EXC White Paper

Next Generation Cryptocurrency

Version 08, 17th September 2018

Abstract

We have designed a next generation cryptocurrency platform (the "**EXC Platform**") with the aim of providing a token ("**EXC**") which purchasers and central bankers may find attractive as a means of digital value transfer for one of the following reasons: EXC (1) is freely flexible vis-à-vis any fiat currency while capable of storing value, (2) is scalable and offers one of the lowest possible transaction cost, (3) has one of the highest level of security features, (4) offers 100% traceability, (5) is capable of shortening settlement time, and/or (6) eliminates human intervention as much as possible.

The EXC Platform is intended to support a supranational currency which will exhibit the best of both fiat and cryptocurrency characteristics. The design expands upon historical proposals made by the economist John Maynard Keynes for a supranational currency as an alternative to gold and the US Dollar. As a result of launching the EXC Platform we aim to address a number of the perceived weaknesses of cryptocurrencies.

Background

As of 27 July 2018, Bitcoin's market cap had surpassed $141 billion[1], and the concept of Bitcoin has been attracting much attention from many people, including Bill Gates and Richard Branson. We believe that

[1] https://coinmarketcap.com/currencies/bitcoin/#charts

cryptocurrencies are one of the greatest inventions in human history. Over 1,300 types of cryptocurrency have been created by information technology experts. Cryptocurrency aggregate daily volume now exceeds $3.7 billion.[2] Most cryptocurrencies, however, have similar weaknesses in terms of their design. Jamie Dimon, CEO of JP Morgan, among others, put it as follows: "Bitcoin will eventually blow up; it's fraud", "Governments are going to crash it (cryptocurrencies) one day", "Governments like to know where the money is, who has it and what you're doing with it", "And governments like to control their currency, like to control their own economy. So China's already put curbs on it", and "If you live in Venezuela, North Korea, if you're criminal, great product. I mean that. It's better than cash or deposits in that country. Cuba."

There is a growing need from legitimate users who wish to minimize transaction costs, especially for the purpose of international transfers, where fees typically entail minimum costs of $30 per transaction and can take 24 hours through banks.[3] The cost could be greater if the transaction takes place with a credit card.

Bitcoin, as the first generation cryptocurrency, is equivalent to the "Gold Standard" – an earlier era fiat currency system which collapsed in 1942. In fact, Satoshi Nakamoto's whitepaper, "A Peer-to-Peer Electronic Cash System",[4] states:

"The steady addition of a constant amount of new coins is analogous to gold miners expending resources to add gold into circulation".

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[2] According to a CNBC article on 3rd October 2017, "Everyday, banks with record $6 trillion worth of transactions around the world while cryptocurrencies are used to moving $3.7 billion".

[3] See below link which asks the question why an international transfer via a bank takes one day or more. Source: https://www.quora.com/How-long-should-international-bank-transfers-take-by-SWIFT-If-SWIFT-is-supposed-to-manage-priority-international-payments-within-1-2-business-days-why-did-it-take-3-5-days-to-get-my-money-transferred.

[4] https://bitcoin.org/bitcoin.pdf, Section 6 Incentive, 4th line.

Weaknesses of Bitcoin

Bitcoin has been proved to display several weaknesses through its very design. For example, it has been criticised as being weak when it comes to theft or fraud. Between 2011 and mid-2017 there were approximately 980,000 bitcoins (worth $4 billion) "stolen".[5][6] The Bitcoin mining process has also been criticised for consuming far too large a volume of electricity and also taking a long time to settle a transaction.[7]

A lot of CPU time, electricity and people's time are spent settling Bitcoin transactions. Bitcoin Whitepaper, Section 6, Incentive refers to transaction costs as follows:

"In our (Bitcoin's) case, it is CPU time and electricity that is expended. The incentive can also be funded with transaction fees. If the output value of a transaction is less than its input value, the difference is a transaction fee that is added to the incentive value of the block containing the transaction. Once a predetermined number of coins have entered circulation, the incentive can transition entirely to transaction fees and be completely inflation free."

History of Money – Gold Standard, Bretton Woods and the 2008 Credit Crisis – short review

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[5] https://frontera.net/news/bitcoins-market-cap-has-surged-past-the-gdp-of-these-countries/?utm_campaign=Crypto-%20Currency%20Newsletter&utm_source=hs_email&utm_medium=email&utm_content=58410965&_hsenc=p2ANqtz--URnYRmkDgu2AE9RTp3gXaeDteElRsX6wctv-XduxSxgLZu2aAMMmWzhLhwE7q9RcmaqXtHFfgUDm7bB34-yxN4tjq6fewjXeQafQeosCPLWMoOTc&_hsmi=58432405

[6] On 26th January 2018, it was reported that 523 million XEM worth Yen58billion had been hacked from Coincheck, a broker in Japan. Coincheck admitted it was difficult to trace XEM.

[7] https://drive.google.com/file/d/1M4aA-Dt6zpKu1csDEx4cMCxLU6dRmrUz/view
According to TON White Paper, it is estimated that current major cryptocurrencies can process dozens of transactions per second. This process speed is not sufficiently fast enough to be scalable, the Whitepaper implies.

The Gold Standard lasted from 1792 to 1942 when gold was priced at $19.39 (1792 to 1833) to around $35.00 to $35.50 (1934 to 1942). The second world war and the subsequent issuing of currencies by major countries, especially by the US, made no economic sense, i.e. to link an ounce of gold to the US$. The Bretton Woods System then attempted to convince central bankers that the US$ should maintain a constant value relative to a basket of goods and services. This might serve as a substitute for gold, as if the US$ was a form of "paper gold".

Bretton Woods started when the US Government owned 80% of the gold reserves in the world. This abundant US reserve made it possible for the US Government to ensure that US$35 could be exchanged for an ounce of gold at any time. This could only have been possible if the underlying economic assumptions were true. For example, if the US retained more than 50% of global economic activity, or kept 80% of world gold reserves, or if the Fed did not issue new US dollars, or a mixture of these.

The US$ had become the preferred reserve currency and vehicle currency in world trade. Nixon ended the Bretton Woods system, delinking gold from the US$ in 1971. Even after delinking the US$ from gold, the US$ remained the major vehicle currency for world trade.

From 1971 until the 2008 Credit Crisis, a variety of principle-based monetary policies were experimented on by major central bankers. The **floating (or flexible) exchange rate** system enabled different governments to implement different sets of monetary policies. An example of this was when central bankers were able to adopt different inflation targets with flexible foreign exchange systems. In other words, the US, EU and Japanese monetary authorities managed the supply of currencies linked with their real economic activities, directly or indirectly, until financial crises within each economy emerged.[8]

[8] Japan experienced so called "too big to fail" problem in 1997, much earlier than the Lehman shock. At that time, US policy makers criticized Japan's policy of supporting a law for equal

Following the Lehman shock during the 2008 Credit Crisis, major governments, central bankers and the Federal Reserve Board, pressurized by their own governments, gave up their independence and their previously stated principles in order to maintain financial stability. The previously stated principle of central banks was to maintain the link between real economic activity and the money supply. These were supposed to be "temporary measures" for the purpose of saving failed financial institutions but ended up lasting ten years for most countries. The money supply increased substantially, causing asset prices to inflate around the world. This caused a number of technology-literate professionals to shift their belief away from fiat currencies of various nations, now with ballooning national debt, towards cryptocurrencies such as Bitcoin. A number of professional fund managers, and a growing number of businesses, have been shifting their focus away from the cost of living index to asset prices, and abundant money has started to move in the same direction. In other words, away from the government bonds of excessively high debt nations, to owning real assets or to stocks. This has presented an opportunity for Mr. Kusakabe [9] and Mr. Fusa to collaborate over different digital means of value exchange and transfer, which they had both been independently developing until 2017.

Observations

We believe the following: firstly, the US government, the European countries which comprise the EU and the Japanese government - all of them have relatively large national debt (estimated by the Economist Magazine to reach $62 trillion in 2018)[10] compared with their tax income

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treatment where the Japanese government should help the banks after the equity of each bank might depleted.

[9] Yu Kusakabe is the son of Susumu Kusakabe, the Father of Near Field Communication (NFC) and ACCESS SYSTEM ISO/IEC 20933:2016 authorized in May 2016, among others.

[10] You can track the global historical and estimate debt at the following site. https://www.economist.com/content/global_debt_clock.

or economic activities represented by GDP. This cast some doubt in young people's minds as to whether their central banking systems (Fed in the case of the US) are able to support the "value" of the US$, Euro, or Japanese Yen compared with money issued by countries with relatively less national debt.

Secondly, "fractional reserve banking" (see glossary), together with the low interest rate environment, has resulted in cash and money supply available to the world to be huge, disproportionately so relative to the economic growth within these major countries. The surplus of money supply goes to assets such as real estate and stocks. People do not feel the sense of inflation as authorities collate data and publish inflation indices measured by a mixture of products on which people spend for their day to day living. In theory, however, this perception may change if inflation were to be measured by asset price indices. In other words, the major currencies must have been devalued compared with real asset prices like stock prices.

The following four factors, namely (i) disproportionally huge money supply together with (ii) relatively large national debt to GDP by major fiat currency issuers, (iii) fractional banking, and (iv) low interest rates, are the major factors causing many people to shift their belief away from the major currencies issued by central banks to virtual money or cryptocurrencies.

Many people, such as bank customers, have also observed that banks' international transfer charges (or credit card companies' charges on forex transactions) are excessively high. Both banks and credit card companies require their customers to pay between 0.2% to 3% for converting one currency to another. This is one of the most lucrative businesses for some banks. These levels of fees cannot be sustainable with the emergence of cryptocurrencies or alternative digital technologies for transferring money, including internet banking.

About the Supervisors of GMF

Susumu Kusakabe

Susumu joined Sony after graduating from Waseda University in 1981 with a Bachelor's Degree (BA) in Mechanical Engineering.

Susumu designed and developed FeliCa and associated systems. The FeliCa system, with its 21 year track record of operation without a single case of hacking, is regarded as one of the most secure fiat currency payment systems. In addition to other acclaimed systems, Susumu was primarily responsible for the FeliCa operating system to be adopted by Octopus in Hong Kong in 1995, EZ-Link in Singapore in 1997, and JR East's Suica system in Japan in 2000. While at Sony, he was responsible for drafting the International Standards for contactless technologies, which he named "Near Field Communication" (NFC) a key technology standard used around the world.

Susumu joined Mitsubishi Corp in 2005 where he founded Transaction Media Networks, an online NFC payment processing system, which he developed as Chief Technology Officer.

Susumu founded QUADRAC and developed Close Capacitive Coupling Communication Technologies as President. He designed and developed successfully Q-Core for real time servers, suitable for heavy transaction traffic and enabling the EXC Platform to process at least 172 million transactions per day, per Q-Core. Susumu became Chairman of QUADRAC earlier this year and has become a supervisor for GMF.

Susumu's reputation in the world of technology is described in a book called "the Truth of FeliCa", published by Kirakusha in 2018.[11] The original Japanese book was written by a reputable Japanese journalist.

[11] https://www.amazon.com/dp/B07FDXPDK3

Koji Fusa

Koji graduated from Waseda University in 1982 with a Bachelor's Degree (BA) in System Engineering.

Koji joined S.G. Warburg in 1990 and held a number of senior positions in the UBS group until he left in 2000. Throughout the 1990s, he proactively introduced western financial technology into Japan, including Mergers & Acquisitions advisory and capital markets know-how, contributing to the development of the capital markets.

Koji joined Credit Suisse as its head of investment banking in Japan in 2000, after the Credit Suisse Group had experienced a severe scandal in Japan, to restore its reputation and rebuild its franchise. After Credit Suisse's acquisition of DLJ soon after he joined Credit Suisse, Koji became the only resident director representing Credit Suisse's 50% interest in DLJdirect SFG, a joint venture with the Sumitomo Mitsui Banking group. DLJdirect SFG became one of the most successful internet brokerage operations while Koji was a director. He was also responsible for the sale of DLJdirect SFG to Rakuten in 2003 representing all of the shareholders.

Koji became independent in 2004, launching, an equity fund and was awarded the New Fund of the Year award within the Japanese equity market in 2005 by Asia Hedge. After Livedoor collapsed in 2006, Sandringham Fund, which Koji co-founded, had the controlling interest in EMCOM, a system development company for retail FX brokerage systems, for three years. EMCOM contributed to the development of retail FX businesses in Japan to become the global number one market.[12] The combined market share of FX brokerages, who were EMCOM's clients, exceeded 50% market share of Japan's retail FX market.

Since 2011, Koji has invested in a number of private equity investments and holds a number of directorships with a number of companies.

[12] EMCOM offered fast processing system to its clients who in turn were able to offer leverage of 300x to their respective retail customers.

In November 2017, Koji co-founded GVE Co., Ltd., the system development company to create the EXC Platform, with Yu Kusakabe, the son of Susumu.

Legal and organisational structure of GMF[13]

Global Monetary Foundation, a Cayman Islands exempted foundation company with registration number 335826 ("GMF") was incorporated on 22nd March 2018 and is the issuer of a new cryptocurrency called EXcoin, Excor or "EXC" tokens.

GMF does not have any shareholders or members. The board of directors of GMF is responsible for managing the business and affairs of GMF, and is obliged at all times to act in the foundation company's best interests. GMF have two supervisors to supervise the management of GMF. A secretary who is a person licensed to provide company management services in the Cayman Islands has been appointed by GMF, as required under Cayman Islands law.

As a matter of Cayman Islands law and in accordance with GMF's constitutional documents, no portion of the income or property of the foundation from whatever place or source shall be paid or transferred directly or indirectly by way of dividend, bonus or otherwise howsoever by way of profit to any members, directors or supervisors of GMF, apart from authorised remuneration for services to the foundation company.

The EXC Token

GVE is the supplier of the technical solutions and IT support upon which the EXC Platform is built. Mr. Yu Kusakabe and Mr. Fusa decided to develop the system under GVE as a technology company. GVE's claims

[13] From the EXC Platform's view, GMF is a special purpose company holding fiat currencies in order to buy back EXC tokens when the price of EXC token collapses.

were successfully patented in Japan, and the company is applying similarly in the US and Europe. This has enabled the EXC Platform to detach its technology costs from GMF. This structure of alliance between GMF and GVE has the additional advantage of ensuring that GMF is unlikely to go bankrupt because it has limited liabilities and credit risk. GMF will continue to receive technology services from GVE in exchange for GMF lending GVE 25,000 EXC under a loan agreement between GMF and GVE. GVE will enter into an agreement with Quadrac pursuant to which Quadrac will supply Q-Core servers to the platform. This alliance structure means that the EXC Platform will become extremely cost effective in both the long and short-term.

When building the EXC Platform and designing the EXC, we aim to meet the following design principles, in an attempt to bring to market a new generation platform and token:

1. EXC, as a new cryptocurrency, needs to be flexibly exchanged vis-à-vis any fiat currency – in order to capture the upside when a major issuing country falls into crisis;
2. Capable of storing value/ adding credit worthiness;
3. Able to achieve close to zero transaction costs or lowest possible transaction costs;
4. Able to offer convenience – settlement is done within a second;
5. Able to have the very highest level of security – against double spending, against fraud, against money laundering and/or hacking;
6. 100% traceability[14];
7. The EXC Platform aims to eliminate human intervention as much as possible; and

[14] Eventually, it can be used as a digital platform by various central banks.

8. The EXC Platform needs to be flexible enough to be inclusive, like the IMF, and needs to evolve as the technology develops.

Those patents which have already been granted in Japan may be viewed at the Japanese patent office website.[15] We are also planning to post the related patents for the EXC Platform on our website, http://excor.org, as appropriate.

EXC Platform – Importance of Digital Central Bank

GMF functions as a special purpose vehicle and as a "Digital Central Bank". The role of GMF is similar to that of the original purpose of the IMF in the sense that it aims to become the digital version of the bank of last resort for many central banks around the world.[16] As discussed above, GMF is prohibited from issuing any distribution or dividends, bonus or otherwise by way of profit to any directors or supervisors of GMF. The directors and supervisors of GMF have fiduciary duties under Cayman Islands law to act in the best interest of the foundation.[17] GMF is different to the IMF in the sense that the "beneficiaries of GMF's underlying assets" are users of EXC, not governments or shareholders. GMF is also different to the IMF, which employs 2,700 employees, in the sense that it would be managed by a director and two volunteer supervisors with no employees with near fully automated systems with a view to becoming the lowest cost operation in the world and minimizing the risk of bankruptcy. As a result of this, the EXC Platform should be complementary to the IMF.

[15] https://www7.j-platpat.inpit.go.jp/tjk/tokujitsu/tjkt/TJKT_GM301_Detailed.action

[16] Once GMF's capital base surpasses IMF, GMF has a chance to become a bank of last resort. As of December 2017, the total money supplied in the world was $90 trillion. If EXC price goes up to $21 million, then the total capital GMF would have would be $220 trillion.

[17] As discussed above, GMF does not have any shareholders or members, which mitigates conflicts of interest for GMF, which can instead focus on its sole role as the issuer of EXC.

Digital Central Bank: Credit worthiness of EXC

EXC is designed to accumulate foreign reserves like the US$, Euro, Chinese Yuan, Japanese Yen and British Pound by issuing EXC. 21 million units will have been issued (but not yet purchased) by the launch of the EXC Platform. If all 21 million units were sold to the market, the total accumulated assets of this digital central bank (GMF) are likely to be around $220 trillion. This would be one of the largest in terms of a Central Bank's capital, if not the largest in the world. This can be achieved as the technical specification of Q-Core Server[18], the core concept of ACCESS SYSTEMS[19], together with certain proprietary technologies which GMF uses, has unique international competitiveness. This contrasts with Bitcoin where no value store mechanism is created by issuing new coins, as current block chain technology with proof of work concept has no design of pooling credit worthiness, whereas an EXC token will not enter circulation until such time as the market capitalisation has reached a pre-determined level, supported by reserves of fiat currency utilised to increase and decrease EXC token liquidity as required. The economic theory of desired money (for asset allocation) requires the function of storing value. Accordingly, in our view EXC has a significant advantage over Bitcoin because the value of EXC will be supported by fiat currency reserves which will enable GMF to ensure relative stability in the price of EXC. This contrasts with the significant volatility in the value of Bitcoin, which results in a market detriment to Bitcoin functioning as a store of value.

Mechanism to have independent price movement, store value, to increase the value and to increase liquidity

[18] https://www.incj.co.jp/english/performance/upload/docs/QUADRAC.pdf

[19] https://www.iso.org/standard/69494.html ISO/IEC 20933:2016 Information Technology: Distributed Application Platforms and Services (DAPS) -- Access Systems.

As mentioned, the asset price rises have been taking place as more money has been printed in the US, EU and Japan at the same time as public debt has been sky rocketing. Thus, the mechanism to have independent price movement for EXC is a very important feature. Our automated system to supply or buy back EXC, matching demand and supply, ensures that EXC is one of the first market mechanism-incorporated cryptocurrencies.

GMF issued a total of 21 million EXCs. Its n-th coin will be circulated into the market only when the market price of EXC reaches US$N (say 1 millionth coin at $1million). In another words, the market price of EXC will determine how many coins will be circulated in the world.[20] This contrasts with any central bank in the world where people decide how much money supply is appropriate by looking at economic data. This mechanism, where the demand and supply of EXC determines the money supply and thus total market capitalization of EXC, is unique and can be viewed as one of the most market neutral currencies – even amongst fiat currencies.

One of the useful features of EXC is the automated buy back operative mechanism by GMF.[21] GMF's server will automatically engage in buy back operations when the market price falls substantially. GMF has the capability of doing this as it has foreign reserves, first in the form of the US dollar, as well as its proprietary intellectual property.[22] For example, GMF's computer will engage in a buying operation of the n-th coin at, or less than, half of the price that the n-th coin was issued. In this way, as the coin price falls substantially from its peak, the reserve per coin will increase, thus creating more value per coin, in the case that there were similar volatility to that of Bitcoin. Whilst the EXC token is not pegged to

[20] Imagine that the highest market price so far is $N per coin. Then from $(N+1) per coin up to $21 million per coin are offered one of the exchanges in the world.

[21] The liquidity feature of the EXC Platform is explained in more detail in a separate technical paper available at http://excor.org.

[22] Digital Central Bank with buy back operation patent application was granted on 6th April 2018 in Japan.

a fiat currency, this mechanism is also intended to substantially increase the liquidity compared with other cryptocurrencies which are not pegged to any fiat currencies.

Security Features: Tracking 21m coins in addition to tracking people; Unique design to prevent double spending and fraud

Another proprietary technology of the EXC Platform system is as follows: the EXC Platform is scalable to the extent that it is able to trace (i) our 21m unit cryptocurrencies, in addition to (ii) 8 billion people's (and/or entities) accounts in the world, and (iii) all transactions involving our cryptocurrencies. By recording each transaction in three or more different ways to each database, we are able to prevent very early fraudulent or hacking cases such as those which involved Mt Gox or Coincheck. The EXC Platform and EXC token are designed with the intention of creating a safer and more cost effective banking system (in particular, to identify double spending) as compared with the current banking system or Bitcoin.

For further details of this feature, please refer to the filed patent claim under PCT on 5th December 2017.[23]

Inclusive Culture

As reported in the media, a number of central banks[24] are studying cryptocurrency or e-money systems. GMF and GVE will take the opportunity to help central banks which believe in the benefits of using cost effective means of payments, especially for those countries merging themselves into economic cooperation areas, like ASEAN countries in

[23] See https://www7.j-platpat.inpit.go.jp/tjk/tokujitsu/tjkt/TJKT_GM301_Detailed.action
Patent filed under GVE Co., Ltd., 4F, 13-1 Nohonbashi Kabuto-cho, Chuo-ku, Tokyo, 103-0026, Japan, and granted patent in Japan on 6th April 2018.
[24] Sweden, Norway, Russia and IMF are among the others.

2020. The governments have the ability to create fiat money indefinitely and can limit the use of cryptocurrencies even though cryptocurrencies have better features compared with fiat currencies. Governments, at the same time, have responsibilities to circulate the smallest fiat currency units at the minimal cost in order to save tax spending. In addition, many countries are considering whether to eliminate cash payments as the costs of keeping cash in circulation are very high and borne by banking intermediaries who in turn pass them on to their customers. This makes cooperation between governments and GVE/GMF mutually beneficial as substantial costs are saved through each central bank or bank intermediary's outsourcing its fiat currency e-money system based on the EXC Platform.[25]

Anti-money laundering feature – Privacy v. non-secrecy

EXC Platform is designed to have other features which improve upon the weaknesses of those of Bitcoin. We have designed the EXC Platform without the privacy or secrecy of owners at GMF or at least EXC full unit level. This is because we acknowledge that digital currency might be used by criminals or used in cases of fraud which look to take advantage of the anonymity feature that certain cryptocurrencies offer their users. In our view, those people who use EXC should be proudly confident when using our cryptocurrency as the use of EXC can only be used in a legitimate way; it is GMF's principle that we are able to have full traceability of all of our money transactions.[26]

Evolution Principle of Systems

[25] FeliCa has achieved less than 0.5 mili Watt per transaction energy cost. This is so small compared with a major credit card company's energy cost. The EXC Platform aims to achieve even smaller energy cost than those of FeliCa.

[26] Fiat currency amount reached $90 trillion, which is much larger than the total cryptocurrency market. See http://money.visualcapitalist.com/worlds-money-markets-one-visualization-2017/

Even the most advanced concepts run the risk of becoming obsolete in 30 years. Thus, we will encourage and anticipate the evolution of the GVE Platform, which is our last principle. EXC owners should understand this principle and should welcome evolution as long as the first five principles are adhered to. The five principles are: 1. Totally flexible exchange system for any other currency; 2. Capable of storing value; 3. No transaction cost; 4. The highest level of security available; and 5. 100% traceability.

Owners of our cryptocurrency should benefit from the development of future technology. Currently, Quadrac is by far the best vendor to make our initiative possible. This is due to its advanced position of its powerful Q-Core server, which is currently the most energy effective product in the market. Its CCC technology, if it is developed correctly, will enhance the savings of electricity even more substantially. In the event that Quadrac loses its technology edge, the EXC Platform will be served by different vendors following the expiry of any lease entered into for the use of Quadrac technology.

Cost Effectiveness – To Forward Thinkers

Potential users of our currencies may wonder how it might be possible for GMF to maintain not charging transaction costs. Nothing is 100% certain in this world. Our hypothesis is as follows: the central bank should be able to earn money from its underlying assets. The IMF employs 2,700 paid employees, but although GMF has entered into agreements with certain advisors and service providers; it does not have paid employees. As you will see from the IMF annual report, SDR, a mixture of five currencies, produces positive interest. GMF, by having only currencies with positive interest rates, should be able to earn interest through its foreign reserves. In fact, this is what banks had been doing for a long time until the 2008 Credit Crisis. Banks' interest rates offers should be positive enough to cover their entire settlement costs.

It is rather new to charge transaction fees, which in our minds should be reduced substantially if banks' management understand how best technologies can be applied.

Timetable of principal events

The following is the order of recent events that have taken place.

- Principal design of the EXC Platform created and first draft written in June 2017
- Discussions took place among key members and a system development company was formed in November 2017
- Three key patentable technologies were filed under the patent cooperation treaty on 5th December 2017
- The patent for 13 claims covering all three major areas was granted in Japan in April 2018
- A patent claim was filed for Europe in July and was filed for the US in August 2018, for the same claim as the one that was granted in Japan
- Marketing in the UK starts in September 2018
- Preparing an alternative exchange in the UK in the case no existing exchange deals with EXC when the Platform is ready

The following is our current plan:

- To launch the first version of the EXC Platform by early 2019
- To start book building for the main sale by a partner exchange as soon as the Platform is ready for launch

- If the demand is stronger than $121 million, the allocation to each partner exchange will be scaled back proportionately and communicated with each partner exchange
- Listing complete and start trading
- An exchange may open only during UK time 9:00 a.m. to 17:00 p.m. from Monday to Friday for the first 12 months. During the first 12 months from the operation, the EXC Platform will be debagged and upgraded
- To apply for EAL 6 security status under the Common Criteria over the next three to four years
- To market the supranational currency concept after confirming that the Platform achieves semi-automatic level, the level which certain companies call “artificial intelligence level”

How to apply

In order to apply to participate in the token offering, please see the details set out on our website at http://excor.org.

Listing plans

We plan to negotiate an existing exchange to list the EXC as soon as the EXC Platform is functional. GVE intends to establish an affiliated exchange to ensure the transferability of EXC in case no existing exchange agrees to list the EXC with reasonable terms.

Fees and Spread

Brokerage Fee and Spread – the fees payable by EXC purchasers to an exchange will be set by the respective exchange.[27][28]

Token Sale Fee – The amount payable to GMF in respect of any token sale, for GMF to, amongst other things, contribute to its reserve, will be transferred after legal and other fees and costs for third parties. In the case of future token sales, this will include, but not be limited to, an average gross fee of $12.5 million, reserved for each 5,000 token sales by design, for the total of introduction, underwriting, hedging, placement and other third-party costs. This fee will be collected by the overall coordinator of the sale, which might be different from time to time. This is in addition to any brokerage fees charged by an exchange. A 5,000 token sale may take place from time to time, including by means of a bilateral agreement with a governmental agency.

Risk Factors

This whitepaper has not been filed with, or reviewed by, nor is GMF regulated by, or subject to the supervision of, the Cayman Islands Monetary Authority ("**CIMA**") or any other governmental authority in the Cayman Islands. Neither has CIMA nor any other governmental authority in the Cayman Islands passed judgment upon, or approved the terms or merits of, the EXC Platform, the sale of EXC or the accuracy or adequacy of the information contained in this whitepaper, nor is it intended that any such authority will do so. The sale of EXC is not subject to supervision of CIMA or by a regulator outside of the Cayman Islands and the

[27] A third party exchange is proposing that they will charge $1,000 on top of $12,000 per coin for the main sale. This is equivalent to 8.333% of the sale price to the retail purchaser.

[28] As of the date of this whitepaper, GMF and Excor have not entered into any agreements with exchanges regarding what fees and spread may be applied in relation to EXC trading activity, and there is no guarantee that any such agreements will be entered into at a future date. As such, GMF and Excor may not have any role in determining the level of fees or commissions which may be applied to EXC transactions on exchanges. We are hoping, however, that exchanges may set the spread in the region of $1 per token which is 0.008% if the token price at, say, $12,000

requirements considered necessary for the protection of purchasers that apply to a regulated entity under Cayman Islands law.

Please refer to the additional risk factors set out in the Appendix of the Token Purchase Agreement which can be found on our website at http://excor.org.

Changes to structure

The supervisors may amend this document and the structure, functions or any other aspects of Excor, GMF, the EXC Platform, the EXC token and/or the token offering at any time in their sole discretion if, for example (but not limited to), the tax, legal or regulatory position changes or it is more favourable from a tax, legal or regulatory position to make such amendments.

Defined Terms

Artificial Intelligence or AI:
https://en.wikipedia.org/wiki/Artificial_intelligence

The financial industry is one of the most advanced industries in which a semi-automatic system has been used extensively. For example, circa 2,000 automated computers are allocating money into the liquid securities and FX markets in the world in 2017. They analyse the historical price movement of the marketable securities or currencies and try to predict the price direction as soon as economic data or news is announced. These AI machines have no ability to create original thinking, but they are fast to analyse the historical patterns and project the future movements.

Bancor:

A concept designed by John Maynard Keyens for a super national currency. See https://en.wikipedia.org/wiki/Bancor

Common Criteria: (https://en.wikipedia.org/wiki/Common_Criteria) The international standard in information technology to measure the level of securities. (ISO/IEC 15408)

Evaluation Assurance Level (EAL): (https://en.wikipedia.org/wiki/Evaluation_Assurance_Level) Under the Common Criteria, as the EAL number goes higher, the security level defined under ISO/IEC 15408 is regarded higher, meaning it is considered stronger against attacks.

Fractional reserve banking: https://en.wikipedia.org/wiki/Fractional-reserve_banking

IMF: International Monetary Fund: https://en.wikipedia.org/wiki/International_Monetary_Fund

Q-Core server: A server suitable for heavy traffic transactions developed by QUADRAC. It has the capacity to settle at least 2,000 TPS or 172 million transactions per day, per one Q-Core server. It is able to process settlement transactions within 0.2 seconds.

Scalability: The scalability in the digital money system is typically measured by three criteria. The first is the energy cost per transaction. The others are the time of execution and the number of transactions per day (or per hour or per second). A system is scalable if the per transaction energy cost is low, the time of execution is short, and the number of transactions per day is large.

Security: as defined under the Common Criteria.

Settlement speed: Typically expressed by minutes. According to https://www.mintcoinofficial.com/, on average it takes Bitcoin 65 mins and ETH 3 minutes to execute a transaction.

TPS: Abbreviation for transactions per second. According to https://www.mintcoinofficial.com/, on average Bitcoin can process 32 TPS, while ETH can process 16 TPS.

Vehicle currency: http://www.encyclo.co.uk/meaning-of-Vehicle%20currency