

APPLIED ECONOMICS OF BLOCKCHAINS, SMART CONTRACTS AND DECENTRALIZED MARKETS

A Ph.D. and Graduates Workshop

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The jury on the development and initial introduction of blockchains, smart contracts and digital tokens (crypto currencies) to the economy and the society is still out. Many still see this as an aberration; others see it as a value generation process and a desired social change. Since the 1960's global trade grew at very high rate carried on technology advances particularly in the data processing and information fields. GNP per capita grew and in addition to the growth in the Western world growth spread into Asia and other parts of the world. One aspect of this process was an increase in the power of global corporations and national governments that became the most powerful micro and macro organizations. The blockchains and smart contracts technology (BCSCT) creates an opportunity to change the drive for more centralization while continuing the growth in the GNP per capita and reducing income inequality among countries and within countries.

The innovative BCSCT affects all aspects of life. This is the basic idea and the structure of the TRUST project led the University of Macerata that covers most if not all aspects of life. This workshop is focused on Work Package 4 that deals with economics and finance. The purpose of the workshop is to share some recent research in the financial economics of the BCSCT and generate potential research topics for the participants.

The workshop is based on research done by Levy Cohen and myself over the period 2018-2021 in the context of Seamless Software Logic Ltd. a start-up company focused on providing solutions to the DeFi market.

The workshop is composed of six sessions. In each session we will discuss one aspect of the economics of the BCSCT. Each session is composed of two parts; a presentation of a specific aspect of BCSCT, and a discussion of what research ideas can be developed from the presentation. Each session of the workshop will take about 90 minutes. I will be available on my mail to address any questions and comments of the participants between sessions.

Each session is based on a paper by Levy Cohen and me. This due to the lack of written papers on the financial economics of the BCSCT and also it is easier for me to discuss further research ideas based on the work that I have done. The papers include discussion on relevant literature in the respective topics.

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The Plan of the Workshop

Session One:

Topic: New Technology and Old Economics: The Basic Components of Economic Theory and of Blockchain and Smart Contracts Technology (BCSCT).

Reading: "Barter Trade, Reallocation System and the new Distributed Digital Technology", November 2018, ssrn

Session Two:

Topic: Trading Protocols and Assets Allocation.

Reading: "Employing Decentralized Protocols to Optimize Assets Allocation", September 2020, ssrn

Session Three

Topic: BCSCT, MNEs and Global Trade

Reading "The New Distributed Digital Technology, World Trade and MNEs: Another Step in the Innovative Process", European Journal of International Management, vol. 15, no. 1, January 2021

Session Four

Topic: The Law and Economics of Smart Contracts

Reading: "The Contract is Here and It Is Complete: Two Applications of Smart Contracts to the Financial Market" Work in Process, October 2021

Session Five

Topic: BCSCT Growth and Convergence

Read: "The Potential Contribution of BCSCT to Economic Growth and Convergence", February 2019

Session Six

Topic: Contingent Claims in the Bitcoin Market

Reading: "New Perspective on the Bitcoin" and "Leveraging the Bitcoin and the Creation of Low Risk Bitcoin-Based Dollar Claims", Work in Process, October 2021