



# Audit Report

## **Y-5 FINANCE**

January 2022

Type	BEP20
Network	BSC
Address	0xcbd8aece0c920eef3f215ad4e7319052bd8eaa74
Audited by	© coinscope

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## Contract Review

<b>Contract Name</b>	BuybackBabyToken
<b>Compiler Version</b>	v0.8.4+commit.c7e474f2
<b>Optimization</b>	200 runs
<b>Licence</b>	MIT
<b>Explorer</b>	<a href="https://bscscan.com/token/0xCBd8aECe0c920eEF3F215ad4e7319052Bd8eaa74">https://bscscan.com/token/0xCBd8aECe0c920eEF3F215ad4e7319052Bd8eaa74</a>
<b>Symbol</b>	Y-5
<b>Decimals</b>	9
<b>Total Supply</b>	1,000,000,000,000,000
<b>Source</b>	contract.sol
<b>Domain</b>	y-5.finance

## Audit Updates

<b>Initial Audit</b>	8th January 2022
<b>Corrected</b>	

# Contract Analysis

● Critical
 ● Medium
 ● Minor
 ● Pass

Severity	Code	Description
●	ST	Contract Owner is not able to stop or pause transactions
●	OCTD	Contract Owner is not able to transfer tokens from specific address
●	OTUT	Owner Transfer User's Tokens
●	ELFM	Contract Owner is not able to increase fees more than a reasonable percent (25%)
●	ULTW	Contract Owner is not able to increase the amount of liquidity taken by dev wallet more than a reasonable percent
●	MT	Contract Owner is not able to mint new tokens
●	BT	Contract Owner is not able to burn tokens from specific wallet
●	BC	Contract Owner is not able to blacklist wallets from selling

# Contract Diagnostics

● Critical    ● Medium    ● Minor

Severity	Code	Description
●	L01	Public Function could be Declared External
●	L04	Conformance to Solidity Naming Conventions
●	L09	Dead Code Elimination
●	L11	Unnecessary Boolean equality
●	L07	Missing Events Arithmetic

## L01 - Public Function could be Declared External

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L1411,L664,L643 and 1 more

### Description

Public functions that are never called by the contract should be declared external to save gas.

```
setFees  
transferOwnership  
unauthorize  
...
```

### Recommendation

Use the external attribute for functions never called from the contract.

## L04 - Conformance to Solidity Naming Conventions

<b>Criticality</b>	minor
<b>Location</b>	contract.sol#L952,L1474,L1473 and 19 more

### Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow \_ at the beginning of the mixed\_case match for private variables and unused parameters.

```
_decimals  
_minDistribution  
_minPeriod  
...
```

### Recommendation

Follow the Solidity naming convention.

<https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions>

## L07 - Missing Events Arithmetic

**Criticality**

minor

**Location**

contract.sol#L1464,L1456,L1379 and 2 more

### Description

Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes.

```
targetLiquidity = _target
swapThreshold = _amount
buybackMultiplierNumerator = numerator
...
```

### Recommendation

Emit an event for critical parameter changes.



## L09 - Dead Code Elimination

**Criticality**

minor

**Location**

contract.sol#L36,L48,L77 and 9 more

### Description

Functions that are not used in the contract, and make the code's size bigger.

```
trySub  
tryMul  
tryMod  
...
```

### Recommendation

Remove unused functions.

## L11 - Unnecessary Boolean equality

**Criticality**

minor

**Location**

contract.sol#L1011

### Description

The comparison to boolean constants is redundant. Boolean constants can be used directly and do not need to be compared to true or false.

```
require(bool,string)(buyBacker[msg.sender] == true,Not a buybacker)
```

### Recommendation

Remove the equality to the boolean constant.

# Contract Functions

Contract	Type	Bases		
	Function Name	Visibility	Mutability	Modifiers
<b>SafeMath</b>	Library			
	tryAdd	Internal		
	trySub	Internal		
	tryMul	Internal		
	tryDiv	Internal		
	tryMod	Internal		
	add	Internal		
	sub	Internal		
	mul	Internal		
	div	Internal		
	mod	Internal		
	sub	Internal		
	div	Internal		
	mod	Internal		
<b>Clones</b>	Library			
	clone	Internal	✓	
	cloneDeterministic	Internal	✓	
	predictDeterministicAddress	Internal		
	predictDeterministicAddress	Internal		
<b>IUniswapV2Factory</b>	Interface			
	feeTo	External		-
	feeToSetter	External		-
	getPair	External		-

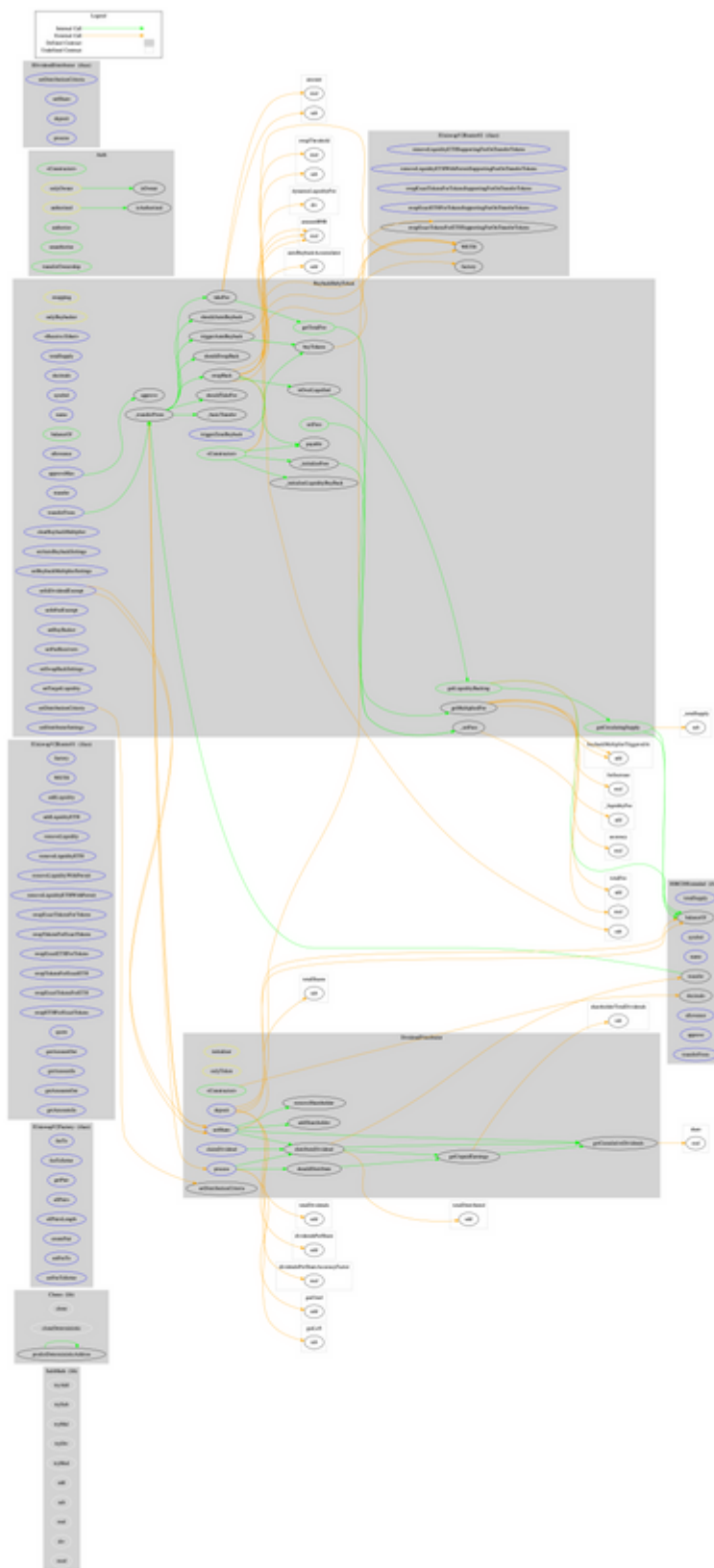
	allPairs	External		-
	allPairsLength	External		-
	createPair	External	✓	-
	setFeeTo	External	✓	-
	setFeeToSetter	External	✓	-
<b>IUniswapV2Router01</b>	Interface			
	factory	External		-
	WETH	External		-
	addLiquidity	External	✓	-
	addLiquidityETH	External	Payable	-
	removeLiquidity	External	✓	-
	removeLiquidityETH	External	✓	-
	removeLiquidityWithPermit	External	✓	-
	removeLiquidityETHWithPermit	External	✓	-
	swapExactTokensForTokens	External	✓	-
	swapTokensForExactTokens	External	✓	-
	swapExactETHForTokens	External	Payable	-
	swapTokensForExactETH	External	✓	-
	swapExactTokensForETH	External	✓	-
	swapETHForExactTokens	External	Payable	-
	quote	External		-
	getAmountOut	External		-
	getAmountIn	External		-
	getAmountsOut	External		-
	getAmountsIn	External		-
<b>IUniswapV2Router02</b>	Interface	IUniswapV2Router01		
	removeLiquidityETHSupportingFeeOnTransferTokens	External	✓	-
	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External	✓	-
	swapExactTokensForTokensSupportingFeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupportingF	External	Payable	-

	eeOnTransferTokens			
	swapExactTokensForETHSupportingF eeOnTransferTokens	External	✓	-
<b>IERC20Extended</b>	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
<b>Auth</b>	Implementation			
	<Constructor>	Public	✓	-
	authorize	Public	✓	onlyOwner
	unauthorize	Public	✓	onlyOwner
	isOwner	Public		-
	isAuthorized	Public		-
	transferOwnership	Public	✓	onlyOwner
<b>IDividendDistributor</b>	Interface			
	setDistributionCriteria	External	✓	-
	setShare	External	✓	-
	deposit	External	Payable	-
	process	External	✓	-
<b>DividendDistributor</b>	Implementation	IDividendDistributor		
	<Constructor>	Public	✓	-
	setDistributionCriteria	External	✓	onlyToken
	setShare	External	✓	onlyToken
	deposit	External	Payable	onlyToken

	process	External	✓	onlyToken
	shouldDistribute	Internal		
	distributeDividend	Internal	✓	
	claimDividend	External	✓	-
	getUnpaidEarnings	Public		-
	getCumulativeDividends	Internal		
	addShareholder	Internal	✓	
	removeShareholder	Internal	✓	
<b>BaseToken</b>	Implementation			
<b>BuybackBaby Token</b>	Implementation	IERC20Extended, Auth, BaseToken		
	<Constructor>	Public	Payable	Auth
	_initializeFees	Internal	✓	
	_initializeLiquidityBuyBack	Internal	✓	
	<Receive Ether>	External	Payable	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	balanceOf	Public		-
	allowance	External		-
	approve	Public	✓	-
	approveMax	External	✓	-
	transfer	External	✓	-
	transferFrom	External	✓	-
	_transferFrom	Internal	✓	
	_basicTransfer	Internal	✓	
	shouldTakeFee	Internal		
	getTotalFee	Public		-
	getMultipliedFee	Public		-
	takeFee	Internal	✓	
	shouldSwapBack	Internal		
	swapBack	Internal	✓	swapping

	shouldAutoBuyback	Internal		
	triggerZeusBuyback	External	✓	authorized
	clearBuybackMultiplier	External	✓	authorized
	triggerAutoBuyback	Internal	✓	
	buyTokens	Internal	✓	swapping
	setAutoBuybackSettings	External	✓	authorized
	setBuybackMultiplierSettings	External	✓	authorized
	setIsDividendExempt	External	✓	authorized
	setIsFeeExempt	External	✓	authorized
	setBuyBacker	External	✓	authorized
	setFees	Public	✓	authorized
	_setFees	Internal	✓	
	setFeeReceivers	External	✓	authorized
	setSwapBackSettings	External	✓	authorized
	setTargetLiquidity	External	✓	authorized
	setDistributionCriteria	External	✓	authorized
	setDistributorSettings	External	✓	authorized
	getCirculatingSupply	Public		-
	getLiquidityBacking	Public		-
	isOverLiquified	Public		-

# Contract Flow





## Domain Info

<b>Domain Name</b>	y-5.finance
<b>Registry Domain ID</b>	a7d855f7875344f384b190727749f86e-DONUTS
<b>Creation Date</b>	2021-11-26T12:07:29Z
<b>Updated Date</b>	2021-12-13T17:26:08Z
<b>Registry Expiry Date</b>	2022-11-26T12:07:29Z
<b>Registrar WHOIS Server</b>	whois.tucows.com
<b>Registrar URL</b>	http://www.tucows.com
<b>Registrar</b>	Tucows Domains Inc.
<b>Registrar IANA ID</b>	69

The domain has been created about 1 month before the creation of the audit. It will expire in 11 months.

There is no public billing information, the creator is protected by the privacy settings.

## Summary

Y-5 finance is a very interesting project with a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 25% fees.

## Disclaimer

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment.

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# About Coinscope

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Coinscope is aiming to make crypto discoverable and efficient globally. It provides all the essential tools to assist users draw their own conclusions.



The Coinscope.co team

<https://www.coinscope.co>