Bitcoin or Gold for a Diversifier?
Tales of Pre- and During the COVID-19 Crisis

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What is this research about?
The Effect of the Pandemic on the interaction on asset returns

Jan 2020

Pre-pandemic

During COVID-19 Pandemic
Conclusion

1. More interconnected during Covid pandemic

2. Bitcoin fails to provide protection

3. Risk-averse investors should allocate 40-55% of the portfolio to gold
Why bitcoin?

- “Digital Gold”
- Pricing mechanism-interest in cryptocurrency/block chain/anonymity
- Wang et al. (2019)- diversification in China
Gold—Traditional safe haven

- Low or negative correlation with stocks
- Hedge against inflation
- Store of value
- Baur and McDermott (2010)—Safe haven only for developed markets
Stock Exchange of Thailand SET Index

1,638.34 THB -2.63 -0.16% ▼

Reference: Bloomberg.com
Bitcoin & Gold

- Limitation of scarcity of supply
- No cash flows
- Asymmetric reaction to positive and negative news (Shahzad et al., 2019)
Data & Methodology

- Daily returns of SET, Singapore market, Bitcoin, Gold ETF
- Pre-pandemic: Oct 2013-Dec 2019
- During-pandemic: Jan 2020-May 2021
- VAR-BEKK-GARCH model
### Results-SET

<table>
<thead>
<tr>
<th>Spill Over</th>
<th>Pre</th>
<th>During</th>
<th>Pre</th>
<th>During</th>
<th>Pre</th>
<th>During</th>
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<tbody>
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<td>Return</td>
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<td>Short-term Volatility</td>
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<tr>
<td>Long-term Volatility</td>
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</tbody>
</table>

- **Return**
  - Pre: __
  - During: 
  - Pre: __
  - During: __

- **Short-term Volatility**
  - Pre: __
  - During: 
  - Pre: __
  - During: 

- **Long-term Volatility**
  - Pre: 
  - During: 
  - Pre: 
  - During: 

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**SET**

The Stock Exchange of Thailand

**SGX**

Singapore Exchange

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The diagram illustrates the comparison of pre-and during-period values for Return, Short-term Volatility, and Long-term Volatility for SET and SGX.
## Results - Singapore Market (SGX)

<table>
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## Minimum Variance Portfolio

<table>
<thead>
<tr>
<th></th>
<th>Bitcoin</th>
<th>Gold</th>
<th>SET</th>
<th>SGX</th>
<th>Return</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Sample</strong></td>
<td>0.4</td>
<td>44.2</td>
<td>17.7</td>
<td>37.7</td>
<td>1.7</td>
<td>0.6</td>
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<tr>
<td><strong>Pre-pandemic</strong></td>
<td>0.7</td>
<td>38.8</td>
<td>24.0</td>
<td>36.5</td>
<td>1.6</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>During-pandemic</strong></td>
<td>0.0</td>
<td>54.4</td>
<td>7.6</td>
<td>38.0</td>
<td>3.1</td>
<td>0.8</td>
</tr>
</tbody>
</table>
Conclusions/Key Take-away

1) Different asset classes (equities in ASEAN, gold, and bitcoin) get more interconnected during the pandemic.

2) Bitcoin fails to provide protection for investors in Southeast Asia.

3) Risk-averse investors should hold gold for significant portion in their portfolio (40-55%).
Implications

1. Bitcoin & stocks: High correlation
   => Being recognized as an investment asset rather than speculation
Implications

2

Herding: Join the crowd

=> Investors rushed to sell their assets due to the shock from COVID-19
Implications

Certainty effect: Prefer certainty more than probable

=> Investors have more trust in gold (tangible, physical shops) than bitcoin (invisible, new technology, cybercrime)
Thank you

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