

Jasmina Bogičević*
Ljiljana Dmitrović Šaponja**
Marija Pantelić***

FOREIGN EXCHANGE TRANSACTION EXPOSURE OF ENTERPRISES IN SERBIA

.....

ABSTRACT: *Enterprises involved in international business face transaction exposure to foreign exchange risk. This type of exposure occurs when an enterprise trades, borrows, or lends in foreign currency. Transaction exposure has a direct effect on an enterprise's financial position and profitability. It is one of the three forms of exposure to exchange rate fluctuations, the other two being translation exposure and operating exposure.*

The aim of this paper is to assess the transaction exposure of enterprises in Serbia operating internationally. In addition to identifying and measuring transaction exposure, this paper explores the practical importance that enterprises in Serbia attach to management of this type of foreign exchange risk. We do not find significant differences between domestic and foreign enterprises in their choice of the type of foreign exchange risk exposure to manage. Although transaction exposure is the most

managed type of foreign exchange risk, research has shown that, compared to foreign businesses, Serbian enterprises do not use sufficient protective measures to minimize the negative impact of this type of exposure on their cash flows and profitability. We expected that there would be a statistically significant dependence between the volume of enterprises' foreign currency transactions and the level of applied transaction-exposure management practices. However, the results of our research, based on a sample of enterprises in Serbia operating internationally, show that transaction exposure management practices can be influenced by factors other than the level of an enterprise's foreign currency transactions, such as the enterprise's country of origin.

KEY WORDS: *foreign currency transactions, transaction exposure, cash flows, profitability*

JEL CLASSIFICATION: G32, M41

* University of Kragujevac, Faculty of Economics, Serbia, E-mail: jasminabogic@ptt.rs

** University of Novi Sad, Faculty of Economics in Subotica, Serbia, E-mail: ljiljanad@ef.uns.ac.rs

*** University of Belgrade, Faculty of Economics, E-mail: marija15@sbb.rs

1. INTRODUCTION

Two phenomena of the global economic scene are business internationalization and increasingly volatile foreign exchange rates. As international economic activity increases, a growing number of enterprises face a variety of challenges. Frequently unpredictable movement in exchange rates (Saudagaran 2004) is one such challenge that faces not only multinational companies (MNCs) but also individual domestic firms. The exposure to foreign exchange risk is categorized into three types: translation, transaction, and operating exposure (Moffett, Stonehill, and Eiteman 2009, p.252).

Transaction exposure arises from various types of transaction requiring settlement in a foreign currency. Cotter (2012) points out that most business entities have transactions denominated in a number of foreign currencies because international business has grown in importance in recent years. Baker et al. (2005, p.542) state that “foreign currency transactions include: purchases or sales of goods or services (imports or exports), the prices of which are stated in a foreign currency, loans payable or receivable in a foreign currency, purchase or sale of foreign currency forward exchange contracts, and purchase or sale of foreign currency units”. Operating exposure measures the degree to which an enterprise’s present value of future cash flow is affected by exchange rate fluctuations (Goel, Gupta, and Goal 2011, p.84). Dimitrescu (2009) points out that it is caused by an unexpected change in exchange rates. Translation exposure reflects the effects of exchange rate change on a company’s financial statement (Kim and Kim 2006, p.244) and arises from the need to restate foreign subsidiaries’ financial statements for the purpose of preparing MNCs’ consolidated financial statements.

Because transaction exposure depends on outstanding foreign currency receivables and/or liabilities that existed before and that will be settled after exchange rate changes, it affects both an enterprise’s financial position and its performance. Hence it is objective and measurable and its effects are reported in income statement as foreign exchange gain or loss. As it affects foreign currency receivables and liabilities, transaction exposure is also reflected on the balance sheet. Because it has a direct effect on an enterprise’s expected future cash flows and profitability, transaction exposure is considered to be the most important segment of a enterprise’s foreign-exchange risk exposure.

Therefore this research paper focuses on the analysis of this segment of foreign exchange risk exposure in an attempt to better understand transaction exposure management practices in enterprises operating in the Republic of Serbia (RS).

The major goal of this study is to identify key problems in transaction exposure management activities in enterprises in the RS and to specify recommendations to solve them. The research objective is to assess the impact of the degree of a business's internationalization and the enterprise country of origin on existing transaction exposure management practices in representative enterprises in the RS, by comparing transaction exposure management in enterprises with headquartered in the RS with that in enterprises not headquartered in the RS. Considering transaction exposure in the RS is important, because although a large number of the surveyed domestic enterprises are aware of the impact of changes in exchange rates on their cash flows and profitability, most of them do not take appropriate protective measures. The novelty of this research is the conclusion that transaction exposure management practices can be influenced by factors other than the extent of an enterprise's foreign involvement.

Accordingly, the first hypothesis tested in this paper relates to the existence of a statistically significant dependence between the level of foreign currency transactions and the level of applied transaction exposure management practice. Based on the research objectives outlined above, the second hypothesis tested relates to the difference in transaction exposure management practices between domestic and foreign enterprises operating in the RS.

The main results of the theoretical and empirical research of transaction exposure to foreign exchange risk in enterprises operating in the RS are the understanding of the impact that various factors exert on applied transaction exposure management practices and the promotion of the significance of transaction exposure hedging.

The paper has three sections. The first section presents a literature review of foreign currency transactions as a source of transaction exposure. The second section explains how transaction exposure can be identified, measured, and managed. The third section covers transaction exposure management practices in enterprises in RS.

2. FOREIGN CURRENCY TRANSACTIONS AS A SOURCE OF TRANSACTION EXPOSURE: LITERATURE REVIEW

Transaction exposure (Demirage and Goddard 1994) arises out of transactions in which credit terms are used and which require settlement in a foreign currency. Blake and Hossain (1996) state that transaction exposure arises if there is

a difference between the exchange rates at the time the transaction is entered into and the time it is completed. These transactions involve a settlement, i.e., debt collection or payment of liabilities in a foreign currency (Bogićević 2013). Numerous studies have offered a lot of foreign currency transaction examples. Shapiro (1986) points out that transaction exposure can arise in cross-border trade, borrowing and lending in foreign currencies, and the local purchasing and sales activities of foreign subsidiaries. Dhanani (2003) and Roberts et al. (2008) add profit repatriation from foreign subsidiary to parent company as another source of transaction exposure that is peculiar to MNCs.

Today, foreign currency sales, purchases, and borrowing and lending transactions are a regular occurrence. Foreign currency fluctuations change the domestic currency value of export sales and import purchases (Doupnik & Perera 2007). Thus an enterprise purchasing inventory (importer) or selling goods on credit (exporter) may suffer a loss whenever the exchange rate changes between the transaction and settlement dates. Eliot and Elliot (2013) point out that this difference impacts on cash flows and will be reported as an exchange gain or loss in income statements. As this difference arises from a foreign currency transaction, some authors qualify it as a transaction gain or loss (Choi & Meek 2008). Transaction exposure is when the cash flows of foreign currency transactions are affected by changes in exchange rates and arises from unprotected cash flow (Nobes & Parker 2010). The importer/exporter is exposed to the risk that the foreign currency might appreciate/depreciate between the date of purchase/sale and the date of payment (Hoyle et al. 2004).

The accounting treatment of foreign currency transactions is regulated by International Accounting Standard 21 (IAS 21), *The Effects of Changes in Foreign Exchange Rates* (IASB, 2012). IAS 21 deals with the initial recognition of foreign currency transactions (paragraphs 20-22), reporting at the end of subsequent reporting periods (paragraphs 23-26). In a simple explanation of IAS 21 application, Walton, Haller, and Raffournier (2003) and Cotter (2012) point out the foreign currency transactions should be recorded initially in the functional currency by applying the spot exchange rate at the date of transaction. At the end of the subsequent reporting period, foreign currency monetary items (foreign currency receivables and payables) should be restated using the closing date. Business transacted in a foreign currency can result in exchange differences (transaction gain or loss). IAS 21 is applied to recognize exchange differences (paragraphs 27-34). The realized transaction gain or loss (which impacts cash flows) should be differentiated from unrealized gain or loss (which has no impact on cash flows). Realized gain or loss can be easily identified. If the balance

sheet date falls between the date of sale/purchase and the date of settlement, transaction gains and losses have not yet been realized in cash. Under the accrual approach, unrealized transaction gains and losses should be included in net income. In other words, transaction gain (loss) without cash flows from foreign currency transactions should be recognized in that accounting period. While unrealized transaction gains and losses directly impact enterprise profitability, realized transaction gains or losses resulting from any change in the exchange rate between the balance sheet date and the payment date have a direct effect on both company cash flows and profitability. As has been mentioned, transaction exposure also exists when enterprises borrow foreign currency and/or have foreign currency loans. When enterprises borrow foreign currency from foreign lenders they face liability exposure. In that case, both the principal and the interest on the principal are stated in foreign currency. On the other hand, when enterprises lend foreign currency, both the principal (note receivable) and interest receivable are denominated in foreign currency (Doupnik and Perera 2007).

No matter where it arises, transaction exposure should be identified, measured, and managed.

3. IDENTIFYING, MEASURING, AND MANAGING TRANSACTION EXPOSURE

Transaction exposure affects enterprise's profitability and financial position simultaneously. The problem of transaction exposure identification, measurement, and management has been the subject of numerous discussions among researchers and practitioners for nearly four decades.

The success of enterprises involved in international business results from not only their operating, investing and financing activities, but also from their management of transaction exposure. Madura and Fox (2011, p.340) point out that foreign currency depreciation "by as much as 10% could possibly eliminate any profits from exporting". This numerical assessment shows the need to identify, measure, and manage transaction exposure: therefore it is not surprising that most enterprises pay special attention to transaction exposure identification and management. First of all, enterprise has to identify both its aggregate level of transaction exposure and its degree in various currencies. Estimating enterprise's net cash flow in each currency and measuring the potential impact of its currency exposure are two steps in a business's transaction exposure assessment (Madura and Fox, 2011, 340). Value-at-risk methodology can be used in transaction exposure assessment. This popular tool makes it possible to

measure the maximum likely loss on the value of an enterprise's net cash flows stated in foreign currency for a given time period.

A multicurrency transaction exposure report, including accounting data as well as items that do not appear in conventional financial statements, is a very useful instrument for identifying and measuring the exposure of recognized, unrecognized, and forecasted foreign currency transactions. Shapiro (2006) emphasizes that a detailed transaction exposure report must also contain a number of off-balance-sheet items. This has advantages over the single-currency transaction exposure format. It is possible that negative transaction exposure in one currency and positive exposure in other currency coexist and overlap. Under a single-currency perspective it is possible to naturally offset these different types of transaction exposure. The advantage of multi-currency transaction exposure reporting over its single-currency counterpart is that it provides more complete information. Such multiple-currency transaction reporting enables enterprise not only to aggregate but to separately identify and analyse its transaction exposure on a continual basis. Once transaction exposure is identified not only by currency but also by country, maturity, and operation (for MNCs), enterprise can measure its total, aggregate level of exposure and can then implement various hedging policies to offset transaction losses. The most popular single approach in analysis of this type of exposure is currency-based, because it makes possible both measuring and monitoring of cash flows for each currency in which the enterprise does business.

Enterprises can use a wide-spectrum of methods to eliminate or reduce their transaction exposure. In that context Evans and Doupnik (1986) point out that managers may approach transaction exposure in a number of ways. Managers try to reduce not only possible transaction losses but also the cost of protection. Once the enterprises have identified and measured their transaction exposure, it can be eliminated or reduced by adopting operating techniques such as exposure risk-shifting, risk sharing, netting, leading and lagging, and currency diversification. Risk-shifting means the avoiding of all foreign-exchange transaction exposure by invoicing all foreign currency transactions in the domestic currency. If the risk-sharing technique is used, the risk is split between the two foreign currency transaction parties (domestic and foreign enterprises). Netting (natural hedge) means the netting of foreign currency payables and receivables with the aim of reducing the difference between payments and receipts in a given foreign currency. Madura and Fox (2011) explain that the leading and lagging technique involves adjusting the timing (speeding up or delaying) of foreign currency cash flows to take advantage of exchange rate fluctuations. Speeding up payment is termed

'leading', while delaying a payment is referred to as 'lagging'. In order to cover transaction risk, enterprises may select from a variety of financial instruments such as currency forwards and futures, currency options, and currency swap agreements. Doupnik and Perera (2007) emphasize that the most popular types of hedging instrument are forward contracts and options. Dumičić, Čižmešija, Pavković and Andabaka (2006) emphasize that Croatian enterprises most often use currency futures and currency forwards against currency risk. The survey evidence of Sprčić (2007) is that Croatian and Slovenian enterprises often use currency forwards, currency swaps, and currency futures against currency risk.

In the contemporary global economy this area, which has traditionally been the concern of financial managers, has received increasing attention. The importance of transaction exposure management for enterprises in the RS has been accentuated by the growth of import activities and the depreciation of the domestic currency against many foreign currencies.

4. TRANSACTION EXPOSURE MANAGEMENT PRACTICES OF ENTERPRISES IN SERBIA

An increasing number of enterprises operating in Serbia are involved in international transactions, which as a rule are denominated in a foreign currency. Foreign currency receivables and liabilities arising from these transactions and transaction gains and losses due to exchange rate changes must be converted and recorded in RS dinars.

The survey was conducted in February 2015. We contacted principally the financial managers of reputable enterprises in the RS that were considered to have implemented transaction exposure management practices. The intention was to determine whether domestic enterprises actually apply transaction exposure management practice in the way prescribed by financial management literature and implemented by foreign enterprises.

4.1. Research Methodology

In order to study transaction exposure management practices in enterprises operating in the RS we developed a questionnaire which was divided into three sections, each designed to gather data on a specific aspect of transaction exposure to foreign exchange risk. The sections were as follows:

- I. General information about the enterprise and surveyed persons
- II. Foreign currency transactions and transaction exposure assessment
- III. Transaction exposure management practice

The first section of the questionnaire concerns the characteristics of the participating enterprises and surveyed persons. The respondents completed questions related to the enterprise's activity, its size, country of origin, and their jobs in the enterprise. The second part of the questionnaire deals with the level of foreign currency transactions and the various ways of transaction exposure identification and assessment. This part of the questionnaire contains questions about the preparation and usage of multicurrency reports. The third section of the questionnaire was designed to provide information on what transaction exposure management practices are used.

The questionnaire was field-tested and evaluated by the financial managers of two reputable export-import enterprises in the RS. After the field test we distributed questionnaires to 170 enterprises that face transaction exposure. We addressed the questionnaires to each financial manager, requesting that it should be directed to an executive directly involved in transaction exposure management.

To analyse the collected data we used:

- 1) Statistical description: a schedule of absolute and relative frequencies was determined and the mean, variance, and standard deviation were calculated for each sample for both domestic and foreign enterprises
- 2) Statistical analysis: the statistical significance hypothesis for differences in means was tested and a simple linear correlation coefficient was computed and its statistical significance tested.

Likert scale was applied to score the answers. The number 1 was used for the most favourable answer to the question and the number 3 indicated the most unfavourable response. In accordance with statistical rules and conditions, the t – test and z – test were used in data processing.

4.2. Hypotheses Setting

The research on transaction exposure management in enterprises operating in the RS in the 2013-14 period started from the following hypotheses:

H_1 : There is statistically significant dependence between the level of foreign currency transactions and the level of transaction exposure management.

H_2 : There is no statistically significant difference in transaction exposure management between domestic and foreign enterprises in the population.

The hypotheses were tested based on replies to questions such as: What was the volume of foreign trade transactions denominated in foreign currency in your enterprise over the observed period? How did the level of applied transaction exposure management practice change during that period? Does foreign capital own your company? Do you prepare and use multicurrency reports on transaction exposure? What types of transaction exposure management practice are used in your enterprise? Since it is not possible to discuss all the results obtained by the research in just one paper, only the data necessary to test our hypotheses will be presented.

4.3. Results

We received responses from 37 enterprises, 21.76% of those contacted. 51.35% of the respondents were headquartered outside the RS (foreign enterprises) and 48.65% had headquarters in the RS (domestic enterprises).

To discover the importance of transaction exposure we asked the respondents to calculate the ratio in their businesses of foreign currency receivables to total receivables and foreign currency payables to total payables. The importance of foreign currency transactions measured by those two ratios is presented in Table 1. The majority of respondents generate more than 40% foreign currency transactions in total transactions.

Table 1: Relative importance of foreign currency transactions to total transactions for responding enterprises, 2014.

Ratio of foreign currency transactions to total transactions		
Percentage of responding enterprises		
Ratio size	Foreign currency receivables to total receivables	Foreign currency payables to total payables
Below 20%	32.13	33.73
20%-50%	48.12	42.27
Above 50%	19.75	24.00

Source: Authors' calculation

The first hypothesis is tested based on questions asking how the level of foreign currency transactions and the level of applied transaction exposure management changed between 2013 and 2014.

Most of the respondents (approx. 81%) said the level of foreign currency transactions in their enterprises during the period (see Table 2) had “increased”; 13.52% said that they “fell”, and 5.40% responded that they had “remained unchanged”. Although the most frequently cited trend was “increased”, the analysis showed differences between domestic and foreign firms in the level of foreign currency transactions . A greater percentage of the foreign enterprises (approx. 95%) than the domestic firms (approx. 67%) indicated that the level of their foreign currency transactions had “increased”.

Table 2: Difference in the level of foreign currency transactions between 2013 and 2014

Origin of enterprise	Level of foreign currency transactions		
	Increased Level	Unchanged level	Decreased level
Foreign firms	18 (94.74%)	1 (5.26%)	/
Domestic firms	12 (66.67%)	1 (5.55%)	5 (27.78%)
Total	30 (81.08%)	2 (5.40%)	5 (13.52%)

Source: Authors’ calculation

To the question of how the level of applied transaction exposure management changed in their enterprises in the observed period the majority of enterprises (approx. 70%) said that it “increased”, 5.40% responded that it “fell”, and 24.33% responded that the level “remained unchanged” (see Table 3).

Table 3: Difference in the level of applied transaction exposure management practice between 2013 and 2014

Origin of enterprise (number and percent)	Level of applied transaction exposure management practice		
	Increased level	Unchanged level	Decreased level
Foreign firms	18 (94.74%)	1 (5.26%)	/
Domestic firms	8 (44.44%)	8 (44.44%)	2 (11.11%)
Total	26 (70.27%)	9 (24.33%)	2 (5.40%)

Source: Authors’ calculation

The correlation between the level of foreign currency transactions and the level of applied transaction exposure management was tested. The statistical significance of these variables' dependence was examined by correlation coefficient. To study the dependence of transaction exposure management (variable Y) on level of foreign currency transactions (variable X) the simple linear correlation coefficient $R_{xy}=0.785$ was computed (see Table 4).

Table 4: Correlation Coefficient

Variable	Number of enterprises	Mean	Standard deviation	Correlation coefficient	95% Confidence Interval		P-value
					Lower limit	Upper Limit	
Variable X	37	1.324	0.709	0.785	0.619	0.884	0.000
Variable Y	37	1.351	0.588				

Source: Authors' calculation

The analysis of the statistical significance of selected variables' linear dependence or independence, evaluated by R , was carried out by defining and testing null and alternative hypotheses.

The null hypothesis $H_0: \rho = 0$ is a simple linear correlation coefficient of the population. ρ is not statistically different from 0: i.e., there is no linear interdependence of the observed variables.

The alternative hypothesis $H_a: \rho \neq 0$ is a simple linear correlation coefficient of the population. ρ is statistically different from 0: i.e., there is linear interdependence of the observed variables.

The hypotheses were tested using standardized normal distribution with the help of a z two-way test. The computed value of z is 4.71. Significance was at the 5% level ($\alpha = 0.05$). Theoretical value $z_{\alpha/2} = 1.96$.

The computed value of $|z|$ is higher than the critical value $z_{\alpha/2} = 1.96$ and $p < 0.05$. Therefore, based on this data, the alternative hypothesis that there is a statistically significant linear dependence between the level of foreign currency transactions and the level of applied transaction-exposure management is accepted. Thus the first hypothesis based on the sample is confirmed.

The second tested hypothesis relates to differences between domestic and foreign enterprises in transaction exposure management practice. In order to examine differences in enterprises' responses by country of origin, two samples were created. The first sample is a set of rating answers (scores) to the question concerning the level of applied transaction exposure management practice by domestic enterprises, and the other one is a set of rating answers (scores) to the same question by foreign enterprises (see Table 5).

Table 5: Enterprise transaction exposure management practice

Sample of enterprises	Level of applied transaction exposure management practice variation (number of points)		
	Increased level (score 1)	Unchanged level (score 2)	Decreased level (score 3)
18 domestic enterprises	8 (8x1)	16 (8x2)	6 (2x3)
19 foreign enterprises	18 (18x1)	2 (1x2)	/
Total	26 (26x1)	18 (9 x2)	6 (2x3)

Source: Authors' calculation

Since all the answers were scored, the average number of points (means) for the responses related to transaction exposure management practice was calculated separately for domestic and foreign enterprises. The average number of points in the first sample (\bar{x}_1) is 1.667 and in the second one (\bar{x}_2) is 1.053. Standard deviations were 0.686 and 0.229, respectively.

The null hypothesis is: The means of respondents' estimates regarding transaction exposure management level in domestic and foreign enterprises are equal.

$$H_o : \mu_1 = \mu_2$$

The alternative hypothesis is: The means of respondents' estimates regarding the transaction exposure management level in domestic and foreign enterprises are not equal.

$$H_a : \mu_1 \neq \mu_2$$

Value of the statistical test $z = 3.612$ (the average number of points by which the level of transaction exposure management practice is expressed) and probability $p = 0.00$ were identified by procedures for statistical hypotheses testing. Significance was found at the 5% level in the test used for hypothesis

verification. The critical value for the z-test is $z_{\alpha/2}=1.96$. As $|z|>z_{\alpha/2}$ i $p<\alpha$, the alternative hypotheses is accepted. As the alternative hypotheses is accepted, the second hypotheses is rejected. In the process of testing the second hypothesis, a 5% level of significance was found that there is a statistically significant difference between domestic and foreign enterprises in the average number of points by which the level of transaction exposure management is expressed.

Since there is a statistically significant difference in the responses of foreign and domestic enterprises with respect to transaction exposure management practices (see Table 3), we shall now consider their responses separately. The level of transaction-exposure management activity “increased” in a greater percentage of foreign-owned entities (94.74%) than of domestic entities (44.44%). Although an increase in foreign currency transactions was recorded in 66.67% of domestic enterprises, an increasing level of applied transaction exposure management practice was claimed in 44.44% of these entities. By contrast, an increase in the level of applied transaction-exposure management practice was recorded in all foreign enterprises in which there was an increase in foreign currency transactions.

The conducted research reflects a mainly defensive posture toward transaction exposure management in domestic enterprises compared to in foreign enterprises operating in the RS. While many foreign enterprises use financial derivatives as currency hedging instruments, local enterprises mainly rely on traditional protective measures. Only 5 domestic respondents use forward contracts to hedge against transaction exposure. The respondents were asked whether they prepare a specific multi-currency transaction exposure report. Approximately 80% of the responding domestic enterprises answered negatively. In other words, many domestic enterprises do not apply a currency-based approach to the measurement of transaction exposure but only assess its aggregate level. On the contrary, most foreign enterprises use multi-currency reports. They simultaneously apply currency-based, maturity-based, and country-based approaches to the measurement and management of transaction exposure. No wonder these enterprises went further in the application of transaction exposure management practice.

The conducted research indicates that domestic enterprises are not acquainted with the possibilities of using financial derivatives to protect against transaction exposure. Moreover, it is not possible for domestic enterprises to use derivatives other than currency forwards (National Bank of Serbia, 2015), as the securities market is not developed. The respondents were asked to indicate which type of

transaction exposure protective measures they know and which of them they use. Most of the foreign enterprises know and use various currency derivatives and operating techniques against transaction exposure. According to the survey, domestic enterprises mainly use exposure netting and selling/purchasing price policy. Although a list of links to the eighteen banks that offer foreign currency hedging instruments in the RS exists on the official website of the National Bank of Serbia, conducted research has shown that only 5 domestic enterprises use foreign currency forwards. Serbian enterprises that use currency derivatives (27.78%) use currency forwards against transaction exposure. The main reasons cited why other Serbian enterprises do not use currency derivatives are the undeveloped financial market, lack of knowledge, and concerns about accounting treatment. As domestic enterprises do not have enough experience in this area, banks, educational institutions, and the accounting profession should offer consulting services and help them in the application of currency hedging.

5. SUMMARY AND CONCLUDING REMARKS

Transaction exposure, arising from transactions whose terms of payment are in a foreign currency, can have negative consequences on an enterprise's financial position and profitability. This type of exposure refers to potential changes in outstanding foreign currency receivables and liabilities due to exchange rate changes between when a transaction occurs and when it is settled. Once an enterprise has identified and measured its level of transaction exposure, it can adopt an operational technique (risk shifting, risk sharing, netting, leading and lagging, or currency diversification) and financial instruments to hedge its financial position and profitability.

The conducted research has confirmed that the application of transaction exposure management practice among enterprises operating in the RS is positively correlated with their level of foreign currency transactions. The results of this study have shown that an entity's country of origin may affect the level of businesses' applied transaction exposure management. Although many Serbian enterprises (approx. 67%) indicated a high volume of foreign currency transactions (especially import activity), only 44.44% of responding domestic enterprises indicated an increased level of transaction exposure management activity. By contrast, the vast majority of the foreign responding enterprises (approx. 95%) cited the increasing importance given to transaction exposure management. Although the theoretical literature provides a number of reasons for transaction exposure hedging, illustrated by a great number of practical examples, the actual

well-applied practice of transaction exposure management in other, particularly developed countries is not transferred to or well-applied in Serbian enterprises. The general conclusion from the conducted research is that Serbian enterprises are unaware of all the possible ways of protecting themselves from transaction exposure to foreign exchange risk. It was found that very few domestic enterprises in the sample have used financial instruments such as forward contracts to hedge themselves against transaction exposure, even though they are involved in an increasing number of foreign currency transactions.

Apart from emphasizing the importance of implementing internationally verified methods of transaction exposure management, the contribution of this study is pointing out the role of banks and other financial institutions in better informing their clients and promoting the application of currency derivatives. Bearing in mind that many entities in the RS do not use financial derivatives because they do not understand their accounting treatment, the academic community should provide consulting services to accountants in the practical application of currency hedge accounting. As active participants in the global economy, enterprises with headquarters in the RS should not ignore currency volatility, they have to think and concern about it.

As with all questionnaire surveys, a major limitation of this research is that our discussion and conclusions are based on data provided by those who chose to participate. Many respondents refused to participate in the study because of their insufficient knowledge of the issues. Other limitations are the sample size and dealing with only one type of exposure to foreign exchange risk. The multidimensional nature of foreign exchange risk means that it is not sufficient to consider only one type.

Future research should investigate enterprises' attitudes towards all types of exposure to foreign exchange risk, using a larger sample size. Some believe that accounting regulation in the RS, allowing the repositioning of foreign exchange losses from the income statement (expenses) to the balance sheet (accruals), has discouraged management from transaction exposure hedging. Hence one area of future research could be the extent to which accounting regulations affect the transaction exposure management practices of enterprises operating in the RS.

REFERENCES

- Baker, R., Lembke, V., & King T. (2005). *Advanced Financial Accounting*. New York: McGraw Hill International Companies.
- Blake, J, & Hossain, M. (1996). *Readings in International Accounting*. International Thomson Publishing Inc., London.
- Bogićević, J. (2013) Računovodstvene implikacije prevođenja i hedžinga transakcija u stranoj valuti, *Ekonomski horizonti*, 15, 2, pp. 133-148.
- Cotter, D. (2012). *Advanced Financial Reporting - A Complete Guide to IFRS*. Pearson Education Limited, Harlow.
- Choi, F., & Meek G. (2008). *International Accounting*. Pearson Education Inc., New Jersey.
- Demirage, I., & Goddard (1994). *Financial Management for International Business*. McGraw-Hill Publishing Company, England.
- Dhanani, A. (2003). *Foreign exchange risk management: a case study in the mining industry*. The British Accounting Review, 35, pp. 35-63.
- Dimitrescu, D. (2009). Managing transaction exposure. *Annales Universitatis Apulensis Series Oeconomica*, 11(1), pp. 359-367.
- Dumičić, K, Čižmešija M, Pavković A., Andabaka A. (2006). Istarživanje primjene metoda upravljanja finansijskim rizicima u hrvatskim poduzećima – anketa na uzorku poduzeća. *EFZG Working Papers Series 06* (08), Retrieved from: <http://www.econbiz.de>
- Eliot B., & Elliot J. (2013). *Financial Accounting and Reporting*. Pearson Education Limited, United Kingdom.
- Evans, T., & Douppnik, T. (1986). *Foreign Exchange Risk Management under Statement 52*. Research Report, Financial Accounting Standards Board, Stamford, Connecticut.
- Goel, M., Gupta, S.L., & Goel, L. (2011). An Analysis of Foreign Exchange Exposure Management. *International Journal of Multidisciplinary Research*, Vol. 1, Issue 5, September 2011, pp. 83-104.
- Hoyle, J., Schaefer, T., & Douppnik, T. (2004). *Advanced Accounting*. New York: McGraw-Hill/Irwin.
- IFRS (2012). IAS 21-The Effects of Changes in Foreign Exchange Rates, Retrieved from: <http://www.ifrs.org/documents/ias21.pdf>
- Kim, S, & Kim, S. (2006). *Global Corporate Finance*. Blackwell Publishing Ltd, USA.

FOREIGN EXCHANGE TRANSACTION EXPOSURE OF ENTERPRISES IN SERBIA

- Madura, J., & Fox, R. (2011). *International Financial Management*. South-Western Cengage Learning.
- Moffett, M., Stonehill, A., & Eiteman, D. (2009). *Fundamentals of Multinational Finance*. Pearson International Edition, Inc.
- Narodna banka Srbije, (2015). *Linkovi banaka sa ponudom instrumenata deviznog hedžinga*. Retrieved from: http://www.nbs.rs/internet/latinica/33/33_3/kotacije.html
- Nobes, C., & Parker, R. (2010). *Comparative International Accounting*. Pearson Education Limited.
- Roberts, C., Weetman, P., & Gordon, P. (2008). *International Corporate Reporting*. Prentice Hall.
- Saudagaran, S. (2004). *International Accounting: A User Perspective*. Thomson South-Western, USA
- Shapiro, C. A. (1986). *Multinational financial management*, 2nd edition. Allyn and Bacon, Newton, Mass.
- Shapiro, A. (2006). *International Financial Management*. John Wiley & Sons, USA.
- Sprčić, D. M. (2007). Izvedenice kao instrument upravljanja finansijskim rizicima: primer hrvatskih i slovenačkih poduzeća. *Finansijska teorija i praksa* 31 (4), pp. 387-413.
- Walton, P., Haller, B., & Raffournier, B (2003). *International Accounting*. Thomson Learning, London.

Received: January 14, 2016

Accepted: March 09, 2016