

Why Bitcoin ETF Proposals Kept Being Rejected?

Zhuo Li¹[0000-0001-9381-7359] and Xuejiao Ju²[0000-0001-8615-1181]

¹ State Street Technology (Zhejiang) Ltd., Managing Director, Floor 6, Building C, Paradise Software Park, 3# XiDouMen Road, Hangzhou, Zhejiang, China

² ¹ State Street Technology (Zhejiang) Ltd., Assistant Vice President, Floor 6, Building C, Paradise Software Park, 3# XiDouMen Road, Hangzhou, Zhejiang, China
Zhuo_Li@StateStreet.com, XJu@StateStreet.com

Abstract.

Bitcoin investment has attracted more attentions and money inflows in past few years. There have been continuous efforts to rationalize Bitcoin related investment into a Bitcoin ETF and bring it to financial market so a wider audience can access it. However, none of these proposals has been approved by regulators yet. This paper plans to conduct a deep dive review and analysis against Bitcoin ETF prospectus details, compare it with gold ETF to understand potential reasons behind rejections, and to discuss a feasible model as well as challenges associated with it to bring Bitcoin ETF which will ultimately benefit all market players.

Keywords: Bitcoin ETF, custodian, sponsor, market service provider, fund administrator

1 Overview

Bitcoin has attracted more and more attention on global investment horizon since its genesis block was mined out in 2009. Although it is a controversial area to financial authorities and regulators, it proliferated at an astonishing pace and has grown to a more than \$114 billion market cap as of now [1]. Although it is far below its peak value of over \$318 billion in Jan. 2018, it already grew hundreds of times in past 5 years.

There has not been full recognition from governments or financial authorities around the globe to Bitcoin, neither is it clearly ruled by laws or regulations. But quite a few institutions have paid continuous efforts to rationalize Bitcoin into traditional financial market with a wish more investors can enjoy benefits from its growth - one of the mostly referenced rationalization patterns is Bitcoin ETF. There have been more than a dozen Bitcoin ETF proposals submitted to SEC. Unfortunately, or fortunately, none of them has been approved yet. This paper collects all Bitcoin ETF proposals ever since 2013, analyzes their characteristics to find out reasons behind rejections, and discusses from both Bitcoin ETF operation model and market player perspectives, how to refine themselves to be fully prepared for a new future.

The rest of this paper is organized as below. Chapter 2 introduces Bitcoin ETF and its benefits. Chapter 3 reviews and analyzes all Bitcoin ETF proposals, compares with

classic gold ETF, and explores potential reasons behind regulation rejection. Chapter 4 analyzes challenges Bitcoin ETF brings to existing market roles as well as capabilities they need to grow. Chapter 5 further discusses future of Bitcoin ETF and new financial market operation model towards a reliable, regulated and transparent vision.

2 Introduction

Bitcoin involves a good level of technical complexities like encryption, decentralization and consensus, which put a natural fence for retail investors. Also, due to ambiguity from regulators, established financial institutions are also hesitated to enter into this emerging market. People are expecting some investment instruments to fix these gaps and Bitcoin ETF is the proposal from many institutional practitioners.

2.1 What is Bitcoin ETF

An ETF (exchange-traded-fund) [2] is an investment vehicle that tracks the performance of a particular asset or basket of assets. Creation unit (block of ETF shares) can be issued or redeemed to authorized participants by delivery of cash or in-kind basket of assets; ETF shares are listed in exchange as secondary market for trading and provide shareholders with indirect exposure to the basket of assets underlying. A Bitcoin ETF is one that mimics the price of the most popular cryptocurrency in the world. This allows retail investors to get Bitcoin exposure without dealing with its technical complexity.

Below is a brief timeline of Bitcoin ETF application.

Table 1 Bitcoin ETF application history

Date	Event
Jul 2013	Winklevoss twins submitted the first Bitcoin ETF proposal.
Jul 2016	SolidX filed with SEC to launch the SolidX Bitcoin Trust.
Mar 2017	SEC denied Winklevoss Bitcoin ETF and SolidX Bitcoin ETF proposals.
Apr 2017	SEC approved petition to review rejection of Winklevoss Bitcoin ETF.
Dec 2017	Bitcoin future was approved and listed for trading. Several ETF proposals backed by Bitcoin derivatives were submitted for SEC review.
Jan 2018	Several firms withdrew their SEC applications for Bitcoin ETF.
Jun 2018	VanEck and SolidX together filed a physical backed Bitcoin ETF again.
Jul 2018	SEC rejected Winklevoss Bitcoin ETF again.
Aug 2018	SEC rejected 9 Bitcoin derivative backed ETF proposals.
Sep 2018	SEC extended review period of VanEck SolidX Bitcoin ETF.

2.2 What does Bitcoin ETF mean

Bitcoin ETF has shown strong association with Bitcoin market – the price hit a historic peak of near \$20,000 late 2017 when Bitcoin future was approved and multiple ETF applications were submitted enthusiastically. Later when SEC pushed back, Bitcoin

price dropped dramatically. Why Bitcoin ETF applications have such significant market impact?

To Investors and Cryptocurrency Market: Although cryptocurrency market has gone through a rapid development past years, most individual and institutional investors from “traditional” finance world are just waiting and observing. They may want the exposure but the technical hurdles and the blurring regulatory climate hold them back. If SEC approves Bitcoin ETF, it provides an official endorsement which will give more confidence to public. For individual investors, Bitcoin ETF would act as a bridge across cryptocurrency technical hurdles. Share listed in exchange is a familiar way and will be cost-effective, convenient and therefore well-received by more audience. For institutional investors who have strict mandates defining the investable assets, investing directly into Bitcoin doesn’t have enough clarifications yet, but investing in a fund traded on major exchanges could make compliance challenges much easier. Therefore, ETF will create a new channel and for more capital inflows into Bitcoin market, to boost the market to further develop.

To Industry Service Providers: A healthy capital market must be an ecosystem with a comprehensive set of service providers maximizing operational efficiency. And it is a mechanism to enable separation of duties and mutual monitoring. ETF is an instrument with long history and mature operation model. Different role players constitute a solid and reliable structure to serve shareholders’ best interests. Bitcoin ETF is built upon the traditional commodity ETF model, providing direction and guidance to the traditional service providers, also embracing new entrants like high technology companies. It is a new arena with both opportunities and challenges.

3 Analysis on Current Bitcoin ETF proposals

Table 2 Bitcoin ETF Proposals

Sponsor	Filed	Status	ETF Product Offering	Notes
Digital Asset Services, LLC	Jul 2013	Rejected	Winklevoss Bitcoin Trust (Physical bitcoin backed)	Rejected on Jul 2018 (the second time)
SolidX Management LLC	Jul 2016	Rejected	SolidX Bitcoin Trust (Physical bitcoin backed)	Rejected on Mar 2017
Van Eck Associates Corp.	Aug 2017	Withdrawn	VanEck Vectors Bitcoin Strategy ETF (Bitcoin derivative backed)	Withdrawn on Jan 2018
Exchange Traded Concepts LLC	Jan 2018	Withdrawn	Exchange Listed Funds Trust (Bitcoin derivative backed)	Withdrawn on Jan 2018
First Trust Advisors LP	Jan 2018	Withdrawn	First Trust Bitcoin Plus Strategy ETF, First Trust Inverse Bitcoin Strategy ETF (Bitcoin derivative backed)	Withdrawn on Jan 2018
Direxion Asset Management	Jan 2018	Rejected	Direxion Daily Bitcoin Bear 1X Shares,	Rejected on Aug 2018

Information Classification: Limited Access

			Direxion Daily Bitcoin 2X Bear Shares, Direxion Daily Bitcoin 1.25X Bull Shares, Direxion Daily Bitcoin 1.5X Bull Shares, Direxion Daily Bitcoin 2X Bull Shares (Bitcoin derivative backed)	
ProShare Capital Management LLC	Dec 2017	Rejected	ProShares Bitcoin ETF, ProShares Short Bitcoin ETF (Bitcoin derivative backed)	Rejected on Aug 2018
GraniteShares Advisors LLC	Dec 2017	Rejected	GraniteShares Bitcoin ETF GraniteShares Short Bitcoin ETF (Bitcoin derivative backed)	Rejected on Aug 2018
SolidX Management LLC	Jun 2018	Pending	VanEck SolidX Bitcoin Trust (Physical bitcoin backed)	Extended review period to around Mar. 2019

3.1 Bitcoin ETF Proposal Review

Bitcoin ETF proposals can be categorized into two main types.

Table 3 Bitcoin ETF Proposals Overview

Physical Bitcoin ETF	Bitcoin Derivative ETF
Backed by physical bitcoin	Backed by bitcoin future/swap contracts
Passively managed	Actively managed, portfolio may include other asset classes, could do both long and short
Tracking the performance of bitcoin price	Seeking total return that exceeds the return of bitcoin derivative contracts
ETF share is targeted to bitcoin price	ETF share may deviate from bitcoin price
Special custody solution for cryptocurrency's safeguarding, securely storing and maintaining the private keys.	Bitcoin derivative securities are listed in public exchange, no worry for cryptocurrency's custody solution.

Among all Bitcoin ETF proposals, almost all the bitcoin derivative backed ETF requests are denied by SEC as of now. Winklevoss [3] and VanEck SolidX [4] are based on physical bitcoin: the former was already rejected by SEC while the latter seems to be the most promising one. The reason is quite obvious: bitcoin has history since 2009 with daily trading volume around \$20 billion while bitcoin derivative is only publicly listed for a short time (less than 1 year) with daily trading volume less than \$1 billion. And derivative is always viewed as more vulnerable to market manipulation. We think

physical bitcoin backed ETF has more chance to get approved soon. And following discussions will focus only on physical bitcoin backed ETF (referred to as ‘Bitcoin ETF’ for simplicity).

One interesting finding from the prospectus is that ETF per-share price derived from the backed bitcoin’s market value will still have a high entrance bar for individual investors, which indicates that at beginning, the initial Bitcoin ETF product still targets at mature and experienced (institutional) investors.

3.2 Bitcoin ETF Conceptual Operation Model

Synthesizing existing Bitcoin ETF prospectus, we get below diagram.

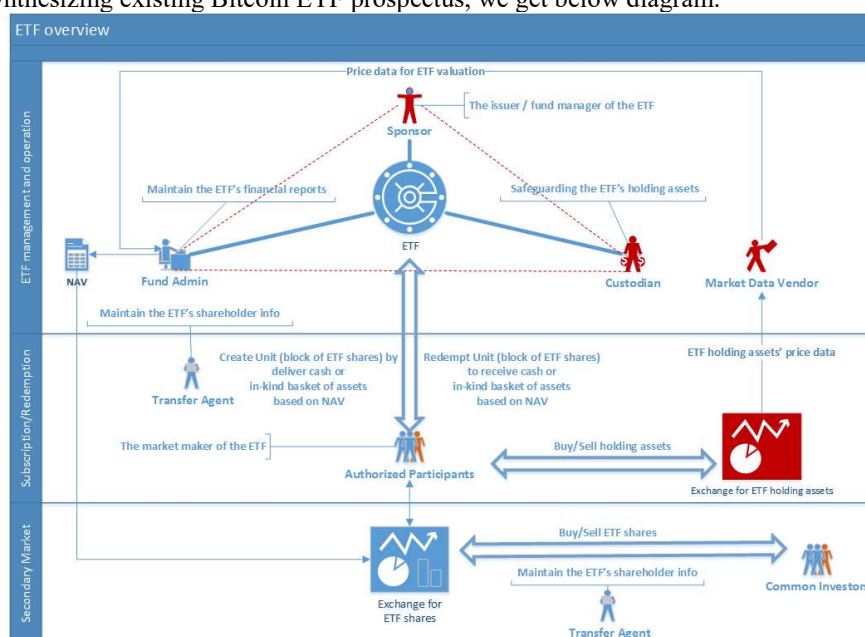


Fig. 1. ETF operation model and main players

Sponsor is the issuer and manager of the ETF. In Bitcoin ETF, this role is taken by a blockchain technology company, who knows well about bitcoin market while may have limited experience in managing an investment vehicle like Trust.

Fund Administrator is to keep the ETF’s accounting book, perform valuation service, and prepare financial reports. In Bitcoin ETF, this role is assigned to a third-party (not affiliates of sponsor) service provider, responsibilities similar to traditional ETF products.

Custodian is to safeguard the ETF’s asset holdings. In Bitcoin ETF, due to the unique feature of bitcoin, custodian is usually taken by an affiliate of the sponsor to leverage the technical custody solution.

Market Data Vendor is to provide accurate and reliable pricing data of underlying asset, for the ETF fund administrator to calculate NAV (Net Asset Value). In Bitcoin ETF, there is no well-known and commonly used pricing data source for bitcoin.

Authorized Participants is the market makers for the ETF. The arbitrage activities by authorized participants will link the price between initial offering market and secondary market. In Bitcoin ETF, as of the publication of existing prospectus, there are some market-making companies coming into the authorized participant agreement, but no established financial institutions' name yet.

Transfer Agent is to process orders from authorized participants for unit creation/redemption and maintain records for shareholder information. In Bitcoin ETF, this role is assigned to a third-party (not affiliates of sponsor) service provider.

Besides the normal roles, VanEck SolidX also brings in the marketing agent, who is responsible to review/approve creation/redemption orders from authorized participants and review/approve all sales and marketing materials for compliance. This is a move to alleviate SEC's concern of 'bitcoin market manipulation'.

From the prospectus, we can see that, some well-known financial institutions are only involving and playing the roles of fund administrator and transfer agent. For example, State Street Bank and Trust Company, which is a global top-class custodian bank and financial service provider with 225 histories, is only acting as the fund administrator and the transfer agent in Winklevoss Bitcoin Trust proposal.

3.3 Bitcoin ETF vs Gold ETF

Although there is no official asset classification of cryptocurrency, a popular view is taking bitcoin as commodity especially gold. They both have some qualities of 'money' like media of exchange and storage of value. They both have limited supplies and could be generated by mining process. In this way, bitcoin is also called 'digital gold'.

Bitcoin vs. Gold

Table 4 Bitcoin Market vs Gold Market

	Bitcoin Market	Gold Market
Overview	An emerging and volatile market.	A well established, significant, and regulated mature market.
Market Cap	about \$114 billion	about \$7.8 trillion [5]
Daily Trading Volume	Around \$16 billion	More than \$140 billion

One similarity between bitcoin and gold is that OTC market counts for majority trading volume. For gold, the most important gold trading centers are the London OTC market, the US futures market and the Shanghai Gold Exchange (SGE). These markets comprise more than 90% of global trading volumes and are complemented by smaller secondary market centers around the world (both OTC and exchange-traded). OTC market represents almost 3/4 of the total trading volume. For bitcoin, the average volume of bitcoin exchange market is about \$4 billion per day while the estimated volume of the OTC market varies from \$8 billion to \$12 billion per day.

Information Classification: Limited Access

However, gold market has world-wide regulations as well as industry standards, covering lifecycle from exploration, mining, refining to trading and covers all service providers. The World Gold Council intervenes to ensure all gold trading markets comply with principles of best-practice, such as the UK Fair & Effective Markets Review. For bitcoin, there is no full coverage of regulation in bitcoin industry now. Only recently the CFTC (US Commodity Futures Trading Commission) has designated bitcoin as a commodity and announced that fraud and manipulation involving bitcoin traded in interstate commerce and the regulation of commodity futures tied directly to bitcoin is under its authority. Although regulation of bitcoin continues to evolve; the concern is most trading volume actually comes from foreign countries out of US, like China and Japan. And there is no global consent yet.

Bitcoin ETF vs. Gold ETF

Here we compare one Bitcoin ETF (VanEck SolidX Bitcoin Trust – ‘XBTC’) with one gold ETF (SPDR® Gold Shares – ‘GLD’) [6].

Offering: GLD is the first US traded gold ETF and is the largest gold-backed ETF in the world, with total net asset around \$28 billion. The sponsor of GLD is World Gold Trust Services LLC; an indirect wholly-owned subsidiary of the World Gold Council, a not-for-profit association. XBTC is a physical bitcoin backed ETF (still pending SEC review), and is the most promising product offering now. The sponsor of XBTC is SolidX Management LLC; a wholly-owned subsidiary of SolidX Partners Inc, which is blockchain technology company.

Custody: Gold as physical precious metal, it requires special services across good delivery, clearing, vaulting and allocated & unallocated metal account maintenance. London Bullion Market Association (LBMA) defines the industry standards like ‘The Good Delivery Rules’. For GLD, The custodian is HSBC Bank and is responsible for the safekeeping of the trust’s gold bars and facilitates with gold delivery. Custodian is a market maker, clearer and approved weigher under the rules of the LBMA. For XBTC, The trust itself is responsible for the custody of the trust’s bitcoin. The security of the trust’s bitcoin relies upon the safekeeping of private keys that provide access to customized bitcoin wallets, from which and to which the trust’s bitcoin can be transferred.

Insurance: Gold ETF may or may not be insured, at the discretion of the custodian. Extracted from GLD prospectus, ‘The Trust does not insure its gold. The Custodian maintains insurance with regard to its business on such terms and conditions as it considers appropriate which does not cover the full amount of gold held in custody.’ For Bitcoin ETF, sponsor seeks the insurance coverage by discretion, to improve the product offering. Extracted from XBTC prospectus, ‘The Trust maintains crime, excess crime and excess vault risk insurance coverage underwritten by various insurance carriers. Both the Trust and the Sponsor (the “Insured”) are insured parties under the insurance policy.’

Pricing Data Source: Gold ETF could use a respectable and reliable third-party pricing data source, which is regulated and used by many practitioners. For GLD, it is using LBMA Gold Price; the auction platform and methodology as well as the overall admin-

istration is governed and regulated and this price is referred to by many market participants. Bitcoin ETF does not have a standard, commonly agreed pricing data source. It could use new designed market index, which just has a very short history and has very limited market coverage. For XBTC, it plans to use MVIS® Bitcoin OTC Index, which is a real-time U.S. dollar-denominated composite reference rate for the price of bitcoin, source data collected from several bitcoin OTC platforms, all of which are U.S.-based entities only.

3.4 Bitcoin ETF Proposal Obstacles Review

From above comparison, we can easily derive some obstacles in Bitcoin ETF.

The underlying market of bitcoin is volatile, does not have enough liquidity and transparency. Trading volume mostly comes from foreign countries (out of US) and OTC markets. Global regulation authorities do not have consensus on bitcoin yet and OTC market's information transparency is always an issue.

Second, surveillance-sharing agreement between bitcoin market and Bitcoin ETF share market seems not be effective enough. In the Winklevoss proposal, although Gemini exchange and Bats exchange (BZX) signed a surveillance-sharing agreement, the Gemini exchange only represents for a very small fraction of the total bitcoin trading volume, such surveillance cannot cover the whole underlying market.

Third, there are few international well-recognized financial institutions as big players formally stepping into bitcoin market, to set up a healthy industry standard including but not limited to accurate and reliable market data source, audit criteria for bitcoin secure custody and business continuity plan, bitcoin insurance coverage etc.

Fourth, Bitcoin ETF's operation model still has obvious conflict of interest risk and is lack of independent and structural control. For example, across all Bitcoin ETF proposals, the sponsor itself is also acting as the custodian.

Also SEC has provided a comprehensive response file [7] to clarify rationales of their rejections against Winklevoss [3] proposal in 2018. In this file, SEC explained its concern about bitcoin risks around market manipulation, KYC and AML, as well as liquidity due to sponsors or their affiliations play dual responsibilities. Remediating the above mentioned conflict of interest risks can mutually improve issues mentioned in SEC file by improving market transparency as well.

4 Challenges to Enable Bitcoin ETF

The advantages and disadvantages bringing Bitcoin ETF to market are both obvious. It needs to overcome obstacles mentions above but this itself means new challenges to existing market players – both cryptocurrency market space and traditional financial market space.

4.1 Bitcoin ETF Operation Model

Theoretically, sponsor, fund administrator and custodian (the red triangle in Fig. 1) constitute separation of duties and powers, which serves for the best interest of shareholders. The critical role in this power triangle is the custodian. Traditionally this role is served by reputable custody banks like State Street. But in crypto space, the sponsors, or their affiliated exchanges occupy this role intentionally or unintentionally as mentioned earlier. Below we will check deeper regarding this power triangle setting.

Sponsor vs Custodian: Sponsor makes discretionary decisions over fund asset management; upon authorized participants' creation/redemption requests, sponsor could decide when to buy/sell the underlying bitcoins (the timing) and where to place the bitcoin trading orders (the location). For example, in Winklevoss Bitcoin Trust proposal, an affiliate of the sponsor is running a bitcoin trading exchange which is also the bitcoin pricing data provider, the pricing data of bitcoin will then guide the ETF share price; there is risk that the sponsor's discretion may not always serve the best interests of ETF shareholders. While custodian is responsible for fund asset safekeeping and transfer, also runs some compliance checks. In this way, custodian could play a role to monitor that sponsor will not leverage fund asset and direct fund asset trading for own benefits.

Fund Administrator vs Custodian: Fund administrator maintains fund accounts and financial reports while custodian holds the actual assets. This is similar to accountant and storekeeper in a mutual monitoring relationship. And the reconciliation between fund administrator and custodian also confirms the accuracy of financial records. In this way, custodian could play a role to make sure fund administrator's book entries are all true and traceable.

Therefore, an independent third-party bitcoin custodian could alleviate regulatory authorities' concerns from market manipulation and conflicts of interest perspectives and improve transparency in the Bitcoin ETF operation model. On the other hand, this also means opportunities and challenges to existing custodian banks. Opportunity means entrance to a fast growing, billion dollar level capital market. And challenges include demands in safe keeping cryptocurrency, balancing the conflict nature between crypto space's anonymity and regulatory requirements on KYC and AML, etc.

4.2 Market Service Provider

Traditional financial market has been mature enough to foster very fine-grained level market service providers across various aspects, like market data provider, credit grading, etc. However, in an emerging market as Bitcoin is, most market players are high-tech background – to say in other words, they are not professional enough to operate this as a mature investment asset on a transparent, efficient and reliable manner. More professional market service providers focusing on different areas across front to back office business can make Bitcoin ETF or Bitcoin related investment more consistent, efficient and reliable, hence can be better trusted by regulators. Most traditional market service providers can find their roles to form a better Bitcoin ETF operation model: sponsors should specialize in asset management; custodians to be expert in safekeeping Bitcoin asset and dealing with technical challenges like hot storage and cold storage, blockchain 'hard fork', etc.; market data vendor and fund administrator will objectively

and accurately perform valuation to provide transparent information to the public investment world; transfer agent and marketing agent process and monitor the sales and distribution. All these together form an industry standard which could be a good reference for global regulatory authorities.

5 Discussion

Bitcoin opens the era of blockchain technology, which has great potentials across many industries. Nevertheless, as a widely recognized “digital gold”, Bitcoin itself gains continuously growing attentions from different parties regulators, investors, market service providers, etc., regardless challenges around conducting AML, KYC and apply sufficient monitoring against its global flow. We have strong belief that Bitcoin ETF will be approved sooner or later as long as there is no way to block this completely decentralized value network. We also believe the most efficient way to bring Bitcoin to financial market, is to have more established financial institutions step in, learn to work together with technology companies via partnership or M&A, which will help remediate above mentioned challenges, and lead the market to a stable and consistent mode which will ultimately benefit every participant.

References

- 1] CoinMarketCap, "CoinMarketCap," [Online]. Available: <https://coinmarketcap.com/>. [Accessed 02 10 2018].
- 2] Wikipedia, "Wikipedia," Wikipedia, [Online]. Available: https://en.wikipedia.org/wiki/Exchange-traded_fund. [Accessed 02 10 2018].
- 3] Winklevoss Bitcoin Trust, "Winklevoss Bitcoin Trust," [Online]. Available: <https://www.sec.gov/Archives/edgar/data/1579346/000119312516786685/d302498dsla.htm>. [Accessed 02 10 2018].
- 4] VanEck SolidX Bitcoin Trust, "VanEck SolidX Bitcoin Trust," VanEck SolidX Bitcoin Trust, [Online]. Available: https://www.sec.gov/Archives/edgar/data/1668039/000110465918038369/a18-2298_1sla.htm. [Accessed 02 10 2018].
- 5] World Gold Counsel, "World Gold Counsel website," World Gold Counsel, [Online]. Available: <https://www.gold.org/>. [Accessed 02 10 2018].
- 6] State Street Global Advisors, "GLD Website," State Street Global Advisors, [Online]. Available: https://us.spdrs.com/en/ad/gld?WT.mc_id=ps_gld_us_text_gld. [Accessed 02 10 2018].
- 7] Security and exchange commission, "Order Setting Aside Action by Delegated Authority and Disapproving a Proposed Rule Change, as Modified by Amendments No. 1 and 2, to List and Trade Shares of the Winklevoss Bitcoin Trust," 2017. [Online]. Available: <https://www.sec.gov/rules/other/2018/34-83723.pdf>. [Accessed 02 10 2018].