# Quick Audit Summary

* No back-doors found in the contract
* Some optimization can be applied.

# Variables and Constants

**EGGS\_TO\_HATCH\_1MINERS**: A number used in formulas.

**PSN:** A number used in formulas.

**PSNH:** A number used in formulas.

**initialized:** Indicate whether the smart contract is initialized. No one can invest until this variable is set to true. It’s value is set in seedMarket() and can be called just one time.

**hatcheryMiners:** Stores users’ Miner’s count.

**claimedEggs:** Stores users’ mined profit.

**lastHatch:** Stores users’ last hatch date.

**referrals:** Stores users’ current referral profit.

**refIncomes:** Stores users’ total referral profit.

**checkpoints:** Stores users’ last withdrawal time.

**hatches:** Stores users’ last withdrawal time.

**autoCompounds:** Shows if a user has enabled autocompound or not.

**autoCompoundsTime:** Stores users’ last autocompound enable time.

**levels:** Stores users’ referral levels.

**investments:** Stores user’s investments.

**withdrawals:** Stores users’ every day reinvests.

**refPercents:** 15 levels of referral bonus are paid according to this array. Values are [10%, 3%, 1%, 1%,1%,0.5%, 0.5%, 0.5%, 0.5%, 0.5%, 0.3%, 0.3%, 0.3%, 0.3%, 0.3%,]. Referral bonus is pain in the functions hatchEggs() and deposit.

# Functions

As private and internal functions are called only from the external functions, we don’t discuss them separately.

**hatchEggsCore()**

This function is core function for re-invest. This function is called by hatchEggs(). **No backdoor or bug is found in this function.**

**hatchEggs ()**

This function simulates re-invest. **hatches** array is set in this function. Referral bonuses are paid in this function. This function calls hatchEggsCore(). **No backdoor or bug is found in this function.**

**payReferrals()**

This function pays the 15 level referrals**. This function is private.**

**logReferrals()**

This function stores users’ referral counts. This function is used for presentation purposes**. This function is private.**

**sellEggs ()**

In this function user’s profit is converted to BNB and is sent to the user’s wallet. This function can be called every 13 days. After 13 days user has one day to withdraw otherwise, he has to wait 13 days. User’s checkpoint is set here in this function.

**Note: If you forget to reinvest one day, you have to wait until end of the current cycle and start a new cycle to be able to withdraw. One exception is that you have enabled auto-compound in the current cycle. In this case you can withdraw** **even if you have lost some days.**

**Note:** Auto-compound must be disabled before being able to withdraw.

This function fails if the *seedContract* function has not been called. **No backdoor or bug is found in this function.**

**buyEggs ()**

In this function users’ money is paid to buy miners. As miners’ number increases, users’ profit is generated quicker. Calling this function without a referral address is not allowed. Referral itself must have miners enabled. This function fails if the *seedContract* function has not been called.

**Note:** You must have disable auto-compound to be able to deposit.

**No backdoor or bug is found in this function.**

**enableAutoCompounding ()**

This function first makes a compound and then enables the auto-compound.

**disableAutoCompounding ()**

This function first makes a compound and then disables the auto-compound.

**calculateTrade ()**

This is the core function which balances trade. This function is called by *calculateEggSell()* and *calculateEggBuy()*.

**seedMarket ()**

Default parameters are set in this function. This function can be called by the developer only once.

**changeCeo(), changeMarketing, changeInsurance, changeCommunity**

Calling these functions buy dev reset owners’ address.

Overflow Attack: Impossible. SafeMath is used in all calculations.

**getEggsSinceLastHatch()**

This function calculates profit. **Profits stop if you don’t reinvest for more than one day.** If you have enabled auto-compound, it returns profit for 13 days maximum.