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PRIKAZ DEVIZNOG TRŽIŠTA U SRBIJI

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Rezime

Monetarni odbor Narodne banke Srbije usvojio je u decembru 2008. Memorandum o ciljanju (targetiranju) inflacije kao monetarnoj strategiji, kojim se definiše formalna primena režima inflacionog targetiranja od 1. januara 2009. godine. U skladu sa tom monetarnom strategijom Narodna banka Srbije je uvela rukovođeno plivajući devizni kurs. Ovaj režim deviznog kursa znači da se kurs formira slobodno, pod uticajem ponude i tražnje na međubankarskom deviznom tržištu, a da Narodna banka Srbije primenjuje devizne intervencije kako bi sprečila preterane kratkoročne dnevne oscilacije kursa dinara u odnosu na evro. Postupajući na taj način centralna banka nastoji da postigne i očuva finansijsku i cenovnu stabilnost i relativnu stabilnost kursa dinara. Na kretanje vrednosti kursa dinara u odnosu na evro utiču faktori domaćeg porekla, poput aktivnosti domaćih i stranih preduzeća i banaka, ali i eksterni faktori, poput uticaja mera glavnih globalnih centralnih banaka, geopolitičke tenzije i promene cene nafte i ostalih proizvoda. Cilj rada je da predstavi način funkcionisanja deviznog tržišta u Srbiji, vrste transakcija, sistem izveštavanja, način formiranja i objave zvaničnog srednjeg kursa dinara u odnosu na evro, vrste deviznih intervencija i instrumente zaštite od deviznog rizika.

Ključne reči: devizno tržište, devizni kurs, devizne intervencije, devize, efektivni strani novac, spot transakcije, svop transakcije

JEL: E58, F31

PRESENTATION OF THE FOREIGN EXCHANGE MARKET IN SERBIA

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Summary

In December 2008, the Monetary Policy Committee of the National Bank of Serbia adopted the Memorandum on Inflation Targeting as Monetary Strategy, which defines the formal implementation of the inflation targeting regime as of 1 January 2009. In accordance with that monetary strategy the National Bank of Serbia introduced the managed floating exchange rate. This exchange rate regime means that the exchange rate is formed freely, under the influence of supply and demand on the interbank foreign exchange market, and that the National Bank of Serbia applies foreign exchange interventions in order to prevent excessive short-term daily fluctuations in the exchange rate of the dinar against the euro. In doing so, the central bank strives to achieve and preserve the financial and price stability and relative stability of the dinar exchange rate. The movements in the value of the exchange rate of the dinar against the euro are affected by the factors of domestic origin, such as the activities of domestic and foreign enterprises and banks, but also external factors, such as the impact of the measures introduced by major global central banks, geopolitical tensions and changes in the price of oil and other products. The aim of the paper is to present the functioning of the foreign exchange market in Serbia, the types of transactions, the reporting system, formation and announcement of the official middle exchange rate of the dinar against the euro, types of foreign exchange interventions and foreign exchange risk protection instruments.

Keywords: foreign exchange market, exchange rate, foreign exchange interventions, foreign exchange, foreign cash, spot transactions, swap transactions

JEL: E58, F31

Uvod

Narodna banka Srbije je od 2008. godine započela primenu monetarnu strategiju targetiranja inflacije, i u skladu sa tom strategijom, a na bazi Odluke o utvrđivanju režima kursa dinara („Službeni glasnik RS“, br. 95/2010), primenjuje rukovođeno fleksibilan devizni kurs. Ovaj režim kursa označava da se kurs dinara u odnosu na evro formira slobodno, pod uticajem faktora ponude i tražnje na međubankarskom devizno tržištu, a da Narodna banka Srbije interveniše na deviznom tržištu kako bi sprečila kratkoročne dnevne oscilacije kursa dinara, bez da utiče na trend kretanja kursa.

Vrste transakcija na deviznom tržištu u Srbiji

U skladu sa Odlukom o uslovima i načinu rada deviznog tržišta („Službeni glasnik RS“, br. 10/2011, 109/2012, 55/2014, 51/2015, 17/2016, 91/2016, 82/2017 i 37/2018) na deviznom tržištu obavlja se spot, termska i svop kupovina i prodaja deviza, kao i kupovina i prodaja deviza s datumom izvršenja kraćim od spot valute. *Spot kupovina i prodaja deviza* jeste kupovina i prodaja deviza za dinare s datumom izvršenja dva radna dana od dana zaključenja kupoprodajnog ugovora, odnosno dana trgovanja (spot valuta). *Termska kupovina i prodaja deviza* jeste kupovina i prodaja deviza za dinare s datumom izvršenja na određeni dan posle spot valute. *Svop kupovina i prodaja deviza* jeste istovremeno ugovaranje kupovine deviza za dinare i prodaje deviza za dinare s različitim datumima izvršenja.

Tabela 1: Promet na deviznom tržištu (iznos u milionima evra)

Godina	Promet na deviznom tržištu							
	Devize					Efektivni strani novac		Ukupno (1 do 7)
	Banka - banka	Banka - Narodna banka Srbije		Banke - rezidenti	Banke - nerezidenti	Banka - ovlašćeni menjači, fizička lica, pravna lica ²⁾	Narodna banka Srbije - ovlašćeni menjači	
		spot	svop					
		1	2					
2007.	22.319,0	708,7	-	37.922,3		4.379,8	1.179,3	66.509,0
2008.	23.669,2	1.335,5	-	47.056,5		4.738,4	537,3	77.336,9
2009. ¹⁾	7.085,5	656,9	0,0	17.203,9	15.461,2	4.704,1	134,3	45.245,9
2010.	10.764,0	2.806,2	261,7	16.924,2	24.030,3	4.287,6	7,4	59.081,4
2011.	19.536,5	135,0	364,5	19.962,8	36.409,8	4.559,5	0,0	80.968,2
2012.	17.383,4	1.353,3	359,0	19.446,0	33.718,9	3.971,1	0,0	76.231,9
2013.	9.150,6	1.050,0	248,0	18.933,6	32.940,9	4.366,2	0,0	66.689,3
2014.	6.657,5	2.140,0	360,0	19.082,3	35.065,8	3.858,9	0,0	67.164,5
2015.	8.077,5	1.420,0	1.101,0	19.748,0	42.753,0	4.283,3	0,0	77.382,9
2016.	6.125,9	1.800,0	880,0	21.380,8	37.642,4	4.064,5	0,0	71.893,6
2017.	7.520,9	1.985,0	1.093,0	24.263,2	38.749,6	4.278,2	0,0	77.889,9

Napomene: 1) Narodna banka Srbije raspolaže podacima o kupoprodaji deviza i efektivnog stranog novca, razvrstano na transakcije realizovane sa rezidentima i na transakcije sa nerezidentima, od septembra 2008 i 2) Fizička lica - rezidenti i nerezidenti; Pravna lica - rezidenti.

Izvor: Narodna banka Srbije

Introduction

In 2008 the National Bank of Serbia has begun implementing the monetary strategy of targeting inflation, and in accordance with this strategy, based on the Decision on the Dinar Exchange Rate Regime (RS Official Gazette, No. 95/2010), it applies the managed floating exchange rate regime. This exchange rate regime means that the exchange rate of the dinar against the euro is formed freely, under the influence of supply and demand factors at the interbank market, and that the National Bank of Serbia intervenes in the foreign exchange market in order to prevent short-term daily fluctuations in the exchange rate of the dinar without affecting the exchange rate trend.

Types of Transactions in the Foreign Exchange Market in Serbia

Pursuant to the Decision on Operating Terms and Procedures in the Foreign Exchange

Market (RS Official Gazette, No. 10/2011, 109/2012, 55/2014, 51/2015, 17/2016, 91/2016, 82/2017 and 37/2018), trading in the foreign exchange market shall include spot, forward and swap foreign exchange purchases/sales, as well as foreign exchange purchases/sales with the execution date which is earlier than the spot currency date. Pursuant to the Decision, *spot foreign exchange purchases/sales* shall mean purchases/sales of foreign exchange against dinars, taking place two business days from the day of conclusion of the purchase/sale agreement, and/or trading date (spot currency date). Pursuant to the Decision, *forward foreign exchange purchases/sales* shall mean foreign exchange purchases/sales against dinars on a specified date after the spot currency date. Pursuant to the Decision, *swap foreign exchange purchases/sales* shall mean concurrent contracting of foreign exchange purchases/sales against dinars on different execution dates.

Table 1: Turnover on the Foreign Exchange Market (In million EUR)

Year	Turnover on the Foreign Exchange Market							
	Foreign exchange					Foreign cash		Total (1 to 7)
	Bank - Bank	Bank - the NBS		Banks - Residents	Banks - Non residents	Banks - authorised exchange dealers, natural persons and legal entities ²⁾	The NBS - authorised exchange dealers	
		spot	swap					
2007	22,319.0	708.7	-	37,922.3		4,379.8	1,179.3	66,509.0
2008	23,669.2	1,335.5	-	47,056.5		4,738.4	537.3	77,336.9
2009 ¹⁾	7,085.5	656.9	0.0	17,203.9	15,461.2	4,704.1	134.3	45,245.9
2010	10,764.0	2,806.2	261.7	16,924.2	24,030.3	4,287.6	7.4	59,081.4
2011	19,536.5	135.0	364.5	19,962.8	36,409.8	4,559.5	0.0	80,968.2
2012	17,383.4	1,353.3	359.0	19,446.0	33,718.9	3,971.1	0.0	76,231.9
2013	9,150.6	1,050.0	248.0	18,933.6	32,940.9	4,366.2	0.0	66,689.3
2014	6,657.5	2,140.0	360.0	19,082.3	35,065.8	3,858.9	0.0	67,164.5
2015	8,077.5	1,420.0	1,101.0	19,748.0	42,753.0	4,283.3	0.0	77,382.9
2016	6,125.9	1,800.0	880.0	21,380.8	37,642.4	4,064.5	0.0	71,893.6
2017	7,520.9	1,985.0	1,093.0	24,263.2	38,749.6	4,278.2	0.0	77,889.9

Note: 1) Data on purchase and sale of foreign exchange and foreign cash are available, classified by the transactions with residents and nonresidents, since September 2008 and 2) Natural persons - residents and nonresidents; Legal entities residents

Source: National Bank of Serbia

Banke na deviznom tržištu kupuju i prodaju devize i efektivni strani novac u skladu sa Zakonom o deviznom poslovanju (Prečišćeni tekst sačinjen na osnovu teksta Zakona o deviznom poslovanju („Službeni glasnik RS“, br. 62/2006 i njegovih izmena i dopuna objavljenih u „Službenom glasniku RS“, br. 31/2011, 119/2012, 139/2014 i 30/2018) i Odlukom o uslovima i načinu rada deviznog tržišta. Prema članu 38. pomenutog zakona devize i efektivni strani novac mogu se kupovati i prodavati samo na deviznom tržištu. Kupovina i prodaja deviza i efektivnog stranog novca na deviznom tržištu u Republici Srbiji vrši se neposredno: 1) između banaka i rezidenata, kao i između banaka i nerezidenata; 2) između banaka; 3) između banaka i Narodne banke Srbije; 4) između rezidenata koji imaju ovlašćenje za obavljanje menjačkih poslova i Narodne banke Srbije; 5) između banaka i rezidenata koji imaju ovlašćenje za obavljanje menjačkih poslova i 6) između rezidenata i Narodne banke Srbije. Kupovinu i prodaju efektivnog stranog novca na deviznom tržištu obavljaju banke, Narodna banka Srbije, kao i drugi rezidenti koji obavljaju menjačke poslove.

Vrste deviza i efektivnog stranog novca kojim se trguje na deviznom tržištu u Srbiji

Prema Odluci o vrstama deviza i efektivnog stranog novca koje se kupuju i prodaju na deviznom tržištu („Službeni glasnik RS“, br. 3/2018) poslovne banke na deviznom tržištu mogu kupovati i prodavati sledeće vrste deviza i efektivnog stranog novca: 1) australijski dolar (AUD), 2) kanadski dolar (CAD), 3) kineski juan ženminbi (CNY), 4) hrvatsku kunu (HRK), 5) češku krunu (CZK), 6) dansku krunu (DKK), 7) mađarsku forintu (HUF), 8) japanski jen (JPY), 9) kuvajtski dinar (KWD), 10) norvešku krunu (NOK), 11) rusku rublju (RUB), 12) švedsku krunu (SEK), 13) švajcarski franak (CHF), 14) funtu sterlinga (GBP), 15) američki dolar (USD), 16) rumunski lej (RON), 17) tursku liru (TRY), 18) bugarski lev (BGN), 19) konvertibilnu marku (BAM), 20) evro (EUR) i 21) poljski zlot (PLN). Narodna banka Srbije svim prethodno navedenim valutama može trgovati, kupovati i prodavati, na deviznom tržištu, ali samo u formi deviza, dok u

formi efektivnog stranog novca može trgovati sledećim valutama: 1) evro (EUR), 2) američki dolar (USD) i 3) švajcarski franak (CHF).

Kada Izvršni odbor Narodne banke Srbije donosi odluku o promeni i/ili dopuni Odluke o vrstama deviza i efektivnog stranog novca koji se kupuju i prodaju na deviznom tržištu analizira se veći broj faktora za uvođenje nove valute kojom će se trgovati u formi deviza ili efektivnog stranog novca. Sledeći faktori su predmet analize: 1) kreditni rejting za dugoročno zaduženje u stranoj valuti zemlje čijom valutom se može trgovati na deviznom tržištu, 2) geografski položaj te zemlje, 3) nivo trgovinske razmene koju Srbija ostvaruje sa konkretnom zemljom, 4) nivo ekonomske saradnje između konkretne zemlje i Republike Srbije i 5) relativna stabilnost konkretne valute. Poslednja promena Odluke o vrstama deviza i efektivnog stranog novca koji se kupuju i prodaju na deviznom tržištu desila se 11. januara 2018. godine, sa primenom te promene od 1. februara 2018. godine, kada su na listu valuta kojima se može trgovati na deviznom tržištu u Republici Srbiji, i u formi deviza, i u formi efektivnog stranog novca, uvedene dve nove valute - bugarski lev i rumunski lej. Istom odlukom omogućeno je da se trgovina u formi deviza dozvoli i onim valutama kojima je do tada bila omogućena trgovina samo u formi efektivnog stranog novca, i to: mađarskom forintom, poljskim zlotom, češkom krunom, konvertibilnom markom i hrvatskom kunom, a kuvajtski dinar je uveden na kursnu listu za devize Narodne banke Srbije.

Sistem izveštavanja deviznog tržišta u Srbiji

Odlukom o uslovima i načinu rada deviznog tržišta („Službeni glasnik RS“, br. 10/2011, 109/2012, 55/2014, 51/2015, 17/2016, 91/2016, 82/2017 i 37/2018) precizno su definisani izveštaji sa domaćeg deviznog tržišta koje poslovne banke dostavljanju Narodnoj banci Srbiji, zajedno sa dinamikom njihovog dostavljanja. Poslovne banke Narodnoj banci Srbije, svakog radnog dana do 10.00 časova dostavljaju sledeće podatke (prethodno vreme dostavljanja navedenih izveštaja je bilo do 11 časova, ali je Odlukom o izmeni Odluke o

Banks can purchase and sell foreign exchange and foreign cash at the foreign exchange market in line with the Law on Foreign Exchange Operations (RS Official Gazette No. 62/2006, 31/2011, 119/2012, 139/2014 and 30/2018) and the Decision on Operating Terms and Procedures of the Foreign Exchange Market. According to Article 38 of the Law on Foreign Exchange Operations foreign exchange and foreign cash may be purchased and sold only in the foreign exchange market. The purchase and sale of foreign exchange and foreign cash in the foreign exchange market in the Republic shall be performed directly: 1) between banks and residents, as well as between banks and non-residents; 2) between banks; 3) between banks and the National Bank of Serbia; 4) between residents authorized to perform exchange operations and the National Bank of Serbia; 5) between banks and residents authorized to perform exchange operations and 6) between residents and the National Bank of Serbia. The purchase and sale of foreign cash in the foreign exchange market shall be performed by banks, the National Bank of Serbia, as well as by other residents who perform exchange operations in accordance with the Law on Foreign Exchange Operations.

Types of Foreign Exchange and Foreign Cash Traded on the Foreign Exchange Market in Serbia

According to the Decision on Types of Foreign Exchange and Foreign Cash to be Purchased and Sold in the Foreign Exchange Market (RS Official Gazette, No. 3/2018) commercial banks in the foreign exchange market can buy and sell the following types of foreign exchange and foreign cash: 1) Australian dollar (AUD), 2) Canadian dollar (CAD), 3) Chinese yuan renminbi (CNY), 4) Croatian kuna (HRK), 5) Czech koruna (CZK), 6) Danish krone (DKK), 7) Hungarian forint (HUF), 8) Japanese yen (JPY), 9) Kuwaiti dinar (KWD), 10) Norwegian krone (NOK), 11) Russian rouble (RUB), 12) Swedish krona (SEK), 13) Swiss franc (CHF), 14) Pound sterling (GBP), 15) US dollar (USD), 16) Romanian leu (RON), 17) Turkish lira (TRY), 18) Bulgarian lev (BGN), 19) Convertible mark (BAM), 20) Euro (EUR) and 21) Polish zloty

(PLN). The National Bank of Serbia can trade, buy and sell on the foreign exchange market all the aforementioned currencies, but only in the form of foreign currency, while in the form of foreign cash, it can trade with the following currencies: 1) Euro (EUR), 2) US Dollar (USD) and 3) Swiss franc (CHF).

When the Executive Board of the National Bank of Serbia decides to change and/or amend the Decision on Types of Foreign Exchange and Foreign Cash to be Purchased and Sold in the Foreign Exchange Market, it analyzes a number of factors for the introduction of a new currency, which will be traded in the form of foreign currency or foreign cash. The factors that are the subject of the analysis are the following: 1) credit rating for long-term debt of the country whose currency will be traded on the foreign exchange market, 2) geographical position of that country, 3) the level of trade exchange that Serbia realizes with a particular country, 4) economic cooperation between the concrete country and the Republic of Serbia, and 5) the relative stability of the particular currency. The latest change in the Decision on Types of Foreign Exchange and Foreign Cash to be Purchased and Sold in the Foreign Exchange Market took place on 11 January 2018, with the application of that change as of 1 February 2018, when the list of currencies that can be traded on foreign exchange market in the Republic of Serbia, both in the form of foreign currency and foreign cash, was expanded to include two new currencies - the Bulgarian lev and the Romanian ley. The same decision allowed trade in the form of foreign exchange for those currencies whose trade was until then only allowed in the form of foreign cash: Hungarian forint, Polish zloty, Czech koruna, Convertible mark and Croatian kuna, whereas the Kuwaiti dinar was introduced onto the exchange rate list for the National Bank of Serbia in the form of foreign exchange.

The Foreign Exchange Market Reporting System in Serbia

The Decision on Operating Terms and Procedures in the Foreign Exchange Market (RS Official Gazette, No. 10/2011, 109/2012, 55/2014, 51/2015, 17/2016, 91/2016, 82/2017 and 37/2018) precisely defines the reports from the domestic

uslovima i načinu rada na deviznom tržištu na sednici Izvršnog odbora, koja je održana 11. juna 2015. godine, to vreme promenjeno na 10 časova. Ova promena je stupila na snagu 1. jula 2015. godine, što znači da su poslovne banke od 2. jula počele da dostavljaju navedene izveštaje do 10 časova):

a. za prethodni radni dan:

1. deviznu poziciju banke (Obrazac 2),
2. izveštaj o spot kupovini/prodaji deviza od rezidenata i nerezidenata (Obrazac 3a),
3. izveštaj o kupovini/prodaji deviza od rezidenata i nerezidenata s datumom izvršenja različitim od spot valute (Obrazac 3b),
4. izveštaj o svop kupovini/prodaji deviza od rezidenata i nerezidenata (Obrazac 3v),
5. izveštaj o kupovini/prodaji efektivnog stranog novca od rezidenata i nerezidenata (Obrazac 3g),
6. izveštaj o neposrednoj spot prodaji drugoj banci deviza i efektivnog stranog novca (Obrazac 4a),
7. izveštaj o neposrednoj prodaji drugoj banci deviza i efektivnog stranog novca s datumom izvršenja različitim od spot valute (Obrazac 4b),
8. izveštaj o neposrednoj svop prodaji drugoj banci deviza i efektivnog stranog novca (Obrazac 4v),
9. izveštaj o stanju na dinarskim računima nerezidenata (Obrazac 6a),
10. izveštaj o promenama i osnovama promena po dinarskim računima nerezidenata (Obrazac 6b),
11. izveštaj o prometu po platnim karticama koji utiče na deviznu poziciju banke (Obrazac 7),
12. izveštaj o valutno indeksiranim kreditima banaka (Obrazac 8a),
13. izveštaj o valutno indeksiranim depozitima banaka (Obrazac 8b);

b. za tekući radni dan - formirane kursne liste za devize i efektivni strani novac. Banke su dužne da, za tekući radni dan, Narodnoj banci Srbije dostave:

1. izveštaj o neposrednoj spot trgovini i trgovini s datumom izvršenja kraćim od spot valute - prodaji drugoj banci i

kupovini od druge banke deviza (evra), koje su zaključene od 9.00 do 12.30 časova (Obrazac 4aa) - najkasnije do 13.30 časova;

2. izveštaj o neposrednoj spot trgovini i trgovini s datumom izvršenja kraćim od spot valute - prodaji drugoj banci i kupovini od druge banke deviza (evra), koje su zaključene od 12.30 do 16.00 časova (Obrazac 4ab) - najkasnije do 17.00 časova.

Banke su dužne da Narodnoj banci Srbije elektronski, u skladu sa uputstvom kojim se uređuju izrada i elektronsko dostavljanje podataka Narodnoj banci Srbije, svakog 20. u mesecu za prethodni mesec dostavljaju izveštaj o ispravkama vrednosti za devizne kredite i valutno indeksirane kredite banaka (Obrazac 8v).

Od 3. decembra 2012. godine banke su u obavezi da u obrasce 3a, 3b i 3v navedu identifikaciju klijenta i to rezidenta prema matičnom broju, a nerezidenta prema SWIFT kodu.

Ovako detaljan sistem izveštavanja daje mogućnost centralnoj banci da ima sve relevantne informacije o svim učesnicima na deviznom tržištu (rezidentima, nerezidentima, menjačima), iznosima kupljenih i prodatih deviza i efektivnog stranog novca, valuti izvršenja transakcija (spot valuta ili valuta različita od spota) i vrstama transakcija (spot, termin ili svop). Sve to doprinosi boljem monitoringu i nadzoru nad funkcionisanjem deviznog tržišta i pravovremenoj reakciji kada je u pitanju primena deviznih intervencija na domaćem deviznom tržištu.

Formiranje i objava zvaničnog srednjeg kursa dinara

Narodna banka Srbije objavljuje podatak o zvaničnom srednjem kursu dinara prema evru na svojoj Internet prezentaciji, po pravilu do 18.00 časova svakog svog radnog dana, a koji se primenjuje od 8.00 časova narednog radnog dana. Narodna banka Srbije, na početku svakog svog radnog dana, utvrđuje zvanični srednji kurs dinara prema drugim valutama utvrđenim odlukom Narodne banke Srbije kojom se propisuju vrste deviza i efektivnog stranog novca koji se kupuju i prodaju na deviznom tržištu - na osnovu zvaničnog srednjeg kursa

foreign exchange market, which commercial banks submit to the National Bank of Serbia, together with the dynamics of their delivery. Commercial banks submit the following data to the National Bank of Serbia, each working day by 10.00 a.m. (the previous time for submission of the above mentioned reports was by 11 a.m., but by the Decision on Amendments to the Decision on Operating Terms and Procedures in the Foreign Exchange Market at the meeting of the Executive Board, held on 11 June 2015, that time was changed to 10 a.m. This change came into force on 1 July 2015, which means that from 2 July commercial banks started to submit the following reports by 10 a.m.):

- a. for the preceding business day:
 1. the bank's FX position (Form 2),
 2. report on spot purchase/sale of foreign exchange from residents and nonresidents (Form 3a),
 3. report on purchase/sale of foreign exchange from residents and nonresidents with the execution date other than the spot currency date (Form 3b),
 4. report on swap purchase/sale of foreign exchange from residents and nonresidents (Form 3c),
 5. report on purchase/sale of foreign cash from residents and nonresidents (Form 3d),
 6. report on direct spot sale of foreign exchange and foreign cash to another bank (Form 4a),
 7. report on direct sale of foreign exchange and foreign cash to another bank with the execution date other than the spot currency date (Form 4b),
 8. report on direct swap sale of foreign exchange and foreign cash to another bank (Form 4c);
 9. report on the balance on non-resident dinar accounts (Form 6a),
 10. report on changes in non-resident dinar accounts and underlying transactions (Form 6b);
 11. report on payment card transactions impacting the bank's FX position (Form 7);
 12. report on currency-indexed bank loans (Form 8a);

13. report on currency-indexed bank deposits (Form 8b).
- b. for the current business day exchange rate lists for foreign exchange and foreign cash. Banks are obliged to submit to the National Bank of Serbia the following reports for the current business day:
 1. by 1:30 p.m. on direct spot trade and trade with the execution date earlier than the spot currency date sale/purchase of foreign exchange (euros) to/from another bank, concluded from 9.00 a.m. to 12.30 p.m. (Form 4aa);
 2. by 5 p.m. on direct spot trade and trade with the execution date earlier than the spot currency date sale/purchase of foreign exchange (euros) to/from another bank, concluded from 12.30 a.m. to 4 p.m. (Form 4ab).

In line with the guidelines governing the preparation and electronic submission of data to the National Bank of Serbia, each 20th in the month, banks shall electronically submit to the National Bank of Serbia the report for the previous month on allowances for impairment for FX loans and currency-indexed bank loans (Form 8c).

As of 3 December 2012, banks are obliged to indicate in the forms 3a, 3b and 3v the identification of the resident clients according to the registration number, and of nonresident clients according to the SWIFT code.

Such a detailed reporting system enables the central bank to have all relevant information on all participants in the foreign exchange market (residents, non-residents, residents authorized to perform exchange operations), the amounts of purchased and sold foreign currency and foreign cash, the value date of transaction execution (spot date or date different than spot) and types of transactions (spot, forward or swap). All this contributes to the better monitoring and supervision of the functioning of the domestic foreign exchange market and a timely reaction when it comes to the application of foreign exchange interventions.

dinara prema evru, primenom principa pravilno ukrštenih kurseva i u skladu međuvalutnim odnosima na inostranim tržištima koji važe u vreme utvrđivanja tog kursa. Narodna banka Srbije, na početku svakog svog radnog dana, za zvanični srednji kurs dinara formira kursnu listu, koja se objavljuje i primenjuje od 8.00 časova tog radnog dana, do objavljivanja naredne kursne liste.

Narodna banka Srbije, istovremeno s formiranjem kursne liste za zvanični srednji kurs dinara, formira svoju kursnu listu za devize i kursnu listu za efektivni strani novac, koje objavljuje i primenjuje od 8.00 časova tog radnog dana, do objavljivanja naredne kursne liste za devize, odnosno za efektivni strani novac. Kupovni i prodajni kursevi Narodne banke Srbije za devize, odnosno za efektivni strani novac formiraju se oduzimanjem, odnosno dodavanjem marži za devize, odnosno za efektivni strani novac u odnosu na zvanični srednji kurs dinara.

Zvanični kurs dinara u odnosu na evro se formira kao prosečan kurs svih transakcija koje su poslovne banke zaključile na međubankarskom deviznom tržištu u valuti evro u periodu od 9 časova do 16 časova svakog radnog dana, kao i transakcija deviznih intervencija. Podaci o tim transakcijama su sadržani u Obrascu 4aa koji predstavlja izveštaj o neposrednoj spot trgovini i trgovini s datumom izvršenja kraćim od spot valute - prodaji drugoj banci i kupovini od druge banke deviza (evra), koje su zaključene od 9.00 do 12.30 časova i Obrascu 4ab koji predstavlja izveštaj o neposrednoj spot trgovini i trgovini s datumom izvršenja kraćim od spot valute - prodaji drugoj banci i kupovini od druge banke deviza (evra), koje su zaključene od 12.30 do 16.00 časova. Obrazac 4aa poslovne banke dostavljanju do 13:30 časova, a Obrazac 4ab do 17 časova svakog radnog dana.

Narodna banka Srbije, svakog svog radnog dana, po pravilu do 14.00 časova, na svojoj Internet prezentaciji objavljuje podatak o kursu dinara prema evru izračunatom na osnovu podataka o spot prodaji deviza (evra) i prodaji deviza (evra) s datumom izvršenja kraćim od spot valute koja je zaključena od 9.00 do 12.30 časova tog radnog dana (indikativni kurs dinara prema evru). Narodna banka Srbije može na svojoj Internet prezentaciji objavljivati

podatke o indikativnom kursu dinara prema dolaru i ovi podaci mogu se objavljivati dva puta u toku radnog dana, i to do 14 časova (podatak o indikativnom kursu dinara prema dolaru koji je izračunat na osnovu podatka o indikativnom kursu dinara prema evru i podatka o međuvalutnom odnosu evra prema dolaru na inostranim tržištima) i do 18 časova (podatak o indikativnom kursu dinara prema dolaru, koji je izračunat na osnovu podatka o zvaničnom srednjem kursu dinara prema evru i podatka o međuvalutnom odnosu evra prema dolaru na inostranim tržištima).

Vrste deviznih intervencija na domaćem deviznom tržištu

U režimu ciljanja inflacije, devizne intervencije predstavljaju retko korišćen sekundarni instrument, koji doprinosi ostvarivanju ciljane stope inflacije kada se iscrpi mogućnost za delotvorni uticaj referentne kamatne stope na inflaciju. Narodna banka Srbije devizne intervencije sprovodi izuzetno radi (NBSa):

1. ublažavanja preterane dnevne oscilacije kursa dinara,
2. obezbeđivanja finansijske stabilnosti, i
3. održavanja adekvatnog nivoa deviznih rezervi.

U Odluci o uslovima i načinu obavljanja spot kupovine i spot prodaje deviza između Narodne banke Srbije i banaka („Službeni glasnik RS“, br. 10/2011 i 18/2012) precizirano da se intervencija na domaćem deviznom tržištu mogu sprovoditi na aukcijama (na kojima banke dostavljaju ponude za kupovinu/prodaju deviza po utvrđenim pravilima i u utvrđenom roku) i bilateralno (na osnovu pojedinačne ponude banke za kupovinu/prodaju deviza, kao i na osnovu ponude Narodne banke Srbije).

Narodna banka Srbije može obavljati *aukcijsku spot kupovinu/prodaju deviza* - evra za dinare:

1. po fiksnom metodu - po kursu koji je Narodna banka Srbije unapred utvrdila i saopštila bankama;
2. po varijabilnom metodu - po kursu koji Narodna banka Srbije nije unapred utvrdila i saopštila bankama.

Aukcija po varijabilnom metodu može biti:

Formation and Publication of the Official Middle Exchange Rate of the Dinar

By 6 p.m. on each business day, the National Bank of Serbia publishes on its website the official middle exchange rate of the dinar against the euro, to be applied from 8 a.m. on the following business day. At the start of each business day, the National Bank of Serbia sets the official middle exchange rate of the dinar against other currencies specified in the National Bank of Serbia's Decision on Types of Foreign Exchange and Foreign Cash to be Purchased/Sold in the Foreign Exchange Market and bases its calculations on the official middle exchange rate of the dinar against the euro, applying the principle of crossed exchange rates of different currencies at the foreign markets applicable at the time of formation of such exchange rate. At the start of each business day, the National Bank of Serbia sets the exchange rate list for the official middle exchange rate of the dinar, which shall be published and applicable from 8 a.m. on that business day until the new exchange rate list is announced.

At the time of setting the exchange rate list for the official middle exchange rate of the dinar, the National Bank of Serbia also sets the exchange rate lists for foreign exchange and foreign cash, which shall apply as of 8 a.m. on that business day until the new foreign exchange and foreign cash exchange rate lists are published. Buying and selling exchange rates of the National Bank of Serbia for trading in foreign exchange and/or foreign currency cash are set by subtracting, and/or adding margins for foreign exchange, and/or foreign cash in relation to the official middle exchange rate of the dinar.

The official exchange rate of the dinar against the euro is formed as the average exchange rate of all transactions concluded by commercial banks at the interbank foreign exchange market in the euro currency in the period from 9 a.m. to 4 p.m. every working day, as well as transactions based on foreign exchange interventions. The data on these transactions are contained in Form 4aa which is a report on direct spot trade and trade with the execution date earlier than the spot currency date sale/

purchase of foreign exchange (euros) to/from another bank, concluded from 9.00 a.m. to 12.30 p.m. and Form 4ab which represents a report on direct spot trade and trade with the execution date earlier than the spot currency date sale/purchase of foreign exchange (euros) to/from another bank, concluded from 12.30 a.m. to 4 p.m. every working day. Banks are obliged to submit form 4aa to the National Bank of Serbia until 1.30 p.m., and form 4ab until 5 p.m.

By 2 p.m. of each business day, the National Bank of Serbia publishes on its website the information on the exchange rate of the dinar against the euro calculated based on the data on the spot sales of foreign exchange (euros) and sale of foreign exchange (euros) with the execution date earlier than the spot currency date, and concluded from 9.00 a.m. to 12.30 a.m. on that business day (indicative exchange rate of the dinar against the euro). The National Bank of Serbia may publish on its website the information on the indicative exchange rate of the dinar against the dollar. This information may be published twice during a business day, by 2 p.m. (information on the indicative exchange rate of the dinar against the dollar calculated based on the indicative exchange rate of the dinar against the euro and the exchange rate of the euro against the dollar in foreign market) and by 6 p.m. (information on the indicative exchange rate of the dinar against the dollar calculated based on the official middle exchange rate of the dinar against the euro and the exchange rate of the euro against the dollar in foreign markets).

Types of Foreign Exchange Interventions in the Domestic Foreign Exchange Market

In inflation targeting regime, foreign exchange interventions are a rarely used secondary instrument which contributes to the achievement of the targeted inflation rate after the effective impact of the key policy rate has been exhausted. The National Bank of Serbia applies foreign exchange interventions in exceptional circumstances, seeking to (NBSa):

1. mitigate excessive daily oscillations of the dinar exchange rate,
2. ensure financial stability, and

1. aukcija po višestrukom kursu dinara prema evru, kad Narodna banka Srbije kupuje/prodaje devize po kursu koji je ponudila banka čija je ponuda prihvaćena na aukciji;

2. aukcija po jedinstvenom kursu dinara prema evru, kad Narodna banka Srbije kupuje/prodaje devize po istom kursu od svake banke čija je ponuda prihvaćena na aukciji.
- Redosled pojedinačnih ponuda banaka na aukciji po varijabilnom metodu utvrđuje se prema visini kurseva navedenih u tim ponudama, i to počev od najviših do najnižih, ako Narodna banka Srbije prodaje devize, a od najnižih do najviših, ako Narodna banka Srbije kupuje devize.

Narodna banka Srbije može obavljati *bilateralnu spot kupovinu/prodaju deviza* s bankama tako što će:

1. pozvati banke da joj dostave svoje ponude za spot kupovinu/prodaju deviza;

2. dati svoju ponudu na osnovu pojedinačnog zahteva banke za spot kupovinu/prodaju deviza;

3. prihvatiti ponudu banke za spot kupovinu/prodaju deviza.

Na bazi usvojenih izmena Zakona o deviznom poslovanju ukinuta je mogućnost trgovine na međubankarskom deviznom tržištu (MDT). Zakonom o izmenama i dopunama Zakona od deviznom poslovanju („Službeni

glasnik RS“, br. 30/2018), koji je stupio na snagu 28. aprila 2018. godine, izmenjen je član 38. stav 2. Zakona, tako što je brisana mogućnost da se kupovina i prodaja deviza na deviznom tržišti može vršiti i na sastanku MDT-a. Sastank MDT se još nazivao fiksing sastanak. Fiksing sastanak je bio sastanak međubankarskog deviznog tržišta koji je Narodna banka Srbije svakodnevno organizovala u elektronskoj formi, od maja 2002. do juna 2007, posredstvom kog je sprovodila intervencije na međubankarskom deviznom tržištu. Na fiksing sastanku se, u procesu sučeljavanja ponude i tražnje za devizama - evrom, formirao fiksing kurs dinara prema evru, koji je predstavljao zvanični srednji kurs dinara prema evru. Fiksing kurs dinara prema evru formiran je na nivou na kome je bilo moguće da se obavi najveći mogući obim transakcija po jedinstvenom kursu - fiksing kursu. Sprovođenje intervencija Narodne banke Srbije na međubankarskom deviznom tržištu putem organizovanja fiksing sastanka predstavljalo je fazu u razvoju domaćeg deviznog tržišta, koja je završena kada je ukupan obim međubankarske trgovine devizama na međubankarskom deviznom tržištu izvan fiksing sastanka znatno premašio obim trgovine realizovan na fiksing sastanku (NBSb).

Tabela 2: Vrste deviznih intervencija na domaćem deviznom tržištu u Srbiji

u EUR

God.	Bilateralno		Spot aukcija		Sastanak MDT		Ukupno		Neto iznos
	prodaja	kupovina	prodaja	kupovina	prodaja	kupovina	prodaja	kupovina	
2007	148.000.000	0	0	0	560.650.000	0	708.650.000	0	708.650.000
2008	1.102.000.000	6.000.000	0	0	208.100.000	10.400.000	1.310.100.000	16.400.000	1.293.700.000
2009	0	0	100.500.000	0	556.400.000	0	656.900.000	0	656.900.000
2010	1.575.000.000	125.000.000	994.700.000	111.500.000	0	0	2.569.700.000	236.500.000	2.333.200.000
2011	90.000.000	45.000.000	0	0	0	0	90.000.000	45.000.000	45.000.000
2012	1.035.000.000	5.000.000	313.300.000	0	0	0	1.348.300.000	5.000.000	1.343.300.000
2013	435.000.000	615.000.000	0	0	0	0	435.000.000	615.000.000	-180.000.000
2014	1.880.000.000	260.000.000	0	0	0	0	1.880.000.000	260.000.000	1.620.000.000
2015	450.000.000	970.000.000	0	0	0	0	450.000.000	970.000.000	-520.000.000
2016	980.000.000	820.000.000	0	0	0	0	980.000.000	820.000.000	160.000.000
2017	630.000.000	1.355.000.000	0	0	0	0	630.000.000	1.355.000.000	-725.000.000
2018 ¹⁾	180.000.000	1.780.000.000	0	0	0	0	180.000.000	1.780.000.000	-1.600.000.000

Napomena: Prikazani podaci zaključno sa 31. avgustom 2018. godine
Izvor: Narodna banka Srbije

3. maintain an adequate level of foreign exchange reserves.

The Decision on Terms and Conditions of Foreign Exchange Spot Trading between the National Bank of Serbia and Banks (RS Official Gazette, No. 10/2011 and 18/2012) precisely states that the intervention on the domestic foreign exchange market can be performed at auctions (where banks bid for the purchase/sale of foreign exchange in line with the defined rules and within the established deadline) and on a bilateral basis (based on a single bank's bid for purchase/sale of foreign exchange, as well as based on the NBS's offer).

The National Bank of Serbia may perform *auction spot purchase/sale of foreign exchange* (euros for dinars):

1. at fixed rate auctions at the exchange rate predefined and announced by the National Bank of Serbia;
2. at variable rate auctions at the exchange rate not predefined and announced by the National Bank of Serbia.

Variable rate auctions may be:

1. multiple rate auctions at the multiple RSD/EUR exchange rate with the National Bank of Serbia purchasing/selling foreign exchange at the exchange rates offered by the banks whose bids were accepted at the auction;
2. single rate auctions at the single RSD/EUR exchange rate with the National Bank of Serbia purchasing/selling foreign exchange at the same exchange rate from each bank whose bid was accepted at the auction. The sequence of single banks' bids at a variable rate auction is established according to the level of exchange rates specified in those bids, starting from the highest to the lowest rates if the National Bank of Serbia sells foreign exchange, and from the lowest to the highest if the National Bank of Serbia purchases foreign exchange.

The National Bank of Serbia can perform *bilateral spot purchase/sale of foreign exchange* with banks by:

1. inviting banks to submit their bids for spot

purchase/sale of foreign exchange;

2. quoting its offer in response to a single bank's request for spot purchase/sale of foreign exchange;
3. accepting the bank's bid for spot purchase/sale of foreign exchange.

On the basis of the adopted amendments to the Law on Foreign Exchange Operations, the possibility of trading on the interbank foreign exchange market (IFEM) has been abolished. The Law on Changes and Amendments to the Law on Foreign Exchange Operations (Official Gazette of the Republic of Serbia, Nos 30/2018), which entered into force on 28 April 2018, amended Article 38, paragraph 2 of the Law, deleted the possibility that the purchase and sale of foreign exchange on the foreign exchange market can also be carried out at the IFEM meeting. The IFEM meeting was also referred to as the fixing meeting. The fixing meeting was a meeting of the interbank foreign exchange market, which the National Bank of Serbia organized on a daily basis in electronic form, from May 2002 to June 2007, through which it conducted interventions on the interbank foreign exchange market. The fixing meeting implied the process of matching the supply and demand for foreign currency - the euro, the fixing rate of the dinar exchange rate against the euro was formed, which represented the official middle exchange rate of the dinar against the euro. The fixing rate of the dinar exchange rate against the euro was formed at the level at which it was possible to carry out the largest possible volume of transactions at a single exchange rate - i.e. fixing exchange rate. The implementation of interventions by the National Bank of Serbia at the interbank foreign exchange market through the organization of the fixing meeting represented a phase in the development of the domestic foreign exchange market, which ended when the total volume of interbank foreign exchange trading at the interbank foreign exchange market outside the fixing meeting significantly exceeded the volume of trade realized at the fixing meeting (NBSb).

Prikazani podaci ukazuju da Narodna banka Srbije, kada su u pitanju devizne intervencije na domaćem deviznom tržištu, može primenjivati kupovinu i prodaju deviza-evra bilateralno i putem spot aukcija, koja je poslednji put održana u aprilu 2012. godine. Kako bismo unapredili sistem deviznih intervencija možemo predložiti devizne intervencije na forvard tržištu, svop tržištu i na tržištu opcija (Martin, 2018, 69-72). Centralna banka Tajlanda je tokom 1997. godine primenjivala devizne intervencije na forvard tržištu kada se desila finansijska kriza u Aziji (Chunanuntathum, 2002, 146). Primer korišćenja deviznih intervencija putem svop transakcija je Koreja, kod koje su sprovođenje intervencija putem svopa bile dejstvo zajedničke akcije ministarstva strategije i finansija Koreje i Centralne banke Koreje (Ryoo, Kwon, Lee, 2003, 209). Centralna banka Koreje je počela da primenjuje valutne svop transakcije u septembru 2007. godine i tokom globalne finansijske krize u 2008. godini u vrednosti od 10,27 milijardi američkih dolara. Pored toga, devizne intervencije se mogu sprovoditi putem opcija, koje je primenjivala Centralna banka Kolumbije tokom 1999. godine (Mandeng, 2003, 3-4).

Instrumenti zaštite od deviznog rizika

Rizik promene deviznog kursa se javlja kod svih privrednika koji imaju valutnu neusklađenost aktive i pasive u uslovima više ili manje fluktuirajućeg deviznog kursa. Zbog prirode posla, rizik promene deviznog kursa najviše je izražen kod privrednika koji se bave spoljnotrgovinskim poslovanjem. Za uvoznika, koji ima obavezu plaćanja uvoza u stranoj valuti određenog dana u budućnosti, rizik promene deviznog kursa znači rizik da domaća valuta oslabi, tako da na dan izvršenja svoje devizne obaveze mora da isplati veći iznos dinara nego što je planirao i zabeleži gubitak. Istovremeno, uvoznik bi bio na dobitku ukoliko bi domaća valuta ojačala, jer bi u budućnosti s manje dinara izmirivao svoju obavezu. Za izvoznika, suprotno tome, jačanje domaće valute znači potencijalni gubitak jer pri razmeni deviza od izvoza za domaću valutu dobija manji iznos dinara, dok slabljenje domaće valute za njega znači potencijalni dobitak, pri razmeni deviza od izvoza dobija se više dinara.

Zajedničko za uvoznike i izvoznike jeste to što, zbog rizika promene deviznog kursa, ne znaju unapred kakav će biti njihov krajnji finansijski rezultat. Zato ne mogu unapred da u cenu svojih proizvoda ukalkulišu rizik promene kursa, što im otežava planiranje poslovanja. Prema tome, osnovna funkcija zaštite od rizika promene deviznog kursa jeste otklanjanje posledica neizvesnosti u pogledu kretanja deviznog kursa u budućnosti. Za privrednike, uvoznike i izvoznike, konkretne prednosti ugovaranja zaštite od rizika promene deviznog kursa su sledeće:

1. mogućnost jasne kalkulacije novčanih tokova u budućnosti,
 2. mogućnost formiranja cena svojih proizvoda koje izvesno omogućuju realizaciju poslovnih planova,
 3. stabilnost u poslovanju i mogućnost da se preduzeće fokusira na svoj osnovni posao.
- Osnovni derivati koji se koriste radi zaštite od kursnog rizika su:

1. *devizni terminski ugovori (forvardi)* - koji omogućavaju kupovinu ili prodaju jedne valute za drugu po unapred određenom kursu s datumom izvršenja na određeni dan u budućnosti;
2. *valutni svopovi* - koji podrazumevaju ugovaranje istovremene kupovine i prodaje dve valute po unapred određenim kursovima na dva različita datuma u budućnosti;
3. *valutne opcije* - koje kupcu opcije daju pravo (ali ne i obavezu) da kupi ili proda određenu valutu po unapred određenom kursu u okviru unapred određenog perioda ili na unapred određeni dan u budućnosti, za šta kupac opcije plaća premiju.

Cena deviznih forvarda ili svopova je računska kategorija koja se određuje se na osnovu tekućeg kursa valute koja se kupuje/prodaje i razlike kamatnih stopa na dve valute. Ta formula polazi od pretpostavke ujednačavanja prinosa dve valute u roku ugovora. Zato kupci deviza, koje nose nižu kamatnu stopu nego na primer dinar, u budućnosti plaćaju devize po višem terminskom kursu od tekućeg (kompenzacija prinosa prodavcu). Ovakav terminski kurs ne treba posmatrati kao predviđanje kretanja kursa u budućnosti, već kao računsku kategoriju izvedenu iz kamatnog diferencijala (NBSc).

Table 2: Types of foreign exchange interventions at the domestic foreign exchange market in Serbia
in euro

Year	Bilateral		Spot auction		IFEM		Total		Net amount
	sale	purchase	sale	purchase	sale	purchase	sale	purchase	
2007	148,000,000	0	0	0	560,650,000	0	708,650,000	0	708,650,000
2008	1,102,000,000	6,000,000	0	0	208,100,000	10,400,000	1,310,100,000	16,400,000	1,293,700,000
2009	0	0	100,500,000	0	556,400,000	0	656,900,000	0	656,900,000
2010	1,575,000,000	125,000,000	994,700,000	111,500,000	0	0	2,569,700,000	236,500,000	2,333,200,000
2011	90,000,000	45,000,000	0	0	0	0	90,000,000	45,000,000	45,000,000
2012	1,035,000,000	5,000,000	313,300,000	0	0	0	1,348,300,000	5,000,000	1,343,300,000
2013	435,000,000	615,000,000	0	0	0	0	435,000,000	615,000,000	-180,000,000
2014	1,880,000,000	260,000,000	0	0	0	0	1,880,000,000	260,000,000	1,620,000,000
2015	450,000,000	970,000,000	0	0	0	0	450,000,000	970,000,000	-520,000,000
2016	980,000,000	820,000,000	0	0	0	0	980,000,000	820,000,000	160,000,000
2017	630,000,000	1,355,000,000	0	0	0	0	630,000,000	1,355,000,000	-725,000,000
2018 ¹⁾	180,000,000	1,780,000,000	0	0	0	0	180,000,000	1,780,000,000	-1,600,000,000

Note: Data as of 31 August 2018
Source: National Bank of Serbia

The presented data indicate that, when it comes to foreign exchange interventions at the domestic foreign exchange market, the National Bank of Serbia can use the purchase and sale of the foreign currency-euro bilaterally and through the spot auction, which was last held in April 2012. In order to improve the system of foreign exchange interventions, we can propose foreign exchange interventions on the forward market, swap market and options market (Martin, 2018, 69-72). In 1997, the Central Bank of Thailand used foreign exchange interventions on the forward market when the financial crisis in Asia occurred (Chunanuntathum, 2002, 146). An example of the use of foreign exchange interventions through swap transactions is Korea, where swap interventions were the effect of a joint action of the Ministry of Strategy and Finance of Korea and the Central Bank of Korea (Ryoo, Kwon, Lee, 2003, 209). The Central Bank of Korea has begun to apply currency swaps in September 2007 and during the global financial crisis in 2008, worth 10.27 billion US dollars. In addition, foreign exchange interventions can be implemented through options as applied by the Central Bank of Colombia during 1999 (Mandeng, 2003, 3-4).

Foreign Exchange Risk Protection Instruments

The exchange rate risk is faced by all companies with an asset-liability currency mismatch in the conditions of a more or less

fluctuating exchange rate. Due to the nature of their business, international trade companies are particularly vulnerable to this type of risk. For instance, *importers* are obliged to pay for imported goods in a foreign currency on a specific future date. If the home currency depreciates, they will record a loss, having to pay more dinars than planned on the day of settling their foreign currency obligation. By contrast, if the home currency appreciates, the importer will profit as he would need less dinars to settle his obligation on a future date. *For exporters*, home currency appreciation means a potential loss as they would get less dinars when exchanging export proceeds, while domestic currency depreciation means a potential gain or more dinars earned when exchanging export proceeds.

The exchange rate risk makes the end financial result uncertain for both importers and exporters. For this reason, they are unable to price their products in a way that reflects the exchange rate risk exposure, which makes business planning difficult. The key purpose of FX hedging is, therefore, to eliminate the consequences of uncertainties regarding future exchange rate fluctuations. FX hedging enables both importers and exporters to:

- 1. make a clear calculation of future cash flows,
- 2. set prices in a way which ensures the business plan implementation,
- 3. ensure operational stability and focus on their core activity.

Ukoliko se sagleda učešće terminske kupoprodaje deviza, kako u apsolutnom, tako i u relativnom iznosu, možemo zaključiti da je ono zanemarljivo malo (*Tabela 3*). Razloge treba tražiti u potencijalnom nerazumevanju hedžing instrumenata od strane rezidenata, neophodnosti da deo kreditnog limita iskoriste za zaključenje ovih instrumeneta čime se istovremeno smanjuje limit za neke druge bančine proizvode (krediti, prekoračenje po tekućem računu i slično), ali i duga procedura odobrenja limita od strane kreditnog odbora same banke, a na bazi prethodne preporuke sektora rizika.

U pogledu valutne strukture deviza koje rezidenti kupuju na termin dominira američki dolar (izuzetak je prvi kvartal 2013. i 2017. godine gde je ostvareno veće učešće evra u kupovini deviza na termin od strane rezidenata nego američkog dolara), dok je učešće evra i švajcarskog franka manje zastupljeno (*Tabela 4*). Veća zastupljenost američkog dolara je iz razloga što te instrumente najviše koriste preduzeća koja su usmerena na uvoz energenata, koje plaćaju u američkim dolarima.

Tabela 3: Devizne terminske transakcije rezidenata sa bankama

Godina	Forvard kupovina rezidenata			Forvard prodaja rezidenata		
	Iznos u mln evra	Prosečna ponderisana ročnost u danima	Učešće u ukupnoj kupovini (u %)	Iznos u mln evra	Prosečna ponderisana ročnost u danima	Učešće u ukupnoj prodaji (u %)
2012	754,7	38	6,7	1,3	18	0
2013	533,8	24	5	1,4	39	0
2014	430	15	4	0,8	35	0
2015	531	16	4,8	1,5	77	0
2016	450,5	22	3,9	12,9	263	0,1
2017	320,2	38	3,4	12,6	347	0,2

Izvor: Narodna banka Srbije, Izveštaj o dinarizaciji finansijskog sistema Srbije

Tabela 4: Valutna struktura kupljenih deviza na termin od strane rezidenata

Godina	Kvartal	USD	EUR	CHF	Godina	Kvartal	USD	EUR	CHF
2012.	T1	85,70%	10,13%	4,17%	2013.	T1	48,00%	48,10%	3,90%
	T2	70,10%	27,40%	2,50%		T2	77,80%	19,30%	2,90%
	T3	77,00%	19,23%	3,76%		T3	69,30%	26,10%	4,60%
	T4	73,80%	22,60%	3,60%		T4	85,30%	13,30%	1,40%
2014.	T1	78,90%	15,90%	5,20%	2015.	T1	69,30%	28,10%	2,60%
	T2	76,20%	19,80%	4,00%		T2	92,80%	6,90%	0,30%
	T3	83,40%	12,20%	4,40%		T3	95,80%	4,20%	0,00%
	T4	67,30%	29,90%	2,80%		T4	93,00%	7,00%	0,00%
2016.	T1	65,00%	35,00%	0,00%	2017.	T1	32,20%	67,90%	0,00%
	T2	52,10%	47,90%	0,00%		T2	53,00%	47,00%	0,00%
	T3	68,50%	31,50%	0,00%		T3	72,00%	28,00%	0,00%
	T4	63,00%	37,00%	0,00%		T4	74,00%	26,00%	0,00%

Izvor: Narodna banka Srbije, Izveštaj o dinarizaciji finansijskog sistema Srbije

The main derivatives used in FX hedging are:

1. *forex forwards* contracts to buy or sell a particular currency for another at an agreed future date and at an exchange rate agreed in advance;
2. *forex swaps* involving simultaneous purchase and sale of two currencies at predetermined exchange rates but at two different value dates;
3. *forex options* giving the option buyer the right (but not the obligation) to buy or sell a specific currency at a predetermined exchange rate within a predetermined time period or at a predetermined future date, for which the option buyer pays a premium.

The pricing of forex forwards or swaps is primarily a computation category. It is based on the current exchange rate of the currency being bought/sold and the difference in the interest rates on the two currencies involved. This formula starts from the premise of levelling off the yield on the two currencies over the contract time. If interest on foreign currency is lower than that on dinars, the buyers of foreign currency will, in the future, pay a forward rate which is higher than the current exchange rate (compensation of yield to the seller). The forward rate should not be seen as a forecast of future exchange rate movements, but rather as a computation category derived from the interest rate differential (NBSc).

If we look at the participation of the forward purchase of foreign currency, both in absolute and relative terms, we can conclude that it is negligible (*Table 3*). The reasons should be sought in the potential misunderstanding of hedging instruments by residents, the need to use part of the credit limit to arrange these instruments, which simultaneously reduces the limit for some other bank products (loans, current account overdraft, etc.), but also the long procedure of granting the limit by the foreign credit committee of the bank itself, based on the previous recommendation of the risk management department.

Table 3: FX forward transactions between residents and banks

Year	Forward purchase by residents			Forward sale by residents		
	Amount in EUR mln	Weighted average maturity in days	% share in total purchase	Amount in EUR mln	Weighted average maturity in days	% share in total purchase
2012	754.7	38	6.7	1.3	18	0
2013	533.8	24	5	1.4	39	0
2014	430	15	4	0.8	35	0
2015	531	16	4.8	1.5	77	0
2016	450.5	22	3.9	12.9	263	0.1
2017	320.2	38	3.4	12.6	347	0.2

Source: National Bank of Serbia, Report on Dinarization of the Serbian Financial System

Regarding the currency structure of the foreign currency that residents buy on forward, the dollar is dominant (with the exception of the first quarter of 2013 and 2017 when the euro's participation in the forward purchase of foreign currency was higher than that of the US dollar), while the shares of the euro and Swiss franc are less represented (*Table 4*). The higher representation of the US dollar is caused by the fact that these instruments are mostly used by the companies that are focused on energy imports, which are paid in US dollars.

Zaključak

Monetarni odbor Narodne banke Srbije usvojio je u decembru 2008. godine Memorandum o ciljanju (targetiranju) inflacije kao monetarnoj strategiji, kojim je definisao početak formalne primene režima targetiranja inflacije. U skladu sa izabranim režimom monetarne politike centralna banka je započela primenu rukovođeno fleksibilnog deviznog kursa. Ovakav izbor deviznog kursa je u saglasnosti sa izabranim režimom monetarne politike.

Analizom rada deviznog tržišta u Srbiji možemo zaključiti da je sistem izveštavanja domaćeg deviznog tržišta razvijen i da monetarnim vlastima pruža detaljan uvid u sve vrste transakcija, njihovu ročnost, učesnike i valutnu strukturu. Takav sistem izveštavanja pruža dobru informacionu osnovu Narodnu banci Srbije pri donošenju odluka o sprovođenju intervencija na deviznom tržištu.

Transparentnost rada deviznog tržišta se ogleda i u načinu formiranja i objave zvaničnog i indikativnog kursa dinara u odnosu na

evro i u odnosu na američki dolar. Upravo ta transparentost je zastupljena i kod načina sprovođenja deviznih intervencija kojima centralna banka nastoji da spreči preterane dnevne oscilacije kursa dinara u odnosu na evro, bez na utiče trend kretanja kursa.

Isto tako razvijeni su i instrumenti za zaštitu od rizika deviznog kursa. Ipak ne može se zaključiti da postoji masovna upotreba tih instrumenata, kako od uvoznika, tako i od izvoznika, što otvara prostor za njihovu dalju promociju od strane monetarnih vlasti i predstavnika poslovnih banaka.

Dalji razvoj deviznog tržišta u Srbiji mogao bi da bude zasnovan na daljoj prezentaciji postojećih instrumenata za zaštitu od deviznog rizika, kako bi se postigla njihova veća zastupljenost, potom kroz uvođenje deviznih intervencija na forvard tržištu, svop tržištu i tržištu opcija i kroz potencijalno uvođenje novih valuta na listu raspoloživih deviza i efektivnog stranog novca. To bi dalje vodilo potencijalnom povećanju broja učesnika na deviznom tržištu, porastu obima prometa i diversifikaciji trgovanja sa aspekta vrsta transakcija.

Table 4: Currency structure of FX forward transactions between residents and banks

Year	Quarter	USD	EUR	CHF	Year	Quarter	USD	EUR	CHF
2012	T1	85.70%	10.13%	4.17%	2013	T1	48.00%	48.10%	3.90%
	T2	70.10%	27.40%	2.50%		T2	77.80%	19.30%	2.90%
	T3	77.00%	19.23%	3.76%		T3	69.30%	26.10%	4.60%
	T4	73.80%	22.60%	3.60%		T4	85.30%	13.30%	1.40%
2014	T1	78.90%	15.90%	5.20%	2015	T1	69.30%	28.10%	2.60%
	T2	76.20%	19.80%	4.00%		T2	92.80%	6.90%	0.30%
	T3	83.40%	12.20%	4.40%		T3	95.80%	4.20%	0.00%
	T4	67.30%	29.90%	2.80%		T4	93.00%	7.00%	0.00%
2016	T1	65.00%	35.00%	0.00%	2017	T1	32.20%	67.90%	0.00%
	T2	52.10%	47.90%	0.00%		T2	53.00%	47.00%	0.00%
	T3	68.50%	31.50%	0.00%		T3	72.00%	28.00%	0.00%
	T4	63.00%	37.00%	0.00%		T4	74.00%	26.00%	0.00%

Source: National Bank of Serbia, Report on Dinarization of the Serbian Financial System

Conclusion

The Monetary Board of the National Bank of Serbia adopted the Memorandum of Targeting Inflation as a Monetary Strategy in December 2008, defining the beginning of the formal application of the inflation targeting regime. In accordance with the chosen monetary policy regime, the central bank begun implementing the managed flexible exchange rate. This choice of exchange rate is in accordance with the chosen monetary policy regime.

By analyzing the operation of the foreign exchange market in Serbia, we can conclude that the reporting system of the domestic foreign exchange market is developed, providing monetary authorities with a detailed insight into all types of transactions, their maturity, participants and currency structure. Such a reporting system provides a good information base to the National Bank of Serbia when making decisions on the implementation of interventions in the foreign exchange market.

Transparency of the foreign exchange market operation is reflected in the way of forming and publishing the official and indicative exchange rate of the dinar against the euro and against

the US dollar. This transparency is also present in the manner of conducting foreign exchange interventions that the central bank uses to prevent excessive daily fluctuations in the exchange rate of the dinar against the euro, without affecting the trend of the exchange rate.

Foreign exchange rate risk instruments have also been developed. However, it cannot be concluded that there is a mass usage of these instruments, either by importers or exporters, which opens space for their further promotion by the monetary authorities and representatives of commercial banks.

Further development of the foreign exchange market in Serbia could be based on the further presentation of the existing instruments for protection against foreign currency risk, in order to make them more widespread, in combination with the introduction of foreign exchange interventions on the forward, swap and option market and the potential introduction of new currencies onto the list of available foreign exchange and foreign exchange cash. This would potentially further increase the number of participants in the foreign exchange market, the volume of trading and the diversification of trading from the aspect of transaction types.

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