Національний університет
«Полтавська політехніка імені Юрія Кондратюка»

National University
«Yuri Kondratyuk Poltava Polytechnic»

ЕКОНОМІКА І РЕГІОН

№ 4 (91) 2023

ECONOMICS AND REGION

Vol. 4 (91) 2023

www.eir.nupp.edu.ua

Видавничий дім
«Гельветика»
2023

UDC 336.743:004.738.5]:339.97
DOI: 10.26906/EiR.2023.4(91).3211
JEL G11, G24, O16

PECULIARITIES OF INVESTMENT PORTFOLIO MANAGEMENT IN THE CONTEXT OF GLOBALISATION CHANGES

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Стаття отримана редакцією 04.12.2023 р.
The article was received by editorial board on 04.12.2023

Introduction. The deepening globalisation and integration of world economic relations, the automation of business processes and the widespread use of digital technologies and tools are fundamentally changing established approaches and traditional business models. Today, cryptocurrencies are at the forefront of technological innovation, global finance and a new generation of monetary policy. The development of all digital financial assets, and cryptocurrencies in particular, has attracted considerable interest in recent years. During the global financial crisis, the system of monetary circulation showed extreme instability. At that time, confidence in the US dollar weakened and ideas about creating new currencies, including regional ones, emerged in society. It was during this period that the Peer-to-Peer Bitcoin payment system developed by Satoshi Nakamoto was created and the term "cryptocurrency" was used for the first time.

Years have passed since the appearance of the first real cryptocurrency, hundreds of others have appeared, but it was only at the end of 2015 that they attracted the world's attention. During this period, a real investment explosion led to a tenfold increase in the capitalisation of the cryptocurrency market, and although the sceptical opinions of many economists have been swirling around the cryptocurrency market for a long time, in the new conditions it is impossible to ignore the influence of this market on the development of the global financial system. The world is constantly changing and requires its participants to adapt to these changes, which determines the relevance of the "cryptocurrency" concept study and the possibility of using it as a financial asset for investment.

Analysis of recent research and publications. Al-Yahyaee K.H., Mensi W., Ko H.U., Yoon S.M., Kang S.H. [12] investigated the multifractality, long memory process and efficiency hypothesis of six major cryptocurrencies (Bitcoin, Ethereum, Monero, Dash, Litecoin and Ripple) using the time-rolling MF-DFA approach.

Sharma S.K., Modanval R.K., Gayathri N., Kumar S.R., Ramesh C. [13] analyse in their study that cryptocurrency uses blockchain technology to replace traditional cryptographic methods. The authors investigated the importance of blockchain and big data in national development with its various aspects in Industry 4.0.

Alqaryouti O., Siyam N., Alkashri Z., Shaalan K. [14] analyse the impact of cryptocurrency use on users' perceived benefits and behaviour using the technology acceptance model. The authors proposed three main factors: perceived ease of use, perceived benefits and usage behaviour to measure the impact of these factors on the relationship between perceived ease of use and usage behaviour.

Bartolucci S., Destefanis G., Ortu M., Uras N., Marchesi M., Tonelli R. [15] investigate how developers' emotions can improve the prediction of token prices. The authors consider developer comments and activities for two major blockchain projects, Ethereum and Bitcoin, over time, and test the corresponding time series for correlations and causality with the Bitcoin/Ethereum price time series.

Assaf A., Bhandari A., Charif H., Demir E. [16] in their study analyse the long-term memory behaviour of Bitcoin, Litecoin, Ethereum, Ripple, Monero and Dash with a focus on the COVID-19 period. In their study, they propose a time-varying lifting method to estimate the Hurst exponent for each cryptocurrency.

Objectives of the article. The purpose of the article is to analyse the peculiarities of investment portfolio management, compare cryptocurrencies and company shares, and identify further trends in the use of cryptocurrencies in the business environment.

The main material of the study. Investing is the act of allocating resources, such as money or time, with the expectation of receiving a profit or return in the future. In other words, investing is putting money into something with the hope of getting more money in the future.

Investments can take many forms, including buying stocks or bonds, investing in property or even starting a business. The objective of investing is generally to generate a positive return on the amount invested, although there is always a certain level of risk involved.

Successful investing requires a combination of knowledge, research and risk management. It's important to understand the potential risks and rewards of any investment before committing resources, and to diversify investments to minimise exposure to any one asset or market.

Key things to know about investing:

1. Different types of investments. There are many different types of investments, including stocks, bonds, real estate, mutual funds, exchange-traded funds (ETFs), etc. Each type of investment has its own benefits and risks, and it is important to understand the differences between them before making any investment decisions.

2. Risk vs. reward. All investments involve a certain level of risk, but the potential reward can vary greatly from investment to investment. As a rule, investments that offer higher potential rewards also involve a higher level of risk. It is important to understand one's risk tolerance and invest accordingly.

3. Time horizon. The time horizon of an investment is the period of time for which it is planned to hold an investment before selling it. Different investments are suitable for different time horizons. For example, stocks may be a good long-term investment, while bonds are better suited for short-term purposes.

4. Diversification. Diversification is a key component of successful investing. By diversifying investments across different asset types and markets, it is possible to reduce overall risk and potentially increase returns.

5. Fees and expenses. Many investments involve fees and expenses, such as transaction fees, management fees, and account maintenance fees. These costs can accumulate over time and eat into one's profits, so it is important to understand the costs associated with any investment before investing [1].

Cryptocurrencies and stocks are two popular investment options, each with its own unique features and risks. Therefore, it is necessary to compare these two investment options in order to understand which one is more suitable for making a bigger profit.

1. What is Cryptocurrency?

Cryptocurrency is a digital or virtual currency that uses encryption techniques to regulate the creation of currency units and verify the transfer of funds. The most popular cryptocurrency is Bitcoin, which was launched in 2009. Cryptocurrencies operate independently of central banks and are decentralised, meaning that no single entity controls the currency. The value of cryptocurrencies is determined by market supply and demand [4]. Table 1 lists the advantages and disadvantages of using cryptocurrencies by company.

Cryptocurrency as a special electronic means of payment is supported only by supply and demand. Such electronic money is not regulated by any state system, including the National Bank of Ukraine. In this case, the role of observers and controllers is played by network users and owners of cryptocurrencies. Currently, digital currencies are not a reliable store and measure of value due to the high volatility of the exchange rate. The main factors that affect the value of cryptocurrencies are the relationship between supply and demand, investor sentiment and market factors.

Another important factor that distinguishes cryptocurrencies from fiat money is the limited supply. For example, the most popular cryptocurrency, Bitcoin, has a limit of 21 million coins. It is worth noting that Bitcoin is the most successful implementation of an alternative financial system in terms of security, stability and marketing. The dynamics of the Bitcoin exchange rate are shown in Figure 1.

The main features of cryptocurrencies that distinguish them from conventional currency are their decentralisation, i.e., the absence of a regulatory body that would regulate cryptocurrencies and the method of their issuance. Cryptocurrency issuance is called "mining" and involves using the capabilities of computer

Table 1

Advantages and disadvantages of using cryptocurrency

Advantages	Disadvantages
Open-source cryptocurrencies	Lack of security guarantees for e-wallets
Unlimited transaction opportunities	The risk of losing the key to a cryptocurrency
Absence of inflation	Cryptocurrency exchange rate volatility
Anonymity of use	Dependence of the exchange rate on demand
Decentralisation	Possible negative actions by national regulators
No commission fee	Hacker intervention
Equal terms of use between users	Problematic refunds in case of an erroneous currency transfer
Independence from the national economy	User distrust
Protecting data from external threats	

Source: [8]

Figure 1. Bitcoin to USD Chart

Source: [9]

systems to generate unique sets of symbols that make up a cryptocurrency [10]. Below is a visualisation of the trending cryptocurrencies in April 2023 (Figure 2).

Despite the cases of cryptocurrencies used in internet commerce, they cannot fulfil the functions of a means of circulation and payment. For this function of money, the simplicity and speed of the transaction is key. In some cases, the confirmation of the transaction can take quite a long time, which is unacceptable for everyday buying and selling transactions. Another reason is the impossibility of cancelling the transaction. In the event of a payment error or the return of the product, it is impossible to cancel the payment in cryptocurrency. In addition, the transactions do not allow the identification of the persons making them, so cryptocurrencies cannot be used in credit relationships. Such features are an obstacle to the use of cryptocurrencies as a means of circulation and payment.

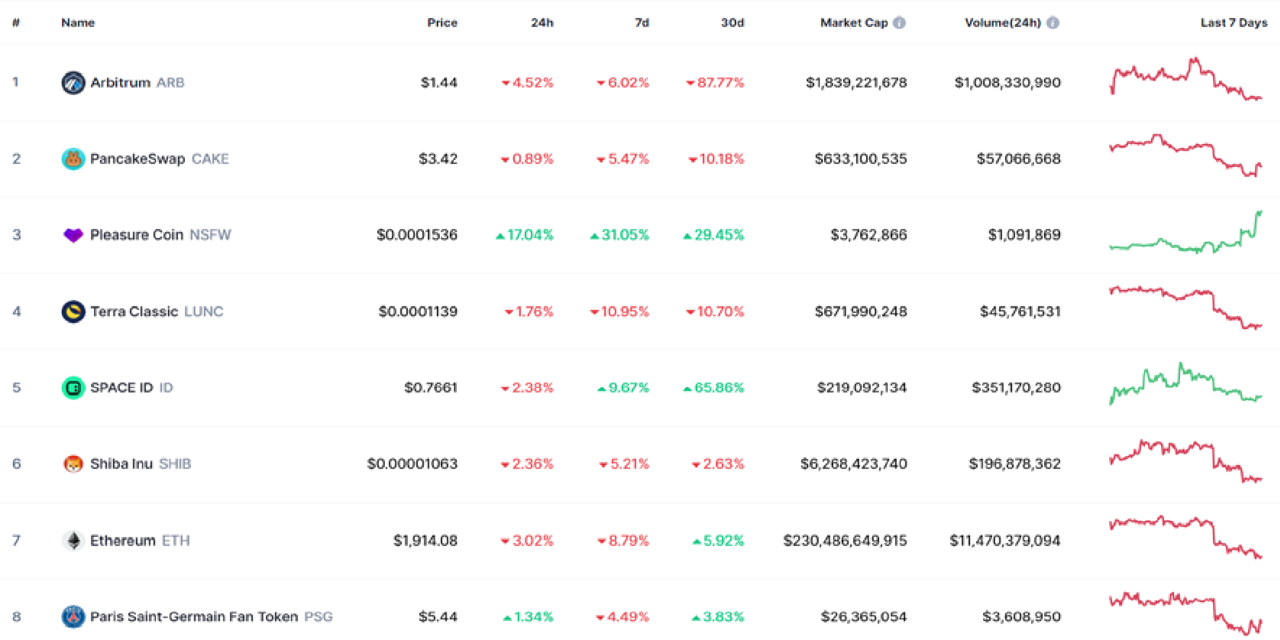
2. What are Shares? Comparison of Cryptocurrency and Stocks

Shares, also known as units, represent a share in the ownership of a company. By purchasing a share, a person can become a partial owner of a company and have the right to its assets and profits. The value of shares is determined by the company's financial performance, management and other factors [5].

The next point of the study is a comparison of cryptocurrencies and stocks:

– Volatility

Cryptocurrencies are more volatile than stocks. The value of cryptocurrencies can fluctuate significantly over a short period of time, sometimes even within a single day. For example, in 2021, the value of bitcoin



#	Name	Price	24h	7d	30d	Market Cap	Volume(24h)	Last 7 Days
1	Arbitrum ARB	$1.44	▾4.52%	▾6.02%	▾87.77%	$1,839,221,678	$1,008,330,990	
2	PancakeSwap CAKE	$3.42	▾0.89%	▾5.47%	▾10.18%	$633,100,535	$57,066,668	
3	Pleasure Coin NSFW	$0.0001536	▴17.04%	▴31.05%	▴29.45%	$3,762,866	$1,091,869	
4	Terra Classic LUNC	$0.0001139	▾1.76%	▾10.95%	▾10.70%	$671,990,248	$45,761,531	
5	SPACE ID ID	$0.7661	▾2.38%	▴9.67%	▴65.86%	$219,092,134	$351,170,280	
6	Shiba Inu SHIB	$0.00001063	▾2.36%	▾5.21%	▾2.63%	$6,268,423,740	$196,878,362	
7	Ethereum ETH	$1,914.08	▾3.02%	▾8.79%	▴5.92%	$230,486,649,915	$11,470,379,094	
8	Paris Saint-Germain Fan Token PSG	$5.44	▴1.34%	▾4.49%	▴3.83%	$26,365,054	$3,608,950	

Figure 2. Trending cryptocurrencies on CoinMarketCap

Source: [11]

increased by more than 1000%, but in 2022 it lost almost 80% of its value. In contrast, stocks tend to be less volatile and can experience gradual changes in value.

– Liquidity

Cryptocurrencies are slightly more liquid, especially in Ukraine, where there are no stock exchanges. But in the US, anyone can buy and sell stocks in much the same way as cryptocurrencies. However, transactions with stocks are usually done through brokers, which takes time and money. So, cryptocurrencies are more liquid, but this difference is not very noticeable.

– Regulatory Framework

Stocks are regulated by government agencies such as the Securities and Exchange Commission (SEC) in the United States. Regulation ensures that companies follow certain rules and disclose accurate financial information to investors [2]. Cryptocurrencies, on the other hand, are not regulated and have no government oversight. They are governed by smart contracts (self-sustaining computer programs that automatically enforce the terms of a contract between two or more parties), which are more reliable and transparent than government regulation. Thus, both parties are trustworthy, but cryptocurrencies are more transparent [6].

– Diversification

Stocks and cryptocurrencies have many ways to diversify. When buying stocks, they can be invested in different industries and companies. On the other hand, it is possible to buy different cryptocurrencies and invest them in many different instruments, such as staking, liquidity pools, dual investments, and startup pools, which helps spread investment risks and even earn additional interest. It is also possible to make a diversified portfolio with just 100 USD, while in the case of stocks, one needs to invest about 1000 USD to achieve a good level of diversification. However, the best way to diversify an investment portfolio is to add different types of assets (cryptocurrencies, stocks, bonds, fiat currency) to it [3].

– Investment Goals

Investment objectives also play a crucial role in deciding whether to invest in stocks or cryptocurrencies. If looking for a long-term investment with a stable income, stocks may be a better option.

Comparing the equity and cryptocurrency markets, one can conclude that when investing personal funds, it is necessary to diversify risks.

All assets can be divided into two main types: risky and low-risk. Risky assets are those that do not guarantee any profitability or capital preservation: stocks, cryptocurrencies, commodities, businesses, IPOs and other types of investments. There are risks in everything. Low-risk assets are those that guarantee capital preservation and a certain income: government bonds, bank deposits. Naturally, even in this case there is a risk: the bank may lose its licence, and the state may default. However, if the bank is large and stable, and the economy is stable, the risk of default or licence revocation is minimal [7].

War is a real test of the reliability of all systems. The war forced a reconsideration of the attitude to investing. During the war, cryptocurrencies have shown that they do not depend on the NBU's restrictions or possible banking crises. Earned bitcoins or ethers can be easily transferred to volunteers, taken abroad and exchanged for foreign currency. Although this is associated with a high level of volatility.

The optimal portfolio should consist of a variety of assets and be designed for the long term, not for making a profit "here and now". If necessary, it is possible to create two portfolios: a long-term portfolio (>70% of investments) and a speculative portfolio (<30%), which can bring good returns but is risky and can be lost without regret. In the world of investments, those who use multiple strategies often win. The optimal portfolio consists of:

– Shares of the largest and most stable companies, such as technology, commodities and banking sectors.

– Shares of individual companies from different countries in which they are the largest. The more countries represented in the portfolio, the better it is optimised.

– Cryptocurrencies: Bitcoin and Ethereum, as well as 3-5 other promising cryptocurrencies or tokens of good projects that are developing steadily. And also, to increase potential profits and minimise possible losses.

– In times of war or other major crises, it is important to remain calm and not make rash investment decisions. Panic buying or selling can lead to significant losses. Instead, it is important to have a long-term investment strategy and a diversified portfolio that can withstand temporary market fluctuations.

Conclusions. Thus, taking into account all the above, it can be concluded that cryptocurrencies are an attractive investment object. Many economic processes are carried out with the help of digital funds, and their percentage is growing significantly all the time. All investments in cryptocurrencies are often accompanied by both the risk of loss and the opportunity to make good money. Therefore, any company forming a portfolio of assets should select a set of specific virtual assets according to the chosen type of activity of the virtual asset market participant. Based on the generalisation of data on the state of the cryptocurrency market, its formation is promising:

By portfolio for holding – virtual assets that meet the requirements of an acceptable level of risk (Ethereum, Binance Coin, Solana, Cardano, XRP, Polkadot, Terra, Dogecoin, Avalanche, Polygon, Shiba Inu, Crypto. com Coin, Cosmos, Algorand) and profitability (Ethereum, Binance Coin, Solana, Cardano, XRP, Polkadot, Terra, Dogecoin, Avalanche, Polygon, Shiba Inu, Crypto.com Coin, Cosmos, Algorand);

by the portfolio for sale – virtual assets that are in the greatest demand among consumers of services related to the circulation of virtual assets (Tether, Bitcoin, Ethereum, Binance USD, Cosmos, USD Coin, Binance Coin).

When comparing the stock market and the cryptocurrency market, it is important to understand the risks associated with each type of asset and diversify one's portfolio to minimise these risks. An optimal portfolio should include a variety of assets, such as stocks, bonds and cryptocurrencies, and be designed for long-term growth rather than short-term gains.

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UDC 336.743:004.738.5]:339.97

JEL G11, G24, O16

Alina Chaikina, Candidate of Economic Sciences, Associate Professor, Senior Lecturer at the Department of Management and Logistics. **Anastasiia Dobrovolska,** Bachelor's Degree Student, National University "Yuri Kondratyuk Poltava Polytechnic". **Peculiarities of investment portfolio management in the context of globalisation changes.**

The article analyses changes in approaches to investment in the period of globalisation and digitalisation of world economies. It is found that investments can take various forms, including the purchase of shares or bonds, investment in real estate or starting a new business. Certainly, investing is an unpredictable and risky process, as it does not always result in a return on the invested amount. It has been proven that successful investing requires a combination of knowledge, research and risk management. It is important to understand the potential risks and rewards associated with any investment before investing your own money, and to diversify your investments to minimise exposure to any particular asset or market. The authors found that cryptocurrencies and stocks are two popular investment options that have both advantages and disadvantages. The study found that cryptocurrency, as a digital or virtual currency, uses encryption techniques to regulate the generation of currency units and verify the transfer of funds, and the most popular cryptocurrency is Bitcoin. Cryptocurrencies operate independently of central banks and are decentralised, so the value of cryptocurrencies is determined by market supply and demand. The article shows that digital currencies are not a reliable means of saving and a measure of value due to high exchange rate volatility. The main factors affecting the value of cryptocurrencies are the ratio of supply and demand, investor sentiment and market factors. The features of investing in joint stock companies are studied. Accordingly, by purchasing shares in a company, a person can become a partial owner of the company and have rights to its assets and profits. The value of each share is determined by the constituent documents, as the nominal value of one share must be the same. A comparison of investments in cryptocurrencies and stocks has shown that an optimal investment portfolio should consist of a wide range of assets and be designed for the long term. The optimal portfolio should consist of shares of the largest and most stable companies, as well as cryptocurrencies: Bitcoin and Ethereum. It is proved that in order to increase profits and minimise possible losses in wartime, it is important to have a long-term investment strategy and a diversified portfolio that can withstand temporary market fluctuations.

Key words: investments, investing, cryptocurrency, stocks, investment portfolio management, digitalisation.

УДК 336.743:004.738.5]:339.97

JEL G11, G24, O16

Чайкіна Аліна Олександрівна, кандидат економічних наук, доцент, доцент кафедри менеджменту та логістики. **Добровольська Анастасія Артемівна,** студентка бакалаврату, Національний університет «Полтавська політехніка імені Юрія Кондратюка». **Особливості управління портфелем інвестицій в контексті глобалізаційних змін.**

У статті було проаналізовано зміни у підходах до інвестування в період глобалізаційних змін та діджиталізації економік країн світу. Виявлено, що інвестиції можуть приймати різні форми, включаючи купівлю акцій або облігацій, інвестиції в нерухомість або у відкриття нового бізнесу. Звичайно, що інвестування – це непередбачуваний та ризикований процес, оскільки не завжди результатом є отримання прибутку від інвестованої суми. Доведено, що успішне інвестування вимагає поєднання знань, досліджень і управління ризиками. Важливо розуміти потенційні ризики та винагороди, пов'язані з будь-якими інвестиціями, перш ніж вкладати власні ресурси, і диверсифікувати інвестиції, щоб мінімізувати вплив на будь-який конкретний актив або ринок. Автори визначили, що криптовалюта та акції є двома популярними варіантами інвестування, обидва мають як переваги, так і недоліки. У ході дослідження було виявлено, що криптовалюта як цифрова або віртуальна валюта, використовує методи шифрування для регулювання генерації валютних одиниць і перевірки переказу коштів і найпопулярнішою криптовалютою є біткойн. Криптовалюти працюють незалежно від центральних банків і є децентралізованими, а отже вартість криптовалюти визначається ринковим попитом і пропозицією. Виявлено, що цифрові валюти не є надійним засобом збереження вартості та мірою вартості через високу волатильність обмінного курсу. Основними факторами, які впливають на вартість криптовалют, є співвідношення попиту та пропозиції, настрої інвесторів та ринкові фактори. Досліджено особливості інвестування в акціонерні компанії. Відповідно купуючи акції підприємства, особа може стати частковим власником компанії та мати права на її активи та прибутки. Вартість кожної акцій визначається засновницькими документами, оскільки номінальна вартість однієї акції має бути однакова. Порівняння інвестицій в криптовалюту та акції показало, що оптимальний інвестиційний портфель повинен складатися з широкого спектру активів і бути розрахованим на довгострокову перспективу. Оптимальний портфель має складатися з акцій найбільших і найстабільніших компаній, а також криптовалюти: Bitcoin і Ethereum. Доведено, що для збільшення прибутку та мінімізації можливих збитків під час війни важливо мати довгострокову інвестиційну стратегію та диверсифікований портфель, який зможе витримати тимчасові коливання ринку.

Ключові слова: інвестиції, інвестування, криптовалюта, акції, управління портфелем інвестицій, діджиталізація.