Crypto Inside the Banking App

How Revolut Made It Work — and What It Would Take for Ukrainian Neobanks to Catch Up

Executive Summary

Revolut holds, trades, and transfers crypto for 65M+ customers inside the same app they use for everyday banking. In 2024, its Wealth segment — which includes crypto — grew 298% year-on-year to ~£510m / $647m, becoming the second-largest revenue line behind cards and a key driver of the firm's record $1.4bn pre-tax profit. The model is custodial: Revolut owns the private keys, runs an internal ledger for in-app transfers, and pushes on-chain only when users withdraw externally. As of October 2025, it is regulated as a Crypto-Asset Service Provider under EU MiCA via a Cypriot licence.

Ukrainian neobanks already have the UX, IT talent, and customer demand to match this — but not the legal runway. The Law on Virtual Assets (2074, 2022) was adopted but never entered into force; replacement Bill 10225-d passed only its first reading in September 2025; and the NBU is still defending wartime capital controls. This piece breaks down how Revolut's stack actually works, the economics behind it, the regulatory gap in Ukraine, and a concrete 6–12-month readiness checklist for monobank, Sense, and their peers.

1. How Revolut Handles Crypto, Under the Hood

Custody: from sub-custodian to direct custody

Revolut launched crypto in 2017 by plugging into a third-party sub-custodian — a closed-loop system that limited what the company could offer: customers could buy and sell, but couldn't move coins to an external wallet. PayPal and Robinhood faced the same constraint.

Revolut later migrated to direct custody using multi-party computation (MPC), working with infrastructure firm Fireblocks. Under MPC, the private key is mathematically split across several machines and never reconstructed in one place — the institutional gold standard. Revolut still appoints third-party sub-custodians (Coinbase Custody is named in client-asset disclosures for cold-storage holdings of Revolut Digital Assets Europe Ltd) and operates pooled omnibus wallets, so individual customers hold beneficial ownership of a balance rather than a wallet they directly control.

In plain English: when a user buys 0.1 BTC in the app, the app shows them a balance, but the bitcoin itself lives inside a giant Revolut-controlled wallet holding BTC on behalf of thousands of users at once. The user has a contractual claim on "their" 0.1 BTC — not access to the underlying private key.

Transfers between users: off-chain by default

Crypto transfers between Revolut customers do not touch a blockchain. They are off-chain ledger movements — Revolut debits one balance, credits another, and the underlying coins never leave the omnibus wallet. Pay-with-crypto via Revolut Pay or a Revolut card works the same way: the platform instantly converts the crypto balance to fiat at its own rate and settles in fiat. Only when a user explicitly withdraws to an external wallet does Revolut broadcast an on-chain transaction and pay the network fee.

This is fundamentally different from DeFi protocols like Uniswap or Aave, where every move is on-chain, every move pays gas, and the user always controls the keys. It also differs from a centralized exchange like Binance — transfers between in-venue accounts are also off-chain there, but the trading toolset, asset selection, and self-custody affordances are far richer.

Frozen accounts, limits and consumer protection

Revolut's terms allow it to block, freeze, refuse, or reverse a deposit or withdrawal when it suspects financial crime, when an exchange partner is offline, or when the action might harm Revolut's reputation. External withdrawals cannot be cancelled once accepted (on-chain transactions are irreversible). Revolut's automated AML system is well documented to freeze accounts during reviews — sometimes for weeks — a recurring source of public complaints.

Headline limits: up to 100 crypto exchanges per 24h; daily and monthly withdrawal limits sized to account history; withdrawal service fees of £1 (XRP, XLM, DOT, SOL, AVAX, XTZ, ALGO, ADA) or £3 (others), plus the network fee. Spreads are tier-dependent: 1.49% Standard, 0.99% Premium, 0.49% Metal, 0% above £250k monthly on Ultra. Revolut X, the standalone exchange launched in 2024, prices at 0.00–0.09% — comparable to Binance.

Two structural notes follow:

- Users on Revolut have a contractual claim, not direct asset ownership. If Revolut became insolvent, recovery would depend on how client-asset segregation rules play out.
- The custodial model means Revolut customers cannot interact with DeFi, NFTs, or smart contracts without first withdrawing to an external self-custodial wallet.

Table 1 — How Revolut crypto compares to a centralized exchange and a DeFi protocol

Capability	Revolut (in-app crypto)	Centralized exchange (Binance)	DeFi protocol (Uniswap, Aave)
Custody model	Custodial; Revolut holds private keys via in-house MPC custody (Fireblocks tech) and third-party	Custodial; exchange controls private keys in omnibus wallets	Self-custodial; user controls private keys via wallet (MetaMask, Ledger)

Capability	Revolut (in-app crypto)	Centralized exchange (Binance)	DeFi protocol (Uniswap, Aave)
	sub-custodians like Coinbase Custody		
How transfers between users work	Off-chain internal ledger transfer between Revolut customers; instant and free	Internal ledger transfer between exchange accounts; instant and free	Always on-chain; pays gas fee, settles in seconds to minutes
External wallet withdrawal	Yes — supported since 2023 for major assets via Revolut's direct custody build	Yes — standard feature	N/A — user already controls the wallet
Asset selection	~280 tokens after Crypto 2.0 (Oct 2025)	400+ tokens, including derivatives and futures	Thousands of tokens; permissionless listing
Trading fees	0.00–1.49% spread on retail; 0–0.09% on Revolut X exchange	0.10% maker / 0.10% taker; volume discounts	0.05–0.30% pool fee + network gas
Staking and yield	Zero-fee staking on selected assets, up to ~22% APY	Earn, savings, liquid staking products available	Native protocol staking, lending markets, LP positions
Regulation / consumer protection	MiCA-licensed CASP (Cyprus, Oct 2025); FCA-registered in UK	Varies by jurisdiction; many face restrictions, e.g. Binance left several EU markets	None; smart-contract risk and exploits are user-borne
Account freezes / access	Possible during AML reviews; fiat and crypto access may be paused while case is investigated	Possible during compliance reviews; varies widely by exchange	Cannot be frozen at the protocol level; only user's keys can lock funds
Best fit	Mainstream users who want simple, regulated crypto exposure inside their bank app	Active traders, derivatives users, broad token access	Power users, yield seekers, builders, those who insist on self-custody

2. Is Crypto Actually Profitable for a Neobank?

Revolut's 2024 annual report makes the answer clear. Group revenue grew 72% to £3.1bn ($4.0bn), and pre-tax profit hit £1.1bn ($1.4bn) — a 149% jump. Wealth revenue, which bundles crypto with stocks, commodities, bonds and savings, grew 298% to £510m (~$647m), making it Revolut's second-largest revenue line after card payments (£665m / $887m). Management didn't break out crypto separately, but TechCrunch and CoinDesk both flagged the launch of Revolut X and the 2024 crypto rally as the dominant drivers of that 298% surge.

Where the revenue comes from

Crypto economics inside a neobank look very different from a pure exchange's. Four levers carry most of the weight:

- Spread and markup — the principal retail revenue line. Standard customers pay roughly 1.49% on a buy or sell; the spread is variable and built into the displayed price.
- Exchange-grade fees on Revolut X — a separate, lower-margin venue (0.00–0.09%) aimed at active traders.
- Staking — Revolut takes a cut of validator rewards distributed to opted-in users. Crypto 2.0 advertises up to 22% APY on certain assets.
- Subscription upsell — higher tiers (Premium, Metal, Ultra) come with lower spreads and higher limits. Subscription revenue grew 74% to £429m / $541m in 2024, partly fueled by the crypto hook.

Where the costs come from

Custody isn't free. An MPC stack, cold-storage sub-custodians, HSMs, insurance, and multi-jurisdiction licensing all consume real opex. Compliance is the big invisible cost: AML, transaction monitoring, sanctions screening, the FATF travel-rule data exchange, and ongoing regulator interaction. MiCA imposes capital floors on CASPs of €50,000–€150,000 depending on services, plus governance and audit. Crypto customer support — lost wallets, blockchain delays, wrong-network deposits — is more labor-intensive than fiat support.

Has crypto been a net positive for Revolut?

Yes, almost certainly. Wealth revenue jumped from £127m in 2023 to £510m in 2024; CoinDesk, TechCrunch and The Block all attribute the bulk to crypto. Revolut kept investing in 2025 — Revolut X mobile, the Trust Wallet/Polygon integrations, the MiCA license, a signalled stablecoin launch — which it would not do if the unit weren't earning. Revolut treats crypto as both an acquisition hook (for users who would never download Binance but will tap "Buy Bitcoin" inside a trusted bank app) and an upsell engine (the feature anchors Premium/Metal tiers).

Table 2 — Indicative cost and revenue model for a neobank's crypto operation

Line item	Indicative magnitude	Notes
REVENUE		
Spread / markup on trades	0.5–1.5% of transaction value	Main retail revenue line; tier-dependent (lower for Premium/Metal)
Exchange fee (Revolut X)	0.00–0.09% per trade	Designed to win pro-grade users; offset by volume
Staking revenue cut	10–25% of validator rewards	Bank takes a slice of yield distributed to users (e.g. SOL, ETH, ADA)
Subscription uplift	£3.99–£14.99/month (Plus → Metal)	Crypto features (lower fees, higher limits) are a key driver of plan upgrades
Card spend off crypto balance	Interchange + FX margin	Pay-with-crypto creates additional payment-volume revenue
COSTS		
Custody infrastructure	Fixed platform cost + per-token onboarding	MPC custody platform (e.g. Fireblocks), HSMs, audit, insurance
Compliance and AML	5–15% of segment opex (estimate)	KYC, travel-rule (FATF) tooling, transaction monitoring, sanctions screening
Licensing and capital	One-off fees + ongoing capital	MiCA CASP capital floor: €50k–€150k depending on services
Insurance and security	Bps on custodied AUM	Crime insurance, cold-storage audits
Liquidity / market-making spread	Built into displayed price	Bank pays liquidity providers for inventory; user pays the spread back
Customer support	Higher per-ticket cost than fiat	Crypto edge cases (lost wallets, blockchain delays) are labor-intensive
BOTTOM LINE (Revolut, 2024)	**+298% YoY Wealth revenue**	**Wealth segment (which includes crypto) reached £510m / $647m**

Line item	Indicative magnitude	Notes
		— second-largest segment behind cards

3. The GTM Playbook — How Revolut Onboarded Crypto Users

Revolut added crypto trading in December 2017, well before it was a mainstream banking feature, and before most users would have signed up for a dedicated exchange. The sequence is instructive:

Controlled-release referrals

The 2018 crypto exchange feature was first released to Premium subscribers only. Standard users could upgrade — or unlock access by referring a friend who completed onboarding. The referral dashboard included a small Space Invaders-style mini-game — playful, on-brand, and rare for a banking product. The mechanic measured demand and grew the user base in the same loop. Most of Revolut's growth before 2018 happened with virtually no paid advertising; the referral engine carried it.

Product-led messaging and layered expansion

Revolut never positioned crypto as a speculative product or a payment rail — it positioned it as one more thing inside the all-in-one money app, next to FX, stocks and budgeting tools. CEO Nik Storonsky framed Bitcoin alongside fractional stocks: investments that used to be inaccessible because they were too expensive, too complicated, or too clunky. This framing lowers the cognitive cost of trying crypto — you're not deciding to become a crypto trader, you're just tapping a tab.

The roadmap then unfolded in phases: simple BTC/ETH/LTC in 2017; more tokens; FCA registration in 2022 (regulatory anchor); Revolut X desktop in 2024 across 30 EEA markets; Revolut X mobile in 2025; the Trust Wallet partnership in December 2025 for zero-fee on-ramps to self-custody; the Cyprus MiCA licence in October 2025; and "Crypto 2.0" with 280+ tokens, 1:1 stablecoin/USD swaps and staking. Each layer attracts a different cohort — casual buyers, then power users, then self-custody fans.

Lessons that travel

- Treat crypto as an upsell hook, not a standalone bet. It anchors higher subscription tiers and increases share-of-wallet of existing users.
- Use referrals to gate new features, not just to acquire users. Demand signal plus zero-cost growth in one mechanism.
- Sequence regulation first. Revolut's most aggressive crypto investments came after FCA registration (2022) and MiCA authorisation (2025), not before.

- Don't force a payment narrative. Revolut positions crypto primarily as investment, with spending as a side door — never as the headline.

4. Why Ukrainian Neobanks Can't Do This Yet

The Ukrainian regulatory state of play (May 2026)

Cryptocurrency is not illegal in Ukraine — but as of mid-2026 no functioning legal regime lets a Ukrainian bank custody, trade or transfer virtual assets for customers. The Law "On Virtual Assets" (Law 2074, 2022) was adopted by the Verkhovna Rada but never entered into force because the linked Tax Code amendments were never passed. Replacement Bill 10225-d, registered on April 24, 2025 by MP Danylo Hetmantsev, passed its first reading on September 3, 2025. The tax provisions target a January 1, 2026 effective date, but the law itself still needs a second reading and presidential signature.

Specific blockers, in order

- No licensing regime for virtual-asset service providers. Bill 10225-d proposes a two-regulator model: the NBU for e-money tokens, and a separate Cabinet-appointed authority for everything else. Until both are stood up, no Ukrainian bank can legally hold a customer's crypto.
- Capital controls. NBU Governor Andriy Pyshnyy has stressed that virtual assets cannot become a payment instrument while martial-law currency restrictions are in place — an open crypto market makes it harder to enforce the FX-outflow limits defending the hryvnia. monobank co-founder Mykhailo Rohalskyi echoed the same point in early 2026, calling full legalisation "a long way off" because of capital-control imperatives.
- Banking-licence interaction. The NBU's prudential regime currently has no virtual-asset custody activity and no permission framework for offering crypto trading.
- Taxation overhang. 18% PIT + 5% military levy (23% all-in), with a transitional 5% rate only in 2026 for pre-existing holdings. Single-tax FOPs are excluded entirely — removing one of Ukraine's most common business structures.

Side-by-side regulatory comparison

Revolut today combines a UK banking licence from the PRA (issued July 2024, still in mobilisation), an FCA cryptoasset registration (firm reference 900562), a Lithuanian banking licence (2018) that gave it EEA access, a Lithuanian EMI licence that lets it issue an e-money token, a Cypriot MiCA CASP authorisation (CySEC, October 23, 2025), and full banking licences in Mexico and others. A Ukrainian neobank, by contrast, has only its NBU banking licence — operating under wartime capital controls. The structural delta is not technical; it's licensing depth and the legal scope each licence confers.

5. How Fast Could Ukrainian Neobanks Move?

If the law cleared tomorrow: a realistic 6–12 month timeline

Assume the second reading passes, sub-regulations are issued, and the licensing window opens. A Ukrainian neobank with the right strategy could go live in 6–12 months:

- Months 0–3 — licensing application; pick a custody partner (Fireblocks, BitGo, or WhiteBIT); pick an on/off-ramp; segregated client-asset accounting; AML and travel-rule tooling.
- Months 3–6 — integrate custody into the mobile app; build buy/sell/hold flows; design the limit framework; staff the compliance ops team; closed beta.
- Months 6–12 — open beta, then full launch with BTC, ETH, USDT, USDC. Add staking and external withdrawals in a second wave once on-chain monitoring matures.

What could slow them down — even after the law changes

- Custody insurance. The Ukrainian market doesn't underwrite digital-asset crime cover at scale; international coverage is available but expensive.
- Capital-controls leakage. The NBU will likely gate external withdrawals tightly to limit flight.
- Talent. Plenty of crypto engineers, but VASP-experienced compliance officers are scarce.
- Tax friction. A 23% all-in rate plus reporting may keep sophisticated users on offshore platforms unless in-app UX is dramatically better.
- Legacy core banking. State-owned banks need to retrofit older cores; monobank's modern stack is a structural advantage.

Where Ukrainian neobanks stand publicly

monobank has been the most visible. Co-founder Oleg Gorokhovsky has been a public Bitcoin holder since 2021 and ran a pilot integration with WhiteBIT for a Bitcoin-enabled debit card — a project the NBU did not approve. In a December 2024 interview, Gorokhovsky said monobank hasn't ruled out reviving the crypto-card project. In early 2026, co-founder Mykhailo Rohalskyi told SPEKA that crypto inside monobank "is not ruled out," but was openly sceptical of rapid legalisation, citing wartime capital controls. Signal: ready to move, waiting for the green light.

Sense Bank — Ukraine's seventh-largest bank by assets, fully state-owned since July 2023, operator of the Sense SuperApp with about three million retail customers — has not publicly committed to a crypto roadmap. As a state-owned systemic bank under direct Ministry of Finance and NBU oversight, Sense is structurally more cautious. Other players to watch: PrivatBank (state-owned, largest by assets, deep digital UX) and mid-sized adventurers like Unex, which launched Ukraine's first crypto debit card with Weld Money in 2022.

The demand side is already there

Ukraine ranks 8th globally for crypto adoption in Chainalysis's 2025 index — and 1st per capita. The EBRD estimates Ukrainians bought $882m of Bitcoin between mid-2023 and mid-2024, with $106bn in total crypto inflows. Ipsos/WhiteBIT data suggests 25% of financially active Ukrainians already hold crypto and another 23% intend to start. The Ukrainian government itself holds roughly 46,000 BTC. The customer is waiting. The infrastructure is mostly waiting too. Only the legal framework is missing.

Table 3 — Ukrainian neobank readiness checklist

Building block	Status in Ukraine (May 2026)	Notes
Adopted virtual asset law	Pending — 2nd reading	Bill No. 10225-d passed 1st reading on Sept 3, 2025; Law on Virtual Assets (No. 2074, 2022) is on the books but not in force
Crypto licensing regime (CASP equivalent)	Not active	Will be split between NBU (e-money tokens) and a second regulator (to be designated)
Tax framework	Drafted	Bill 10225-d sets 18% PIT + 5% military levy; preferential 5% in 2026 for pre-existing holdings
Wartime capital controls	Active barrier	NBU restrictions on FX outflows still in place; crypto seen as a potential bypass vector
AML / KYC infrastructure in banks	Strong	Ukrainian banks already operate under bank-grade AML; familiar with FATF travel-rule logic
Local digital banking UX	World class	monobank, Sense SuperApp, PrivatBank Privat24 — already at or near Revolut-grade UX
Custody partner options	Available	Global custodians (Fireblocks, BitGo, Coinbase Custody) and local exchanges like WhiteBIT can act as partners
Insurance market for digital assets	Limited locally	Likely to require coverage via international underwriters
MiCA passporting	Not available	Ukraine isn't in the EEA; a Ukrainian bank would need a separate EU entity to passport into MiCA
Talent (crypto engineers, compliance officers)	Strong supply	Large IT diaspora; already hosts global crypto firms like WhiteBIT, Hacken

Building block	Status in Ukraine (May 2026)	Notes
Legacy core-banking integration	Mixed	Neobanks (monobank, Sense) built on modern stacks; less of a blocker than for incumbents
Public bank appetite	Cautious, watching	monobank co-founders publicly bullish, but acknowledge NBU concerns over capital flows

What This Means for Ukraine

Seven concrete takeaways for students, founders and bank operators:

- Don't underestimate the licensing stack. Revolut's crypto growth rests on FCA + Lithuanian + Cypriot MiCA + UK PRA layers. Ukrainian players will need a domestic VASP licence plus an EU entity to passport cross-border.
- The custody-model decision is strategic, not technical. Sub-custody is faster but caps the roadmap; direct custody unlocks future product. Plan for direct custody from day one.
- Wartime capital controls — not the absence of a crypto law — are the binding constraint. Expect tight limits even after Bill 10225-d clears.
- Wealth, not payments, is the right framing. Revolut earns from spreads, staking, and subscription upsell — not from crypto-as-currency. Ukraine's line that crypto is not legal tender is consistent with how Europe's leading neobank actually monetises it.
- monobank is the bellwether. If it ships in-app crypto first, the rest of the market follows.
- Stablecoins matter more than Bitcoin for Ukraine. The grassroots use case is savings and remittances. A regulated, MiCA-style stablecoin track — possibly via the NBU's e-money-token framework — is where local product-market fit is most obvious.
- There's a one-time competitive prize. The first Ukrainian neobank to launch credible, regulated, in-app crypto wins the brand premium Revolut owns in Western Europe.

Sources

- Revolut Group, 2024 Annual Report (revolut.com/reports-and-results/, April 2025).
- Revolut, "Record growth and diverse product offering drive Revolut to $1.4bn profit in 2024" press release, April 24, 2025.
- The Block, "Crypto trading surge helps Revolut secure record annual profit of $1.4 billion," April 24, 2025.

- TechCrunch, "Revolut, the $45B neobank, posts $1B profit in 2024," April 24, 2025.
- CoinDesk, "Revolut's Profit More Than Doubled to Over 1B Pounds in 2024 Boosted by Crypto Trading Surge," April 24, 2025.
- CoinDesk, "Revolut Secures MiCA License in Cyprus, Expanding Regulated Crypto Services Across EU," October 23, 2025.
- Decrypt, "Revolut Secures MiCA License in Cyprus — Is a Stablecoin Next?" October 23, 2025.
- CoinDesk, "Revolut and Trust Wallet Launch Instant Crypto Buys in EU With Self-Custody Focus," December 11, 2025.
- Fireblocks, "The shift from sub-custody services to direct custody" (Revolut case study commentary).
- Revolut, "Cryptocurrency Terms" and "Summary of Client Asset Safeguarding Policy and Plan" (legal docs published at revolut.com/legal/).
- Britannica Money, "Revolut | History, Growth, Controversy, & Facts."
- Global Legal Insights, "Blockchain & Cryptocurrency Laws & Regulations 2026 | Ukraine."
- EY Ukraine, "The Draft Law on the taxation of income from virtual assets approved by the Parliamentary Committee," July 2025.
- IT Ukraine Association, "New Rules for Cryptocurrency: How Virtual Assets Will Be Taxed in Ukraine," November 2025.
- Lexology / GOLAW, "A new stage in the regulation of virtual assets in Ukraine," September 2025.
- Baltimore Chronicle / RBC-Ukraine on NBU Governor Andriy Pyshnyy: "Virtual assets cannot serve as a payment tool in Ukraine," August 2025.
- Incrypted, "Monobank Co-Founder Opens Door to Cryptocurrency Integration in the Bank" (Rohalskyi interview, SPEKA), February 2026.
- ForkLog, "Monobank Co-founder Discusses Future of Bitcoin Cards in Ukraine," December 2024.
- Chainalysis, 2025 Global Crypto Adoption Index and 2024 Eastern Europe Crypto Adoption Report.
- Disruption Banking, "The Rise in Popularity of Cryptocurrency in Ukraine," November 2025.
- Viral-Loops, "How Revolut grew 150X with referral marketing" (crypto launch referral case study).
- WhiteSight, "Revolut's Crypto Strategy: From Utility and Exchange to Expansion," September 2025.