

Pre-Class Discovery Handout: Blockchain Business Models

Activity 1: Business Model Canvas Detective

Scenario: Pick ONE crypto-native firm you have read about in depth (for example Coinbase, Kraken, Chainalysis, Fireblocks, or Anchorage). Fill in the canvas below by investigating how that firm actually positions itself across the protocol, infrastructure, application, and wallet layers. Focus on which layer the firm earns from, not on marketing language about openness.

Canvas Element	Your Analysis
Value Proposition <i>Which layer of the stack does this firm own the touchpoint for, and what friction does that ownership remove?</i>	
Customer Segments <i>Are the paying customers retail traders, qualified institutions, developers, compliance teams, or some mix?</i>	
Channels <i>Through which interface does the customer pay — a venue console, a custody portal, an analytics dashboard, a wallet app, an SDK?</i>	
Revenue Streams <i>Type of income (trading fee, custody fee, subscription, per-screening, staking spread), not amounts.</i>	
Key Resources <i>What does the firm need that the open base layer does not provide — compliance posture, identity engine, MPC key management, attribution graph?</i>	

- Q1:** Which layer of the stack does this firm own the touchpoint for? Is it a single layer or several?
- Q2:** Does the firm reach customers directly, or does it sit beneath another firm’s interface and earn through licensing?
- Q3:** If this firm disappeared tomorrow, what would its customers lose that the open base layer cannot reproduce on its own?

Activity 2: Unbundling Map

Scenario: Conventional crypto-services firms bundle several functions: matching, custody, attribution, identity, and key management. The firms below each launched with a single wedge

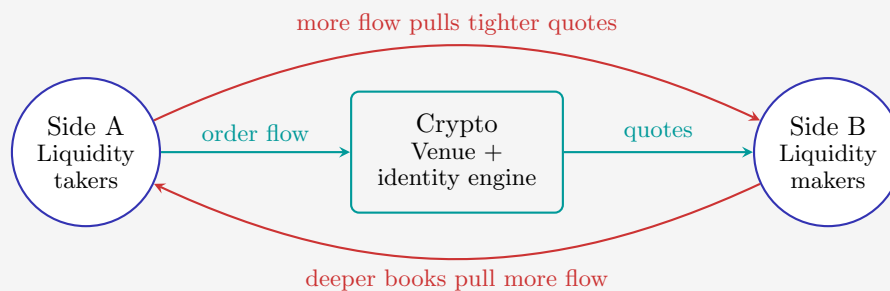
function. Match each firm to the launch wedge it built first — not its full product catalogue today.

Firm	Launch Wedge Function
Coinbase	_____ Retail-friendly venue with a single identity-and-onboarding flow into a regulated jurisdiction
Kraken	_____ Matching-engine venue prioritising deeper books for advanced traders before adding adjacent layers
Chainalysis	_____ Address-attribution and tracing graph licensed to banks, regulators, and venues
Fireblocks	_____ MPC key-management infrastructure for institutional treasuries and qualified-custody desks
Anchorage	_____ Qualified-custody trust company built inside the most demanding bank charter for digital assets

- Q1:** For each pair, describe in one sentence the layer of the stack that the firm’s wedge function attacks (or fills).
- Q2:** Which of these firms has most aggressively extended beyond its wedge into adjacent layers? What did it add, and in what order?
- Q3:** Why might a firm that launches with one layer eventually want to look like a multi-layer firm — and what does it risk by doing so?

Activity 3: The Platform Puzzle

Scenario: A crypto venue is a multi-sided platform connecting at least two participant groups: liquidity-takers (retail traders) and liquidity-makers (qualified institutions and market makers). Some venues add a developer side as well. Neither the take-side nor the make-side finds the venue useful without the other.



- Q1:** Why does a venue with more liquidity-makers attract more liquidity-takers (and vice versa)? Name the specific cross-side mechanism.
- Q2:** Which side should a new venue attract first, and why? How does the answer change once a developer side is added?
- Q3:** Once the venue reaches critical mass on both sides, what specifically makes it hard for a later entrant with the same software stack to catch up?

Solutions

Activity 1: Business Model Canvas Detective

- A1: Model answer for Coinbase:** Coinbase owns the touchpoint at the application layer for retail traders and at the institutional desk for qualified buyers. The friction it removes is the assembly cost of putting identity, custody, fiat-rails, and a matching engine into one onboarding flow inside a regulated jurisdiction. The base protocol is open, but the regulated touchpoint is not.
- A2:** Coinbase reaches retail customers directly through its consumer venue, reaches institutions directly through its prime desk, and reaches developers through hosted-wallet and node infrastructure SDKs. It does not sit beneath another firm's interface for these segments; it owns the customer relationship at every layer it operates on.
- A3:** Customers would lose the integrated identity-compliance-fiat-and-matching bundle that no individual base-layer protocol provides. They would also lose the regulated counterparty designation that a charter and registrations confer; the open base layer cannot reproduce a regulated counterparty on its own.

Canvas elements (Coinbase):

- **Value Proposition:** an integrated bundle of identity, compliance, fiat rails, and matching delivered through a regulated counterparty.
- **Customer Segments:** primary — retail traders in regulated jurisdictions; secondary — qualified institutions and developers building on hosted infrastructure.
- **Channels:** consumer venue, prime desk, hosted-wallet and node-infrastructure SDKs.
- **Revenue Streams:** trading fees, custody fees, staking spreads, subscription tiers, prime-services fees, interest on customer balances.
- **Key Resources:** regulated banking and money-services registrations, identity and compliance engine, custody infrastructure, brand recognition, software platform.

Activity 2: Unbundling Map

- A1:** Coinbase → application-layer touchpoint for retail; the wedge attacks the assembly cost of identity, custody, and matching for a casual user. Kraken → application-layer touchpoint for advanced traders; the wedge attacks order-book depth and ergonomic familiarity for power users. Chainalysis → data-foundation layer beneath compliance teams; the wedge attacks the absence of an attribution graph that no individual venue could build alone. Fireblocks → infrastructure layer beneath custody desks; the wedge attacks the operational risk of bespoke key management for institutional treasuries. Anchorage → regulated-custody layer beneath registered investment advisers; the wedge attacks the absence of a qualified-custody charter for digital assets.
- A2:** Coinbase has most aggressively extended beyond its wedge: from retail venue to staking, custody, prime desk, hosted-wallet infrastructure, derivatives, and even base-layer infrastructure operation. The ordering matches the rebundling arc — application-layer wedge first, then adjacent customer-facing layers, then deeper infrastructure layers. Each wave funds the next.
- A3:** A multi-layer firm captures more of the fee surface and becomes harder to displace as compliance posture and identity stack accumulate. It risks importing operational complexity faster than it imports incremental margin, and it risks regulatory entanglement at every additional layer it touches. A firm that absorbs layers faster than it can supervise them ends up exposed at the weakest link.

Activity 3: The Platform Puzzle

- A1:** This is a **cross-side network effect**: more liquidity-makers means tighter quotes and deeper books, which makes the venue more attractive to liquidity-takers. Simultaneously, more order

flow means more revenue per market-making strategy, which draws additional makers in. Each side's growth reinforces the other's, and the loop tightens as the venue scales.

- A2:** A new venue typically attracts the **maker side first**, often by waiving fees or offering rebates so that books are deep before retail flow arrives. The logic: takers will not find a venue useful with empty books, and a maker can be priced into a thinly populated venue with rebates while a taker cannot. Once a developer side is added, the seeding logic shifts again — developer SDKs and hosted infrastructure can be subsidised because each app built on the venue brings new flow.
- A3:** Once a venue has deep books on the maker side and habitual flow on the taker side, the two-sided loop is self-reinforcing and creates a **structural moat**. A new entrant must attract both sides simultaneously, each of which has little reason to join an empty venue. The incumbent's identity-compliance-and-fiat stack also accumulates as a non-replicable asset that a code-only competitor cannot match.