

Investment strategy

# «Crassula Capital»

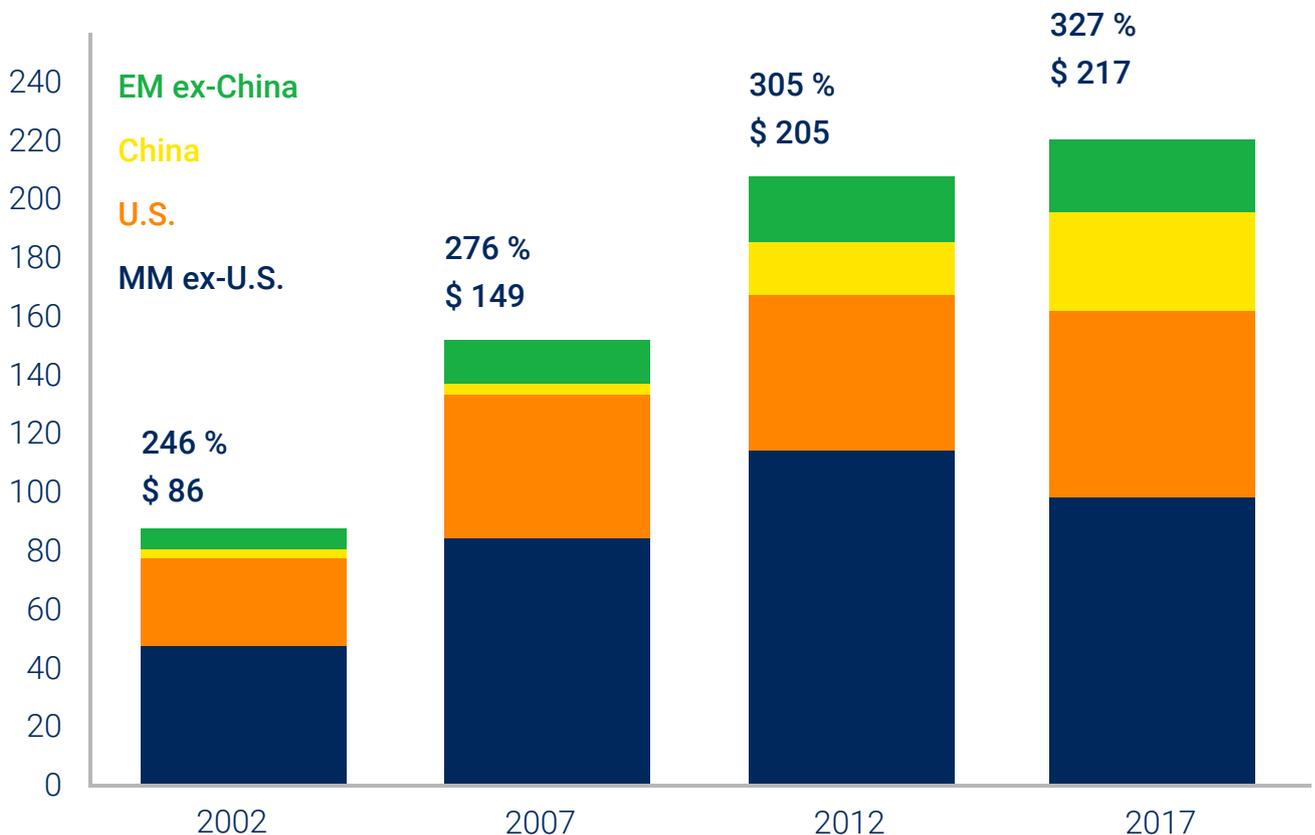


## Investment into crypto-currencies (Tokens)

According to the Bank's data for International Settlements (IIF, BIS)\*, the volume of all registered debt as of Q1 2017 is 217 trillion US dollars (327% of world GDP).

## Total Global Debt (all sectors)

USD trillion, Q1 of each year



Source IIF, BIS, Haver

In accordance with the road map of the International Monetary Fund (Fintech and Financial Services: Initial Considerations, IMF, June 2017), a transfer of the above-mentioned assets to blockchain or to Distributed ledger technology (DLT) by means of issuance of private and public credit is anticipated.

According to the estimates of the IMF, the process of adapting the blockchain (monetary reform) will be processed in an evolutionary way. But the revolutionary approach is not excluded. In the latter case, this process will take no more than 5 years to 2022, as it happened during the spontaneous collapse of the Bretton Woods Monetary System from 1966 to 1971 and the fixed exchange rate system became a floating exchange rate system with the hard currencies in its core.

With this outcome, asset restructuring is very likely in accordance with the legislation of OECD developed economies (OECD) (Bail-In rehabilitation rules of G-20). The question here is about the loss of a significant part of the assets by customers of banks, insurance companies, investment funds and pension funds and brokerage companies. Another question is that of reduction in the volume of financial assets from 200%-400% to 180% of GDP in the OECD countries with developed economies (source: Boston Consulting Group, Back to Mesopotamia, September, 2011).

Regardless of the timing of the reform, the question is that of converting most, if not all, of the already issued financial assets to the blockchain platform.

Blockchain market is a huge one and an unlimited field of activity, which opens up a huge potential for investment in various private crypto-currencies in the temporary absence of crypto-currencies of national central banks.

## ***INVESTMENT PLAN A. BASIC PLAN.***

The basic investment plan is based in case of an evolutionary process of adaptation of blockchain, where the turnover of private crypto-currencies is not prohibited. In the future private money will be freely circulated and compete with crypto-currencies of the national central banks.

The investment plan is based on the following principles: obtaining maximum profit over a short period of time and with minimum risks.

To achieve this goal the following investment diversification has been selected:

Short-term portfolio  
with low risk level

**20 %**

Short-term portfolio  
with high risk level

**70 %**



Long-term portfolio  
with high risk level

**10 %**

- I. high ratio of the short-term portfolio with high risk level - at least 70%,
- II. medium ratio of the short-term portfolio with low risk level - no more than 20%,
- III. low ratio of the long-term portfolio with high risk level - no more than 10%.

## ***Diversification.***

Diversification is a way to reduce the overall risk of a portfolio of financial assets, which consists of the allocation of investments between various assets that are the part of it.

In our case, diversification is achieved through investments:

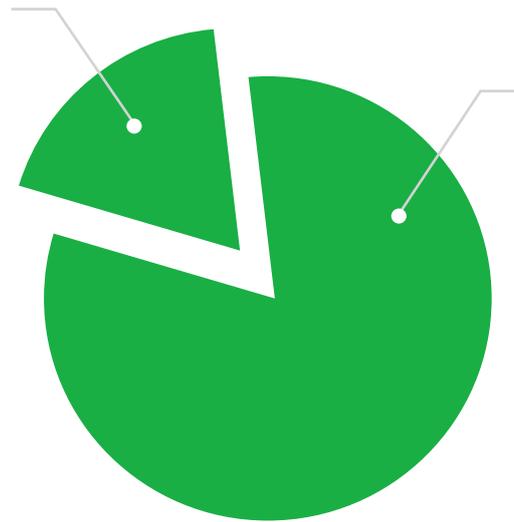
1) Into financial assets of different levels of risk, different levels of liquidity and different sectors of crypto-economy.

1.a) Diversification by risk level

- high level of risk - crypto-currencies (Tokens) and their derivatives (at least 80%);
- low level of risk - cash and precious metal (no more than 20%);

Low-risk level  
- cash funds and  
precious metals

**20 %**



High-risk level  
- crypto-currencies (Tokens)

**80 %**

### 1.b) Diversification by liquidity level

Liquidity is the ability to obtain a monetary (crypto-currency) equivalent easily and quickly with the minimum losses.

Cash funds and  
precious metals  
of high liquidity

**20 %**



Tokens of fintech startups  
of low liquidity

**10 %**

10 - capital intensive  
crypto-currencies  
of high liquidity

**70 %**

1.b.1) high-liquidity assets (at least 90%), such as:

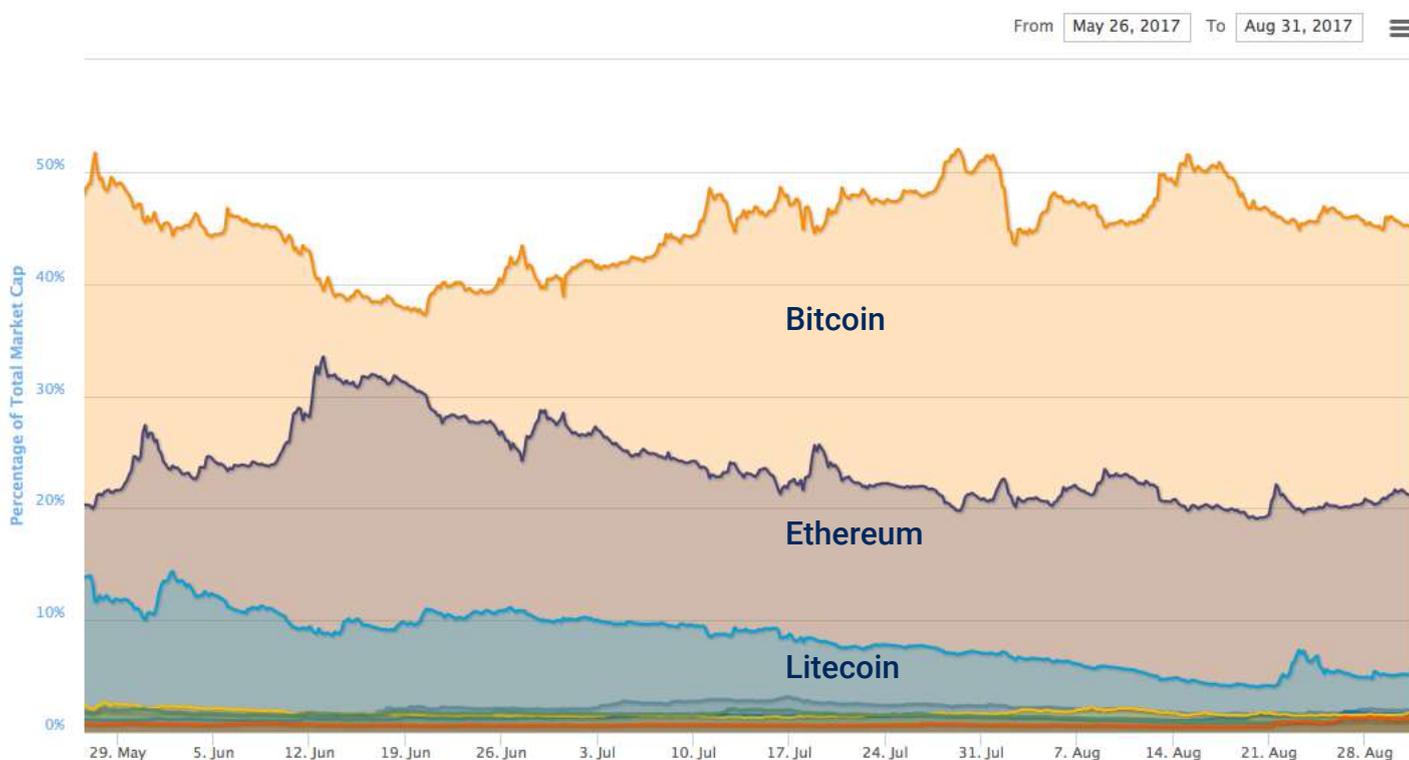
- cash funds and precious metals (no more than 20%);
- tokens of fintech startups of low liquidity ( no more than 10%)
- intensive crypto-currencies of high liquidity (at least 70%).

From the crypto-currencies, we choose some from the top tier: Bitcoin, Ethereum, Litecoin, and some others from the second tier: OmiseGO, Bitcoin cash, Ethereum classic, Monero, Dash, Ripple, NEO and others.

We weigh each of them by market capitalization and by their weight in the exchange turnover.

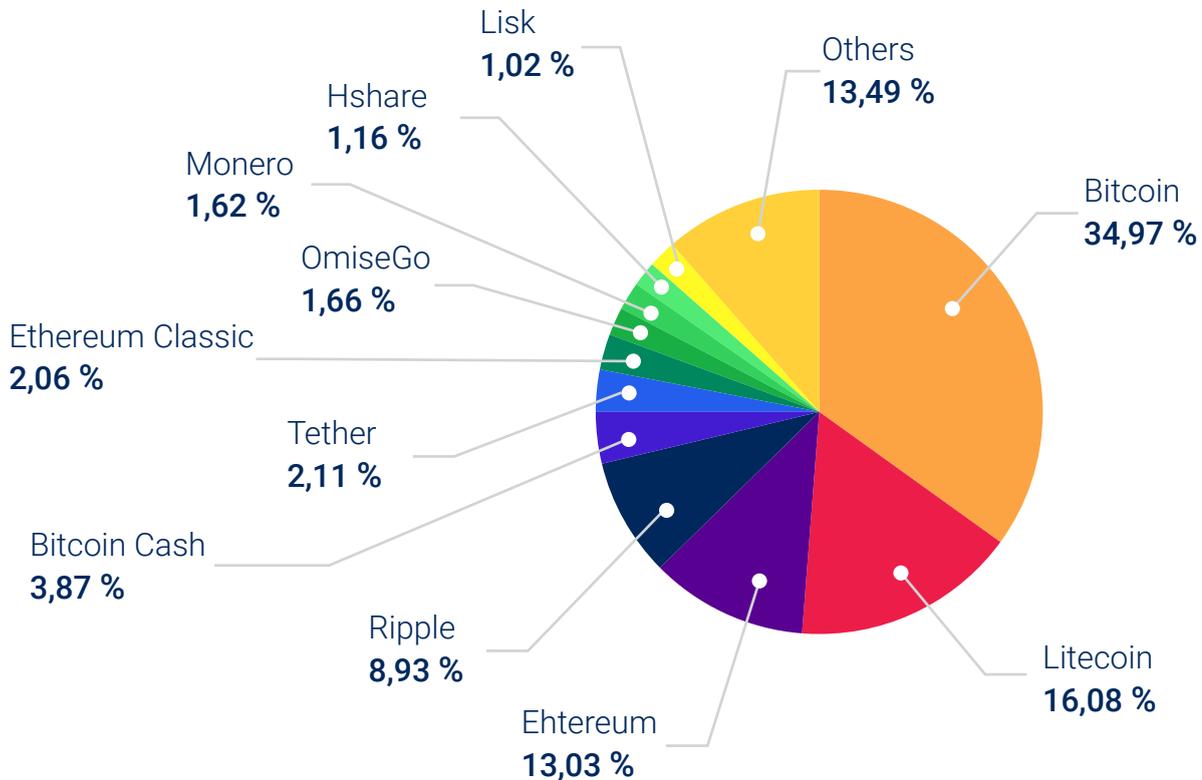
## **Chart. Weight of crypto-currencies by capitalization for 2017 (in %)**

Percentage of Total Market Capitalization (Dominance)



## Weight of crypto-currencies by traded volume for 2017 (in %).

Share in the daily traded volume, %



1.b.2) low-liquid assets (the third tier), Tokens of fintech startups on the primary market (ICO) and the secondary market (no more than 10%).

1.c) Sector diversification.

At this moment, in the period of weak market development and lack of quality assets, the sectoral approach to diversification remains in the background after pure speculation.

This approach is also explained by the high correlation of the Crypto-currencies (Tokens) to each other, which tends to plus 1.

But over time, industry diversification will become a key strategy.

2) Perform trading operations on different trading platforms within the framework of the established credit limits, but no more than 25% Net Asset Value of Crassula Capital per stock exchange / broker.

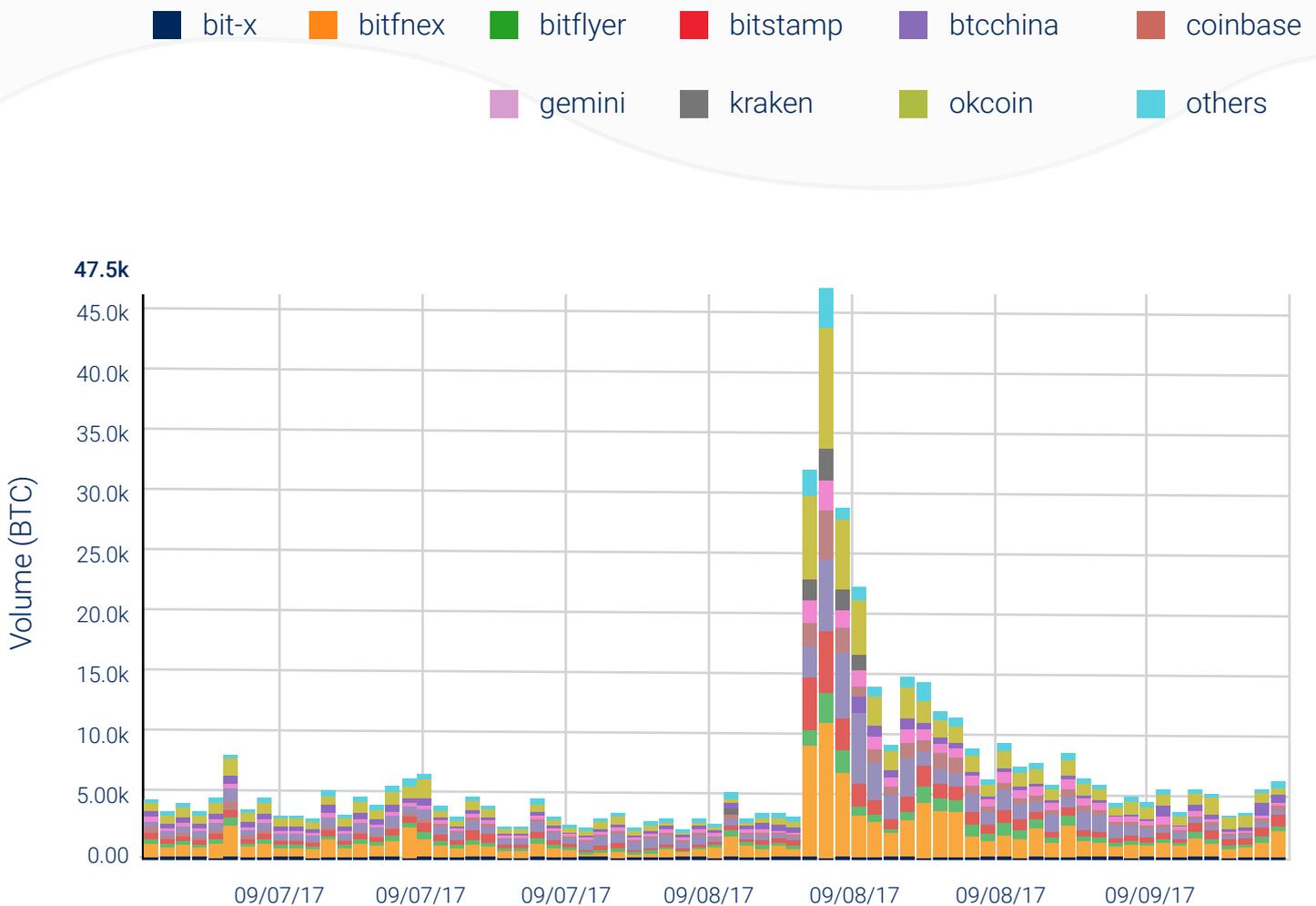
Currently, the main liquidity is provided by 9 stock exchanges.

*Table. World Leading crypto-exchanges*

Stock exchange	Main crypto-currencies traded
Bithumb	bitcoin cash, bitcoin, ethereum, Litecoin, Ripple, Qtum, ethereum classic, Dash, Monero
Bitfinex	bitcoin, bitcoin cash, ethereum, Litecoin, Tether, IOTA
Coincheck	bitcoin
Bittrex	bitcoin cash, bitcoin, ethereum, NEO
HitBTC	bitcoin cash, ethereum, bitcoin, Monero, Zcash, Dash
Coinone	bitcoin cash, ethereum, bitcoin, ethereum classic
Poloniex	bitcoin, ethereum, bitcoin cash, Litecoin, Ripple
GDAX	bitcoin, ethereum, Litecoin
Kraken	bitcoin, ethereum, bitcoin cash, Litecoin

So diversification makes it possible to reduce sovereign risk (as in the case with the restriction of crypto-exchange trading in China, chart attached), to reduce economic risks, industry risks, settlement and clearing risks – (as in the case with the restrictions of trade at BTC-E), as well as the issuer's risk.

## Chart. The Volume of crypto-exchanges in normal and stress situations for September 2017



### ***1. Short-term portfolio with a high level of risk of different liquidity levels (at least 80%).***

Structure of the short-term portfolio with a high level of risk of different liquidity levels:

1. Short-term investments in ICO of low liquidity level (up to 10%);
2. Participation in Hard Fork of crypto-currencies of a high level of liquidity (up to 40%);
3. Purchases of derivatives for crypto-currencies, futures and, in long term, options of a high level of liquidity (no more than 10%);
4. Repo transactions, swap (up to 10%);
5. Arbitration operations with crypto-currencies of a high level of liquidity (no more than 10%).

## **Description of short-term portfolio with high level of risk of different liquidity levels**

### ***1. Participation in the ICO (high level of risk and low level of liquidity)***

Participation in the ICO involves a purchase of Tokens before the ICO and at the time of the ICO and subsequent sales during the quarter.

To assess the potential of the ICO, express analysis includes:

- comparison of the White Paper and the smart contract;
- analysis of the smart contract from the viewpoint of protecting the interests of investors, in terms of the possibility of withdrawing funds at the ICO stage, unsecured issue of Tokens, etc.;
- registration of domains;
- availability and quality of source codes;
- availability and quality of documentation of the product or the service;
- availability and quality of software tests;
- competence of the team;
- online reviews (in forum threads);
- availability and level of the rating of the self-regulating organization (SRO) or a specialized rating agency.

Based on the conclusion of express analysis, a decision on participation in the ICO is taken. In case of a positive decision, the purchase date, volume, urgency and profitability of investments into the Token (Take Profit and Stop Loss levels) are determined. Then the process of purchase of the Token initiates.

The position (Token) taken on the books is transferred to the automatic monitoring of the Token balance sheet in terms of dynamics of its change (falling balance).

Decision is made to sell the Token (take profit / stop loss) and / or to transfer it to a Long-term portfolio with a high level of risk and a low liquidity level (no more than 10%) during the period of holding the Token position and after the completion of the short-term investment period.

## 2. Participation in Hard Fork (high level of risk and high level of liquidity)

*Bitcoin.org defines Hard Fork as follows:*

*A permanent divergence in the blockchain, commonly occurs when non-upgraded nodes can't validate blocks created by upgraded nodes that follow newer consensus rules.*

*A more understandable explanation, hard fork is the appearance of cloned crypto currency, which is similar to the original, but since the moment of hard fork lives a separate life and according to its rules.*

This process has no precedents in the world economy, except as it is in the crypto-world.

A strong economic component exists here.

Each Hard Fork brought its participants a new asset (clone), which is quoted higher or cheaper than the original.

In the first case, the 2016 Hard Fork ethereum led to the allocation of two crypto-currencies: ethereum classic (cheaper) and ethereum (more expensive).

In the second case, 2017 Hard Fork bitcoin led to the appearance of two "forks" of Bitcoin (a more expensive one) and Bitcoin Cash (a cheaper one).

At the same time, with allocation of two assets, the created infrastructure is assigned to them, including the stock exchange infrastructure, which allows operating them immediately after the Hard Fork. Here, liquidity issues are crossed out, which is very important.

### 3. Futures operations (high level of liquidity)

*Futures are financial contracts obligating the buyer to purchase an asset or the seller to sell an asset, such as a physical commodity or a financial instrument, at a predetermined future date and price.*

Futures are traded on organized trading platforms (stock exchanges), while forward contracts are traded on the over-the-counter market. The assets underlying the futures are streamlined. Purchase of a futures contract is called the opening of a long position; sale is called the opening of a short position. Due to the fact that the contracts are streamlined, purchases and sales cover each other mutually within the framework of a stock exchange.

To open a position on a stock exchange, a small initial deposit is required, which is called a deposit margin, or a security deposit.

So, having a small amount of funds, it is possible to multiply the yield of investments when buying futures for a basic asset (bitcoin) in comparison with the purchase of the basic asset itself.

In addition, derivatives are often used to hedge risks.

Hedging is insurance of risks of losses from changes in prices for financial assets, interest rates and exchange rates. Hedging of financial risks is achieved by taking the opposite position for an asset on the market, for example, by buying or selling futures or options.

A hedge is an investment to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security, such as a futures contract.

Other popular derivative instruments are options. Their appearance is constrained by the high volatility of crypto-currencies and the underdevelopment of crypto-exchanges.

*An option contract is a contract that grants the buyer, in exchange for a premium, the right (without obligation) to buy or sell a financial asset from the option seller at the exercise price within a certain period of time or on a certain date (expiration date of the option).*

Nowadays there are a lot of crypto-exchanges that offer margin trading services for derivative instruments, mainly in respect of bitcoin.

<b>Exchange</b>	<b>Derivative instruments</b>
Bitfinex	margin trading in bitcoin, Litecoin and DASH (DRK) with a leverage of up to 3.3
BTC-E	margin trading in bitcoin, Litecoin and NMC with a leverage of 1:2 и 1:3.
BTC.sx	margin trading through an Online broker on stock exchanges Bitfinex, Bitstamp and ItBit in BTC with a leverage of 2:1, 5:1 or 10:1
OrderBook	futures contracts with a maturity of several months.
TeraExchange	forward contracts for bitcoin with Spot settlement
Crypto Facilities	forward contracts for bitcoin price
BitMEX	margin trading with a leverage of up to 25:1, as well as a whole package of futures
BitVC	futures contracts for bitcoin price and "fixed-term deposits", that is, deposits which make it possible to raise liquidity of trade for other traders
796 Exchange	futures contracts for bitcoin and Litecoin, binary options, "virtual shares" of crypto-currency companies and trust funds
OkCoin	margin trade, including weekly, biweekly and monthly futures contracts in bitcoin and Litecoin
Coinarch	margin trade in bitcoin

## 4. Repo transactions (swap)

*A repo transaction is a bilateral transaction whose subject is sale and buyback of an asset in a certain period of time and at a certain price. Such transactions are used to refinance investments. For the party selling the security and agreeing to repurchase it in the future, it is a repo; for the party on the other end of the transaction, buying the security and agreeing to sell in the future, it is a reverse repurchase agreement.*

*A swap is a derivative contract through which two parties exchange financial instruments. These instruments can be almost anything, but most swaps involve cash flows based on a notional principal amount that both parties agree to.*

To simplify – Repo transactions (swap) make it possible to obtain the required crypto-currency for conducting your own transactions on the derivatives market or, to provide it to a third party for the purpose of obtaining passive interest income.

Currently, transactions of stock exchange Repo have become more widespread, which is connected, for example, with the attraction of funding for opening short positions. So repo transactions are conducted on the same stock exchanges where futures are traded.

## 5. Arbitration (high level of liquidity)

*An arbitration transaction is a transaction aimed at gaining income by reselling assets at more favorable prices on the same market, but in a future period, or on other markets. The size of profit as a result of arbitrage transactions varies depending on the credit risk associated with them.*

Therefore, arbitrage arises where different prices are set for the same asset at the same time. An example of arbitrage prices is presented in the table for 14 Sep 2017, where the best arbitrage at the moment in respect of the BTC / ETH pair is possible between the Kraken/Bittrex stock exchanges.

<i>Poloniex BTC ETH</i>		<i>Bittrex BTC ETH</i>		<i>Kraken BTC ETH</i>		<i>Bitfinex BTC ETH</i>	
0.07072426	131.41	0.07080000	21.96	0.07040000	36.85	0.07080000	95.97
0.07070000	128.76	0.07070000	20.72	0.07030000	36.82	0.07070000	95.36
0.07060000	128.21	0.07060000	20.37	0.07020000	33.67	0.07060000	47.86
0.07050000	121.90	0.07050000	19.59	0.07010000	9.98	0.07050000	31.52
0.07040000	105.67	0.07040000	10.75	0.07000000	9.77	0.07040000	30.36
0.07030000	100.99	0.07030000	9.49	0.07030000	0.62	0.07030000	28.43
0.07020000	89.53	0.07020000	7.48	0.07020000	0.61	0.07020000	19.75
0.07010000	87.27	0.07010000	5.27	0.07010000	0.41	0.07010000	17.37
0.07000000	71.97	0.07000000	4.64	0.07000000	0.34	0.07000000	2.04
<i>0.06992122</i> <b><i>0.06982903</i></b> <i>0.06982903</i>		<i>0.06999499</i> <b><i>0.06999499</i></b> <i>0.06965</i>		<i>0.069600</i> <b><i>0.069600</i></b> <i>0.069590</i>		<i>0.06994</i> <b><i>0.06994</i></b> <i>0.069867</i>	
0.06980000	13.42	0.06960000	3.66	0.06950000	13.45	0.06980000	29.82
0.06970000	28.22	0.06950000	10.22	0.06940000	15.21	0.06970000	36.51
0.06960000	61.78	0.06940000	10.66	0.06930000	26.41	0.06960000	39.25
0.06950000	78.36	0.06930000	10.72	0.06920000	43.15	0.06950000	61.11
0.06940000	81.18	0.06920000	22.85	0.06910000	91.58	0.06940000	67.85
0.06930000	159.83	0.06910000	23.83	0.06900000	91.66	0.06930000	72.24
0.06920000	169.21	0.06900000	29.68	0.06890000	92.33	0.06920000	72.41
0.06910000	171.71	0.06890000	32.48	0.06880000	92.84	0.06910000	72.77
0.06900000	436.34	0.06880000	32.51	0.06870000	93.53	0.06900000	118.72
0.06890000	438.65	0.06870000	33.11	0.06860000	93.53	0.06890000	118.87
0.06880000	443.33	0.06860000	34.73	0.06850000	93.78	0.06880000	119.21
<b><i>24h volume</i></b>		<b><i>24h volume</i></b>		<b><i>24h volume</i></b>		<b><i>24h volume</i></b>	

## ***II. Short-term portfolio with a low level of risk and high liquidity (no more than 20%).***

### ***Cash funds and precious metals.***

Cash funds are meant as US Dollar, Euro, Yuan and other local currencies used in settlements on the crypto-exchange. Investments in precious metals mean gold and silver.

Accounting for these assets is provided for on-exchange accounts and over-the-counter accounts.

### ***Assignment of a position***

Cash funds mean freely convertible currencies (hard currencies). US dollar, Euro, Yuan are reserve currencies, i.e. accumulate in reserves of central banks of the world. This is a risk-free asset with high liquidity and negative correlation to crypto-currencies in the value of minus 1.

Precious metals have high liquidity, on a level with freely convertible currencies. Gold is a part of the reserves of central banks.

Gold has low volatility on a par with US Treasury securities. Silver is 1.5-2 times more volatile than gold.

Precious metals do not have a stable correlation with any asset and rather have a negative correlation with cash.

In relation to each other, gold and silver have a positive correlation which tends to plus 1.

Therefore, cash funds and precious metals are a pool of liquid assets that have payment and hedge characteristics and whose value increases (decreases) during the periods of falling (rising) quotations of crypto-currencies (Tokens).

## ***III. Long-term portfolio with a high level of risk and low level liquidity (no more than 10%).***

Investments in the ICO and purchases on the secondary market. Methodology and criteria of selection.

Purchase of a Token into a long-term portfolio with a high level of risk and low liquidity takes place at the stage of ICO or on the secondary market. This is possible by means of a direct purchase from the primary or secondary market and assignment of the position to the long-term portfolio, and also by means of transferring the position from the short-term portfolio to the long-term portfolio.

In both cases the primary or secondary express analysis is used. In the latter case, a conclusion is made about the actual level of return on investment.

In the future, as the ICO market develops and legislative or self-regulatory rules of ICO are introduced, rapid analysis will be supplemented by the current methods for assessing start-ups of the real economy.

They may be:

- **Bill Payne scoring model**  
<http://billpayne.com/wp-content/uploads/2011/01/Scorecard-Valuation-Methodology-Jan111.pdf>
- **calculator of Cayanne Consulting**  
<https://www.caycon.com/valuation.php>
- **method of summability of risk factors**  
<http://blog.gust.com/valuations-101-the-risk-factor-summation-method/>
- **Berkus method** <https://berkonomics.com/?p=1214>
- **evaluation of the start-up balance** (its own software, product, patents, cash inflow, customers/users and Partners) and key performance indicators (KPI)  
<https://jumpstartcto.com/defining-your-startup-key-performance-indicator-kpi/>

## ***INVESTMENT PLAN B. CONSERVATIVE PLAN.***

Move from the Basic investment plan to the Conservative investment plan is possible in the event of a decision by the G20+ monetary authorities on the termination of the turnover of private crypto-currencies.

In accordance with this statement, our assets are redistributed into the Tokens and crypto-currencies (of the primary market (ICO) and the secondary market):

- 1 On whose basis crypto-currencies of national central banks (Central Bank Digital Currency - CBDC) are tested or created;

2 which are created under the principle of The Sandbox Approach of the IMF, for infrastructure projects of non-profit organizations in partnership with the state in such areas as settlements, clearing, loans, deposits, investments, KYC (AML/CFT) procedures and other areas;

3 of national central banks (CBDC).

The first example is Ethereum, which is the test bed for Russian Federation, Great Britain and Singapore new monetary system.

The second category includes projects like Settlement Coin created by a consortium of banks led by UBS.

Work in the Sandbox Approach format will be built through available jurisdictions. The current status of the state program Sandbox Approach as for August 2017 is presented in the BIS table below.

### Jurisdictions initiatives to facilitate innovation

Source: BCBS-FSB survey.

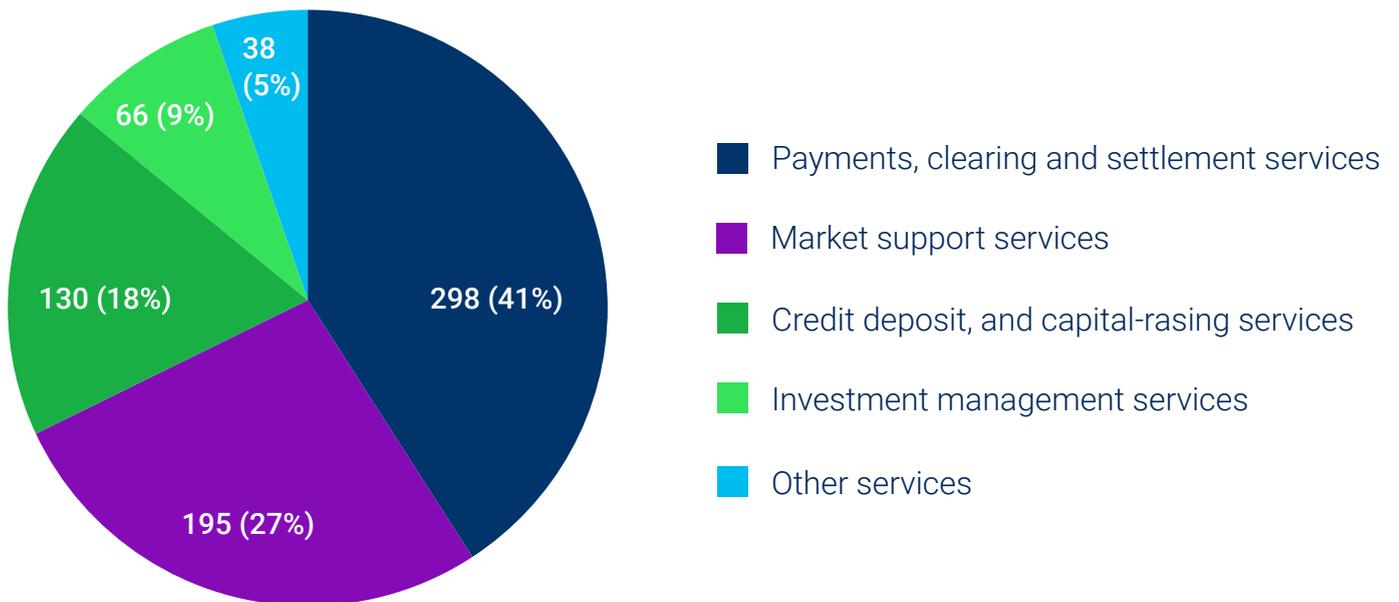
Innovation facilitators			
	Innovation hub	Accelerator	Regulatory sandbox
	A place to meet and exchange ideas	"Boot-camp" for start-ups culminating in a pitch presentation	Testing in a controlled environment, with tailored policy options
Australia	ASIC	ASIC	ASIC
Belgium	NBB/FSMA		
ECB	SSM <sup>31</sup>		
France	ACPR/AMF	BDF	
Germany	BanFin		
Italy	BOI		
Hong Kong	HKMA		HKMA
Japan	BoJ/FSA		
Korea	FSC		FSC
Luxembourg	CSSF		
Netherlands	DNB/AFM		DNB/AFM
Singapore	MAS	MAS	MAS
Switzerland	FINMA		FINMA
U.K.	BOE/FCA	BOE	FCA <sup>32</sup>

Here, the sectoral procedure for diversification in the formation of the investment portfolio comes to the first place.

As can be seen from the BIS chart for 2017, investments are made in the following key areas:

- payments, clearing and settlements (41%)
- market support (27%)
- lending, deposits and capital raising (18%)
- investment management (9%)
- other services (5%)

### ***Survey of key providers per fintech activity***



Such "guaranteed" distribution of funds will help Crassula Capital to ensure the safety of investments and a stable income in the future.

In this context, Crassula Capital will provide its Partners with the opportunity to participate indirectly in the development of local and global government projects and private-public projects on implementation of Blockchain technologies.