### **Kyiv National University of Trade and Economics**

Banking department

# FINAL QUALIFYING PAPER on the topic:

Financial intermediation services in the stock market and prospects for their development in Ukraine

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### **INTRODUCTION**

**Relevance of research.** Today, the stock market of Ukraine is at the stage of its formation and is lagging far behind the stock markets of industrialized countries. Against this background, the study of the current conditions, features and tendencies of development of stock exchange market and its professional financial participants becomes extremely relevant for the national economy.

Important contributions to the study of the problems of the functioning of the stock market and professional intermediation participants have made such scientists as Mozgovyi O.M. [10], Galaganov V.A. [29], Basov A.I. [29], Tsarenko O.M. [12], Bay N.O. [12], Martynenko O.D. [12], Salo I.V. [12], Pasichnyk V.G. [13], Alikina O.V. [13] and foreign scientists W. Sharpe [15], Z. Bodie [32], E. Philip Davis [30] and Dr. Benn Steil [31].

**Purpose of the research** is to propose methods and ways for development of financial intermediation services of stock market of Ukraine based on analysis of world-wide best practices of organization in this sphere.

The object of research is financial intermediaries operating on the stock market of Ukraine.

The subject of research is the activity of financial intermediaries providing their services on the stock market of Ukraine.

#### The tasks:

- to analyze and classify financial intermediaries on the stock market;
- to analyze the current state of the stock market in Ukraine;
- to compare Ukrainian financial intermediation services on stock market with experience of well-developed countries;
- to make conclusion of weaknesses of Ukrainian financial intermediation services;
- to propose ways for development the mechanism of functioning of intermediation services on the Ukrainian stock market.

The research methods used in the process of performing scientific work involve the application of general scientific and empirical methods of economic science, based on a systematic approach. In addition, the process used such general research methods as historical approach, sampling, generalization, comparison, grouping (in the study of the classification of financial intermediaries in the stock market), methods of graphical representation of data (in assessing indicators of financial intermediaries), and methods of economic- mathematical modeling.

**Scientific novelty of research** is systematization of types of financial intermediation services in the stock market of Ukraine to compare with foreign experience and offer solutions to the problems found.

The practical significance of the results. The results obtained can be used by professional stock market participants that provide financial intermediation services (Stock Exchanges, Clearing Company, Depository Institutions, National Commission of Securities and Stock Market) to improve the quality of financial intermediation services and develop Ukrainian stock market.

**Master's personal contribution.** Graduation qualification is a self-completed study by the author.

**Publications**. Some research results are reflected in the scientific article: Shkolna Y.O. "The state and prospects of development of Ukrainian stock market exchange"// Management of financial institutions: changing stereotypes: Coll. Sciences. Art. stud. full-time study / resp. ed. N.P. Shulga. - K.: Kyiv. nat. Univ of tr. and econom., 2019. - Part 2 - 296 p. (P.232 - 237). The results of the scientific study became the basis for the report at the Ukrainian Student Scientific Conference "Financial Credit Systems: Problems of Theory and Practice" (Kyiv, 20th of March) on the topic: "Asset management companies as a professional stock market participants in Ukraine".

**Scope and structure of work.** The work includes 3 sections, introduction, conclusions, references and appendices. The volume of work is 60 pages. The work presents 11 tables, 16 figures, 9 additional materials and 36 scientific sources.

#### **PARTI**

# THEORETICAL AND LEGAL BASIS OF THE FUNCTIONING OF FINANCIAL INTERMEDIATION SERVICES IN THE STOCK MARKET OF UKRAINE

The stock exchange is one of the subjects of the stock market and is a basic element of the organized securities market. The stock market emerged from the need to raise additional funds to finance economic development. Securities such as stocks, bonds, etc. are the commodities in this market, and the prices of these commodities are stock exchange rates.

The stock market plays an important role in the Ukrainian economy, as it is an integral and important element of the financial system of a market economy. Therefore, creating an efficient and effective stock market is an important step in completing the transformation of the domestic economy. The main task of the stock market at this stage of transformation of the economy of Ukraine should be to mobilize temporarily free funds of the population and business entities, redistribution of these funds into those sectors of the economy that need additional financing for further development.

The growth of the role of the stock market is related to the issue of circulation of securities. Most of the financial assets of the developed world are now housed in securities. In recent years, institutional changes in the structure of stock markets have taken place, and the variety of their financial instruments has expanded significantly. The financial markets in general and the stock markets in particular were affected by some re-entry within the liberalization movement of the national economies of developed countries: eliminated the problems of free movement of capital between countries, abolished restrictions on combining different types of professional activity in the financial market, identified tendencies towards the formation of a single market for financial services.

The effective functioning of the country's economy requires a constant process of mobilization, distribution and redistribution of financial resources between its industries. It is the stock markets that are becoming one of the most

important elements of mobilizing investment resources. This segment of the market should function as a tool for regulating the financial system of the state, since it is interconnected with both the system of public finances and the financial market. In developed countries of the world, the stock market, depending on the degree of development, is the most effective, optimal way of attracting capital to the national economy, the mechanism for the distribution and redistribution of free financial resources among industries. By filling the financial resources of today's competitive, advanced industries and industries, the stock market can help accelerate scientific and technological progress, positive changes in the structure of the economy, sustainable growth.

Scientists offer different classifications of stock market participants (Table 1.1).

Table 1.1. Scientific approach to the classification of stock market participants\*

Scientists	Classification of stock market participants	Definition		
Mozgovyi O.M. [10, p. 27].	Issuers	Securities sellers, they are also consumers o investment capital		
	Investors	Buyers of securities, they are depositors of funds and holders of securities		
	Intermediaries	Persons who provide certain services to issuers and investors when conducting stock transactions		
Other Russian	Licensed institutions	Securities traders		
scientists [11]	Registrar institutes	As specialized depository institutions		
	Investors	Investment funds and companies		
	Banking structures	"THE KE TE KE TE		
	Custodian institutions	Including local bank trusts		
Galaganov V.A.	Issuers	Legal entities, government		
and Basov A.I.	Investors	Legal entities, individuals, government		
[29]	Stock brokers	Individuals with trading license		
TEVNUTTE	Organizations servicing the securities market	Clearing companies and depositaries		
	State regulatory	Government and authorized organizations.		
	Control bodies	Government and authorized organizations.		
Group of scientists Tsarenko O.M., Bay N.O., Martynenko O.D.,	Securities issuers	Legal entities that issue securities on their own behalf and undertake to fulfill the obligations arising from the conditions of their issue		
Salo I.V. [12, p. 156-157]	Investors	Natural or legal persons who have free funds and wish to invest them in securities		

E KUNTE KUNT	OTE KNUTE	on their own behalf and at their own expense in order to profit from the invested funds or to acquire the corresponding rights granted to them as owners of securities by the current legislation
	ssional stock et participants	Legal entities providing professional services on the stock market to investors and issuers (securities traders, registrars, brokers, dealers, investment funds and companies)
A stat	e KNUT	A state that issues regulatory documents in its own name and defines the legal bases for the implementation of state regulation of the securities market and state control over the issue and circulation of securities and their derivatives in Ukraine
Pasichnyk V.G. Major		Investors and issuers
and Alikina O.V. Infras [13, p. 12]	tructure	<ul> <li>depositories;</li> <li>registrars;</li> <li>custodians;</li> <li>self-regulatory organizations; audit firms;</li> <li>consulting firms;</li> <li>stock exchanges;</li> <li>shopping and information centers;</li> <li>certificate auction centers;</li> <li>training courses for stock market specialists</li> </ul>

<sup>\*</sup> Note: compiled by the author

### Continued Table. 1.1

As shown in Table. 1.2, the scientists offer different classifications of stock market participants. The simplest one is the classification of stock market participants by issuers, investors and intermediaries by Mozgovyi O.M. [10, p. 27]. Galaganov V.A. and Basov A.I. [29] propose classification by issuers, investors, stock brokers, organizations that servicing security market and state regulators. Most of all classifications divide stock market participants to issuers, investors/traders and other such as intermediaries, or legal regulators.

The closest classification to authors opinion is by Pasichnyk V.G. and Alikina O.V. [13, p. 12], where stock market participants are divided to major (investors and issuers) and institutional (stock exchanges, intermediaries such as depository institutions, clearing companies and other).

On the other hand, SSMSC electronic databases classify stock market participants in other way (Table 1.2).

Table 1.2.

Classification of stock market participants in SSMSC electronic databases\*

Subjects	Definition			
Legal entities (residents)	As investors: <ul> <li>joint investment institutions;</li> <li>insurance companies;</li> <li>pension funds;</li> <li>banks;</li> <li>securities traders</li> </ul>			
Individuals (residents)	As investors			
Securities issuers	Legal entities or government			
Public authorities	Those without transferring corporate rights management			
Public authorities	Those with corporate rights management which has been delegated to authorized persons			
Legal entities (non-residents)	As investors			
Individuals (non-residents)	As investors			

<sup>\*</sup> Note: compiled by the author

As shown in Table. 1.2, stock market participants in SSMSC electronic databases are divided to legal entities (residents and non-residents), individuals (residents and non-residents), security issuers and public authorities.

It is also important to analyze the classification of stock market participants in developed markets. Table 1.3 shows the experience of USA classification.

Table 1.3. Classification of stock market participants in developed markets  $(\mathbf{USA})^*$ 

Types	Definition
Parties to transaction	• issuers
WITE WITE	• investors
WHI KUNHILL	broker-dealers
EN THE STATE	• stock-exchanges
Post-trade environmental	custodian banks

EXMUTE KNUTE	<ul><li> prime brokers</li><li> transfer agents</li><li> depositaries</li></ul>
Market data consolidators	Two Security Information Processors (SIPs) consolidate data from trades during day in real time
Oversight	<ul><li>self-regulatory organizations</li><li>clearing organizations</li></ul>

Continued Table. 1.3

As shown in Table. 1.3, the classification of stock market participants is different from Ukrainian or Russian. It divides subjects by features on the market and into the groups that mostly cooperate together.

Entrepreneurship activities related to the trading of securities for which this exclusive activity is permitted by law are intermediation in the issue and circulation of securities.

Intermediaries act as a link between the issuer and the investor. On the one hand, this is the performance of intermediation functions in relation to the issuer, conducting operations on the issue and placement of securities on the market, their registration and storage. Knowing the market well, they have a better understanding of what securities and conditions of issue are most appropriate for a particular issuer, how to conduct work to secure the placement of securities. On the other hand, it is the provision of services to investors in the acquisition of securities based on the wishes of the investor regarding the profitability and reliability of investments.

The role of financial intermediaries in the securities market is extremely important, as they determine its activity and effectiveness. Issuers 'and investors' direct relationships are only possible in a limited market environment or with a deliberate issue of securities by specific investors. In the current conditions of international market activity, it is important to note that it can only work for

<sup>\*</sup> *Note: compiled by the author according to [27]* 

professionals who are well-versed in the skills of working with securities and are well aware of the features of such activities [7].

The Types of Financial Intermediation Services and their role in the Stock Market of Ukraine is shown at Table 1.4.

Table 1.4.

The Types of Financial Intermediation Services and their role in the

Stock Market of Ukraine\*

Types of Financial	Role
Intermediation Services	DIEN MOIEN KINDIN KINDIN KA
Brokerage	<ul> <li>Providing a point of contact for institutional clients seeking to buy or sell financial or non-financial products. Functions:</li> <li>to ensure market liquidity and respond rapidly to its clients' needs,</li> <li>to respect the confidential nature of its clients' transactions.</li> </ul>
Dealer activity	dealers are the market makers who provide the bid and ask quotes we see when look up the price of a security in the over-the-counter market
Securities management activities	Identification of one's assets – buildings, people, products, information and infrastructure – and the development and implementation of policies, procedures and measures to safeguard these assets
Underwriting	Administrative assistance of public issuance and distribution of securities

<sup>\*</sup> *Note: compiled by the author according to [1]* 

It is worth noting that the main types of intermediation activities in the Ukrainian stock market are securities trading and asset management. This position is shared by the vast majority of domestic researchers and practitioners [8].

The stock exchange is one of the subjects of the stock market and is a basic element of the organized securities market. The stock market emerged from the need to raise additional funds to finance economic development. Securities such as stocks, bonds, etc. are the commodities in this market, and the prices of these commodities are stock exchange rates.

The stock market is an integral and important element of the financial system of a market economy. Therefore, the establishment of an effective and efficient stock market is an important step in the development of each state. The stock market mediates credit and co-ownership with securities. The stock exchange is a basic element of the stock market, an organizationally organized institution that is constantly functioning and on which the purchase and sale of securities are carried out. Stock exchanges play a crucial role in the formation of basic market prices and rates.

According to the Law of Ukraine "On Securities and Stock Exchange" the stock exchange is formed and operates in the organizational and legal form of a company (except full, limited partnership and subsidiary liability company) or a subsidiary, association of securities traders, and conducts its activities. According to the Civil Code of Ukraine, the laws governing the formation, activity and termination of legal entities, with the features defined by this Law [2].

The profit of the stock exchange is directed to its development and is not subject to distribution between its founders (participants). The stock exchange is formed by at least twenty founders - securities traders who are licensed to exercise professional activity in the stock market, or their association of at least twenty securities traders. The share of one securities trader may not exceed 5 percent of the authorized capital of the stock exchange.

The main operations performed by the stock exchange are:

- checking the quality and reliability of securities;
- exchange of securities, their acceptance, provision of recommendations on establishing the initial quotation price;
- establishment of a single exchange rate for the same securities of one issuer on the basis of auction trading;
- registration of securities purchase agreements;
- execution of centralized settlements within the stock exchange market;

• providing centralized information (publicity of exchange operations) and exchange rate control. [2]

The stock exchange makes it possible to ensure the concentration of supply and demand of securities, where equilibrium on the basis of exchange pricing actually reflects the level of efficiency of functioning of the share capital. Exchange trading in Ukraine dates back to 1992. Prior to the launch of the Ukrainian Exchange in 2009, none of the exchanges had a system of guarantees for execution of transactions. Exchanges looked like a message board or messaging system. For such a private investor, there were some difficulties associated with additional time and financial costs. Previously, the exchange seemed to be a place or house where traders and brokers met at certain times to conclude securities or commodities transactions. To date, trading on the stock exchange is conducted electronically, using special programs. [2] The cardinal changes took place with the beginning of the Ukrainian Exchange. Now, it is enough for a private investor to visit a broker once to complete the necessary documents and gain access to bidding, and it is possible to start making deals by trading via the Internet with the help of Internet trading systems.

Basic concepts of functioning of institutional investors can be found in classic works by Sharpe and Z. Bodi. A fundamental study of these financial institutions is the monograph by F. Davis and B. Style.

The investment process cannot be imagined without the subjects of investment activity, namely investors. Most scholars define the term "investor" as an investor on their own behalf and on their own behalf. According to the legislation of Ukraine, investors are subjects of investment activity that make decisions about investing their own, loan and attracted property and intellectual values in the objects of investing. Investors can act as depositors, creditors, buyers, as well as perform the functions of any investor [14, p.340]. The classification of groups of investors is shown at Table 1.5.

### Scientific approach to the classification of investors\*

Groups of investors	Definitions
The population, individuals or households	Invest on their own behalf
Corporate investors, enterprises	Invest on behalf of non-financial business
Institutional investors	Financial institutions, investing is one of their functions

<sup>\*</sup> Note: compiled by the author according to [15]

The development of financial institutions and institutional investors in particular, is related to two possible investment options, direct and indirect. The mechanism of investment through participation of financial institutions as intermediaries between suppliers and consumers of investments is called indirect investment, as opposed to direct investment, when the investment is made directly by persons with temporarily free cash (investors) through investing in specific financial assets.

In international practice, a narrow understanding of the term is used. In the US stock market, the focus is on pension funds, mutual funds, insurance companies, and investment banking trusts. These organizations collectively own more than half of the share capital issued by US corporations [15, p.11].

It should also be noted that recently there is a new concept - collective investment schemes. However, there is some confusion with institutions that should be referred to collective investors. Thus, the International Organization of Securities Commissions notes that the term "investment fund" or "collective investment scheme" includes open-ended investment funds such as mutual funds and UCITS (Ucits - Undertakings for Collective Investments in Transferable Securities). These also include closed-end funds whose shares or units are traded in the securities market, mutual funds and contractual model funds.

Adhering to the view that collective investment institutions are schemes of unification into one pool of assets. The Bank of International Settlements includes mutual funds, hedge funds and private equity partnerships in such institutions.

Further, the Bank for International Settlements specifies the concept of "mutual fund", including both open-end and closed-end funds, which is not entirely correct, as historically open-ended funds in the United States were called mutual funds [0, p.128].

Therefore, mutual funds, being open-ended corporate funds, are only one element of collective investment schemes. Given the specifics of national law in Ukraine, the term "joint venture" (ICI) is used. Thus, under the law, a joint venture (CII) is a corporate investment fund or unit trust that conducts activities related to an association (attracting) investors' funds for profit from investing in securities of other issuers, corporate rights and real estate [16, p.24].

Depending on the order of its activity, CII can be open, interval and closed. CII can also be fixed or indefinite, of a diversified and non-diversified type. The study found that the term "institutional investor" in foreign literature usually refers to non-banking financial institutions. Some studies of Russian scientists also point out that "institutional investors" are non-bank financial intermediaries who invest the accumulated cash of legal entities and individuals in stocks, bonds and other instruments of the stock market in order to generate income.

The unresolved issues of classification and terminology are forcing many scholars to come up with new original ideas. One of the successful attempts to highlight something in common among institutions that can be characterized as institutional investors was E. Philip Davis and Dr. Benn Steil..

Institutional investors are defined as specialized financial institutions that manage collective savings for the benefit of small investors, which is expressed in achieving an acceptable level of risk with the maximum return on investment and consistency in terms of fulfillment of obligations to this definition [10, p.176], It is worth noting the relationship of institutional investors to managing collective savings. Thus, "collectivity" consists not only in raising money from a large number of individuals (physical and legal), but also in managing the received funds as a single portfolio.

The Types of Professional Participants of Stock Market of Ukraine is shown at Table 1.6.

Table 1.6.

The Types of Professional Participants of Stock Market of Ukraine\*

Types	Definition
Asset Management Company	A firm that invests pooled funds from clients, putting the capital to work through different investments including stocks, bonds, real estate, master limited partnerships, and more.
Pension Fund	Any plan, fund, or scheme which provides retirement income.
Insurance Company	A financial institution which underwrites the risk of loss of, or damage to, personal and business assets (general insurance) and life and limb (life and accident insurance).

<sup>\*</sup> Note: compiled by the author

In foreign literature, the term (Asset management industry) is very commonly used, which can be translated into Ukrainian as an asset management system. It is well known that both asset owners and professional asset management companies can act as asset managers. In our study, the leading role is given to professional portfolio management companies. Moreover, as the object of management are both the own funds of the management company and the funds received from customers.

In defining which institutions can be referred to institutional investors, the OECD's close view of the OECD notes that the term "institutional investors" mainly refers to insurance companies, pension funds, and investment companies that aggregate savings to funds to invest in the market. A. Mozgovy identifies institutional investors, such as, pension funds and insurance companies. T. Obolonska, believes that the classification of institutional investors consists of institutional investors of banking type, institutional investors of non-banking type and international institutional investors [15, p.89]. Based on the systematization of different theoretical approaches to the definition of "institutional investor" and interrelated concepts, and taking into account the provisions of national legislation,

we will determine the composition of institutional investors in the stock market of Ukraine.

Therefore, an institutional investor in the stock market is regarded by the author as a legal entity that accumulates cash in the form of (contributions, units, through the issue of its own securities) makes their investments (investments) in securities for the purpose of profit for the owners of funds. Institutional investors operate under an appropriate license as management companies that invest (place) borrowed funds, invest individual investors' funds in investing for profit.

Thus, we have identified that institutional investors, as financial intermediaries, are operators of the asset management services system. In this case, both the assets of clients and their own assets can be the object of professional management. As a result, one can identify the following essential features of institutional investors. Institutional investors: pool the funds of many investors, both individual (corporate) and corporate investors; manage accumulated resources as a single portfolio; do not attract deposits.

Institutional investors, as financial intermediaries, perform the following important functions for the economy: efficient allocation of financial resources; reducing investment control costs; risk diversification.

Depository and clearing activities are extremely important segments of professional activity in the stock market and cover the whole complex of economic issues and legal relations in securing the ownership of securities, defining the obligations to be fulfilled by securities transactions, as well as creating a system of performance guarantees commitments on transactions in securities and other financial instruments.

The concept of "depository activity" is described in paragraph 5 of Art. 1 of the Law of Ukraine "On the Depository System of Ukraine" as an Activity of Professional Participants of the Depository System of Ukraine and the National Bank of Ukraine on the Provision of Services for the Storage and Accounting of Securities, Accounting and Services for the Acquisition, Termination and Transfer of Securities and Securities Rights and Restrictions on securities in securities

accounts of depository institutions, issuers, correspondent depositories, persons conducting clearing activities, Settlement Center for financial services contract servicing x markets, depositors, as well as the provision of other services, which in accordance with this Law are entitled to be provided by professional members of the depository system of Ukraine [17].

In scientific works, the depository activity is determined by the provision of services for the storage of securities certificates, which is accompanied by accounting for the rights of owners of securities and encumbrance with their obligations, as well as fixing the fact of transfer of rights to the new owner [9, p. 20].

The international understanding of the clearing approach allows us to characterize it as a process that lasts for a certain period of time - the period between the conclusion of the agreement and the settlement. [18, p. 18; 19, p. 27] or as a stage of the "operating chain" of the agreement [20, p. 38].

The term "clearing" is not used at all in the scientific works of Western scholars, but the term "clearing services" is used [18, p. 22]. This is due to the fact that clearing activity in foreign countries is not an independent type of professional activity - clearing is performed by depositories.

Depository and clearing activities in the stock market are carried out solely on the basis of a license issued by the National Commission on Securities and Stock Market (except for professional activity of the Central Depository of Securities and depository activities of the National Bank of Ukraine) [23].

In the process of licensing, organizational-founding, property, qualification-personified, internal-organizational, technical and technological, information requirements to the subjects of depository and clearing activity are established [23, p. 55], which ultimately provides a professional foundation for their operations and, as a consequence, improves the quality of the provision of relevant depository and clearing services.

In addition, an institute of certification of specialists was introduced [24], which provides not only the need for the employee to have the appropriate

qualification, certified by the certificate of the established sample, and to meet the qualification requirements, but also the prohibition of simultaneous employment in other professional participants of the stock market and in other units of the licensee, which carry out other professional activities.

Depository institutions that replace custodians and registrars should be in charge of servicing the accounts of individuals and legal entities. A depository institution is a legal entity that is formed and operates in the form of a joint stock company or limited liability company and which, in due course, has received a license to conduct depository activities of a depository institution. Its authorized capital must be at least UAH 7 million, in addition, the depository institution must have adequate equipment, including computer equipment with appropriate software, separate communication channels, premises in accordance with the requirements of the NCSSMC [1].

The Central Depository shall provide for the formation and operation of a securities depository accounting system and keep a depository record of all corporate securities.

In addition to the Central Depository, a Settlement Center was established on the basis of PJSC "VDTSP". The sole responsibility of the Settlement Center is to conduct cash settlements on securities transactions and other financial instruments made on the stock exchange and off the stock exchange, provided that the payments are performed on a "securities for payment" basis. The Settlement Center provides for the payment of securities income, par value at maturity of securities and issuer of other corporate transactions, including for those securities located and traded outside Ukraine [1].

The broker is a financial intermediation that conducts securities transactions on request and at the client's expense. His remuneration is the brokerage commission. Brokers perform two basic functions - direct transaction and analytical decision support. Only a limited number of people - its members - can conclude deals on the stock exchange. Its members pay the entry fee for the right to enter into transactions on the exchange. They may also be subject to other

requirements. For example, to become a member of the New York Stock Exchange requires the surety of two more full members. Such entry barriers are intended to restrict the bidding of non-professional bidders. The legal status of the members of the exchange is different in different jurisdictions: it can be only individuals, only legal entities or both. In Ukraine, only a legal entity can obtain a broker's license.

Banks are active participants in the stock market. They operate in all segments of the stock market (primary and secondary, national and international, government and corporate securities, exchange and over-the-counter securities) and with various types of securities (unit, debt, mortgage, derivatives).

In the stock market, banks perform the functions of major and infrastructure participants. In the role of securities traders and infrastructure participants in the stock market, banks are professional. In the stock market, banks operate in several directions: first, issue activity with the purpose of formation and increase of equity capital and attracting resources for use in active operations, in particular issue of shares, bonds, bills, deposit and savings certificates, secondly, investment activities for the purpose of earning income from securities activities, to ensure participation in the authorized capital of other enterprises and control over their property, in particular arbitrage dealer activity, purchase of shares for the purpose of holding them at their disposal more than 1 year, thirdly, professional activity - client operations for the purpose of receiving income in the form of commissions from securities transactions, including underwriting, brokerage activity, securities management activities, clearing activities, depository activities, activities for servicing client transactions with securities.

The issue activity of banks includes operations on the issue (issue) of own securities and their initial placement, as well as operations on the realization of investors' rights, certified by the issued securities of the banks. Banking institutions, as issuers of securities, first of all, are interested in the presence of an effective functioning stock market on which the placement of securities they issue.

An important activity of banks in the stock market is trading securities on their own behalf and on behalf of clients. Considering banks as professional participants of the stock market of Ukraine, it is worth noting that only they are authorized to trade securities of their own issue. In addition, unlike most traders, banking institutions are economically independent financial market participants who make their own investment decisions.

Professional activities of securities trading banks include: brokerage, dealerships, underwriting, securities management activities.

Commercial banks as securities traders carry out transactions, as a rule, with government bonds of Ukraine, stocks, savings (deposit) certificates, bills, corporate bonds.

Depository activities of banking institutions are associated with the expansion of their services as members of the depository system to maximize customer satisfaction.

Prospective direction of activity of banks in the stock market is rendering of services of the underwriter and financial consulting of the companies which enter the market for the purpose of placement of own securities.

Underwriting activities include the following by the banking institutions: carrying out economic substantiation of the issue of securities; analysis of the market regarding the demand for the main types of securities and determining the most acceptable instrument in terms of the issuer's goals, its financial condition and market conditions; preparation and submission of documents for registration with the National Commission, which carries out state regulation in the field of financial services markets, as well as wider disclosure of information about the issuer for potential investors through the development of an investment memorandum; ensuring the liquidity of stock instruments during and after their placement by maintaining bilateral quotes on the stock exchanges.

By participating in the placement of securities as an underwriter, banks have access to "interesting" securities and a guarantee of a stable return. The underwriter fee is 0.1- 0.5% of the issue volume. At present, securities placement services are provided in Ukraine only for bonds and this market is almost completely controlled by banks. According to experts, the share of bond issues

placed by underwriting banks exceeds 70%. The number of underwriting banks in Ukraine is increasing year by year. An important advantage of banks in the performance of their underwriter functions is the possession of significant credit resources, which allows to redeem the outstanding part of the issue of bonds with their subsequent placement on the secondary market (underwriting "on the basis of firm obligations"). In addition to banks, underwriting services are provided by financial companies. Their clients are relatively small companies with the volume of bonds borrowing from 5 to 20 million UAH. [7].

In conclusion, the stock market plays important role in development of economy of Ukraine. There are different ways to classify professional participants of stock market. The most easy and clear is to highlight two main categories: major and infrastructural. Major professional financial participants are issuers and investors. In Ukraine main investors are Investment Funds, Pension Funds and Insurance Companies, assets of all of them are managed by Asset Management Companies. The main issuers of securities in Ukraine are banks and government. Infrastructural professional participants are Stock Exchanges as the most important part of stock market, Depositaries and Clearing Companies.

### **PART II**

# ANALYSIS OF THE PRACTICE OF FUNCTIONING OF FINANCIAL INTERMEDIATION SERVICES IN THE STOCK MARKET OF UKRAINE

# 2.1 Analysis of the practice of functioning of the major participants of the stock market

As it mentioned at Part 1 of this paper, professional participants of stock market can be divided into 2 groups: major and institutional. At Part 2 we will analyze the practice of professional participants that provide financial intermediation services on the stock market.

At Fig. 2.1 there is dynamics of number of subjects that have licenses on stock exchange.

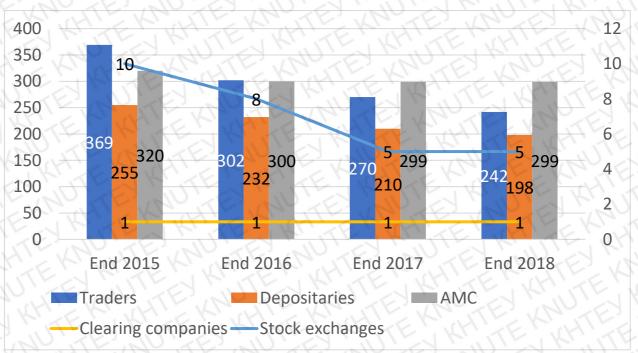


Figure 2.1 The dynamics of number of professional participants on stock exchange by type\*

\* Note: compiled by the author according to [4]

In the past 3 years the number of stock exchanges decreased twice, the number of traders decreased 35%, AMC – decreased also 9%, depositaries –

decreased 22% and only 1 clearing company was working. We propose to analyze professional participants more carefully and find the reason of such decrease.

The number of brokers in Ukraine can be estimated by the total number of securities traders. As a rule, each of them is licensed to conduct brokerage activities. During the study period, their number decreased at an increasing rate (Fig. 2.1). Considering the insignificant volumes of trades on the domestic market, it can be noted that the Ukrainian market do not need a lot of brokers. The number of brokerages has been associated with a large proportion of captive companies. It can be assumed that the market is gradually being cleansed.

At the Figure 2.2 we can see that in the past three years the number of AMCs in Ukraine decreased 7% and is 296 (on 29.10.2019 the number is 293). The biggest part of them is located in Kiev region. AMCs in Ukraine manage the assets of 1259 Collective Investments Institutions, 58 Non-Government Pension Funds and 2 Insurance Companies [6].

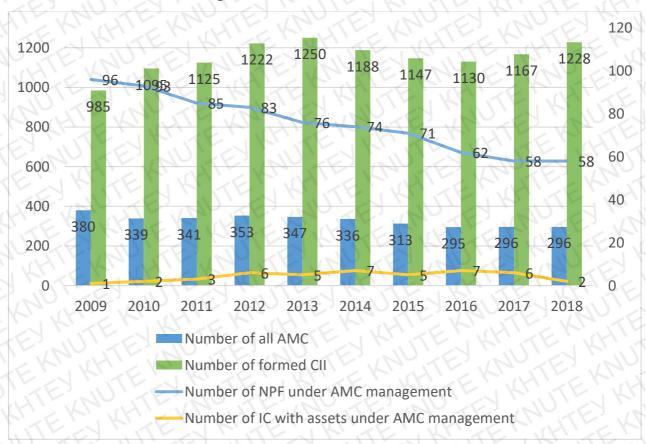


Figure 2.2. Number of AMC, CII, NPF and IC under AMC management in 2009-2018 [6].

At the same time in the past three years the total assets under AMC management increased 32% and amounted to UAH 314,821 M. This led to an increase in the approximate share of assets in management per one AMC by 45% (from UAH 709 M to UAH 1025 M) (Fig. 2.3).

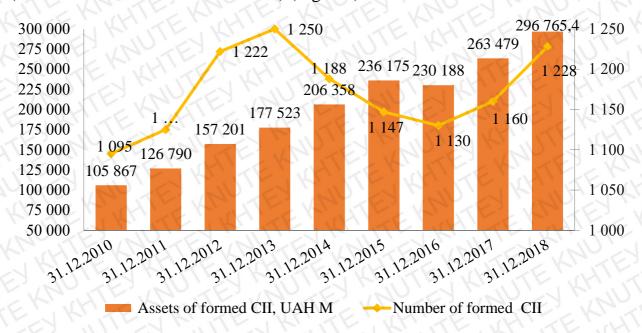


Figure 2.3. The number of assets of formed CII in UAH M and the number of formed CII in 2010-2018 [6].

At the Fig. 2.4 is shown that the biggest share of assets under the management of the AMCs have the venture CIIs (93.8%) and the next one in the share out of total are the closed venture CIIs (3%). In the past three years the number of venture CIIs increased by 9% and total assets of venture CIIs increased by 20%. The issue is that venture CIIs are investing the smallest part of their assets in securities (4,48% in stocks, 3,06% in corporate bonds and 0,07% in government bonds) [6].

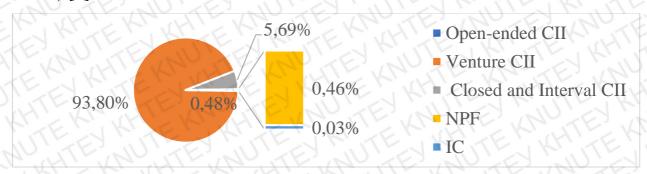


Figure 2.4. The structure of assets under management at the end 2018\*

<sup>\*</sup> Note: compiled by the author according to [6].

What is interesting – its opened and interval CIIs which invest more than 70% of their assets in securities. Opened CIIs invest 41% in stocks, 27% in government bonds and 0,74% in corporate bonds. Interval CIIs invest 45% in stocks, 40% in government bonds and 0,45% in corporate bonds. For both opened and interval CIIs individuals are the main investors (77% out of total Net Assets Value in opened CIIs and 81,69% in interval CIIs) [6, the data of 30.06.2019].

# 2.2 Investigation of the mechanism of functioning of infrastructure participants of the stock market

The main indicator of development of stock exchange is its index. At Figure 2.5 we can see the dynamics of UX and PFTS indices in the last year.

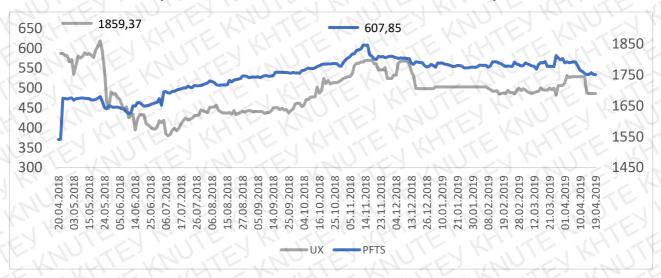


Figure 2.5. The dynamics of UX and PFTS indices in the last year\*

\* Note: compiled by the author according to [3]

According to the results of July-September of 2018, the UX index (the index of Ukrainian Exchange) rose by 4.9% (after -4.4% in April-June). In the 3rd quarter, PFTS index slowed down its growth to 16.2% (from +29.5% in Q2 2018). Thus, since the beginning of 2018 until the end of September, both indices increased significantly (+22-71%), and also strengthened the annual dynamics – to +58-88% (data at the end of Q3) [4]. In the end of November both indices started to show small decline, the highest point for PFTS index in the last year was 607,85 on 13.11.2018 and after that index decreased by 13% to the point 533,18 in

19.04.2019. UX index decreased by 10% to the point 1689,38 in 19.04.2019 since its highest point in the last year – 1859,37 in 21.05.2018.

The Ukrainian stock market grew along with the world markets. The dynamics of World Stock indices in the third quarter of 2018 is presented at Figure 2.6.

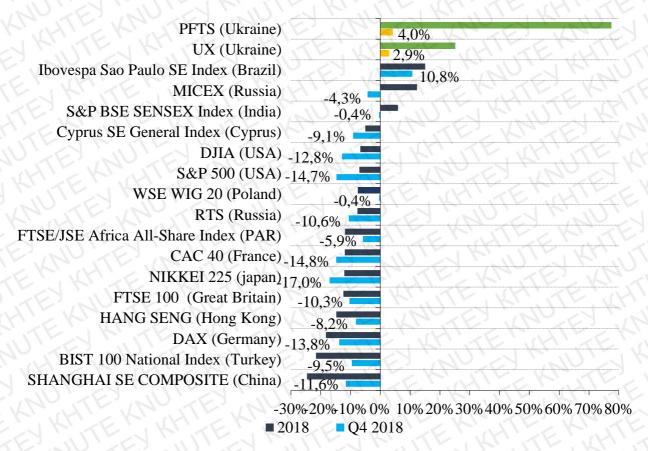


Figure 2.6. Dynamic of growth of the World Stock indices in 2018 [5]

The dynamics of the World Stock indices is very encouraging. On the graphic at Figure 2.6 it is noticeable that Ukrainian markets are growing faster than other largest world stock exchanges. On other side, we can't compare, for example, index S&P 500 with Ukrainian because in first one there were taken into account TOP 500 companies of USA with the largest capitalization, while UX index is made from only 6 Ukrainian companies, which in total cannot be compared with any of companies from index S&P 500 by itself.

To analyze the situation of development of national stock market in-depth we propose to see other dynamics.

The way of widespread attraction of capital to investment activity is the issuance and trading of various securities, including stocks, bonds and other financial instruments. The total volume of trades in these instruments and their dynamics on the biggest Ukrainian exchange platforms (2 platforms were not taken to the count because their volume of trading was too small) is presented at Figure 2.7.

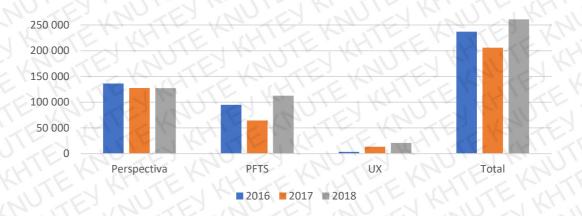


Figure 2.7. The volume of security's trades on the biggest Ukrainian exchange platforms in 2016-2018\*

\* Note: compiled by the author according to [4]

At Figure 2.7 there is no clear vision of trades in the past three years. In 2017 there was a decline by 14%, while in 2018 the volume increased comparing with both 2016 and 2017 years by 10% [4]. Basically, volume on the platform UX increased almost six times in two years. Volume on the platform PFTS increased by 18%, and the "Perspectiva" decreased by 7% in two years.

In 2018 the biggest share of security's trading volume had platform "Perspectiva" (49%), the next was PFTS (43%) and the smallest was "UX" (8%) [4]. There are also working platforms UMVB that made only 0.01% of trades and INNEKS that made no trades. In two years four security's trading platforms stopped their activities.

The structure of security's trades can show in which fields and financial instruments Ukrainian stock market needs to be renewed and upgraded. The

comparison of structures of stock's trades in Ukraine in 2017-2018 is presented at Figure 2.8.

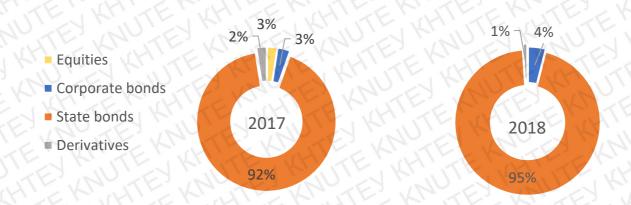


Figure 2.8. The structure of stock's trades in Ukraine in 2017-2018\*

\* Note: compiled by the author according to [4]

As we can see the share of bonds is becoming bigger and has 95% in 2018, while the share of equities became less than 1%. It is understandable because there is problem in Ukraine: people do not invest money in more profitable but risky instruments; it is safer for them to invest in something more stable. After a lot of financial crises in Ukraine there is distrust to the most of financial institutions. Speaking about foreign investors, it is more likely to invest in state bonds or venture capital (93.8% of CII in Ukraine in 2018 were venture [6]) as it is more developed institutionally and has a wide range of options.

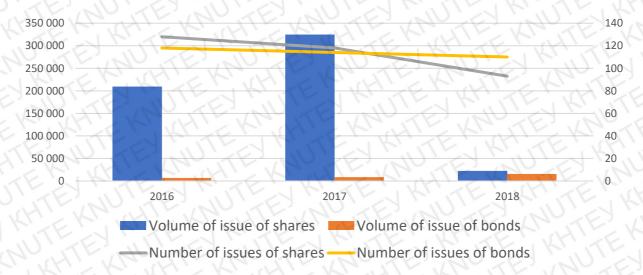


Figure 2.9. The volume and number of shares and bonds issues in 2016-2018 \* Note: compiled by the author according to [4]

At Figure 2.9 there is a significant decline in both number and volume of issues of shares. The volume decreased by 93% and number by 21%. In 2018, volume of bond's issues increased by 85%, even with a decline in number of issues by 5% [4]. Bonds were issuing mostly by enterprises (not banks or insurance companies).

An analysis of the results of stock trading in Ukraine has shown that in recent years there has been no significant increase in the role of the stock market. The stock exchange platforms were closing in the past three years with significant rates. The share of equity on stock market is decreasing every year. In the past year the number of securities in the listing of stock exchanges decreased 5,9% in Q3 2018 comparing with same period last year. In the same period the volume of trades of equities decreased 53,4% in 2018 and 76,2% in the period of Q4 2017 – Q3 2018. It shows us that companies are removing its securities from stock market and the market is degrading. The share of bonds in securities trade's volume is increasing (from 95% to 99% for sum of state and corporate bonds) and also the trade's volume of bonds is increasing (85,8% growth of corporate bonds and 32,3% growth of state bonds in Q3 2018) [4]. Its shows that its getting popular to invest in more stable securities, not profitable.

Other problem is that the market is not diversified; the number of liquid and investment-attractive financial instruments is insignificant. Only 1% out of total trade volume are derivatives in 2018 in Ukraine. This number has decreased 48% comparing with previous year (2% out of total volumes in 2017). The situation is even worth in investment certificates – 0,02% in 2017 and 0,10% out of total trade's volume in 2018 [4]. While in well-developed countries there are separate stock markets only for derivatives.

One of the reasons of such degrade of stock market in Ukraine is a low level of public awareness about the functioning of the stock market, its psychological rejection and underestimation of the potential and the associated passivity of individuals in the securities market.

The other reason is a lack of investment resources and low potential of institutional investors, represented by joint investment institutions, non-state pension funds and insurance companies. As of March 12, 2019, the number of Asset Management Companies in Ukraine decreased 7% in the past three years and is 297. There are 1267 Collective Investments Institutions, 58 Non-Government Pension Funds and 3 Insurance Companies. The biggest share of assets under the management of the AMCs has the venture CIIs (93.8% for the end of 2018). In the past three years the number of venture CIIs increased by 9% and total assets of venture CIIs increased by 20%. The issue is that venture CIIs are investing the smallest part of their assets in securities (4,48% in stocks, 3,06% in corporate bonds and 0,07% in government bonds). Therefore, there is a need to diversify CIIs and make it to work on stock market [4].

In conclusion, for development of stock market in Ukraine it is necessary to stimulate primary public offering of securities (IPO), diversify the market with derivatives to make the growth faster and increase public awareness of advantages of stock market.

Thereby, in Part 2 we explored:

- 1. Current state and dynamic of growth of stock market professional participants, that provide financial services in Ukraine.
- 2. The dynamic of development of stock exchanges.
- 3. The structure of assets under management in Ukrainian stock market.

As a result, we found out such problems:

- 1. Non-diversified stock market of Ukraine.
- 2. Too small volume of trades in Ukrainian stock exchanges.
- 3. The distrust of population.
- 4. Lack of legislation required by the EU standards.
- 5. Lack of investment resources and low potential of institutional investors

### **PART III**

# AREAS OF IMPROVEMENT OF THE FUNCTIONING OF FINANCIAL INTERMEDIATION SERVICES IN THE STOCK MARKET OF UKRAINE

# 3.1 Comparative analysis of domestic and foreign experience in the organization and operation of intermediation services in the stock market

To begin the analysis of foreign experience we propose to pay attention at worldwide statistics to understand better the situation of stock market and intermediation services. For beginning, Fig. 3.1 shows the geographical trends in investment fund assets at End 2018.

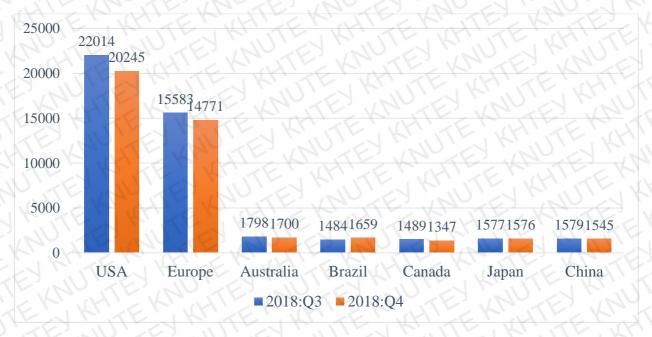


Figure 3.1. Geographical trends in Investment Fund Assets at 2018: Q4 (EUR billions, end of quarter) [25]

The Fig. 3.1.1 shows us that the biggest region where investment funds are located is USA. At the End 2018 there were located EUR 20 245 billion, it is 37% more than next biggest region, whole Europe, and is 11 times more than in next country, Australia (EUR 1 700 billion). That means USA is the main center of investment funds, and also it has the well-developed stock exchanges. In Europe EUR 24 771 billion were located.

The structure of assets in the world by regions and type of assets we can see at the Table 3.2.

REGION	Equity	Bond	Balanced/ Mixed	Money Market	Real Estate	Other
World	40%	21%	17%	12%	2%	8%
Americas	47%	23%	17%	12%	0%	0%
Europe	28%	23%	21%	9%	4%	15%
Asia and Pacific	44%	10%	5%	21%	1%	19%

Total NET Assets by region and share on market at End of 2018 Q4\*

Table 3.2 shows us that the biggest share in the world assets took equity (40%). The most of equity uses Americas region (47%). The next are bonds, which took 21% in the world. For comparison in Ukraine opened CII invest in equity 41% and in bonds 28%.

Five countries are managing more than 76% of the total AuM in Europe. The United Kingdom is the largest asset management market, followed by France, Germany, Switzerland and Italy. This high concentration reflects the size of these countries, their experience in financial services as well as the pool of savings they have accumulated over the years.

The Fig. 3.3 shows the structure of European Assets under Management by countries at End 2017 in percentage from total Assets under Management.

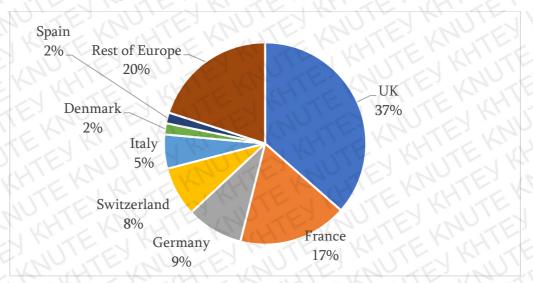


Figure 3.3. European Assets under Management at End 2017 (EUR billion percentage of total AuM) [25]

<sup>\*</sup> Note: compiled by the author according to [25]

As we see at Fig. 3.3, the biggest share in Assets under Management has the UK (36,5%), the second has France (17,4%) and Germany (9,1%) is third. Switzerland (7,9%), Italy (5,4%), Denmark (1,8%) and Spain (1,7%) also have one of the biggest shares of assets in Europe. Anyway, the UK and France together run more than half (53,9%) of total European assets.

Assets managed by professional investors in Europe can be broken down in two main categories: investment funds (IF) and discretionary mandates (DM).

- Investment funds are regulated funds that pool together savings of investors with similar investment goals. Each fund has its own particular investment objective with corresponding risk levels and asset allocation. Investors can buy or redeem shares of these funds. Investment funds offer investors significant advantages in terms of risk diversification, risk-adjusted return and investor protection. Typically, investment funds are offered to retail clients.
- Discretionary mandates are explicit investment 'mandates' delegated to an asset manager by a specific investor. The asset manager receives the sole authority to buy and sell assets and execute transactions on behalf of that investor. The investment strategy, in terms of risk profile and asset allocation, is agreed beforehand with the client. Discretionary mandates are tailor-made to the precise investment goals of each individual investor. Discretionary mandates are usually only geared towards institutional clients.

At Fig 3.4 we can see the evolution of Discretionary Mandates and Investment Funds in Europe.

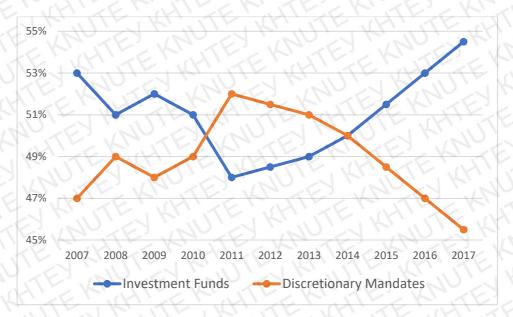


Figure 3.4. Evolution of Discretionary Mandates and Investment Funds in Europe [25]

Fig. 3.4 shows us that in 2011-2014 years discretionary mandates were more popular than investment funds, but in the past three years (2015-2017) the share of discretionary mandates decreased and became 46%, while investment funds were 54%. In addition, we would like to notice that in past 6 years investment funds were only increasing their share, becoming more and more popular.

Large differences in the split between investment funds and discretionary mandates can be observed between European countries. By way of illustration, discretionary mandates accounted for 13% of total assets under management in Germany, compared to 56% on average in European and 61% in the UK. Several factors explain these differences:

- 1. the role played by institutional investors in the different countries;
- 2. the degree of use of investment funds by institutional investors compared to mandates;
- 3. the degree of specialization of the local asset management industry in the management of investment funds and discretionary portfolios.

The basic differences between investment funds and discretionary mandates are also limited in the sense that investment funds can be managed as discretionary mandates and vice versa depending on the country. For instance, institutional investors in Germany and the Netherlands mainly use alternative investment funds

to manage their assets, whereas these types of investors tend to rely more on discretionary mandates in France and the UK.

That's why it is properly to look at the structure of assets under management by type of clients and country (Fig. 3.5).

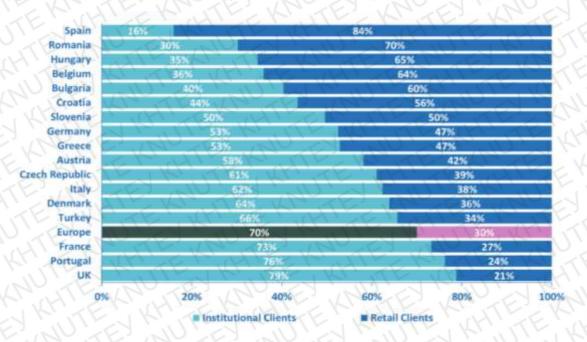


Figure 3.5. Assets under Management by Type of Client and Country at End 2017 (percentage of total AuM) [25]

Figure 3.5 shows how important retail and institutional clients are in a number of European countries. It illustrates clearly how the European average is skewed towards institutional clients because of the very large institutional client base in the UK and France, the two European countries with the largest AuM. It can also be seen that there are significant variations in the importance of the client base across countries. This reflects differences in the role of insurance products in retirement savings, the structure of national pension systems, the role of banks in the distribution of retail investment products, and the cross-border activities of asset managers and their capacity to attract capital from foreign investors.

Investment funds and discretionary mandates are typically geared towards different types of clients. In the investment fund market, retail clients tend to be the most important clients. However, some institutional clients, specifically pension funds and insurers also invest a significant share of their portfolios into investment funds. This is the case in particular in Germany and Austria, where "Spezialfonds"

are very popular investment vehicles dedicated exclusively to institutional investors, i.e. insurance companies, pension funds and municipal agencies. In France, investment funds are also used extensively in workplace pension schemes and money market funds play an important role in the cash management of many French corporations.

The discretionary mandate segment of the market is heavily dominated by institutional clients. This is the case because mandates are normally associated with a substantial minimum investment amount, rendering them unavailable to most retail investors. Another reason is that mandates can offer very specific investment solutions according to the investors' sophisticated needs, such as asset-liability management, liability driven investments and separation of alpha and beta investment strategies. In general, only the largest investors, in terms of investable assets, have such specific investment requirements.

The asset allocation of investment portfolios reflects the investment guidelines given by the asset manager's clients, who are the owners of the assets, and tends to reflect the diverse investment objectives of different types of clients. For example, a typical insurance company will opt for an allocation heavily weighted towards high-quality, fixed-income securities to generate sufficient income to meet its liabilities. On the other hand, foundations and endowments often seek a more balanced asset allocation to maximize long-term returns and preserve principal. Asset allocation is shown at Fig. 3.6.

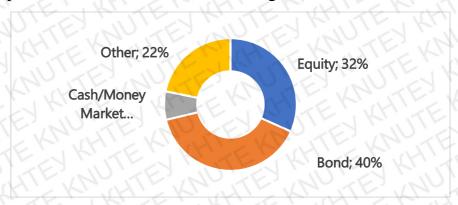


Figure 3.6. Asset allocation at End 2017 (percentage of total AuM) [25]

Figure 3.6 shows that at end 2017, bond assets accounted for 40% of investment portfolios managed by asset managers in Europe. Equity assets

accounted for 32% of assets, while money market and cash equivalents represented 7% of assets. The remainder of the portfolio (22%) was made up of other assets, which are: real estate and infrastructure, structured products, private equity, hedge funds, other alternatives. The predominance of fixed-income instruments reflects the fact that bonds are viewed as safe instruments for preserving capital and generating income, which was reinforced by the implementation of Solvency II regulatory constraints.

The evolution of asset allocation in percentage of total assets under management is shown at Fig. 3.7.



Figure 3.7. Evolution of Asset allocation (percentage of total AuM) [25]

The share of bonds and cash/money market instruments in the overall asset allocation has been gradually declining in recent years, in favor of that of other assets, which include real estate and infrastructure assets, hedge funds, structured products, private equity and liability driven investment. This shift has been triggered by a search for yield in an environment of extremely low or negative interest rates on a range of sovereign bonds and bank deposits.

The overall asset allocation of investment funds and discretionary mandates is significantly different. Whereas 42% of investment fund assets were invested in equity at end 2017, the share of equity in mandate assets was only 22%. Conversely, bonds accounted for more than 50% of mandate assets, compared to

30% in the global portfolio held in investment funds. This difference in asset allocation can be explained by the fact that mandates have an asset allocation much more biased towards bonds, reflecting the need of pension funds and insurance companies to meet their anticipated liabilities.

The share of equity in the portfolio held by investment funds has steadily increased since 2008. This was mainly a consequence of the strong growth of the stock markets in recent years. In addition, driven by low interest rates and central bank quantitative easing, investors moved more into equities seeking higher returns.

This development contrasts with the evolution of the share of equity in the asset mix of mandates, which has been edging down since 2013. As mentioned earlier, mandates are usually only offered to institutional clients, in particular insurers and pension funds. Given the growth of stock markets, this evolution suggests a process sometimes referred to as the "de-equitization" of portfolios. Different causes can explain this process, in particular the growing maturity of pension liabilities due to population ageing as well as more stringent regulatory and accounting rules which encouraged institutional investors to avoid volatile assets.

The biggest financial intermediaries on stock market are Asset Management Companies. Their number at European countries at the End 2017 is shown at Table 3.8.

Table 3.8

Number of Asset management Companies at End 2017 [25]

Country	2017	Country	2017	Country	2017	Country	2017
Austria	24	Luxemburg	304	France	630	Slovakia	10
Belgium	64	Malta	127	Germany	380	Slovenia	7
Bulgaria	31	Netherlands	236	Greece	50	Spain	109
Croatia	21	Norway	31	Hungary	24	Sweden	105
Czech Republic	23	Poland	41	Ireland	253	Switzerland	210
Denmark	53	Romania	22	Italy	256	Turkey	49
United Kingdom	1100	Italy	256	Liechtenstein	16	Ireland	253

As shown at Table 3.8., UK, France and Germany have the highest number of asset management companies, reflecting the relative importance of London, Paris and Frankfurt as asset management centers and the role played in those markets by independent and specialized asset managers, such as management companies of private equity funds. The high number of asset management companies operating in Ireland and Luxembourg results from their importance in the cross-border distribution of UCITS and AIFs (Table 3.8).

It is important to analyze not only the number of Asset Management Companies, but also assets that they manage. Assets divided by GDP shows the efficiency and productivity of Asset Management Company. European Assets under Management by Geographical Breakdown at end 2017 is shown at Table 3.9.

Table 3.9

European Assets under Management by Geographical Breakdown at end 2017

(EUR billion and percent)[25]

Country	AuM	Market Share	AuM/GDP	
UK	8670	36.5%	371%	
France	4142	17.4%	181%	
Germany	2161	9.1%	66%	
Switzerland	1887	7.9%	314%	
Italy	1294	5.4%	75%	
Netherlands	844	3.6%	114%	
Denmark	425	1.8%	145%	
Spain	409	1.7%	35%	
Belgium	332	1.4%	76%	
Finland	223	0.9%	100%	
Austria	141	0.6%	38%	
Portugal	82	0.3%	42%	
Hungary	30	0.1%	3%	
Romania	9	<0.1%	5%	
Croatia	4	<0.1%	7%	

Table 3.9 shows that the biggest ratio of Assets under Management to GDP have UK (371%), Switzerland (314%), France (181%), Denmark (145%) and Netherlands (114%). These countries manage more Assets than GDPs they have.

In comparison, AuM/GDP in Ukraine in 2017 was 0,04% and this ratio is falling in past 6 years, from 0,09% in 2013 to 0,03% in 2018 (Fig. 3.1.10). Close neighbor of Ukraine, Romania has ratio 5%, which is much more than Ukraine has.

In addition, all countries in the list showed growth in Assets under Management comparing with previous year, that means market in Europe growing and developing.

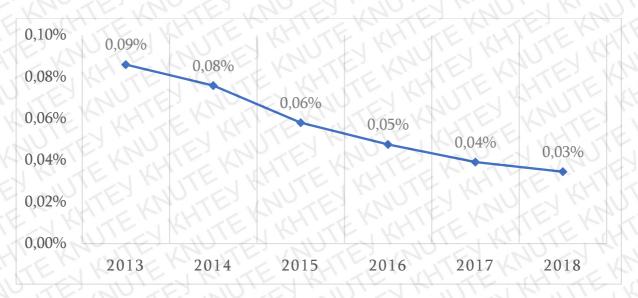


Figure 3.10. Ratio of Assets under Management to GDP in Ukraine in 2013-2018 years.

\* Note: compiled by the author according to [28, 6]

In conclusion, all this analysis showed us that Ukrainian stock market and it's financial intermediation participants are much less developed than in other countries, such as USA, UK, France, Denmark or Italy. Ukrainian stock market needs to be developed very fast and to make it happen we need to start implementing new technologies in our financial sphere.

Depository systems of different countries is shown at Table 3.11 for comparing with Ukrainian experience.

#### Depository system in different countries

Country	Depository System
Poland	Depository system of Poland conclude 1 depository - Krajowy Depozyt Papierow Wartosciowych. The main shareholders of the depository is the state represented by the State Treasury (33% of shares), the National Bank (33%). Another 33% belong to the Warsaw Stock Exchange (WSE), the majority of which also belongs to the state.
Austria	The central depository of Oesterreichische Kontrollbank AG (OeKB) is simultaneously a bank, and settlement and clearing activities are carried out by Central Counterparty Austria (CCPA). OeKB is 100% owned by Austrian residents, mainly banks.
Estonia	The Estonian Central Securities Depository (ECSD) was established in 1994 and serves as the central securities holders, including government securities. The ECSD is 100% owned by the Tallinn Stock Exchange, which is also one in the country.
Kazakhstan	In Kazakhstan, since 1997, there is a single Central Depository in the form of CJSC. Its shareholders are the National Bank of the Republic (49.79%), Kazakhstan Stock Exchange (38.68%), banks (7.41%), brokerage companies (4.12%)
Korea	Korean Securities Depository. The number of shareholders of the Korean Depository exceeds 100 (Korean Stock Exchange, Korean Dealers Association, professional securities market participants, banks, insurance companies and investment funds). The Korean Depository has five branches and functions as a central securities depository. The depository system is two-tier. The first level is the Korean Securities Depository, the second is the Subdepositories and Registrars.
China	Chinese Securities Depository and Clearing Corporation provides services for securities traded on the stock market and Chinese Securities Depository and Clearing Corporation serves the interbank bond market.

<sup>\*</sup> Note: compiled by the author according to [33,34,35,36]

As shown at Table 3.11, most of the researched countries use depository systems where all registration features are on one or two institutions that control all

sphere. In Ukraine there are one Central Depository and 198 (data of End 2018) private depositories. The foreign experience shows us the need to reduce the number of private depositories and leave only one Central Institution for more qualified control of service.

New information technologies have been involving in all spheres during past years.

FinTech (financial technology). This term is used to refer not only to financial technology as a product, but also to product developers and alternative payment and payment system operators. Most FinTech start-ups are technology companies that supply digital products to the financial sector, but today they themselves become participants in the financial market and are substantially transforming it. The FinTech ecosystem brings together all financial market participants: FinTech startups, regulators, banks, international payment systems, associations of bankers and financiers, incubators, accelerators, suppliers. FinTech companies promote financial services in the most remote locations with no banking branches or other financial institutions, mostly their services are transactional in nature and involve large amounts of information. Mostly the interests of FinTech companies are focused on transfers, payments (53%) and lending (25%), information processing, but today they also provide asset management, brokerage, investing, insurance, lending and more.

Blockchain technology now is very popular in many countries. Distributed registry (blockchain) technology allows to store transaction information in separate, unrelated blocks. Each block contains information on the previous block, so that the information is repeatedly copied, and no network member can change it. At the conclusion of the transaction, the transaction is checked on the network and returned to the network again with information about the participants of the transaction. A transaction is considered complete and valid (confirmed) when its format and signatures are verified, and when the transaction itself is grouped with several others and recorded in a block. Blockchain technology is transforming the accounting and settlement structures of the stock market, and the services of

registrars become unnecessary when translating securities registers into digital formats. In addition, the functions and technology of the stock exchanges will change.

According to the European Economic Commission, the first stock exchange that decided to use blockchain technology to monitor the execution of contracts is the Australian Securities Exchange (ASX), also known by using such technology in such exchanges as the American Stock Exchange Nasdaq, the London Stock Exchange (LSE) and Tokyo Stock Exchange (JPX).

The mechanism for the transformation of the "classic" model to "digital" was laid down in the European Payment Services Directive (PSD2), which came into force on January 13, 2016. This directive foresees the replacement of the existing financial system with a digital one. The activities of new type financial intermediaries will be carried out on the basis of two types of licenses.

The first type of license (payment initiation service provider) involves the provision of intermediation services for the provision of payment interfaces, with the system of contractual relations being replaced by the legally approved rules of interaction between the user and the service provider. Thus, users will receive an extremely convenient service that will allow them to make payments without contacting banks, so the role of banks in the context of this directive is also significantly changing, this direction of transformation should be the subject of a separate study.

The second type of licenses (account information service providers) entitles the financial intermediation - the license holder to the right to accumulate, consolidate and transfer financial information (such information is consolidated by major technology companies such as Apple, Microsoft). According to PSD2, a pan-European registry of payment institutes and their agents will be established in the EU, this registry will include all payment systems connected to Domain Name Servers (DNS), this is the root DNS server, there are only 13 of them in the world, so technically difficult. [26]

The issue of adaptation to the European Payment Services Directive (PSD2) (Payment Services Directive revised), which lays the foundations and principles for the creation of a new financial system, international standards for regulation of digitalization and protection of the rights of investors and consumers, is urgent for Ukraine. An even more important task is to create a legal framework for the functioning of financially technological companies in Ukraine in order to adapt them in a timely manner to fulfill the functions stipulated in the PSD2 Directive.

# 3.2 Ways to improve the mechanism of functioning of intermediation services in the Ukrainian stock market

Continuing the subject of digitalization, we propose to consider such proposals for improving the performance of the entire financial market as a whole and in particular the stock market and its participants

Digitization substantially transforms the subject, accounting, instrumental and settlement and clearing structure of the stock market. At present, partnerships between the entities of the traditional financial system and the new institutional participants (FinTech) are mostly established, but in the near future FinTech companies can completely replace the intermediaries in the stock market due to such advantages as mobility, convenience, speed, service, visualization.

In some European countries, a split has already taken place: banks are financial and transactional services are FinTech. Subsequently, in the event of a liberalization of the legislation, FinTech can compete with banks and non-banking financial institutions by providing a variety of cheaper and more affordable services. Consideration must be given to the downside of digitalization: the complexity of networks, the intensities of capital and information moving these networks puts the global financial system at risk for systemic risks. The increasing complexity is exacerbating financial instability, as institutions that need to regulate global systems are unable to trace cause and effect and anticipate potential disruption to global systems.

At present, the digital economy is in a stage of development when standards and regulations are just beginning to be developed and approved. Delay in adoption of regulatory norms will slow down the development of digitalization and the formation of an innovative business model, leave the country on the sidelines of global trends, so the main trends of digitalization, the directions of the formation of regulatory norms, the directions of development of mobile applications need further investigation. The issue of adaptation to the PSD2 European Payment Services Directive (Payment Services Directive revised), which lays the foundations and principles for the creation of a new financial system, international standards for regulating digitalization and protecting the rights of investors and consumers, is urgent for Ukraine. An even more important task is to create a legal framework for the functioning of financially technological companies in Ukraine in order to adapt them in a timely manner to fulfill the functions stipulated in the PSD2 Directive.

In addition to digitalization, there are other proposals of improvements. Another problem with Ukrainian stock market is the lack and transparency of information. Before a person does something new, one first learns all the necessary information. In order for someone to invest in the Ukrainian stock market, and to make a transaction on the Ukrainian stock market, one must clearly understand how the whole process is going, to understand the possibilities and risks, to have access to all sources of information, quotes, deals, ratings. For example, if an American wants to buy stocks for the first time, he can do so in a very short time. First, society's awareness of the stock market in USA is high; everyone knows what stocks are and where they trade. But in Ukraine, more than half of the population associates this word "share" with completely different meanings. Second, if one search of information about US stocks in the Internet, there will be a bunch of information. Unlike in Ukraine, a person without financial education will have to spend a lot of time and patience to find at least some stock quotes.

Furthermore, one of the incentives for people to buy stocks is the desire to own a part of a well-known company, such as Apple, Amazon, Google, Microsoft etc. It is already possible to trade Apple shares on the Ukrainian Stock Exchange. The next recommendation is to introduce shares of foreign companies to the Ukrainian stock market.

The ways to improve the mechanism of functioning of intermediation services in the Ukrainian stock market are shown at the Table 3.12.

Table 3.12
Ways to improve the mechanism of functioning of intermediation services in the Ukrainian stock market

Financial Intermediation	Sphere	Ways to improve
participant t improve	OKNOTE	WHIEN WHIEN KHUEY
Stock Exchange	Technologies	Digitalization and modernization of platforms, websites
	Information	Free and easy access to information
	Diversification	Free circulation of securities of foreign markets
	Business standards	To make Ukrainian Stock Exchanges closer to the foreign stock markets Standardization to Shareholder Rights Directive
Depository	Technologies	Digitalization of depository processes
Institutions	Business standards	Standardization to European Directive MiFID II and CSDR
	Centralization	To reduce depository institutions to one central
Clearing company	Technologies and Finance	To reduce cost of transaction
	Speed of transaction	To make settlement for the transaction after deal, not before

In conclusion, in the Part 3 were found the main recommendations for improvement of mechanism of functioning of intermediation services in the Ukrainian stock market, which are:

- digitalization and modernization of all professional participants of stock market, involving financial technologies would speed up all processes from choosing the deal till closing a transaction, increase efficiency and profitability of all stock market participants, improve security;
- implementation of the system with free and easy access to information about stock market, increasing number of publications of webs, magazines about investment, its process, risks and opportunities influencing public awareness and trust of community;
- free circulation of securities of foreign companies in Ukraine will increase public interest to the stock market, which will increase a volume of trades and attract foreign investors;
- low interest rates and central bank quantitative easing, investors will move more into equities seeking higher returns – monetary policy directed on development of stock market;
- diversification of security market, using derivatives;
- standardization of laws and business standards according to European Directive
   MiFID II and CSDR;
- increasing speed of transaction by making settlement for the transaction after deal, not before.

#### CONCLUSIONS AND RECCOMENDATIONS

In the research were made conclusions:

- Professional participants that provide financial intermediation services on stock market can be divided in two categories: major and infrastructural. Major are investors (Asset Management Companies that manage assets of Investment Funds, Pension Funds and Insurance Companies; individual traders) and issuers (legal entities, banks and government). Infrastructural are Stock Exchanges, Depositaries and Clearing Companies.
- 2. In the past years the number of all professional participants on the stock market has been decreasing, the number of stock exchanges decreased twice and only three of them are making trading volume. Percentage of investment assets on the stock market is significantly low and its growth imperceptible with such volumes of trades. The number of trading by stocks decreased to incredibly small numbers and is less than 1% from total trading volume. The market is not diversified, the number of liquid and investment-attractive financial instruments is insignificant. The volume of issuing shares decreased in the last year.
- 3. The number of assets under management increasing in the past years, indexes of Ukrainian stock exchanges are growing especially in comparison with world indexes, GDP is growing which means that Ukrainian economy is developing and has chances to develop stock market also.
- 4. The main developed country in terms of investment and asset management is USA. It manages 37% more assets than entire Europe, which has 65 countries by territory. UK, France and Germany manage more than half of all assets in Europe. In the most developed markets such as UK, Switzerland, France, Denmark and Netherlands ratio of assets under management to GDP is more than 100%, while in Ukraine this ration decreasing to inconspicuous percentage 0,03%. It means that investment in stock market is not developed in Ukraine at all.

As a result, were found out such problems:

- 1. Non-diversified stock market of Ukraine.
- 2. Too small volume of trades in Ukrainian stock exchanges.
- 3. The distrust of population.
- 4. Lack of legislation required by the EU standards.
- 5. Lack of investment resources and low potential of institutional investors

Recommendations for improvement of mechanism of functioning of intermediation services in the Ukrainian stock market are:

- 1. Digitalization and modernization of all professional participants of stock market, involving financial technologies would speed up all processes from choosing the deal till closing a transaction, increase efficiency and profitability of all stock market participants, improve security;
- 2. Implementation of the system with free and easy access to information about stock market, increasing number of publications of webs, magazines about investment, its process, risks and opportunities influencing public awareness and trust of community;
- 3. Free circulation of securities of foreign companies in Ukraine will increase public interest to the stock market, which will increase a volume of trades and attract foreign investors;
- 4. Low interest rates and central bank quantitative easing, investors will move more into equities seeking higher returns monetary policy directed on development of stock market;
- 5. Diversification of security market, using derivatives;
- 6. Standardization of laws and business standards according to European Directive MiFID II and CSDR;
- 7. Increasing speed of transaction by making settlement for the transaction after deal.

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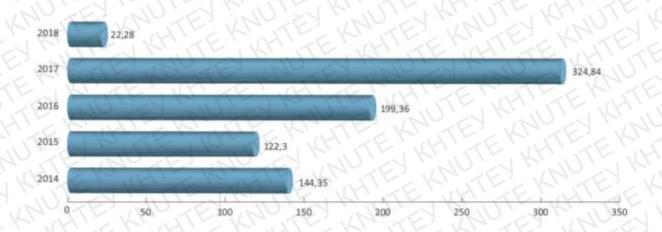
### **APPENDICES**

Appendix A Volume of bidding on trade organizers during 2014-2018, UAH billions

Stock Exchange	2014		2015		2016		2017		2018	
	UAH billion	Share	UAH billio n	Share	UAH billio n	Share , %	UAH billion	Share	UAH billio n	Share,
Perspectiva	490 458,12	79,15 %	220 332,1 7	76,98 %	136 057,6 2	57,80 %	127410, 01	61,91	127 325,0 0	48,81
PFTS	95 881,73	15,47	53 181,8 0	18,58	93 719,2 0	39,81	64337,7	31,26	112 518,1 7	43,13
UX	8 565,89	1,38%	6 692,3 6	2,34%	3 531,2 0	1,50%	13412,2	6,52%	20 987,8 6	8,05%
KMFB	9 921,41	1,60%	3 565,3 1	1,25%	1 743,3 2	0,74%	81,75	0,04%	TE	EK.
UNIVERSAL NA	12 739,29	2,06%	591,2 9	0,21%	252,0 9	0,11%	399,2	0,19%	KH	UTE
CEFB	1 265,53	0,20%	1 413,3 9	0,49%	59,09	0,03%	TELY	TUK	EY	KWI
UMVB	260,4	0,04%	118,6	0,04%	21,71	0,01%	KHTE	EK	34,95	0,01%
UFB	456,88	0,07%	301,9	0,11%	18,93	0,01%	1,16	0,00%	1 1/1	
INNEKS	27,32	0,00%	5,09	0,00%	1,98	0,00%	145,43	0,07%	0,49	0,00%
UMFB	118,66	0,02%	5,94	0,00%	OTE	K K	JUTE	74	TI	EJ K
Total	619 695,23	100	286 208,0 0	100	235 405,1 4	100	205787,	100	260 866,4 6	100,00

# Appendix B

# Volume of securities issues registered by the NSSMC in 2014 - 2018, UAH billions



### Appendix C

# Top Issuers of Stocks that Have Been the Most Demanded in the Exchange Market (by Volume of Exchange Contracts) in 2018

No	Issuer	Number of contracs	Volume of trades on stock exchange, UAH biilions	% from total volume of trades
TEV	ПАТ «ДЕК «ЦЕНТРЕНЕРГО»	7718	245,33	0,09%
2	АТ «РАЙФФАЙЗЕН БАНК АВАЛЬ»	6070	245,17	0,09%
3	ПАТ «МОТОР СІЧ»	2405	240,85	0,09%
4	ПАТ «УКРНАФТА»	7104	142,01	0,05%
5	ПАТ «ДОНБАСЕНЕРГО»	2211	52,8	0,02%
6	ПАТ «АВДІЇВСЬКИЙ КОКСОХІМІЧНИЙ ЗАВОД»	809	25,18	0,01%
7	AT «ТУРБОАТОМ»	643	22,51	0,01%

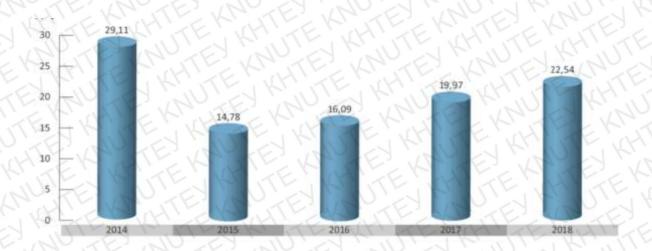
# Appendix D

TOP - 10 traders with the highest volume of trading in the stock market in \$2018\$

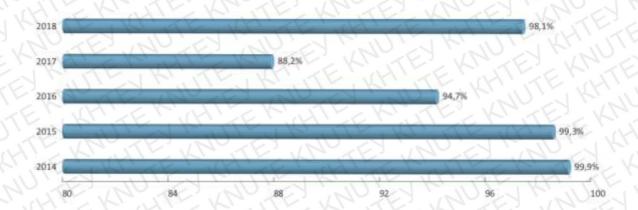
Νο 3/п	Trader	Volume of trades on stock exchange, UAH billions	% of total volume of trades	
1E VI	СПІЛЬНЕ ПІДПРИЄМСТВО ТОВ «ДРАГОН КАПІТАЛ»	735,25	0,28%	
2	ТОВ «ФРІДОМ ФІНАНС УКРАЇНА»	276,26	0,11%	
3	TOB «I-HBECT»	235,28	0,09%	
4	ТОВ «УНІВЕР КАПІТАЛ»	183,48	0,07%	
5	ПРАТ «ІНВЕСТИЦІЙНА ФІНАНСОВА КОМПАНІЯ «АРТ КАПІТАЛ»	108,7	0,04%	
6	ТОВ «ІНВЕСТИЦІЙНИЙ КАПІТАЛ УКРАЇНА»	106,46	0,04%	
7	ТОВ «КІНТО, ЛТД»	95,49	0,04%	
8	ТОВ «ТАСК-БРОКЕР»	84,79	0,03%	
9	ТОВ «ІНВЕСТИЦІЙНО-ФІНАНСОВА КОМПАНІЯ ПРОФІНВЕСТ»	81,5	0,03%	
10	ТОВ «НАВІГАТОР-ІНВЕСТ»	75,43	0,03%	

### Appendix E

# Volume of registered issues of securities of mutual investment institutions in 2014-2018, UAH billions



 $Appendix \ F$  Share of derivatives trading on the stock market in the total volume of trading on the securities market in 2014 – 2018



### Appendix G

# Net Sales of Worldwide Regulated Open End Funds (Billions of Euros)

		20	017	, WIT	20	2018		
THE	01	02	03	Q4	Q1	Q2	Q3	Q4
All Funds	611	574	694	635	502	193	169	120
Long Term	583	460	430	523	491	162	215	48
Equity	164	113	121	245	217	38	83	99
Bond	254	200	193	138	119	61	78	-57
Balanced/mixed	102	82	65	112	89	26	19	-7
Guaranteed	2	1	-3	-3	-2	-2	-0.4	1.0
Real Estate	11	8	9	11	12	14	9	10
Other	51	57	45	21	55	26	25	3
Money Market	28	114	264	112	11	31	-46	71
Memo Items Included	Above:				1/1/10		Me	
ETFs	174	132	107	140	117	44	114	141
Institutional	69	41	64	77	95	15	67	59

Appendix H

Net Assets of Nationality Domiciled UCITS and AIF in Europe

MEMBERS	UCITS ASSETS	% CHANGE	AIF ASSETS	% CHANGE	TOTAL ASSETS	% CHANGE
Austria	82,228	2.4%	100,654	7.7%	182,882	5.2%
Belgium	120,462	48.5%	34,793	-24.0%	155,255	22.4%
Bulgaria	645	23.4%	9	7.1%	654	23.1%
Croatia	2,487	1.9%	480	24.6%	2,966	5.0%
Cyprus	167	54.6%	2,581	24.7%	2,748	26.2%
Czech Republic	10,746	24.9%	928	41.2%	11,674	26.1%
Denmark	129,153	10.0%	171,671	8.3%	300,824	9.0%
Finland	102,932	19.4%	13,323	-34.1%	116,254	9.3%
France	873,868	9.8%	1,055,247	5.2%	1,929,115	7.3%
Germany	371,779	12.8%	1,666,413	6.9%	2,038,192	7.9%
Greece	4,928	13.4%	2,906	5.1%	7,834	10.2%
Hungary	1,579	136.9%	18,189	0.7%	19,768	5.5%
Ireland	1,830,520	15.9%	565,569	11.8%	2,396,089	14.9%
Italy	255,784	9.2%	64,983	-5.7%	320,767	5.8%
Liechtenstein	28,132	6.4%	18,263	3.4%	46,396	5.2%
Luxembourg	3,486,445	11.9%	673,169	15.1%	4,159,614	12.4%
Malta	2,714	21.2%	8,089	6.9%	10,804	10.1%
Netherlands	37,153	-3.0%	806,335	5.6%	843,488	5.2%
Norway	115,682	7.1%	10 (3)	NO	115,682	7.1%
Poland	25,847	22.7%	40,939	8.8%	66,786	13.8%
Portugal	8,827	22.5%	14,252	-1.2%	23,080	6.7%
Romania	4,874	1.1%	4,289	2.6%	9,164	1.8%
Slovakia	4,926	13.3%	1,652	7.4%	6,578	11.7%
Slovenia	2,657	7.9%	CHI.	111	2,657	6.2%
Spain	225,419	16.5%	69,846	-6.9%	295,265	10.0%
Sweden	312,505	10.2%	22,916	12.3%	335,421	10.4%
Switzerland <sup>1</sup>	451,486	3.1%	99,313	-0.6%	550,799	2.4%
Turkey'	10,994	-5.6%	14,656	-6.2%	25,649	-5.9%
United Kingdom	1,225,854	11.7%	421,322	6.7%	1,647,175	10.4%
Europe	9,730,793	12.2%	5,892,786	7.0%	15,623,579	10.4%

#### Appendix K

## The surge in equity markets across the globe in 2017 powered growth in assets under management



Source: ICI; Simfund; Datastream; McKinsey analysis