### **Structure Overview Key Points**

* The airdrop covers **34% of total FINT supply (170 million tokens)**.
* It is divided into **three phases (Genesis, Season 1, and Season 2)** spread over **9 months**.
* Each phase uses the same **points-based and pro-rata distribution model**.
* The goal is to reward real user activity (trading, liquidity, referrals) and maintain engagement beyond launch.

### **Phases**

1. **Genesis Phase (Months 0–3):** Starts at mainnet launch. Rewards early users for on-chain activity like trading and referrals to bootstrap liquidity.
2. **Season 1 (Months 3–6):** Distributes 12% of total supply. Focuses on trade mining and active user participation.
3. **Season 2 (Months 6–9):** Distributes another 12% of supply. Introduces new platform features or goals to sustain activity.

Each phase ends with token distribution proportional to user points earned during that period.

### **Points and Snapshots**

* Points are assigned based on four activity categories:  
  1. **Trading Volume** – converted to points.
  2. **Maker Orders** – rewards for adding liquidity.
  3. **Trade Frequency** – rewards for consistent participation.
  4. **Referrals** – rewards for bringing active new users.
* **Snapshots** are taken weekly or bi-weekly during each season.
* At every snapshot:  
   F\_total = F1 + F2 + F3 + F4
* Across a season:  
   F\_season = sum of all snapshot scores for that user

### **Distribution Calculation**

At the end of each season, tokens are distributed using this formula:  
 user\_tokens = (user\_F\_season / total\_F\_season\_all\_users) × pool\_tokens

Each user’s tokens are proportional to their total points compared with all participants.

### **Eligibility and Anti-Gaming**

* Minimum activity thresholds are required to prevent spam or fake trades.
* Referral points activate only when the referred user becomes active.
* Wash trading or circular trades receive zero points.
* On-chain clustering identifies and limits sybil behavior.
* Scoring parameters can be updated for future snapshots but not retroactively.

### **Implementation Notes**

* Weekly snapshot tasks can be handled by off-chain workers or runtime scheduler.
* Each season has a defined reward pool (e.g., 45M FINT).
* Snapshots and points are stored on-chain as mappings per user.
* Claiming is activity-gated, meaning users must reach certain engagement levels before being eligible to claim.
* Unclaimed or invalid tokens after each phase are burned or returned to treasury.

### **Developer Parameters for Genesis Configuration**

* **Total airdrop supply:** 170,000,000 FINT (28% of total).
* **Snapshot interval:** 7–14 days.
* **Season duration:** 3 months.
* **Point weights:** adjustable per activity type.
* **Claim window:** ~30 days after season end.
* **Unused tokens:** burned or recycled to treasury.
* **Distribution model:** pro-rata based on cumulative points.

### **Collator Staking and Inflation Model Key Points**

Fintradex follows the **Polkadot-style staking and inflation model** where collators and delegators secure the parachain through delegated staking. The system is designed to balance **security, decentralization, and liquidity** by adjusting rewards dynamically based on staking participation.

The **Relay Chain** (Paseo/Polkadot) provides finality and shared security, while the **Fintradex parachain** handles execution, state updates, and internal staking logic for collators.

### **Collator Staking Mechanism**

* **Collators** maintain parachain state, build blocks, and submit them to the Relay Chain with proofs of validity.
* **Delegators** stake their tokens by nominating collators and earn a share of rewards based on the amount delegated.
* Collators are chosen for each session based on total backing (their own stake plus delegations) and uptime performance.
* Rewards are distributed each round from the **staking reward pool**, split between collator commission and delegator payouts.
* To prevent manipulation, only the top delegations per collator are eligible for reward distribution.
* Collator exits are subject to an **unbonding delay**, and slashing applies for downtime or invalid block submissions.

### **Inflation and Reward Distribution**

* The network mints a fixed annual issuance of $FINT that acts as the **security budget**.
* This issuance is divided between **stakers (collators + delegators)** and the **treasury** based on real-time staking participation.
* If staking participation is below the target (network under-staked), the reward rate automatically **increases** to attract more delegation.
* If participation exceeds the target (over-staked), the reward rate **decreases**, and the surplus is redirected to the treasury.
* This creates a **self-balancing system** that keeps staking yield stable and avoids excessive token lock-up.

### **Formula Concept (Simplified)**

Let:

* s = current staking ratio (total staked / circulating supply)
* s\* = ideal staking target
* I = annual token issuance
* f = minimum base reward rate

Then:

* When s < s\*, staking rewards increase proportionally to attract more participants.
* When s > s\*, staking rewards decrease, and excess tokens flow to the treasury.
* The overall goal is to keep s near s\* while maintaining predictable annual issuance.

### **Roles and Reward Flow**

* **Collators:** Earn commission plus proportional block production rewards.
* **Delegators:** Earn rewards pro-rata from their chosen collator’s staking pool.
* **Treasury:** Receives any unallocated inflation and can fund grants, development, or buybacks.
* **Governance:** Adjusts key parameters such as ideal staking ratio, inflation rate, and delegation limits through on-chain proposals.

### **Economic Rationale**

* The model ensures **network security** by rewarding staking when participation is low and capping rewards when the network is saturated.
* It maintains **predictable inflation** but flexible distribution based on live staking conditions.
* It avoids **over-rewarding locked capital** and instead redirects excess emissions to the treasury for productive use.
* The adaptive algorithm creates a sustainable balance between token liquidity and network security.

### **Developer Parameters for Genesis Configuration**

* **Initial annual issuance (I):** fixed total to be defined (e.g., 5–10% of supply).
* *Target staking ratio (s):*\* ideal percentage of total supply staked (e.g., 50–60%).
* **Minimum floor rate (f):** baseline yield to ensure constant reward availability.
* **Commission range:** configurable per collator (e.g., 5–10%).
* **Unbonding period:** defined in blocks or eras (e.g., 7–14 days).
* **Reward distribution cadence:** per era or per block, adjustable by governance.

### **Example (Simplified Numbers)**

* Total annual issuance (I) = 5% of total supply.
* Target staking ratio (S\*) = 50%.
* Current staking ratio (S) = 40%.
* Floor rate (f) = 2%.

Since S < S\*, rewards increase.

Extra = (S\* - S) / S\* = (50 - 40) / 50 = 0.2

R(pool) = I × (1 + Extra)

R(pool) = 5% × 1.2 = 6%

If S = 70% (> target):

Extra = (S - S\*) / S\* = (70 - 50) / 50 = 0.4

R(pool) = I × (1 - Extra)

R(pool) = 5% × 0.6 = 3%

### 

### **veTokenomics: Time-Locked Voting and Boosted Rewards Key Points**

**Core Concept**

* The veFINT (vote-escrowed FINT) system converts standard $FINT into non-transferable governance and reward tokens by **locking them for a fixed period**.
* This design links **governance power + fee rewards + liquidity incentives** directly to the *duration* of commitment, not just token quantity.
* It enforces long-term alignment between token holders and protocol growth.

**Locking Mechanism**

Users lock FINT for up to 4 years and receive veFINT based on a linear time-weight formula:  
  
 veFINT = FINT × (lock\_time\_remaining / max\_lock\_duration)

* + 4-year lock → 1.0 × FINT = 1 : 1 veFINT
  + 3-year lock → 0.75 × FINT
  + 2-year lock → 0.50 × FINT
  + 1-year lock → 0.25 × FINT
* veFINT **decays linearly** until unlocked; users can extend the lock or add more FINT to refresh their weight.
* Only **one active lock** per address is allowed, simplifying on-chain accounting.

**Governance & Security Logic**

* **Time-weighted voting** ensures that power comes from commitment, not temporary speculation.
* Prevents short-term actors from buying, voting, and dumping.
* Decay + single-lock structure forces continual engagement to retain influence.
* Ideal for on-chain governance pallets (pallet-referenda) because each block can recompute veFINT weight from stored lock expiry.

**Reward Integration**

* veFINT holders get **boosted staking yields** and **fee-sharing rights**.
* Boost factor scales with lock\_time\_remaining / max\_lock\_duration.
* Rewards decline naturally as veFINT decays → requires periodic relocking to maintain full yield.
* Rewards are sourced from **real protocol trading fees (USDC, ETH, etc.)**, *not inflation*, ensuring non-dilutive “real-yield” returns.

**Implementation Notes for Chain Runtime**

* **Storage:**
  + Locks::<AccountId, LockInfo { amount, unlock\_block }>
  + veBalance::<AccountId, Balance> (computed as function of time\_remaining).
* **Hooks:**
  + On every on\_finalize, update decay and eligible rewards.
  + Integrate into pallet-rewards or pallet-treasury for fee distribution.
* **Governance Integration:**
  + Replace simple balance\_of voting weight with veBalance.
* **Decay Calculation:**
  + Linear decay per block = veFINT\_initial / lock\_duration.

**Economic Outcome**

* Encourages **long-term staking**, **stable governance**, and **supply reduction** (soft sink).
* Creates continuous demand for relocking to maintain voting and reward power.
* Distributes **real revenue** proportionally to committed users, enhancing protocol sustainability.

### **Adaptive Buyback with Emergency Fund Key Points**

**Core Concept**

* Fintra introduces an **Adaptive Supply Pool (ASP)** — an automated, rule-based system that uses **protocol-generated revenue** to:  
  1. **Buy back and burn $FINT tokens**, reducing circulating supply when the system is healthy.
  2. **Rebuild the Emergency Fund**, providing liquidity and reserves during adverse or volatile conditions.
* The mechanism operates entirely on-chain, without human discretion, ensuring **transparency and predictable monetary policy**.

**Mechanism Overview**

* Each epoch, a fixed share of **net trading fees** (after discounts and rebates) flows into the **ASP**.
* The ASP automatically routes funds between:  
  + **Buyback Pool:** Purchases $FINT from open markets → burns it on-chain.
  + **Emergency Fund (Reserve):** Accumulates stable assets (e.g., USDC) for liquidity backstops, operational continuity, and risk mitigation.
* This adaptive controller ensures **counter-cyclical behavior**:  
  + In growth phases → prioritize **buybacks** to compress supply.
  + In stress phases → prioritize **reserve accumulation** to strengthen resilience.

**Rule-Based Routing Logic**

* **Safety Checks (Priority 1):**
  + If the reserve balance < minimum threshold (floor)
  + If fee inflows drop or market depth is thin  
     → Divert all ASP inflows to the Emergency Fund until stability is restored.
* **Reserve Bands (Priority 2):**
  + **Below floor:** 100% → Reserve
  + **Between floor & ceiling:** Dynamic split → Reserve ↔ Buyback curve
  + **Above ceiling:** 100% → Buyback
* **Non-zero floors:** Even during extremes, small fixed percentages always flow to both sides to ensure continuous accumulation and deflation.

**Economic Flow Summary**

1. **Protocol Fees → Adaptive Supply Pool (ASP)**
2. **ASP splits → [Buyback Pool | Emergency Fund]**
3. **Buyback Pool → Market purchase of $FINT → Burn**
4. **Emergency Fund → Reserve wallet (USDC/Stablecoins)**

**Formulaic Representation:**

ASP\_split = f(circulating\_supply, reserve\_ratio, market\_health)

Buyback\_share = curve(reserve\_ratio, supply\_band)

Reserve\_share = 1 - Buyback\_share

Where:

* reserve\_ratio = Current\_reserve / Target\_reserve
* supply\_band = [lower\_bound, upper\_bound] thresholds defining burn vs reserve bias.

**Implementation Notes for Runtime / Treasury Pallet**

* **Storage:**
  + ReserveBalance (USDC/Stable equivalent)
  + BuybackBudget (FINT burnable pool)
  + SupplyBands { lower, upper } for curve thresholds.
* **Hooks:**
  + Trigger on on\_finalize every epoch to compute ASP routing.
  + On surplus → call burn\_fint() extrinsic.
  + On deficit → route to reserve\_account.
* **Governance Parameters:**
  + Adjustable via OpenGov proposals:  
    - floor\_ratio, ceiling\_ratio
    - min\_buyback\_rate
    - emergency\_trigger\_conditions

**Economic Outcomes**

* **Deflationary Pressure:** Buybacks systematically offset emissions, maintaining token scarcity.
* **Resilience:** Emergency Fund ensures operational continuity and liquidity backstops during market downturns.
* **Transparency:** All routing decisions are on-chain and verifiable through published parameters.
* **Counter-Cyclical Stability:**
  + Bull markets → aggressive buybacks → price support.
  + Bear markets → reserve accumulation → runway protection.

## **Supply-Side Economy Key Points**

### **Core Principle**

* Total supply is **hard-capped at 500 million $FINT**.
* No inflation; all rewards come from **protocol fees** and **buyback burns**.
* Circulating supply evolves only through **scheduled vesting unlocks**, **airdrop releases**, and **burn events**.

### **Token Allocation Structure**

1. **Public IDO — 20 % (100 M $FINT)**
   * **Delay:** None | **Vesting:** Immediate
   * **Release:** 20 % at TGE (Day 0)
   * Provides early market liquidity and price discovery.
2. **Initial Airdrop (Genesis) — 10 % (50 M $FINT)**
   * **Delay:** None | **Vesting:** Immediate
   * **Release:** 10 % at TGE (Day 0)
   * Distributes ownership to early community participants.
3. **Liquidity Programs — 6 % (30 M $FINT)**
   * **Delay:** None | **Vesting:** Immediate
   * **Release:** 6 % at TGE (Day 0)
   * Rewards LPs and market-makers for depth and tight spreads.
4. **Airdrop Season 1 — 12 % (60 M $FINT)**
   * **Delay:** None | **Vesting:** Tranche unlock at Month 3
   * **Release:** 12 % distributed after points snapshot at Month 3.
5. **Airdrop Season 2 — 12 % (60 M $FINT)**
   * **Delay:** None | **Vesting:** Tranche unlock at Month 6
   * **Release:** 12 % distributed after points snapshot at Month 6.
6. **Advisors & Marketing — 5 % (25 M $FINT)**
   * **Delay:** 6 months | **Vesting:** 12 months linear
   * **Monthly Release:** 0.417 % of total supply (~2.08 M FINT/mo)
   * **Total Duration:** 18 months.
7. **Team & Founders — 10 % (50 M $FINT)**
   * **Delay:** 12 months cliff | **Vesting:** 36 months linear
   * **Monthly Release:** 0.278 % (~1.39 M FINT/mo)
   * **Total Duration:** 48 months.
8. **Development Pool — 10 % (50 M $FINT)**
   * **Delay:** 12 months | **Vesting:** 36 months linear
   * **Monthly Release:** 0.278 % (~1.39 M FINT/mo)
   * **Total Duration:** 48 months.
9. **Treasury Reserve — 15 % (75 M $FINT)**
   * **Delay:** 12 months | **Vesting:** 36 months linear
   * **Monthly Release:** 0.417 % (~2.08 M FINT/mo)
   * **Total Duration:** 48 months.

### **Vesting and Locking Logic**

* Implement all time-locks via pallet-vesting or custom runtime hooks.
* Team/Dev/Treasury accounts start at TGE + 12 months; linear monthly releases for 36 months.
* Advisors start at TGE + 6 months; linear for 12 months.
* Airdrop seasons and IDO allocations minted to claim or distribution pallets at TGE.
* Any unclaimed airdrop tokens → **burned** (hard sink).
* Integrate **Adaptive Supply Pool (ASP)** to route protocol fees → buyback/burn or reserve.
* Treasury and Dev fund controlled via OpenGov referenda.

### **Economic Outcomes**

* **Community at TGE:** Public IDO (20 %) + Genesis (10 %) + Liquidity (6 %) = **36 % circulating** (≈ 180 M $FINT).
* **Total Airdrops:** 10 % + 12 % + 12 % = **34 % (170 M $FINT)**.
* **Locked at TGE:** ≈ 64 % (Team, Treasury, Dev, Advisors etc.).
* **Emissionless Model:** No minting post-TGE; all rewards funded by real fee revenue.
* **Deflationary Pressure:** ASP burns offset supply growth and reduce circulating float.
* **Governance Transparency:** All vesting and burn events verifiable on-chain.