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## THE CRYPTOCURRENCY PENSION MECHANISM FOUNDATIONS

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### Abstract.

**Purpose:** To propose a digital model of the pension system of an industrial enterprise, in order to ensure sectoral economic resilience.

**Method:** The system is based on a wide application of the company's local crypto-currency, specially designed for these tasks, with its accrual to registered pension accounts.

**Result:** A part of the social tension caused by the government reform of the pension system is being removed. The potential of corporate culture is growing, through retaining valuable employees for the enterprise. Qualitative relationships with loyal customers are developing. **Conclusions:** Economic resilience at the level of a single industrial enterprise can be ensured, among other things, by introducing a specific crypto-currency pension mechanism into the perimeter of the enterprise.

**Keywords:** economical resilience, cryptocurrency, pension system.

Pension reform in Russia is extremely unpopular, but it also is a long overdue measure. The implementation of this reform is due to the constant deterioration in the ratio of the number of pensioners and the economically active population of the country, with the country's stagnant GDP. The increase of the retirement age by 5 years, at the same time for men and women, causes the expected shortfall of income on the side of pre-retirement age people, totaling about 750 thousand rubles for the pre-retirement period. The loss of these incomes will have a painful effect on pre-retirees (PR). Today, the PR is a new legislatively introduced category of people, since the same benefits as in traditional pensioners are beginning to be distributed in the PR according to the draft reform.

And, at the same time, Russian businesses have strong opportunities to partially compensate PR losses as a result of the reform, thanks to the newly emerging crypto currency opportunities on the market. Such opportunities can be implemented within the framework of a captive pension crypto

fund specially created within the framework of the enterprise. Captive pension funds of enterprises are not new; for example, in the US (the so-called IRS-program), the company makes regular deductions in favor of employees for specialized accounts, and then purchases of "long-playing" securities are made from these accounts. Upon dismissal, the employee receives severance pay in the form of a package of liquid securities, which he then disposes of at his own discretion.

In our case, the formation of the pension programs of the enterprise should begin with the rapid compensation of PR of a number of falling revenues. For example, if the enterprise's PR number is 200 people, and 5 to 8 thousand rubles are allocated to compensate for the drop-out income per month (payment of utilities, electricity, medicines, etc.), so the corresponding pre-pension contributions will be from 12 to 19.2 million rubles a year. This is a solid amount that the enterprise has to earn, for example, by the third-party mining crypto currency.

Suppose that an enterprise has installed and operates a crypto farm with an

installed capacity of 1 MW, and one crypto currency (for example, ZCash) is running. If, hypothetically (for a calculated example), the mining terms are considered unchanged throughout the year (although, in fact, the laboriousness of mining is increasing steadily), then this farm is able to generate 5,800 coins per year. According to the terms of August 2018, one coin of ZCash costs about \$ 150 or about 10 thousand rubles. Accordingly, the gross income from mining is, excluding transaction costs, approximately 58 million rubles a year.

The main variable operating cost is the power consumption for mining. There is no reason to purchase electricity for mining from the external city network, this electricity will cost 5.5 rubles per kW\*h and more. It is much more interesting to adapt the source of autonomous power supply for these purposes. For example, when using a 1.2-megawatt Caterpillar (USA) gas propulsion plant, the cost of electricity production is about 2.4 rubles per kW\*h. In this case, if the farm works 365 days a year and 24 hours a day, then the electricity costs for its operation will amount to about 21 million rubles a year. And, thus, we have gross margin for the mining project at the level of  $58 - 21 = 37$  million rubles a year. Assuming that a third of the marginal profit is directed to cover the payments of the PP, and the remaining amount - creates a net cash flow to cover the initial investment costs for the mining project, the simple payback period of the project of the mining center will be 6-7 years, which, according to current economic conditions is too much.

Much more promising is the option when it runs its own crypto currency, issued by an enterprise or an ecosystem formed around the enterprise. Here is a well-known effect of seigniorage. For example, if the cost price of making a 100-dollar bill is about 7 cents, then the rest of the world's covered goods and services for the whole world economy is the seigniorage assigned by the issuer of the reserve (not provided with material values) reserve currency by the US state. Not a bad profit for the US Federal Reserve! As Freken Bok said to her cat in the Russian cartoon about Karlsson: "Matilda! Crooks are shown on the TV! Am I any worse?" (c).

If we repeat this trick and "print" the crypt at the starting low energy intensity, then the company can fill its pension fund with a low-cost crypt, and then place it on the ICO (Initial Coin Offering), or in the Russian law (if by that time the first reading laws on digital assets will be adopted in the final version), or in foreign law, through the foreign representation of the enterprise. For example, according to this scheme, tokens of the Kazan venture fund Pulsar were issued. In both cases, pre-retirement payments will be implemented not by the enterprise itself, but by that part of the financial market that is oriented towards the release and turnover of the crypto currency.

The key success factor for such an ICO is the success of market-making efforts that third-party players undertake to maintain the rational course of the released crypto currency, in accordance with its continuously growing energy intensity. For example, in September 2018, the energy intensity of a ZCash coin is 1500 kWh per coin, or about 4 thousand rubles spending while industrial mining. Once a coin is traded at 10 thousand rubles and has acceptable liquidity, the gross margin of operations is 60%. This is approximately double the traditional marginal profitability for world industrial companies.

And if you mine your own crypto currency at the starting capacity of 35-50 kWh, then marginality will approach the same when you issue a cash 100-dollar bill and make up about 99%.

Naturally, the development of the idea of financing PR by means of crypto-mechanism is also developing in relation to the enterprise as a whole. Employees can open individual pension accounts and charge a crypt there. The amount of accruals, of course, varies depending on the importance of the position of the employee in the company, his current compensation and accumulated experience. When the pre-retirement age is reached, the accumulated deposits for the employee are thawed at a rate of 20% per annum. Thus, the program of retention of perspective employees at the enterprise is developed.

In conclusion of the report, it should be noted that no local measures to improve the financial well-being of PR, which can be

undertaken by individual companies, will not replace the strategic efforts of the state, which should be directed to the development of fundamentally new financial technologies. The share of the global capitalization of the Russian corporations is 2% of the world, while Russia is located on 1/6 part of the land of the planet Earth and has the richest resource potential, in terms of explored and unexplored reserves. It suggests the idea that to increase the economic stability of the

country should focus on the issue of its own country currency - the Russian cryptoruble. And by the same crypto-payer to pay pensions of PR, covering the falling incomes of the corresponding households. Such an approach would testify to the achievement of the Russian Federation of genuine financial sovereignty.

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