



RugFreeCoins Audit



Compound Token
Smart Contract Security Audit
March 30, 2022

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Audit details



Audited project
CompoundX Token



Contract Address
0xb75a07cc867616CAeAa8be2Eb1EF01D9ad17D86d



Client contact
CompoundX Team



Blockchain
Binance smart chain



Project website
<https://www.compoundtoken.net/>

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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Background

Rugfreecoins was commissioned by the CompoundX Team to perform an audit of the smart contract.

<https://bscscan.com/address/0xb75a07cc867616CAeAa8be2Eb1EF01D9ad17D86d#code>

The focus of this audit is to verify that the smart contract is secure, resilient, and working according to the specifications.

The information in this report should be used to understand the risk exposure of the smart contract, project feasibility, long-term sustainability, and as a guide to improving the security posture of the smart contract by remediating the issues that were identified.

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About the project

CompoundX Token is a token built on the Binance Smart Chain that is with an innovative investment use case the main purpose of which is to seek out constant revenue sources, **auto staking protocol backed by Defi 3.0 yield farming** on BSC. CompoundX will bring an unparalleled, fixed APY of **400,000%, the highest of its kind** onto the BSC blockchain while imposing profound ease, simplicity, and accessibility upon all CompoundX holders. Each transaction, purchase incurs a 14% fee, and sale incurs an 18% fee.

Features

- **5%** of the buy and sales fees are directed to the CPV which helps sustain and back the Staking Rewards provided by the Positive Rebase.
- The **sustainability fee of 2.5% when buying and 4.5% when selling for House wallet, which is allocated for marketing** is what allows CompoundX Token to hold the aforementioned promise. Tokens will be swapped into BNB and will be sent to a marketing wallet per transaction. This way, CompoundX Token will have enough funds to promote the coin and spend for future development without selling tokens as the traditional way.
- The additional component included under the sustainability section is a **liquidity fee of 4% when buying and selling**, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.
- 2.5% of all CompoundX tokens traded are burnt in the smokehouse. The more that is traded, the more get put into the fire causing the fire pit to grow in size, larger and larger through self-fulfilling auto-compounding which in return acts to reduce the circulating supply of CompoundX and keeping the CompoundX stable.

Tokenomics

14% fee when buying

- 5% of trade goes to CPV in BNB
- 3% of trade goes to the house wallet in BNB
- 3% trade goes to the smoke house
- 3% of trade goes to the liquidity pool.

18% fee when selling

- 5% of trade goes to freedom insurance fund in BNB
- 3% of trade goes to the vault in BNB
- 5% trade goes to the smoke house.
- 5% of trade goes to the liquidity pool.

Roadmap

- Fairlaunch Presale on Pinksale
- Pinksale Liquidity Locked for 12 Months
- Team Token Vesting
- Pre-Launch Marketing
- 2 Audits Completed prior to launch
- Dashboard Stress Test & Deployment
- Creation of English, Chinese, Indonesian and Turkish groups
- Youtube Marketing Campaign
- Coingecko Listing
- Coinmarketcap Listing
- Listing on other websites
- Website V2
- Social Media Marketing (Twitter, Telegram, Discord)
- Staff Hiring
- PR Marketing & Online Articles
- Swap website partnerships
- Cross-Chain Integrations
- NFT Collection release

Target market and the concept

Target market

- Anyone who's interested in the Crypto space with long-term investment plans.
- Anyone who's ready to earn a passive income by holding tokens.
- Anyone who's interested in trading tokens.
- Anyone who's ready in receiving automatic staking and compound rewards every 15 minutes.
- Anyone who's interested in receiving fixed interest of 400,000% per year.
- Anyone who's interested in taking part with the future plans of the CompoundX token.
- Anyone who's interested in making financial transactions with any other party using CompoundX as the currency.

Core concept

Reward mechanism

5% of all trading fees are stored in the CPV fund which helps sustain and back the staking rewards provided by the positive rebase.

CompoundX fund which is a separate wallet in the ecosystem. The CompoundX fund uses an algorithm that backs the Rebase Rewards and is supported by a portion of the buy and sell trading fees that accrue in the wallet.

In simple terms, the staking rewards (rebase rewards) which are distributed every 15 mins at a rate of 0.0239419458% are backed by the CompoundX parameter, thus ensuring a high and stable interest rate to CompoundX holders.

Sustainable mechanism

The **sustainability fee of 2.5% when buying and 4.5% selling for House wallet that allocated for marketing** is what allows CompoundX to promote the token and use funds to further the development of the platform. Tokens will be swapped into BNB and will be sent to a marketing wallet per transaction. This way, CompoundX will have access to the funds without selling tokens as the traditional way, which will enable them to consume funds without hurting the project.

The liquidity fee of 4% when buying and selling, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

2.5% of CompoundX tokens from buying and selling traded are burnt in **Smoke House**. The more that is traded, the more get put into the fire causing the fire pit to grow in size, larger and larger through self-fulfilling Auto-Compounding, reducing the circulating supply and keeping the CompoundX table.

Potential to grow with score points

1.	Project efficiency	9/10
2.	Project uniqueness	9/10
3	Information quality	9/10
4	Service quality	9/10
5	System quality	9/10
6	Impact on the community	9/10
7	Impact on the business	9/10
8	Preparing for the future	9/10
Total Points		9/10

Contract details

Token contract details for 30th March 2022

Contract name	compoundX
Contract address	0xb75a07cc867616CAeAa8be2Eb1EF01D9ad17D86d
Token supply	400,000
Token ticker	compound
Decimals	5
Token holders	1
Transaction count	1
Auto liquidity receiver	0x1308a60615386d71e2b3f29c772af97542ee9afb
Smoke house fund receiver	0xa9e3dbd67d57d10609bea1d72ec222326b99a4e1
CPV wallet	0x46ec215ee30f5d3c4ee9f50399834a79cea55dc1
House Receiver wallet	0x429609818d871a7b61bd080963aec5e463907316
Contract deployer address	0x6269eb79255e366CC2a4bDb4258301EFFB02A231
Contract's current owner address	0x429609818d871a7b61bd080963aec5e463907316

Contract code function details







No	Category	Item	Result
1	Coding conventions	BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	pass
		SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
2	Function call audit	Authorization of function call	pass
		Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
3	Business security	Access control of owners	pass
		Business logics	pass
		Business implementations	pass
4	Integer overflow/underflow		pass
5	Reentrancy		pass
6	Exceptional reachable state		pass
7	Transaction ordering dependence		pass
8	Block properties dependence		pass
9	Pseudo random number generator (PRNG)		pass
10	DoS (Denial of Service)		pass
11	Token vesting implementation		pass










12	Fake deposit		pass
13	Event security		pass



Contract description table










The below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions, and implementations with their visibility and mutability.






















Contract	Type	Bases		
L	Function Name	Visibility	Mutability	Modifiers
SafeMathInt	Library			
L	mul	Internal 🔒		
L	div	Internal 🔒		
L	sub	Internal 🔒		
L	add	Internal 🔒		
L	abs	Internal 🔒		
SafeMath	Library			
L	add	Internal 🔒		
L	sub	Internal 🔒		
L	sub	Internal 🔒		
L	mul	Internal 🔒		
L	div	Internal 🔒		
L	div	Internal 🔒		
L	mod	Internal 🔒		















IERC20	Interface			
L	totalSupply	External !		NO!
L	balanceOf	External !		NO!
L	allowance	External !		NO!
L	transfer	External !		NO!
L	approve	External !		NO!
L	transferFrom	External !		NO!
IPancakeSwap Pair	Interface			
L	name	External !		NO!
L	symbol	External !		NO!
L	decimals	External !		NO!
L	totalSupply	External !		NO!
L	balanceOf	External !		NO!
L	allowance	External !		NO!
L	approve	External !		NO!
L	transfer	External !		NO!
L	transferFrom	External !		NO!
L	DOMAIN_SEPARATOR	External !		NO!
L	PERMIT_TYPEHASH	External !		NO!
L	nonces	External !		NO!

L	permit	External !		NO!
L	MINIMUM_LIQUIDITY	External !		NO!
L	factory	External !		NO!
L	token0	External !		NO!
L	token1	External !		NO!
L	getReserves	External !		NO!
L	price0CumulativeLast	External !		NO!
L	price1CumulativeLast	External !		NO!
L	kLast	External !		NO!
L	mint	External !		NO!
L	burn	External !		NO!
L	swap	External !		NO!
L	skim	External !		NO!
L	sync	External !		NO!
L	initialize	External !		NO!
IPancakeSwap Router	Interface			
L	factory	External !		NO!
L	WETH	External !		NO!
L	addLiquidity	External !		NO!
L	addLiquidityETH	External !		NO!



L	removeLiquidity	External !		NO!
L	removeLiquidityETH	External !		NO!
L	removeLiquidityWithPermit	External !		NO!
L	removeLiquidityETHWithPermit	External !		NO!
L	swapExactTokensForTokens	External !		NO!
L	swapTokensForExactTokens	External !		NO!
L	swapExactETHForTokens	External !		NO!
L	swapTokensForExactETH	External !		NO!
L	swapExactTokensForETH	External !		NO!
L	swapETHForExactTokens	External !		NO!
L	quote	External !		NO!
L	getAmountOut	External !		NO!
L	getAmountIn	External !		NO!
L	getAmountsOut	External !		NO!
L	getAmountsIn	External !		NO!
L	removeLiquidityETHSupportingFeeOnTransferTokens	External !		NO!
L	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External !		NO!
L	swapExactTokensForTokensSupportingFeeOnTransferTokens	External !		NO!
L	swapExactETHForTokensSupportingFeeOnTransferTokens	External !		NO!
L	swapExactTokensForETHSupportingFeeOnTransferTokens	External !		NO!

IPancakeSwap Factory	Interface			
L	feeTo	External !		NO!
L	feeToSetter	External !		NO!
L	getPair	External !		NO!
L	allPairs	External !		NO!
L	allPairsLength	External !		NO!
L	createPair	External !		NO!
L	setFeeTo	External !		NO!
L	setFeeToSetter	External !		NO!
Ownable	Implementation			
L		Public !		NO!
L	owner	Public !		NO!
L	isOwner	Public !		NO!
L	renounceOwnership	Public !		onlyOwner
L	transferOwnership	Public !		onlyOwner
L	_transferOwnership	Internal 		
ERC20Detailed	Implementation	IERC20		
L		Public !		NO!
L	name	Public !		NO!

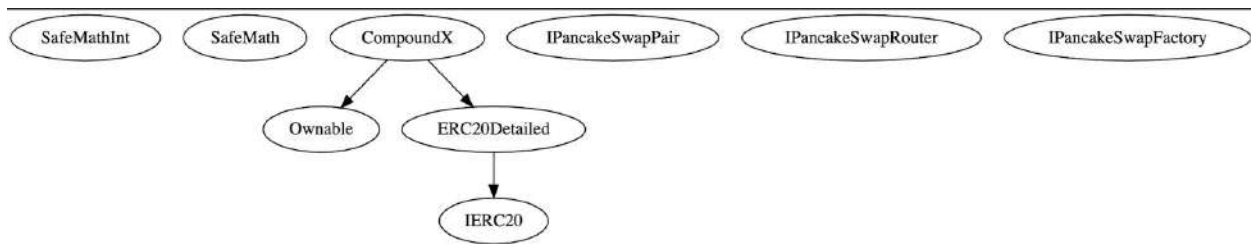
L	symbol	Public !		NO!
L	decimals	Public !		NO!
CompoundX	Implementation	ERC20Det ailed, Ownable		
L		Public !		ERC20Det ailed Ownable
L	rebase	Internal 		
L	transfer	External !		validRecipi ent
L	transferFrom	External !		validRecipi ent
L	_basicTransfer	Internal 		
L	_transferFrom	Internal 		
L	takeFee	Internal 		
L	addLiquidity	Internal 		swapping
L	swapBack	Internal 		swapping
L	withdrawAllToHouse	External !		swapping onlyOwner
L	shouldTakeFee	Internal 		
L	shouldRebase	Internal 		
L	shouldAddLiquidity	Internal 		
L	shouldSwapBack	Internal 		
L	setAutoRebase	External !		onlyOwner

L	changeTradingStatus	External !		onlyOwner
L	setAutoAddLiquidity	External !		onlyOwner
L	allowance	External !		NO!
L	decreaseAllowance	External !		NO!
L	increaseAllowance	External !		NO!
L	approve	External !		NO!
L	checkFeeExempt	External !		NO!
L	getCirculatingSupply	Public !		NO!
L	isNotInSwap	External !		NO!
L	manualSync	External !		NO!
L	setFeeReceivers	External !		onlyOwner
L	changeFees	External !		onlyOwner
L	getLiquidityBacking	Public !		NO!
L	setWhitelist	External !		onlyOwner
L	setBotBlacklist	External !		onlyOwner
L	setPairAddress	Public !		onlyOwner
L	setLP	External !		onlyOwner
L	totalSupply	External !		NO!
L	balanceOf	External !		NO!
L	isContract	Internal 		
L		External !		NO!

Legend

Symbol	Meaning
	Function can modify state
	Function is payable

Inheritance Hierarchy



Security issue checking status

- **High severity issues**

No medium severity issues found.

- **Medium severity issues**

No medium severity issues found

- **Low severity issues**

No low severity issues found

Owner privileges

Audit conclusion

RugFreeCoins team has performed in-depth testings, line by line manual code review, and automated audit of the smart contract. The smart contract was analyzed mainly for common smart contract vulnerabilities, exploits, manipulations, and hacks. According to the smart contract audit.

Smart contract functional Status: **PASSED**

Number of risk issues: **0**

Solidity code functional issue level: **PASSED**

Number of owner privileges: **7**

Centralization risk correlated to the active owner: **LOW**

Smart contract active ownership: **YES**