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APPLYING ANALYTICAL SUPPORT IN FOREIGN EXCHANGE POLICY AS A BASIS FOR EFFICIENT ENTERPRISE MANAGEMENT

Abstract: In the article the justification of the value of the analysis of currency risks in the system of an enterprise's activity management was conducted through highlighting the features of the development of foreign exchange policy of the business entity. On the basis of the suggested mechanism of foreign exchange policy formation of the entity engaged in foreign economic activities the expediency of the management of currency risks in the enterprise was proved. The role of currency risk analysis in the process of managing them was determined, taking into account organizational and methodical aspects of analytical support at each stage of currency risk management. The forms of documentary support of the process of currency risk management were developed – conditions as well as maps of currency risk, calculation of the currency position of the enterprise, description of identified types of currency risk, providing reliable, timely and operational information for efficient management of the enterprise's activity. The conducted research is both theoretical (identification of the object, subject and tasks of the analysis of currency risks), as well as practical value (improvement of the process of documentation at the stages of currency risk management) in the development of the analytical support of currency risks.

Keywords: analysis, foreign exchange policy, exchange rate, enterprise management.

JEL codes: F31, G32.

ZASTOSOWANIE WSPARCIA ANALITYCZNEGO W POLITYCE WALUTOWEJ W CELU SKUTECZNEGO ZARZĄDZANIA PRZEDSIĘBIORSTWEM

Streszczenie: W artykule przedstawiono znaczenie analizy ryzyka walutowego w systemie zarządzania działalnością przedsiębiorstwa poprzez podkreślenie cech rozwoju polityki walutowej podmiotu gospodarczego. Na podstawie zaproponowanego mechanizmu kształtowania polityki walutowej podmiotu prowadzącego zagraniczną działalność gospodarczą wykazano celowość zarządzania ryzykiem walutowym w przedsiębiorstwie. Rola analizy ryzyka walutowego w procesie zarządzania nim została określona z uwzględnieniem aspektów organizacyjnych i metodycznych wsparcia analitycznego na każdym etapie zarządzania ryzykiem walutowym. Opracowano formy wsparcia dokumentacji procesu zarządzania ryzykiem walutowym – warunki oraz mapy ryzyka walutowego, obliczanie pozycji walutowej przedsiębiorstwa, opis zidentyfikowanych rodzajów ryzyka walutowego, dostarczanie wiarygodnych, aktualnych i operacyjnych informacji dla efektywnego zarządzanie działalnością przedsiębiorstwa.

Słowa kluczowe: analiza, polityka walutowa, kurs walutowy, zarządzanie przedsiębiorstwem.

Introduction

Foreign exchange risks arise in enterprises that carry out transactions in foreign currency, and they can both positively and negatively affect financial performance. Analysis is one of the main methods that should be used to determine the degree of influence in the risk of changing a national currency against a foreign one. After all, foreign exchange fluctuations in the world affect the flow of foreign trade, determine the general directions of international trade and characterize the level of development of the nation-

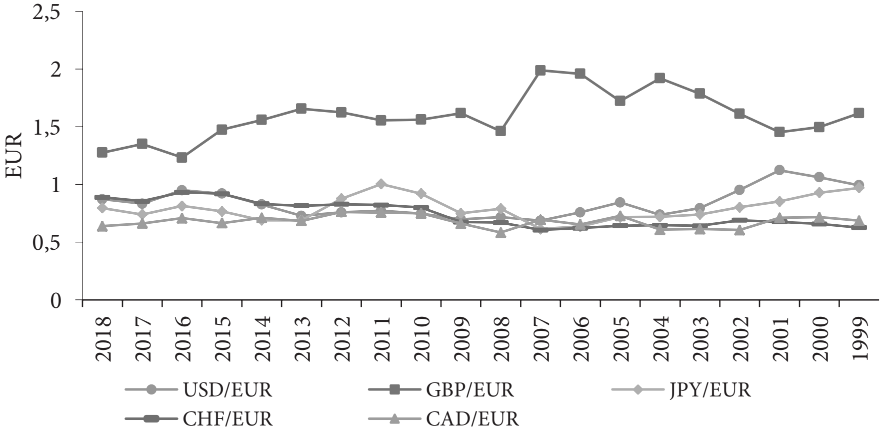

Figure 1. Changes of rates of freely convertible currencies of the world during the period from 1999 to 2018

Source: https://stooq.pl.

al economies of countries. If we analyze the changes of freely convertible currencies over the last few years (Fig. 1), then changes from 39% (USD / EUR in 2007 as to 2001, GBP / EUR in 2016 compared to 2007; JPY / EUR in 2007 compared to 2011), 35% (CHF / EUR in 2007 compared to 2016) and up to 24% (CAD / EUR in 2008 compared to 2012) can be followed.

The analysis of currency fluctuations is the basis for applying effective methods for managing the currency risks of business entities. Therefore, the formation in the foreign exchange policy of the company's provisions on the analytical support of transactions in foreign currency is necessary and relevant for today for those entities engaged in foreign economic activity.

In order to obtain qualitative and reliable results in the analysis, a proper organization of analytical support is a prerequisite. In the system of currency risk management, a number of actions are carried out, which also determine the further effectiveness and efficiency of the use of management methods.

The objective of this study is to characterize a qualitatively new aspect of the analysis of transactions in foreign currency that covers not only existing accounting and financial reporting objects but also identifies new business processes associated with exchange rate changes and the application of management methods of both positive and negative currency fluctuations. Thus, for a business entity, the organizational aspect of currency risk analysis becomes of particular importance, since this approach will take into account a number of features of currency risks.

In the scientific literature, the analytical support of currency risks is considered at the level of development of technology of the analysis of objects in foreign currency and in the analysis of the impact of currency risks on the activity of enterprises (Hartley, 1983; Parveen, Khan & Ismail, 2012; Boykorayev, 2008; Lane, 1999). The first attempts to analyze exchange rates behavior was done by Rudiger Dornbusch (1973).

1. The mechanism of the formation of foreign exchange policy of the enterprise

In the economic literature, a broad aspect of the functioning of the enterprise and its interaction with other actors, both in an internal and external environment, is investigated. In particular, as shown by the analysis of literature, researchers study commodity, price, innovation, marketing (competitive), accounting, financial, personnel and other types of policy of enterprises, which are realized with one goal, i.e. achievement of the goals that are under the strategy of the development of a business entity.

In this article, research of enterprise activity is carried out in the part of the analysis of the influence of currency fluctuations on economic processes and property and financial condition. More and more entities engaged in foreign economic activities set up in their organizational structure currency risk management departments, since obtaining a positive financial result is today only one of the goals of an enterprise. Stability and the possibility of forecasting is essential, i.e. impossible without a well-established risk management system. The foreign exchange policy of an enterprise is one of the components of economic policy and needs to take into account various aspects of the functioning of a business entity within the international environment.

The process of managing the currency risks of an enterprise, which involves the application of appropriate methods and instruments, as well as carrying out analytical procedures regarding the effect of exchange rate changes on foreign economic activity is the component of the foreign exchange policy of an enterprise.

The foreign exchange policy of a company covers a number of elements that characterize not only currency risk, but also other aspects of foreign exchange transactions in the field of foreign economic activity. In our opinion, in order of achieving the objectives of this study, it is recommended to identify the connection of foreign exchange policy with other elements of the economic policy of an enterprise which is engaged in foreign economic activity.

The development of a foreign exchange policy is an important stage in the planning of an enterprise and should take into account all possible options in order to maximize the effect of its introduction into the activity of a business entity.

Fig. 2 presents the mechanism of monetary policy formation of an enterprise that carries out foreign economic transactions. At the initial stage of foreign exchange policy formation, it is important to identify the factors that influence the process of foreign economic activity and, in particular, the implementation of transactions in foreign currency. They will deter-

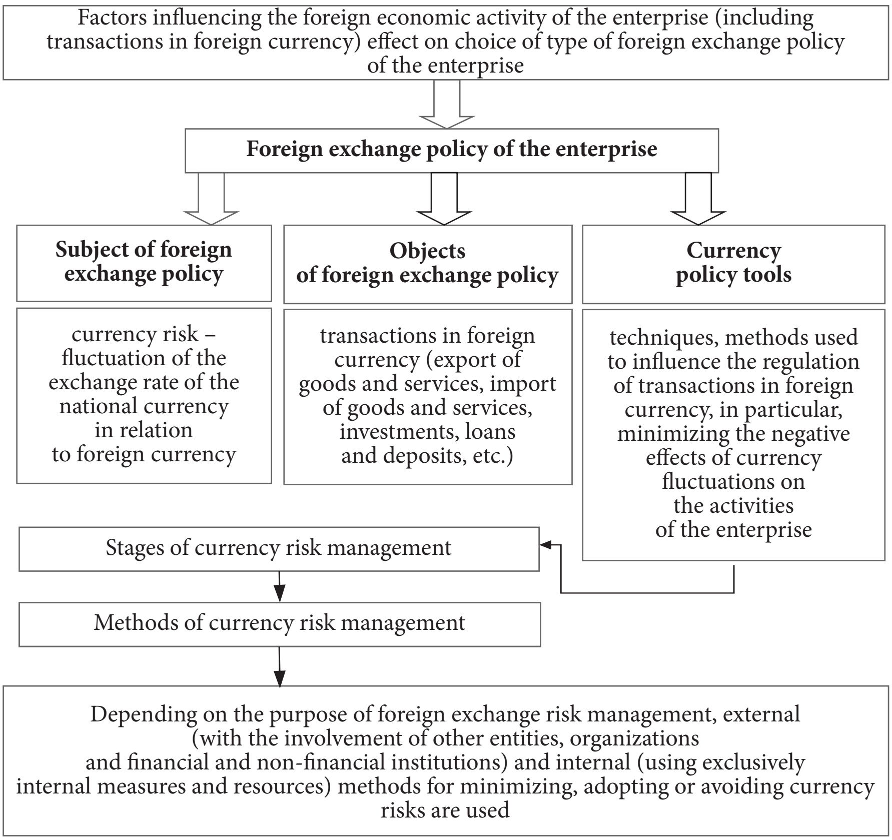

Figure 2. The mechanism of the foreign exchange policy formation of the enterprise

Source: Developed by the author.

mine the type of foreign exchange policy that a company will apply in managing currency risks.

In addition, as can be seen from Fig. 2, the foreign exchange policy should contain a description of the subject and objects due to which the instruments will be applied. In our study, foreign exchange policy tools are currency risk management methods that, in turn, are applied at one of the stages of risk management.

The advantage of developing and using a foreign exchange policy is that each of the business transactions carried out in a foreign currency, or involving the use of a currency at one of the stages, will have an "air pillow" that will allow the company to plan its revenues and expenses, which will allow obtaining the maximum benefit even when a change in the exchange rate will negatively affect foreign economic transactions.

Thus, in order to obtain a positive effect from foreign transactions, the company needs to take preventive measures and build a system for managing currency risks, which will take into account the peculiarities of the enterprise's activity (subject, amount of transactions, industry, availability of resources, etc.).

2. Analysis of currency risks in the management system as a stage of implementation of the foreign exchange policy of an enterprise

In the scientific literature, a large number of works are devoted to theoretical aspects of the search and choice of methods of currency risk management (Abuaf, 1986; Brown, 2001; Papaioannou, 2006; Berisha, Asllanaj & Shala, 2014).

Methods of currency risk management are the main tool of the realization of the currency risk management process, which, in turn, consists of the following stages:

1) identification of currency risk (determining risk and currency position, description, risk measurement);
2) decision making and application of risk management methods;
3) control, monitoring and evaluation of decisions made and actions taken.

Thus, as noted in the scientific literature, "the process of risk management refers to the identification of risk, its measurement and control using existing tools" (Miciuła, 2012).

In the practice of Ukrainian business entities, there are no developments regarding the organizational aspects of currency risk management, in particular in terms of analytical support. Therefore, the development of practical recommendations combined with theoretical aspects is a topical issue, given the gradual development of the financial market of Ukraine and the implementation of currency financial instruments for hedging currency risks.

These steps are summarized and based on a study of various approaches to the risk management process developed by the relevant risk management institutions (Standard of Risk Management developed by the Committee of Sponsor Organizations of the Trevedia Commission (COSO, USA) (Rittenberg & Martens, 2012), the Standard on risk management of the Federation of European Associations Risk Managers (FERMA), Risk Management Standard ISO 31000: 2009).

The research substantiates the role of currency risk analysis in the process of risk management, taking into account the peculiarities of organizational and methodological support of analytical procedures. The identified areas of organizational and methodological analysis of currency risks include the use of a number of methods of analysis and characterize the information support, which will be the basis for the application of analytical methods. The use of above mechanism of currency risk analysis in accordance with the stages of currency risk management will ensure the effectiveness of the applied risk management methods and the timeliness of the decisions made to assess the effectiveness of the implemented actions.

The role of the analysis of currency risks in the process of risk management can be characterized by distinguishing the main areas of analytical support for currency risks:

1. The object of the analysis of currency risks – transactions in foreign currency, which is characterized by a high degree of volatility and involves the use of risk management methods.
2. The subject of the analysis of currency risks – the causal link in the economic processes of enterprises engaged in foreign economic activity (in particular, transactions in foreign currency)
3. Sources of information support of analysis. The peculiarity of the sources of information used to carry out analytical procedures for transactions in foreign currency is its internal (sources developed and created internally on the basis of its internal data) and external (information from external sources, which is formed on the basis of a review of the financial market, official statistics etc.) character.

4. The structure of management and the place of the analytical department in it. Analysis of currency risk as one of the key tasks of the enterprise management system requires the formation of a currency risk management system and the functioning of the relevant structural unit in the enterprise. Depending on a number of indicators (amount of activity, management approach, territorial coverage) the enterprise will choose its own way, which will correspond to its needs for the setting up a separate analytical department for currency risk analysis or merging with the currency risk management department.
5. Documentary support of analytical procedures. The results of the analysis of currency risks include the formation of documentary support that will allow outlining various aspects of currency risks and the methods used to manage them.
6. Typical technologies, methods of analysis. The analysis of currency risks involves the use of analytical methods and techniques that will take into account the peculiarities of the foreign economic activity of the enterprise and the impact of the internal and external environment on the enterprise management system. Currency risk analysis is carried out both at macro and micro level and includes the development of recommendations in the part of improving the currency risk management system, in particular the defining the effectiveness of applying of management methods.

"Multinational firms are participants in foreign exchange markets due to their international transactions. In order to measure the effect of the exchange rate change on the activities of enterprises engaged in transactions denominated in foreign currency, it is necessary to determine the type and amount of risk" (Hakala & Wystup, 2002).

In foreign literature, three main types of exchange rate risk are distinguished, and it is noted that the identification of different types of currency risk, along with their measurement, is a prerequisite for the development of a currency risk management strategy (Shapiro, 1996; Madura, 1989):

1. Transaction risk, which is a cash flow risk and concerns the effect of exchange rate changes on accounts receivable (export contracts), payables (import contracts) or dividends. A change in the exchange rate in the currency of any such contract will result in a transaction currency risk.
2. Translation risk, which is a risk of exchange rate fluctuations, reflected in the balance sheet, relating to the valuation of a foreign subsidiary and the consolidation of a foreign subsidiary in the parent company's balance sheet.

3. Economic risk reflects mostly risk for the present value of future operating cash flows from changes in exchange rates. Economic risk relates to the effect of exchange rate changes on revenues (domestic sales and exports) and operating expenses (cost of internal costs and imports).

Establishing the type of risk is an important step and is necessary in order to determine whether to apply currency risk management methods when the risk occurs. For example, for economic currency risk, it is necessary to develop special management strategies that take into account not only existing but also future potential factors. On the other hand, translation risks arise on the reporting date and their impact on the financial position of the company will depend on how efficiently the methods were used to manage currency transaction risks.

Further actions to determine currency risk depend on the position of foreign currency assets and liabilities that they occupy in the financial market. The currency position can be determined both by the individual object and by the group. In addition, the enterprise engaged in foreign economic activity determines the currency position of the enterprise based on the analysis of the Balance Sheet. This is the basis for forming a basic decision-making strategy in conditions of currency risk managing.

The potential risk for the exporter will be the drop in the exchange rate, while potential opportunities are an increase in the foreign exchange rate. In this case, the entity that conducts export transactions takes a long currency position in the financial market. On the other hand, the potential threat to the importer will be an increase in the exchange rate, while potential opportunities are a decline in the foreign exchange rate. The importer has a short currency position in the financial market.

In order to determine the total currency position, it is necessary to construct a Balance Sheet of the enterprise, in which it is necessary to indicate all assets and liabilities denominated in foreign currency. Ukrainian researchers dealing with issues of currency risk management mostly focus on determining the currency position of the assets and liabilities of banking institutions.

The comparison of the amounts of assets and liabilities of the company will also be the basis for determining the short or long position, which in turn will allow for further actions to manage currency risks and open the financial market back position, which will contribute to obtaining a positive result from the change in the exchange rate of the national currency in relation to a foreign one.

Table 1. Form of the currency risk register, which is formed during the process of risk identification

Currency risk conditions						
№	**Conditions under which the company operates**	**Factors / circumstances**	**Interested parties**	**Reason for interest**	**Expectations / Requirements**	**Description of risk / opportunities**
1	2	3	4	5	6	7
1	Legislative	the legislation of Ukraine in the field of currency regulation, pricing, conducting foreign economic activity	state legislative bodies, administration of the enterprise	absence of penalties for law violation	compliance with the legislation of Ukraine in the field of currency regulation, pricing, conducting foreign economic activity	changes in the legislation of Ukraine in the field of currency regulation, pricing, conducting foreign economic activity
2	Macroeconomic	exchange rate, balance of payments status	enterprise administration	obtaining planned profit	the absence of fluctuations in exchange rates that negatively affect the company's profit	changes in the exchange rate (strengthening or depreciation of the national currency)
			financial department (accountancy)	reliable data for reporting purposes	accuracy and timeliness of financial statements	unreliable data in financial reporting and accounting, probability of occurrence of translation currency risk
			department of risk management	the exclusion of financial losses related to the exchange rate change	high analytical level of received information and effectiveness of methods of currency risk management	changes in the exchange rate (strengthening or depreciation of the national currency)

3	Commercial	prices for products, goods, services	sales / supply department, financial department (accounting department)	competitive prices for products, goods, services	conclusion of foreign economic contracts on favorable terms (foreseeing the transfer of currency risks to counterparties)	the unreliability of calculating the contract and original cost of products and services, prices for goods; change in prices in foreign currency
4	Financial	exchange rates specified in foreign economic contracts	financial department (accountancy), department of currency risk management	the exclusion of financial losses related to the exchange rate change	high analytical level of received information and effectiveness of methods of currency risk management	actual deviations of the forecasted exchange rates that are used in the calculations for foreign economic contracts
5	Internal conditions of organization of processes in the enterprise	communication of information between divisions of the enterprise	structural subdivisions of the enterprise (in particular, planning and financial department)	quality and responsibility for making managerial decisions; reliability and timeliness of information support	effective management of currency risks and the enterprise as a whole	untimely receiving of information, errors in the documentation; the absence of well-established communication channels between the structural divisions
6	General indicators of enterprise activity	planned amounts of income and expenses of foreign economic activity, financial income and expenses	administration of the enterprise, planning and financial department	obtaining planned profit	carrying out qualitative work on planning the activity of the enterprise and decision-making in the field of the choice of methods of currency risk management	increase of planned amounts of expenses or income as a result of exchange rate changes and the application of management methods
…	…	…	…	…	…	…

Table 1 – cont.

Currency risk map								
№	The process that generates currency risk	Process description	Responsible party of the process	Type of currency risk	Consequences		Currency position	Decision making
					threats	opportunities		
1	sale	payment method – 50% prepayment; payment term is 60 days	Export department	transaction risk (functional currency – UAH, transaction currency – EUR)	decrease of UAH / EUR rate	growth of UAH / EUR rate	long currency position in EUR	drafting a plan for the purchase / sale of goods
2	purchase of foreign currency	the goal is to make settlements for import transactions	Financial Department	transaction risk (functional currency – UAH, transaction currency – EUR)	growth of UAH / EUR rate	decrease of UAH / EUR rate	short currency position in EUR	drawing up a forecast of foreign currency remittances
…	…	…	…	…	…	…	…	…

Calculation of the currency position of the enterprise											
№	Type of foreign currency	Assets in foreign currency	Exchange rate, UAH	Amount, UAH	Liabilities in foreign currency	Exchange rate, UAH	Amount, UAH	Currency position		Decision making in the area of currency risk management	
								long (AL)	short (A<L)		
1	EUR – euro	cash in a bank	32,01	12,650,00	accounts payable for goods	32,15	5,690,00			opening of a short currency position in the financial market and further action on risk management	
		…	…	…	…	…	…				
Total:		×	×	**12,650,00**	×	×	**5,690,00**	+	×		
…	…	…	…	…	…	…	…	…	…	…	…

Source: Developed by the author.

Table 2. Structure of the document on the description of identified types of currency risk

Structural elements of currency risk description	Types of Identified Currency Risks		
	transactional	**translational**	**economic**
1	2	3	4
Identified risk	risk of depreciation of the foreign exchange rate of the foreign-economic contract by the export transaction	exchange rate risk at the reporting date	the risk of changing the exchange rate according to the forecast performance of the enterprise
Methods on the basis of which risk factors are analyzed	correlation-regression analysis of the currency exchange rate of the contract currency	economic analysis of the structure of assets and liabilities of the enterprise in foreign currency	correlation-regression analysis of the exchange rate of the currency of the planned contract
The scope of risk	foreign economic contract by the export of goods transactions	the report on the property of the enterprise (balance sheet) for the reporting period	forecast of income and expenses of the enterprise for the reporting period
Interested (responsible) parties and their expectations	- administration of the enterprise, export department (receipt of the planned amount of margin under the contract); - Risk Management Department (effectiveness of the applied methods)	- enterprise administration (growth of enterprise value); - financial department, department of management (reliability of financial reporting data)	- administration of the enterprise (receipt of planned incomes and expenses of foreign economic activity)
Consequences of risk taking	reducing the income from an export transaction will result in:	the risk of changes in the value of assets and liabilities in foreign currency will lead to:	change in the planned amounts of income and expenses of foreign economic activity
- qualitative nature	decrease in the amount of planned profit	reduction / increase in the value of the enterprise	decrease in the amount of planned profit

Table 2 – cont.

Structural elements of currency risk description	**Types of Identified Currency Risks**		
	transactional	**translational**	**economic**
1	2	3	4
- quantitative nature	reduction of export earnings by reducing the exchange rate in the amount (in UAH) (estimation by the VAR method)	decrease in the value of the enterprise in the amount (in UAH), which is determined on the basis of reporting and transfer of assets and liabilities in foreign currency at the reporting date	decrease / increase in revenues (in UAH) and expenses (in UAH) from export-import transactions in the expense of exchange rate changes (estimation by the VAR method)
The purpose of risk monitoring and control	timely application of methods for managing transaction currency risk	detection of transaction currency risks	detection of transaction currency risks
Suggested mechanism of risk management	opening of a reverse currency position on a fixed market by concluding a currency futures contract	application of methods for managing transaction risks to individual assets and liabilities until the reporting date	application of methods for managing transaction risks to separate assets and liabilities

Source: Developed by the author.

An analysis of the structure, dynamics and comparison of the main indicators of foreign currency accounting objects, the use of which results in currency risk, must be carried out on the basis of accounting data. The purpose of such an assessment is to summarize and systematize information on foreign currency transactions that are potential objects of the currency risk management process. Such information is useful for a long-term analysis of the activity of the enterprise and can be used to make decisions in the field of substantiation of the use of a specific type of foreign currency for foreign economic calculations, extension or reduction of maturities of payables and receivables, etc.

Thus, during the research, a model for determining currency risk in an enterprise management system can be constructed, which takes into account all the stages described in this stage (Fig. 3).

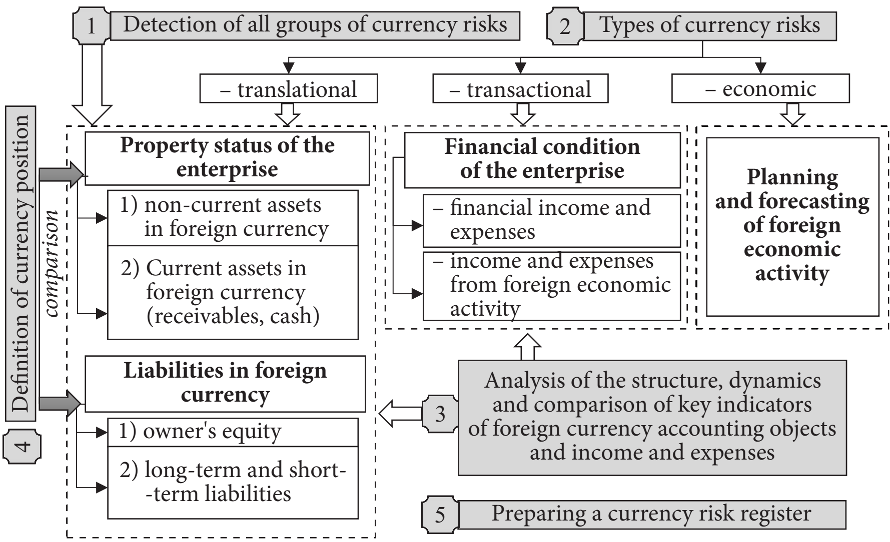

Figure 3. Model for determining currency risk in an enterprise management system

Source: Developed by the author.

The result of the identification of currency risk is a register of currency risk, the form of which is set for each enterprise individually, taking into account the peculiarities of economic activity, scope and activity, as well as signs of currency risk that arises in the enterprise in the course of foreign economic activity.

In our opinion, the currency risk register should consist of three interrelated parts (Table 1). First of all, it is worthwhile to document the conditions under which a company operates and which lead to the emergence of currency risks in the course of foreign economic activity. Thus, it is possible to provide a qualitative organization of work of the personnel of the company, since each of the conditions has its own stakeholders, which are responsible for specific factors of currency risk.

In addition, the risk register compiled at the risk identification stage should contain a currency risk map, in which the processes generating currency risks, as well as the types of currency risks and the currency position of the enterprise should be described, indicating the possible consequences of adopting specific types of risk.

Also the determination of the currency position, which is also included in the currency risk register, is an important result of this stage. Such suggestions are the basis for further actions on the implementation of the currency risk management process.

Thus, in terms of currency risk identification, the study described a general approach to the implementation of this stage, which should be taken into account when developing a currency risk register. Thus, Table 1 shows the suggested form of the register, which takes into account the features of currency risk identification.

It is also recommended to present a description of currency risks by type of risk, since not all of them should use management methods. That is why Table 2 shows the structure of the document, where it is suggested to companies to write records concerning the description of identified types of currency risk.

The description of risks should include the development of a forecast of the future exchange rate or the study of factors affecting the exchange rate of foreign currency. „In theory and practice of currency forecasting, two methods are used most often – fundamental and technical analysis. Although each method has its own disadvantages, both at the same time are of high value for the study of factors that affect the movement of the exchange rate both in the short and long term" (Bennett, 2000).

„The most common method for creating long-term forecasts of the exchange rate is a fundamental analysis. The essence of this approach is to thoroughly analyze macroeconomic, political and psychological factors that may affect future exchange rates" (Najlepszy, 2013).

The presented description can be transformed and applied to various types of currency risks that arise in enterprises engaged in foreign trade transactions in foreign currency.

Conclusions

Thus, investigating the issues of organizational support of the analysis of currency risks at the stage of their identification, the object, subject and described tasks of currency risk analysis are described, as well as documentary support is provided that ensures receiving reliable, timely and operational information for the effective management of the enterprise. In particular, it is suggested at the first stage of the determining currency risks to compile a register, which consists of identifying the conditions of currency risks and currency risk maps, as well as calculating the currency position of the enterprise. In addition, based on this information, a description of identified types of currency risk is formed that represents the suggested risk management mechanism.

Based on the use of currency risk analysis tools, an enterprise can plan income from foreign economic activity transactions, optimize the costs of export-import transactions, taking into account currency fluctuations in the market. The conducted research allowed improving the organizational support of the analysis of currency risks, informativity, timeliness and reliability of which is the basis of the formation of the analysis methodology. The obtained results have a theoretical significance in the development of an analysis as a science in terms of identifying the object, subject, and tasks of the analysis of currency risks. In addition, for the practice of conducting business activities of enterprises, documentary support in the area of currency risk management in terms of their types and stages of their management was improved. This contributes to the increase of informality and efficiency of managerial decisions taken by the enterprise in the field of economic activity management.

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