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**OWNERSHIP CONCENTRATION OF  
CORPORATIONS AND THE LEVEL OF STOCK  
MARKET DEVELOPMENT**

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**Introduction.** The ownership structure affects the stock market liquidity. In turn, stock markets are a key lever to ensure the efficient functioning and development of the country's economy as a whole. Recently, the widespread use of securities market instruments has become of paramount importance due to the limited opportunities for self-financing of enterprises and the shortage of external sources of financing. The performance of the stock market of its functions is largely determined by its characteristics, the implementation of which leads to positive structural changes in the economy.

**Aim and tasks.** The main purpose of the article is to determine the correlation between the ownership concentration of corporations and the level of stock market development in Ukraine and the world.

**Results.** The comprehensive characteristics of financial systems are characterized by the measurement of four categories for one of the key components of the financial sector, namely financial markets. Such categories include the depth of the financial market, the level of use of financial markets among individuals, the efficiency of financial markets in the provision of financial services, and the volatility of financial markets. A general description of the development of financial markets is given, it is determined that developing financial systems tend to be less deep as well as somewhat less efficient, their access and stability are on par with those of developed countries. The article shows the results of correlation-regression analysis between ownership concentration and the above categories, taking into account data from different countries.

**Conclusions.** To determine the depth of financial markets, the article used the capitalization of the stock market as a percentage of GDP. Increasing the level of concentration of ownership leads to a decrease in this indicator. The inverse relationship between ownership concentration and characteristics of access to financial services has been confirmed. To analyze the efficiency of financial markets, this paper uses the ratio of the total value of traded shares to the average value of market capitalization for the analyzed period. The inverse relationship between ownership concentration and characteristics of efficiency has been also confirmed. Stability has a particularly low correlation with the other three characteristics. As a result, the direct relationship between ownership concentration and characteristics of financial markets stability has been confirmed.

**Keywords:** ownership, financial market, financial depth, access, efficiency, stability.

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## КОНЦЕНТРАЦІЯ ВЛАСНОСТІ КОРПОРАЦІЙ ТА РІВЕНЬ РОЗВИТКУ ФОНДОВОГО РИНКУ

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**Вступ.** Структура власності впливає на ліквідність фондових ринків. Своєю чергою, фондові ринки є ключовим важелем забезпечення ефективного функціонування та розвитку економіки країни в цілому. Останнім часом першочергового значення набуває широке використання інструментів ринку цінних паперів у зв'язку з обмеженими можливостями самофінансування підприємств та дефіцитом зовнішніх джерел фінансування. Виконання фондовим ринком своїх функцій багато в чому визначається його характеристиками, реалізація яких призводить до позитивних структурних змін в економіці.

**Мета і завдання.** Метою статті є визначення взаємозв'язку між концентрацією власності корпорацій та рівнем розвитку фондового ринку в Україні та світі за допомогою кореляційного аналізу.

**Результати.** Обґрунтована комплексна характеристика фінансових систем, що характеризується вимірюванням чотирьох категорій для однієї з ключових складових фінансового сектору, а саме фінансових ринків. До таких категорій належать: розмір фінансових ринків, ступінь, з яким особи можуть користуватися, ефективність фінансових ринків у наданні фінансових послуг та волатильність фінансових ринків. Надано загальну характеристику розвитку фінансових ринків, визначено, що фінансові системи, що розвиваються, мають тенденцію бути менш ефективними, однак їх доступ та стабільність на рівні з розвиненими країнами. У статті показано результати кореляційно-регресійного аналізу між концентрацією власності та вищезазначеними категоріями, враховуючи дані різних країн.

**Висновки.** Для визначення глибини фінансових ринків у статті використовувався показник капіталізації фондового ринку у відсотках до ВВП. Підвищення рівня концентрації власності призводить до зменшення цього показника. Підтверджена зворотна залежність між концентрацією власності та характеристиками доступу до фінансових послуг. Для аналізу ефективності фінансових ринків у статті використовується відношення загальної вартості акцій до середньоринкової капіталізації за аналізований період. Також підтверджена зворотна залежність між концентрацією власності та показниками ефективності. Стабільність має особливо низьку кореляцію з трьома іншими характеристиками. В результаті було підтверджено пряму залежність між концентрацією власності та характеристиками стабільності.

**Ключові слова:** власність, фінансовий ринок, фінансова глибина, доступ, ефективність, стабільність.

**Introduction.** Stock markets occupy an important place in the modern economy of developed countries. The stock market is a complex structured system that is a key lever to ensure the efficient functioning and development of the country's economy as a whole. It is worth noting that most domestic enterprises are characterized by limited opportunities for self-financing of their activities and insufficient external sources of investment. That is why the widespread use of stock market instruments is important.

The stock market performs the functions of redistribution of property rights, providing different uses of funds, converting savings into investments, and therefore the functional role of the market, along with the above, is to create an efficient production structure. It is obvious that the performance of these functions by the securities market is largely determined by its characteristics, during the implementation of which the stock market will be able to contribute to positive structural changes in the economy.

**Analysis recent research and publications.** Issues related to the factors of stock market development were considered in the scientific works of Ukrainian and foreign economists, in particular, M. Yu. Ananiev [1], G. Castaneda [2], A. I. Hunjra, U. Perveen, L. Li, M. I. Chani, R. Mehmood [3], A. S. Nakonechna [4] and others. Taking into account the contribution of scientists to the development of this field of research, it should be noted that the question of the correlation between the ownership concentration of corporations and the financial market as such, which determines and defines the processes of their formation and general issues related to access and receipt of financial resources remains superficially considered.

**Aim and tasks.** The main purpose of the article is to determine the correlation between the ownership concentration of corporations and the level of stock market development in Ukraine and the world.

**Results.** Recently, the development of stock markets is causing growing scientific interest, as the expansion of its share in the overall structure of the financial market is constantly growing. There is an increasing role of securities markets as a source of financing and risk minimization. The development of the financial market is determined by the political and socio-economic

components. One of the best environments suitable for the development of the stock market is the liberal style in building the country's economy.

The stock market is not the basis for the creation of material goods but is only an important part of the modern economic system. The main purposes of the securities market are the mobilization and redistribution of financial resources, property rights to the material world, risks, a transformation of free financial resources into capital, servicing trade, macroeconomic regulation, maintaining liquidity, and performing an informative function.

In developed and emerging markets, stock market liquidity is important because the liquid market allows for the efficient allocation of financial resources. In turn, efficient distribution is a prerequisite for financial market growth and development. The greater the liquidity of the market, the greater the firm value since the liquid market usually reduces the cost of capital.

In each country, after gaining a certain development level, the priority is to form a certain stock architecture for the appropriate attraction of temporarily free financial resources and direct them to the growth of the real sector of the economy and new technologies for efficient use of limited economic resources. The development of the securities market is largely due to the state and parameters of the country's financial system. Among the most important parameters of the financial system are the free float of liquid securities and the volume of trades.

This indicator (free float) determines the interest of investors, the volume of trades and market participants. The value of this indicator also makes it possible to obtain the following information about market participants: information support, market transparency, the level of corporate governance. This indicator has a close relationship with the level of concentration of ownership, which in turn is important for the securities market development. The increase in the level of ownership concentration in the country leads to a lower rate of free-float stocks and a more closed securities market. [1].

The ownership structure in the corporate sector of Ukraine was formed as over-concentrated (on average in Ukraine the share owned by three large shareholders is 87.4% [5]).

Mass privatization, which has been to create a wide range of corporate shareholders since independence, was not productive. The processes of concentrating a large block of shares in the hands of a small, consolidated group or one shareholder were immediately launched. The preconditions for this were the inefficiency of legal institutions and the failure of their functions, the inability to exercise their property rights using dividends due to high inflation, and a transformational decline. The main stimulus was the need to establish or maintain legitimate rights to control the companies' activities and financial flows.

It should be noted that a significant level of concentrated ownership in the corporate sector of Ukraine has a significant list of both direct and indirect negative consequences that have a direct impact on the institutional development of the financial market and reduce the ability to obtain financial resources in any market sector. However, the process of ownership concentration and maintaining a significant concentration level is facilitated by financial market insufficient growth (especially the capital market), which, in turn, increases the risks and constraints for companies.

Given that the main sources of investment resources for Ukraine's economic growth remain bank loans and domestic resources, weak stock market developments still encourage domestic issuers to make initial public offerings on foreign stock exchanges, such as those operating in strong

legal systems. In this regard, there is a statutory IPO mediation process: a registered foreign project company, which owns 100% of the shares of a Ukrainian company, straightly places Ukrainian company shares on a foreign exchange. The requirement under the Ukrainian legislation is for an individual license of the NBU to conduct a one-time foreign exchange transaction to be obtained by a resident individual who will be the Project Company founder.

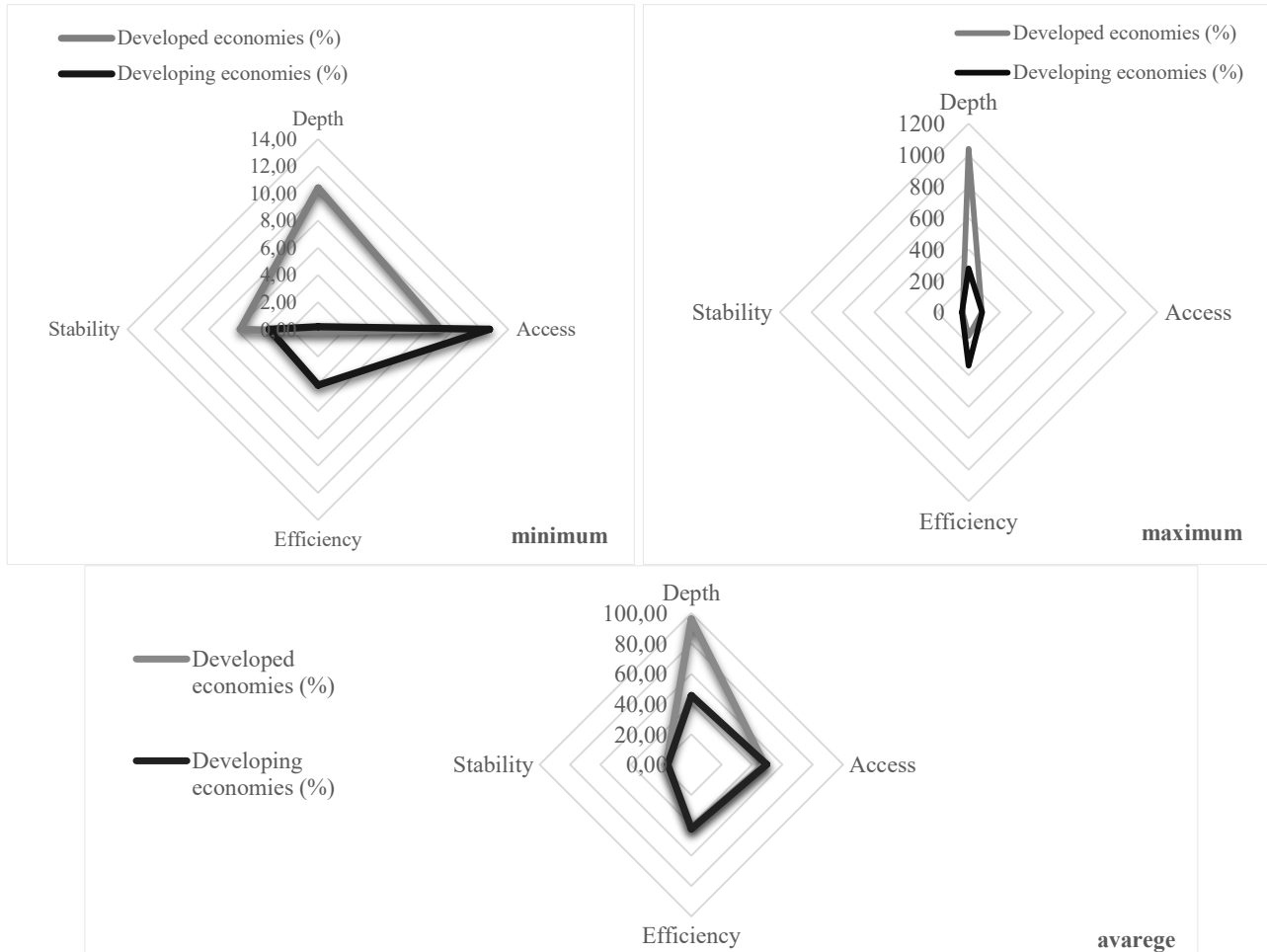
Initial public offerings conducted by domestic companies on foreign stock exchanges help to solve the problem of obtaining investment capital and change of concentrated ownership to public ownership. At the same time, the decrease in the potential for increasing the liquidity of the securities market in Ukraine is due to the fact that national issuers prefer foreign markets. The low liquidity level of the Ukrainian stock market is associated with a similar liquidity level in the exchange market, where the problem of effective redistribution of capital and access is exacerbated by weak regulation and legal protection (institutional support for the unorganized market is much lower). In such circumstances, the following problem of high ownership concentration of corporations is revealed [4]. To study the relationship between the ownership concentration of corporations and stock market development, consider the characteristics of financial markets (Figure 1).

Comprehensive characteristics of financial systems for measurement the four categories for one of key components of the financial sector, namely financial markets			
Access	Depth	Efficiency	Stability
<ul style="list-style-type: none"> <li>· Value traded excluding top 10 traded companies to total value traded (%)</li> <li>· Market capitalization excluding top 10 companies to total market capitalization (%)</li> <li>· Nonfinancial corporate bonds to total bonds and notes outstanding (%)</li> <li>· Investments financed by equity or stock sales (%)</li> </ul>	<ul style="list-style-type: none"> <li>· Stock market capitalization to GDP (%)</li> <li>· Stock market total value traded to GDP (%)</li> <li>· Outstanding domestic private debt securities to GDP (%)</li> <li>· Outstanding domestic public debt securities to GDP (%)</li> <li>· Outstanding international private debt securities to GDP (%)</li> <li>· Outstanding international public debt securities to GDP (%)</li> <li>· Outstanding total international debt securities / GDP (%)</li> <li>· Gross portfolio equity liabilities to GDP (%)</li> <li>· Gross portfolio equity assets to GDP (%)</li> <li>· Gross portfolio debt liabilities to GDP (%)</li> <li>· Gross portfolio debt assets to GDP (%)</li> <li>· Syndicated loan issuance volume to GDP (%)</li> <li>· Corporate bond issuance volume to GDP (%)</li> <li>· Syndicated loan average maturity (years)</li> <li>· Corporate bond average maturity (years)</li> </ul>	<ul style="list-style-type: none"> <li>· Stock market turnover ratio (%)</li> </ul>	<ul style="list-style-type: none"> <li>· Stock price volatility</li> </ul>

Fig. 1. Components of comprehensive characteristics of financial markets [6].

For comparison, four characteristics of financial markets are measured: financial depth - this means the size of financial markets; access - is the degree to which individuals can and do use financial markets; efficiency – is the efficiency of financial markets in providing financial services;

stability – this means the stability of financial markets (Figure 2) [6], [7]. Each of these features is associated with socio-economic development, financial sector policy, and other aspects of a favorable environment for financing.



**Fig.2. Financial Markets Development.**

Source: built by the authors based on the data [7].

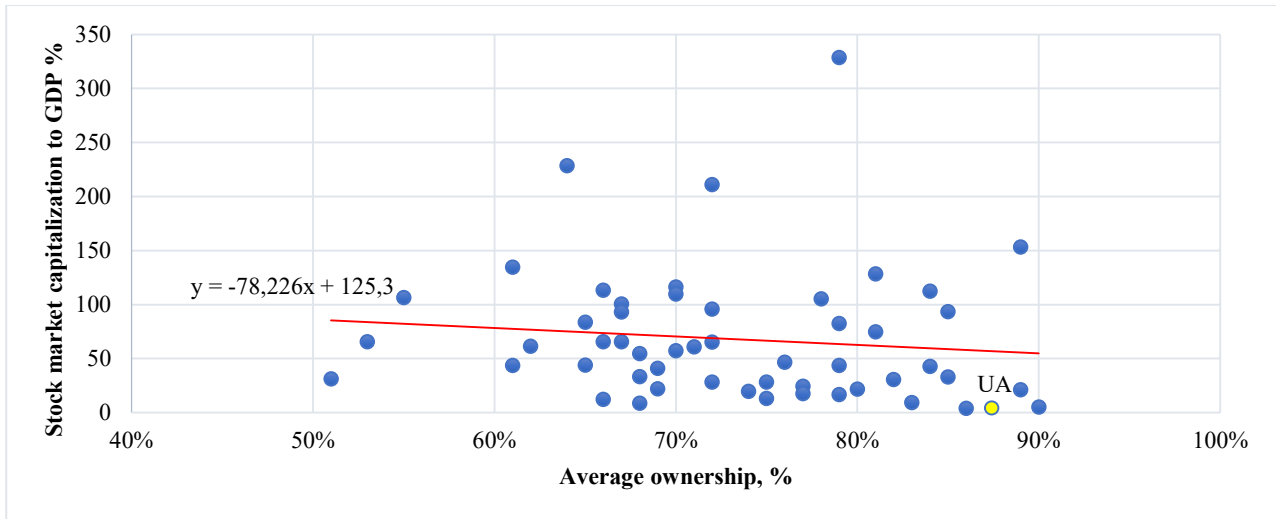
The baseline comparison (Figure 2) confirms that although emerging financial systems tend to be not so deep as well as slightly less effective, their access and stability are on par with those of developed countries.

One of the most common ways to characterize financial systems is to measure the size of the financial markets in relation to the size of the economy. "Depth of the market" is determined by the main indicators that reflect the development level of the financial system in accordance with international standards.

To measure the stock markets depth, first of all, the stock value traded indicator is used,

which is equal to the value of stock market operations to GDP. This market development indicator includes information about the size and activity of the stock market, and not just about the value of shares listed on the stock exchange [8].

In order to determine the relationship between ownership concentration and one of the features of the financial markets development level, namely "depth" (value of stock market capitalization divided by GDP), a correlation-regression analysis of these indicators was conducted based on data from 53 countries, including Ukraine (Figure 3).



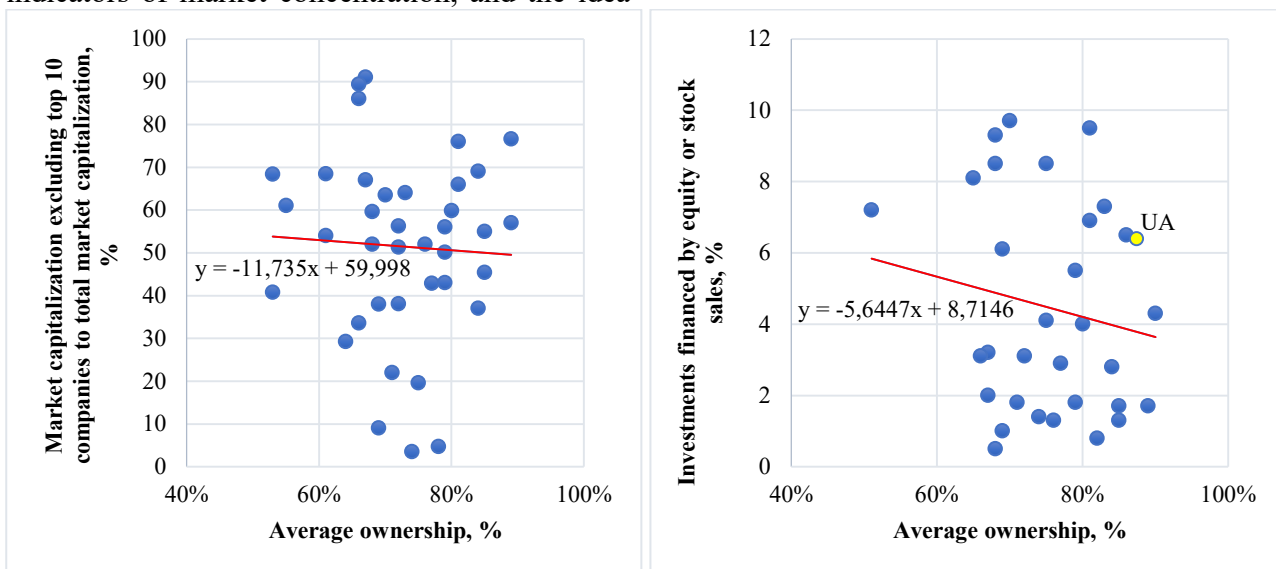
**Fig. 3. Correlation (conjunction) between Ownership Concentration and Stock market capitalization to GDP (Depth)**

Source: built by the authors based on the data [6,9].

The results of the correlation-regression analysis confirm the inverse relationship between the ownership concentration and the characteristic of the financial market depth. That is, with increasing levels of ownership concentration in countries, there is a general tendency to decrease the indicator of Stock market capitalization to GDP, which confirms the initial hypothesis of a negative relationship between these market characteristics.

Another important characteristic is the ability of individuals and firms in the economy to access financial services (Figure 4). The measure of access in financial markets is based on various indicators of market concentration, and the idea

is that a high level of concentration leads to difficulties with access to new or smaller issuers. The properties in this category include the value of all traded shares (excluding the ten largest traded companies) divided by the total value of all traded shares on the stock exchange; value of quoted shares (without the largest ten companies) to overall value of all quoted shares; the whole amount of internal non-financial corporate bonds and notes outstanding to the whole amount of internal bonds and notes outstanding (corporate and non-corporate); the estimated share of purchases of fixed assets financed by the owners' contribution or the issue of new shares [6].



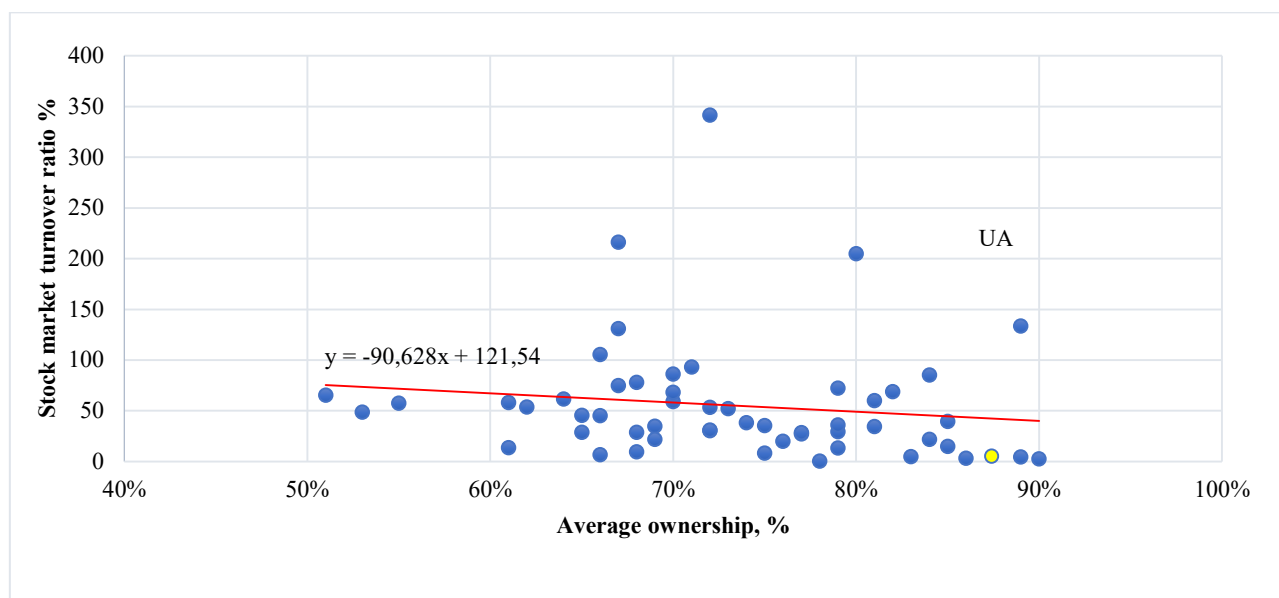
**Fig. 4. Correlation (conjunction) between ownership concentration and characteristics of access to financial services (Access).**

Source: built by the authors based on the data [6,9].

To determine the relationship between ownership concentration and characteristics of access to financial services, correlation, and regression analysis was performed using indicators Market capitalization share (taking into account the information of the companies except the top 10) in the total market capitalization (based on data from 38 countries) and Investments financed by equity or stock sales (based on data 32 countries, including Ukraine).

The results of the analysis confirm the inverse relationship between the concentration of ownership and the characteristics of access to financial services. That is, with the increase in the level of concentration of ownership in countries, there is a general tendency to decrease the above indicators.

The financial sector should be effective to perform its functions well. The intermediary functions of the financial market must be performed at a minimal cost. Where mediation is expensive, higher costs may be borne by households, businesses, and governments. The indicator of the total value of traded shares divided by the indicator of the average market capitalization for a certain period is the main indicator of efficiency in the securities market. (Figure 5). The rationale for using this indicator is that higher turnover in terms of capitalization means relatively higher market volumes and greater liquidity. This, alternatively, means greater opportunities for price identification, better transfer of price information, and greater market efficiency.

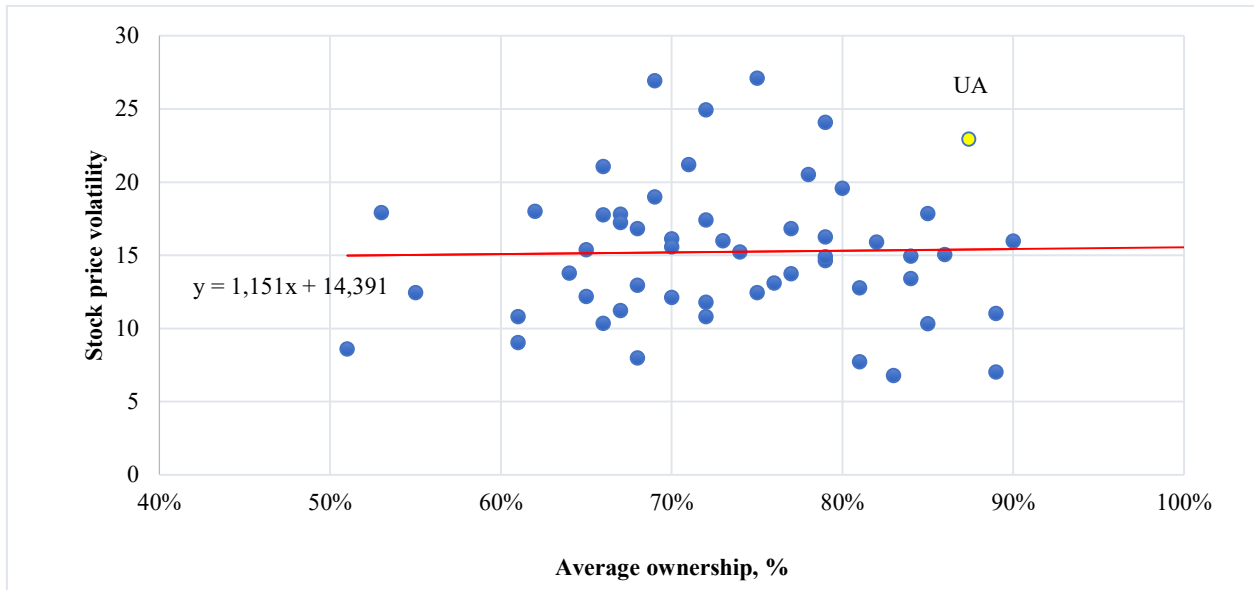


**Fig. 5. Correlation (conjunction) between Ownership Concentration and Stock market turnover ratio (Efficiency).**

*Source: built by the authors based on the data [6,9].*

The relationship between ownership concentration and efficiency of financial markets was determined using the Stock market turnover ratio (based on data from 54 countries, including Ukraine). The inverse relationship between ownership concentration and performance characteristics has been confirmed. That is, with increasing levels of concentration of ownership in countries, there is a general tendency to reduce the efficiency of financial markets.

An equally important characteristic of stock markets is the degree of financial stability. Financial stability is closely correlated with the financial development broader process and is also a significant characteristic of financial systems. Stability in financial markets is determined by the Stock price volatility index (Figure 6), where stock price changeability is equal to the average value of the 360-day volatility of the national exchange market index.



**Fig. 6. Correlation (conjunction) between Ownership Concentration and Stock price volatility (Stability).**

*Source: built by the authors based on the data [6, 9].*

The analysis (based on data from 54 countries, including Ukraine) gives grounds to draw a conclusion about the direct relationship between the concentration of ownership in countries and the indicator of financial markets stability.

**Conclusions.** To determine the depth of financial markets, the article used the capitalization of the stock market as a percentage of GDP. Increasing the level of ownership concentration, according to data of a sample of countries, has a negative effect on the value of the indicator, which is measured as the capitalization of the stock market divided by GDP, that is, there is an inverse correlation between the indicators. To assess access to financial markets, the article uses the market capitalization indicator (except for the 10 largest companies) divided by the total market capitalization indicator. An indicator of the total amount of investments financed by equity or

stock sales is also used. The inverse relationship between ownership concentration and characteristics of access to financial services has been confirmed. In order to analyze the efficiency of financial markets, the article used the indicator of the total value of traded shares in relation to the average market capitalization for a certain period. And the average market capitalization is equal to the average value at the end of the period for the current period and the previous period. The inverse relationship between ownership concentration and characteristics of efficiency to financial services has been also confirmed. Such a characteristic as stability has a very weak connection with the other three features. To determine the stability of financial markets, the article used the Stock price volatility index. As a result, the direct relationship between ownership concentration and characteristics of financial markets stability has been confirmed.



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