

# *CryptoCLASH*: A Strategic Board Game Examining Volatility in Digital Currency and Markets

Authors:  
Joshua Cehulic  
Alex Scarlatos  
Marisa DePasquale

Supervisor: Richard McKenna

Departments: Honors College/Computer Science

*CryptoCLASH* is a digital board game that aims to highlight the volatilities of online currency and competitive capitalist markets. In Thomas Piketty's book *Capital in the 21<sup>st</sup> Century*, he illustrates the relationship between markets, capital, and volatility. He notes that as capital becomes concentrated in fewer hands, the stability of markets decreases. While Piketty focuses on global, long-term trends, we noticed a similar pattern in online currency. Bitcoin, the most commonly used digital currency, fluctuates in value at extremely high rates. We believe that Bitcoin could act as a microcosm to educate an audience about volatility in small and large scale markets.

In the game, each player is an entrepreneur that invests in various markets, competing to obtain the highest amount of capital (represented as "victory points") after a fixed number of rounds. Each round, players choose which markets to invest in, trading input materials, like labor or energy, for output materials, like factories or stocks. They can also execute special actions against other players with "volatility cards" to gain a competitive edge. Bitcoins are used as inputs and outputs in the game, but the amount of bitcoins required for certain actions is dependent on the "exchange rate", a value that changes randomly each round.

We believe that by playing the game, players will notice patterns in the changing value of markets, competitive economic strategies and the unreliability of digital currency. By applying these concepts, we hope players will recognize economic motivations happening in the real world. The motivation is similar to that of Monopoly: learning about the nature of capitalist economics through gameplay.