Post-Class Summary: Blockchain Business Models

Key Frameworks

Business Model Canvas Applied to Crypto Firms

The Business Model Canvas decomposes any venture into nine interlocking blocks. For a crypto firm, three blocks decide where in the protocol-infrastructure-application-wallet stack value capture actually happens — Channels, Customer Segments, and Revenue Streams — while the other six blocks (Key Partners, Key Resources, Key Activities, Customer Relationships, Cost Structure, Value Proposition) are structurally similar across venue, custody, and analytics firms alike. The Channels block encodes which interface the customer pays through (a venue console, a custody portal, an analytics dashboard, a wallet app, an SDK), and the channel itself is the layer of the stack where the fee is captured. The Customer Segments block defines which buyer pool prices the offering (retail traders, qualified institutions, developers, compliance teams), and the segment determines whether the firm sits at the application layer or beneath it. The Revenue Streams block (trading fee, custody fee, subscription, per-screening, staking spread) encodes the layer mix more cleanly than any marketing description: the mix tells you the layer.

Platform Economics Applied to Crypto Firms

Many crypto firms operate as multi-sided platforms connecting at least two participant groups: liquidity-takers and liquidity-makers on a venue, custodians and registered investment advisers on a regulated-custody platform, banks and regulators on an analytics platform. These platforms exhibit cross-side network effects: each additional participant on one side makes the platform more valuable to the other. The central strategic challenge is the chicken-and-egg problem — attracting the first side when the other side is empty — typically solved by subsidising the maker side (rebates, free APIs, free SDKs) so that books or graphs are deep before the take-side arrives. Once both sides reach critical mass, the loop becomes self-reinforcing and the platform earns at every layer it operates on.

Unbundling-Rebundling Applied to Crypto Firms

Christensen's disruption framework explains how crypto firms enter and how they grow. Entry proceeds by attacking a single layer of the stack with a wedge product: a matching engine, a custody charter, an attribution graph, an MPC key-manager. Over time, successful entrants rebundle — adding adjacent layers once trust is established, because each layer funds the machinery the next layer requires. The characteristic sequencing for venue firms is application-layer wedge first (matching), then adjacent customer-facing layers (staking, custody), then deeper infrastructure layers (settlement, base-layer operation). Each wave pays for the next, so the absorption order is the business model.

Value Chain Deconstruction Applied to Crypto Firms

Evans and Wurster argued that information-rich value chains deconstruct when digital coordination cuts the cost of operating across firm boundaries. The six-link crypto-services value chain — identity onboarding, venue matching, custody and wallet, key management, address attribution, reporting and investigations — is the textbook case. A firm typically owns two or three of these links and rents the rest through partners. The margin profile depends on which links it owns; the durability of its moat depends on how many of the rented links it converts to owned over time. The address-attribution and tracing links carry the strongest moat because the data foundation compounds over years of supervised case-work; the custody link tends to cap margin because regulated custody is capital-intensive and difficult to absorb in jurisdictions where charters are scarce.

Regulatory Arbitrage Applied to Crypto Firms

Most crypto-infrastructure firms launch inside a regulatory window that grants them a cost or jurisdictional advantage over traditional regulated counterparts: software classification rather than custody

licensing, payment-system carve-outs for atomic-swap brokerage, jurisdictional sandboxes that grant regulatory clarity ahead of broader regimes. The arbitrage is always temporary — regulators eventually treat substance over form. The strategic question is whether the firm converts its head start into durable compliance capability: governance controls, audit trails, policy engines, regulator-recognised qualifications. When the perimeter expands to capture the firm, the compliance apparatus built during the window becomes the moat. Arbitrage that is not converted is subsidy; arbitrage that is converted becomes a charter competitors cannot easily replicate.

Company Cases Summary

Company	Value Creation Mechanism	Key Framework	What Makes It Different
Coinbase	Application-layer touchpoint for retail in a regulated jurisdiction; absorbs custody, staking, prime, and base-layer infrastructure over time	Unbundling-Rebundling	Wedge-and-rebundle arc that exits as a multi-layer firm at every level of the stack
Kraken	Advanced-trader matching engine wedge that absorbed staking, custody, settlement, and an institutional desk on the same identity posture	Platform Economics	Maker-first seeding pattern produces deeper books and higher capture per layer
Chainalysis	Owns the attribution-and-tracing data foundation; licenses outputs to banks, regulators, and venues sitting at higher links	Value Chain Deconstruction	Single data-foundation link with reference-dataset position; moat compounds with casework
Fireblocks	MPC key-management infrastructure absorbed under a software window then converted into a governance-and-policy posture as scope tightened	Regulatory Arbitrage → Compliance Moat	Conversion of a software-classification window into a charter-equivalent posture
Anchorage	Qualified-custody trust company built inside the most demanding bank charter for digital assets in a regulated jurisdiction	Context Dependency	Charter is the product where charter is priced; the same product is irrelevant where the buyer pool prices governance lightly

The Five-Test Framework

Use these five tests to evaluate any crypto firm's value-capture position in the stack:

1. **Friction test.** Identify the touchpoint a customer pays for and confirm that the firm owns it. Layers a customer never reaches do not capture value.
   Application: Coinbase owns the retail-application touchpoint inside a regulated jurisdiction; a base-layer protocol that issues the same token but never sees the customer fails this test.

2. **Platform test.** Determine whether the firm benefits from cross-side network effects between liquidity-takers, liquidity-makers, and developers, and whether those effects tighten with scale.
   Application: Coinbase's venue exhibits a textbook take-side and make-side cross-effect that produces deeper books with each additional participant on either side.

3. **Rebundling test.** Assess whether the firm has begun — or is likely to begin — absorbing adjacent layers (custody, staking, settlement, analytics) once trust is established.
   Application: Kraken illustrates the absorption arc; the matching-engine wedge funded staking, then custody, then settlement, each wave preparing the engineering and compliance machinery for the next.

4. **Infrastructure test.** Ask whether the firm is filling an absent layer in the regulated stack or duplicating a layer that an incumbent already provides. Addition is durable; duplication competes on price.
   Application: Anchorage filled an absent qualified-custody layer in a regulated jurisdiction; that same product is irrelevant in jurisdictions where the buyer segment is absent.

5. **Arbitrage test.** Evaluate whether the firm's regulatory advantage is being converted into a charter-equivalent compliance moat or whether the perimeter is closing under it.
   Application: Fireblocks built governance, audit, and policy controls around its key-management product so that when the perimeter expanded to capture key-control firms, the licensing gap had already become a licensing moat.

Connections to Other Topics

The crypto-firm business model connects directly to several other course themes. The smart-contract economics lens applies to every analytics firm and venue that depends on contract execution: who pays for code that cannot be changed, who carries the upgradeability risk, and who bears the audit cost shape what the firm can charge for its layer. The composability lens explains why deeper-layer firms (custody, attribution) accrue more durable moats than upper-layer firms (venues, wallets) — liquidity and data foundations rather than code are the real moats in a forkable stack. And the RegTech lens from the risk and regulation lesson maps directly onto the address-attribution and reporting links: the compliance-software vendors that serve traditional financial institutions are the category that crypto-native analytics firms partially replace and partially adopt, depending on whether the firm builds the engine or licences it.

