

Establishment of the world's most  
technologically advanced blockchain  
investment bank



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# 1. Introduction

## The birth of NCL

NOVATIO CAPITAL Limited is a cross-border blockchain bank serving the most reliable diversified financial investment service provider as a long established asset management firm with an absolute focus on preserving and growing its clients' wealth.

NCL allows users to deposit Cryptocurrencies into a pooled fund known as the NCL Monetary Impact Fund. NCL then uses the Cryptocurrencies in the Impact Fund to invest in the crypto market and generate returns for investors.

The Bank operates on a blockchain, which must have a base currency. We have chosen to use Bitcoin/Ethereum for our base currency as it is the most established global cryptoasset.

Since its creation in 2009 by a developer known as Satoshi Nakamoto, Bitcoin has been one of the world's best performing assets. The founding principle of Bitcoin is that no single owner or institution can control or be able to manipulate the currency. Rather, Bitcoin is owned and controlled by everyone who uses it.

Bitcoin operates on a fully automated, incorruptible ledger known as the blockchain. This technology, known as "Distributed Ledger Technology" (DLT) automatically logs all Bitcoin transactions. This ledger runs on a network of computers located all over the world, with no main hub. This means that blockchain and Bitcoin combine to form a completely decentralised, global monetary system owned by the people that use it.

To buy and sell Bitcoin, many need to use "fiat", (e.g GBP) currency. Currently, the main trading pair for Bitcoin (BTC) is the US Dollar (BTC:USD). This is due to the high level of liquidity (or accessibility) that Bitcoin and the US Dollar provides due to it being the most widely held and traded currencies in the world.

As a growing number of investors enter the blockchain market, demand rises and so too does the values of individual digital assets. Blockchain presents significant early investment opportunities, however as the market is still in its infancy it is highly volatile, with prices moving sharply on a daily, and sometimes hourly basis.

As was seen with Bitcoin, early investment in NCL could lead to strong returns over the long term. This is similar to having been an early investor in tech companies for example.

Many people increase the value of their asset holdings through trading, where they buy and sell regularly, trying to accurately time rises and falls in value. This strategy requires time, patience and experience. Moreover, given the new and volatile nature of the blockchain market, many investors lack the necessary resources to conduct proper research on this burgeoning digital asset.

## The NCL model

The NCL platform, referred to as a “portal”, is built on its own “smart contract”: a computer program that automatically executes, controls and documents events and actions.

The NCL Portal is a unique investment banking model built on the blockchain. It works by first tracking Bitcoin transactions made into non-custodial wallets. The NCL smart contract then multiplies those transactions based on a customer’s deposit, the time of the trade and the total assets inside the NCL Monetary Impact Fund.

The NCL Monetary Impact Fund is rigorously overseen and managed, with new coins thoroughly and regularly researched in order to provide investors with the best potential return on their capital. Since the start of 2021, the decentralised Fund has returned 1000%+. This comprises a 700%+ return from Bitcoin and 400%+ from fiat currency.

The Fund performs on top of Bitcoin’s own performance due to it being the base currency of the Bank, and returns are compounded when accounts are updated every 24 hours(Mon-Fri). While decreasing headline percentage returns, the recent increase in the Impact Fund’s assets under management means it is now consolidating at a rather more consistent level.

Each deposit made into NCL Bank is recognised as a separate investment and, as it is built on a smart contract, none of the data can be lost. For example, a user deposits 1 BTC into the Bank by confirming the investment, which is stored locally on their computer or phone. Once the user has confirmed their deposit, the smart contract reads the transaction. From thereon, the total investment value is dictated by all transactions that have been deposited and added together.

## Why NCL now?

The recent economic collapse created by the global Covid-19 pandemic has revealed significant weaknesses and insecurities in the global monetary system. As businesses were shuttered all over the world to contain the spread of the virus, central banks were called-on to support faltering economies.

Low capital reserves combined with high levels of debt and outgoing costs means many businesses face severe liquidity issues, and some have been forced into administration by the crisis. However, as was the case during the financial crisis of 2008/09, some have found support from government and central banks keen to avert an economic depression.

The problem, however, is not solved. By continuing to bailout businesses with levels of borrowing that now eclipse the trillions of dollars issued during the financial crisis, central banks are continuing to “kick the can down the road”. Quantitative Easing, also known as money printing, is creating increasingly unsustainable levels of debt which, at some point, will need to be “repaid”.

Solving this economic problem is one of the driving forces behind the creation of NCL Bank. Later in this white paper we will discuss how we believe our model offers a solution to some of the major issues currently facing the UK economy and global economy.

## **A global debt problem**

To understand the severity of the current global debt problem, it is important to understand how the debt issued by central banks affects the monetary system. Quantitative Easing, or QE, is a form of unconventional monetary policy in which a central bank like the Bank of England purchases longer-term securities from the open market. It does this in order to increase the supply and flow of money in an economy and encourage lending.

Central banks make these QE purchases using the currency of the country they operate in. This works to decrease the value of that currency (as increased supply means lower value) reducing the purchasing power of anyone that holds that currency. This means the cost of QE is ultimately paid by the average citizens that have to use that currency to meet their daily needs.

The operating principles of the current global banking system mean that debt always exceeds the physical currency held at a bank. In the economy, the “national factor” is codified in law and regulation and is a fundamental flaw in the monetary system. Banks are required only to hold a certain ratio of their deposits in liquid funds such as cash in order to be able to withstand a sudden increase in withdrawals, otherwise known as a “run on the bank”.

A typical liquid holding requirement is around 10% of total deposits. The remaining 90% of a bank's deposits are then loaned out. This means that a bank with 100 million in deposits need only hold 10 million in reserve while it can lend 90 million out: a reserve ratio of 1/10. This effectively increases the bank's supply of money to 190 million. As those that have borrowed money from the bank circulate this through the economy, often depositing it in other banks that do the same thing, this 1/10 “money multiplier” increases to infinity.

The money multiplier can vary from country-to-country, however it is typically around 10 and always more than 1 and it means that global debt from bank deposits always exceeds physical currency, and this is a problem.

## **Capitalism gone awry**

The capitalist economic system has enabled a sustained period of prosperity for humanity. If left to its own devices, a capitalist model should ensure that unsuccessful companies and entities are removed as more successful ones prosper. This can be painful, but it is a necessary part of a healthy economy.

Different countries operate different forms of capitalism. In most developed countries, however, capitalism is no longer operating like this. Economies including those of the US, UK and Europe

have become addicted to never-ending bailouts that do not allow economic cycles to run their course.

Faced with the economic crisis created by the Covid-19 pandemic, many of these governments and central banks are now bailing out companies with grants and loans in order to keep their current economies afloat.

However, few are asking themselves this important question: is continuing to pump debt into the already over-leveraged corporate sector a sound long term strategy?

## **Private profit, public losses**

1 The Covid-19 pandemic means that, as of July 2021, the current holding requirement for banks in the US is 0%

Overleveraged companies take loans from a broken banking sector at the cost of inflation. This means that each individual who holds currency in a highly indebted economy pays for that overleveraged firm through the decrease in their own purchasing power. In this scenario, we see privatised profits and publicised losses.

The failures of modern capitalism are much discussed, and few solutions have been agreed upon. However, the fact that average citizens are paying for the losses made at corporations with which they have no involvement must be seen as an inherent error in the system.

The cost of this monetary and fiscal policy is currently being paid publicly by taxpayers, who are unwillingly bailing out private institutions and corporations. This false form of capitalism is not in the interests of the people. Never-ending cycles of debt are forcing economies into a constant boom and bust cycle that, with effective systems that allow for true competition, can be remedied.

In a healthy capitalist economy, every participant should have equal competitive business rights. However, government overspending, frequent corporate bailouts and a banking system heavily reliant on the constant cycling of debt is taking a toll on capitalism, our economies and our society as a whole.

As citizens live longer and birth rates fall, we are facing a shrinking workforce. As such, our ability to bear an increasing debt burden is diminishing. The amount of demand that must be created to continue current levels of economic growth are unlikely to be met by Generation Y and Generation Z due to the decrease in the current demographic trend. These are important issues – important issues that must be addressed by a new economic model.



## 2. The NCL Monetary Impact Fund

### Enabling mass-Bitcoin-adoption

On its road to widespread adoption, Bitcoin faces huge challenges and those that find solutions will be rewarded. The NCL Impact Fund offers one such solution. The Fund provides a simple route to mass investment in Bitcoin, which will increase trading volumes and subsequently the supply of Bitcoin through the monetary system.

This provides a solution to one of the big issues facing Bitcoin, namely a lack of capital flow from smaller investors. Currently, large balances of Bitcoin are held by early investors, which gives these holders an outsized influence over the price and trading volumes of the asset. This puts many smaller investors in a vulnerable position.

By pooling the resources of smaller Bitcoin investors into a larger fund with greater trading power, the NCL Monetary Impact Fund aims to be an empowering force in the blockchain industry.

Many Bitcoin enthusiasts look forward to a time when blockchain is used as an everyday method of payment. However, the current monetary system – in which currencies are being constantly devalued in order to prevent indebted corporations from failing – is stifling financial innovation.

In order for Bitcoin to overtake fiat currency, it must be widely traded and available, which will encourage widespread adoption. The NCL Monetary Impact Fund provides a pathway to realising this future.

### A safer financial future

Countries around the world are facing economic crises. Significant falls in economic activity due to the Covid-19 pandemic has already prompted unprecedented lending from central banks. In coming months and years, it is likely governments will continue to push their economies into narrower situations, with continued lending that devalues their currencies. This could potentially lead to hyperinflation, where the rapidly rising cost of goods and services outstrips the value of a depressed currency.

Fast adoption of Bitcoin is a potential solution to this problem that could preserve wealth for future generations. We have already seen demand for Bitcoin increase in the face of global market turmoil, a trend that is likely to continue. As demand for Bitcoin increases so will its value and, subsequently, its attractiveness to ordinary investors.

The NCL Monetary Impact Fund will play an important role in this journey by enabling smaller investors to participate in larger trading volumes. Considering its significant potential, Bitcoin is likely hugely undervalued at the current time. The NCL Monetary Impact Fund aims to capitalise on this.

## **Encouraging investment, not debt**

Fluctuations in stock markets are a normal part of their functioning. However, today these fluctuations are being abnormally magnified by debt. Debt has become the central pillar of the modern economy and few have challenged this system, until now.

There are two main ways to finance businesses and individual projects. The first is to use debt. This involves taking out loans to pay for things such as University education, to buy a house or to launch a business. The second way is to use investments. Unlike taking out a loan – where borrowers pay interest to lenders on top of what they borrow – investment allows capital to grow.

Banks prefer to take as little risk as possible, and so they prefer to extend easy credit to borrowers and businesses, who in turn appreciate the ease with which they can access this money. However, this can cause problems for the economy.

For example, in their pursuit of growth many businesses over-leverage by borrowing too much. If a company has too much debt it will struggle when business conditions weaken, as they have during the Covid-19 pandemic. During these times, heavily indebted businesses may default on their debt. This has a trickle-down effect to the wider economy, often causing a wide scale collapse and putting pressure on currencies.

This could all be avoided, however, if banks were to invest their capital, rather than lend it. The current debt-fuelled “boom and bust” cycle has deeply impacted the middle-classes in developed economies, plunging them into a debt cycle rather than encouraging responsible, long term investment.

With the Monetary Impact Fund, NCL plans to provide a model for a new type of banking system in which investment – not lending – is the core principle.

## **Re-establishing equitable cash flow distribution**

The NCL Monetary Impact Fund offers a solution to the questionable economic policies implemented under the current global monetary system. More than this, the Fund provides a pathway to rebuilding equitable cash flow distribution within the economy.

As Bitcoin is currently the base currency of NCL Bank, the Monetary Impact Fund will focus on increasing adoption of Bitcoin. Increased adoption of Bitcoin will provide upward price support for

the asset which can further boost growth and lead to larger investments in the asset inside the Fund.

For those holding Bitcoin, this price growth will lead to a rise in individual wealth that could help to pull many out of debt. However, this alone is not enough to fix the problem. The future accumulation of debt must also be avoided through educating citizens and businesses and encouraging them to choose long term investment over easy credit.

It is also important for people to use their purchasing power to de-fund the institutions that actively participate in the devaluing of the wealth of individuals and the wider economy.

Withdrawing capital from these businesses and frameworks can prevent them from wiping out generations of wealth through debt.

## **Full reserve, blockchain-led banking**

Blockchain technology is at the frontier of the fight against unsustainable banking practices, and NCL utilises it for this very reason. In the future, the Bank plans on establishing a new blockchain for the base currency of NCL.

This public ledger will comprise of small, integrated mining centres that, through fibre optic and satellite connections, will approve transactions on its very own private blockchain. This is a powerful model that, when realised in the not-too-distant future, will provide one of the most advanced blueprints for truly decentralised finance.

Taking the power of financial and economic book-keeping away from banks that can (and frequently do) manipulate these transactions for their own benefit is the pathway to a more sustainable economy that has transparent and fair balance indicators. An investment, rather than debt-led model, also has the advantage of offering a potentially more sustainable rate of inflation that could lead to steady prices and increased worker productivity.

These banking methods are not new. In-fact, they predate our current monetary system. We have, however, deviated from the path of sustainable growth to a less ethical model that strongly favours the wealthy and leads to the financial stagnation and suffering of average citizens. This doesn't need to continue. Contrary to the claims of those in financial power, we can have growth that benefits all members of society in a sustainable way.

It is essential that when the next financial crisis arises, which if current trends continue is likely to be deeper than any we have seen before, that we find an alternative to the debt-fuelled system that has brought us to our current situation. NCL Bank plans to demonstrate such an alternative through the NCL Monetary Impact Fund.

## Core principles of the NCL Monetary Impact Fund

Making an investment into the NCL Monetary Impact Fund stands for more than simply making a financial gain. With every investment into the Fund you are actively supporting its founding principles:

1. Working towards building a new, investment-led economy
2. Encouraging widespread adoption of blockchain
3. The avoidance of hyperinflation
4. Ending debt-fuelled “boom-and-bust” cycles
5. Re-establishing equitable economic cash flow distribution
6. Establishing a full reserve, blockchain-led banking order
7. The establishment of a blockchain reserve bank of AMFEIX
8. A fair, sustainable global monetary system that works for everyone

We require all investors and users to uphold the values and principles of NCL Bank.

## 3. On-chain, non-custodial processes

### Transparent risk management

NCL Bank manages investor funds through a number of positions in both long and short strategies. It has allocated the portfolio to a short-term strategy via a non-custodial decentralised trading desk, where NCL, through the NCL Monetary Impact Fund, makes regular trades in a number of pairings with Bitcoin, fiat and other cryptocurrencies. These pairings are chosen for their projected performances, particularly digital assets that show both historically high performance and strong potential future gains.

As all funds are held by investors through their login details on the smart contract, investors are in control of their money and responsible for adequately protecting their login details. Security is, however, a top priority for NCL and we continue to innovate to protect our investors from losses which is mostly why we upgrade and renew our website every year. We use loss protection bots that control losses according to charts that are carefully mapped by analysts using strict risk management procedures. These algorithms can react faster than any human.

## API's and non-custodial funds

A significant number of global investment strategies are now managed by computers that make the main trading decisions. NCL does the same and is one of the first to do so in the blockchain industry.

We use an application programming interface, or API, which defines interactions between multiple software intermediaries, such as different currency exchanges. The API defines the kinds of calls or requests that can be made, how to make them, the data formats that should be used, and the conventions to follow. Significantly, this technology means it is possible to manage accounts without having access to them on a non-custodial basis.

With the rise of automated trading systems, API's have become increasingly popular. In the past, independent traders were forced to screen for opportunities in one application and then place trades with a broker. Many brokers now provide APIs that enable companies to directly connect their screening software with the brokerage account to share real-time prices and place orders. It is possible to develop applications using programming languages such as Python, and execute trades using a broker's API alone.

## Technical and fundamental analysis

The NCL Monetary Impact Fund is directed by a number of highly experienced analysts that have long track-records in the blockchain industry. They employ common methods used to gauge the benefits and risks involved with long term investing in the market, including fundamental and technical analysis.

Long term investors look for investments that offer a greater probability of maximising returns over a longer period of time. Generally, this is considered to be three years or more, though some may consider one year to be long term, particularly traders. One of the benefits of being a long-term investor is the ability to save and invest for goals that take more time to achieve, such as purchasing a new house or funding your retirement.

Fundamental analysis refers to assessing the factors that contribute to the supply and demand of an asset. Supply and demand are typically slow to react to shocks to the market, which can come from events such as natural disasters and global pandemics. Technical analysis uses patterns on a chart created by price movements to determine where the market is moving. A detailed model and analysis are required to build a complete fundamental picture of a market.

Price charts help to illustrate where price is and where it may move to in the future. Common areas of interest on charts are levels of supply and resistance. Supply and resistance can be indicated by many factors, such as moving averages, previous highs and lows and previous levels that a price could not move above or below. While each form of analysis relies on different data and different assumptions, since they all reference the same market information, they can be used together to

build a more complete analysis of the market. This is the task of the analysts directing the NCL Monetary Impact Fund.

## Advanced trading systems

Market indicators for the NCL Monetary Impact Fund can be split into two categories: technical and fundamental. On the technical side, indicators for bullish and bearish market movements are utilised along with historical price action analysis.

NCL considers indicators such as moving averages of important historical Bitcoin movements and reactions, which are charted using different day stamps and time periods. Often with candlestick charts, the market direction is hard to see and so NCL often uses Heikin Ashi candles at multiple timestamps on a chart. Baselines are used to indicate whether markets are overextended or underperforming. We also consider where consolidation may start and end by looking at market orders on exchanges and combining that with historical accuracy on false orders placed and removed.

We monitor a wide range of exchanges for bids and our algorithms constantly improve the precision of our results. Fundamental movements in the market are also investigated and analysed. When an abnormal activity not based on historical movements occurs in the market, it is flagged as an “abnormality” on our systems. An investigation is then conducted and a report provided by one of our analysts.

As all transactions are done on the blockchain, the Monetary Impact Fund's systems are able to track large balance movements to indicate a potential reaction in the market. These transactions can be on exchanges or made via over the counter (OTC) services. We also track several news sources to make reports of trading assumptions and predictions, calculating how they may affect the market.

These factors combine to make NCL a formidable force in the new blockchain market. Fast reactions to market movements allow the Monetary Impact Fund to stay ahead of the curve in comparison with inconsistent and indecisive human bids. Our deep experience in trading assets combined with cutting-edge technology puts NCL in an unrivalled position in the blockchain market. It is this very reason of incompetence and the lack of experience in the new industry as to why NCL has yet to face a valid competitor, which it expects could take several years or more to reach that point giving NCL a First movers advantage.

## 4. NCL DeFi | Decentralised finance realised

### The non-custodial blockchain wallet

After understanding how NCL works, investors may be curious to learn more about non-custodial ownership. Unlike fiat currency, Bitcoin is not physical. This means they cannot be stored in the same way as hard cash. Bitcoin can, however, be stored in a way that ensures only the owner has access to it.

Blockchain wallets enable the sending and receiving of bitcoin by adhering to the asset's protocol. These wallets are intricate software programmes that enable individuals with little to no technical knowledge to interact with the blockchain to transact globally, without barriers. As mentioned above, assets are not stored in a wallet in the same sense cash is held in your physical wallet. All currency exists on the blockchain and, to get technical, you don't actually own the specific asset that you hold. Instead, you own the combination of security keys that allow you to access the asset and move it around.

The wallet balance is safe once you store your seed keys safely. Wallets hold at least one associated private key and a single public key. In a nutshell, it is the combination of the private key(s) and public key that create the concept of a wallet. It may be helpful to think of a wallet as a bank account, rather than a bill-fold style wallet. Every blockchain wallet has an "address" that may look something like this:  
0xb0963da6baef08711584252f5000Df44D4F56925.

Anyone with their address can send Bitcoin to your wallet without any further information. They don't need to know your name, location, or even if the address is owned by anyone at all. The wallet software will systematically check the blockchain to see if any coins have been sent to your personal or business wallet address, or if you have spent any coins in the wallet. This is how the NCL wallet protocol works.

Funds that are sent to a blockchain wallet cannot be recalled: they can only be refunded by the person receiving the funds voluntarily. However, transactions don't start out as irreversible.

Instead, they get a confirmation number that indicates how hard it is to reverse them. Each confirmation takes between a few seconds and 90 minutes, with 10 minutes the average, we recommend you wait for more than 1 confirmed status to avoid fraudulent transactions. If the transaction pays too low a fee or is otherwise atypical, getting the first confirmation can take much longer.

In the future, new services may provide more choice and protection for both businesses and consumers. In the meantime businesses transacting in Bitcoin need to keep a careful inventory of payment requests. Wallets can detect typos and usually won't allow users to send money to an invalid address by mistake, but it's best to have controls in place for additional safety.

## A non-custodial investment fund

The **NCL Monetary Impact Fund** uses the blockchain to manage all its activities. This blockchain is part of the Ethereum network. Ethereum is the second most recognisable name in the blockchain industry, next to Bitcoin. Ethereum's blockchain was created to overcome the limitations of the Bitcoin blockchain (both systems for decentralised money), and is pushing the boundaries of both blockchain technology and decentralisation.

Like the Bitcoin administration, the Ethereum blockchain is supported by a peer-to-peer node network (a data structure like a linked tree structure). This means it is essentially a decentralised server run by a vast number of computers with no central administrator or intermediary. This is why NOVATIO CAPITAL Limited has chosen it for the NCL Monetary Impact Fund.

The Ethereum blockchain is commonly confused with the currency it operates: Ether (ETH). However, the two are quite distinct. Nodes on the Ethereum network contain data and will link to other nodes. Connection links between nodes are implemented by the network and are rewarded in ETH, while the cost of computation is calculated in "Gas": the internal pricing mechanism for running a transaction on Ethereum.

The Ethereum network was invented by talented programmer Vitalik Buterin. In his white paper, which was released in 2013, he describes Ethereum as a "blockchain-based decentralised mining network and software development platform rolled into one."

Ethereum differs to Bitcoin in that Bitcoin is governed by an underlying software protocol that is essentially a simplistic version of the smart contract. This serves as the predefined rules for its network. Ethereum significantly extends the notion of Bitcoin's contract protocol. It aims to facilitate the development of an entire ecosystem for open-ended decentralised applications (dApps), and run smart contracts that can remove the risk of third-party interference.

Prior to the Ethereum blockchain being launched in 2015, anyone that wanted to create a blockchain-based application had to create their own blockchain platform from scratch. But with Ethereum, developers can leverage the Ethereum infrastructure and its ledger to create virtually any application imaginable, including the NCL Monetary Impact Fund.

## The NCL smart contract

Many would not enter into a contract with someone they've never met, as they are less likely to trust them. Similarly, many would not invest in a small company in a foreign country or agree to lend money to a stranger. The traditional solution to the above scenarios is to set up the necessary legal contract to secure the transaction. However, this can be an expensive process involving a number of intermediaries.

Smart contracts provide a solution to this problem. These online processes can formalise the relationships between people and institutions and the assets they own over the Internet, entirely



peer-to-peer (P2P), without the need for trusted intermediaries. Although the concept of smart contracts is not new, blockchain technologies are the catalyst for smart contract implementation.

A smart contract is a self-enforcing agreement embedded on the blockchain managed by nodes. The code contains a set of rules under which the parties of that smart contract agree to interact with each other. If and when the predefined rules are met, the agreement is automatically enforced. This is how the NCL Monetary Impact Fund uses smart contracts on the blockchain.

Smart contracts also provide mechanisms for efficiently managing assets and access rights between two or more parties. Think of it as a cryptographic box that unlocks value or access if and when specific predefined conditions are met. The underlying values and access rights a smart contract manages are stored on a blockchain, which is a transparent and shared ledger where code is protected from deletion, tampering, and revision.

Therefore, smart contracts provide a public and verifiable way to embed governance rules and business logic in a few lines of code, which can be audited and enforced by the majority consensus of a P2P network. A smart contract can also be invoked from entities within other smart contracts and outside the blockchain. Among these entities, users inject data that is relevant to the smart contract from the on-chain world into the smart contract information store. If implemented correctly, smart contracts could provide transaction security superior to any other traditional method of contract or law. As performance can be tracked in real-time, smart contracts could also significantly reduce the transaction costs of agreements by reducing the time it takes to reach, formalise and enforce them. Smart contracts also bypass organisations, providing more transparency and accountability, and less bureaucracy.

The term "smart contract" can be misleading, as smart contracts are neither particularly smart nor are they like a legal contract. A smart contract can only be as smart as the people coding it, taking into account all available information at the time of coding. Moreover, the capability of a smart contract is well beyond those of a legal contract. A smart contract has the potential to enforce legal contracts when certain conditions are met, with use cases found in banking, energy, e-government, industry, and more. They can also be used for simple economic transactions like sending money from A to B. Smart contracts are also capable of registering any kind of ownership and property rights, like land registries and intellectual property. In short, smart contracts have the potential to disrupt many industries. With smart contracts, every agreement, process, task, and payment has a digital record including a signature that can be identified, validated, stored, and shared.

A Decentralised Autonomous Organisation (DAO) represents one of the most complex smart contracts available, which is why NOVATIO CAPITAL Limited has chosen it to operate the NCL Monetary Impact Fund. The NCL DAO smart contract formalises the governance of rules, the procedure of rules and their associations, while it replaces the day-to-day management with self-enforcing code in and for the Monetary Impact Fund.

## Client-side open software

In the 1950's, researchers developing early internet technology protocols and telecommunication network protocols relied on an open and collaborative research environment. This became the foundation for the modern internet and, subsequently, blockchain.

An open source development model is the process used by an open source community project to develop open source software, or OSS. Open source software is code that is designed to be publicly accessible such that anyone can see, modify, correct and distribute the code as they see fit. It is developed in a decentralised and collaborative way, relying on peer review and community production.

Open source has become a movement and a way of working that reaches beyond software production. The open source movement uses the values and decentralised production model of open source software to find new ways to solve problems in communities and industries.

This is why NCL Bank has chosen to use an open-source model for its project. Like many large open source projects, NCL is hosted on GitHub, where users will be able to access repositories and potentially get involved in the project.

## Evaluating open source software

Open source pros: **Capital Limited**

- Peer-reviewed
- Transparent
- Reliable
- Flexible
- Lower-cost
- No lock-in's
- Open collaborations

### Open source cons:

- Difficulty of initial use
- Compatibility issues

In a final evaluation, the clear and superior benefit of open source software is the security it provides to users, as its code can be checked by anyone. NCL strives to lead the frontier in blockchain open source software for mass-adoption which, if current trends continue, seems increasingly likely.

## 5. **NCL DAO | Decentralised Autonomous Organisation**

### **The NCL DAO layer protocol**

Layers exist within the DAO to enable collaboration between members and to direct collective efforts toward common goals. Facilitating effective division of labour, management of incentives and allocation of resources are some of the most important functions of a layer protocol for an organisation operating on the blockchain.

The essential structure of the layer protocol revolves around the distribution of power and trust permissions that management groups within the organisation. These two concepts jointly define the structure and security of a layer and provide a flexible framework for creating new management groups of many types.

Without structure, a large layer can quickly become difficult to navigate due to the number of participants interacting inside it. Groups solve this problem. A group is a circle in a shared layer that may contain subgroups and private records of expenditures. This simple system allows for greater flexibility in the structure of an organisation. Groups can be used to organise teams, departments, category projects, tribes and circles.

It is ultimately up to the members of a layer to decide how they wish to use groups. Some might only use them for categorisations, whereas others might use them to precisely group similar expenditures together, or multiple expenditures. Some might use layers to represent established organisational departments, while others might use them to represent projects with start and end dates.

At NOVATIO CAPITAL Limited, we aim to provide a general framework that the members of different layers within the organisation may use as they see fit, and to be prescriptive only where necessary.

This compartmentalisation of activity benefits layers by making reputation contextual. This means that when arbitration occurs, it occurs at a specific level in the layer group circle. This allows members with relevant contextual knowledge to be included in the dispute without requiring the whole layer to participate in the process.

Access control in a layer is organised around the concepts of permissions, of which there are six: management, administration, architecture, funding, and arbitration. Each unlocks a bundle of related groups and, with the exception of the management and administration permissions, all permissions are group specific with permissions held in a parent group inherited in all sub groups. Put another way, a group permission is passed on to all the sub groups of that circle. To implement this inheritance method, permissions require a group "proof" and validation from all members.

These can then be evaluated to determine whether the layer is authorised to call privileged commands.

Permissions are held by Ethereum accounts when creating a wallet. Permissions may be given to human administrators or assigned to smart contracts which implement more voting mechanisms. It is worth noting that the list of accounts that have the permission in question all have the full

permission. This means that no additional restrictions exist at the protocol level of the AMFEIX DAO. Some cases can occur when members vote for an extremely powerful capability and require absolute confidence in whomever controls it from investors. We anticipate that, in many cases, extensions will be used to offer varying degrees of moderation to the underlying layer.

## NCL organisation values

Having clear values helps an organisation to ensure all of its employees, consultants and users are working toward the same goals. These core values support the vision and shape its culture and every decision made must be aligned with these values. A movement without core values is a movement lacking direction.

At NCL, the core values shape our culture and make an impact on our strategies. They help to create a purpose, improve team unity and engender commitment among the Bank's employees, consultants and users while helping them to make the right decisions. Values also help to improve communication, which plays a central role in building a better culture, improving employee, consultant and user satisfaction and increasing engagement and motivation. Our values also direct all of our marketing and communication efforts, ensuring our purpose and principles are never compromised. Strong values also help NCL to attract and retain top talent, as well as customers that share the same goals. Most importantly, having a clear set of values helps both our employees, consultants and customers to understand what they should stand for as members of NCL and the Bank.

### The NCL Values

We believe our strong values make NCL different. The below form our core values, which we encourage our employees, consultants and customers to expand and grow.

1. Integrity
2. Boldness
3. Honesty
4. Fairness
5. Trustworthiness
6. Accountability
7. Learning
8. Customer Experience
9. Passion
10. Balance
11. Fun
12. Discipline
13. Humility
14. Ownership
15. Getting Results

16. Constant Improvement
17. Leadership
18. Hard work
19. Diversity
20. Development
21. Innovation
22. Quality
23. Teamwork
24. Simplicity and Minimalism
25. Collaboration and Partnership
26. Idealism
27. Courage
28. Unselfishness
29. Self-Discipline

As well as agreeing to uphold the organisation's core principles, all NCL employees and consultants are invited to undertake an oath of loyalty to the movement. This ensures our employees, consultants and users are always sure of what they stand for as members of NCL Bank, allowing us to manage our operations to the fullest extent. All NCL users understand the purpose and vision and are dedicated to pushing the organisation forward toward reaching its goals. Loyal members ensure strong security within all layers of NCL's management and groups within the decentralised non-custodial blockchain framework and its organisation.

### **Strong system security**

A decentralised autonomous organisation requires trust and honesty throughout its operations. The model is highly secure, however if all layers are directed together there is a possibility of theft. The level of organisation required for such an attempt makes it highly unlikely. Many NOVATIO CAPITAL Limited employees and consultants are also users of NCL, and so violation of its systems would be extremely counter-beneficial.

Typically, the weakest links within a bank are brokers who fail to follow instructions. A mismanagement of funds can result in catastrophic losses and the cancellation of contracts, which is why brokers are constantly reviewed and monitored. A layer protocol is an effective risk management strategy and investigation circles exist within all layers to maintain the highest levels of security afforded by the system.

For NCL, vulnerability is present at the user level, as NCL users are solely responsible for maintaining the security of their funds via their own seed keys. Therefore, it is important that all users take security seriously. This includes safely storing seed keys and only logging into accounts from their own devices. A user should never share their security information with anyone, including NCL Bank.

## **NCL management**

Achieving the goals set out by NCL and its users requires leadership from skilled and efficient management. As a goal orientated, customer focussed organisation, our clients are central in holding our management to account, all of whom are required to work tirelessly in the best interests of NCL.

The primary function of our management team is to bring all of our employees, consultants and users together efficiently and effectively to work toward the achievement of NCL's vision and goals. Management is a layer within the NCL DAO system. It has limited permissions including design, which facilitates the production of useful outcomes for the organisation.

The management consists of the first and second highest layers in the organisation and focuses on achieving the goals set out by NCL in its white paper. There is not, however, one sole authority in charge of all management tasks. Rather, administrators of groups within the management layer oversee permissions that are in-turn validated by the members of that group.

## **Legalities of blockchain in the UK**

Once a fringe project of software developers, blockchain has erupted into mainstream consciousness. The technology has attracted significant investment aimed at utilising its efficiencies to unlock new business models. Much of the focus to date has been on the technical and commercial aspects of blockchain. However, for blockchain technology to realise its full potential, it must successfully navigate existing legal and regulatory frameworks. Below we have set out a roadmap to understanding the key legal and regulatory issues that typically arise in relation to blockchain.

The legislation that is applicable to blockchain depends on the function it seeks to fulfil within the jurisdiction it wishes to operate in. In the UK, Distributed Ledger Technologies (DLT) – which NCL utilises – are emerging in diverse sectors: from financial technology to security, energy, entertainment, healthcare, trading, transport and logistics, real estate and the “Internet of Things”.

Financial services are, perhaps unsurprisingly, a key area of focus for blockchain development. With the exception of a handful of retailers, blockchain has, as yet, failed to breakthrough as a common method of payment for goods and services. However, both financial institutions and government bodies have explored the potential efficiencies that blockchain can bring to the clearing process, identity checks, settlement systems and payment systems. Financial institutions have so far been slow to move, owing in part to the reputational issues surrounding the Bitcoin blockchain and uncertainty about how legal and regulatory frameworks will apply. Despite this, some financial institutions have begun to take more decisive steps to use blockchain technology, particularly now that the views of the UK's financial regulators are becoming clearer. As such, NCL has observed an increasing number of use cases being piloted in the market, including NCL.

To date, the most concrete gains have been made outside of financial services in the area of supply chain management where blockchain is offering businesses a way to increase transparency, coordination and efficiency across their supply chains. The blockchain market may evolve faster now that the UK has left the European Union (EU), with the UK Government stating its desire for Britain to be the global home of new and innovative financial services after Brexit. There are many who also believe that the UK will be in a unique position to boost its financial services industry if it were to position itself as a blockchain jurisdiction. How this might take shape is, however, still unclear at this early stage.

The majority of projects utilising blockchain in the UK remain in their infancy, including AMFEIX, however each presents an exciting and unique opportunity. A number of large-scale international blockchain projects involving global financial institutions also have a UK nexus.

UK-based banks have also invested in blockchain technologies.

This includes Standard Chartered, which has announced that it is developing the use of blockchain in trade finance operations with the aim of digitising the entire commodity trade finance process, while also making it possible for businesses to exchange data and other documents (including letters of credit) faster.

Encouraging progress has also been made in other sectors as established industry players have been exploring how they might use blockchain to their advantage. UK energy supplier Centrica, for example, has been investigating how peer-to-peer energy trading on a blockchain platform could reduce customer bills. The UK has also proven fertile ground for a number of successful blockchain start-ups. These include Provenance, a digital platform which seeks to provide businesses with greater transparency by tracking products along their supply chains; Everledger, a tech enterprise which tracks the provenance of high-value assets such as diamonds on a global digital ledger; Medicalchain, a decentralised platform that enables the secure, fast and transparent exchange and use of medical data, and now NCL, a DeFi DAO bank aiming to provide a model for a better banking system focused on investment rather than debt that could have far reaching implications for global economic models.

As yet, there have been no heavily publicised failures of blockchain technologies in the UK, although this is likely a reflection of the current low level of implementation. Currently, the UK has no blockchain specific legislation or regulatory framework. Recent statements from UK regulators signal that this may change in the future, however applications of blockchain are not currently outside the scope of existing legal and regulatory regimes. There are several touch points where, depending on the precise nature of the application of blockchain, existing frameworks can be used.

## **Government and regulatory support**

To date, the UK Government and regulators have taken a balanced and flexible approach to the growing use of blockchain technology. Both have recognised that this technology has the potential to deliver significant benefits and have voiced support for its development. In January 2018, the UK

Government established an All Party Parliamentary Group on Blockchain to explore how industry and society can benefit from the wide implementation and use of blockchain. Both have also stressed the need for caution, emphasising the need to manage the range of risks observed in the cryptoasset market, and to ensure that UK financial markets remain safe and transparent.

This measured approach saw the UK Financial Conduct Authority (FCA) issue a warning to consumers about the risk of Initial Coin Offerings (not one of NCL's activities) in September 2017, while also supporting tests of blockchain technology. Similarly, The Bank of England supports research into DLT, yet issued a strong statement in October 2021 that Libra, a permissioned cryptocurrency associated with Facebook, would need to meet the highest standards of resilience and be subject to appropriate supervisory oversight.

Both the UK Government and regulators have also explored how blockchain technology might be used to improve their own internal processes. For example, in 2016 the UK Government tested the use of a blockchain-based system to distribute welfare payments. Since 2017 the FCA and the Bank of England have been working to explore how they can use the technology to make the current system of regulatory reporting more accurate, efficient and consistent. The Bank of England has also conducted a "proof of concept" experiment to understand how the backbone of the existing payments system might be compatible with DLT-based payment systems similar to the model used by NCL.

There are several initiatives in the UK designed to encourage the development of blockchain technology concentrated in the financial services sector. Innovate UK is a government-led agency that drives productivity and economic growth by supporting businesses to develop and realise the potential of new ideas. It has invested over £10 million in blockchain projects focused on energy distribution, clean water provision, electoral systems and maximising value from items donated to charity. In 2018, it announced that it was investing a total of £19 million in emerging and enabling technologies, which included blockchain.

The UK Government has also created a £20 million fund, the "GovTech Catalyst Fund" to explore technology-based solutions for public sector challenges, potentially including the use of DLT. The FCA began its own innovation project in 2014, which consists of an Innovation Hub and a newly launched Global Financial Innovation Network ("GFIN"). The Innovation Hub provides a means by which new and established businesses – both regulated and non-regulated – can introduce innovative financial products and services to the market, with support from the FCA on the application of the regulatory framework. The GFIN, launched in January 2021 in collaboration with 38 other financial regulators, creates a new framework for cooperation, promoting information and knowledge sharing amongst regulators on emerging innovation trends, tests, initiatives and policies. It also provides firms with an environment in which to trial cross-border solutions. The FCA Regulatory Sandbox allows UK businesses to test innovative products, services, business models and delivery mechanisms with real consumers in a controlled environment. The regulator has also recently consulted on whether a cross sector sandbox or similar mechanism is needed to ensure a consistent and efficient approach to emerging technologies.

The Bank of England has a Fintech Hub, by which it seeks to understand what fintech means for the stability of the financial system; the safety and soundness of financial firms;



perform its operational and regulatory duties. Between 2016 and 2018, The Bank of England has supported a few DLT-focused proof of concept trials with firms to understand how new technologies are being adopted and how they might relate to its objectives. In 2021 the Information Commissioner's Office, the main data privacy regulator in the UK, launched assistance to support organisations who are developing products and services that use personal data in innovative and safe ways including organisations that utilise blockchain.

The FCA has also published guidance in a Policy Statement ("PS19/22") seeking to clarify the regulatory perimeter for market participants carrying on activities in the blockchain market. The aim of the guidance is to enable participants to be clear on where they are conducting activities that require authorisation. The FCA also published research in March 2021 exploring consumer attitudes to, and awareness of blockchain. The FCA identified four main findings: (1) many consumers see crypto as a fast-track to easy wealth; (2) many consumers may not fully understand what they are purchasing; (3) there are signs that crypto assets are accompanied by risky behaviours; and (4) anecdotal evidence about crypto may overstate their potential harm. In July 2021 the regulator proposed implementing a ban on the sale to retail clients of investment products such as derivatives and exchange traded notes that reference cryptocurrency (not an activity of NCL's).

There are currently no specific prohibitions on the use or trading of cryptoasset in the UK. Despite this, however, its use remains very limited. According to the Bank of England in a submission in May 2018, blockchain is not widely accepted as a means of payment in the UK, with no major UK high street or online retailer accepting the most common currency, Bitcoin. While the Bank of England estimates that around 500 independent stores do accept Bitcoin, this amounts to an average of less than one retailer per town. The Cryptoassets Taskforce also observed in a report that only around 15 cryptoasset exchanges of a global market of 206 were headquartered in the UK. Of those 15, the 12 with visible trading activity accounted for around 2.66% of daily global trading volumes. Mainstream financial institutions have also remained fairly sceptical of blockchain investments. In March 2018, The Bank of England observed that systemically important UK financial institutions had negligible exposure to blockchain and its ecosystem.

## Legal recognition of cryptoassets

The current trend points towards bitcoin and virtual assets being recognised as property in UK law. The main challenge from an English legal perspective stems from the fact that common law traditionally only recognises property in the form of either real estate or land, or personal property, with all personal property being either a "chose in possession" (tangible property) or a "chose in action" (an intangible legal right to possess something that can be enforced by an action in a court). Because of this, English courts have historically refused to recognise information or data (other than intellectual property rights linked to information or data) as property, as they are neither tangible nor are they a legal right capable of being enforced. Bitcoin and virtual assets exist as information or data on a

distributed ledger or blockchain, with anyone who knows the relevant private key (itself simply information/data) having the ability to transfer those bitcoins. It is therefore possible to reason by analogy that they are not property for the purposes of English law.



Although the legal characterisation of a smart contract has been discussed at length in the UK, there is at present no definitive authority demonstrating that smart contracts are legally binding and enforceable under English law, either in the form of a test case or legislation. The prevailing view is that it should be possible to enter into a binding smart contract as long as the usual requirements for a valid contract under English law are met, namely: an offer and acceptance; an intention to create a legal relationship; certainty of terms; and each party giving something of benefit, referred to as “consideration”. The UK Jurisdiction Taskforce concluded that the ordinary rules and interpretative principles of English contract law can and should apply to smart contracts, including those written entirely in computer code. It notes in its legal statement that: “a Smart Contract is capable of satisfying those requirements just as well as a more traditional or natural language contract, and a Smart Contract is therefore capable of having contractual force.”

One important interpretative difficulty with this approach is whether and how smart contracts might be considered in cases of frustration, mistake or fraud. The automatic, self-executing and immutable nature of smart contracts gives rise to doubts as to whether they could be void, voidable and rescinded under English law, either by the parties or the courts. Another challenge is the application to smart contracts of English legal rules which require certain documents to be “signed” or “in writing”. On this point, the general consensus, supported by the legal statement of the UK Jurisdiction Taskforce, is that a statutory “signature” requirement can be met by a private key, or where the code element of a smart contract is recorded in source code.

There is yet no definitive solution to this issue in the case of a smart contract which is represented only in object code as it is not considered to be in a form that can be “read”. There is no requirement under English law for parties to a contract to know each other's real identity and as such a smart legal contract between anonymous or pseudonymous parties ought to be capable of giving rise to binding legal relations. There are likely to be practical problems in an enforcement scenario where one party is unable to identify a named defendant for the purpose of proceedings where the smart contract is not performed or is performed incorrectly. And although smart contract technology remains relatively nascent in the UK, a number of important initiatives are in progress, indicating that the technology is maturing.

Many UK financial services market participants, including trade associations, are proponents of the mainstream adoption of smart contract technology. Firms that have participated in the FCA Regulatory Sandbox are using smart contracts for a variety of purposes, including to automate payments, transfer assets, to provide fully automated, decentralised flight delay validations, or to facilitate charitable donations. NCL plans to begin facilitating charitable donations through the platform soon.

It is worth noting a few other important smart contract projects, albeit not UK-specific. One of the most popular smart contract implementations is Ethereum, which allows contracts to be written in a bespoke programming language known as Solidity. This is what NCL uses. There is also the R3 consortium's Corda, which aims to enable the codification of smart contracts and to provide a decentralised ledger that is authoritative and immutable. Governmental agencies and IP registrars, the European Union Intellectual Property Office, for example, are also looking into the capabilities of smart contract technologies.

As noted, the UK has not yet legislated specifically in relation to blockchain, DLT or cryptoassets, but a number of areas of law may be engaged by a blockchain application.

However, a source of uncertainty is how to treat cryptoassets for the purposes of insolvency proceedings. Difficult questions in this context may also include how to trace cryptoassets in cases where the debtor does not disclose their existence and how to dispose of them.

As highlighted above, Brexit may galvanise the UK into positioning itself as a more blockchain friendly jurisdiction. However, at this early stage this remains purely speculative. It can be said that any separation of the UK and EU legal and regulatory regimes that develop over time could impact the domestic legal and regulatory framework for blockchain applications. Users of the NCL self custodied wallet do not make transaction requests to NCL. Instead, they transact directly with the appropriate blockchain network. Unlike crypto exchanges, NCL does not act as a financial intermediary or a custodian. NCL is not a custodial entity and never accepts, holds or transmits its users' balances. NCL users can store and spend the same currency in as many other industry standard wallets as they like, at the same time as they are stored using NCL. Thus it is helpful to think of the self custodied wallet not as a vault or bank account, but as a user interface software that interacts directly with the necessary blockchain networks. NCL cannot spend virtual currency on a user's behalf (or against the user's wishes), freeze or forfeit virtual currency at the request of a law enforcement agency, and/ or know the contents of wallets due to the nature of the technology.

## **Expanding blockchain with NCL**

A platform like NCL exists remotely. It is part of a live ecosystem and itself impacts the broader investment space and crypto community in a number of ways. As outlined previously, NCL aims to strengthen and expand the blockchain network ecosystem.

NOVATIO CAPITAL Limited acts as a mechanism for onboarding off-chain organisations and businesses to the blockchain. NCL also incentivises investors from both crypto and non-crypto spaces to provide capital for a new form of investment-led banking and saving. Investors already active in the blockchain space gain access to investment opportunities via NCL. Investors that have yet to join the blockchain market find in NCL an easy way to get started. NCL makes it easy for anyone to participate in the blockchain space. It features a full user experience that is highly accessible to the average internet user as well as videos to slowly build basic knowledge of blockchain technology. In this way we provide a full suite of tools for individuals to fuel a process of gradual learning and commitment to the goals.

In return we ask investors to commit their funds for use on the platform, though these funds remain fully under the control of users. Lastly, we work towards greater transparency and accountability for fundraising and management. As it stands today, in far too many cases transactions between investors and the blockchain take place without any legally binding contracts. As such, users have no means of protecting themselves against fraud, misuse of funds, and other questionable conduct. The only thing holding a



of reputation and goodwill. This is entirely contrary to the founding principles of trust-less systems like blockchain.

Since the founding of blockchain, emphasis has been placed on building systems of cooperation that use economic incentives to align the interests of disparate groups of people which rely on sophisticated technical infrastructure to secure their interactions. What has been missing, however, is a common sense integration with existing legal systems to provide the enforcement mechanisms necessary for keeping parties accountable. Only with this is long term planning possible. This is the ambition of NCL. Our model is a simple repeatable process with blockchain security built in that gives investors access to a fund that has the potential to provide a new roadmap for modern banking, investment and, by extension, monetary policy.

## **6. Portal | Creating a NCL ccount**

### **Getting started: safety first**

In order to ensure the safety of your NCL account and ultimately, your funds, we recommend all of our users take the following precautions.

1. When logging into your wallet from your computer or mobile device, we recommend you do so using the incognito or private mode. A quick internet search will show you how to do this. This ensures that your wallet is not saved onto your device when you log out.
2. It is also essential that you only use your devices when using NCL so that you are safe from keyloggers and/or another person entering your account once you log out.
3. We recommend that you avoid downloading anything suspicious onto your devices that could be used as a gateway to hack your account. If possible, you should also avoid downloading unnecessary applications and accessing unnecessary websites on the device that you use to access your NCL account.
4. Please ensure that you never use public Wi-Fi connections. Use private personal connections to the internet at all times for added security.

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## Opening a NCL account

To create an account with NCL, you must first visit <https://petraholdingltd.com/>. Once there you need to navigate to the register button. You will then be directed to the NCL PORTAL where you can put

in your personal details and create an account, after uploading your ID for verification, your account will be created successfully. Once logged in, you will be able to transfer funds from a Bitcoin wallet or exchange account into your NCL account by using the wallet address generated and then choose a package and invest.

The NCL account is an essential component of our service as it is built on the Bitcoin network. Like the NCL (MIF) Monetary Impact Fund, the NCL account is decentralised. This means that no entity can affect or take control of your account. You will also need to set up an 8 character password. This is to ensure maximum security.

After you create your NCL account, you will need to transfer Bitcoin from either your exchange of choice or another existing wallet that was used to purchase the digital asset. After you have sent Bitcoin to the NCL wallet, your balance, displayed in your dashboard, should reflect the transfer.

## 7. Transaction processes and troubleshoots

### NCL Monetary Impact Fund fees

The NCL Monetary Impact Fund was created as a model that could provide a blueprint for a new type of monetary system. The Fund's well-defined, transparent processes are a part of this mission. When you make a withdrawal from the Monetary Impact Fund, your transaction will incur a 5% withdrawal fee. This fee was introduced as a way to ensure the Fund is managed and maintained to the highest possible standards and to ensure that our investors are fully aligned with our values and processes. Fees can change higher or lower depending on the decision of NCL.

The withdrawal fee is applicable to all withdrawals from NCL MIF, regardless of the length of time an investor has held money with the Fund.

### Profit distribution in the Fund

The Monetary Impact Fund calculates all profits in Bitcoin (BTC), however fiat equivalents are just as important and are also tracked, including GBP. This means that, after your Bitcoin is invested, NCL's goal is to increase levels of both Bitcoin and fiat currency (e.g GBP). For example, if you deposit 1 BTC, our mandate would be to increase that amount to 1.1....+ 1.2... + BTC, thereby also increasing the fiat currency balance.

All profits are split at a ratio of 2:8. This means NCL Bank receives 20% and users receive 80%. Your profits will continuously be compounding in the fund, which means profits will build on themselves until you choose to make a withdrawal from the Fund. You are also able to withdraw your entire account balance at any time, minus the -5% withdrawal fees.

## Loss distribution process

As with any form of investment in either listed or unlisted assets, investing in the NCL Monetary Impact Fund involves the risk of loss.

Losses are a part of investing and can occur at any time for any reason. Due to the decentralised nature of the Bank, NOVATIO CAPITAL Limited however bear losses down to the Capital invested because all assets under this firm is completely backed up and guaranteed because we're 100% responsible for any loss.

## Automated Gas process

As mentioned previously, the Ethereum blockchain uses its own measure, known as "Gas", to calculate the cost of transactions on its system. This can be understood as the fee for using the world computer that is the Ethereum network. There are, however, some significant differences. Gas, in-fact, represents much more than the cost of processing transactions on the Ethereum network. Ethereum is capable of running all sorts of applications, allowing it to form the basis of the decentralised web. As such, while Gas could technically be described as Ethereum's "transaction fees," this term should be used with caution.

For Ethereum to work as a world computer, fees to transact on the network need to be miniscule and so denominations of the method of payment for these fees must also be extremely small. As such, the Ethereum currency Ether is denominated in several smaller increments, with the most widely used type the "Gwei." Gwei denotes the ninth power of a fractional Ether and 1 Gwei equals 0.000000001 Ether ( $10^{-9}$ ). There are other denominations of Ether, however none are as widely used or recognised as Gwei.

There are several ways to calculate the fee necessary to execute a transaction on the ethereum network. NCL automates this process so, in most cases, users are not required to know the specifics of setting Gas. The network is set up in such a way that any random Gas fee can be set. In theory, a sender could select any number as the transaction fee they are willing to pay, as low as one Gwei. Gas can be found on the advanced tab during withdrawals, however users are strongly discouraged from tampering with these settings and the automated process.



## Troubleshooting wallet transfers

1. When you open a NCL account, you create an investment portfolio for yourself. With this portfolio, you also get a default Bitcoin address for making payments. This address is a long complex password of numbers and letters (both uppercase and lowercase), in no apparent sequence.
2. A bitcoin address never expires and you can use it to receive Bitcoin from other wallets or Bitcoin ATMs. You can create as many Bitcoin addresses as you want and use them any number of times.
3. When other people send Bitcoin to this address, it is sent directly to your wallet. Transfers are not always instant. This is because Bitcoin transactions are non-reversible and so the Bitcoin network needs to confirm the transaction at least three times before the Bitcoin is released into your wallet. So be patient and give it some time. Once the Bitcoin is sent, the sender should see "incoming Bitcoin at 0 confirmations" or "Unconfirmed." When that count reaches three you should see your Bitcoin in your wallet. This can take between 20 minutes and a few hours depending on how congested the Bitcoin network is.
4. To deposit Bitcoin to your NCL wallet: Log in to your NCL account and click "Click on deposit/add funds" > Copy the wallet address from the screen or click "COPY ADDRESS" > If the app or ATM you are using to send Bitcoin to your NCL account has an option to scan QR code, simply scan the QR code of your NCL account.
5. Usually, after scanning the QR-code, apps or ATMs do not make an instant transfer but simply download the wallet address into their system. So, if you scanned the wrong address, you still have the opportunity to cancel the transaction.
6. Enter your NCL wallet address into the app, website, or ATM. If you have scanned the QR code, your wallet address appears on the screen of the app or ATM automatically.
7. Confirm sending Bitcoin to your NCL account.
8. Make sure you have enough funds in the wallet you are sending Bitcoin from. Also be aware of any minimum Bitcoin transaction amounts.
9. The sender of the Bitcoin will bear the transaction fee. Usually, the amount charged as a network fee and the total amount deducted from a wallet are clearly shown before the Bitcoin transfer is confirmed.
10. Lastly, confirm your deposit from the NCL 'MIF' Monetary Impact Fund page.

## 8. Risk Disclosures

### Theft awareness and prevention

At NCL we pride ourselves on delivering a safe and secure method of investing and banking that is unlike any other that has come before. As our systems and processes are blockchain-based and verified, no transaction can ever go unchecked. However, there are still security issues that users may encounter that are out of NCL's control.

Most important, please be aware that all interactions with unauthorised persons claiming to represent NCL over text messages or any form of social media are false and may be dangerous.

NCL will never ask for your Password or for you to deposit money outside of the Portal(except it's from your consultant assigned by the fund), for example via email or any other method of communication.

Often, a scammer may message you with a link to "recover your account", or they may send you instructions that look very similar to a NCL announcement. Scammers may seem to have NCL usernames, however they are false and disguised. It is imperative that users are aware of these tactics that are designed to deceive and gain access to their accounts and assets. If you are ever unsure whether a communication is genuine, message our online support system via <https://petraholdingltd.com> which is available 24 hours a day.

NOVATIO CAPITAL Limited is not responsible for losses incurred by any users who surrender their login details, BTC, or any other vital information to scammers. Users must understand the risks of online interactions and protect their information at all times. NCL does not own or operate a mobile or desktop application so DO NOT download anything that claims to be an app from us. This may compromise the device that is used to access your wallets.

NCL will never contact you to initiate any kind of transaction(except from your consultant assigned by NCL), and so if an interaction is not initiated by you it is likely a clear signal you are speaking with a false representative. As an additional security measure, we recommend not allowing any other person access to your device.

## Risk Disclosure Statement

This Risk Disclosure Statement provides you with information about some of the risks associated with use of "NCL". The information presented in this Risk Disclosure Statement is not comprehensive and does not reflect all of the risks (or other important factors) you should consider before using NCL Services. You must make your own independent decision whether to access or use the Services and should seek any advice that you consider necessary or desirable (including financial and/or legal advice) from regulated independent advisers.

Terms not otherwise defined in this Risk Disclosure Statement shall bear the same meanings attributed to them in the Terms of Service.

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##### A. General financial

##### risks 1. Liquidity risk

Cryptoassets may be riskier, less liquid, more volatile and more vulnerable to economic, political, market, industry, regulatory and other changes than other investment types. The liquidity of the market for cryptoassets depends on, among other things, supply and demand and the commercial and speculative interest in the market for these assets.

##### 2. Deposits and withdrawals

The currency that you transfer to the deposit address(es) associated with your wallet(s) will not be segregated from, and may be commingled with, other wallets; there are no trust, fiduciary, or other custodial arrangements or rights associated with or applicable to the Services and your wallet balances (including deposits and/or any realised profits) and you do not have any proprietary claim in respect of any BTC transferred to any wallet balance. There are no deposit protection schemes that are applicable to the Services and your wallet balances are uninsured.

Your wallet balance is at risk of total loss, from, among others things, security breaches (whether in respect of your wallet specifically or the Services generally), electronic and technological systems failures, insolvency or bankruptcy, and/or equivalent formal proceedings, in respect of AMFEIX. It is your responsibility to ensure that you use the correct address for any deposit, withdrawal, or transfer, and that the address you use is a valid BTC address. Any inaccuracy in a specified address of crypto that you attempt to transfer between addresses, may result in total loss of the crypto

concerned. Any BTC transferred to or between your wallet(s) will only be available for withdrawal purposes when it is credited to your wallet via the blockchain. We require one Bitcoin block confirmation before a deposit can be credited to a wallet; however, the period between block confirmation and wallet credit is variable and depends on a number of factors, including factors that are not within our control. We do not offer any assurance or guarantee in relation to the timeframe for a deposit or transfer to be credited or for a withdrawal to be broadcast and confirmed.

For example, deposits, transfers, and/or withdrawals may not be credited or may be delayed if: there are delays, high demand, or technological issues affecting the Blockchain network; you have allocated a network fee to the transaction that is insufficient to ensure that your transaction is confirmed according to your expectations (our recommended network fee for withdrawals is not a recommendation or assurance in respect of the processing time of any transaction(s)); variation in the processing time in our systems, which may be increased by high demand, technological issues or other conditions that impact processing time; if we believe that you are engaged in any suspicious activity. You may be at risk of loss if a deposit is not credited to your wallet.

The logo for NOVATIO Capital Limited features the word "NOVATIO" in a large, bold, sans-serif font. Below it, "Capital Limited" is written in a smaller, lighter font. The text is centered and framed by a stylized, light-colored graphic consisting of two curved lines that sweep upwards from the sides and meet at the top, resembling a wide smile or a protective arch.

**NOVATIO**  
Capital Limited

The Bitcoin protocol underlying BTC may change or otherwise cease to operate as expected due to changes made to its underlying technology or changes resulting from an attack. These changes may include, without limitation, a “fork”, a “rollback”, an “airdrop”, or a

“bootstrap”. Any such change, or any failure in the Bitcoin protocol, may dilute the value of your BTC and/or your position and may result in total loss. AMFEIX will not support any such change (unless AMFEIX chooses to do so at AMFEIX’s own discretion) and any crypto that you may expect to be distributed or transferred to you in respect of any wallet balance may not be credited to your account or transferred to you, resulting in a total loss of, without any right to claim or request compensation for, that crypto asset.

#### B. Regulatory and Oversight Risk 3. General regulatory risk

The regulatory environment concerning crypto and blockchain technology continues to develop. The application and interpretation of existing laws and regulations are often largely untested and there is a lack of certainty as to how they will be applied. New laws and regulations will be promulgated in the future that apply to blockchain technology and crypto and related services providers, and no assurance can be given that any such changes will not adversely affect crypto generally or the Services. It is not possible to predict how such changes would affect the price and liquidity of crypto generally, or the Services.

Regulatory actions could negatively impact crypto in various ways, including, for purposes of illustration only, through a determination (with retrospective or prospective effect) that crypto and their blockchains are regulated financial instruments requiring registration or licensing in certain jurisdictions. NCL may have to limit the availability of certain wallets or disallow users based on their citizenship, residence or location from engaging in any transactions on the Platform if doing so becomes commercially unsustainable or legally prohibited. You understand that ultimately it is your responsibility to make sure that you comply with any and all local regulations, directives, restrictions and laws in your place(s) of residence before using our Services. We strictly state that we do not permit the use of our Services by users from a jurisdiction in which the use of our Services is not permitted (including, without limitation, Restricted Jurisdictions). We are not offering or soliciting the use of our Services to any person located in any Restricted Jurisdiction or any other jurisdiction in which the specific use of our Services is not authorised (of which at the date making are none) or is otherwise prohibited by local laws.

#### C. Cyber Risk

##### 4. Risks relating to cybersecurity

Malicious individuals, groups or organisations may attempt to interfere with the Platform in a variety of ways, including, but not limited to, malware attacks, denial of service attacks, coordinated attacks and account takeovers, which could negatively affect the operation of the Platform.

With increased use of technologies and dependence on computer systems to perform necessary business functions, crypto and the Services are susceptible to operational and information security risks. In general, cyber incidents can result from deliberate attacks or unintentional events.

Cyberattacks include but are not limited to gaining unauthorised access to digital systems for purposes of misappropriating sensitive information, corrupting data, or causing operational disruption. Cyberattacks may also be carried out in a manner that does not require gaining unauthorised access, such as causing denial of service attacks on infrastructure. Cyber security failures or breaches of the third-party service providers including, but not limited to, software providers, cloud services providers and index providers could have a negative impact on crypto and the Services.

It is your responsibility to ensure (1) that your access credentials are kept secure and confidential, including your seed key and password. (2) the security and integrity of any systems and devices (both hardware and software) or services that you use to access the Services.

#### 5. Risks relating to platform downtime and IT maintenance

NCL may, from time to time, perform maintenance on the Platform, routine or otherwise. This may lead to platform downtime and lack of access to the Platform, potentially resulting in a delay or cancellation of submitted deposits and withdrawal transactions yet to be processed.

#### D. Access risks

There are a series of inherent risks associated with the use of mobile and/or web-based wallet technology such as latency in the prices provided and other issues that are a result of connectivity including, without limitation, the use of mobile networks. NCL shall not be liable for any and all circumstances in which you experience a delay in price quotation or an inability to transact caused by network transmission problems or restrictions or any other problems outside of our direct control. This includes, but is not limited to, the strength of the mobile signal, network latency, or any other issues that may arise between you and any internet service provider, phone service provider or any other service provider.

Performance issues and security risks may arise if the NCL site/platform are used on devices with customised or otherwise non-standard operating software, or as a result of other software installed on such devices.

The NCL [DeFi DAO] BANK'S BLOCKCHAIN'S AND PROTOCOL'

