



Abaku Capital

a stable coin facilitating cross-border transactions

Whitepaper — Version 0.3 — February 16, 2019

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Audience

This paper is addressed to investors and analysts keenly interested in the details of our vision for the sake of fulfilling due diligence obligations

The writing is presented unabridged and spares no detail in expressing the blue-sky conception of what may be built with the funds raised in the company's financing efforts. To that extent it is lengthy, and not addressed to the general public

This document is not a business plan, and does not detail the mission, nor devotes much time to implementation particulars, but rather to the vision that guides the company's efforts

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Abstract

International trade is the engine that powers human progress, the basis for social advancement, the foundation for eliminating war, famine and disease from our future

But trade is hampered by sovereign borders and its reliance on a centuries-old financial infrastructure

With the development of trustless, decentralised networks, it is possible to revolutionise how cross-border transactions are settled, removing foreign exchange risk from the equation, and thus fostering a greater volume of international economic cooperation

*The blockchain cannot be described just as a revolution.
It is a tsunami-like phenomenon, slowly advancing and
gradually enveloping everything along its way by the
force of its progression*

— *William Mougayar*

To capture the full value of the blockchain-based currency models, the company's solution space consists of a dual-token offering: one coin to serve for transaction settlements, the other to store the value generated by the first

The resulting system will create a benefit that naturally leads to the planetary-wide adoption of the company's currencies by powerful supranational forces, with the eventual replacement of sovereign currencies in sight, which has been the ultimate goal of the cryptocurrency community from the start

Background

Trade is the cornerstone of civilisation and today defines the balance of power in the world. It is the exchange of value across borders that underlies the advancement of our societies and the eradication of poverty, which go hand in hand

The biggest single thing that has lifted people out of poverty is free trade.

— *George Osborne*

According to the World Trade Organization¹, in 2017 the world exchanged the equivalent of 23 trillion US dollars in goods and services — a figure that represents a colossal increase of 72x over a 50 year period², or a sustained growth rate of 144% *per annum*

In other words, the world's ability to produce and exchange goods and services is improving, and trade is the very entelechy of our progression. As economic activity increases, so does wealth, which itself powers further economic activity, thus creating a circle of virtue

It is advancements in science and technology that have allowed the fields of manufacturing, logistics, transportation and supply-chain management to vastly evolve in coping with the ever increasing volume of international trade. Even the political landscape, attendant in this march towards higher global standards of living, has transformed itself significantly to facilitate growth

What has not changed at all is the financial infrastructure

¹ WTO: World Trade Statistical Review 2018 [<https://goo.gl/KBEP3E>]

² Statista: Trends in Global Export Volume of Trade in Goods from 1950 to 2016 [<https://goo.gl/VxRMpH>]

Market Opportunity

It is said that nature abhors a vacuum. In the same sense, human society seeks to match labour to natural resource, capital to entrepreneurship, and product line to marketplace, generally resulting in transactions across sovereign borders

Under the present regime, these transactions imply foreign currency risk to both participants, particularly as the time between the closing of contract negotiations and the settlement of a transaction increases, or as the net valuation of the transaction does

In fact, F/X risk is inherent in the partitioning of the commerce space by way of sovereignty, or more specifically, the isolation of market participants within the sphere of national or trade-zone currencies

Consider that Airbus Industrie, in selling aircraft to Saudi Arabia, may contractually agree to delivery of its labours at a price denominated in US dollars. The arrangement may seem odd since neither party employs the dollar internally, but owes to the centrepiece dollars have held in the world, as the *de facto* currency of trade, since the signing of the Bretton Woods accord³

The agreement is entered into by the manufacturer with a clear understanding of its cost structures as denominated in Euro. Conversely, the buyer has a budget denominated in Saudi riyal

But the making of flying machines is a lengthy, complicated process and payment is made only once the merchandise has shipped. The parties are therefore both at risk that the exchange rate of either of their currencies will shift during this period, which may extend to years. Additionally, as the sums in question can be large, the risk of loss on either side is not insubstantial

Should the dollar weaken against the Euro, the shortfall for the manufacturer could be sufficient as to make the deal unprofitable. On the kingdom's side, should the riyal weaken against the dollar, the purchase may overrun its budgets, causing the disruption of internal planification

The basic problem exists even when we eliminate the intermediate currency and owes to the fact that conversion of funds is performed either at contract signing or when product ships, exposing one party or another to risk. So either the buyer suffers from having converted at time

³ Wikipedia: The Bretton Woods System [https://en.wikipedia.org/wiki/Bretton_Woods_system]

of signature because the seller may break the contract and the purchased currency has devalued, or the seller suffers from conversion at the time of delivery because its currency strengthened

Additionally, F/X risk is not limited to cross-border purchases: it can also derive from debt obligations where the costs of maintenance are denominated in a foreign currency, from exposure to overseas subsidiaries, or even simply from holding assets in foreign jurisdictions



The solutions suggested to customers by HSBC⁴, a leading player in the F/X markets, seem surprisingly limited:

1. facing the volatility of the spot markets,
2. purchasing forward contracts, or
3. the use of options contracts

Of the aforementioned approaches, options contracts are clearly the superior solution since they grant the purchaser the choice to exercise only when the shift in rates is unfavourable — or favourable, depending on whether calls or puts are employed. The instrument presents an asymmetrical relationship to rate fluctuations in that if the currency cross moves against the holder, the option may be exercised to protect the position, but in the reverse does not forego the resulting enhanced profitability, like forwards do

However due to the high cost of premiums, which are highly responsive to volatility, the solution is too expensive in most cases. According to Vargas-Kessakorn⁵, put options only become competitive at strike prices of 15% or higher over spot, but such volatility is never experienced in the “major pairs”, the crosses that bear the bulk of global trade, namely the USD/EUR, USD/JPY, USD/GBP and USD/CHF

The forward exchange contract thus remains as the primary means of hedging against currency volatility

But it is not without drawbacks. To start, these instruments have not been standardised with regards to lot size or term, and are available only on over-the-counter markets. This means that the pricing discovery mechanisms afforded to exchange-traded derivatives are wholly missing in their case i.e. they're not cheap. Also, whilst for most currency crosses, 12-month contracts are

⁴ HSBC: Identifying and Managing Foreign Exchange Risk [<https://goo.gl/obgWyn>]

⁵ Forwards versus Options: Effectiveness in Hedging Currency Risk in International Portfolios [<https://goo.gl/V7qvfa>]

available, only for the majors are these found in longer terms like 10 years. Finally, most such contracts are non-cancellable, locking both parties into the agreement

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The foregoing concerns a *status quo* where the financial infrastructure has proven adequate in solving the problems of international trade

The opportunity must therefore lie in a new approach i.e. what seems insoluble under the current financial infrastructure can only be solved by disrupting and redesigning said model

In our estimation the solutions lie in the field of distributed ledger technologies

Solution Analysis

Foreign exchange risk, at its core, rests on the fact that participants in a trade are tethered to different economies. As these economies expand or contract, they do so at different rates, creating a differential expressed in the currency trading pair. It is the inability of participants to correctly predict the rate at a future point in time that creates this risk

A solution therefore suggests itself: should transactants unify their unit-of-account, the problem would be solved

But this is problematic for a number of reasons, not the least of which is that nations have an interest in maintaining control over their monetary policies and thus force conversion of foreign inflows into the local currency

Of course, the widespread acceptability of any candidate currency would also be requisite i.e. for a manufacturer to be able to pay its vendors in a foreign currency, they must be willing and capable of accepting it, which implies legal, accounting, financial and tax considerations

In that sense, the dollarisation of a nation — as is the case with Ecuador — solves the problem, *but only when trading with dollarised counterparties*

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Until quite recently the US dollar's hegemony over international trade seemed unassailable, primarily because any competing currency would:

- A. need to be issued by a sovereign government, which would immediately feel diplomatic pressure from the world's remaining super-power to back down, and
- B. structurally not be safer, less volatile, more liquid, faster nor in any way superior to the greenback

But Satoshi Nakamoto's solution to the Byzantine Generals' problem⁶ has changed the future of our financial infrastructure forever: with the bitcoin codebase, issuance of a currency may now be done by anyone

⁶ Wikipedia: The Byzantine Generals' Problem [<https://goo.gl/ofvqW>]

To solve the problem of cross-border payments is now relatively simple: replace the US dollar with a stablecoin

In essence, the problem is solved if market participants can avoid the need to cash out of the stablecoin i.e. so long as they can satisfy their obligations to others with the same currency they earn, the F/X problem disappears

Candidate Structures

So why not bitcoin? Because key to trade is stability and any cryptocurrency with a fixed supply may experience large volatility swings that are anathema to international trade

What about tethered tokens like USDT or Circle's USDC, which offer a one-for-one relationship with the dollar? From the perspective of international trade, such tokens provide great advantages over traditional fiat, yet they present the same challenges as the dollar itself in terms of F/X risk

In creating a common currency, the following criteria would seem useful:

- The coin should represent real value i.e. it should offer collateral or "backing" that guarantees its value
- Its value should be independent of the value of any nation's currency i.e. it should favour no nation in particular
- The coin should be stable, which is to say, present the lowest volatility possible
- The market for it should be readily liquid i.e. large orders should present no slippage issues
- The coin should be retail friendly

Perhaps tokenisation of gold might seem appropriate. This would seem natural since the gold market is liquid and most nations' central banks already hold it in reserve, but the solution simply transfers the risk from the local currency to the precious metal, which itself is not immune from volatility, and also favours large stakeholders

A more suitable solution for cross-border transactions would be to tokenise the International Monetary Fund's SDR, the Special Drawing Rights coin that is available exclusively to central banks. The value of the SDR is comprised of a basket of US Dollars, Euro, Chinese Yuan, Japanese Yen and British Pound, the composition of which is re-evaluated every 5 years to reflect the

trade of major international trading nations

Currency Adoption

Ultimately the solution is not about the nature of the coin so long as the chosen solution provides stability across international economies. It is about something more profound: monetary unity across nations — such as that accomplished by the Maastricht Treaty⁷ in the creation of the Euro. In other words:

the mission consists of creating planetary-wide adoption of crypto by facilitating the business of the import/export markets

Global adoption represents the permeating goal of the cryptocurrency movement and is an inevitability, owing to the fact that crypto is simply better money than fiat

Where this project differs is in its approach: rather than appealing to the citizen with the lure of greater personal freedom from the state, we focus on facilitating the business of the largely independent, transnational forces behind international trade that ultimately drive policy

Use of a cryptocurrency carries a number of benefits to the user as follows:

- Reduces transaction costs — via use of decentralised networks that charge zero fees for fund transfers, such as EOS, transactants are able to eliminate banking fees altogether
- Reduces the duration of transactions — payments that are currently effected in a matter of days, sometimes weeks, are reduced to milliseconds, which increases efficiency
- Eliminates complexity — circumventing the banking system also means eliminating the complexity and risk of compliance inherent in cross-border transactions, since cryptocurrencies are not subject to government controls. Additionally, smart contract technology allows for implementation of services such as efficient and reliable tracking, trustless escrow services, and a myriad other benefits properly germane to the import/export business
- Increases security — not only can confiscation by abusive agents be avoided but also, with the proper security measures, hacking and theft can be eliminated completely, a malady of which the banking sector suffers greatly

⁷ Wikipedia [https://en.wikipedia.org/wiki/Maastricht_Treaty]

In addition to the foregoing advantages, there exist a number of use cases poised to drive adoption, as described in the sections below

International Trade

The Abaku token would be traded between international businesses. This would remove virtually all transaction fees per transaction. The token is physically backed by actual fiat currency represented by the SDR reserve, so transaction costs are only incurred on entry and exit from the stablecoin. In addition, many international transactions rely on letters of credit that require some type of performance before settlement. With the use of smart contracts, it should be possible to layer performance criterion on certain transactions so they could be executed seamlessly on verification of the performance criteria removing another pain point and expense from the process

Exporters from nations where strict currency controls exist, will benefit greatly from being paid in Abaku since this value can be held outside of banks and re-exported without the interference of local interdictions

Hyperinflation

Nations suffering from rapidly devaluing currencies like Venezuela, or those that have destroyed their currencies altogether like Zimbabwe, will also prove fertile grounds for acceptance of the stablecoin

Consider that international trade with Venezuela has all but halted on account of the refusal of international banks to handle the Bolivar. The import of this is measured in the loss of billions of dollars in trade that could be facilitated by the stablecoin

Nor is a complete halt of trade necessary for adoption. The nation of Zimbabwe, where no official currency currently exists, does trade but at substantial premiums, to compensate for the spiraling bond-note system used as financial life support. In such cases, and particularly given the retail friendliness of the stablecoin, it is not inconceivable that adoption could happen at the national level

Currency Manipulation

As with other nations whose exports rely primarily on the American market, it is essential for Japan to maintain weakness of its currency with respect to the US dollar. This stance makes its productive output cheap for Americans and keeps the factories running. However, as an island nation bereft of natural resources, the Bank of Japan faces a conundrum: whilst a weak yen is good for exports, it raises manufacturing costs by making imports more expensive. The BOJ

cannot have its cake and eat it too

In this use case, the Abaku token could save the day in allowing the BOJ to strengthen the Yen relative to its imports, but relieving its reliance on weakness against the greenback by shifting exports to the stablecoin

On a more individual level, manufacturers accepting the stablecoin would also become more profitable as their net worth is maintained in a currency that's not depreciating. This means that as the yen falls in value, their purchasing power does not diminish and thus profitability rises. This structure creates a competitive edge that other manufacturers must follow lest they lose market share

So adoption at this level has virality

The Abaku Token Economy

Implementation of a stablecoin is not trivial. To start, there currently exist no successful models for either decentralised tethering, or for algorithmic, self-balancing price stability⁸

However, assuming access to acceptable alternatives, stablecoins suffer a malady properly germane to the efforts of a startup: by design, they offer no mechanism for wealth generation. The approach we propose would generate the following returns:

1. Abaku is structured as a mint-and-burn token, run on a decentralised network, with entry, exit and usage fees designed to make its use competitive with those currently paid for F/X hedging tools such as forward contracts. In some ways, this coin behaves like an ETF where the underlying security represents the basket of goods that are used as collateral
2. Income is generated by the fees above as well as deposit interest from the underlying fiat currency reserves which could be substantial on widespread adoption

Competition

Certainly Abaku won't be the first stablecoin available in the marketplace, nor will it be the first asset-backed token publicly traded, *exempli gratia* the Security Token Offering (STO) model offers currencies backed by equity, Digix (DGX) and OneGram (OGC) *inter alia* have tokenised gold, Atlant (ATL), LA Token (LA) and others have focused on real estate, and there are tokens to

⁸ Though certainly Maker's DAI technology is interesting, it is not yet battle-tested and remains to prove its worth in the field. A review of their whitepaper is certainly worth the time: <https://makerdao.com/whitepaper>

represent debt instruments, water rights, cannabis, baskets of commodities such as Tiberius and Veritaseum, *et cetera*. Even warehouse receipts in the agricultural commodities market have been tokenised, as with Binkabi

*But none of these solutions are focused on the problems
of international trade*

Ergo, our competitive advantage lies in our ability to properly identify a niche market with enormous volume and a very specific pain point. What will allow us to gain dominance in the market is an admixture of business savvy and technological know-how, because we understand both what the problem is, and how to deploy cutting-edge financial technology to solve it

Business Strategy

Initially, the project will focus on developing credibility and a tuning the business engine to the needs of its pilot customer base. Certainly, its relationships in New York banking circles will help in both curating the initial user base, and lending the respectability the business needs at first

From a legal perspective, the strategy will seek to minimise compliance costs and regulatory burden by selecting a jurisdiction both friendly towards the crypto space, and well respected in the banking world, such as Luxembourg or the Cayman Islands

Over the mid-term the company will reposition its product to focus on those trading channels with heaviest traffic, both in terms of gross product traded, and currency cross volume.

The longer term will see the company appeal to emerging markets that both cost more to support but also have the greatest potential for growth

Social Impact

Lowering the cost of international trade produces wealth for its participants, but by the nature of the business, these entities are large and lack no means

From a social responsibility perspective, a portion of the wealth accumulated will serve as a base for philanthropy in the form of fostering international trade on a smaller scale. From helping small American farms to export alpaca wool, to facilitating the product of Andean bee keepers reach their Canadian customers, our company will invest in helping the small player

We believe that the future of international trade lies in this market segment and by nurturing it

the world will benefit, as will we

Technology Stack

Today a wide diversity of distributed ledger technologies (DLTs) exist from which to select the foundation of our solution. The technical requirements for our solution are as follows:

- Scalable performance — the underlying platform must be able to handle large volumes of transactions as the business is expected to grow globally at an industrial scale
- Minimal transaction costs — the chain used must offer low or zero cost transactions so as not to diminish the profitability of the project
- Turing-complete engine — the virtual machine model supported by our selected platform must offer the facilities to express arbitrarily complex business logic
- Retail support — the tokens we use must find: a) widespread support across exchanges, since our collector token will be made available to the public at large, and b) sufficiently available wallet support such as web-based wallets, hardware wallets, mobile and desktop wallets

Due to the aforementioned requirements the choice of platforms for the project is the Block.One EOS mainnet, a choice supported by the founders' close relationship to the EOS community and their technical acquaintance with its architecture

For completeness, other DLT platforms were considered, including Hadera's Hashgraph, Stellar, Radix and IOTA, each of which present differing challenges

Token Economics

Tokenomics, as it is colloquially referred to, is the discipline of designing economic models, built on distributed ledger technologies, bespoke to a given business ecosystem i.e. it is the proper application of modern technological advancements to the alignment of incentives for an ecosystem's participants

In the case of our solution, the incentive is two-fold:

1. To increase trade volume, and
2. To reduce trading costs

Roadmap

1. Develop core concept and write whitepaper
2. Raise initial round of funding
3. Establish legal entities to operate the project
4. Develop initial codebase for both tokens
5. Create and manage a pilot programme
6. Establish partnerships for production rollout

Founders

Gino Pereira

Gino has over 30 years of executive, operational and financial experience with technology companies in the United States, Europe and the Far East. He has also helped to develop several technology start-ups as well as served in an executive capacity in a large multinational public company. Gino was Chief Financial Officer and later Chief Executive Officer of Technest Holdings Inc., a publicly quoted defense contracting company, from 2004 to 2011. He is currently Chief Executive Officer of NXT-ID, Inc. a NASDAQ listed public company specializing in IOT, healthcare and financial technology. Gino is a Fellow of the Chartered Association of Certified Accountants (UK) and has an MBA, with a specialty in finance, from the Manchester Business School in England

John Terrill

Born in Pasadena, Texas, John is not a native Oklahoman, but after extensive international travel - he calls Oklahoma home. After completing his undergraduate degree in finance from Oklahoma City University, John set himself abroad to Tianjin, China. There he worked as a

commodities pricing analyst and attended graduate level courses at Tianjin University of Finance and Economics. Upon completing his MBA with a specialization in International Business John returned to the US and began working in the Bankruptcy and Liquidation industry, assisting in the management of assets under receivership. With education being a continued focus in John's life, he worked to attain his licenses to offer financial advisory services to the public. John currently maintains a series 7 and 66 securities license. Although, John left China many years ago, his work there has never stopped. John consults with several multinational corporations on cross border transactions. John's experience in cross border transitions has driven John to look for a better solution for the volatility that exists in potentially protracted transactions. Abaku helps to transfer that risk from participants to a hedged environment managed across broad currency markets while doing so in a low-cost platform. John is the principal of Synergy Advisors Group.

Erick Calder

Founder of bitXpress, a bitcoin solution addressed to the unbanked, and the me'mi-ki network, an IRC-based peer-to-peer network, Erick is the former Chief Strategist for the Einsteinium ecosystem. He currently consults on blockchain matters for Qubechain, Ubiquicoin, Dashboard Earth, Tripp, and the Givit Foundation, additionally serving as advisor to the Vevue video delivery platform, the EOS-based influence marketing solution Buttrfly, and a number of other initiatives

A fervent advocate of cryptocurrencies, Erick publishes often on Medium (<https://medium.com/@ekkis/latest>)

Disclaimers

This white paper has been prepared solely for the purpose of informing potential contributors to the Abaku marketplace and token ecosystem with respect to a proposed technical implementation of, and architecture for the Abaku funding event protocol and smart contract. This whitepaper is non-binding in all respects and does not create any legal obligation of any kind on any person.

The ultimate implementation of the Abaku funding event and the smart contract is dependent upon several factors and risks outside of the control of the team, including regulatory risks, contributor participation, the adoption of blockchain technology and the continued use and adoption of the EOS blockchain.

Nothing in this whitepaper or otherwise shall require the team to take any steps to develop or otherwise implement the funding event protocol or its smart contract. Abaku Capital reserves the right to abandon the effort and/or to change the implementation of the project contemplated by this white paper at any time and for any reason. Prospective users of the Abaku token marketplace and other contributors to the smart contract and its tokens are advised to contribute and/or participate at their own risk and without reliance on any statement contained in this white paper.