



SwissBorg

White Paper

WHITE PAPER

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Abstract

The banking industry does not look the way it should in the age of digitalisation. Bad practices from a monopolistic banking system are lingering and financial players have been reluctant to embrace change.

Professional wealth management services remain only reserved for the elite client base while the vast majority is strictly cut-off.

Notwithstanding signs of changes in client's expectations, it is still difficult for bankers to be confronted with reality. The reality is that there is an urgent need for a community-centric approach where the banking system benefits are for all, not just a few. That is a pattern already seen in times of great disruption.

Today, together with the community, we have decided to fill in the gap by building a self-regulated banking system where everyone benefits from the best DAO standards combined with a meritocratic Cyber banking system.

The first prototype banks that made grain loans to farmers and traders who carried goods between cities began around 2000 BC in Assyria and Babylonia. Since then, banking did not stop to reinvent itself with innovations, or to rebalance the status-quo.

Over the last few years, Blockchain has emerged as a potentially disruptive technology. The core of this innovation is built around the concept of a distributed consensus ledger, where the ledger is kept and maintained in a distributed network of computers. It is possible for the entire network to jointly create, evolve and keep track of one immutable history of transactions or other successive events, which in a nutshell is the main functionalities offered by banks.

Up until recently, the most prominent Blockchain technology application has been a cryptocurrency known as Bitcoin. Bitcoin, however, is just the first of many potential applications of Blockchain technology.

As we write these lines, the combined market cap of cryptocurrencies surpasses \$90B, which confirms that user adoption is taking off. Despite this strong momentum, cryptos are still generating confusion and there is a very strong call for benchmarks to monitor and track their behaviors. In addition, the basic wallets' value proposition does not offer lean investment solutions to earn any yield besides the natural fluctuations of the cryptocurrencies. The combination of self-learning algorithms, swarm intelligence and smart contracts could enable entirely new financial services, which are eagerly awaited by the crypto-community.



The scope of SwissBorg is beyond our own view. Indeed, we will abet the community to build itself by bringing guidance and the best of breed financial practices. By doing so, our MAST (meritocracy, accessibility, Swiss made and trusted) philosophy combined with our business practice CADDO (customization, automation, digitization, decentralisation and optimisation) have been and will create efficiency all along the investment chain until the community would be mature enough to sustain itself.

The ultimate goal of the project is to build a community around truthfulness and a democratic banking backbone where investment services are always delivered in accordance with community expectations.

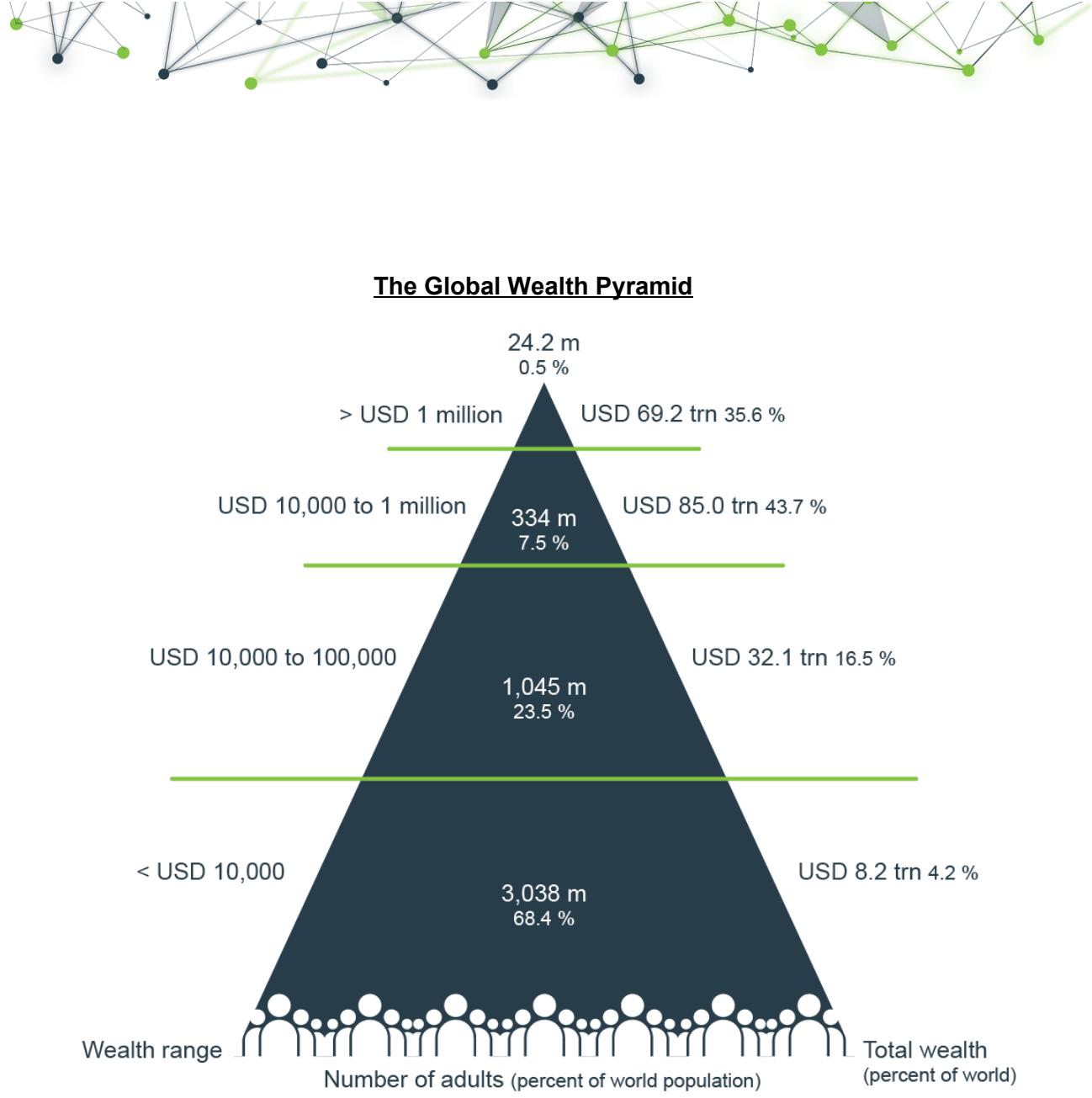
The Lack of Innovation in Wealth Management

In the history of modern financial-services, the opportunity for new contenders to become tomorrow's leaders has never been so great. This is a life-time opportunity for the Blockchain community.

Through robotics, automation, self-learning algorithms and decentralization, digitalisation is disrupting banks business models by significantly reducing costs and immensely driving market-share gains through digital acquisition of clients.

Today, investors want more personal, real-time and effortless experience delivered at a fair price. The clients' onboarding-process, which client historically consider complicated, time-consuming, and not portable, should be revisited and entirely reshaped. Investors cannot accept any more predefined portfolios with inadequate support, or financials advisors that left them in the dark with no control over financial decisions.

Companies must design a financial backbone for generation X and millennials. By 2020 they will control over half of all investable assets (30 Trillion\$). Most importantly, 70% of the population of that don't have access to wealth management solutions:



Source : Credit Suisse Global Wealth Databook, Shorrocks/Davies/Lluberas

On the other hand, cryptocurrencies are lagging behind to be classified as an asset class and there are few, if any, tailored investment solutions or financial advisors available to crypto-holders. Indeed, the disruptive power of the Blockchain continues to be underestimated by most of the financial players despite an exponential community growth. Plus, Blockchain-believers do not benefit from best-of-breed investment practices for their wealth. Not anymore...

In a nutshell, the financial black box desperately needs to be rebuilt into a financial transparent cyber box. Precisely, this is our mission.



Off-Chain Limitations

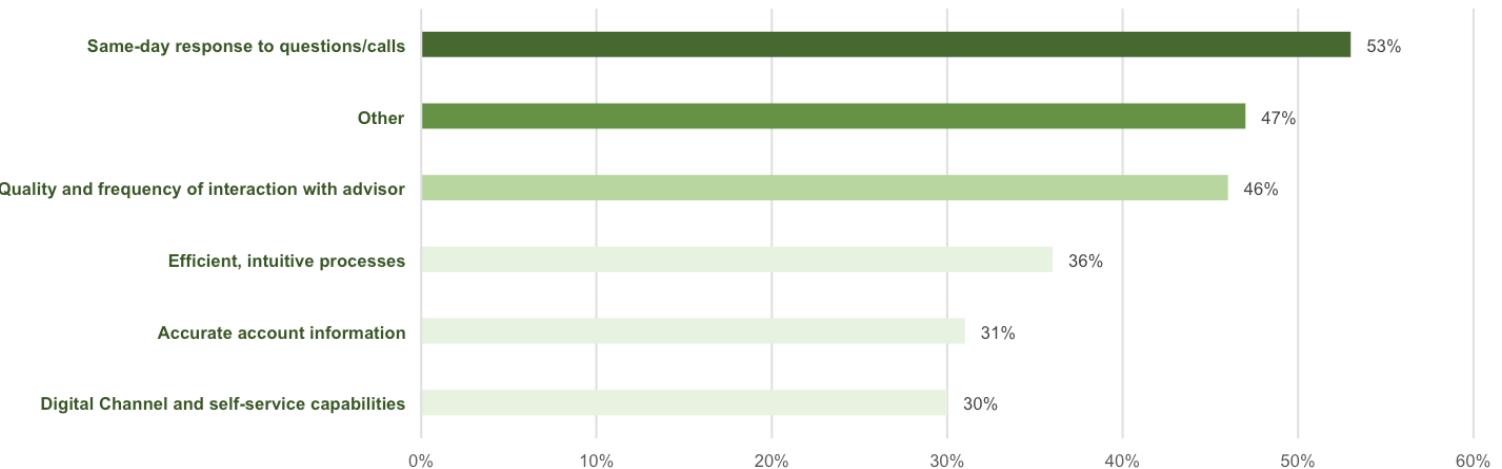
Investment Management Status-quo

Trust has always been an essential aspect of a mutual benefiting and successful relationship. Too often, due to a centralized financial system that creates an imbalance of information, second-tier financial advisors have failed in their engagements towards clients. Trusting someone to hold and manage your money while experiencing misguidance and imprecise information on your investments gives the sensation of being imprisoned and being at the mercy of the financial advisors. Clients cannot tolerate such misconduct and asymmetry of information anymore.

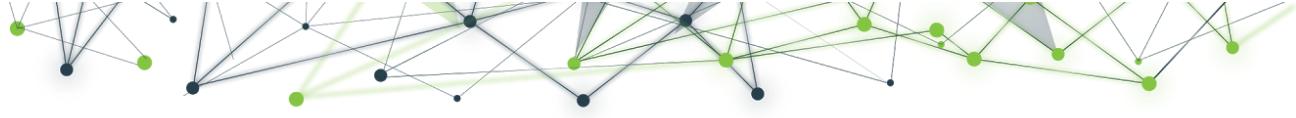
The meaning of trust and how it is earned is at the heart of today's revolution. No longer is it acceptable for clients to build trust solely on the notion that the financial advisor is the expert. Empowering customers with a ubiquitous record of his investment identity (investor profile data), customization, transparency, new analytical and machine learning tools are part of the winning strategy.

There is approximately 120 trillion\$ of client assets managed by global wealth managers, and 4 out of 10 clients are open to switching wealth managers under the right circumstances. This represents a 175 billion\$ to US\$200 billion\$ global revenue opportunity for those firms willing to make strategic investments to deliver a superior client experience, while others may find themselves at risk of losing a substantial portion of their current business.

Client's top factors for client service experience



Source EY "Could your client needs be your competitive advantage"



Traditional private bankers simply gather information from their clients while adding nearly no-customization.

« I measure the talent of a private banker by his ability to make the client feel it's tailored while it's standardized »

An Anonym Senior Private Banker

We believe that it is time for wealth managers to reconsider the level of expertise and creativity they must bring to the table and we are ready to help them in the context of SwissBorg.

In addition to supporting Investment Managers by providing a leaner approach, we will assist them in adapting to an environment with lower fees and margins. Few of today's private banks know how to cut costs through automation, transaction flow enhancements (Blockchain) and how to deliver cheaper, yet outstanding advice through Social Media, Mobile or other methods of digital interactions. This is a critical shift that they have no choice about making if they want to survive.

Customers are challenging the fees they're paying in exchange for the performance and the services they're getting. The usual non-client centric approach begins to raise the question whether the financial advisors' interests are truly aligned with the client's own.

Robo-Advisory

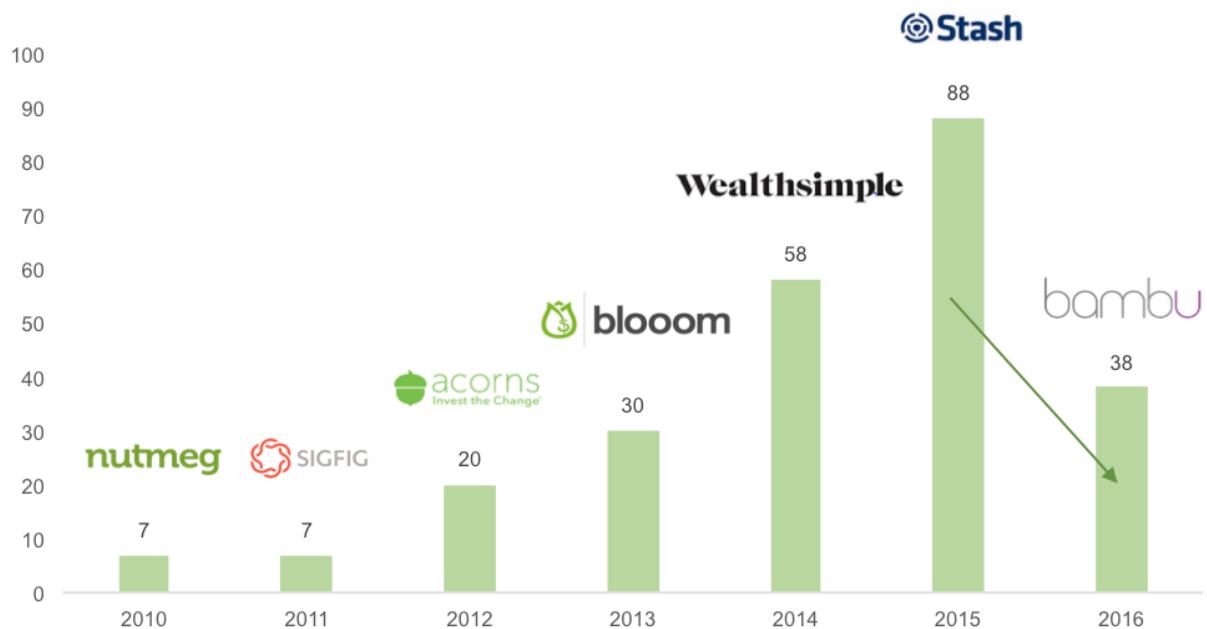
The Wealth Management industry faced a first wave of disruption with Robo-Advisory. For instance, even as a wave of digital attackers storm the gates, the attackers still represent less than 1 percent of the global wealth management market, with less than \$50 billion of \$35 trillion industry assets under management in 2015.

The value proposition brought to the table was not disruptive enough to challenge the status-quo. Indeed, the often too simplistic investment approach coupled with little improvement in client onboarding did not represent a serious threat to historical players.

Today's Robo-Advisors are centralized portfolio management technology at a lower fee, which is mostly addressing an untapped market (Client < \$100.000 investible worth) with few improvements in the back-office and middle office modules of the advisory value chain. In addition, Robo-Advisors are facing business model issues: revenues (low) versus client acquisition costs (high).



YoY Robo-Advisors Founded - Beginning of Robo Advisor Up Trend Reversion



Sources : Traxcn

The revolution occurring is directly affecting the nature and future of financial advice itself. This is playing out on several fronts, including the personalization of advice and the growing demand for innovative ideas all along the advisory value chain delivered through a transparent, price-fair and trusted environment.

Operational Costs

Beyond regulatory requirements, operational costs are another dissuasive factor for someone that would like to found a bank. Know your customer (KYC), most popular operational cost, is the process of a business identifying and verifying the identity of its clients. By this means, banks are verifying customer's identity by using reliable, independent source documents, data or information. For individuals, they will obtain identification data to verify the identity of the customer, his address/ location. KYC is a legal and regulatory requirement, carried out during the client on-boarding process.

In the off-chain world, Financial Institutions dedicate a huge amount of resources to perform KYC tasks. On average, banks spend \$60 million per year on compliance with KYC.

Undemocratic practices

Nowadays, regardless of their investment resources, investors are becoming more sophisticated and demanding. However, their access to world-class services and products



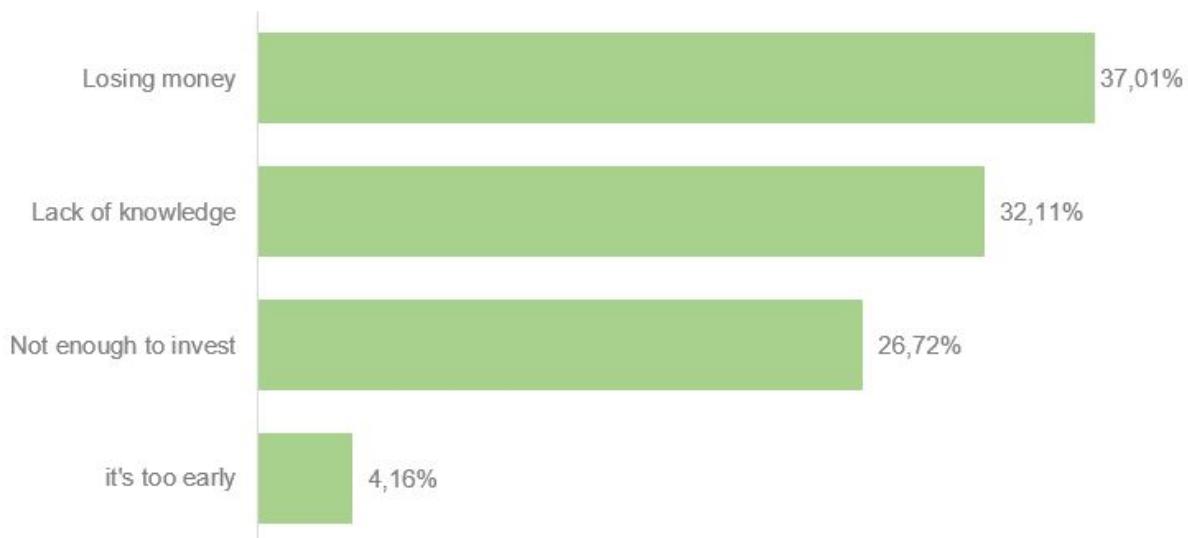
remains extremely limited, if not strictly cut-off. Customized investment solutions are reserved for the elite private banking client base.

Financial technologies that are lowering the cost of traditional financial services have fueled the expectations that any investor can access the same level of service regardless of the size of his investment. A democratic wisdom unmatched by a wealth manager.

Education

Financial education is a challenging matter for financial institutions. Although people acknowledge that managing money should be a priority, they spend on average 5 more times selecting the right TV compared to planning the right retirement plan.

What are your concerns about investing ?



Source : Acoms customers survey (B2C Robo Advisor)

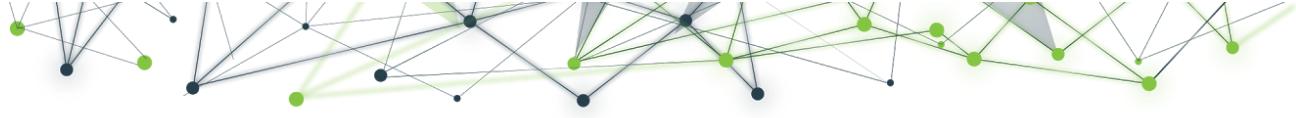
Lack of knowledge and Losing Money are the top concerns about investing.

Indivisibility

In most cases, profitable investment solutions are restricted to High Net Worth Individual (HNWI). As a matter of example:

Investing in Berkshire Hathaway Inc. cost approximately USD \$261,026.00. Warren Buffett's company is one of the most recognizable and successful in the world.

Investing in the S&P 500 cost approximately USD \$246.91 (thousand times less). The S&P 500 is an index based on the 500 largest American companies.



If crowd investors remain cut-off from such investment opportunities, they will keep on struggling to accumulate wealth.

On-Chain Limitations

Market Index

In capital markets' world, Market Indexes are helping investors to measure risk and compare performances between different investment products. In addition, a set of conventions have been put together to guide anyone through the daunting task of understanding financial markets. As an example, "Beta" refers to the tendency of a security's returns to respond to swings in its market index of reference.

Structured investment universes bring transparency on both risks and returns and help individuals to make better investment decisions.

Cryptocurrency is a rapidly growing market. However, it is still difficult for individuals to understand risks and to figure out where and how to invest. With a market cap that went from 12B\$ to 120B\$ during the last 12 months, the average investor tends to overestimate the persistence of this exponential growing rate in the coming future.

However, as the cryptocurrency matures, extract market performance would require more skills, competences, resources and time. This is especially the case in an environment where cryptocurrencies are a growing in numbers daily. To guide and advise them, investors would require conventions and benchmarks (i.e. Market Indexes), as well as robust and transparent investment vehicles that give a straightforward exposure to cryptocurrency markets.

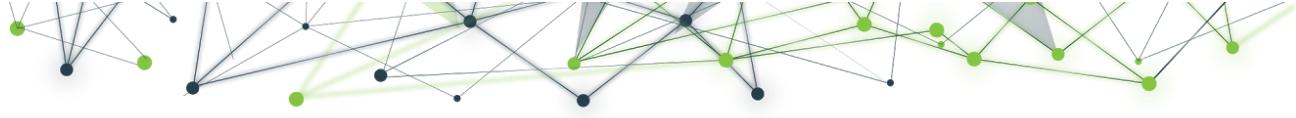
Moreover, there is a big need to have the right tools for diversification and risk management.

Today, the number of cryptocurrencies funds available remain very limited and yet, it is difficult for investors to compare them, as there are no Market Indexes to do so. It has also been found that the investment strategy is far from offering the same level of transparency as a Market Index strategy does.

In a world where Blockchain means trust, we believe that transparency should remain the core value of the investment process.

Alternative Investment & Risk Management

Alternative Investment, also known as Absolute Return Investment Strategies, are a class of investment strategies focusing on delivering high "risk-adjusted" returns.



Too often, average investors exclusively focus on the return factor, while the most important factor is the risk/return. Sharpe ratio, Calmar ratio are ways to examine the performance of an investment by adjusting for its risk.

Long/short equity, Global Macro, Risk-Arbitrage, Statistical Arbitrage, CTA are as many strategies historically providing superior Sharpe ratio to the exclusive off-chain investors. Yet, the number of alternative investment strategies available to crypto-investors remains very limited.

Advisory & Cyber Security

Bitcoin allows anyone to manage its own money freely without a corporate middleman, namely the bank. Bitcoin revolutionises the infrastructure of our banks, providing a cheaper, faster, and more convenient alternative to the likes of wire. However, despite its extreme flexibility, Bitcoin does not offer the option to mandate a third party (human or robot) to manage your money on your behalf. On the other hand, many banks suggest customers appoint financial advisors to help them manage their money.

Advisors help customers for financial planning or building investment portfolios but also protect their wealth against operational risk, counterparty risk, fiscal risk. Nowadays, the greatest threat for crypto holders is hacking risk. Hackers have stolen millions of dollars in Bitcoin and Ethereum in recent years:

Type of Hack	Example
Blockchain infrastructure	Mt. Gox first: - June 2011: \$8 million stolen (admin pw) - Feb 2014: \$460 million stolen (transaction malleability)
Code	DAO smart contract flaw known
Website	CoinDash ICO Hacker Nets Additional Ether as Theft Tops \$10 Million
Wallets	Dec 7, hacker compromises VC Bo Shen's phone, gaining access to \$300,000 in Augur and Ether from wallet
Nodes	Major node attack thwarted Aug 2010—Bitcoin block 74638 flaw could generate 184 Billion transactions



User Interfaces

The learning curve for Blockchain uninitiated people could be improved by reshaping user interfaces. Indeed, the process of managing cryptocurrencies (i.e. depositing, withdrawing, transferring, investing) involves a presumed degree of awareness that can be eased.

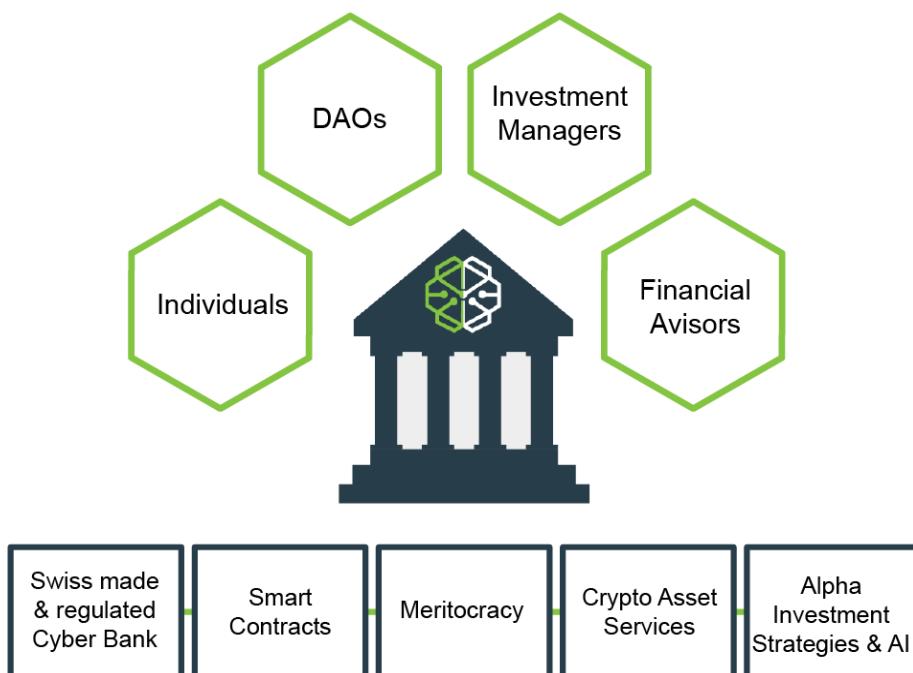
Today, investors want more personal, real-time and effortless experience, as well as an easy access to global information.

SwissBorg: a future CyberBank project

Imagine a bank that offers Best Of Breed Financial Advisory services and Invest Solutions available to everyone with no frontier or restrictions. A place, where you can safely store & manage your crypto assets by getting access to a large numbers of asset services: from asset tokenization to derivatives and exchanges traded place. A bank, tailored to anyone from individuals to DAOs with no minimum deposit.

A New paradigm, where Financial Advisor & Investment Manager deliver their added value with no filter and in full transparency.

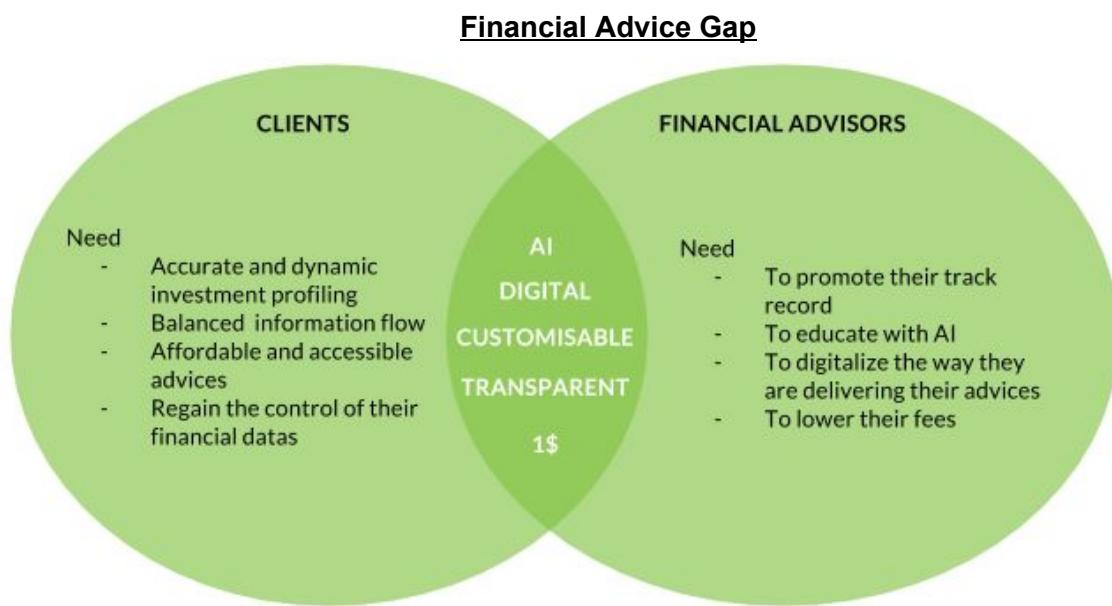
SwissBorg Community-centric Cyber Bank Project





Financial Advisory

Financial Advisors have historically been at the center stage of wealth management, acting as an interpreter by translating the client's financial needs into investments solutions. Nowadays, the historical value of a financial advisor is becoming obsolete. Regulation and automation are changing the way we invest, store, move, and monitor money and assets.



Using the latest technologies in terms of AI and leveraging on the MAST (meritocracy, accessibility, Swiss made and trusted) philosophy, SwissBorg intended to fill the financial advice gap.

From Robo-Advisor to CyBorg Advisor

Robo-Advisory industry is populated with hundreds, if not thousands of solutions. Most of them have simplistic, rules-based models — you give them your age, risk tolerance, goals and they select a basket of ETFs which follow a flawed Markowitz Asset Allocation Model.

Since 2015, SwissBorg has been building the next generation of Robo-Advisor by using AI in wealth management, with models crafted by our experienced Hedge Funds Managers.



SwissBorg AI Cyborg Advisor (Since 2015)

Quantitative Systematic Stock Picking	Human AI Risk Management - Dynamic Hedging
<p>Proprietary factor ranking system based on Value Investing principles to build a portfolio of good quality undervalued stocks.</p> <p>The ranking system combines value, quality and other proprietary factors that have a strong fundamental logic.</p> <p>U.S. Market Backtest (16 yr): Ann.Return + 26.3 % - Vol 25.43 %*</p>	<p>We Identify situations with downside risk and hedge our exposure with short index positions to reduce drawdowns and increase absolute returns.</p> <p>We use macro fundamentals, sentiment, valuation metrics and proprietary technical indicators to assess the market risk and identify attractive hedging levels.</p>

* Jan 1999 - March 2015. Source Swissborg Calculations, data provider S&P Compustat

By extending our AI Robo-Advisor model to cryptocurrencies, we intend to empower investors with more control and freedom of choice on trading activities and risk management.



Smart Mandate

Blockchain technology is often associated with financial disruption. Incumbents are challenged in areas such as fund distribution, Forex, settlement, custody, fund management or investment funds. Surprisingly enough, financial advisory remains an unexplored topic in the distributed ledger world. At SwissBorg, we firmly believe that Advisory is key to the success of an investment strategy. By combining Financial Advisory and smart contracts, our competitive positioning is unique.

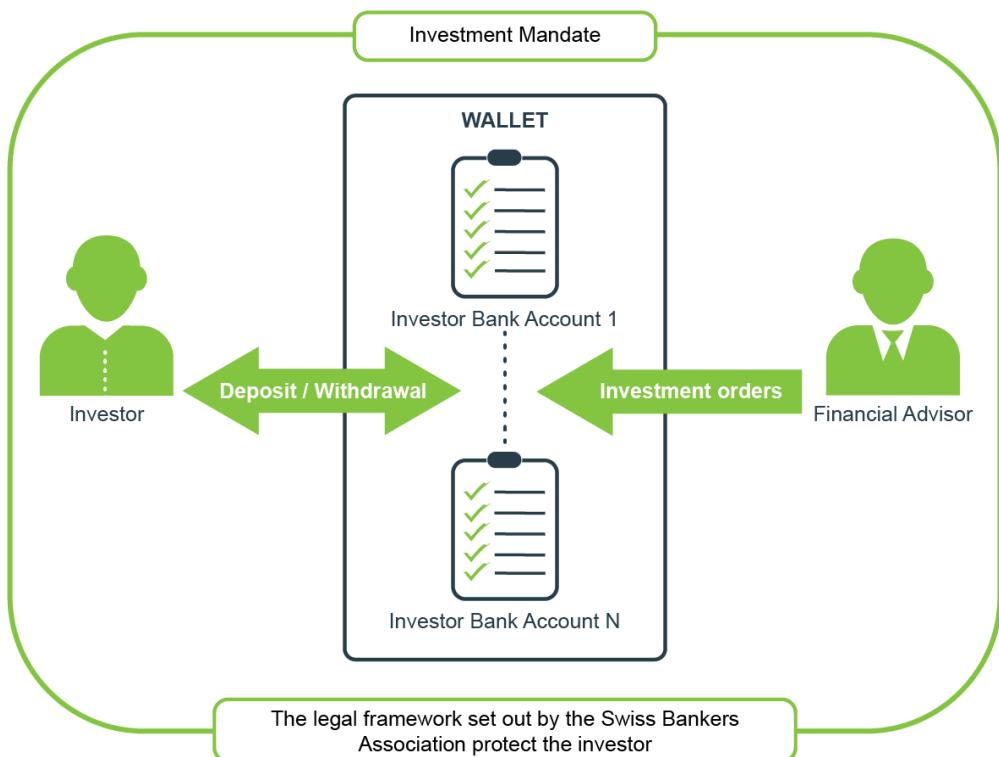
Swissborg Competitive Positioning





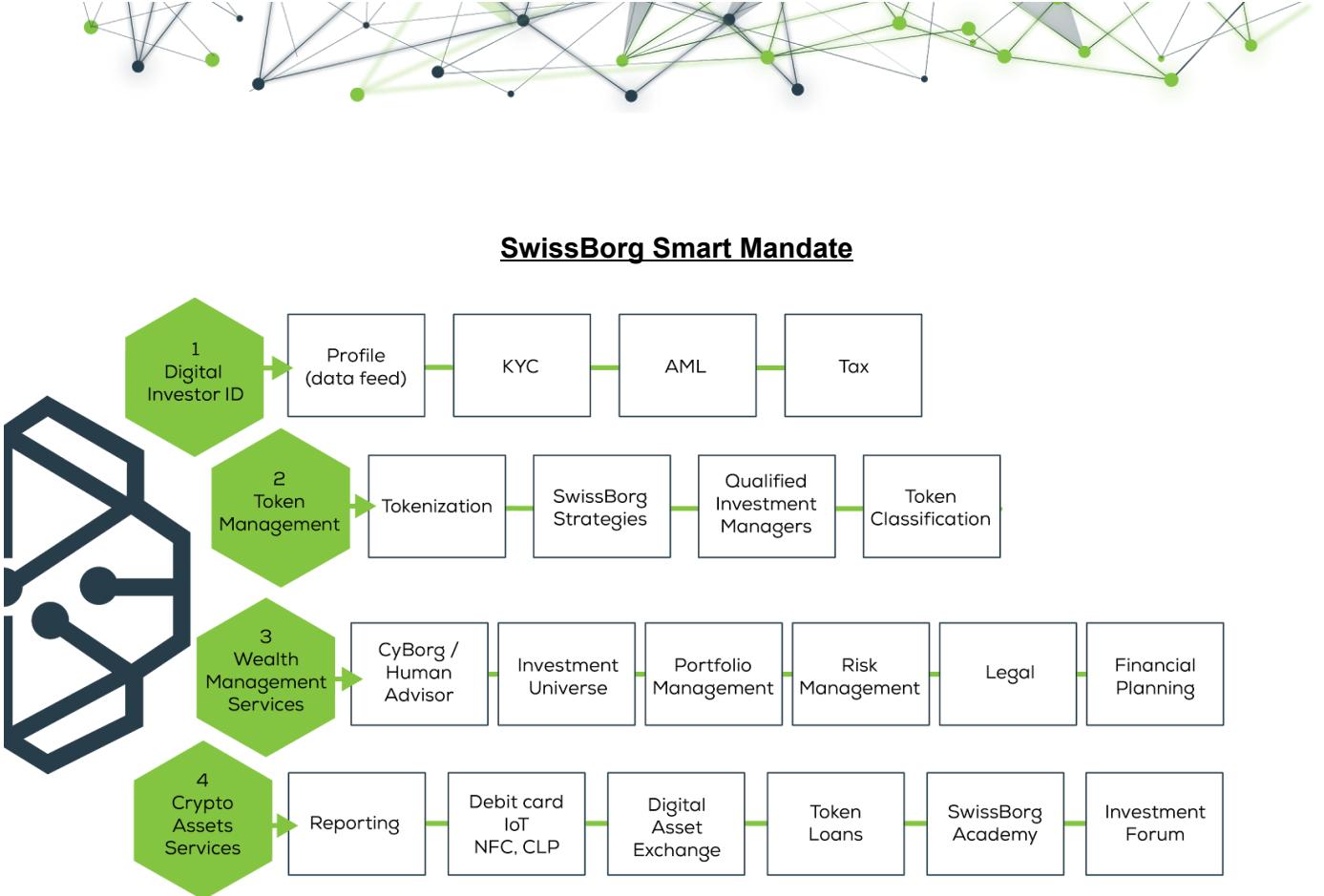
An investment mandate links a financial advisor with an investor under a legal framework. The mandate defines a general philosophy and a list of restrictions about how the financial advisor can invest the investor's pool of capital.

Investment Mandate



An investment mandate, is like a custom “permissioned” private key allowing a third party to interact with a wallet following a set of predefined rules (withdraw only allowed to specific addresses, etc....). Notwithstanding that an investment mandate is a powerful tool, there is a global feeling among investors that it lacks client-centric initiatives.

Our experienced investment team of asset managers, private bankers and financial advisors have extensively brainstormed to cover the limitations observed in the off-chain world. By combining our experiences with the smart contract technology, we have built a holistic framework for Advisory: the “Smart Mandate.”



100% owned by users, portable, 1 mandate for multi advisors, can be modified at any time, fully customizable

1. Digital Investor ID

USPs: Portability, on-chain legal





2. Token Management

USPs: Asset Tokenization

Qualified investment managers

Due Diligence



Every financial advisors and quantitative managers will first need to pass our strict due diligence process. The selection criterias include proven track, investment process, analysis of the team, compliance with regulations. By meeting **SwissBorg's** standard they will accepted

Qualification through Swarm intelligence



Our academy will inspire talented investors to write investment algorithms and trade discretionary portfolios. It will be done through a gamification process with courses, backtesting and live competitions.

Selected Alumni may license or run their algorithms on the platform and be rewarded based on the performance

Tokenization



Through the tokenization process , **SwissBorg** helps you create your own investment vehicle and transfer your investment strategies or real assets onto the blockchain,



Token classification

Each token will be classified by asset class, strategy, purpose, risk level



SwissBorg strategies

SwissBorg will offer a several theme based strategy strategies with quantitative & discretionary management. It will cover the entire investment universe (crypto, equities, credit, commodities, real-estate, art)

3. Wealth Management Services

USPs: Real Customization, Scalable

Cyborg Advisor



The interface that brings light to the investment service provided by the Smart Mandate

Investment Universe



Based on your Digital investor ID and our token classification, your advisor will determine your investment universe.



Portfolio management

The mandate is generated using both established model such as Black-Litterman for strategic allocation and advanced quantitative analysis for tactical allocation



Risk management

Our algorithms will continuously analyze, assess and rebalance your positions to mitigate the risks



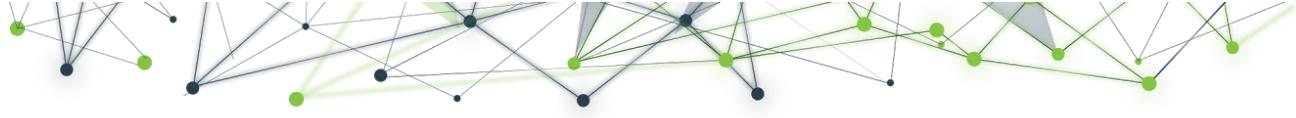
Legal

The Ethereum smart contract feature has made the need for physical signatures obsolete. Using personal authentication, members can easily modify any parameters or subscribe to new services



Financial Planning

Plan ahead for your future spending, inheritance plans, loans your advisor will help implement the needed strategy to achieve your goal.



4. Crypto Assets Services

USPs: Holistic, one stop-shop, optimized fees



Reporting

Customized report with current and simulation of the future performance based historical returns and volatility



Credit cards / Transfers / NFC, CCP / Internet of Things

By collaborating with established partners, we will offer Crypto debit cards and latest e-payment solutions with IoT.



Digital Asset Exchange

This platform enable the exchange of Digital currencies against Fiat currencies as well as the trade of any pair of Digital currencies



Loans backed by digital assets

Borrow Digital or Fiat currencies against your holdings

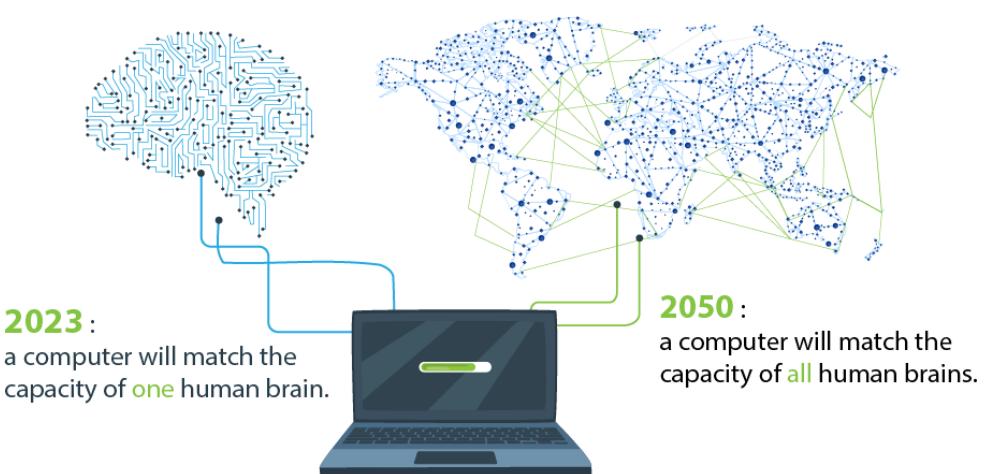


SwissBorg Academy / Investment Forum

We will offer an investment academy and interactive investment forum where you will get the best trading advices and custom research from our qualified CyBorg advisors.

AI Smart Mandate

Artificial Intelligence (AI) is embedded in our day-to-day lives: maps compute the optimal driving route, YouTube suggests preferred videos, Facebook suggests friends to add, LinkedIn shows job offers, web browsers recommend products based on your purchase history. A different industry with a single common denominator: AI





In 2011, IBM Watson defeated the world's two best players on the Jeopardy quiz show. In March 2016, Google's DeepMind AlphaGo eclipsed the 1997 achievements of IBM's Deep Blue when it defeated Lee Sedol in a five-game match of Go. And yet these achievements only hint at the future of AI.

The spectrum of AI usage in finance is too often limited to market behaviour forecasting. We firmly believe that AI, deep machine learning and big data analytics can also be used to tackle the limitations of not really knowing the client's investment profile.

Wealth managers use a multi choice questionnaire to determine the client's investment profile:

Typical Investment Profile Assessment

The typical investment profiling quizz determines the adequate investment strategy based on two factors:

TIME HORIZON

When will you need your money back? At what rate?

RISK TOLERANCE

How do you feel about risk? Some investment fluctuates more dramatically in value than others but may have the potential for higher returns.



Banks believe that the questionnaire will help them understand what type of investor their clients are, and will enable them to ensure any investment advice would be suitable. However, clients build their answers based on what they believe they should be answering. Moreover they are influenced by narrow lists of answers or overestimate some aspects and play down others.

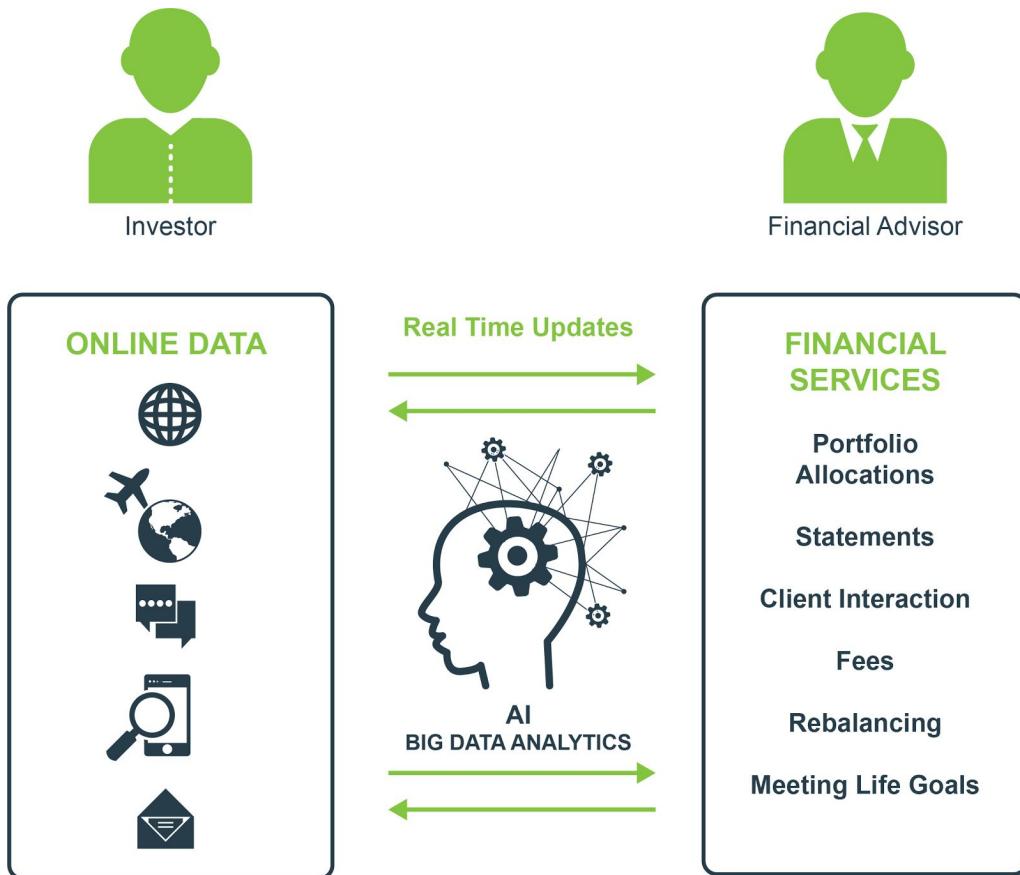
Financial advisory is based on simplistic models which do not implement behavioral analysis. Data exists, but wealth managers struggle to capture and analyze it.

By using a combination of distributed ledger and sophisticated deep learnings algorithms we would build a self-learning investment mandate: "AI Smart Mandate." We will enhance the competencies brought by any financial advisors by integrating the data footprint of its client. Patterns such as social media activity, search, readings, dashboard login frequency, will help financial advisors to



better understand and predict clients future behaviors. The personal data of each user will be secured using the power of the blockchain.

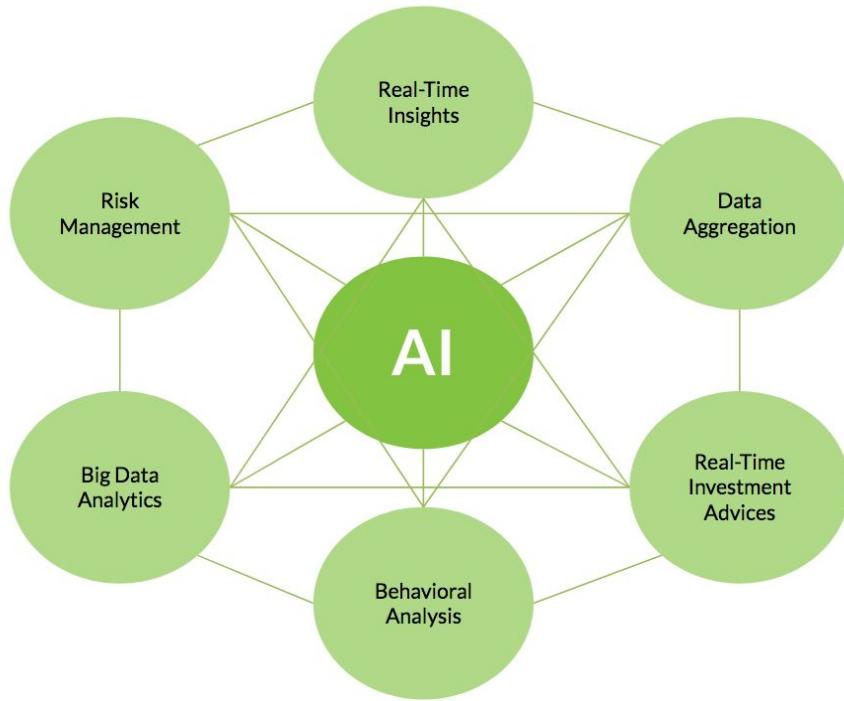
We are filling the advisory gap by improving client-related analytics capabilities and assess client satisfaction level.



The relationship between the client and the financial advisor will remain at the center stage of the “AI Smart Mandate”. However AI will be taking over more of the front office functions and the advisor will dedicate more time to focus on client needs.



AI Enhanced Advisor Core Capabilities



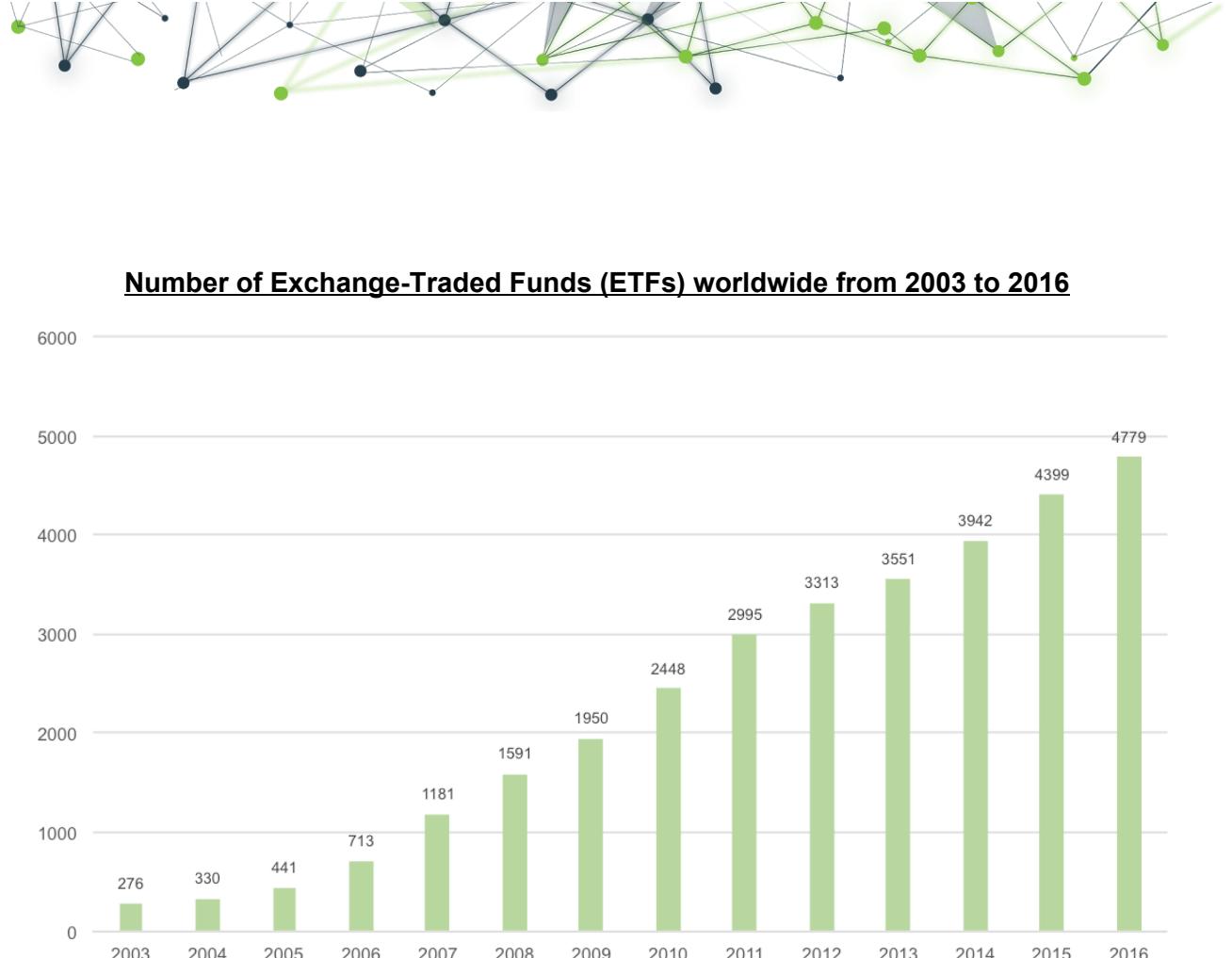
Investment Management

Index investing has become the most popular and efficient way to invest, as it consistently shows an outperformance against actively managed competitors.

Percent of comparable mutual funds that iShares Core ETFs outperformed



After the 2008-2009 financial crisis, transparency became one of the most-touted benefits of ETF. Moreover, the off-chain Index Investment industry is a wide success with over +4700 products available and \$3 Trillion under management.



Source : Statista 2017

Index investing is not limited to simple passive strategies, actively managed solutions can be implemented if they fully disclose their investment process.

At SwissBorg, we provide investors with a transparent, diversified and unbiased source of performance through the creation of Crypto-Indexes. We believe that diversification and quantitative tactical asset allocation are key to a portfolio's long-term growth.

By creating a full spectrum of Indexes theamics, we are helping financial advisors, investment managers and private investors from both off and on-chain world to build ideal diversified portfolio allocation. To meet each investor's expectations, we offer strategies that range from basic to more advanced solutions.



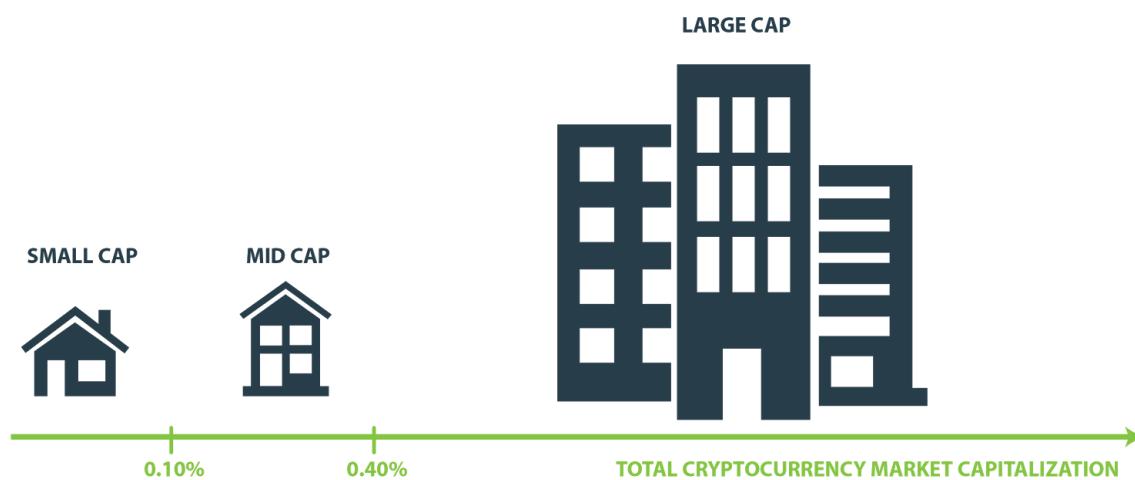


Smart Indexes

The most popular indexes investing approach today are cap-weighted indexes. The conventional wisdom assumes that Large Cap Indexes provide lower volatility in the long term than Mid & Small Cap Indexes which provide higher performance.

The cryptocurrency market does not offer standards for cryptocurrencies classification. Based on our experience we have built the following breakdown:

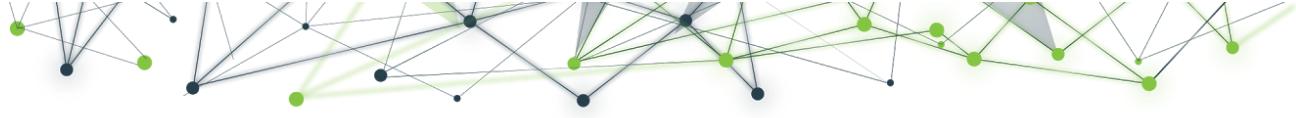
Capitalization Breakdown



Based on these new standards, the Smart Indexes available for investing would be as described below:

Smart Indexes Offer On-chain

Extra & LargeCap Index <i>Cap Weighted or Equally Weighted</i> Based Currency: BTC, ETH, USD	Index giving exposure to Large Cap Coins Rules: <ul style="list-style-type: none"> - Coin Cap is [0,40% - 10%] of Total Market Cap - Coin must exist for at least 6 months - Coin must pass the SB due diligence approval - Reallocation Frequency: Monthly
Mid Cap Index <i>Cap Weighted or Equally Weighted</i>	Index giving exposure to Mid Cap Coins Rules: <ul style="list-style-type: none"> - Coin Cap is [0,10% - 0.40%] of Total Market Cap



Based Currency: BTC, ETH, USD	<ul style="list-style-type: none"> - Coin must exist for at least 6 months - Coin must pass the SB due diligence approval - Reallocation Frequency: Monthly
Small Cap Index <i>Cap Weighted or Equally Weighted</i> Based Currency: BTC, ETH, USD	Index giving exposure to Small Cap Coins Rules: <ul style="list-style-type: none"> - Coin Cap is [0,01% - 0.10%] of Total Market Cap - Coin must exist for at least 6 months - Coin must pass the SB due diligence approval - Reallocation Frequency: Monthly

The redemption/subscription process will be managed through ECR-20 Smart Contracts.

Smart Indexes Offer Off-chain

Avanti Global no Hedge Based Currency: USD & EUR	Index giving exposure to a systematic strategy on worldwide stock markets
Avanti Global Hedged Based Currency: USD & EUR	Index giving exposure to a systematic strategy on worldwide stock markets hedged from Beta Risk.
Avanti US Hedged Based Currency: USD & EUR	Index giving exposure to a systematic strategy on US stock markets hedged from Beta Risk.

The redemption/subscription process will be managed through managed accounts and LPOA on interactive brokers.

Cyborg Indexes

Cyborg Indexes define a set of investment strategies that emphasize the use of more sophisticated algorithms than the ones seen earlier. By investing in Cyborg Indexes, investors are trying to capture a specific investment factor or temporary market inefficiency. They are



suitable for tactical traders and portfolio managers that are seeking to enhance their risk-adjusted returns.

Low Vol Index	We set a targeted max volatility level, following a rolling volatility (30 DAY for example).Then, we use portfolio management allocation rules between USTheter and a Portfolio of Coins. <ul style="list-style-type: none"> - Reallocation Frequency : following model
ICO Index	Index that gives exposure to ICOs Rules: <ul style="list-style-type: none"> - Qualitative Criteria - Sectoral Diversification Criteria
On-chain Payment Index	Index that gives exposure to payment sector Rules: <ul style="list-style-type: none"> - Qualitative Criteria
On-chain Social-Media Index	Index that gives exposure to Social Media and content monetization sector Rules: <ul style="list-style-type: none"> - Qualitative Criteria
On-chain Yield Index	Index giving exposure to yield investment type: real estate, loans backed, dividend etc... Rules: <ul style="list-style-type: none"> - Qualitative Criteria

The redemption/subscription process will be managed through ECR-20 Smart Contracts.



Swarm Cyborg Indexes

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

Charles Darwin

Swarm intelligence (SI) is the collective behavior of decentralized, self-organized systems, natural or artificial. Interactions between such agents lead to the emergence of "intelligent" global behaviors, unknown to the individual agents.

To better illustrate this concept, let's analyze how ants solve "the shortest path" problem.

One ant alone cannot figure the fastest way between a food point and the colony, but collectively they can work it out. Ants walk randomly while marking the path with a special scent meaning "follow me." When the ant finds some food, it heads back to the colony following its own path. It would not be an efficient strategy if the ant was alone. But as the scent left by the ant evaporates over time, long paths will smell lighter than short paths, and so will attract less ants. In consequence, a short path is reinforced and long paths are forgotten.

The promise of social trading is that anyone could become an investment manager and anyone could build a profitable portfolio by picking the right investment managers. This promise isn't verified by statistics which show a majority of non profitable results. Nonetheless, swarm intelligence is a concept where a superior intelligence might emerge from the compilation of standard intelligent agents.

Based on our investment and trading experience, we have thought out and built Swarm Analyzer, a system designed to create a Swarm Cyborg Index:

Swarm Analyzer





SWARM ANALYZERS SCORING ON 6 CRITERIAS



The Swarm analyzer learns from historical trades. Therefore, the model is expected to be effective under the hypothesis of causal determinism. The AI model includes a risk management function.

Unlike traditional systematic strategy, the AI model will integrate a daily automatic learning and adjusting function, which will allow the strategy to maintain its predictive capability even when the market environment changes. Indeed, a traditional systematic strategy usually does not change inner parameters in the model because human analysts usually require at least a few months to find new patterns.

Financial Services

The blockchain provides a revolution around services that are essential to any financial system and improve them in many ways.

Tokenization

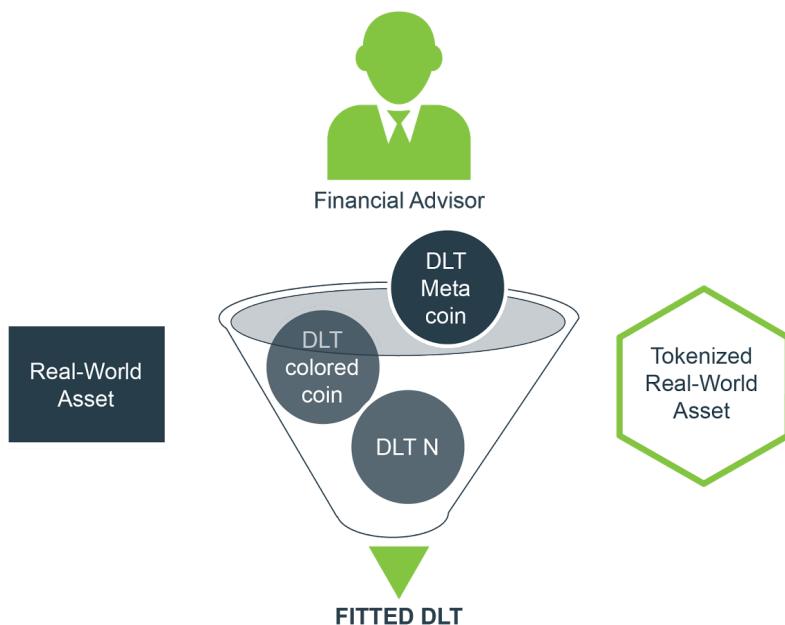
The Blockchain can be used to transfer ownership rights of physical assets by using tokens. By doing so, we allow real world objects to trade with the same levels of trust and



efficiency that the Blockchain offers for financial transactions. This process is called “Tokenization.”

The tokenization of physical assets such as diamonds, art or real estates is a critical part of an holistic wealth management approach. As DLT matures, trustworthy records of assets will become increasingly available on various technology. Financial Advisors will help investors choosing the fitted DLT to tokenize their real-world assets (Legal, Tax, Anonymity etc....).

Real-World Asset Tokenization

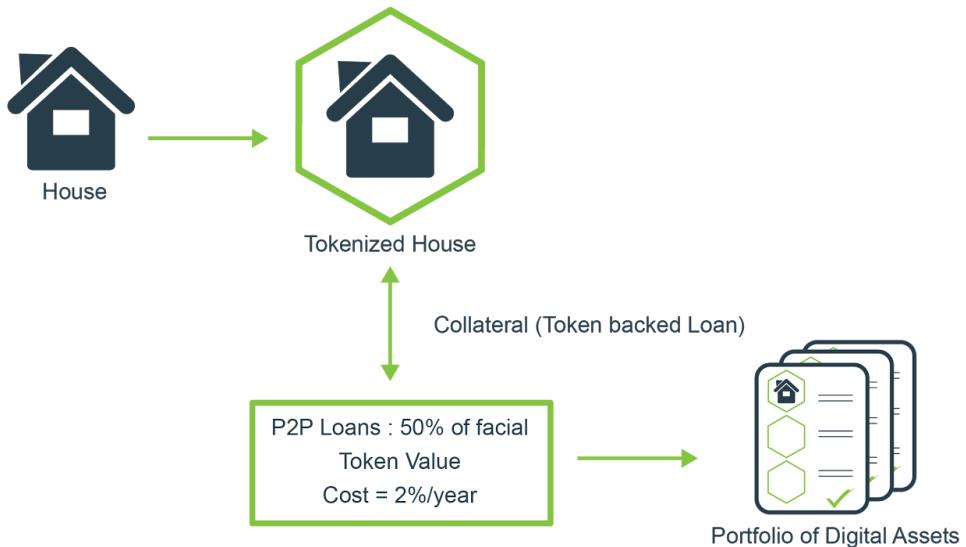


It is important for us to emphasize that tokenization would not be exclusive to the wealthiest investors. Consequently, the range of profitable investment opportunities will arise for the community.



The tokenization process is pushing further the ability of the smart mandate. Investors will benefit from Blockchain as a means of verifying their creditworthiness to contract p2p loans.

Token Collateralized P2P Loan



Derivatives

The creation of derivatives represents a major step in digital asset risk management. In the first instance, it could enable financial engineering of bespoke instruments to fit investors' needs in terms of timing, credit risk and hedging purposes.

Most of the derivatives products will be created as preprogrammed smart contracts, capturing the obligations of the two counterparties (such as margin agreements or swap conditions).

SwissBorg's financial operating backbone will facilitate the creation and the liquidity management (subscription/redemption) of the following derivatives products:

Options: on liquid cryptocurrencies and smart mandate portfolios

Swaps: cross liquid cryptocurrencies

Structured Products: specific payoff on cryptocurrencies/ basket of cryptocurrencies, capital secured products (with lock-up periods)

CHF Theter: digital CHF



The Smart Mandate would take care of the security of collateral and variation margin management by allocating digital assets held on other asset ledgers to a collateral ledger. The derivatives products, codified into a smart contract, will automatically recompute exposures by referencing the agreed upon external data sources that recalculate the variation margin.

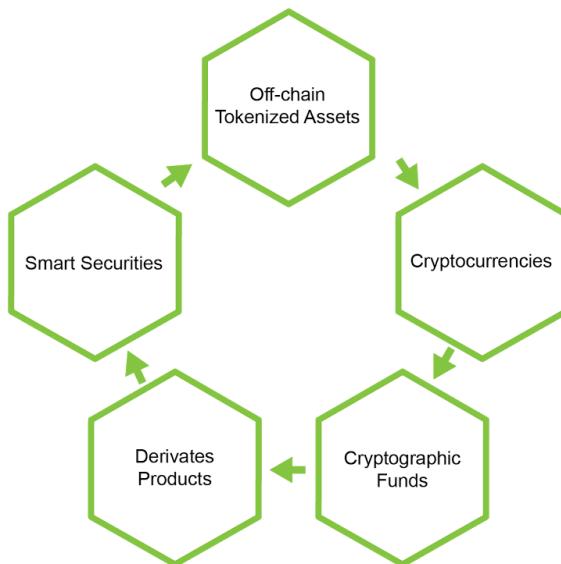
At maturity, a final net obligation is computed and a payment instruction is automatically generated in the cash ledger, closing out the deal.

To offer enough liquidity to animate the derivatives secondary market, we will use a combination of exchange and market making done internally through our dedicated desk. Later, we will also offer these services to the institutional market.

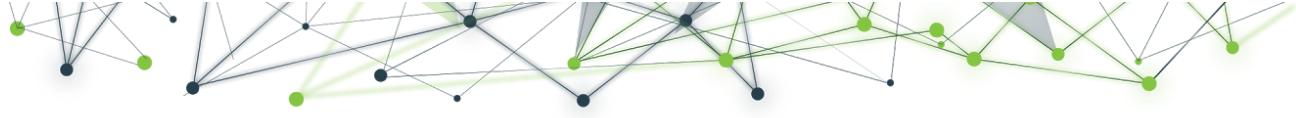
Exchange

SwissBorg Financial Backbone provides a global marketplace for exchanging any digital assets designed for both retail and institutional clients.

Holistic Exchange Platform



Off-chain Tokenized Assets	: Real Estate, Loans, Bonds, Stocks.
Cryptocurrencies	: Bitcoin, Ethereum and other alt coins.
Crypto Funds	: Bitcoin, Ethereum and other alt coins.
Derivatives products	: structured products, options, CHF Tether, Swaps, Insurance,...
Smart securities	: we are anticipating that in a near future stocks, bonds and other capital markets instruments would be issued using smart contracts.



We are already seeing a substantial number of Crypto Exchange but we can do more.

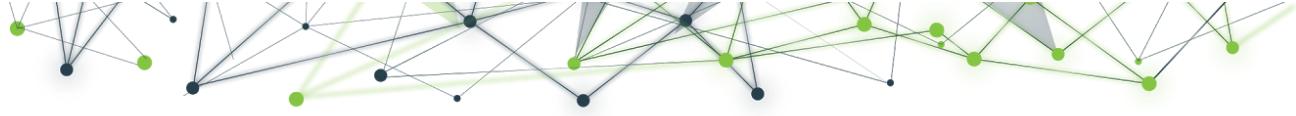
“The potential impact of the distributed ledger may be much broader than on payment systems alone. The majority of financial assets - such as loans, bonds, stocks and derivatives - now exist only in electronic form, meaning that the financial system itself is already simply a set of digital records.”

Bank of England, Quarterly Bulletin, Q3 2014

On one hand, our strength is our smart mandate. Indeed, digital assets managed within our smart mandates will generate a decent trading volume. In addition, building an exchange allows us to offer discounted brokerage fees to optimize smart mandates Total Expense Ratio (TER).

On the other hand, the Blockchain world does not currently offer institutional-grade exchanges with custom Order Management System (OMS), a “must-have” for bankers. As distributed ledgers became a new asset class, we would witness increasing crypto-traded volume brought by pools of institutional liquidity.

The ideal financial framework to execute Smart contracts should be designed using specific trading tools. We intend to spread out our own liquidity-specifications to the banking institutional world. By becoming a bank, SwissBorg would naturally benefit from a large panel of actors (financial advisor, retail traders, market makers, funds, bankers...) an ideal setup for having a deep and heterogenous order book.



Ideal Order Book



SwissBorg Exchange would submit FINMA Regulation application after crowdsale.

Looking forward, the SwissBorg exchange will provide more liquidity to the tokenization process. When more traditional assets classes (stocks, bonds...) would become available for trading on the Blockchain, portfolio managers would naturally replace their old trading engine for p2p liquidity venues as faster clearing and settlement systems facilitate Lower liquidity requirement. By becoming a pioneer in distributed wealth management, SwissBorg opens the way for capturing the future financial inflows in both wealth and trading processes.

Reporting

When you buy a coffee with your card, the record of your purchase is immediate, but the actual transfer of money from your account to the merchant can take days. The current settlement regime is full of redundancies and it requires a bunch of information to be passed all along the way of interconnected private databases.



Because Blockchain enables direct and irrevocable transactions between counterparties, with an almost immediate transfer of funds, and this could enable near real-time settlement for almost any financial transaction.

SwissBorg Cryptographic Dashboard would enable financial advisors and investors to track and manage the state of their digital assets in real time.

In a Blockchain-based system, regulators could also have a real-time view of what is transpiring in the system at all times. We intend to work hand in hand with them to put in place the first regulatory cryptographic reporting system.

Concerning tax, Smart contracts could conceivably be written to automatically prepare business and corporate tax returns.

Chatbot

Chatbots are artificial intelligence tools that provide answers to generic customer questions. In the digital age, a business where customer support is critical to the usage of chatbot becoming a standard.

The SwissBorg team has over 70 years of experience in financial markets from which our chatbots can learn from and respond to standard customer queries. Using chatbots will allow relationship managers more time to focus on complex requests.

Customer Expectations from Chatbots

60% Want 24-hour service, quick answers to basic questions

Expert answers, complex queries, good customer experience **20%**

Biometric, iOT

SwissBorg onboarding client process will be as follow: for each new customer, the KYC statement will be put on the Blockchain. For additional security, user's biometric data would act as a private key, so their data could not be unlocked without their authorisation.

However, in the real-world, people own and transact in real-world, tangible, off-chain assets. The potential for smart contracts to interact with tangible real-world assets gives rise to the concept of smart property. A classic example envisioned by Nick Szabo in 1994 was of a leased car, should the lease be recorded as a smart-contract on the Blockchain, and the car



linked to the chain, and if a lease payment were missed, the contract would automatically revoke the digital right to the use of the car.

Cold Storage

In a network with no central authority, transactions are immediate and cannot be reversed. Thus, your private key, that is the central elements to the Blockchain technology, becomes extremely valuable.

Because a stolen private key could do you great damage, we will provide an important function as safe guarders of private keys.

Swarm Intelligence & SB Academy

Swarm Intelligence (SI) is “The emergent collective intelligence of groups of simple agents.” Because internet has changed the way we learn and because Blockchain provide a new paradigm to track knowledge, the SB Academy will empower the community with innovative financial education and gamification.

Competitive industries always take a creative approach, finance is no exception.

THE EVOLUTION OF WALL STREET



THE NEW BOOK
BY MICHAEL LEWIS
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Yet a good innovation on its own is of little worth without the policy instruments needed for its implementation. The last 2007-2008 crisis is a good example of how mathematical innovations have been hijacked by the entire finance industry. On many occasions, mathematics have been used to create some illusionary sense of security. Indeed, there is no magic “black box” but only good standards and discipline can lead to good result over a long time run.



“Good scientists know the truth of Box’s maxim that is all models are wrong, but some models are useful”

Mathematics models had successfully proved their superiority over human decisions in the past.

However, before dealing with Quantitative Finance, There is a fundamental distinction that we must clarify: What is the difference between probabilistic and deterministic models?

Probabilism is an epistemic model, whereas determinism is an ontic model. They address different things. One addresses what we can or cannot know about something, and the other addresses what exists.

While ice melting when heat is at a certain level of temperature is deterministic, predicting financial instruments behaviour is a probabilistic exercise. Most of the phenomenons that we can observe in our everyday lives can be modeled using a probabilistic approach even though a large majority of us will see them as deterministic.

Wall street confuses between a high probability model (where an adverse event has a fair chance to happen) and deterministic model (where the same adverse event can't simply happen).

You can find thousands of examples where the cleverest scientists are beaten in their forecasts. Why? Because most of the time financial markets are random.

Leveraging on gamification, SB Academy will craft longer-term engagement with the community.

Looking Forward

We are witnessing a time of profound changes for the entire wealth management industry. Old fashioned banks will not be spared from technological change and must urgently find ways to reinvent their operating model. Nonetheless, the question that remains is will the financial advisors of the future be employed by historical players or will they be part of a community and be rewarded in tokens?

At the exact same moment, a technology for exchanging money and trust is gaining traction at a pace never reached before. Blockchain, the new protocol for the Internet of value, offers an innovative approach to data management and sharing, solving the inefficiencies afflicting finance industry. A world where the current methods are highly complex that utilizes fragmented data architectures which creates the continual need to reconcile data with massive systems and process duplication. A typical situation that leads to prohibitive costs and



execution of operations with delays. From securities transactions to asset servicing, the combination of distributed ledgers and smart contracts is a utopian solution for capital markets.

The market capitalization of cryptocurrencies is growing at an exponential pace. Yet, there is a lot of threats to address in this very nascent technology. Among them, crypto-wealth management.

Merging the best of the two worlds (Off/On Chain), SwissBorg is a decentralized banking backbone built around community-centric values. On one hand, Individuals and DAOs benefit from democratic, transparent and truthfulness investment services to manage their crypto-wealth. On the other hand, investment managers and financial advisors benefit from crypto asset classes and the best-of-breed technologies (Blockchain & AI) to better serve their clients.

Today, together with the community, we have decided to fill the gap by building a decentralized banking backbone where everyone will benefit from best DAO standards with a meritocratic Cyber banking system. The combination of our MAST (meritocracy, accessibility, Swiss made and trust) philosophy and CADO (customization, automation, decentralisation and optimisation) business practice seems the most efficient approach for delivering outstanding wealth management services.

SwissBorg is this ambitious initiative: a crypto-wealth management service to the current Blockchain community and to newcomers.

Embrace the revolution and get prepared for the time of the great shift (all assets listed on the Blockchain), join SwissBorg coalition starting today!



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