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The Risks of Direct and Portfolio Investments in the Agricultural Sector of Ukraine

Introduction

Investment activity of enterprises of the agricultural sector is the key to achievement of their high performance and sustainable development. Investments affect not only the quality of workforce, the number of products, availability of resources, but also their of profitability.

Agricultural sector is one of the most important branches of in the Ukrainian economy. Its share in GDP is about 10%. Agriculture provides 95% of population with food. According to the UN, Ukraine is ranked third among the world agricultural leaders (after Brazil and Russia). In this regard, urgent problem includes raising capital in the Ukrainian economy because of the following: 44% of the country is covered with black earth (a third of world reserves); high growth rates of potential yields and steady growth in agricultural commodity prices; low production costs in the agricultural sector in comparison with European countries; tax incentives.

Research Goals, Tasks, Objects and Methods

The research goals of this article include analysis of risks of direct and portfolio investments as an alternative for further development of agricultural sector in Ukraine and ways to prevent risks of direct and portfolio investments in existing economic environment.

The main tasks of this article include:

- define the current situation with investments in the agricultural sector (including portfolio investments);
- investigate trends in the international investment position of Ukraine;
- consider the risks of direct and portfolio investments;
- propose ways to prevent the risks of direct and portfolio investment.

The objects of study are represented by direct and portfolio investments in the agricultural sector and Ukraine and identification of ways of preventing and reducing risks in implementing this process.

The theoretical and methodological basis of this article included the study of risks of direct and portfolio investments in agriculture. In order to achieve a particular purpose, general methods were used, including systematization of scientific literature on the study, classification, assessment; methods of economic analysis included the analytical method of grouping and aggregation, graphical method, comparisons, statistical methods and methods of forecasting.

The results of the study

Investment activity is always associated with risk, that's why potential investor is primarily interested in the level of investment risk that accompanies investment. According to State Statistics Committee of Ukraine, in 2010 farmers received UAH 17,276 million net income: 69.5% of these businesses are profitable (with a positive financial result of UAH 22,162.7 million), and 30.5% of enterprises are unprofitable (they have negative financial results in the amount of UAH 4,886.7 million) [State Statistics Service of Ukraine]. These indicators show that investing in agricultural producers is very risky business. Therefore, investors should not resort to investing in one type of asset. Thus, portfolio investment makes sense.

In general, analysis of the statistics of the Ukraine's international investment position shows that the volume of portfolio investments is constantly growing, though it still remains very low. For example, in 2012 the economy of Ukraine received about USD 64.513 billion foreign direct investments. While the volume of portfolio investments in the same year amounted to only USD 21.743 billion, that is three times less (Table 1).

This allows to make a conclusion that Ukraine should be more actively involved in the process of international portfolio investment in order to use all the advantages of participating in it.

One of the main production factors for Ukrainian agricultural enterprises is represented by the ability to attract investments and innovation resources. In 2011, investments (raised from various sources) in fixed assets in agriculture, hunting, forestry amounted to UAH 18.2 billion, which is 32.0% more than in 2010. The share of investment in these economic activities is 7.7% of the total national investment in fixed assets (in 2010 – 7.2%). The state budget provided RUR 317 million, which represents 1.7% of investments in fixed capital. It sho-

Table 1
International investment position of Ukraine [USD million]

Index	As of 01.01.2008	As of 01.01.2009	As of 01.01.2010	As of 01.01.2011	As of 01.01.2012
Portfolio investment abroad	103	49	79	94	139
Equities	88	45	73	67	74
Debt securities	15	4	6	27	65
Portfolio investments in Ukraine	18,618	17,059	15,567	20,034	21,743
Equities	2,082	2,304	2,421	2,773	3,588
Debt securities	16,536	14,755	13,146	17,261	18,155

Source: [Official Site of the National Bank].

uld be noted that a significant proportion of investment in agriculture, hunting, and forestry went to crop farming (71.0%).

As of December 31, 2011, USD 813.4 million of FDI went to enterprises of agriculture, hunting and forestry (in total from the beginning of the investment), or 1.6% of total foreign direct investment in Ukraine [State Statistics Service of Ukraine].

Agriculture of Ukraine turned into an attractive area for investment. In 2011 it had up to 35% of reported mergers and acquisitions.

Despite growth, FDI in the agricultural sector of Ukraine in general decreased. Agriculture experienced crisis in 2010 when foreign investments were withdrawn from Ukraine. No significant events took place in 2011, when growth of foreign direct investment amounted to only 15% of the record in terms of growth of foreign investment in 2009.

Increase the inflows of foreign investment in Ukraine took place in 2006 and 2008. Since 2008, growth of foreign investment in Ukraine sharply reduced, which is associated with the political situation in Ukraine and the period of expected changes in regulatory legislation [International Investment Position of Ukraine]. The corresponding figures of investments in agricultural sector of Ukraine are shown in Table 2.

Portfolio investment allows you to plan, assess, and monitor outcomes of all investments into agricultural production. Typically, portfolio represents a set of corporate shares, bonds with varying degrees of security and risk, and securities with fixed income (guaranteed by the state), that is with minimal risk of loss of principal and current income.

Table 2
Investments in agriculture in 2007–2011 [UAH million]

Types of investments	2007	2008	2009	2010	2011
Investments in fixed assets	9,519.168	16,890.1	9,381.7	12,230.8	18,182.6
Foreign Direct Investment	1,378.5	2,164.8	–80,8	372.5	–200.5

Source: [International Investment Position of Ukraine].

Investor will face the risks of investment portfolio, if he wants to achieve all the objectives simultaneously: liquidity, profitability, security, increase in capital.

Consider some of the financial risks faced by investors in portfolio investment (Figure 1).

The most common is the liquidity risk due to the possibility of losses during the selling of securities through changes in the market assessment of their quality.

Credit business risk is the risk that an issuer of debt obligations will be unable to pay interest on them and (or) the principal amount of debt.

Interest rate risk is threatening investors as a result of changes in interest rates in the securities market. Increase in market interest rates leads to fall in the market value of financial assets, especially bonds with fixed interest. The increase in interest rates could lead to mass “dumping” of securities with low fixed interest. Investor should take into account interest rate risk when investing money in the medium and long-term securities with fixed interest, which exceeds average market fixed rate. Investor planned to obtain additional income when interest rates increase, but he can not return its funds, invested on the above terms.

Interest rate risk also threatens the issuer of medium- and long-term securities with fixed interest, in case of current decline in the average market rate as compared with the fixed rate. Thus, the issuer could raise funds in the market at a relatively low interest, but he is bound by the terms of the securities. In the case of high inflation and rising interest rates, this kind of risk is characterized by short-term financial instruments.

The risk of legislative changes is a risk of losses due to changes in legislation because of the need to re-issue securities. In some cases, the issue of securities may be declared as invalid, or it may adversely change the legal status of the stock brokers and more.

Time risk, which is caused by issuance, buying and selling of financial assets during an unfavorable period of time, causes of loss. It is also associated with seasonal variations (securities and other seasonal agricultural enterprises), change in prices in different phases of macroeconomic reproduction cycles.

Selective risk is associated with the wrong rating of investment quality of securities (market instruments). First of all, this is the risk of wring choice of

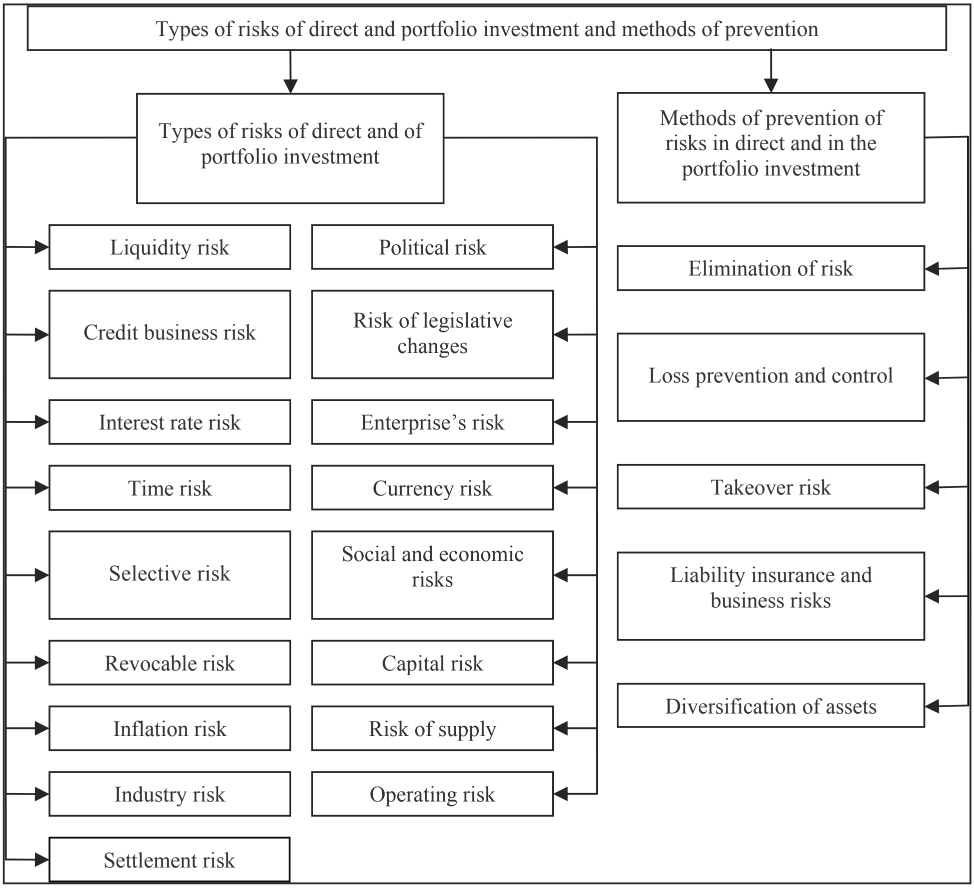

Figure 1
Types of risks of direct and portfolio investments and methods of prevention

Source: [Peresada 2004, pp. 271–273].

instruments of portfolio investment as compared with other types of interchangeable financial assets during the formation of an investment portfolio.

Revocable risk leads to investor's losses, if the issuer withdraws revocable bonds due the fact that the level of fixed interest payments exceeds the market interest.

High inflation destroys the stock market. Income from investment securities decreases (due to depreciating purchasing power), investors suffer real losses due to inflation risk. Purchasing power of a currency changes over time due to changes in prices of goods and services. Investors are interested first of all not in increase of the nominal quantity of money, but in increase in the real wealth, expressed in the form of goods and services, which can be bought in exchange for income, received from investments. Therefore, one of the main issues related to the analysis of inflation risk in portfolio investment, includes assessment of the impact of reduced purchasing power of money (inflation) on the investment decisions, in order to develop methods of protection against this risk. There are many ways to reduce inflation risk.

Industry risk is the risk due to specific functioning of certain industries. Industry risks can be observed in changes in investment quality and market value of securities, as well as in the corresponding loss of investment depending on the industry and underestimating of this factor by analysts.

Political, social and economic risks exist when investing is made in securities of companies in countries with unstable social and economic conditions or when prejudices exist in respect of the country, in which the investor is regarded as resident. In particular, the political risk is the risk of financial loss due to changes in the political system, political instability and redistribution of political forces.

Enterprise's risk is similar to the industry risk and is largely derived from it, and is caused by the type of business. It is possible, if a conservative company, taking one or more niches in the market, benefits from the expertise of its work, quality of goods (services) and stabilization of customers. Higher levels of risk is common for the securities, issued by an aggressive enterprise. Moderate risk is common for the company that resorts to a combination of aggressive and conservative types. The risk of enterprises also includes the risk of fraud (creating companies for fraudulent fund-raising and public corporations for speculative purposes).

The risks, associated with investments in securities of foreign issuers, are considered as special risks. Currency risk is caused by fluctuations of foreign currencies. Another major difference lies in the risk of substantial deterioration in investment quality securities, which leads to the need to write off losses and ultimately leads to losses. The risk of default on timely delivery of securities is represented by the risk of supply. It exists in the case of speculative trading of securities based on short sales (seller sells a security, which it is not available and that he only plans to purchase prior to delivery).

Operational risk is the risk of losses arising from the shortcomings of functioning of information processing computer systems, low quality of technical personnel, violation of the technology of transactions with securities, computer fraud, etc. The risk of settlements is the risk of losses from securities transactions, due to deficiencies and violations of technology in payment and clearing systems.

The most effective and most common way to eliminate portfolio risk is diversification of assets. By placing investments in various financial instruments, investors insure themselves against market volatility or industry [Reilli, Keith 2001, p. 345]

Investment portfolio should be based on these principles:

– security of investment,
– stability of income,
– liquidity of investments, i.e. their ability to participate in the immediate purchase of goods (services), or to be quickly and without loss of price converted into cash.

No investment asset does have all of the list above properties. If some kind of security is reliable, the yield will be low, as those who choose reliability, will offer high price and decrease the return. The main purpose of the portfolio's formation is to achieve the most optimum combination between risk and returns of investors. In other words, the corresponding set of investment instruments is aimed to reduce the risk of the depositor to a minimum, and simultaneously increase its income to the maximum.

The main issue when building a portfolio is how to determine the proportion of securities with different properties. Thus, the basic principles of classic conservative (low risk) portfolio are: the principle of conservatism, the principle of diversification and the principle of sufficient liquidity. Let's consider the details of each of these principles [Boreyko 2009, pp. 74–79].

The principle of conservatism. The relationships between highly reliable and risky shares are maintained in such way that potential losses on risky parts are more likely covered with proceeds from reliable assets. Therefore, investment risk does not relate to loss in principal, but only to receipt of insufficient income.

The principle of diversification. Diversification of investments in order to improve security of investments is associated with the strategy of hedging (investments insurance), i.e. the risk reduction strategy, in which an investor, investing in a financial asset in order to reduce the risk, at the same time invests in another asset, the yield of which negatively correlates with the yield of the first instrument. With perfect negative correlation with risky securities, it is theoretically possible to form a nearly risk-free (low risk) portfolio [Peresada 2004, p. 345].

The general rule of investing is diversification (investing in different types of securities), which reduces portfolio risk. The higher the fluctuations in rates of return of assets in the portfolio in different directions, the lower the level of risk. Consideration of this particular portfolio is crucial to making decisions regarding portfolio investments. Thus, in order to reduce risk, investors can successfully add to the portfolio the stocks and bonds, the yield (market price) of which changes in the opposite direction over a business cycle.

If portfolio gives less income than investments in new assets, investors should buy new instruments with higher income. Especially if they know the securities, income from which will increase the total yield of the portfolio without significantly increasing risk. Accordingly, the risk of a diversified portfolio of investments is essential and very important problem, which should by taken into account by portfolio investor. The wider the range of different assets involved in the portfolio, the more scattered is the portfolio risk. This is an important consequence of diversification.

Simple diversification involves random (intuitive) allocation of the portfolio according to "don't put all your eggs in one basket" principle, and in many cases it gives the same effect as analytically justified diversification of assets by area, industries, issuers and others. According to the practical research of famous economists, increasing the variety of assets (types of securities) in the portfolio to 8-9 is not a significant real reduction in portfolio risk. Substantial reduction in risk is achievable in the case where the portfolio has 10–15 different types of securities. Further diversification of the portfolio is almost inappropriate in view of the effect of over-diversification. Excessive diversification should be avoided, because high unit transaction costs can lead to negative results [Peresada 2004, p. 347].

So, portfolios, that combine a large number of securities, also have a certain degree of risk. But in any case, this risk will be lower than if investing in securities of one issuer.

The principle of sufficient liquidity. It is based on maintaining of the proportion of highly liquid assets in the portfolio at least at level, which would be sufficient for making unexpected high profitable contracts and satisfaction of customer financial needs. Practice shows that it is more profitable to keep a share of assets in more liquid (even if less profitable) securities, while being able to respond quickly to market changes and some great offers. In addition, contracts with most customers simply require them to keep some funds in more liquid form.

In terms of the risk, portfolio of securities can be divided into aggressive (speculative), moderately aggressive (compromise) and conservative. The basis of formation of these portfolios is the different ratio of yield (in its various forms – dividend growth rate or market value) and risk of most securities belonging to a particular portfolio. Yield of the portfolio and its risk are directly related. For example, aggressive portfolio consists of highly profitable securities, but the cumulative risk of the portfolio is higher than for other types of portfolios. Accordingly, minimization of risk during the formation of conservative portfolio causes reduction of its portfolio yield. The most optimal combination of yield and risk is medium risk (compromise) portfolio [Tarasova 2004, pp.174–186].

Classification of types of portfolios, depending on the degree of risk assumed by the investor, is presented in Table 3.

Table 3
General characteristics of the investment portfolio

Type of investor	Investment objective	The risk	Type the security	Type of portfolio
Conservative	Protection against inflation, unexpected losses	Low	Government securities, stocks and bonds of large issuers of stable	Highly reliable, low but profitable
Moderately aggressive	Long-term capital investment and growth	Average	A small portion of government securities, a significant proportion of securities of large and medium-sized, but trusted issuers of long-term market history	Widely diversified
Aggressive	Speculative game, quick increase in investment	High	The high proportion of high-yield securities of small issuers, venture capital firms and others	Risky, but a highly

Source: [Peresada 2004, pp. 25–26].

Aggressive (speculative) portfolio is formed according to the criterion of maximizing current income or increase in invested capital, regardless of the level of investment risk. Let's get the maximum rate of investment return on invested capital, but it is accompanied with the highest level of investment risk.

Moderately aggressive (compromise) portfolio is investment portfolio, overall risk of which is close to the market average. Of course, the investment rate of return on invested capital is close to market average.

Conservative portfolio is formed according to the criterion of minimizing the investment risk. It is formed by the most reasonable investors, and it virtually eliminates the use of financial instruments, the level of investment risk of which exceeds the average market risk.

Conclusions

At the present stage of development of market relations in the agrarian sector of Ukraine, a general tendency for decrease in investment flows in Ukrainian agriculture is observed. This is due to the economic situation in Ukraine and the period of expected changes in regulatory legislation.

As for the volume of portfolio investments in Ukraine, they are constantly growing, but still remain very low. So, Ukraine needs to be actively engages in the process of international portfolio investment in order to use the advantages of participating in it.

Investment activity is always associated with risk. We believe it would be reasonable to identify the following financial risks faced by investors in direct and portfolio investment: liquidity risk, credit risk, business risk, interest rate risk, legislative changes, time risk, selective risk, revocable risk, inflation risk, industry risk, political, social and economic risks, enterprise risk, currency risk, capital risk, supply risk, operating risk, settlement risk.

The most effective and most common way of dealing with risk in direct and portfolio investment includes the diversification of assets, where most investors can reduce or prevent risks.

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Ryzyko bezpośrednich i portfelowych inwestycji w sektorze rolniczym na Ukrainie

Streszczenie

W niniejszym artykule autor badał ryzyko inwestycji portfelowych w produkcji rolno-przemysłowego kompleksu. Zbadano dynamikę międzynarodowej pozycji inwestycyjnej Ukrainy. Przedstawiono klasyfikację rodzajów ryzyka inwestycji portfelowych oraz metody prewencji. Autor opracował klasyfikację typów portfeli w zależności od poziomu ryzyka i zbadał zasady formowania portfela inwestycyjnego.