ISIS, AN ARTIFICIAL TERRORIST ORGANISATION AND BITCOIN

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Abstract: Crypto currencies whose traders are not known, affect the world economy. In this case, it is possible to assert that an international terrorist organization can also trade them.

In the market, Bitcoin is well-known and regarding volume is a leader crypto currency between the crypto currencies. In this paper, it has been searched if there could be a strong correlation between bitcoin prices and ISIS. As methodology it has been checked ISIS attacks and Bitcoin prices relation, by graphics.

Keywords: Bitcoin, terrorism, crypto currencies, finance.

Introduction

Everything has started with a big lie, which told by US to the World citizens about Saddam's weapons of mass destructions. Now everybody knows that it was an excuse for attack to Iraq. The destruction of the Iraqi state in 2003 was the most important variable in the emergence of Al Qaeda in Iraq and its subsequent rebirth as ISIS (Gerges, 2016, p.63). ISIS which is one of the most brutal Islamic terrorist organization in the World, has 25.000 to 100.000 active fighters is estimated by different resources such as https://www.rt.com/news/183048-isis-grow-expand-jihadist. ISIS, become an independent terrorist organization when separated from Al Qaeda in 3th February 2014.

Regarding historical facts, we can rank ISIS history as (https://www.infoplease.com/history/world/isis-timeline):

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.	By the end of October 2014, ISIS maintains its hold on many cities in the largely Sunni Anbar Province, as U.S.-led airstrikes prove largely ineffectual without the support of Iraqi troops on the ground.

5.	In 19th January 2015 the Kurds backed by 700 U.S.-led airstrikes and took Kobani from the grip of ISIS.

6.	The Iraqi military took back to Tikrit from ISIS in 10th March 2015.

7.	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.

8.	In two separate events, an ISIS affiliate group kills at least 57 people at mosques in Sana, Yemen in September 2015.

9.	Officials blame ISIS for the worst terrorist attack in Turkey's history: two coordinated explosions at a rally for peace in Ankara that killed more than one hundred in October 2015.

10.	The Sinai Province of the Islamic State, an ISIS offshoot, claims responsibility for the bombing of a Russian passenger plane in October 2015.

11.	Falluja city is back in Iraqi control as of June 18, 2016.

12.	The Islamic State claims responsibility for a New Year's Day shooting at the Istanbul nightclub Reina that leaves at least 39 people dead, wounding 70 in January 2017.

13. Raqqa recaptured by the coalition forces in September 2017.
14. Iraqi and U.S. forces finally gain complete control of the city of Mosul in July 2017.
15. Several months after the falls of Mosul and Raqqa, ISIS continues to repeatedly and continually lose hold over Iraq and Syria. The United States military publishes a report estimating that ISIS has lost upwards of 98% of its territory. Iraqi officials declare on December 10 that ISIS has been officially removed from the country in December 2017.
16. U.S. announced that leader of ISIS, namely Abu Bakr al-Baghdadi killed by U.S. army forces in 28.10.2019.

Why ISIS is an artificial terrorist organization?

Unlike legitimate businesses, terror enterprises shift their financial efforts to underground operations, above and around the financial laws of the economic world (Forbes International, 2014). Regarding this report, controlling more than $2 billion US Dollar ISIS is the richest terrorist organization in the world.

As it could be seen in the map, in 2015 ISIS controlled territory in Syria and Iraq as big as Italy and Britain lands.

"…So how did this small al-Qaeda facilitated group become a huge financial corporation in such a short time? The answer, as in many cases in the Middle East, is oil, and a lot of it. By occupying vast areas of Iraq and Syria, ISIS also took control of many oil and gas fields. 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. Using an oil smuggling system developed over years of sanctions against Saddam Hussein, ISIS now sells tens of thousands of barrels every day on the black market… Main funding sources: oil trade, kidnapping and ransom, collection of protection and taxes, bank robberies and looting…"

(Zehorai Itai of Forbes Israel, 2014, Quoted in 28th 10. 2019)
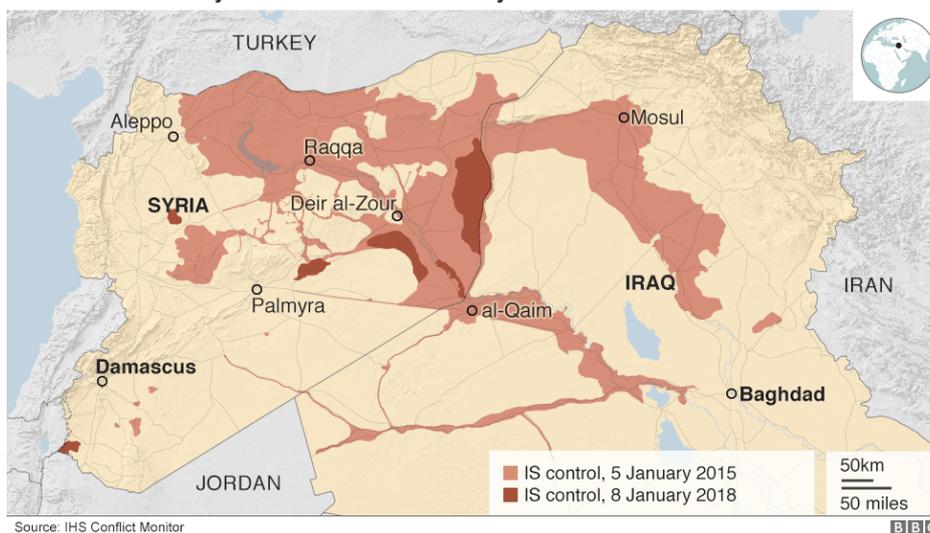
Resource: https://www.bbc.com/news/world-middle-east-27838034 from source IHS Conflict Monitor, Quoted in 28.03.2018

ISIS sells tens of thousands of barrels every day on the black market but who buy the petrol? Are there any ISIS friend countries around its territory? Because of these two unanswered questions, ISIS is an artificial terrorist organization. This paper left these questions to political analysers and ask another question which is directly related with this paper topic: How ISIS transfers its fund to other ISIS connected terrorist organizations such as Boko Haram etc.?

The best way to transfer illegal money with almost no risk is crypto money transfer system. ISIS has also applied this methodology in the past and possibly now. 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).

Bitcoin as a virtual money

Bitcoin is a cryptocurrency, a form of electronic cash. It is a decentralized digital currency without a central bank or single administrator that can be sent from user to user on the peer-to-peer bitcoin blockchain network without the need for intermediaries (Rosic Ameer, 2016). 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).

If we have look to Bitcoin graph from the 2009 (introduced date is 31th October 2008), we can see how fast it has grown.

Graphic 1. Historical Index of Bitcoin

Resource: https://images.app.goo.gl/L6M3SNCSRGjnoS9V9, Quoted in 31.10.2019

ISIS captured many oil rich cities such as Mosul and Raqqa between 2014 and 2015. Even general trend was up, it can be claimed that Bitcoin prices increased more rapidly than before. It can also be asserted that ISIS could bought Bitcoin with earning from oil in these two years and this pushed the prices up. Bitcoin Block Reward Halving occurred in 28.11.2012 and 09.07.2016 and price increased from 10 US $to 600 US $ and 1.000 $ to 19.000 $ respectively.

Data and Methodology

In this paper it has been searched ISIS and Bitcoin prices relation with univariate timeseries. The timeseries cover daily data between 01.05.2013 and 09.10.2019. To see in detail of structural fractures, the data divided into two.

To search stationary of Bitcoin daily prices between 2013 and 2019, it has been applied Augmented Dickey-Fuller Unit Root Test. Zivot-Andrews Unit Root Test was used to investigated whether unit root or structural fractures cause non-stationary.

Empirical Results

Graphic 2 and shows Bitcoin trading volume and ISIS achievements to capture petrol rich cities such as Mosul. Graphic 3 shows the same with Bitcoin closing prices. It can be observed that

trend in both series is declining and it is not clear that if ISIS Bitcoin trade affects the series. To search this, it has been applied Augmented Dickey-Fuller Unit Root and Zivot-Andrews Unit Root Tests.
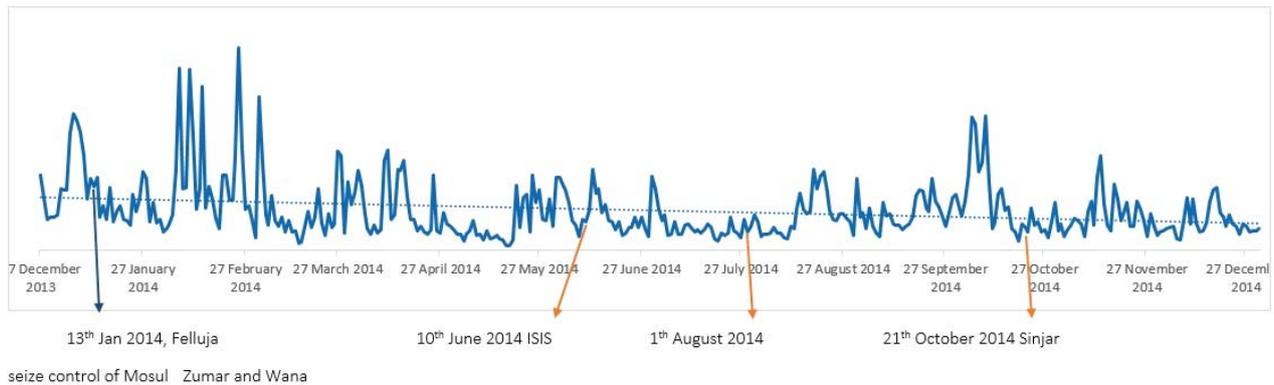

Graphic 2. ISIS Achievements and Bitcoin Trading Volumes
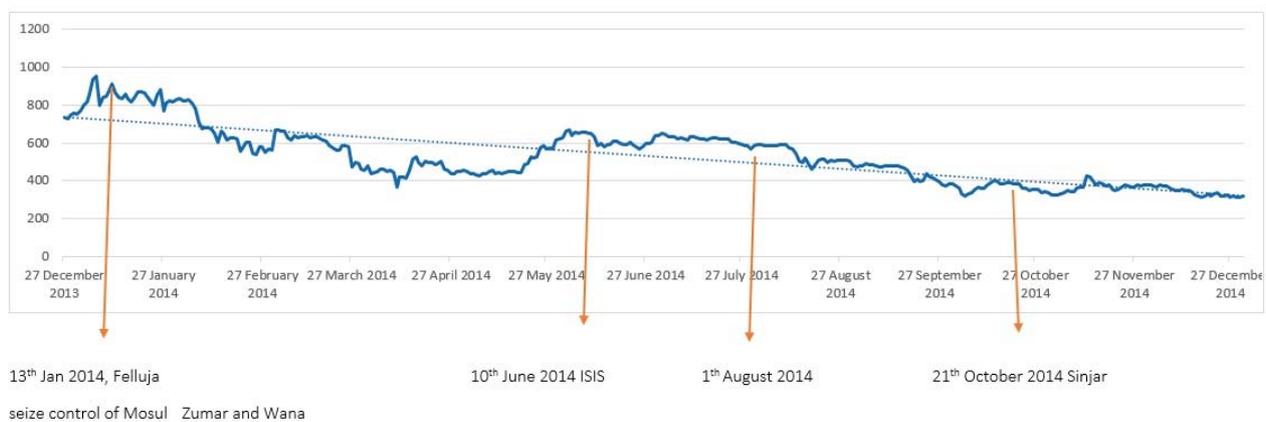
Graphic 3. ISIS Achievements and Bitcoin Closing Prices

We have divided the data into six months sub-periods in order to observe more and detailed structural fractures in time series. The time-series runs graphic is shown in Figure 4. Figure 4 covers Bitcoin daily closing prices between 01.05.013 and 31.10.2013. It could be seen in the graphic that Bitcoin daily closing prices have not got a certain mean with a clear fluctuation and later has an increased trend.

1.5.2013-31.10.2013
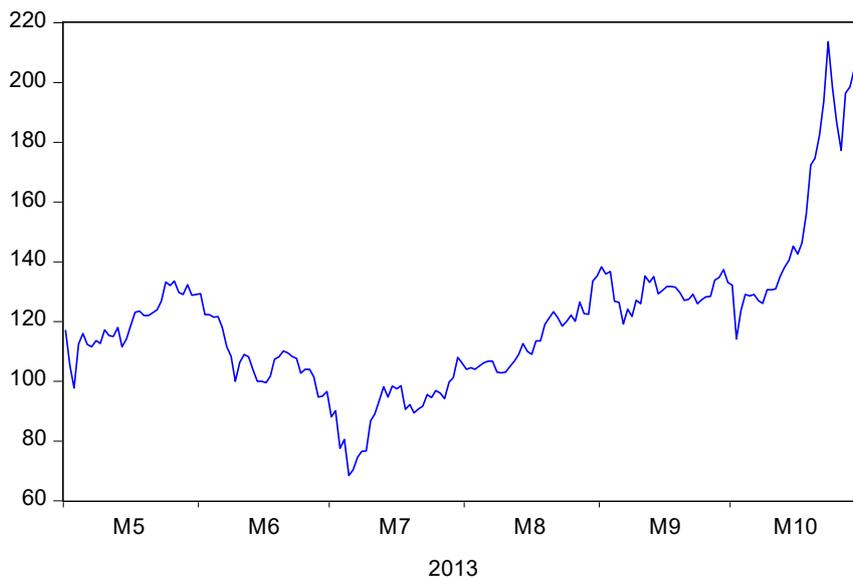
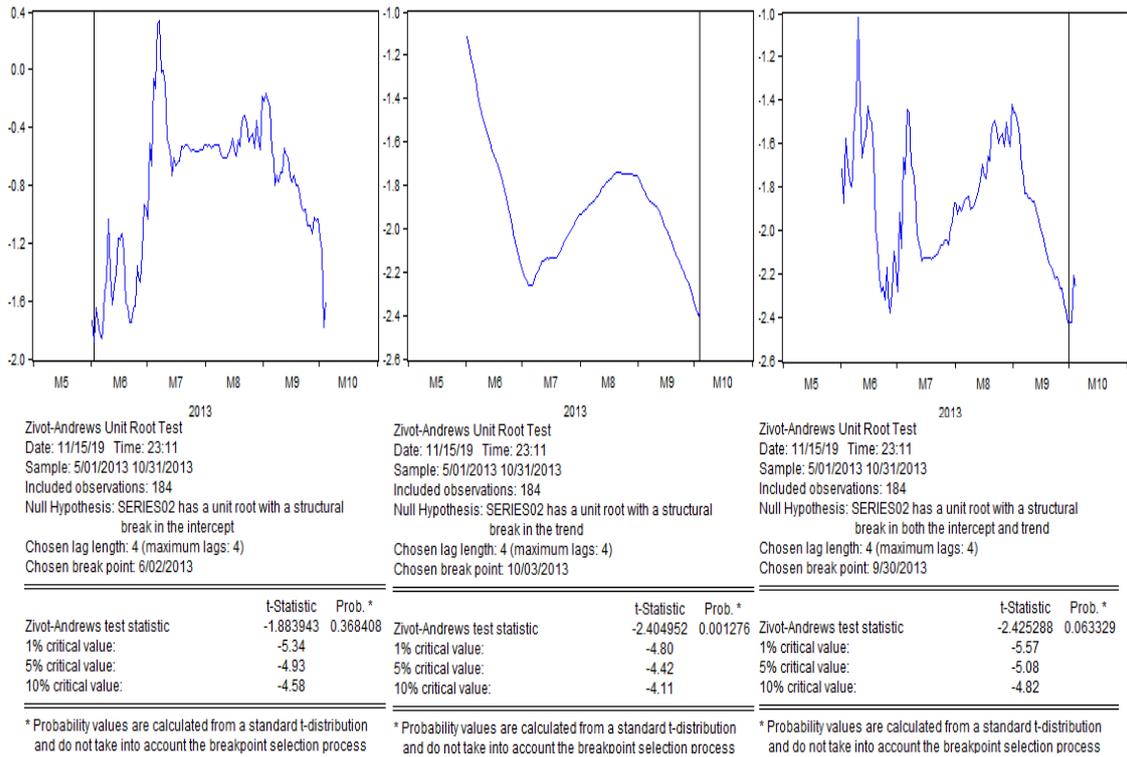

Graphic 4. Trend in Bitcoin closing prices

Stationary was searched by Augmented Dickey Fuller Unit Root Test (ADF) for Bitcoin daily closing prices between 01.05.2013 and 31.10.2013. After the first difference (integration) of the series, it was determined that the series became stable. Table 1 is shown stationary as intercept, trend and both. As it could be seen in the Table 1, absolute value of t-statistics exceeds critical test values at 1%, 5% and 10%. So, the series has a stationary after first difference (integration).

Table 1. Augmented Dickey Fuller Unit Root Test

		Intercept		Trend and intercept		None	
		t-Statistic	Prob.*	t-Statistic	Prob.	t-Statistic	Prob.
Augmented Dickey-Fuller test statistic		**-6.159830**	0.0000	**-6.505918**	0.0000	**-6.505918**	0.0000
Test critical values:	1% level	**-3.466994**		**-4.010143**		**-4.010143**	
	5% level	**-2.877544**		**-3.435125**		**-3.435125**	
	10% level	**-2.575381**		**-3.141565**		**-3.141565**	
*MacKinnon (1996) one-sided p-values.							

The Zivot-Antreps Unit Root Test was used to determine whether the time series was non-stationary due to unit root or structural fractures. Firstly, it has been searched fractures with intercept and it has been observed a fracture in 02.06.2013 with 4 days lag. Secondly, same process has been applied with trend and a structural fracture has been observed in 03.10.2013 with 4 days lag. Last process was applied as both intercept and trend and observed a structural fracture in 30.09.2013 wits 4 days lag. The Figure (The Graphic) 5 displays these peculiarities.

In early January 2014 (13th January), ISIS takes control of Falluja and most of Ramadi, both cities in Anbar Province are Sunni strongholds, and were major battlegrounds during the U.S.-led war in Iraq. ISIS could buy Bitcoin for buying guns and prepared its attack Falluja and other cities in January2014.

Graphic 5. Time-series and results of Augmented Dickey Fuller and Zivot-Andrews Unit Root Tests

Second six-month term is 01.10.2013 to 31.03.2014. It could be seen in the graphic that Bitcoin daily closing prices have not got a certain mean and has a negative trend.
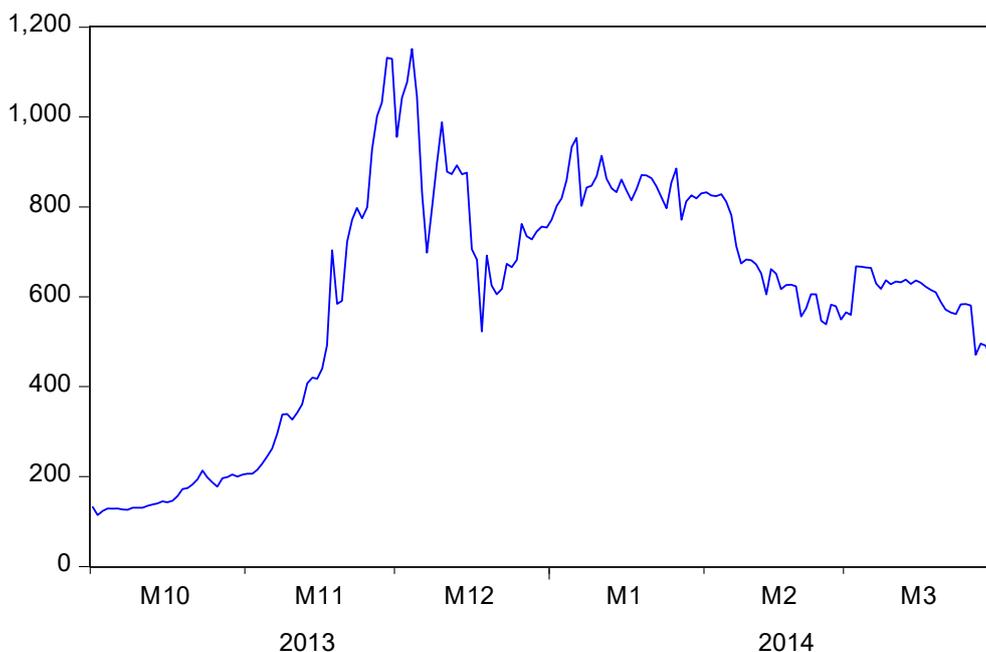
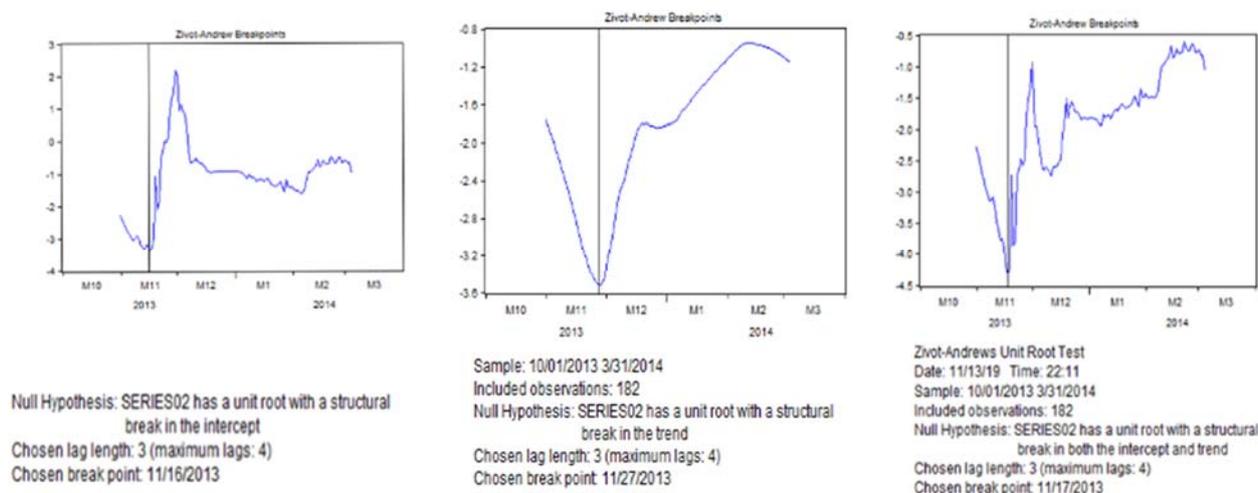**Graphic 6.** Bitcoin Closing Prices Trend for 01.10.2013 to 31.03.2014.

Stationary was searched by Augmented Dickey Fuller Unit Root Test (ADF) for Bitcoin daily closing prices between 01.10.2013 and 31.03.2014.

Table 2 is shown stationary as intercept, trend and both. As it could be seen in the Table 2, absolute value of t-statistics exceeds test critical values at 1%, 5% and 10%. So, the series has a stationary after first difference (integration).

Table 2. Augmented Dickey Fuller Unit Root Test for 01.10.2013 and 31.03.2014

		Intercept		Trend and intercept		None	
		t-Statistic	Prob.*	t-Statistic	Prob	t-Statistic	Prob
Augmented Dickey-Fuller test statistic		**-5.136080**	0.0000	**-5.420321**	0.0001	**-5.131367**	0.0000
Test critical values:	1% level	**-3.467633**		**-4.011044**		**-2.578167**	
	5% level	**-2.877823**		**-3.435560**		**-1.942645**	
	10% level	**-2.575530**		**-3.141820**		**-1.615502**	
*MacKinnon (1996) one-sided p-values.							

The Zivot-Antreps Unit Root Test was used to determine whether the time series was non-stationary due to unit root or structural fractures. Firstly, it has been searched fractures with intercept and it has been observed a fracture in 16.11.2013 with 4 days lag. Secondly, same process has been applied with trend and a structural fracture has been observed in 27.11.2013 with 4 days lag. Last process was applied as both intercept and trend and observed a structural fracture in 17.11.2013 wits 4 days lag. The graphics are given below.

Graphic 7. Augmented Dickey Fuller and Zivot-Andrews Unit Root Tests

Second term confirms first term. ISIS could be bought Bitcoin for preparing for war. Third term covers 01.03.2014 to 31.08.2014. We followed the same process.
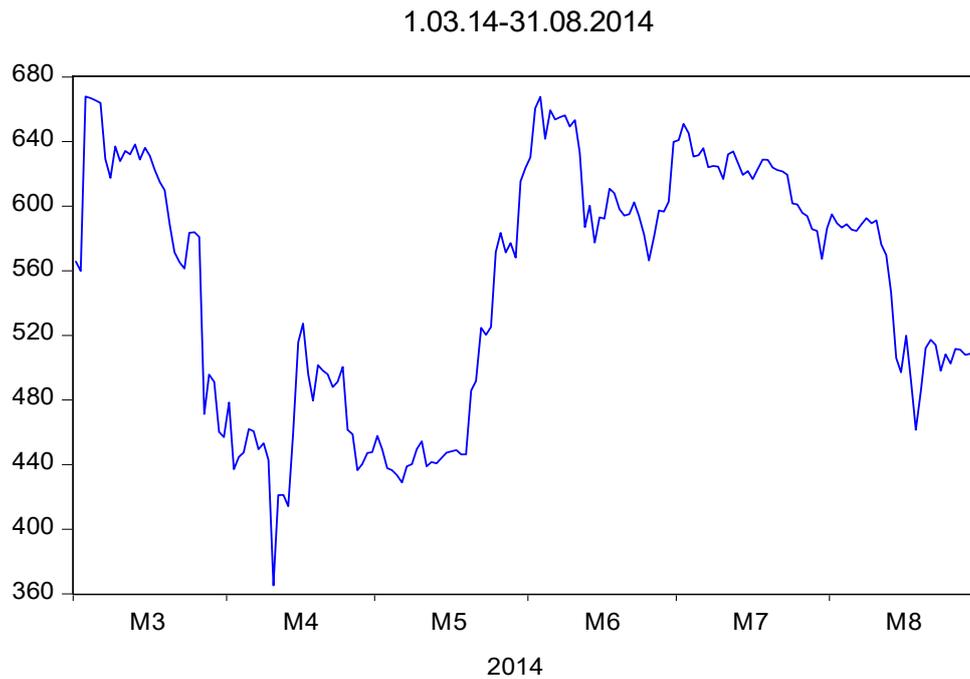
1.03.14-31.08.2014

Graphic 8. Bitcoin Closing Prices Trend for 03.01.2014-31.08.2014

Stationary was searched by Augmented Dickey Fuller Unit Root Test (ADF) for Bitcoin daily closing prices between 01.10.2013 and 31.03.2014. Table 3 is shown stationary as intercept, trend and both. As it could be seen in the Table 3, absolute value of t-statistics exceeds test critical values at 1%, 5% and 10%. So, the series has a stationary after first difference (integration).

Table 3. Augmented Dickey Fuller Unit Root Test for 01.10.2013 and 31.03.2014

		Intercept		Trend and intercept		None	
		t-Statistic	Prob.*	t-Statistic	Prob	t-Statistic	Prob
Augmented Dickey-Fuller test statistic		**-13.93047**	0.0000	**-13.90367**	0.0000	**-13.96237**	0.0000
Test critical values:	1% level	**-3.466377**		**-4.009271**		**-2.577730**	
	5% level	**-2.877274**		**-3.434706**		**-1.942584**	
	10% level	**-2.575236**		**-3.141318**		**-1.615541**	
*MacKinnon (1996) one-sided p-values.							

The Zivot-Antreps Unit Root Test was used to determine whether the time series was non-stationary due to unit root or structural fractures. Firstly, it has been searched fractures with intercept and it has been observed a fracture in 20.05.2014 with 4 days lag. Secondly, same process has been applied with trend and a structural fracture has been observed in 01.03.2014 with 4 days lag. The graphics are given below.
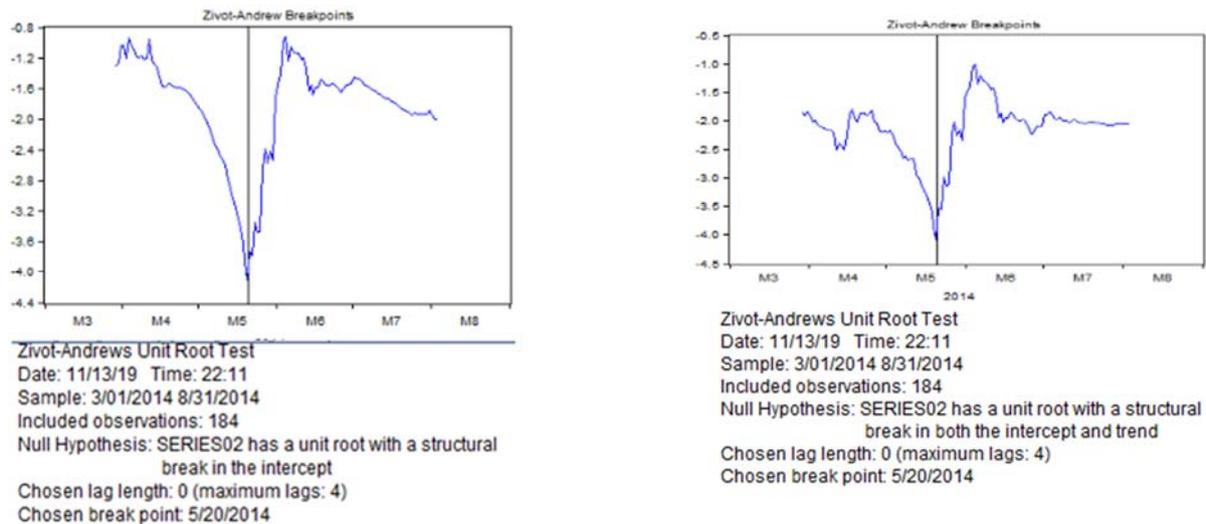
Graphic 9. Augmented Dickey Fuller and Zivot-Andrews Unit Root Tests

As we mentioned before members of ISIS seize control of Mosul, in northern Iraq in 10th June 2014. Graphic 9 shows us that after structural fractures in 20.05.2014 and 01.03.2014, trend turned to positive. We can claim that ISIS started to buy Bitcoin to buy guns just before attacking Mosul.

Conclusions

We know that terrorist organizations use crypto currencies. Members and supporters send money mainly by crypto currencies. For example, in December 2017, Zoobia Shahnaz, a 27-year-old detained because of using bitcoin to launder money for terror group ISIS (Mangan, 27.11.2018).

Bitcoin is one the main crypto currency used by terrorist organizations which is dominated the crypto currency market. Because crypto currencies provide anonymity, some countries could also use it for their illegal spends. In the head of the paper we claim that ISIS is an artificial terrorist organization. To give an evidence and/or strength our claim we divided the time series into six months sub-periods and searched structural fractures. We especially focused on 2014 which ISIS took main petrol rich cities in both Iraq and Syria. We have found that before attack the cities ISIS buys Bitcoin and then price increase. We cannot certainly give evidences about it, but it seems to be like that.

2014 is the year in which ISIS shines, and 2017 is the year in which it lost its power. For example, Raqqa recaptured by the coalition forces in September 2017 and Iraqi and U.S. forces finally gain complete control of the city of Mosul in July 2017. Even graphics are not given here, 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.

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