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Blockchain Brings Antitrust Concerns Alongside Competitive Opportunities

The emergence of blockchain technology has heralded significant advances across an array of industries, from financial services to consumer goods. But there are two sides to every Bitcoin. While providing an important vehicle for entry and disruption, blockchain also creates antitrust risks arising from new opportunities for firms to collude, signal competitively sensitive information, trade ahead, or engage in exclusionary tactics to block actual or potential rivals. This Update analyzes both the potential antitrust pitfalls and the competitive opportunities associated with blockchain.

Chained Together

Blockchain has the potential to reduce the barriers to forming and maintaining anticompetitive cartels in violation of Section 1 of the Sherman Act. To understand why, it is important to consider that cartels must solve three operational challenges.

First, they must form a consensus around the terms of their agreement. This could be to charge a fixed price, rig which companies will win which bidding opportunities, or allocate customers or markets.

Second, they must monitor compliance. A cartel will not be effective unless members follow the consensus. Because a cartel is composed of competitors, its members are naturally suspicious of each other. For this reason, members must monitor each other to ensure that all are following the terms of their agreement. In practice, this is difficult because it requires exchanging competitively sensitive information on an ongoing and covert basis.

Third, there must be a mechanism to punish companies that "cheat." For example, if one company seeks to increase sales by undercutting its co-conspirators, the other parties to the agreement must have some way to discipline the company that deviates from the consensus. Unless these challenges can be overcome, the cartel is not likely to last.

With regard to monitoring compliance, distributed ledger technology enables companies to observe sales, purchases, and transaction metadata recorded on the blockchain. This makes it easier to determine whether a company is violating the cartel agreement by selling below the fixed price or by producing above its allocated quota. In addition, companies need not meet or even communicate directly to demonstrate that they are complying with the agreement. They need only monitor transactions on the blockchain. This means that smoke-filled rooms are no longer necessary for co-conspirators to keep their agreement afloat.

Punishing cheaters can also be facilitated through blockchain technology and "smart contracts," which are protocols that automatically execute the terms of a contract if certain conditions are met. Of course, smart contracts also serve several procompetitive purposes, such as reducing transaction costs and decreasing lag time between satisfaction and performance of the contract. For example, a smart contract could ensure that the title to a property automatically and instantly transfers to the buyer when funds are deposited in the seller's account.

In the cartel context, however, smart contracts could be weaponized to ensure that if one company sells below the fixed price or exceeds its production quota under the cartel agreement, then all co-conspirators automatically punish that company. Discretion is removed from the cartel members and delegated to the smart contract, ensuring that the cheater is immediately punished for each breach of the cartel agreement. In turn, the risk of incurring the wrath of co-conspirators when cheating is higher in the blockchain context, which furthers adherence to the consensus and durability of the cartel.

Telephone Chain

Blockchain platforms could enable companies to signal pricing and production information to competitors, which in turn may enable them to reach agreements to increase prices or reduce output. This concern is exacerbated where private (permissioned) blockchains are involved, or where a blockchain consortium include competitors in concentrated industries.

Chain-Link Fence

In addition to cartel concerns, blockchain technology could be used to exclude rivals. As Professor Thibault Schrepel writes in [Blockchain + Antitrust](#), "the possibility to refuse access is an essential characteristic of private blockchains." Similarly, Professor Samuel Weinstein warns in [Blockchain Neutrality](#) that "anticompetitive access denial to permissioned ledgers" represents an "antitrust harm that might arise from blockchain use." Such claims could be brought under a group boycott or refusal-to-deal theory of harm, depending on how critical access to the ledger is to a company's competitive viability.

Technology platforms can also act as gatekeepers. As Professor Schrepel explained at an American Bar Association (ABA) [Federal Civil Enforcement Committee panel on January 11, 2023](#), "Blockchain does not exist in a vacuum and neither does Web3. Blockchain functions on top of the internet, and gatekeepers may impact blockchain and Web3 based on infrastructure."

Competitive Opportunities

On the other hand, technological innovation often enables and empowers startups and small business growth by eroding barriers to entry. Distributed ledger technology has the potential to power this disruption.

Regarding to the unsecured credit market, Professor Carla Reyes [pointed out](#) that "blockchain could provide actual notice and could reduce barriers of entry in maintaining priority." However, this outcome is not automatic. "People can design architecture that challenges gatekeepers, but alternatively, they can create the exact same structures in traditional finance and Web3. And despite the possibility and potential of reducing barriers to entry, the law encourages recreation of new crypto-gatekeepers." Bringing the point home, Professor Reyes stated that "the social context and what you build with it matters."

Avoiding the Ball and Blockchain

Companies that leverage blockchain technology can reduce their antitrust exposure by taking appropriate precautions.

1. Employees that interact with distributed ledger technology should be trained never to use blockchain as a means to discuss, signal, or exchange information with competitors about company bids, sales opportunities, customers, costs, prices, employee compensation, hiring, or other competitively sensitive information.
2. In the context of consortia blockchain involving concentrated industries, companies should consider more proactive antitrust guardrails.

3. Individuals that control access to permissioned blockchains must also recognize that agreements among competitors to "boycott" or exclude rivals from the ledger may be per se unlawful. Illegal group boycotts include collectively "blacklisting" a firm from the ledger or agreeing with others to refuse to deal with a particular company.

By consulting with experienced antitrust counsel, companies can capture the benefits of blockchain innovation while avoiding costly antitrust violations.

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