ChatGPT

TON Consensus and Tokenomics

TON is now a Proof-of-Stake blockchain. Its initial distribution (via PoW “mining” contracts) ended in June 2022 [1], after which all Toncoin had been mined. Since then, TON operates on PoS: anyone with sufficient Toncoin can stake (or delegate via nominators) to become a validator. Validators confirm transactions and earn new coins. Annual inflation is low (~0.5–0.6%), meaning only a small percentage of new Toncoin is minted per year [2] [1]. In practice, this keeps transaction fees and staking inflation modest.

TON’s transaction fees are extremely low by crypto standards. For example, the average fee to send any amount of Toncoin is ~0.0055 TON (a tiny fraction of a dollar) [3]. Minting or transferring tokens (Jettons) costs only slightly more (≈0.037 TON per transfer [3]). Even USDT transfers on TON (e.g. via the official Telegram wallet) incur no fee at all [4]. This fee structure means on-chain settlement is cheap and fast, benefiting high-volume activity. Third-party payment services also support TON: merchants can **accept Toncoin, USDT, or any Jetton** globally with minimal fees [5]. In practice, this makes TON a very efficient network for settling internal project currencies and transactions.

Project Tokens (Jettons) and Stablecoins

On TON, you can create custom fungible tokens called *Jettons*, analogous to ERC-20 tokens on Ethereum [6]. A project can issue its own Jetton(s) to serve as in-app or purpose-specific currency. These Jettons can represent credits, points, governance tokens, or even USD-pegged units. Indeed, stablecoins like Tether’s USDT already exist on TON as Jettons [5] [4]. Users can **deposit ETH or stablecoins** from other chains into TON via cross-chain bridges (e.g. Stargate, Symbiosis, etc. support Ethereum and Tron to TON) [7]. Once bridged, those assets can be swapped on TON for Toncoin or project Jettons through a DEX. In reverse, Jettons earned in the project (e.g. as rewards) can be swapped back out for ETH/USDC and withdrawn via bridges.

NFTs and Open-Market Trading

Projects often use NFTs for memberships, rewards, or collectibles. If NFTs are only for internal use, the project might restrict transfers; otherwise allowing open-market trading can bring liquidity and community exposure. On TON, **NFTs incorporate a royalty mechanism by design**. In TON’s NFT 2.0 standard, any *commercial sale or trade* of an NFT must pay a royalty fee to a designated address (e.g. the project treasury) [8] [9]. For example, a contract can set a numerator/denominator to define the royalty share (e.g. 11/1000 = 1.1%) [9]. NFT marketplaces on TON are expected to automatically forward that royalty to the project. Only transfers without sale (gifts or donations) are exempt from royalty [8]. Thus, making NFTs tradable on public markets effectively implements a *surcharge* or “transaction fee” on each trade that benefits the project treasury.

Embedding NFTs in an open marketplace means higher visibility and trading volume, but it also exposes them to speculation and market swings. The royalty mechanism helps align incentives: every resale directs value back to the project. A higher royalty reduces trade volume but increases treasury income per trade.

Since TON blocks allow off-chain flags, non-compliant trades (where a marketplace doesn't honor royalties) can be marked as "royalty violated" and made untradeable on compliant platforms [8] [9]. In summary, open trading of NFTs can fund the project (via built-in royalties) at the cost of exposing assets to market forces. The optimal royalty rate should balance project funding against liquidity.

Decentralized Exchanges and Yield Farming

The TON ecosystem now has full-featured DeFi. For example, STON.fi is a Uniswap-style AMM DEX on TON. When users trade one Jetton for another, each swap carries a small fee (typically ~0.3% of the trade). STON.fi's model splits that 0.3% as **0.2% to liquidity providers (LPs)** and **0.1% to the protocol treasury** [10]. As a concrete example: if Alice swaps Toncoin for your project token on STON.fi, she pays a 0.3% fee. 0.2% is added to the liquidity pool (shared by LPs like a pool of Ton+yourToken), and 0.1% goes to STON's treasury.

Liquidity providers **earn rewards** in two ways: (1) their share of the accumulated trading fees (0.2% in the above example), and (2) optional extra "farming" incentives. In farming, LPs deposit their LP tokens into a staking contract to earn additional tokens. STON.fi, for instance, offers periodic reward tokens to LPs who stake their LP-jettons [11]. Yield farming thus means users supply two tokens into a pool, receive LP tokens, then stake those for extra yield. (Step-by-step: 1. Deposit equal values of Token A and Token B into pool; 2. Receive LP tokens; 3. Optionally stake LP tokens in a farming vault; 4. Earn a share of swap fees and farm rewards.)

However, yield farming carries risks. The biggest is **impermanent loss**: if the relative price of the two tokens diverges after deposit, an LP may end up with less value than simply holding the tokens [12]. Smart-contract bugs and market volatility are other risks [12]. On TON these general DeFi risks still apply. (Note: TON also has lending protocols like EVAA, where users deposit tokens to earn interest [13], but even those carries risk of borrower defaults or exploits.)

Fee Distribution and Project Treasury

For a non-profit project that wants most fees to feed the treasury, the fee-split and incentive design are crucial. In the STON.fi example, LPs get two-thirds of each fee and the protocol one-third [10]. If your project instead directs **80% of fees to the treasury**, LPs would only receive the remaining 20%. Such a high treasury cut would dramatically lower LP returns, likely deterring participants unless compensated elsewhere. (By comparison, many protocols split fees ~75/25 or 66/33 between LP and treasury.)

One way to implement the proposed model: set the AMM swap fee structure so that only a small fraction is paid to LPs. For example, if total fee is 0.3%, you might route 0.24% (80%) to the treasury address and 0.06% (20%) to LPs. Alternatively, keep the usual 0.3% and have 0.2% to LPs, 0.1% to treasury, but **mint extra project tokens** on each swap with 4× tokens going to treasury versus LPs. In practice, funding the treasury heavily means users will earn much less in traditional yield. To still attract liquidity, you could provide extra incentives (e.g. bonus token rewards) to LPs. For instance, allow LPs to earn project tokens proportionally (as farming rewards) even though most fees accumulate to treasury. In all cases, it's a trade-off: **increasing fees to treasury reduces the yield for participants**.

Practically, if an LP wants to “exit,” they’d withdraw their share of the pool assets. Under an 80/20 split, they’d recover nearly all their initial deposit but have earned only 20% of the fee income they otherwise would. They could then swap their project-currency earnings back to ETH or USDC on an AMM. Because fees and yields are collected mainly by the treasury, this model funnels most value back into the project’s funds, even while still giving providers a modest return.

Bridges, Payments and Practical Flows

Users will need fiat or other crypto to enter and leave the system. TON supports many bridges: e.g. **Stargate Bridge** (Arbitrum, Ethereum, Tron to TON) and **Symbiosis** (Ethereum, Polygon, Avalanche, etc. to TON) [7]. This allows users to deposit ETH or stablecoins into TON wallets. Once on TON, they can swap those assets for project tokens or USDT via DEXs. To exit, users swap back to a bridgeable asset (ETH or USDC) and bridge out.

For fiat integration, TON itself doesn’t issue a debit card, but third-party crypto payment services do. Several gateways listed on TON’s site (Cryptomus, IVPay, Cryptopay, etc. [5]) enable businesses to accept crypto and pay out in fiat. Project participants could use crypto debit cards (from services like Binance Card or Crypto.com) funded by their Toncoin/USDT balances. In summary, the ecosystem already has on/off-ramps (bridge networks and payment processors) to convert between ETH/USD and TON assets, fulfilling the deposit-withdraw flows described.

Considerations and Sustainability

Designing tokenomics for a non-profit requires balancing funding vs. accessibility. High treasury fees and royalties protect the project’s sustainability by capturing value, but risk reducing user engagement if yields are too low. Some mitigation strategies:
- **Vesting or locking**: require LPs to lock funds for a time to qualify for yields (distributing rewards over months). This aligns long-term support with project benefit.
- **Progressive fees**: start with moderate treasury cuts to bootstrap liquidity, then gradually increase as the ecosystem grows.
- **Governance and transparency**: use on-chain voting (via a governance token or NFT rights) so contributors see how fees support project goals.

Finally, remember that yield farming is not “free money.” Risks like impermanent loss and market volatility remain [12]. Any financial incentive must be communicated clearly. Overall, TON’s low fees and rich DeFi/bridge infrastructure make the plan technically feasible. NFTs can be freely traded with built-in royalty funding [8] [9], and liquidity pools can be structured to send most fees to the treasury. Tuning these parameters (fee rates, reward splits) is key to ensuring both project sustainability and enough user incentive to supply the needed liquidity.

Sources: Official TON docs and ecosystem resources on staking, fees, NFTs and DeFi [1] [14] [2] [3] [4] [5] [6] [8] [9] [10] [12] [7].

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