# Exploring the Implications of Cryptocurrencies in Selected Developing Countries

By Lavanya V. Neti | lvneti@wharton.upenn.edu

Advisors: Dr. Timothy Van Zandt, INSEAD Department of Economics & Political Science
Dr. Brian Berkey, Wharton Department of Legal Studies & Ethics

## History of DeFi Technology in El Salvador & the CAR

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>David Chaum founds DigiCash, the first currency system based on cryptographic hash functions</td>
</tr>
<tr>
<td>2008</td>
<td>Satoshi Nakamoto’s white paper brings Bitcoin into the spotlight</td>
</tr>
<tr>
<td>2021</td>
<td>The CAR declares Bitcoin legal tender</td>
</tr>
<tr>
<td>1998</td>
<td>DigiCash files for bankruptcy due to a lack of public acceptance</td>
</tr>
<tr>
<td>2015</td>
<td>Ethereum blockchain goes live, created by a group of programmers</td>
</tr>
</tbody>
</table>

## Bitcoin as a Legal Tender: El Salvador

**History:**
- 2001: El Salvador makes the US$ the legal currency from the colon
- 2021: El Salvador’s “Bitcoin Law” requires BTC to be utilized alongside their fiat currency (US$)

**Government-run programs:**
- The government rolls out educational platforms and the “Chivo app” (literal translation: “The Goat”)
  - 30USD incentive to download Chivo (0.73% of per capita GDP of 4,131USD)
  - Emotional tools used to artificially increase demand for the App is unsuccessful with 80% of Chivo users becoming inactive after bonus
- Government rolls out education sessions to teach public digital financial literacy skills
- Previous government policies raise questions about integrity of these programs

**Reactions:**
- Study by the Central American University found that over 71% of Salvadorans believed that the Bitcoin Law “had brought no benefits”
- Large companies are increasing prices by around 20% for payments made in Bitcoin
- The IMF warns that there is potential for decreased macroeconomic stability in markets that require Bitcoin

**Takeaways:**
- Less than 50% of El Salvador citizens have access to reliable internet, a necessity for a digital currency
- Bitcoin’s volatility and susceptibility to economic disruptions make its Bitcoin legislation dangerous for the majority of its citizens, despite potential benefits of independence from the US$

## Bitcoin as a Legal Tender: Central African Republic (CAR)

**History:**
- 1945: CAR adopts the CFA Franc as a colonial currency
  - The CAR’s fiat currency, the CFA Franc, is shared among five other central African countries (Cameroon, Chad, the Republic of the Congo, Equatorial Guinea, and Gabon)
- 2022: CAR makes Bitcoin legal tender
  - There are concerns of complicated cross-border transactions

**Motivation:**
- President Faustin-Archange Touadera’s chief-of-staff Obed Namsoo explains that the move to crypto will “new opportunities for our country”
- Limited scholarly research on potential deeper motivations for the CAR’s move to DeFi

**Reactions:**
- With less than 10% of CAR citizens having access to reliable internet and the recency of this news, there is limited information about public reactions within the CAR
- CAR citizens who are negatively affected by this legislation most likely lack the means to share their sentiments online.

**Takeaways:**
- Limited crypto regulation is articulated within the CAR and its neighboring countries, which complicates the practicality of this legislation
- The potential increase in white-collar crime is concerning as there are already high rates of crime in the CAR (murder rate of about 20.12 per 100,000 people in the CAR in 2016)

---

Motivations behind countries that have criminalized cryptocurrency:

**China**
- In September 2021, The People's Bank of China (PBOC) declares all purchasing and selling of Bitcoin is illegal and that they will be “severely cracking down” on any internal and foreign crypto transactions
- PBOC finds over 90% of ICOs “launched in China to be fraudulent,” and creates policies with extra measures that prohibit cross-border trades

**Egypt**
- Some Islamic scholars oppose Bitcoin based on Shari’ah law argue that virtual currency gives way to socio-economic injustice due to Gharar (uncertainty) and Maysir (gambling)
- Imam Mufti Shawki Alam declares Bitcoin unlawful for lacking a central authority influencing legal legislation in September 2021

More information and a detailed account of works cited found here: [https://repository.upenn.edu/spur/44/](https://repository.upenn.edu/spur/44/)