

Unit 2 Article Review: Money and Banking Blog

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The financial system is held together by sheer American, cowboy grit, for the most part. Not all countries have a federal reserve or a wall street, but sheer scale of financial transactions across the globe and especially the US is something to marvel at. Still, managing risks and assets is a difficult task for even Wall Street. In this week's article review, we look into Schoenholtz's (2018) blog post discussing how blockchain technology has the ability to manage all financial instruments and exposures in the global economy. There are a plethora of blockchain articles around that try to explain this new technology, but what caught my eye was Schoenholtz's focus on strategies for managing risks within the global economy. I haven't studied risk management as much, and if blockchain systems are designed to better manage risk, it might appeal to a greater number of financial institutions and investors. Schoenholtz claims that if we were to identify all entities and instruments around the world, we can map the entirety of the financial system. This may sound like a good idea, but there are still a number of challenges in place before such a grand goal is achievable. In this paper, I look into the claims that a Global Legal Entity Identifier (LEI) and Global Financial Instruments Identifiers (FII).

Schoenholtz's Main Ideas

Fundamentally, blockchains are just a ledger. Finance firms have always had back office responsibilities, but there isn't necessarily a need for blockchains to accomplish this. Databases are more than capable of managing data. But what separates a blockchain database from other forms of bookkeeping? Schoenholtz provides a basic taxonomy through which we can view databases. On one axis, there is access rights, while on the other axis there is the structure and ownership. Access rights can either be limited or open, while ledger structures can either be

centralized or distributed/decentralized. The examples provided were relevant at the time, but there is no reason why hospital records cannot also be distributed. Each of the axes makes use of a type of scarce resource in order to prevent unauthorized access and provide some level of security for transacting members. Most open and distributed databases unfortunately make use of a significant amount of deadweight loss in order to provide security, usually in the form of Proof of Work (PoW) or Proof of Stake (PoS). Databases with limited access rights make use of identity as the scarce resource, on the other hand. Each method has their pros and cons, but the challenge of trying to reduce the deadweight loss from PoW is still a long ways away.

Scalability is a genuine concern here, as Nakamoto required proof that miners use a lot of electricity in order to provide security for participating members. Increasing the speed from just a few thousand equity transactions per second up to 50000 equity transactions per second while also providing security in an environment that doesn't require Know Your Customer policies is no easy task. Excessive KYC usage could also bring the end of privacy if not done properly. There is still tons of work to do in this space to address these issues, but they are being taken seriously by the world.

Legal Identity Identifier

A common theme from Schoenholtz's blog posts revolves around managing different types of risk. As an example, a big problem with the Lehman brother's demise was the inability to understand how much other companies were exposed to Lehman (Schoenholtz, 2017). No one knew exactly how other counterparties would be affected by the fraud committed by one massive investment firm. The lack of consolidated information technology and risk-management systems made it difficult to govern a large number of subsidiaries operating across jurisdictions. A

solution that Schoenholtz tries to provide for this problem is through the use of a permanent identification system for both institutions and financial instruments. Setting up these identification systems is easier said than done and more work needs to be done to set up a system that can help manage these identities.

Conclusion

Wall Street runs on risk management and asset allocation. Blockchain technology has the ability to bring radical transparency into the equation of information systems. Unfortunately, scalability and privacy are the two main concerns when it comes to this technology - will it be able to handle over 50000 equity transactions per second, the amount needed for a global financial engine/protocol? Also, excessive use of KYC policies could invade people's privacy, which ought to be a fundamental human right. How do find the balance? Schoenholtz proposes that Global Legal Entity Identifiers and Global Financial Instruments Identifiers are all that are needed to map all the risks across a global financial network. This could mitigate the impact of fraudulent or risky investments from the past like the Lehman brothers or Silicon Valley Bank failures.

References in APA

- Schoenholtz, S. C. and K. (2017, October 30). *Managing risk and complexity: Legal entity identifier*. Money, Banking and Financial Markets. <https://www.moneyandbanking.com/commentary/2017/10/30/managing-risk-and-complexity-legal-entity-identifier>
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