



# BMG SMART CONTRACT CODE REVIEW AND SECURITY ANALYSIS

AUDIT REPORT



SEPTEMBER 26, 2023

[WWW.THECRYPTOAUDIT.COM](http://WWW.THECRYPTOAUDIT.COM)

## Audit Report:-

### Disclaimer:

This audit is only to the Smart-Contract code at the specified address!

Thecryptoaudit is a 3rd party auditing company that works on audits based on client requests. And as a professional auditing firm, we check on the contract for any vulnerabilities, backdoors, and/or scam scripts.

Therefore:

We are not financial advisors nor do we partner with the contract owners

Operations and website administration are fully on the client's side

We do not have influence over client operations, which can lead to website changes, withdrawal function closes, etc. One always has the option to do this through the contract.

Any concerns about the project themselves need to be raised directly to the project owners and not through Thecryptoaudit.

Investors are not in any way obliged, coerced, or influenced to invest in projects audited by Thecryptoaudit.

We are not responsible for your funds or guarantee you profits.

We highly recommend that investors do their own research and gain crypto experience before investing

To report any scam, malpractices and irregularities, please send a message via Telegram to <https://t.me/thecryptoaudit> for blacklisting.

### Conclusion:

The **BMG** Smart-Contract found no vulnerabilities, no backdoors, and no scam scripts.

The code was tested with compatible compilers and simulated manually reviewed for all commonly known and specific vulnerabilities.

So, **BMG** Smart-Contract is safe for use in the Polygon main network.

### Contract Overview Checklist

The code was tested with compatible compilers and simulated manually reviewed for all commonly known and specific vulnerabilities.

Vulnerability description	status
Visibility of functions and variables	Passed
Compiler error	Passed
ROI Investment Plan	Warning
Transfer Block	Passed

Floating pragma	Passed
Timestamp dependence	Passed
Deprecated solidity functions	Passed
Gas limit and loops	Passed
Front running	Passed
User balance manipulation	Passed
Dos with revert	Passed
Dos with block gas limit	Passed
Reentrancy security	Not used
Malicious libraries	Passed
Integer overflow/underflow	Passed
Using inline assembly	Passed
Missing event emission	Passed
Missing zero address validation	Passed
Use of tx.origin	Passed
Oracle security	Passed
Outdated compiler version	Passed
Block values as a proxy for time	Passed
Presence of unused code	Passed
Data consistency	Passed
Money giving bug	Passed
Unnecessary use of SafeMath	Warning
Self-destruct interaction	Passed
Signature unique id	Passed
Weak sources of randomness	Passed
Optimize code and efficient gas fee	Warning

<b>CRITICAL ISSUES</b>	(Critical, high severity)	<b>0</b>
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<b>HIGH ISSUES</b>	(High, medium severity)	<b>1</b>
<b>ERRORS, WARNINGS</b>	(Medium, low severity)	<b>0</b>
<b>OPTIMIZATION</b>	(Low severity)	<b>0</b>
<b>RECOMMENDATIONS</b>	(Very low severity)	<b>0</b>

## High ISSUE

The system used is called **ROI** and must be considered **HIGH-RISK**. Users' principal deposits cannot be withdrawn until end of the freeze time. Users can get dividends and referral commissions. Dividends are paid from deposits of other users. Do always invest with proper knowledge and investigation.

## Independent description of the smart-contract functionality

The **BMG** smart contract provides the opportunity to invest **USDT** from 50 USDT in the contract and get a 110% return on investment between 10 to 40 days if the contract balance has enough funds for payment.

- v. All dividends are calculated at the moment of request and available for withdrawal after freeze time.
- v. Each subsequent deposit is kept separately in the contract to maintain the payment amount for each deposit.

**Launched Date: Tue Sep 26 2023 15:45:30 GMT+0000**

### Contract Owners Fee

withdraw Fee: 10%

### INVESTMENT PLAN

- In order to make a deposit, the user must first register.
- The minimum deposit amount is 50 USDT
- The maximum deposit amount for the first deposit is 500 USDT
- The maximum deposit amount is 3000 USDT

- The amount of the deposit must be a multiple of 50. For example, 100, 150, 200, and...
- The amount of each user's deposit must be greater than the amount of the user's previous deposit.
- When the user makes a deposit, that deposit is frozen for a minimum of 10 days and a maximum of 40 days.
- The freeze time of the first deposit is ten days, and 24 hours are added to the frozen amount for each subsequent deposit.
- If the deposit is of split type and the freeze feature has been activated at least once, or the freeze feature is inactive and the time of the user's first deposit is less than the time of the activation of the last freeze feature, the user's deposit will be frozen for 40 days.
- There is a function in the contract called "redeposit" that users can Redeposit with the amount of the last deposit they made.
- In every deposit, If the deposit type is normal:
  - 0.5% will be added to the SGP pool.
  - 0.5% will be added to the insurance fund.
- Cycle max deposit rules:
  - After the launch of the project, every ten days, there is a limit for the deposit amount.
  - The minimum amount to deposit is 50 USDT, and the maximum is 500 USDT for the first deposit.
  - In the next deposit, If the freeze feature is active:
    - If the user's total freezed amount is greater than the user's total revenue, the minimum deposit amount will be 150% of the user's previous deposit amount; otherwise, it will be 200% of the user's previous deposit amount.
    - If this case maximum deposit amount will be calculated as follows:
      - $3000 \text{ USDT} * (2 \wedge \text{the number of times the freeze feature is activated})$

The calculation of the profit of the user's deposits is done in the deposit function.

- - After the freeze time of each deposit, the user can add the original amount of the deposit and 10% profit to his withdrawable amount by making a new deposit.
  - At the time of withdrawal, **27% of the user's profit** is added to the user's **split balance**, and **10% of the user's profit** will be sent to the owner's wallet, the uses of which are explained below. Based on this, **the approximate percentage** of return to the user will be **106.3%**.
- In each withdrawal:

- 30% of the profit will be added to the split balance
  - 6% of the profit will be sent to the owner's wallet
  - 4% of the profit will be sent to the marketing wallet
- The 10% percentage transferred to the owner wallet is calculated from the user's main deposit profit plus the user's referral profit plus the bonus earned from SGP pool.
- The 30% that goes to the split balance is from the final withdrawal amount of the user minus the amount of admin fee (10%).
- Based on above information, in each withdrawal:
  - 27% will be added to the split balance
  - 63% will be sent to the user's wallet
- If the user is level 0, his maximum profit withdrawal is equal to 250% of his total deposit. And if the user's level is more than 0, his maximum profit withdrawal is equal to 400% of his total deposit.

### Split Balance

Users can transfer their split balance to a new wallet and make a new deposit with the received split balance and receive profit again.

- The user can transfer split with the "transferBySplit" function.
- The user must make his deposit with the "depositBySplit" function.
- The receiver wallet can only run the "depositBySplit" function if he has **not made a deposit yet**.
- A new deposit will be made by split balance, and no need to send any more USDT.
- The amounts that can be transferred by split are 100 USDT and 50 USDT.
- In transfer by split, a 10% fee is charged from the sender; for example, if the user wants to transfer 100 USDT, he must have 110 USDT in his split balance, and 100 USDT will be sent to the destination, and 10 USDT will be charged as a fee.

### Withdraw

All profits that the user gets from daily rewards, as well as referral and deposit profits, are added to the user's withdrawable amount, and the user can withdraw them without a time limit.

- In each withdrawal:
  - Profit is 10%
    - 27% of the profit will be added to the split balance

- 6% of the profit will be sent to the owner's wallet
  - 4% of the profit will be sent to the marketing wallet
  - 63% of the profit will be added to user's wallet
  - The capital amount is 100% deposited amount
- In each deposit, 0.5% of it is added to the insurance fund and 99.5% of it is added to the main fund, based on which there are restrictions on withdrawals:
  - If the amount that can be withdrawn is less than the main fund, this limit is applied.
  - If it is the user's first withdrawal, or if the user made his first withdrawal when the withdrawable amount was less than the Main fund, he can perform the withdrawal operation. Otherwise, if the user makes a withdrawal, the profit will not be transferred to his wallet, and the profit will be lost along with the user's capital.

## Silver Gold Pool

After the launch of the project, every day that the project moves forward, a SGP round will be held every day, and users whose level is 2, 3 and 4 will receive an equal amount of bonus from SGP pool.

At the end of each day, prizes are distributed among winners, and the prize amount is added to the user's withdrawable amount.

## Freeze Reward

If the freeze reward feature is activated, the user's calculated profit after unfreezing the deposit is as follows:

- If the user's total frozen amount is more than the total amount of profit that has been added to the user's withdrawable amount, the user's profit after unfreezing is obtained from the difference between the user's total frozen amount and the user's total revenue amount.
- When the freeze feature is active, the freeze time of each cycle is calculated based on the maximum of 40 days for users who have deposited.
- This feature is disabled when the project is launched.

How to activate and deactivate the freeze reward feature:

The contract has a balance status that changes with each deposit based on the following table.

ID	Minimum balance required
1	$X \geq 100000$ USDT
2	$X \geq 300000$ USDT
3	$X \geq 800000$ USDT
4	$X \geq 2000000$ USDT
5	$X \geq 5000000$ USDT

After each withdrawal and deposit, if the contract balance falls below the value shown in the table below for each level, this feature will be activated, and if the contract balance is equal to or greater than the recovery value again, this feature will be disabled again.

ID	Balance to activate the freeze	Recovery amount required
1	$X < 50000$ USDT	$X \geq 150000$ USDT
2	$X < 150000$ USDT	$X \geq 500000$ USDT
3	$X < 600000$ USDT	$X \geq 1000000$ USDT
2	$X < 1500000$ USDT	$X \geq 3000000$ USDT
3	$X < 3000000$ USDT	$X \geq 8000000$ USDT

### Referral System (Match Bonus)

- The referral should be an active user; it means the referral address has at least one deposit.
- To register, the user must have a valid referrer or use the project account as a referrer.
- The referral bonus is distributed up to 20 levels.

### User Star (Referral Levels)

The user's star is calculated based on the following table

level	Last user investment required	Number of referrals required	Maximum team turnover required	Other team turnovers required
0	$x \geq 50$ USDT	0	0	0
1	$x \geq 1000$ USDT	50	10000 USDT	10000 USDT
2	$x \geq 1500$ USDT	120	30000 USDT	30000 USDT



3	x >= 2000 USDT	200	50000 USDT	50000 USDT
4	x >= 3000 USDT	300	100000 USDT	100000 USDT

### Guide:

- Total team turnover => Total direct team deposit turnover + total direct team freeze amount
- Max team turnover => The highest direct user team turnover + frozen amount
- Other team => (Total team turnover - Max team turnover)
- Number of referrals = number of referrals up to 20 levels

### How to distribute referral commission:

All commission percentages are calculated based on the reward amount.

- In order for the commission interest to be paid to the upline, the upline user must have an active deposit.
- The reward amount is equal to the user deposit amount.
  - The **maximum** amount with which the reward is calculated is the amount of the **last active deposit** of the upline user.
- The user in level 1 receives a commission if the type of deposit made by the referral user is normal or deposit by split.
- In order for level 2 to 5 users to receive referral commission:
  - The number of direct referrals of the user must be greater than the level in which the user wants to receive commission and deposit type must be normal or deposit by split.
  - If the deposit type is re-deposit:
    - the upline user level must be 1.
- In order for level 6 to 10 users to receive referral commission, user level must be 2 and deposit type must be re-deposit.
- In order for level 11 to 15 users to receive referral commission, user level must be 3 and deposit type must be re-deposit.
- In order for level 16 to 20 users to receive referral commission, user level must be 4 and deposit type must be re-deposit.
- Conditions for calculating the referral profit for the referrer in each deposit (one of the following conditions must be met for the referrer to receive the referral benefit).
  - The freeze reward feature must be disabled.
  - The user's total frozen amount must be greater than the user's total revenue amount.

### Referral bonus distribution table:



level	percentage of the reward amount
1	5%
2	2%
3	1%
4	2%
5	1%
6	1%
7	1%
8	1%
9	1%
10	1%
11	0.5%
12	0.5%
13	0.5%
14	0.5%
15	0.5%
16	0.2%
17	0.2%
18	0.2%
19	0.2%
20	0.2%



END OF AUDIT REPORT

