THESIS

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Grayscale Bitcoin Trust
Business model analysis

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1. Introduction

Business model is a strategic framework that outlines how a business intends to create, deliver, and capture value in the market. Business managers must understand their business model and the fundamental components that make it up in order to evaluate, determine, interact, and adapt their business model and remain competitive in the challenging business market. A good business model refers to the framework or plan that outlines how a company intends to create, deliver, and capture value in the market. It describes the fundamental principles and strategies that a business uses to generate revenue and achieve profitability. A well-designed business model aligns a company's resources, capabilities, and activities to create a sustainable and successful enterprise. Grayscale Fund is an investment fund that allows investors to gain exposure to cryptocurrencies, such as Bitcoin and Ethereum, without having to buy and manage the digital assets directly. It operates as a trust, with each trust representing ownership of a specific cryptocurrency. Investors can purchase shares of these trusts, which are backed by the corresponding amount of cryptocurrency. Investors can purchase shares of this trust, which are backed by the corresponding amount of cryptocurrency held by the trust.

The aim of this study is to examine the business model of the Grayscale Bitcoin Trust and understand how it operates as an investment vehicle, to analyse value generation of the business model, its strong and weak aspects and any relevant external factors that might directly affect the business model. As well as to perform a scenario analysis to predict possibilities for Bitcoin's development, investors' perceptions of value, and related regulatory developments in the near future. The research aims of the thesis are:

1. To analyze the current structure of the business model of Grayscale Bitcoin Trust. In order to do that I have used SWOT analysis, a comprehensive analysis tool for company analysis.
2. To project possible future developments of the Bitcoin and its impact on the Grayscale Bitcoin Trust business model. I have used scenario analysis tool to perform the analysis.
3. To analyze the investors perception of the Bitcoin’s future developments. This was achieved by performing a survey on the market. The survey results were also used to support the scenario analysis results.

Therefore, the objective of the thesis will be to analyse the strengths, weaknesses, opportunities, and threats to the business. Furthermore, based on the result of the analysis, I will provide a scenario analysis considering a possible scenarios for the development of the trust in the Bitcoin cryptocurrency and its impact on the business model of the trust. To further enrich the thesis, the analysis section will be further supported by a survey I have prepared for participants regarding their opinion on Bitcoin as an investment asset, its positive and negative aspects, and lastly the expectation from the cryptocurrency. Five questions were included in the simple survey, which was essentially designed to follow the format of the Trust's investors research (Grayscale Bitcoin Trust, 2021) and was intended to provide more support for the thesis. The result of the research will support one of the scenario analyses.

2.1. Literature review

2.2.1. Grayscale Bitcoin Trust

The business model I have selected for the analysis is based on the Grayscale Bitcoin Trust. To explain the business model, we must understand the differences between various forms of a fund and the comparison to a trust. We can broadly divide the type of funds into three types which are (1) Mutual Fund, (2) Hedge Fund, (3) Venture Capital Fund. The main differences between the three funds are their business model such as their strategies, value propositions, services offered, the risk appetites, target customers and the management structure.

Mutual funds are entities that draw money from a number of investors and performs the investments on their behalf. In order to accomplish that, the funds would need to select an investment strategy such as investing only in bonds, or equities, or commodities such as gold, silver. Mutual funds that are not actively managed so that the manager does not intend to beat the market, but the purpose is to allow the clients to have an access and exposure into the assets that each separate funds offer. For example, under one mutual fund organization there can be several different products offers and most known family of funds are the SPDR funds such as SPDR S&P 500 UCITS ETF that provides access for investors to the top 500 companies from the US, SPDR MSCI World UCITS ETF which tracks the top 23 companies from the worldwide scope and many more. In return, the managers of the fund are earning a percentage-based commission fee from the size of assets under management. This means that if the fund has drawn $10,000,000 for investment of SPDR S&P500 UCITS ETF from the clients, and if the fund charges 1% commission fee annually then the commission fee would be $100,000 annually and paid out at the end of each month. In addition, the structure of the mutual funds is further dividend broadly into 2 categories. These are open-ended funds and closed-end funds. Key distinction between them is that under open-ended funds the investors who are willing to sell the shares, that they obtained from the initial investment, can sell it back to the fund at the price of Net Asset Value (NAV) per share. NAV means the total value of the fund's holdings on that day. For example, (1) if the open-ended fund only invests into top 20 equities of the US and on that day the total value of investments was $50,000,0000, and (2) the open-ended fund had issued 1,000,000 shares as of that day, then (3) the NAV would be $50 per share and therefore the investor would sell back each share he/she owns to the fund for $50 per share. This process is called redemption of the shares. In contrast, the closed-end funds do

not perform redemption of the shares and therefore the investors who have invested at the initiation of the fund would have to sell it to other investors who are willing to buy the shares. This process is called trading in the over the counter (OTC) market i.e., direct peer-to-peer trading. Not having the fund to buy back the investors shares means that the price of the shares will depend on the demand of the other investors who are in the OTC market. For example, if the actual calculated NAV per value was $50 on that day, but if there is no active market where investors are willing to pay $50, then to attract the buyers the owner of the shares will have to reduce the price to the level that available investors are willing to purchase. This is called trading the share at discount and therefore brings additional price risk i.e., volatility to the investors of closed-end funds. Besides the key distinction in the redemption process.

Hedge funds tend to have an aggressive risk-taking appetite and perform highly leveraged investments in order to generate superb returns. Their intention is to perform better than most of the mutual funds who simply replicate or track the movement of the assets. To achieve the intended result, hedge funds actively manage the portfolio by buying and selling various assets which is projected from them that will result in high return. The key characteristic of the fund is less scrutiny from the regulators and related regulations on their investments. This also means the protection on the investors' money are weaker, and the number of investors is limited i.e., they need to have wealth of above a certain threshold so that any loss the investment would not impact large number of people which could translate into the systematic risk to the financial system. The regulation, in return it allows a high leveraging meaning that they are able to borrow large amounts by using the client's money as a collateral, and making larger investments than mutual funds so that the potential return is magnified as compared with investing only with the investors' money. The managers also earn a percentage-based commission fee on the assets under management.

Venture capital funds are of different nature and have a specific defined investment strategy which is to identify companies in early stage of development and are projected to become successful in the future. The investment occurs via buying a certain percentage of the company. By investing into them at an early stage, the venture capital funds provide the money for the early-stage companies to continue their expansion into the market and development of their products. These early-stage companies are known as start-ups.

For the purposes of the thesis, the Trust will be referred to as an Investment Trusts which is by definition a closed-end mutual fund which issues a fixed number of shares from the governing board of the Trust with no redemption.

Our focus of the thesis, Grayscale Bitcoin Trust was founded in 2013 and currently is the largest and most popular investment vehicle in the line of cryptocurrency segment and allows access into Bitcoin without the need for investor to directly buy and hold the Bitcoin. The Trust purpose is to invest only into Bitcoins and had more than $10.4 billion in the assets under management (AUM) as of 2022 year-end (Grayscale Bitcoin Trust, 2023). The purpose of the Trust is to provide access and exposure to Bitcoin so that the investor without having the challenges of buying and storing the Bitcoin themselves. This also allows certain institutional investors that are also restricted to invest directly into the Bitcoin. The process is that the Shares issued by the Trust reflect the Bitcoin value, and the investors would have same return as if they had invested into Bitcoin. Therefore, the Trust functions as a company that derives its profits and loss from holding the Bitcoin directly, and issued company shares to investors to allow them an indirect exposure to the Bitcoin. The process of buying and selling the shares is currently performed in the over the counter (OTC) market. This means that investors who are willing to buy or sell the shares would need to reach out to the network of dealers such as large investment banks and make a request of purchase. Grayscale Bitcoin Trust was initially named Bitcoin Investment Trust and was changed to current name in 2019 (Grayscale Bitcoin Trust, 2023)

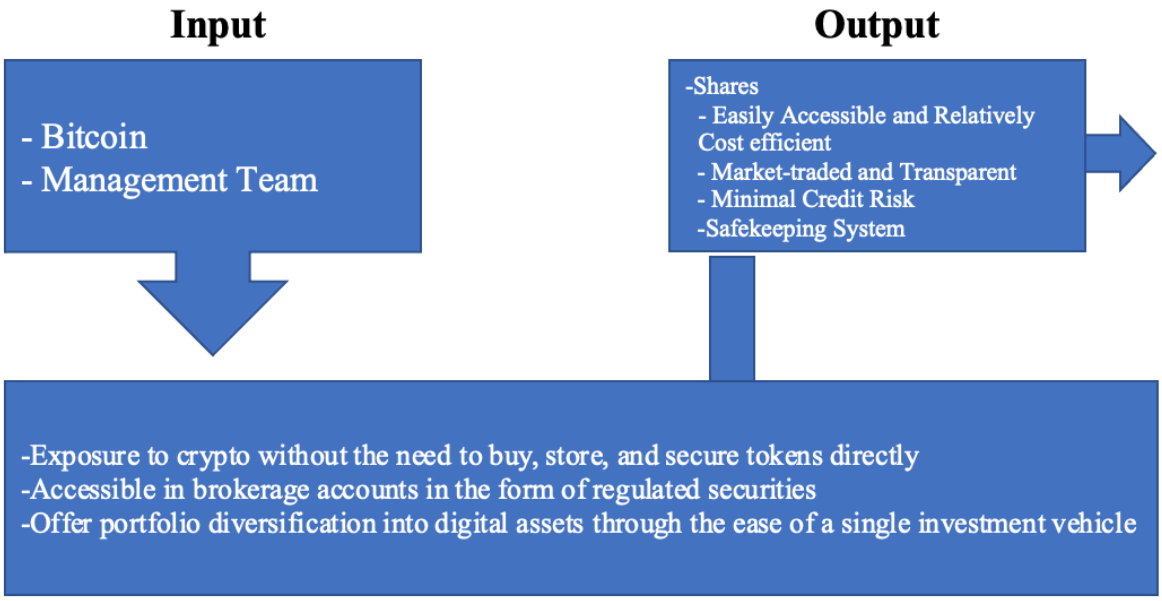

Figure 1: Value generation of the trust. source: (Grayscale, 2023)

The Trust has no registered employees or directors legally. It had entered into legal agreement and delegated the responsibility of the management to the Sponsor, the Transfer Agent, the Custodian, and the Administration. The responsibility of these entities are as follows.

The Sponsor is Grayscale Investment LLC, and its responsibility is the primary management of day-to-day activities of the Trust. These include calculating the total holdings of the Trust on daily basis at the end of business hours, making a decision for the creation of additional Shares to the private and authorized investors, monitoring and ensuring the quality-of-service providers, preparing periodic financial statements and reports for the investors. The Sponsor's fee is paid via instructing the Custodian to sell Bitcoin and use the proceeds for the fee payment. The Sponsor is a wholly owned subsidiary of Digital Currency Group Inc (DCG), which is a company that makes investments into blockchain based projects and a large number of digital assets. (Grayscale Bitcoin Trust, 2023)

The Transfer Agent is Continental Stock Transfer & Trust Company, and its sole responsibility is to record the orders of the Shares purchase by the investors in the form of bookkeeping. It is also thereafter used for the financial statement purposes and tax calculation. The Sponsor provides instructions to the Transfer Agent regarding the record of quantity of Shares under which investors. The related fees are paid by the Sponsor.

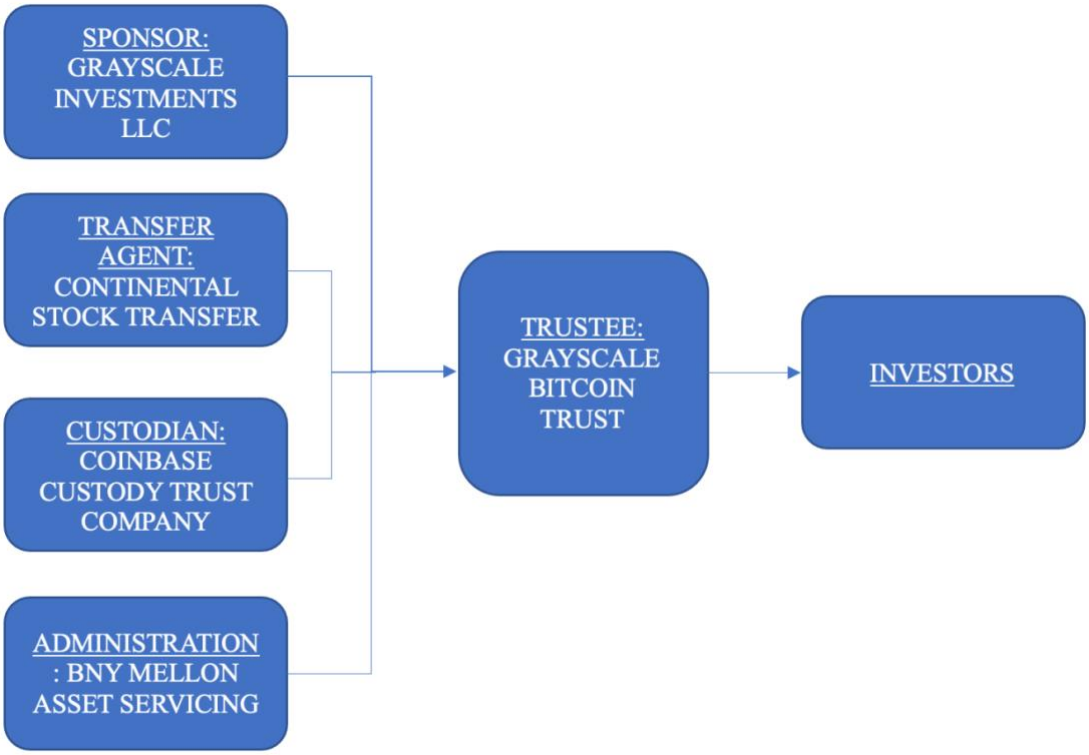

Figure 2: Legal structure of the Trust. Source: (Grayscale Bitcoin trust, 2017)

The Custodian is Coinbase Custody Trust Company LLC, and it is responsible for safeguarding the Trust's Bitcoin holdings. The general process of acquiring Bitcoins is that the purchasing party, for example the Trust, must have a public blockchain address (i.e., wallet) that the counterpart will transfer the Bitcoins onto. This wallet is protected by a private key which is unique at creation and only the wallet owner knows. In our case, the Trustee had mandated the Custodian to also safeguard the private key, as it would need it to load or unload Bitcoins into the Trustee's wallet. The Custodian had further taken security measures and offloaded the Bitcoins from the digital wallet onto a storage device such as a USB drive. This is done in order to prevent the loss of Bitcoins from hackers, for example, who could perform an attack on the digital wallet and break into the holdings of the Trust. As such, the Custodian had ensured the holdings are stored offline on a storage device and safely guarded in secure vaults in undisclosed locations. Therefore, both the offline storage and the private keys that unlock the offline storage safeties are ensured.

The Administration is done by BNY Mellon Asset Servicing which is a division of the Bank of New York Mellon. It provides accounting services and related regulatory disclosures on behalf of the Trust. The related fees are also paid by the Sponsor.

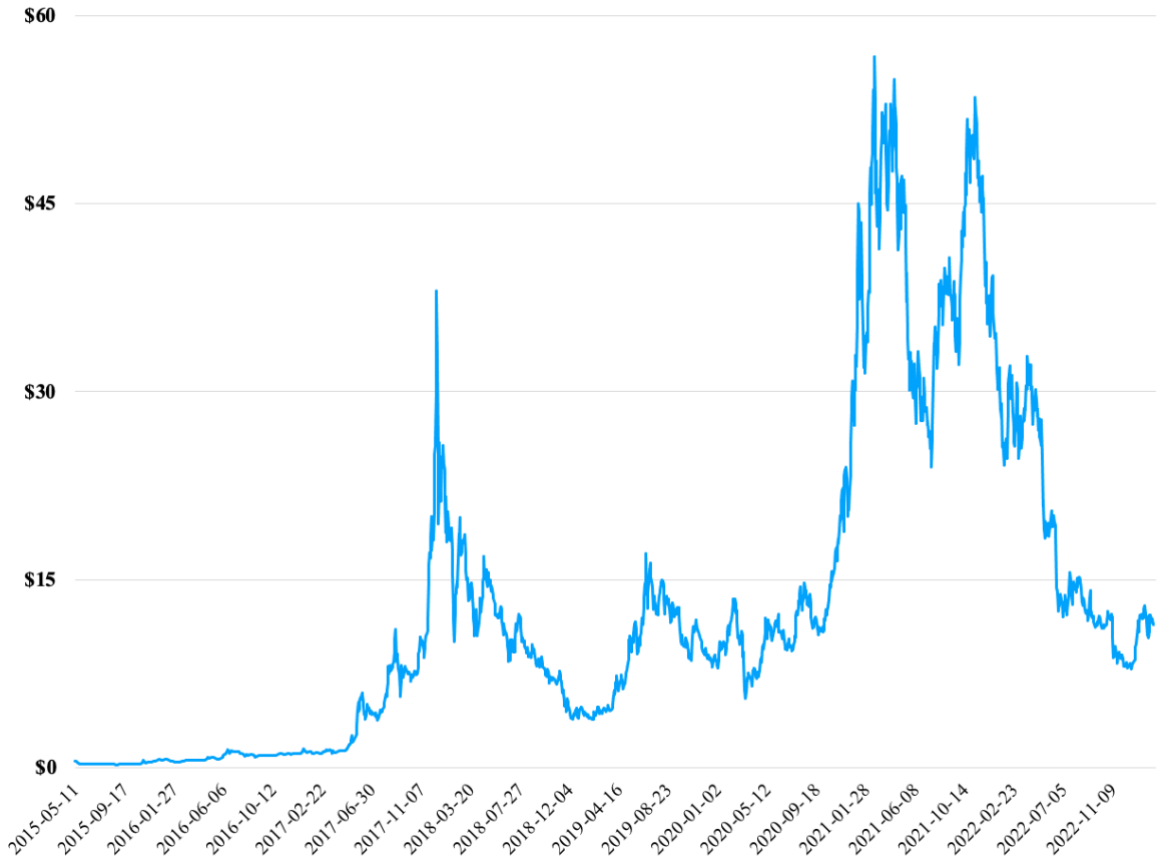

Figure 3: Grayscale Bitcoin Trust historical price. Source: (Finance.Yahoo, 2023)

In the Grayscale Bitcoin Trust historical price, the Share price of the Trust is shown since the inception. As you may notice, the chart looks identical to that of the **Error! Reference source not found.** and it is the purpose of the Trust to reflect the price change of the Bitcoin so that the investors can have an exposure to the Bitcoin without having to buy directly as mentioned previously. However, you may see that from Figure 3: Grayscale Bitcoin Trust historical price the prices are significantly smaller than the Bitcoin prices. For example, the Bitcoin price peaked at $67,000 in the third quarter of 2021, but the price of Trust Shares reached $57 at the same time period. Regarding the Share price determination at the issuance, the Trust takes into account the average price of the Bitcoins that are being traded on the chosen exchanges such as Coinbase Pro, Binance.US, Kraken and LMAX Digital. Further, the Trust applies specific weights to the exchanges, and the resulting multiplier figure is referred to as an Index Price. The reason of having multiple prices from the exchanges is to ensure that "The Index is designed to (1) mitigate the effects of fraud, manipulation and other anomalous trading activity from impacting the Bitcoin reference rate, (2) provide a real-time, volume-weighted fair value of Bitcoin and (3) appropriately handle and adjust for non-market related events" as per the latest 10-K disclosure of the Trust. Afterwards, the calculated Index Price is multiplied by the Quantity of Bitcoins per outstanding Shares. The quantity is determined by dividing (x) the number of Bitcoins owned by the Trust, by (y) the number of Shares outstanding. I have illustrated the formula as follows and an example calculation.

[(Number of Bitcoins/Number of Shares Outstanding)] * [Index Price] = Price of a Share

[Index Price] = weighted average of prices from selected exchanges

The equation shows the quantity of Trust owned Bitcoins per each Share outstanding, and when multiplied with the average Bitcoin price, the result is the value of each Share. For example, as of 2022 year-end, total outstanding Shares were 692,370,100 and the Bitcoins in the Trust's holdings were 632,042 and the average price of the selected exchanges as calculated by the Trust was $16,556. Therefore, after using the shown the formula, the resulting amount is $15 per Share. This means that the each of the outstanding Share had a value of $15, and the value would be higher if the outstanding Shares were smaller as such that more Bitcoins are owned by each Share. Therefore, the Trust's total asset value follows the Bitcoin price because it only holds Bitcoins in the portfolio and the price volatility of the Bitcoin directly impacts the price valuation of the Trust Share. This is the

price determination process of the Trust when issuing new Shares. However, it is worth mentioning that the Share price may be higher or lower based on the supply and demand effects when traded on the secondary market.

2.1.2. Background of Bitcoin

Bitcoin was first introduced in the research paper posted by Satoshi Nakamoto (henceforth the Author) on the Bitcoin.org back in 2008. In the short yet comprehensive research paper, the author mentions the critical aspects of the proposed concept. These would include the purpose, the technical specifications such as creation of blocks, and the privacy. As described by the Author, the intended use of the Bitcoin would be "A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution". (Nakamoto, 2008). The keyword in this citation would be the electronic cash which means that the merchants would have an alternative currency to make their payments and transactions. Currently, we could say mostly every country has own currency and the central banks are in charge of the maintaining the value of the currencies through the control of the amount supplied in the economy. The key differentiating characteristic of Bitcoin as compared to the currencies maintained by central banks is that the supply is capped at 21 million as designed by the Author. Technically, the capped amount can be changed only if the community agrees collectively on the proposed change. The community would include the (1) Maintainers such as the code writers who can fix bugs or implement proposed changes to the network, (2) Miners who are validating the transactions and documenting via the creation of blocks in order to receive Bitcoins, (3) Users such the merchants paying for transactions. This framework is known as the decentralized network, and as described not a single stakeholder can make the change without having the remaining stakeholders to accept the change based that they are all part of same network. There is voting mechanism, however the same result is achieved by the users choosing not to use the newest version of the network so that the network with newest changes is excluded from use.

As highlighted previously, Bitcoin was intended to become an electronic cash with limited supply of 21 million. The limited quantity results in a scarcity which is then reflected into the price of Bitcoin. This can be explained by the theory of Supply and Demand as studied in the economics. In simple terms, high price results from a low supply and high demand and vice versa. The historical price of Bitcoin is presented in Figure 4: Bitcoin historical price. Source: (Finance.Yahoo, 2023). In the early period of the development between

2008 to 2013, the popularity and support of Bitcoin was low and therefore not much documentation is available relating to the mentioned period. One of the primary approaches to obtaining Bitcoin was mining as mentioned previously, and those who were not mining were obtaining the coin via direct purchase from each other by finding the counterpart from various forums. This was achieved via transferring the funds directly either via PayPal or bank transfer, and the coin was transferred through the Bitcoin network to the designated address. It is known as a peer-to-peer transfer which existed prior to the creation of centralized exchanges and is still in active use today (Gemini, 2022). One of the most known cases of peer-to-peer transfer is the purchase of pizzas in 2010 where a guy in California had successfully paid for his pizzas with Bitcoins (Nathaniel, 2015). One of the earlier attempts to enhance the buy and sell process, the Mt. Gox exchange was created in 2010. It had a simple function of a PayPal account to serve as an exchange and offered to take the money from the customers and hold it in the PayPal account so that customers could have both the money and the Bitcoin readily available each time, they wanted to do a trade. This platform has provided much convenience and helped with growing the base users of the Bitcoin (Nathaniel, 2015) Alternative exchanges with improved functionality and stronger safety systems were created in the years after. As shown in the graph, the price starts at approximately ~400 USD in early 2014.

No significant price change had taken place until Jan 2017 when Bitcoin had reached the $1,000 benchmark price level. At the same time, the media have started covering the price evolution and so much more public had become aware of Bitcoin. The interest taken by the public is reflected in the price of Bitcoin as it gradually rose to a $3,000 price level by Jun 2017 and then to $6,000 by Nov 2017 (Sofilearn, 2023). Retail investors were now able to access well-developed cryptocurrency exchanges such as most known Kraken (since 2011), Coinbase (since 2012), and Binance (since Jul 2017). I would like to highlight the importance of having comfort and confidence in the crypto exchange you have chosen and being able to invest your money in a fast and secure approach. Therefore, I believe it played an important role in allowing the public to invest into Bitcoin and the free market to drive the price action. The price had reached $19,497, the all-time high until the end of 2017, mostly due to the fear of missing out as the public was now tracking the price levels closer than ever and the media had been circulating news in the social networks on a daily basis regarding the price predictions, analysis from various individuals and other similar contents. This had reflected in the significant price increase as the public believed that it would keep increasing and did not want to be missed out on the action.

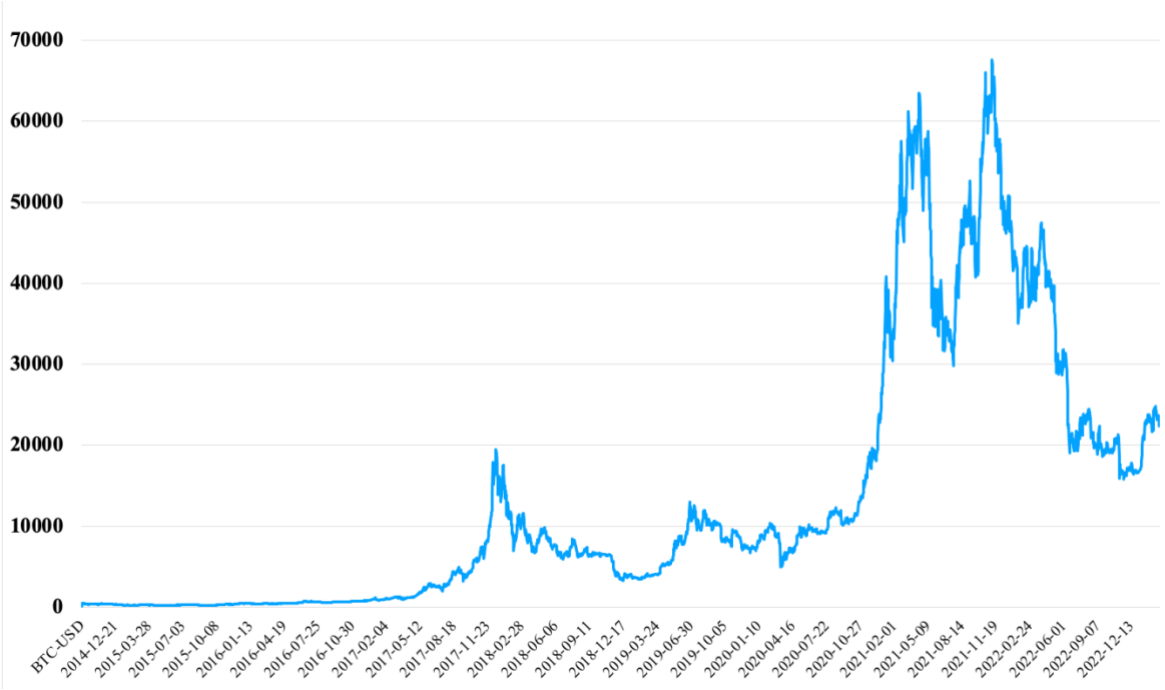

Figure 4: Bitcoin historical price. Source: (Finance.Yahoo, 2023)

Bitcoin was floating around $10,000 benchmark throughout the 2019. At the beginning of 2020, the Covid-19 outbreak had occurred in China, yet many were unaware and not concerned about the outbreak. It is worth mentioning that the outbreak had also coincided with the Chinese New Year which happened in January. Many people had traveled to China to visit the families and tourists to experience the celebration. Unfortunately, from my perspective, it had stimulated the spread of the virus due to its airborne nature combined with air travels in and out of China. This had impacted the confidence of the investors in all financial assets including Bitcoin, and the price had fallen sharply to $5,200 price level by early March 2020. However, by early May the price level had recovered to the $10,000 benchmark level mostly driven by the speculators who thought the price decrease as an advantage. By year-end of 2020, the price had reached $20,000 benchmark as the institutional investors had taken interest in the asset and had started purchasing with larger investment amount as opposed to the retail investors (Coindesk, 2020)

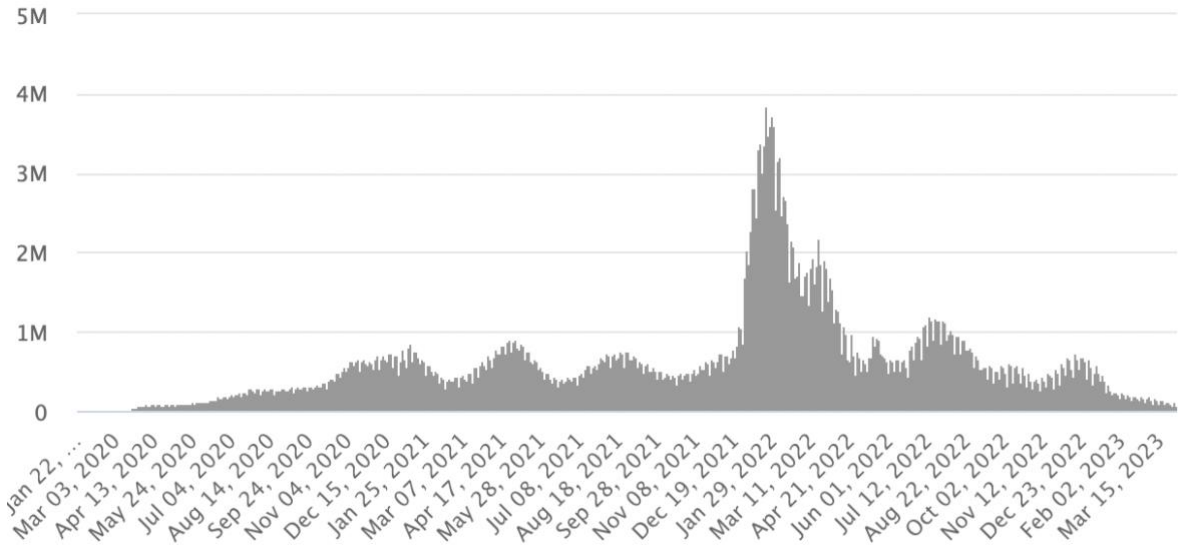

Figure 5: Covid-19 Daily new cases. Source: (World Health Organization, 2023)

However, not only Bitcoin was impacted by the uncertainty from the pandemic. If we take a look at the US stock market (*see S&P 500 Price chart.*), we could see the similar picture that the market had crashed significantly in February 2020 and continued onto the end of March. One of the measures which was taken for the situation was the forced lockdown from the State. Based on the article published by Independent, we could see that France had imposed 15-day lockdown started on 16th March (Cuthbertson, 2020). The crash had reflected that in the times of uncertainty, investors rush to liquidate the assets that they hold in order to have the cash readily available in case of unexpected challenges. In addition to the lockdown, the restriction of transportation had negatively impacted the economy overall as the economic model had been disrupted abruptly and businesses ranging from hospitality, transportation to food services were heavily impacted.

Figure 6: S&P 500 Price chart. source: (Finance.Yahoo, 2023)

This means that there would be significantly less revenue stream whereas the expenses would remain at about the same level, overall impacting the revenue expectation and the value of those company stocks would decrease.

In the first quarter of 2021, the price had further increased and reached a peak of $61,000. This was a reflection of the interest from the institutional investors, and they had raced against each other to obtain the Bitcoin which then had further fueled the price increase rapidly following the higher biddings. Similar scenario had been observed previously in 2020, and as I had mentioned earlier that the $20,000 price benchmark had been primarily driven by the early institutional investors. As an example, in February 2021, Tesla Inc. had purchased $1,5billion worth Bitcoin. However, due to the high price volatility and the speculative nature of the prior institutional investors, by the second quarter, the price had fallen sharply to $30,000 price range. The institutional investors such as hedge funds often make leveraged investments that can have strong impact on the price movements. One of the main investment strategies of the hedge funds is the speculation, meaning that making investments with borrowed money in order to magnify the gains when the price is considered relatively low from their analysis, and then selling at higher price to take the profits. If the same strategy is used by many investors, then it results in a short-term surge of the price in any assets, followed by a sharp decrease as the initial investors start exiting the investments. During the period, those investors who are less informed spots the price increase as a false opportunity and starts buying into the assets when the funds are exiting. However, looking at the chart, Bitcoin had received a support from most investors at price

range of $30,000. The support means that mostly everyone who invests into the Bitcoin had thought that the price is acceptably low for investing and worth a deal.

However, peaked at $67,000 towards the third quarter of 2021. Another aspect is the increasing fear of inflation and increasing number of the investors had invested into the Bitcoin as compared to the usual investment into the gold. Bitcoin has a limited supply which makes it rather similar to gold so that it also reflects a limited supply. Stocks can be issued or split into multiple fractions at desired rate by the issued companies and similarly debts can also be issued by organization with higher interest rate payment. These actions impact the price of existing ones, and therefore leading to the price instability. In contrast, as mentioned the mentioned quantity limit of Bitcoin was the key characteristic for investors who had driven the increase in price surge. Main story was if the investors would purchase the Bitcoins at relatively early stage and cheaper price, over time the price acceleration would beat the inflation rate and ensures the purchasing power of the investor's money remains unchanged.

The price had crashed in February 2022, as Russia initiated the war on Ukraine. The impact can also be seen in stocks market as majority of the investors have considered the uncertainty as a high risk and had liquidated their holdings. As I have mentioned several times in the previous sections of the thesis, the uncertainty creates a significant impact in all of the investment markets. At the time of writing this thesis, the war still wages on and the uncertainty around the war and the related political events such as expansion of NATO countries continues to create further uncertainty in the upcoming months. Russia continues to warn NATO countries not to be further involved in the event, and further retaliates by moving the nuclear weapons closer to the border. The reason of mentioning these political events is because these events are communicated on a daily basis to various investors and makes it harder for investors to make any investment decisions. Therefore, the previously liquidated money from Bitcoin, for example, continued to remain off the market leading the price of Bitcoin to further decreased to $20,000 price level towards the year-end and throughout 2023.

3. Own analysis

3.1. Research objective and study methods

The analytical section of the thesis was based primarily on the SWOT analysis tool which I have used to analyze the selected business model from different angles. During the analysis. SWOT is an analytical tool that provides a view into the Strength, Weakness, Opportunity, and Threats to the company. The analytical tool provides a comprehensive summary of the value generation of the business model, its strong and weak points, related external forces which could have a direct impact onto the business model. have also provided a three-scenario analysis to support the SWOT analysis. In the scenario analysis, there are three scenarios that I have prepared about the Bitcoin's near future possibilities in terms of its development, investors perception of value and related regulatory developments. These scenarios provide the analysis of how the business model of the Grayscale Bitcoin Trust could be affected. Lastly, the scenario analysis tool was supported by the survey I have made on the market of the investors who are interested in investing or have already invested into Bitcoin. The survey results have been incorporated into each scenario.

3.2. Research results

3.2.1. SWOT analysis

- **Strength**

The most notable strength of the Grayscale Bitcoin Trust is the popularity and reputation among the investors as it had the first mover advantage compared to other newer investment vehicles. The popularity arises from the Trust's creation date originating back to 2013 when it was registered and formed. This reflects the founder's strong belief into vision of the Trust, which is a key to any successful business. At the time of the Trust formation, Bitcoin was trading at less than the $1,000 level. The price reflects that the cryptocurrency had not arisen in popularity, but the founders had a vision of the business and is operating successfully for a decade now. Secondly, the strength comes from the business model as it provides the same exposure as if you own the Bitcoins. The exposure means that whenever there is a gain in the Bitcoin price from the time you have purchased you are also seeing an increase in the Share of the rust you have invested onto. Therefore, having someone to store the Bitcoin for you would provide you the comfort of not having to worry about external intrusions to your investments such as hacking your wallet to steal your Bitcoins. Another strength is the small competition thanks to the first-mover advantage and increasing interest from the institutional investors as I have mentioned as the driver of price surge in earlier section. Currently, the competition is small with few other Trusts also operating in the same business model. Unlike the regular consumer products market, financial industry service markets require a proper registration with the Regulators to ensure the investors deposits and assets are protected and treated with professionalism. The market and interest of the investors is growing year over year. This can be evidenced by the Bitcoin price not decreasing below $20,000 price level. Various news such as elevated long-term inflation worry, the unexpected conflict between Russia and Ukraine, related threats of nuclear weapons and so forth have not been able to reduce the interest and confidence of the investors until now. Another additional strength worth mentioning is the tax allowance benefits in certain countries depending on where you reside. The investors can be exempt from paying taxes to the defined amount on the capital gain. One example is as per tax authority or United Kingdom, it provides £3,000 tax allowance for an individual that invested into a Trust. Whilst the amount is not large enough for institutional investors, the retail investors who have purchased the rust Shares can increase the return on their investments if they would pursue a strategy of buying the

shares at discount to the NAV and combined together with the tax allowance, the return can be great.

- **Weakness**

First and foremost, of all, the key weakness is currently the high management fee that the Trust pays to the Sponsor for managing the operations and investments. The fee is currently set at 2.0% annually of the aggregate value of the Trust's assets. The is accrued on daily basis and paid on monthly basis to the Sponsor. The Trust sells the equivalent amount of Bitcoins from the holdings in order to pay the Sponsor's management fee. The high fee Is seen as a weakness because it creates a room for direct competition from others who are willing to take smaller payoff if that allows them to beat the Grayscale Bitcoin Trust. One example is the newly established Trust called Osprey Bitcoin Trust which facilitates an exact same Custodian as Grayscale Bitcoin Trust meaning that the security of the assets is same level, and charges management fee of 0.49% annual on the total assets amount held by the Trust *(see Table 1: Grayscale (GBTC) and Osprey (OBTC) comparison)*. However, they are not yet currently registered with the Regulator which means the investors have lower confidence in them than Grayscale as they are not obliged to prove the investor's holdings are in safe hands.

	Ticker	Inception date	Management Fee	AUM*	Shares outstanding*	Value of Bitcoins per share*	Market price of Share*	Market price as a % of value of Bitcoin per share
Grayscale	GBTC	9/25/2013	2,00%	$19.0Bn	692 million	$27,55	$17,43	63.2%
Osprey	OBTC	2/11/2021	0,49%	$0.8Bn	8 million	$10,09	$6,78	67.2%

**As of April 14th*

Table 1: Grayscale (GBTC) and Osprey (OBTC) comparison

However, the significantly lower management fee will definitely attract investors if they can generate confidence with successful registration with the Regulators and could run the business for few years to prove that they are able to run the Trust fund business. One of the reasons Grayscale Bitcoin Trust charges a significantly higher fee is associated with the first-mover advantage as widely taught in the Business Schools. It is also a known and proven strategy from one of the most successful companies which is Apple Inc. For example, the iPhone was the creator of the first currently globally used touchscreen mobiles, and they had charged a premium price for those who are willing to buy the device. Even today they are able to maintain the high market share with relatively high price for their new generation phones as compared to cheaper options from various producers. In my opinion, the weakness associated with high management fee can be remediated in the future by reducing the fee and the related payoff if the competition affects the Trust's market share and the stability of the business.

- **Opportunity**

Currently, the Trust does not actively engage in the activity of selling the Bitcoins before the prices fall and buy when the prices are considered relatively low. This would be referred as the actively management of the funds. Hedge Funds as explained in the beginning of the thesis are performing such active management via establishing strategies that require large modelling and analysis of the big data. This would translate onto more human resources, system deployment and increased regulatory scrutiny around financial statements and taxes. However, in return such active management could increase the return provided to the investors on their contributed funds which could further attract investors. This would directly alter the current business model of the Trust and brings with greater risk of projecting wrong price predictions and resulting in the further downside such as heavy losses. If the predictions could be made with great accuracy this would result in the increase of the Trust earnings, and hence further increased payoff to the management team. Another opportunity that for the current business model of the Trust is that more investors would become interested in the blockchain technology as the time passes or the usage of blockchain technology spreads and develops further which could result positively on the Bitcoin. Therefore, with the increased aggregate assets, the management team would also make greater payoffs.

Another opportunity is to convert the Trust business model from closed-end mutual fund into an exchange-traded fund. The conversion will provide access to more institutional investors who are currently not willing to invest into the Trust due to the nature of not being able to redeem their share at the price of NAV per share on the given day back to the Trust. This was explained as the price risk at the beginning of the thesis, and many institutional investors such as pension funds, and other mutual fund managers (Coindesk, 2020) cannot afford the price risk knowing that they would not be able to liquidate their positions with the predictable price unlike the open-ended funds. The reason of choosing exchange-traded fund (ETF) business model rather than the open-ended fund model is because the ETFs are also allowed to be traded on the exchanges such as New York Stock Exchange (NYSE), or NASDAQ any time during the day. Open-ended funds are not allowed to be traded and therefore the only buyer will have to be the fund itself. In both models, however the price of the share would be the NAV per share and the difference is the availability of more liquidity in the exchanges which means the investors have more confidence that they can liquidate the shares with a predictable price range and not worry about whether the Fund would be able to buy the shares without having the need to sell

some of their investments at the unwanted price level which will impact adversely the NAV of the fund and hence the price. Therefore, the opportunity from increased number of investors would be the increase in the profitability of the tun managers and increased liquidity in the market as more investors will be interested and able to trade between themselves on the exchanges.

- **Threats**

Currently, there are many threats to the Trust, and I have defined into following categories as the largest threats; (1) International Bitcoin mining ban, (2) Denial of conversion into Bitcoin ETF, (3) Harsh regulatory developments, (4) Increased competition, and lastly (5) Global political changes. As you may have notice, the root of the threats is directly linked to the nature of the Bitcoin as it Is a relatively new invention and requires time for acceptance so that investors would have enough data for analysis of the volatility and sensitivity of the price changes. Also, related regulations take time to be prepared and entered into force.

First threat is the ban of mining Bitcoin. In order to register a record such as a transaction into the blockchain, participants called miners have to perform the task of entering the record and sharing it onto the block, so that it gets documented on the network. In similar fashion the upcoming transactions will also be registered in a new block and stacked on top of the previous block and so forth the creation of blocks continue. Hence the transactions are recorded accurately and safely on the blockchain. All entrants to the blockchain can access the transactions and understand what the nature of the transaction was such as who bought or sold how many Bitcoins to which addresses. Therefore, if you would ban the miners from entering the network, the transactions between users will not process and could create an indefinite pause in the network. In addition, the reason for the miners to perform such tasks is not necessarily the goodwill of helping others use the network to make transactions. but it is the reward of Bitcoins that the miners receive upon successful completion of the transaction entry. Currently, the award for creating a block on the blockchain is 6.25 Bitcoins with current market price of approx. $30,000 it would be $187,500 for each block creation. Therefore, banning the mining activity poses a direct threat to the existence of the Bitcoin blockchain. As an example, China banned in 2021 the mining of Bitcoin for both residents and companies due to its excessive usage of energy (KWh) and the money laundering, tax evasion possibilities (Worldcoin, n.d.). However, those who were involved with mining activities have simply relocated to another countries where mining was not banned such as Kazakhstan which is close to China. The effective

ban would have to be, therefore, a global ban in which every single country bans the mining, so that the blockchain will be completely halted. On that day, the value of Bitcoin would drop to zero as it will not have utility or benefit to the owner. For example, in Figure 7: Bitcoin legislation. relates to when China introduced the ban the price of Bitcoin dropped from trading at $40,000 in early days of June 2021, to $31,000 in the late days of June 2021. This was a powerful incentive for miners in China to sell the Bitcoin that was in their holdings, to ensure that they can liquidate into cash before too late. The same reaction from many of the miners had resulted in dropping the market price of Bitcoin, as everyone competed with each other to sell at slightly lower price than the other to ensure fast liquidation.

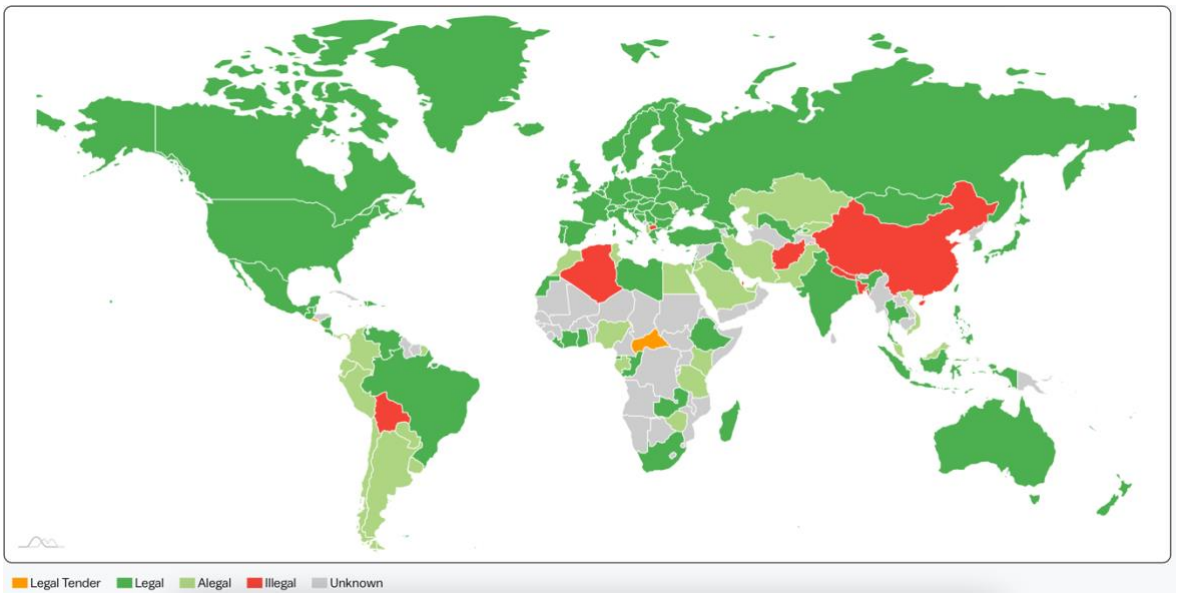

Figure 7: Bitcoin legislation. source: (Bitrawr, 2023)

Second threat is the rejection of conversion into Bitcoin ETFs by the SEC, US Regulator which requires "ETFs are investment companies that must be registered with the SEC. This registration requires the ETFs to provide ongoing disclosures and information to investors, among other things. It also provides protections for investors, such as limits on illiquid or hard-to-sell investments in an ETF's portfolio and restrictions on an ETF's borrowings and debt." (SEC) Looking at the statement of SEC, we can see the keywords such as disclosures, protection, and restrictions. The reason for highlighting these keywords is because they are the underlying reason of the Grayscale Bitcoin ETF rejection. As mentioned in the previous sections, Grayscale was founded in 2013 under business model of Trust and they have firstly applied in 2016 for the ETF permission from the Regulator. The conversations, and provisions of required disclosures were provided by Grayscale Bitcoin Trust, however by the mid of 2017, the Trust had withdrawn the application before

the proposal was rejected. As an improvement to the Trust's disclosures and transparency, in 2020, the Trust was registered with the SEC and started providing extensive disclosures such as quarterly and annual reports to the regulator, and investors. In 2021, the Trust had applied once again to the regulator to request permission for conversion into Bitcoin ETF, however received a denial to the application, and the Trust had initiated a legal action. As of 2023, the Trust continues to defend the position of conversion into Bitcoin ETF is permissible and in an on-going action with the regulator. As mentioned in the opportunities section, if the Trust wins the case against the Regulator and receives the permission for conversion into ETF, the business model will improve in terms of the market and target customers. The predictable price and increased liquidity from being traded on the exchanges will bring more institutional customers which in turn will increase the Net Asset Value of the Trust and hence greater profitability for the management team. The reason of the regulators rejection is the possibility of market manipulation, money laundering, lack of investors' money protection, and the overall lack of regulation in the cryptocurrency industry such as the cryptocurrency exchanges, and various types of crypto service providers. This brings us to the third threat, the harsh regulatory developments in the cryptocurrency industry. The reason is that the regulations can develop into any direction and regardless of the direction increased regulations will most likely impact the crypto service providers such as Grayscale Bitcoin Trust. Previously mentioned global ban on the mining industry within Blockchain network would be one of the extreme measures. However, so far there has been no immediate intention from the US financial regulators regarding the specifics of the rules in their plan. Based on the IMF published note from July 2022, titled Regulating the Crypto Ecosystem, emphasizes the innovation of the blockchain technology, the nature of unbacked coins such as Bitcoin being increasingly used as speculative purposes, increasing centralization of the crypto exchanges and their broad scope of activities such as performing as an exchange, acting as a dealer, and providing custodian services are further adding to the increased risk in the crypto ecosystem. It is true that the Bitcoin is not functioning as it intended initially which was to become a currency that users can trade without having centralized counterparts such as central banks. Most of the investors in the crypto market are indeed buying and holding the assets for speculative purposes. This process has been increasingly aided by the rise of crypto exchanges providing easy access for the retail investors. It was noted in the IMF published paper that the regulators are monitoring closely these types of centralized entities such as exchanges, and wallet providers to ensure they do not develop into systematically

important entities which are also known as too big to fail. It was also noted the importance of global level regulation such that all countries would work hand in hand on a mutually agreed rules. The reason is the nature of blockchain network having no defined borders and can be accessed from anywhere in the world as long as there is an internet connection. It was referred to as a gap in the regulatory industry, and this can also be referred to the earlier example of Chinese regulators banning the mining of Bitcoin on the territory of China, but the miners have simply moved the business to Kazakhstan. Therefore, the importance of such gaps and global co-ordination specially in the developing countries was noted. The objective from the regulators can be summarized as having a transparent and well-regulated framework where the innovative technology can continue developing, but at the same time, investors and all related service providers must have clearly defined borders in terms of the services provided, so that the risk of disruptions in the economy are well managed by the Regulators such as central banks or authoritative financial organizations. Furthermore, the focus of the Regulators is particularly on the crypto service providers such as exchanges, products such as derivatives, investment vehicles such as funds. custodians. wallet providers. It was mentioned that the regulators are currently observing the development of the industry and collecting related data in order to produce a prudent regulatory framework without causing slow-down in the innovative technology.

The fourth threat I would like to emphasize is the increased competition in the event of no approval from the regulator regarding the ETF conversion. In the event of denial, over time it would be difficult for the Trust to maintain the competitive edge over the newly established Trusts due to the high management fee and the industry will have evolved more than today's situation. It means that the new competition will simply need to copy the Grayscale Bitcoin Trust with lower management fee. All else considered same, the portion of investors would have an option to go for cheaper management fee which is a percentage-based fee therefore those investors who have invested great amount will have big relief on the commission fees. Considering the Grayscale Bitcoin Trust reduces the management fee, it would be affecting the profitability of the management team. If chooses not to reduce the fee, there could be loss of customers and gradually could lead to the closure of the Trust. Lastly, the fifth threat is an overarching issue that will impact all the investment vehicles and not only the Trust. I wanted to highlight the great uncertainty of the political situation in Eastern region of Europe. As one cannot predict future, the direction of the situation could go into any direction. The uncertainty around the possible outcomes, will impact the planned development of the Trust and its business growth. As

we have evidenced, at the beginning of Covid pandemic, all investors were rushing to liquidate certain portion of their assets into cash, which resulted in a panic in the market, and further crash of the financial market. One example was the hype of Non-Fungible Tokens (NFTs) which were creating a lot of hype within the speculators, and the prices were skyrocketing. The investors into NFIs were majority speculators who hoped to take advantage of the hype and everyone's fear of missing out and sell at higher price at later time. However, all these projects and niche product developments in the crypto market was pushed back significantly at the beginning of pandemic, as the speculators were aware of the real value behind the NFTs, for example, and have liquidated in a short period.

3.2.2. Scenario analysis

The **first scenario** is the ETF approval from the US regulator for Grayscale Bitcoin Trust. The graph is from the Grayscale Bitcoin Trust and provides the historical share price of times when the share was traded at discount or premium. In Figure 8: Discount and premium price of Grayscale Bitcoin Trust, the green area represents the Net Asset Value per share of the Trust and the grey area represents the market price of the share of the Trust.

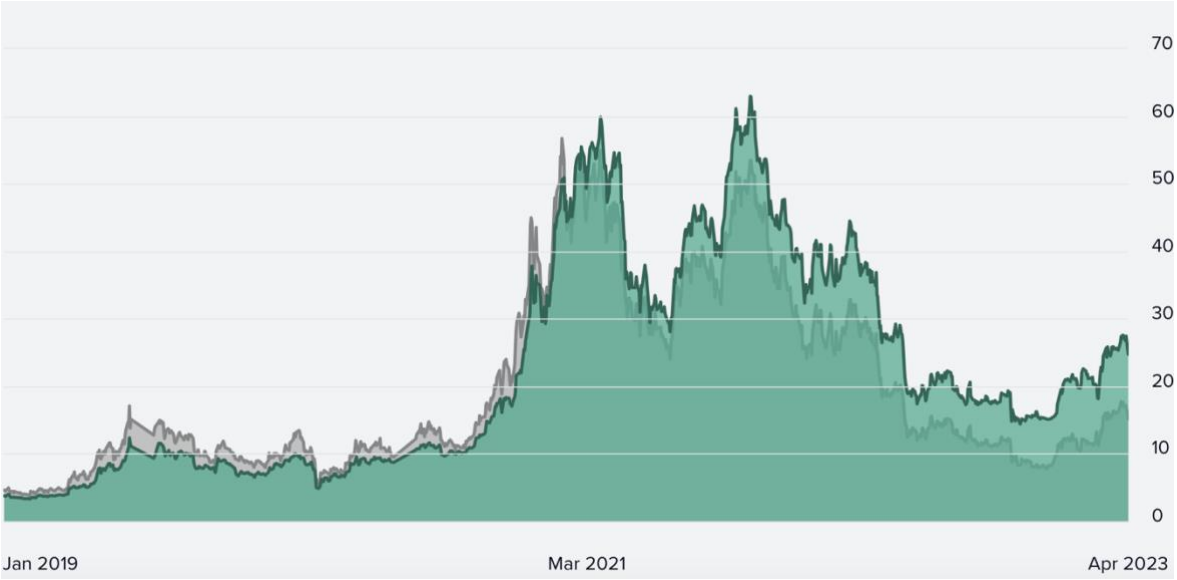

Figure 8: Discount and premium price of Grayscale Bitcoin Trust. source: (Ycharts, 2023)

For example, we can see in the first months of 2023. the Trust shares are being traded at a major discount. This reflects the decreased demand of investors who are willing to buy the Shares and therefore the holders of the Shares have reduced the prices in order to find a buyer on the market. The main reason behind the decreased investors interest is the reflection of investors' confidence in the future economic developments, and the uncertainties of the economy such as increasing central bank interest rates, and inflation rate. To ensure, the investors are not harmed by the market price movement due to demand and supply, the Grayscale Bitcoin Trust has been pursuing the ETF approval for years. The key benefit of the ETF approval would be the elimination of the currently existing price gap difference between the market price and Net Asset Value per share. Such price predictability and stability will open the opportunities for more institutional investors to invest into the rust. Per my investigation of the current lawsuit against the regulator, the ETF approval decision is likely to be concluded before Q1 2024 in my opinion. Some of the analysts expect the decision to happen within 2023. In Table 2 Scenario 1, I have prepared a hypothetical scenario where the Bitcoin price increases 50% from the current

market price (rounded to thousands) as of April 20th, 2023, if the news spread that ETF approval is being provided in late 2023 or early 2024.

	Base case	Hypothetical case	(%) impact
Price per Bitcoin	30 000 US$	45 000 US$	50,0%
Sponsor's Fee	2%	2%	0,0%
Shares of Trust beginning	692 370 100	1 038 555 150	50,0%
Bitcoins in Trust beginning (count of coins in holding)	644 810	967 215	50,0%
Hypothetical value of Bitcoins in Trust	19 344 300 000 US$	43 524 675 000 US$	125,0%
Beginning Net Asset Value of the Trust	19 344 300 000 US$	43 524 675 000 US$	125,0%
Bitcoins to be delivered to cover the Sponsor's Fee (count of coins)	12 896	19 344	50,0%
Sponsor's Fee amount	386 886 000 US$	870 493 500 US$	125,0%
Bitcoins in Trust ending (count of coins)	631 914	947 871	50,0%
Ending Net Asset Value of the Trust	18 957 414 000 US$	42 654 181 500 US$	125,0%
Ending Net Asset Value per share	27,38 US$	41,07 US$	50,0%
Future market price of the ETF shares	27,38 US$	41,07 US$	-

Table 2 Scenario 1

The 50% determination was made based on that more institutional investors will buy the shares hence driving an increase in the demand and followed by the investment from retail investors due to fear of missing out the increasing trend of the price. It also considered the economic situation in the United States. In that situation, the Trust would issue more shares to accommodate the new investors and will purchase more coins using the investors fund. This will result in an increase of the Net Asset Value of the Trust and therefore the annual management fee of 2.00% will also increase by 125% as shown in the table.

Second scenario is the opposite of first scenario where the regulations develop into unfavorable direction of the cryptocurrency business providers. The time range is also same as in the first scenario such that late 2023 and late 2024.

	Base case	Hypothetical case	(%) impact
Price per Bitcoin	30 000 US$	9 000 US$	-70,0%
Sponsor's Fee	2%	2%	0,0%
Shares of Trust beginning	692 370 100	692 370 100	0,0%
Bitcoins in Trust beginning (count of coins in holding)	644 810	644 810	0,0%
Hypothetical value of Bitcoins in Trust	19 344 300 000 US$	5 803 290 000 US$	-70,0%
Beginning Net Asset Value of the Trust	19 344 300 000 US$	5 803 290 000 US$	-70,0%
Bitcoins to be delivered to cover the Sponsor's Fee (count of coins)	12 896	12 896	0,0%
Sponsor's Fee amount	386 886 000 US$	116 065 800 US$	-70,0%
Bitcoins in Trust ending (count of coins)	631 914	631 914	0,0%
Ending Net Asset Value of the Trust	18 957 414 000 US$	5 687 224 200 US$	-70,0%
Ending Net Asset Value per share	27,38 US$	8,21 US$	-70,0%
Market Value of the Shares	*discounted significantly due to low market demand*		

Table 3: Scenario 2

The scenario considers the price range of Bitcoin remains around $30,000 level until the news of the unfavorable regulation is distributed among the investors. Unfavorable news can include anything that impacts the cryptocurrency ecosystem such as the closure of centralized exchanges [Coinbase, Binance, etc.), energy related restriction on the miners,

ban of using cryptocurrency for overseas transaction due to money laundering related activities or very high taxation on the capital gain to discourage the investments. The 70% impact analysis therefore considers these possibilities and is only introduced as a what-if scenario for the business model of the Trust. Therefore, in case of such drop in the Bitcoin value, the Net Asset Value of the Trust would decrease 70% and hence the investors investment return as well *(see Table 3: Scenario 2*). This also impact the management team's payment following the Net Asset Value decrease. As we can see, the Trust generates its value totally from the value of Bitcoin. Furthermore, the actual market share of the Trust would decrease greater than 70% due to the decreased demand of the investors as not many would want to invest to take the risk win their investments.

Third scenario is that the Bitcoin matures after certain period of time, and the price range is no longer able to increase further and therefore the speculators would sell the Bitcoins to convert into other investment opportunities. The scenario also considers the time range of late 2023, and early 2024 where the investors have tracked the price of Bitcoin has not changed since late 2022, and early 2023 which provides the conclusion that similar to the traditional gold investments.

	Base case	Hypothetical case	(%) impact
Price per Bitcoin	30 000 US$	15 000 US$	-50,0%
Sponsor's Fee	2%	2%	0,0%
Shares of Trust beginning	692 370 100	692 370 100	0,0%
Bitcoins in Trust beginning (count of coins in holding)	644 810	644 810	0,0%
Hypothetical value of Bitcoins in Trust	19 344 300 000 US$	9 672 150 000 US$	-50,0%
Beginning Net Asset Value of the Trust	19 344 300 000 US$	9 672 150 000 US$	-50,0%
Bitcoins to be delivered to cover the Sponsor's Fee (count of coins)	12 896	12 896	0,0%
Sponsor's Fee amount	386 886 000 US$	193 443 000 US$	-50,0%
Bitcoins in Trust ending (count of coins)	631 914	631 914	0,0%
Ending Net Asset Value of the Trust	18 957 414 000 US$	9 478 707 000 US$	-50,0%
Ending Net Asset Value per share	27,38 US$	13,69 US$	-50,0%
Market Value of the Shares	*discounted significantly due to low market demand*		

Table 4: Scenario 3

The price of gold is rather stable as compared to stock with ranging between $1,700 to $2,000 between April 2020 and 2023. This is because not many investors are trading their gold often as it includes maintenance and transportation costs, therefore is usually perceived as a long-term investment and a safe haven in times of high economics stress and financial crisis. Therefore, in a similar wav, the investors of Bitcoin would simply keep their investments for long-term purposes and the trade activity of the Bitcoin decreases hence should result in rather stable price range. This price range was considered at 50% discount in my third scenario analysis. It is because, currently, many of the

investors have invested with a speculative purpose and not in a long-term purpose. Therefore, the price development during the sell period, would be that the Bitcoin price would decrease over time as there would not be many investors who are willing to purchase the Bitcoin knowing that it is less likely to be sold at a higher price than the purchased level. Continuation of such price trend would result the Bitcoin to stabilize around $15,000 price level which is 50% discount from April 2023 level. Following the decrease, the Trust Net Asset Value would result in 50% decrease and the management fee as well. The market price of the Trust share would be lower than the Net Asset Value per share to decreased investors' confidence and interest in the investment *(see Table 4: Scenario 3)*. Please note that the Tables 2 to 4 were based on the original tables provided in the 10-K return of the Trust (Grayscale Bitcoin Trust, 2023).

To further enrich the thesis, I have performed research on the market participants, as an addition to the three-scenario analysis, to analyze the opinion of the current and potential investors into the Bitcoin. The small-scale survey included five questions which intended to further support the thesis and was primarily aligned with the structure of the investors study performed by the Trust (Grayscale Bitcoin Trust, 2021). First question was with regards to the riskiness of Bitcoin as an investment. The question provided a scale of 1-10 in an ascending order (i.e., 10 - the highest risk), and the result shows 64% of the participants observe the Bitcoin as a very high-risk investment option, as compared to other traditional investments such as regular S&P500 companies. The second question was with regards to the usage of the Bitcoin whether the participants see the Bitcoin as a currency for payments, or as a short- or long-term investment, it was evident that the majority of 85% see the investment into Bitcoin as an investment. This point further supports the Scenario 3 related to the maturity of Bitcoin and its implications on the price level. Because, as observed from the survey, it can certainly be concluded that the investment into the Bitcoin has a speculative nature. This is different from the regular investment into the traditional stocks which are the share representation of companies that generate value such as new products, services in the market, or simply serving the customers. In the case of an investment into Bitcoin, there is no value creation as Bitcoin is not a company where people are hired, and products are created. The third question was relating to the approach of investing into or rather obtaining Bitcoin and the 78% of participants confirmed that the approach would be either through centralized exchanges (e.g., Coinbase) or the brokerage applications (e.g., eToro). The result supports the Scenario 2 which explained the impact of regulations. In this scenario, the key observation

from the regulators was the concern about creation of systematically important entities over time due to centralization of investors' funds under exchanges such as Coinbase, or Binance. It is indeed proven by the survey that the retail investors would opt for the fast and seamless investing method, which is available on every smartphone, however, on the opposite, the centralization of funds into these service providers cannot go unnoticed and the regulators will have to legislate the industry to prevent systematic collapse of the economies. Fourth question provided question regarding how concerned of investing into Bitcoin as an investor, and the results was that the 58% of the participant provided highly concerned answer. With regards to the concern and riskiness of investing into Bitcoin, the uncertainty factor of the future of Bitcoin is the primary concern of the investors. However, if the regulations were already developed and services were properly ruled, the level of concern would decrease, however that would also decrease the potential capital gain of investing into Bitcoin which is the main reason of investment by most investors. Fifth questions asked about the likelihood of investing into Bitcoin, and the 62% of participants provided 'yes' as an answer to the likelihood of investing into Bitcoin, whilst 31% of participants said 'maybe'. This reflects the high interest of investing into Bitcoin with the intention of making capital gains in the longer term. Therefore, to summarize the tendency of the survey participants, the retails investors are primarily concerned about the riskiness of Bitcoin due to lack of transparency in the regulatory framework. As I have mentioned in the Opportunity section of SWOT analysis, that the ETF permission would majority benefit the insinuation investors such as pension funds or hedge funds that make investments in significantly large amounts, whilst the retail investors are mostly concerned about the future developments related to the Bitcoin such as regulations or maturity and perception of the mass public.

4. Conclusion

As it may have been evident from the scenario analysis *(see page 29)*, the conclusion of my thesis revolves around the development of regulatory framework in the cryptocurrency industry. Although the development of regulation will take time as the regulators obtain information and data of the participants in the cryptocurrency ecosystem. Crypto service providers such as Trusts, mutual funds, cryptocurrency exchanges, custodians and on the other, the increasing interest of institutional investors such as investment banks, various investment funds, money managers are all in the consideration of the regulators regarding the development of the most suited regulatory environment for the newly rising industry.

The business model of the Trust is a strong framework when invested into the traditional investment assets such as stocks, bond and commodities. However, the nature of the cryptocurrency brings a large magnitude of uncertainty to the Grayscale's Bitcoin Trust business model and its operating efficiency. The Trust remains heavily dependent on the regulators on two topics.

- Firstly, the approval of ETF operating model *(see page 29)* will definitely bring more investors into the fund, and helps with stabilizing the market price of the Trust which is currently being traded at a discount to the optimal price net asset value per share. Such elimination of the price volatility provides much necessary price predictability and stability for the institutional investors such as pension funds.
- However, on the other hand, the nature of the Bitcoin is still significantly dependent on the regulatory developments *(see page 29)*. The elimination of the price volatility by obtaining ETF approval will not reduce the risk of Bitcoin as an investment asset. Regulators must be careful with providing the regulatory framework in order to avoid creating systematically significant entities that its solvency could threaten the stability of the financial markets. The protection of the customers funds would be the primary focus of the regulation so that the newly arising entities cannot overtake the risks that they are unable to withstand in case of shocks in the financial system. Therefore, as time passes it will be evident for the Trust whether the business model will be able to survive, or the harsh regulatory framework would pose a threat to the survival of the Trust.

5. Summary

The thesis provides an overarching analysis of the business model of Grayscale Bitcoin Trust. This is a Trust that is organised similar to closed-ended mutual fund and was created in 2013. It is incorporated in the United States and the target customer market is the institutional investors primarily in the US. The thesis contains literature review section that is about the background of the Trust and Bitcoin. The own analysis section contains SWOT analysis of the Grayscale Bitcoin Trust. In this analysis, the objective will to analyse the strengths, weaknesses, opportunities, and threats to the business. Furthermore, based on the result of the analysis, I have provided a scenario analysis considering three possible scenarios for the development of the Trust in the future. First scenario is about the approval of ETFs application from the Regulator with regards to the business model of the Trust. Second scenario is the harsh and unfavourable regulation that contradicts with the purpose of the Bitcoin such as anonymity, decentralisation, and new global currency. Third scenario is the diminishing confidence of the investors related to the maturity of Bitcoin and decrease in the Bitcoin hype. Each of the scenarios are accompanied with a hypothetical impact estimation to the Bitcoin price and its impact on the business model of the Trust. Lastly, the own analysis section is further supported by the survey I have prepared engaging more than 100 participants with regards to their opinion on whether interested in Bitcoin as an investment, the nature of the investments such as long-term investment or for transaction or trade settling purposes, and their confidence and risk concern regarding the Bitcoin.

The result of my thesis suggests that based on the survey, most of the investors consider Bitcoin as a highly risky investment but are interested to invest as a long-term investment. Based on the SWOT and scenario analysis, I have concluded that the regulatory developments around the Bitcoin will drive the future of the Bitcoin to the extent of whether it will cease to exist or further develop into its purpose which was to serve as a global currency that is capped at the quantity of 21 million. These two points are in-line with each other such that the investors' concern towards the riskiness of the Bitcoin is directly related to the current unregulated nature of the Bitcoin as well as the uncertainty of its future. As a result, the direct impact is also reflected into the business model of the Trust due to the nature of business being directly related to the Bitcoin as I have illustrated in the operational chart of the Trust.

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ABSTRACT OF THESIS

Thesis title: **Grayscale Bitcoin Trust, Business model analysis**
Author: **Bilguun Batkhuyagt**
Course, level of education: **BA in Business Administration and Management**
Host Department/Institute: **Faculty of Economics and Food science**
Primary thesis advisor: **Dr. Gyenge Balázs, associate professor, Department of Agrarlogistic, Trade and Marketing**

The study purpose of the thesis is aimed at the analysis of a chosen company's business model. The goal of the thesis, therefore, is to analyze the business model of the Grayscale Bitcoin Trust which is an investment fund that allows investors to gain exposure to cryptocurrencies such as Bitcoin. It has combined the traditional business framework of the mutual funds with the newly emerging cryptocurrency market. The method I have taken to perform the study is primarily built on the SWOT analysis technique. It is a well-known analysis tool widely used in the market today, and it provides an insight into the strengths, weaknesses, opportunities, and threats of the business. In addition to the analysis tool, I have prepared three scenario analysis building on the results of the SWOT analysis. These scenarios provide comprehensive analysis and evaluates the future development of the business model of the Grayscale Bitcoin Trust. My thesis results suggested that the impact of the regulatory developments in the cryptocurrency industry will have the most significant impact to the business model of the Grayscale Bitcoin Trust. This is due to the nature of the business model of the Trust that is founded on the value of the Bitcoin and the perception of the investors. Therefore, the stronger the confidence of the investors in the crypto asset the more favorable effect on the Grayscale Bitcoin Trust. In this regard, the value of Bitcoin is primarily dependent on the direction of the regulatory developments such that the regulations that are against the purpose of Bitcoin will have negative impact. My survey results also provided the perception of investors regarding the riskiness of investing into Bitcoin and the uncertainty of its future value.

DECLARATION

on authenticity and public assess of thesis

Student's name:	**Bilguun Batkhuyagt**
Student's Neptun ID:	**DBE1Y6**
Title of the document:	**Grayscale Bitcoin Trust Business Model Analysis**
Year of publication:	**2023**
Department:	**Faculty of Economics and food science**

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As a supervisor of **Bilguun Batkhuyagt** DBE1Y6, I here declare that the final thesis has been reviewed by me, the student was informed about the requirements of literary sources management and its legal and ethical rules.

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