AlwaysWin: An always profitable raffle protocol

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Abstract: AlwaysWin is a community governance protocol based on the principles of raffle logic, developed on the BNB Smart Chain. It integrates distinctive Raffle-IDO rules, an innovative automated liquidity protocol, and a diverse range of exclusive raffle applications. The protocol employs algorithmic rules within its contracts to mitigate certain investment risks for community members. This approach enables users to confidently hold the AlwaysWin protocol token, WIN, for extended periods. Additionally, users have the option to use WIN to engage in various DeFi activities, including diverse raffles, trading, and staking, under the protocol. This strategy is aimed at continuously fostering the positive development of the community.

1.   Introduction

Traditional centralised raffle platforms, like lotteries, mystery boxes, and betting games, often face challenges such as obscured prize-drawing methods, unmet prize commitments, and non-compliant financial practices, jeopardising their reputation. With the advent of the DeFi era, a new wave of raffle and Gamefi applications based on smart contracts has emerged. Many of these applications have made significant progress in enhancing transparency and user engagement. While they address some issues of centralised platforms, they are not without limitations. These applications typically employ standard cryptocurrency governance models for their ecosystem tokens in raffle and Gamefi systems. The inherent volatility of cryptocurrencies, a cornerstone of the trading market, affects these tokens. Ideally, the value of a project's ecosystem token should reflect its intrinsic worth, influenced by factors including the efforts of project developers, community advocates, market dynamics, and user participation. Unfortunately, some projects have suffered from deceptive practices, manipulating prices through financial leverage and asymmetrical information, leading to significant deviations in cryptocurrency values from their true worth. In extreme cases, this has resulted in sudden and significant price drops, causing losses to the community.

The smart protocol AlwaysWin, developed on the BNB Smart Chain, aims to address these issues. Offering simpler, more transparent, and engaging raffle applications through the innovative community governance token WIN, this token's trading protocol is designed to limit its potential for a downward exchange rate against USDT. Ensuring that its value only rises and its transactions are free from slippage, even in scenarios of massive sell-offs, a robustly appreciating community token like WIN could serve as a cornerstone for the continuous development of the community. Such a mechanism would allow the project's ecological progress to be reflected in real-time within the token's price, rewarding every community member holding the raffle ticket, thereby embodying the spirit of WEB3.0.

2.   The Components of AlwaysWin Protocol

AlwaysWin's initial phase features three core components: Raffle-IDO, WinSwap, and Windora, launching sequentially:

- Raffle-IDO: Pioneering an Initial DEX Offering model rooted in raffle principles.
- WinSwap: A dedicated platform facilitating WIN and USDT token exchanges.
- Windora: Serving as a launchpad for a range of innovative raffle games.

Special Note: To facilitate the reader's understanding of the interrelations and operational logic among AlwaysWin's various segments, the following detailed explanation does not follow the order of their release.

3.   WinSwap with Automated Liquidity Protocol

Within AlwaysWin, we have established a unique WinSwap protocol offering users the ability to mint, purchase WIN using USDT, or exchange WIN back to USDT. Before delving into the protocol's detailed rules, it is essential to present the following parameters:

P = The price of WIN
C = The circulating supply of WIN (excluding the WIN reserved in WinSwap)
R = The reserve of USDT in the WinSwap Pool
The price of WIN, P, is calculated as:

$$P = \frac{R}{C}$$

The following demonstrates the exchange of WIN in WinSwap with an input of ΔR USDT:

Where $\Delta R/P = \Delta C$
Thus:

$$P_{\Delta R} = \frac{R+\Delta R}{C+\Delta C}$$

$$P_{\Delta R} = P$$

From the aforementioned expression, it can be determined that exchanging ΔR USDT through WinSwap results in receiving ΔC WIN, which is being added to the circulating supply. Subsequently, the USDT reserve in WinSwap becomes $R + \Delta R$, and the circulating supply of WIN increases to $C + \Delta C$. Importantly, the price of WIN remains unchanged before and after the exchange.

Similarly, the following demonstration shows ΔC WIN from the circulating supply being exchanged for USDT in WinSwap:
Where $\Delta C \times P = \Delta R$
Then:

$$P_{\Delta C} = \frac{R - \Delta R}{C - \Delta C}$$

$$P_{\Delta C} = P$$

These equations illustrate that as the circulating supply of WIN decreases by ΔC and enters WinSwap, the protocol exchanges it for a corresponding amount of ΔR USDT. Consequently, the USDT reserve in the protocol changes to $R - \Delta R$. Notably, the price of WIN remains unchanged before and after the exchange.

4. Price Appreciation Measures for WIN token

Based on the earlier discussed WIN pricing formula, it's clear that decreasing the parameter 'C' leads to an increase in the price 'P'. Here, we introduce two measures for price appreciation, which will be applied during the early development phase of the protocol.

Measure 1: Raffle Token Burn

The Windora segment will introduce a variety of raffle events, where participants will need WIN tokens. Within these events, a mechanism is set to burn some WIN tokens in the prize pools. The quantity of WIN burned by the raffle pool is denoted as C_b. Simultaneously, the parameter 'R' in the previously mentioned pricing formula remains unchanged with each WIN burn action. This can be represented as follows:

$$P_b = \frac{R}{C - C_b}$$
$$P_b > P$$

Hence, the price 'P' of WIN increases with each token burn in the raffles, leading to appreciation in price.

Measure 2: Transaction Burn.

For all transactions conducted through WinSwap, whether exchanging WIN for USDT or vice versa, 0.35% of the transaction amount will be burned. The demonstration below will be based on the trading scenarios described in Chapter 3, where:

P_0 = The original price of WIN.

C_0 = Circulating supply of WIN prior to the transaction (excluding WIN reserved in WinSwap).

R_0 = The USDT reserve in WinSwap prior to the transaction

$P_{\Delta R}$= The price after a transaction involving ΔR USDT entering WinSwap

$P_{\Delta C}$= The price after a transaction involving ΔC WIN entering WinSwap

Thus, the expression for the price of WIN prior to the transaction is:

$$P_0 = \frac{R_0}{C_0}$$

The following demonstrates a trading process where ΔR USDT enters WinSwap:

Where $\Delta R / P_0 = \Delta C$

The price after completing the trade can be expressed as:

$$P_{\Delta R} = \frac{R_0 + \Delta R}{C_0 + \Delta C - 0.35\%\Delta C}$$

Applying these formulas, we can calculate that:

$$P_{\Delta R} > P_0$$

Similarly, the process where ΔC WIN enters WinSwap for trading is demonstrated as follows:

Where $(\Delta C - 0.35\%\Delta C) \times P_0 = \Delta R - 0.35\%\Delta R$

The price after completing the trade can be expressed as:

$$P_{\Delta C} = \frac{R_0 - (\Delta R - 0.35\%\Delta R)}{C_0 - (\Delta C - 0.35\%\Delta C) - 0.35\%\Delta C} = \frac{R_0 - \Delta R + 0.35\%\Delta R}{C_0 - \Delta C}$$

We can determine that:

$$P_{\Delta C} > P_0$$

The price 'P' of WIN increases with each transaction burn, resulting in price appreciation.

5. Initial Pricing of WIN token

As outlined in previous sections, the variation in WIN's price 'P' depends on its circulating supply 'C' and the USDT reserve 'R' But to begin exchanges on WinSwap, an initial price is needed. Therefore, the protocol empowers early WIN users to collectively decide the initial amount of USDT reserves in WinSwap. Consequently, the contract stipulates an initial circulating supply of WIN at 150 million, divided among three areas:
1) PRE-IDO: 16,500,000
2) Raffle-IDO: 117,000,000
3) Team: 16,500,000

Upon completion of the Raffle-IDO process, a certain amount of USDT will be retained in the contract, which will then serve as the initial reserve of USDT in the WinSwap protocol. This establishes WIN's initial price, which will be further elaborated in Section 6.3.

6. About Raffle-IDO

6.1 Exciting Raffle Rules

Raffle-IDO, as the first fully smart contract-controlled raffle program launched on AlwaysWin, ensures both an engaging and fair initial sale of WIN.

Raffle-IDO operates in a round-based process, with each round allowing users to participate in the raffle with any amount of USDT. Upon depositing USDT into the raffle box of round 'i', the order immediately enters a queue state (for up to 48 hours). Once the box for round 'i' is filled, the order then enters a countdown to the draw (also up to 48 hours).

Consequently, Raffle-IDO opens the raffle box for round 'i+1', where new USDT raffle orders are sequentially added and queued (up to 48 hours) until it too is filled. At this point, the raffle box for round 'i' is drawn regardless of the remaining countdown time, with round 'i+1' entering its countdown (also up to 48 hours). The Raffle-IDO contract operates in this cyclical manner until a round is not filled.

- If the box for round 'i+1' is filled before the countdown of round 'i' ends, participants in round 'i' win between 101%-130% USDT, with the prize amount increasing in higher rounds.
- If the box for round 'i+1' is not filled by the end of the countdown for round 'i', participants in both rounds 'i' and 'i+1' win between 130%~275% WIN. The larger the round number 'i', the higher the prize amount.

Of the WIN prizes in Raffle-IDO, 117 million WIN is immediately available for circulation, with 100 million to 343 million WIN pending release. The USDT value of WIN tokens available for circulation will correspond to 70% of the participants initial USDT entered in the round. The contract will fairly distribute WIN based on each participant's proportion of USDT contributed to that raffle box.

For example, if your box and the following round's box gets filled, you will win USDT. However, if your box or the following round's box is not filled, you will win WIN.

6.2 Referral Commissions in Raffle-IDO

To ensure a broad and diversified global distribution of WIN token IDO participants, the Raffle-IDO will offer a referral reward of up to 2%. This reward is granted instantly each time referred users deposit USDT into the raffle box, with no limit on the number of times it can be received. The user referral relationships established within the Raffle-IDO contract will be maintained in the AlwaysWin protocol and will be applied to the reward distribution mechanisms in upcoming segments.

6.3 Capacity Limitation of Raffle Boxes

Each round's raffle box in the Raffle-IDO has a distinct capacity limit, determined by specific algorithmic rules set in the contract. The initial round's box has a capacity of 10,000 USDT, shared across all user orders. This could be filled by a single rapid 10,000 USDT order, or collectively by one 5,000 USDT order and two 2,500 USDT orders. The capacity for each subsequent round's raffle box will incrementally increase according to the following formula:

$$L_i(0.1 + p_i) = 0.08L_{i+1}$$

where,
p_i = preset winning profit factor of round i (1%, 2%... 29%, 30%)
L_i = the capacity of the raffle box for round i

6.4 Splitting of Raffle Order Amounts

Due to the capacity limits of each round's raffle box, there will inevitably be instances where the raffle order amount exceeds the remaining capacity of the box for round 'i'. The

portion of the order amount that exceeds the capacity of round 'i' will automatically be allocated to the raffle boxes of subsequent rounds, such as 'i+1', 'i+2', 'i+3', and so on.

6.5 Determining the Initial USDT Reserve Quantity (*R*)

Upon completion of the Raffle-IDO and the payment of all winnings and referral commissions to users, the remaining USDT in the contract will be fully allocated as the initial reserve for the USDT Pool in WinSwap. This is mathematically represented as:

$$R = 0.98 \sum_{i=1}^{N} l_i - \sum_{i=1}^{N-2} l_i(1 + p_i)$$

where, l_i = the total amount of user participation in the raffle for round 'i'.

6.6 Establishing the Initial Pricing of WIN (P)

Using the initial reserve of USDT and the predetermined early circulating volume of WIN, combined with the WIN pricing formula outlined in Section 3, we can calculate WIN's initial pricing. With this step completed, AlwaysWin's core infrastructure – WinSwap – is ready to be operational.

$$P = \frac{R}{C}$$

7. Windora Planet

Windora, serving as a launchpad for ongoing raffle innovations within AlwaysWin, will showcase outstanding raffle applications from the community. Here, users can use WIN to vote on new raffles and participate in the listed raffle games. Winners will receive additional WIN, while the runner-ups will get a small amount of WIN or other mystery gifts, which may surpass the value of the winner's prize in a short time as WIN is always appreciating. This ensures that users of AlwaysWin, always win!

In line with the strategic development of the AlwaysWin protocol, further details about the Windora segment are not disclosed in this document. For more information about this segment, please stay tuned for future updates.

8. Risk Warning

Although the AlwaysWin protocol aims to create an ultra-secure and consistently profitable raffle community, the decentralised finance market still harbours various inherent risks, including but not limited to:

- **USDT Stability Risk:** As WIN's value is pegged to USDT, the stability of USDT directly influences WIN's value. If USDT's stability is questioned, or its 1:1 peg with the dollar is jeopardised, WIN's value could also be impacted.
- **Dollar Stability Risk:** Since WIN tokens are indirectly linked to the US dollar through USDT, fluctuations in the dollar's value can affect WIN tokens. Significant appreciation or depreciation of the dollar can reflect in WIN's value, introducing additional volatility risks for investors.
- **Liquidity Risk:** Insufficient market liquidity of USDT at any point could impact the

circulation and value of WIN tokens.

- **Contract Risk:** The value of WIN tokens depends on the design and implementation of contracts within the AlwaysWin protocol. Contract vulnerabilities could lead to asset losses, affecting WIN's valuation.
- **Time Cost of Investing in WIN tokens:** The price growth rate of WIN tokens is unpredictable. Rapid appreciation or minimal growth over a longer period could occur, and in some cases, WIN's price efficiency might not meet users' expectations.

The AlwaysWin team is dedicated to transforming crypto investments' inherent risks from uncontrollable to predictable through smart contracts. We are transparent about the rewards, sources, and risks involved, publicly documenting them in smart contracts or related materials. Like striving for a more accurate value of π to draw a near-perfect circle, we continuously work towards near perfection. Nonetheless, we genuinely hope that both new and experienced cryptocurrency users, by understanding and managing risks through the AlwaysWin protocol, will 'Always Win' in the realm of cryptocurrency investments.