols, and revenue streams will be evaluated. Insights from stakeholders, combined with quantitative financial modeling, create a mixed-methods approach increasingly recommended in case study research for its ability to yield richer, more actionable results [10, 11].

Financial modeling is used to analyze the performance and risks associated with the gold-backed loan facility. This model allows the

lender (GGB) and the investor (small- and medium-scale miners) to evaluate the facility's profitability and risks. Using the financial modeling tool, the viability and potential outcomes of mining sector interventions can be assessed. For this study, the model developed a loan structure and eligibility criteria based on the value of gold collateral, mining production capacity, and repayment terms. Anticipated growth in gold declarations, loan interest income, and related management fees for the GGB. Risk assessment protocols are considered; therefore, a sensitivity analysis of gold price changes, default rates, and operational risks is conducted. The scenario analysis is also used to compare outcomes across various market conditions and policy settings [10, 11].

The financial model evaluates the gold-backed loan facility using discounted cash flow (DCF) analysis, net present value (NPV) calculations, and scenario analysis, as shown in Table 1 and Table 5, respectively. It employs best practices from mining finance literature. The DCF uses the projected income, operational costs, and risk-adjusted discount rate [7].

**Table 1.** Discounted Cash Flow Analysis with Uptake Rates [7]

Year	Uptake Rate	Projected Income (GYD)	Net Cash Flow (GYD)	Discounted Cash Flow (GYD)
2025	25%	7,287,500,000	6,558,750,000	5,703,260,870
2026	50%	26,500,000,000	23,850,000,000	18,034,026,465
2027	75%	79,500,000,000	71,550,000,000	47,045,286,430
Total		-	-	70,782,573,765
Initial Investment		-	-	20,000,000,000
NPV		-	-	50,782,573,765

*Source from the Researcher's field work 2025*

A three-year projection, minus the initial investment to establish the facility, is used to calculate the Net Present Value (NPV) and the total discounted cash flows. Table 1 shows the

results of the DCF and NPV analyses, highlighting the facility's potential to create significant value for both the Guyana Gold Board and participating miners [7].

The Discounted Cash Flow illustrates detailed market adoption, with participation rates of 25% in the first year, 50% in the second year, and 75% in the third year. This proposal reflects the practical realities of onboarding, educating, and formalizing small and medium-scale miners as borrowers. The adoption curve may be steep; nevertheless, the facility shows strong financial viability, with an NPV of GYD 50.78 billion. While this scenario appears conservative, it highlights the resilience of the gold-backed loan facility's business model and emphasizes its potential to deliver significant value to both the GGB and participating miners, even under risk-mitigated, realistic implementation conditions [10].

### **Integration Methods**

The case study emphasizes the importance of incorporating stakeholder feedback into financial modeling. It uses qualitative insights from stakeholders to guide model parameters and assumptions. Ongoing stakeholder input helps verify outputs and proposed facility structures. Additionally, it ensures that the final recommendations are both evidence-based and practically relevant to the Guyanese context.

This mixed-methods approach is supported by the literature, which highlights the advantages of combining qualitative and quantitative methods to enhance the depth and relevance of case study results [5].

### **Case Study: Guyana Gold Board and Small & Medium-Scale Miners**

This case study explores the potential use and effects of a gold-backed loan facility in Guyana, focusing on the Guyana Gold Board and small- to medium-scale miners.

### **Background**

GGB is the official agency responsible for purchasing all gold produced in Guyana. Recently, GGB has seen declining revenues due to fewer gold declarations. Additionally, miners who usually depend on informal financial channels and gold dealers are becoming less

willing to stay involved because they feel exploited and lack access to formal credit. This hampers their ability to invest in equipment and grow their operations.

### **Proposed Facility Structure**

The structure of the gold-backed loan facility is designed to address both the challenges faced by small and medium-scale gold miners while also supporting the GGB's objectives. Miners can use a percentage of their gold as collateral to secure a short- to medium-term loan to meet the financial demands of their mining operations. GGB is the intermediary between the miners and the financial institution that sees it fit to be a part of the programme. Alternatively, the Bank of Guyana (BOG), the central bank and the Government's bank, is the institution that would pay out the funds after GGB has conducted its enhanced due diligence and ascertained that the miner satisfies the eligibility criteria.

Gold valuation and storage are considered key features for transparency and security. The gold will be valued at the current market price at the start of the loan application process. Based on the loan amount, both lenders and borrowers are protected throughout the lending process. The goal is to achieve a loan-to-value ratio between 90% and 100% of the market value (which is determinable due to the intermediary/facilitation role of the GGB). This setup allows miners to capture potential gains (increased profitability) that they would otherwise miss due to liquidity constraints they typically face. Several critical factors will be assessed to determine the payback period and the applicable interest rates. There will be competitive interest rates and flexible repayment terms, making the facility attractive and accessible to miners [7].

The artisanal miners who choose to participate in the formal financial system scheme will accept a 90% payout based on the London Bullion Marketing Authority (LBMA) price on the day of the gold delivery and

valuation to the GGB – this is referred to as the delivery date, which would be reconciled with the financial proceeds realised on the execution date. This effectively means that the small- and medium-scale miners will accept a capped downside risk of 10% in exchange for an uncapped upside. The GGB will receive a management service fee of 2%. Risks will be effectively managed, and strategies will be in place to handle price volatility and potential defaults. With robust standard operating procedures (SOPs) in place to guide the process, the facility is well-positioned to build trust among stakeholders and promote broader participation in formal financial systems [6].

The implementation of the gold-backed loan facility is expected to deliver significant benefits to all stakeholders. For miners, the facility offers better access to affordable credit, which would lessen their dependence on informal lenders and enable more investment in equipment and operational growth. The increased access to capital is likely to boost productivity and support the expansion of mining activities [12].

For the Guyana Gold Board, the facility is expected to lead to higher gold declarations, as more gold would be sold through official channels. This, in turn, would increase revenues from both gold sales and the interest and fees generated by the loan programme. The formalisation of financial transactions within the sector would also promote greater transparency and better sector performance.

On a broader scale, the facility is expected to promote financial inclusion, increase productivity, and create a more resilient and transparent gold market in Guyana. By integrating miners into the formal financial systems and supporting sector growth, the gold-backed loan facility has the potential to drive sustainable economic development and strengthen the overall mining industry [4].

This case study concentrates solely on the estimated income from the proposed gold-

backed loan facility without considering the Guyana Gold Board's other trading or operational activities. When developed with stakeholder input and effective risk management, a gold-backed facility can address major financial issues in Guyana's gold sector and encourage sustainable growth [7].

Table 3 offers an overview of the potential reach and scale of the gold-backed loan facility among small and medium-sized miners. The table categorizes the client base into two groups: (a) small-scale and (b) medium-scale, estimating how many are likely to use the facility. The gradual onboarding and education of miners are shown. The table is split by year and client type for transparency. The total loan value per year is the sum of the small—and medium-scale segments.

Segmenting gold producers by annual uptake rate provides the foundation for estimating the annual growth of the loan portfolio. By multiplying the expected number of loans in each segment by the average loan size for that segment, the total loan size and total loan value for each segment and each year are derived. These figures directly inform the projected income and cash flows in the subsequent financial analysis, ensuring that all projections are grounded in realistic adoption scenarios.

The Loan Portfolio Summary, as shown in Table 2, acts as a foundation for strategic planning, financial forecasting, and policy development, ensuring that the gold-backed loan facility delivers long-term benefits to miners and the economy. The loan portfolio summary is sensitive to gold price volatility, which implies that higher gold prices increase the value of collateral and the loan portfolio, while lower prices reduce them. It is also sensitive to the adoption rate. The more miners participate, the larger the portfolio and the higher the income, but also greater exposure to operational and credit risks. [8].

**Table 2.** Loan Portfolio Summary [8]

Category	Value (GYD)
Total Loan Portfolio	101,437,500,000
Projected Income	106,000,000,000

*Source from the researcher's field work 2025*

The summary offers a brief overview of the total financial exposure and expected income associated with the gold-backed loan facility. It consolidates the estimated values of all loans extended to small- and medium-scale miners in Guyana across different adoption scenarios. It also estimates the income generated by these loans, including the interest and fees miners pay.

The study assumes that uptake rates and growth were 25% in the initial phase, but only a quarter of eligible miners participated. The total loan portfolio is GYD 33.81 billion, with projected income of GYD 53 billion. This phase reflects cautious adoption, likely due to the

need for education, trust-building, and formalization. The 50% uptake indicates that the program is gaining traction and that more miners are joining, doubling the loan portfolio to GYD 67.62 billion. Projected income remains at GYD 53 billion, assuming stable gold prices and similar long-term conditions. At 75% uptake, full adoption occurs, the loan portfolio reaches GYD 101.44 billion, and projected income jumps to GYD 106 billion. This scenario demonstrates the facility's potential to scale and deliver significant financial benefits to both miners and the Guyana Gold Board [12].

**Table 3.** Segmentation of Gold Producers [12]

Client Type	Number of Clients	Expected Uptake	Expected number of loans	Average Loan Size	Total Loan Value
Small scale	1,100	25%	275	57,500,000	15,812,500,000
Medium scale	900	25%	550	80,000,000	18,000,000,000
Small scale	1,100	50%	825	57,500,000	31,625,500,500
Medium scale	900	50%	225	80,000,000	36,000,000,000
Small scale	1,100	75%	450	57,500,000	47,437,500,000
Medium Scale	900	75%	675	80,000,000	54,000,000,000

*Source from the Researcher's field work 2025*

**Table 4.** Scenario Analysis [12]

Scenario	Gold Price (USD)	Uptake Rate	Total Loan Portfolio (GYD)	Projected Income (GYD)	Key Implications
Conservative	1,100	25%	33,812,500,000	53,000,000,000	Moderate impact, suitable for cautious rollout
Baseline	2,000	50%	67,625,000,000	53,000,000,000	Balanced growth, moderate
Optimistic	4,000	75%	101,437,500,000	106,000,000,000	High impact, high risk, requires robust management

*Source from the Researcher's field work 2025*

The gold-backed loan facility, therefore, has significant implications for stakeholders. For miners, it provides increased access to affordable, formal credit, resulting in less dependence on informal lenders, better loan terms, and more capital investment and growth [13–16]. For the GGB, it leads to higher gold declarations and increased revenues from interest and fees. Additionally, the facility supports sector formalisation and transparency. For the sector, it promotes greater financial inclusion, productivity, and resilience. The

summary indicates that, even with conservative adoption, the facility remains financially viable and able to withstand market fluctuations [13].

The Gold Declarations Impact Table 4 shows 2025 gold declarations, and the 2026 projection is 600,000 ounces. The table indicates that with the launch of the gold-backed loan facility, there is a forecasted increase in gold declarations of 38.25%. This significant growth highlights the facility's transformative potential for both miners and the economy [13].

**Table 5.** Gold Declarations Impact [13]

Period	Gold Declarations	Increase (%)
2025	434,000	
2026	600,000	38.25

*Source from the researcher's field work 2025*

Table 6 presents the sensitivity analysis, showing how changes in the international gold price and the rate at which miners adopt the gold-backed loan facility (market uptake) influence the programme's financial results. This analysis helps stakeholders understand the potential outcomes under different market conditions and adoption scenarios. There is gold price sensitivity: as gold prices increase, the average loan size and total loan portfolio increase, leading to higher projected income for the facility. Conversely, lower gold prices reduce collateral's value, shrinking the loan portfolio [15]. Uptake Sensitivity indicates that, as more miners participate each year (25%, 50%, 75%), the total loan portfolio and

projected income grow, even if gold prices remain unchanged. The combined effects may be described as the most optimistic scenario (high gold price and high uptake), resulting in the largest loan portfolio and income, while the most conservative scenario (low gold price and low uptake) produces the smallest [12].

Table 6 also highlights the significance of both market conditions (gold price) and facility adoption (uptake) in determining the financial success of the gold-backed loan facility. The GGB, the Ministry of Natural Resources, and stakeholders can use the analysis to prepare for various scenarios, set realistic expectations, and develop risk-mitigation strategies, such as price hedging and phased rollouts [12].

**Table 6.** Sensitivity Analysis for Gold Prices [15]

Year	Gold Price (USD/oz)	Uptake Rate	Avg Loan size Small Scale GYD	Avg Loan Size Medium Scale (GYD)	Projected Income (GYD)	Total Loan Portfolio GYD	Projected Income 10%
2025	1,100	25%	31,625,000	44,000,000	29,150,000,000	8,706,875,000	870,687,500
2025	2,000	25%	57,500,000	80,000,000	53,000,000,000	33,812,500,000	3,381,250,000
2025	4,000	25%	115,000,000	160,000,000	106,000,000,000	67,625,000,000	6,762,500,000
2026	1,100	50%	31,625,000	44,000,000	29,150,000,000	17,413,750,000	1,741,375,000
2026	2,000	50%	57,500,000	80,000,000	53,000,000,000	67,625,000,000	6,762,500,000
2026	4,000	50%	115,000,000	160,000,000	106,000,000,000	135,250,625,000	13,525,000,000

2027	1,100	75%	31,625,000	44,000,000	29,150,000,000	26,120,625,000	2,612,062,500
2027	2,000	75%	57,500,000	80,000,000	53,000,000,000	101,437,500,000	10,143,750,000
2027	4,000	75%	115,000,000	160,000,000	106,000,000,000	202,875,000,000	20,287,500,000

*Source from Researcher's field work 2025*

The methodology applied is clear, enabling readers to understand and replicate the calculations or modify them for different assumptions [16].

## Results

The journal seeks to establish that a gold-backed loan facility in Guyana could significantly benefit both the Guyana Gold Board and small to medium-scale miners. Key findings include:

1. **Strong financial Viability:** The proposed scheme will ensure strong financial viability. The DCF analysis shows a strong NPV, even with conservative adoption assumptions. Based on the uptake rates used, the total discounted cash flow over three years is GYD70.78 billion; after subtracting the initial investment of GYD20 million, the resulting NPV is GYD50.78 billion. This positive NPV indicates that the facility is not only financially viable but also resilient to slower-than-expected adoption, market fluctuations, and operational risks. Summarizing the NPV with realistic assumptions confirms that the gold-backed facility is a financially solid investment for the GGB and participating miners. It demonstrates that, even with conservative projections, the program can generate significant economic benefits and promote sector growth, formalization, and financial inclusion.
2. **Stakeholder Support:** Consultations revealed strong backing from GGB officials, who believe the facility could increase gold declarations and create an upsurge in GGB's income. All the miners to whom this proposed initiative was shared expressed willingness to participate

if the programme offered fair interest rates and flexible repayment options. Financial institutions recognized gold's potential as collateral but emphasized the need for effective risk management.

3. **Sector Impact:** The facility is expected to serve 1,500 miners (beginning with 25% in the first year, increasing to 50% in the second year, and reaching 75% in the third year), with a total loan portfolio exceeding GYD 101 billion. Gold declarations are projected to rise by 38.25%, from 434,000 ounces in 2025 to 600,000 ounces in 2026.
4. **Risk factors:** Sensitivity analysis indicates that gold price volatility poses a major risk. Projected income for GGB varies significantly with international gold prices, emphasizing the importance of effective risk management strategies.

## Discussion

The primary objectives of this study were to evaluate whether a gold-backed loan facility could address the persistent problem of limited access to formal credit for small and medium-scale miners in Guyana, while simultaneously supporting the Guyana Gold Board's financial stability and sectoral growth. The results provide strong evidence that the proposed facility is both financially viable and operationally impactful. The discounted cash flow (DCF) analysis yielded a positive net present value (NPV) of GYD 50.78 billion over a three-year period, even under conservative adoption scenarios. This finding directly supports the hypotheses that a gold-backed loan facility can generate substantial economic benefits for both miners and the GGB.

Table 4 shows the projected increase in gold declarations – rising by 38.25% from 434,000 ounces in 2025 to 600,000 ounces in 2026 –

demonstrates the facility’s potential to incentivize miners to sell gold through official channels, thereby boosting the board’s revenues and enhancing sector transparency. The 600,000 projected gold declarations represent a conservative projection, because there are miners who are referred to as the “pork-knockers” or unregulated miners who may receive an offer to mine ‘tailings’ after the owner of the claim would have ‘washed down’. These miners would not have only received a ‘word of mouth’ to mine and are found nowhere in the system. Miners in this category expressed a desire to be regularized. The Guyana Geology and Mines Commission (GGMC) is the commission responsible for regulating miners. During consultation sessions with the miners, they were cautioned not to benefit from the system if they were not counted as regular miners.

These outcomes aligned with the broader goals outlined in the introduction: improving financial inclusion, reducing reliance on informal lenders, and promoting sector formalisation.

The results of this study are consistent with findings from other regions where gold-backed loans have been implemented. In India, gold-backed loans have become a cornerstone of financial inclusion, particularly for households

and small businesses lacking access to traditional credit. Studies highlight the effectiveness of gold-backed loans in expanding access to credit, reducing dependence on informal lenders, and supporting sector growth. The Indian experience demonstrates that high loan-to-value ratios, minimal documentation, and rapid disbursement are key factors in the success of these programmes [7]. Regional case studies, as shown in Table 7, reflect that Suriname, Brazil, Peru, and the Dominican Republic further corroborate the importance of robust risk management, transparent and supportive regulatory frameworks, and transparent gold valuation. Suriname’s use of microloans and group lending through cooperatives has improved miners’ bargaining power, though informality remains a barrier. Brazil and Peru have implemented community-based and government-supported models to encourage cleaner technologies and sector formalisation, but both face bureaucratic and compliance challenges. The Dominican Republic’s partnership between banks and mining companies has improved access to capital and promoted formal gold sales, underscoring the importance of regulation, support, and risk management [14-18].

**Table 7.** Comparison of Gold-Backed Loan Schemes in Selected Regions [14-18]

Country	Target Group	Partners	Loan Features	Key Outcomes	Challenges
Guyana	Small-medium scale	GGB, banks, and GGDMA	Gold as collateral, terms	Increased declarations, formalisation	Price volatility, literacy
India	Households, SMEs	NBFCs, banks	High LTV, low in the access	Financial inclusion reduced informal lending	Regulatory, risk management
Suriname	Artisanal mining	Cooperatives, banks	Micro Loans	Improved bargaining power	Informality, valuation
Brazil	Artisanal mining	Banks, NGO	Community-base	Cleaner tech, compliance	Bureaucracy, monitoring

Peru	Small-scale	Government, Banks	State-backed, former	Productivity, environmental gains	Compliance costs
Dominican Republic	Small-scale	Banks, mining companies	Gold-backed loan partnerships	Access to capital, formal sales	Regulatory support, risk mitigation

Sources: Goulart 2025., & Ranjan & Parihar 2024. Researcher's tabulation

The Guyanese context shares many of these traits: a large population of small and medium-scale miners, limited access to formal credit, and a need for sector formalization. The results of this study suggest that, with appropriate adjustments, the gold-backed loan facility can mirror the successes seen in other regions.

One of the key risks identified in the results is gold price volatility. The value of collateral and the size of the loan portfolio are highly responsive to international gold prices. When gold prices fall, both decline; when prices rise, both increase. The sensitivity analysis in the results section underscores the importance of robust risk management strategies, such as price hedging and flexible loan terms, to safeguard the facility's financial stability against market fluctuations [19].

The scale of financial benefits depends on miner participation. Lower uptake limits portfolio growth and income, while higher uptake increases exposure to operational and credit risks. The results show that gradual onboarding and education are necessary to build trust and encourage participation among miners. Capacity-building initiatives, including financial literacy training and support for formalization, are essential for maximizing adoption rates and minimizing default risk [8].

Operational risks include default risk, fraud, and inefficiencies in loan disbursement and repayment. The results highlight the importance of incorporating strong gold valuation, secure storage, and transparent processes to reduce fraud and over-leverage. Digital monitoring tools can play a vital role in tracking loan disbursements, repayments, and collateral status, enabling early detection of irregularities

and protecting the integrity of the loan portfolio [8, 20].

This is a new facility that will be implemented; therefore, provisions must be made to ensure it is ring-fenced and that other regulatory frameworks are in place to protect both the GGB and the miners. The results emphasize the need for clear standards for gold valuation, documentation, and loan-to-value ratios to promote transparency and accountability. Efforts to encourage formal registration, simplify compliance procedures, and incentivize miners to join the formal financial system are essential to reducing regulatory and informality risks.

A limited understanding of formal financial products among miners increases the risk of default and misuse. Targeted educational programmes and capacity-building initiatives are crucial for equipping miners with the knowledge and skills to make informed financial choices. By investing in financial literacy, stakeholders can decrease individual default risks and help sustain the sector's overall stability.

Some elements of the results verify important accomplishments. Financial inclusion, here the facility provides miners with access to affordable, formal credit, thereby reducing their dependence on informal lenders. Small- and medium-scale miners would be able to invest more in equipment and expand operations. Revenue is expected to grow. The facility is expected to lead to higher gold declarations and increased revenues from gold sales, as well as from the interest and fees generated by the gold-backed loan programme. The sector will be formalized, thereby promoting greater transparency and better

sector performance. The sector will recover from a setback. Even with conservative adoption, the facility remains financially viable and able to withstand market fluctuations. Consultations with stakeholders revealed strong backing from officials, miners, and financial institutions.

## Limitations

Despite these significant achievements discussed, there are limitations that must be recognized. There are regulatory gaps, as the absence of a strong regulatory framework creates risks to the credibility and effectiveness of the gold-backed loan facility. With the proposed facility, amendments to the GGB Act and the Anti-Money Laundering and Countering the Financing of Terrorism Act (ML/CFT) are required. These are all a part of the regulatory framework. The Guyana Geology and Mines Commission (GGMC) will collaborate with the GGB to ensure unregulated miners are brought under regulation.

Many small miners may continue using informal credit sources, as they mine without official registration or oversight, making credit assessment and loan enforcement more difficult. Most miners lack financial literacy, and their limited experience with formal financial products can impede their ability to navigate the loan application process and manage repayments responsibly.

Consultations with small- and medium-scale miners were conducted only at the corporate office. There are four other branches that should have been consulted, either using a pamphlet or a website article. This would definitely have a significant impact on the participants' interest.

The results of this study support the adoption of a gold-backed loan facility as a transformative solution for Guyana's gold mining sector. The facility could enhance financial inclusion, increase sector productivity, and improve transparency, provided identified risks are proactively managed and further research is conducted to refine implementation

strategies. By filling regulatory gaps, encouraging sector formalization, investing in financial literacy, and strengthening stakeholder collaboration, Guyana can unlock the full potential of gold-backed loans, fostering sector growth and sustainable economic development.

## Conclusion

The introduction of a gold-backed loan facility in Guyana presents an opportunity to transform the gold sector. Productivity will increase—miners can purchase advanced equipment, leading to higher declarations. GGB revenue will also grow, as the gold will be sold to the organization and then exported to generate foreign currency for the country.

Financial modeling demonstrates strong viability, with a highly positive NPV. This indicates that a significant portion of the mining community will benefit from the gold-backed loan facility, as stakeholder consultations show widespread support for the project. The model is designed to ensure that loan terms are fair, transparent, and supported by robust risk management strategies. By benchmarking against other regions, emphasis will be placed on tailoring financial products to local needs, investing in capacity-building, and fostering stakeholder collaboration.

Several key factors will be addressed to ensure the success of the gold-backed loan facility. Key challenges include regulatory gaps, miners without formal mining documents, and low financial literacy among miners. The recommendations in the proposal must be followed to ensure the proposed facility achieves its intended purpose. The GGB can unlock its full potential through gold-backed loans, promote financial inclusion, boost economic growth, and support sustainable development.

It cannot be overstated that a carefully designed gold-backed loan facility, supported by strong policies, stakeholder engagement, and ongoing capacity building, can act as a

catalyst for positive change in Guyana's gold mining industry. Focus on regulatory reform, risk management, and education will be essential elements to achieve the long-term benefits of this innovative financial strategy.

### **Conflict of Interest**

The author of this research currently serves as the General Manager of the Guyana Gold Board. This research will serve as a proposal for the Government's consideration and will in no way be used for financial gain. The alignment with this study is considered professional, as part of my responsibilities, I oversee the organisation's operations and ensure sustainability. All stakeholder consultations and data collection activities were carried out independently. No external funding was received from organizations such as the Guyana Gold Board, the Guyana Gold and Diamond Miners Association, financial institutions, or government agencies. While key stakeholders, including representatives from GGB, GGDMA, small and medium-scale miners, and financial institutions, were consulted to ensure the practical relevance and feasibility of the proposed facility, their insights did not compromise the objectivity or integrity of the research. The study complied with ethical standards, including informed consent and confidentiality. No conflicts of interest have affected the integrity of this research.

### **Ethical Approval**

The activities associated with this study, which include data collection, stakeholder engagement, interviews, and consultations, adhered to strict ethical standards. The researcher received consent from all participants in interviews and consultations. Their contributions were voluntary and based on a clear understanding of the study's purpose. It was made clear that confidentiality would be maintained throughout the research process, and the information would be used only for the study.

The interviews and consultations were conducted in a transparent and respectful way. Responses to interview questions were reviewed with participants to ensure clarity for both the interviewer and the interviewee. Those involved in consultations were allowed to ask leading questions to promote transparency and understanding. Sensitive information was not shared without explicit permission, and all findings were reported objectively, without external influence. The study did not involve any procedures or interventions that could pose risks to participants, and all relevant ethical guidelines were followed. Integrity and credibility were carefully observed throughout this research. The participants were assured that the results were trustworthy and responsible.

### **Author Contribution**

The gold-backed loan facility was conceptualized by the author after careful consideration of how to help small- and medium-scale miners who are locked out of the formal credit market in Guyana. An outline was drafted, the approach was designed, and the approach was finally executed. The stages include identifying the research problem, formulating the objectives, and developing the methodology, which combined case study analysis with financial modeling. Stakeholder consultations and interviews were conducted, during which qualitative data were collected from representatives of the GGB, GGDMA, Citizens Bank (Guyana) Limited, and the Bank of Guyana, as well as small- and medium-scale miners.

Quantitative analysis, including the building of the financial model, scenario analysis, and sensitivity testing, was carried out by the author following best practices from mining finance literature. The author incorporated stakeholder feedback into the modeling process to ensure practical relevance and accuracy.

The researcher also reviewed relevant literature, synthesized global and regional case studies, and contextualized findings for the

Guyanese mining sector. All ethical standards, including informed consent and confidentiality, were strictly followed throughout the research process. Thereafter, the researcher conducted the analysis, documented the findings and interpretation, and drew up the report. The final manuscript was prepared and revised by the author, who takes full responsibility for the integrity and accuracy of the work.

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### Data Availability

The data used to support the findings/results of this research can be made available upon reasonable request. This data includes interview scripts, consultation questions, and corresponding responses. The hard copy information is securely stored in a cabinet to maintain confidentiality and privacy.

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