



# REGULATING THE DIGITAL FRONTIER: A COMPARATIVE ANALYSIS OF BITCOIN REGULATORY POLICY IN EL SALVADOR AND THE CENTRAL AFRICAN REPUBLIC

By Earl Stephens and Advised by Dr. Megan Wrobel; Program in Comparative Political Science, The College of Wooster, Wooster, Ohio

## Background

The increasing popularity of Bitcoin has had a significant impact on regulatory policies and national currency systems across the globe. In recent years, El Salvador, and the Central African Republic (CAR) have passed legislation to adopt Bitcoin as their national currency. This study examines the reasons behind the retention of this legislation in El Salvador and its repeal in the Central African Republic. The study is focused on answering the question: *How did different regulatory approaches affect domestic innovation in El Salvador and the Central African Republic?*

## Key Theories

- Political Order in Changing Societies (Huntington 1969).
- Corruption and Policy: Back to the Roots (Broadman 2002)
- Political Legitimacy and Democracy (Buchanan 2002)
- Bitcoin, the Law and Emerging Public Policy : Towards a 21st Century Regulatory Scheme Note (Karch 2014)
- Banking in the Shadow of Bitcoin? The Institutional Adoption of Cryptocurrencies (Auer 2023)

## Hypotheses

- **Hypothesis 1:** Greater instances of corruption will lead to a lack of regulatory quality.
- **Hypothesis 2:** Greater instances of illegitimacy will lead to a lack of regulatory quality.
- **Hypothesis 3:** The presence of Corruption in public policy leads to a lack of domestic innovation.
- **Hypothesis 4:** The presence of Illegitimacy in public policy leads to a lack of domestic innovation.

Figure 3.1 Keywords

Positive (+1)	Neutral (0)	Negative (-1)
<ul style="list-style-type: none"> <li>• Effectiveness</li> <li>• Efficiency</li> <li>• Legitimacy</li> <li>• HighRanking</li> <li>• High Scores</li> <li>• Integrity</li> <li>• Positivity</li> <li>• Improvement</li> <li>• Strengthening</li> <li>• Increase</li> </ul>	<ul style="list-style-type: none"> <li>• Neutrality</li> <li>• Moderation</li> <li>• Stability</li> <li>• MidRanking</li> <li>• Average Scores</li> <li>• Balance</li> <li>• Equilibrium</li> <li>• Stagnation</li> <li>• Maintaining</li> <li>• Consistency</li> </ul>	<ul style="list-style-type: none"> <li>• Ineffectiveness</li> <li>• Inefficiency</li> <li>• Illegitimacy</li> <li>• Low Ranking</li> <li>• Low Scores</li> <li>• Corruption</li> <li>• Negativity</li> <li>• Decline</li> <li>• Erosion</li> <li>• Decrease</li> </ul>

## Methods: Mills Method Of Difference (MOD)/ Coding Process

- **Mill's Method of Difference (Salmon, 2013)**
  - Examines two cases to address a research question.
  - One case involves the occurrence of an event "e," while the other does not.
  - Both cases must be similar except for one antecedent circumstance.
- **Coding Rules (Johnson et al., 2020)**
  - A -1 denotes a negatively contributing factor.
  - A +1 indicates a positive factor.
  - A 0 distinguishes a factor that is neither concordant nor discordant.
- **Total Score Calculation**
  - Derived from the sum of twelve factors.
  - Score considered out of x/16 and -x/16.
  - The score represents the suspected level of domestic innovation in the two cases.
- **Examples and Figures**
  - Figurative coding example in Table 3.1 and Figure 3.1.
  - Consists of terms deemed negative, positive, and neutral for reference.

Figure 3.2 Mills Method of Difference

Case	Antecedent Circumstances	Event for Which Cause is Sought
1	X, Y, A, B, C, D,	e occurs
2	Y, A, B, C, D	e does not occur

Study: e = state of policy (acting or repealed)  
**El Salvador:** Domestic Innovation, Regulatory Approach, Corruption, Illegitimacy, Rank, Score  
**Central African Republic:** Regulatory Approach, Corruption, Illegitimacy, Rank, Score  
**Mills (1843) Method of Disagreement** suggests the cause of the Central African Republic's policy being repealed was Domestic Innovation

Adapted from Salmon (2013) Introduction to Logic and Critical Thinking

Table 3.1 Coding Example

Variable	El Salvador Source 1	El Salvador Source 2	CAR Source 1	CAR Source 2	Total Score	Domestic Innovation Score El Salvador (x/16)	Domestic Innovation Score CAR (x/16)
Legitimacy	-1	1	-1	0	-1	...	...
Corruption	1	0	-1	-1	-1	...	...
Regulatory Approaches	0	-1	1	-1	-1	...	...

## Findings

- **Hypothesis 1: Corruption and Regulatory Order**
  - El Salvador: Balanced corruption didn't significantly impact regulatory order due to streamlined frameworks and positive perceptions, fostering an innovative environment.
  - Central African Republic: High corruption negatively affected regulatory order, exacerbated by economic decline and instability, necessitating state-led interventions for transparency and accountability.
- **Hypothesis 2: Illegitimacy and Regulatory Order**
  - El Salvador: Despite slight illegitimacy, strong institutions and effective policies maintained robust regulatory order, highlighting resilience.
  - Central African Republic: Pronounced illegitimacy hindered regulatory order, exacerbated by economic decline, stressing the need for comprehensive reforms.
- **Hypothesis 3: Corruption and Domestic Innovation**
  - Unexpectedly, mild corruption in both countries didn't hinder domestic innovation, with regulatory quality and approaches positively influencing innovation dynamics.
- **Hypothesis 4: Illegitimacy and Domestic Innovation**
  - Despite slight illegitimacy in El Salvador and balanced perceptions in the Central African Republic, regulatory approaches and effectiveness positively impacted domestic innovation, challenging initial projections.
- **Regulatory Frameworks and Cryptocurrency Legislation**
  - El Salvador's positive regulatory environment, with effective policies and strong institutions, supported maintaining cryptocurrency legislation, while challenges in the Central African Republic likely led to repeal, emphasizing the critical role of regulatory frameworks in legislative decisions.
- **Implications and Future Research**
  - Further investigation is needed to understand the complex relationship between regulatory approaches and domestic innovation, aiming for sustainable development and inclusive growth in both countries.

Table 4.8 Hypotheses Results

Case	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4
El Salvador	Partially Confirmed	Partially Confirmed	Rejected	Rejected
The Central African Republic	Partially Confirmed	Partially Confirmed	Rejected	Rejected