

A Regulatory Controls Framework for Decentrally-governed DLT Systems

Addressing the disintermediation of conventional regulatory control points

Gayan Benedict, Conrad.G.Benedict@student.uts.edu.au; Asif Gill, Asif.Gill@uts.edu.au

Context: Distributed ledger technology (DLT) and its blockchain subclass are emerging as a disruptive innovation with an expanding range of applications. DLT systems such as Bitcoin provide transactional integrity without recourse to central authorities (Nakamoto 2008). Atzori (2015) describes this shift to decentralised governance as resultant of a diminished societal trust in authorities and institutions. While DLT systems have attractions, Benkler (2016) notes their challenges to regulators who conventionally apply regulatory controls on intermediaries.

Research Question: How should regulators adapt regulatory controls to respond to the shift to decentralised governance enabled by DLT systems?

Method: The study adopts a Participatory Action Design Research (PADRE) research approach. Literature analysis focuses on IT governance and financial regulation, culminating in an extension of the kernel theory of IT governance by Weill & Ross (2004) to the field of financial DLT regulation. In doing so it extends the DLT governance model proposed by Beck, Müller-Bloch & King (2018). The research method uses policy experts from Australian Financial System Regulators (FSRs) to co-design regulatory controls for decentrally-governed DLT systems.

Initial Research Results: Based on the initial literature-based conceptual framework and FSR co-design activities the research has developed a regulatory control framework for decentrally-governance DLT systems. The framework encompasses controls that address risks in three dimensions; 1) risks to DLT participants 2) risks to investors, and 3) systemic risks to markets containing DLT systems. Identified controls framework features include 1) shifting controls from targeting intermediaries to DLT usership, 2) explicitly limiting DLT incentives that contribute to systemic risk or value destruction, and 3) addressing stakeholder and market risks through recourse to regulator protections. The research informs Australian financial regulator responses to decentralised governance and emerging ISO standards on DLT governance.

Conclusion: This research develops a regulatory control framework designed to address the displacement of conventional controls by DLT systems. Research co-design of a control framework using Participatory Action Design Research supplemented with additional theory-generating qualitative research techniques improves research impact and validity.

References

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