

# ISIS, AN ARTIFICIAL TERRORIST ORGANISATION AND BITCOIN

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# Islamic State of Iraq and Syria (ISIS)

- «...controlling more than \$2 billion US Dollar ISIS is the richest terrorist organization in the world...» (Forbes International, 2014)
- Military budget of Turkey in 2014 was \$13.2 billion
- «...In 2014, According to expert estimates, ISIS currently controls 60% of oil reserves in Syria, and was able to get its hand on the seven major oil and gas reserves in Iraq, including the country's largest oil refinery...» (Zehorai Itai of Forbes Israel, 2014)
- «...Main funding sources: oil trade, kidnapping and ransom, collection of protection and taxes, bank robberies and looting...» (Zehorai Itai of Forbes Israel, 2014)

# ISIS an Artificial Terrorist Organization

- ISIS sells tens of thousands of barrels petrol every day on the black market but who buys the petrol?
- **The best way to transfer illegal money with almost no risk is crypto money transfer system.**
- As early as 2014, Isis supporters had posted tutorials online about how to make bitcoin donations to the group. Palestinian group Hamas released a video which urged supporters to support it by sending bitcoins, as part of a crowdfunding campaign that began back in January. (Hall R., 2019).
- **There are approximately 2,957 cryptocurrencies being traded with a total market capitalisation of \$221bn (as of October 8th 2019) and Bitcoin (BTC) \$147.3bn, Ethereum (ETH) \$19.4bn, XRP (XRP) \$11.7bn (finance.yahoo.com, 2019).**

# Data and Methodology

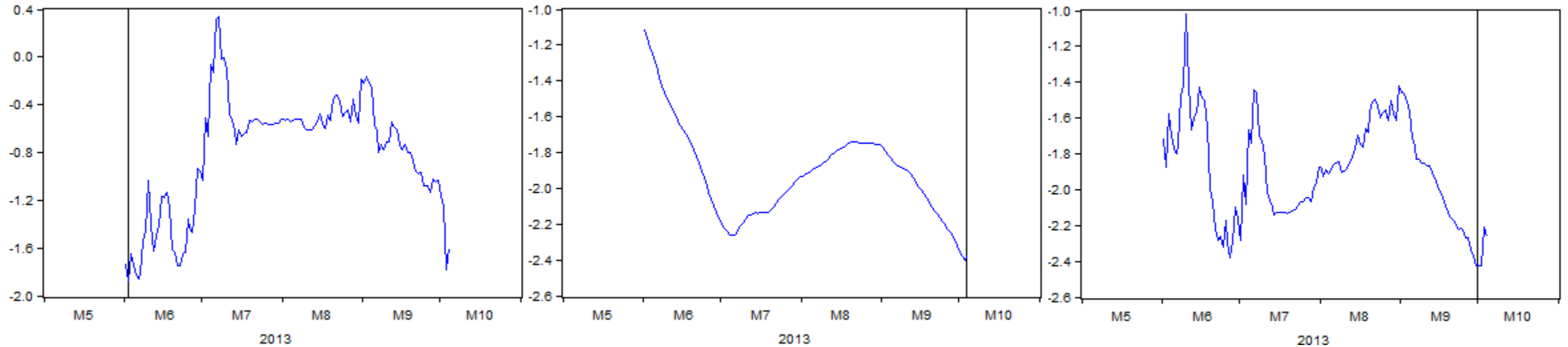
- ISIS and Bitcoin prices relation with univariate timeseries
- Covers daily data between 01.05.2013 and 09.10.2019 but focused on 2014
- Stationary of Bitcoin daily prices (Augmented Dickey-Fuller Unit Root Test)
- Zivot-Andrews Unit Root Test was used to investigate whether unit root or structural fractures cause non-stationary.

# ISIS History Between 2014-2015

- 1. In early January 2014 (13th January), ISIS takes control of **Falluja** and most of **Ramadi**, both cities in Anbar Province that are Sunni strongholds and were major battlegrounds during the U.S.-led war in Iraq.
- 2. Members of ISIS seize control of **Mosul**, in northern Iraq in 10th June 2014.
- 3. ISIS fighters also take over three towns in northern Iraq, **Sinjar** (21th October 2014), **Zumar** (1th August 2014), and **Wana**, after fighting brutal battles with Kurdish forces known as the pesh merga
- 4. In 19th January 2015 the Kurds backed by 700 U.S.-led airstrikes and took Kobani from the grip of ISIS.
- 5. The Iraqi military took back to Tikrit from ISIS in 10th March 2015.
- 6. ISIS takes control of **Ramadi** (17th May 2015), the largest city in western Iraq and the capital of Anbar province and seized Palmyra in May 2015.

# Empirical Results

Time-series and results of Augmented Dickey Fuller and Zivot-Andrews Unit Root Tests

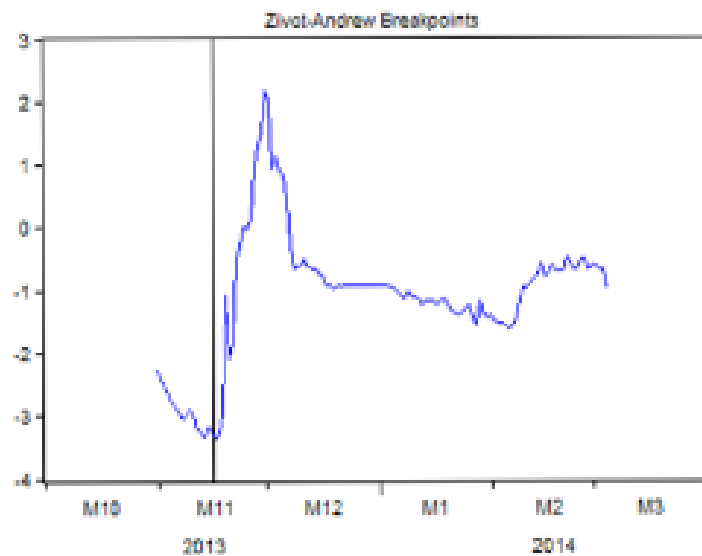


- 1) Structural fracture in 02.06.2013 with 4 days lag
- 2) Structural fracture in 03.10.2013 with 4 days lag
- 3) Structural fracture in in 30.09.2013 wits 4 days lag

In early January 2014 (13th January), ISIS takes control of Falluja and most of Ramadi. ISIS could bought Bitcoin for buying guns and prepared its attack Falluja and other cities in January 2014.

# Empirical Results

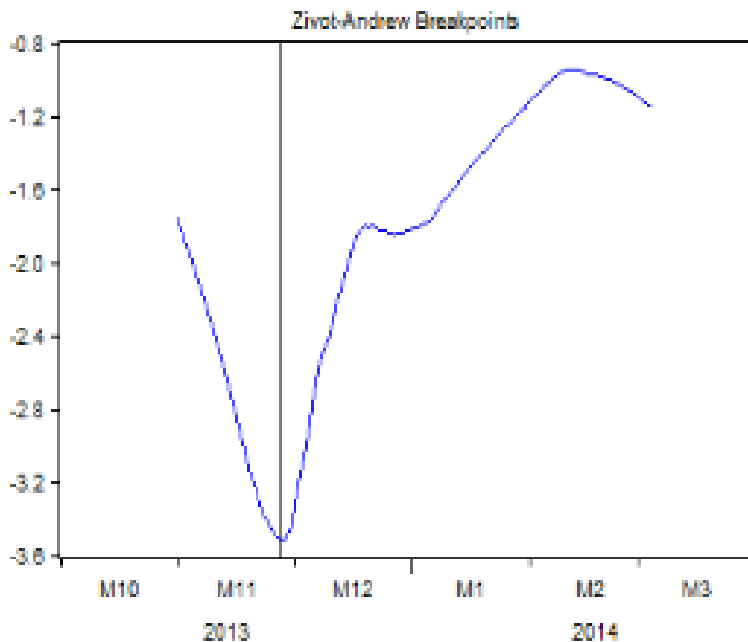
Time-series and results of Augmented Dickey Fuller and Zivot-Andrews Unit Root Tests



Null Hypothesis: SERIES02 has a unit root with a structural break in the intercept

Chosen lag length: 3 (maximum lags: 4)

Chosen break point: 11/16/2013



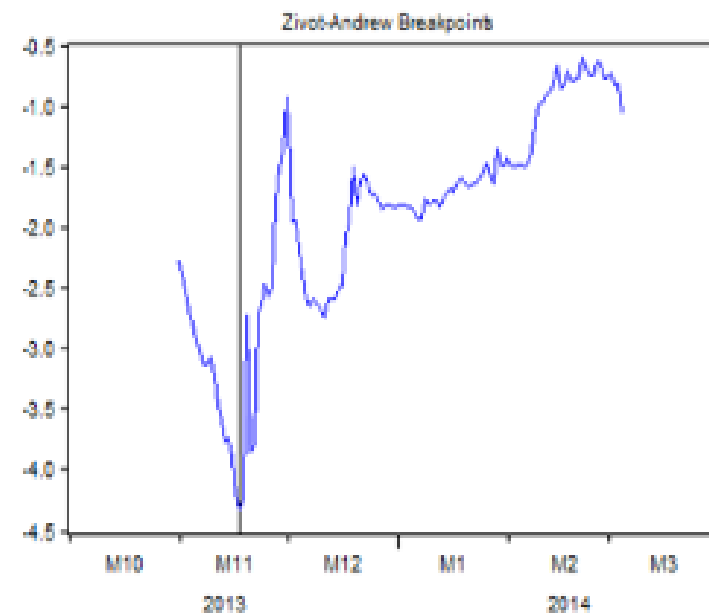
Sample: 10/01/2013 3/31/2014

Included observations: 182

Null Hypothesis: SERIES02 has a unit root with a structural break in the trend

Chosen lag length: 3 (maximum lags: 4)

Chosen break point: 11/27/2013



Zivot-Andrews Unit Root Test

Date: 11/13/19 Time: 22:11

Sample: 10/01/2013 3/31/2014

Included observations: 182

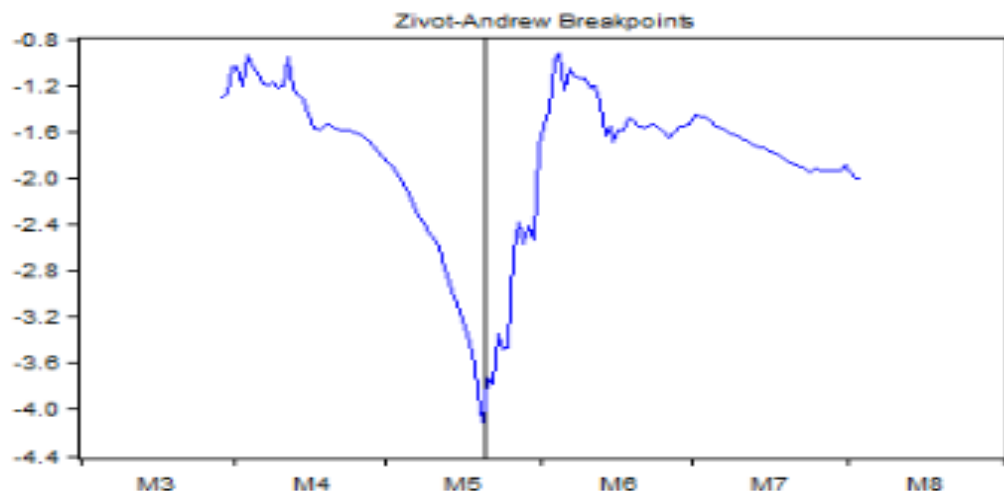
Null Hypothesis: SERIES02 has a unit root with a structural break in both the intercept and trend

Chosen lag length: 3 (maximum lags: 4)

Chosen break point: 11/17/2013

# Empirical Results

Time-series and results of Augmented Dickey Fuller and Zivot-Andrews Unit Root Tests



Zivot-Andrews Unit Root Test  
Date: 11/13/19 Time: 22:11  
Sample: 3/01/2014 8/31/2014  
Included observations: 184  
Null Hypothesis: SERIES02 has a unit root with a structural break in the intercept  
Chosen lag length: 0 (maximum lags: 4)  
Chosen break point: 5/20/2014



Zivot-Andrews Unit Root Test  
Date: 11/13/19 Time: 22:11  
Sample: 3/01/2014 8/31/2014  
Included observations: 184  
Null Hypothesis: SERIES02 has a unit root with a structural break in both the intercept and trend  
Chosen lag length: 0 (maximum lags: 4)  
Chosen break point: 5/20/2014

ISIS seize control of Mosul, in northern Iraq in 10th June 2014



# CONCLUSIONS

- Before attack to the cities ISIS buys Bitcoin and then price increases
- 2014 is the year in which ISIS shines, and 2017 is the year in which it lost its power.
- Raqqa recaptured by the coalition forces in September 2017 and Mosul in July 2017. Structural fractures are being observed in 23.10.2017, 30.11.2017 and 04.12.2017.
- The search should be extended with adding more data about other terrorist organizations who effective all around the world such as PKK (Kurdish terrorist organization), Boko Haram, Taliban etc.

# References

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**Thank you for your patience!**

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