

NATIONAL BANK OF SERBIA

**ANALYSIS OF PROFITABILITY OF
DINAR AND FX SAVINGS**

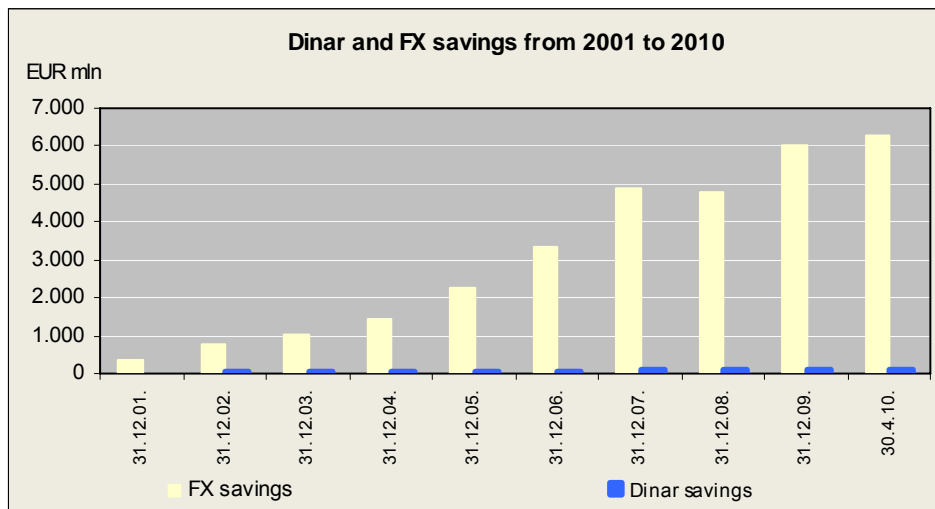
Belgrade, October 2010

Analysis of profitability of dinar and FX savings

Introduction

In the period from 2001 to April 2010 dinar savings rose from RSD 1,558 mln (EUR 26 mln) to RSD 11,646 mln (EUR 117 mln), or seven and a half times over. Though the amount of dinar savings remains quite modest (Chart 1) in comparison to the volume of FX savings, its maturity structure shows improvement. The share of up to one year savings deposits rose from 11.0% in 2001 to 27.5% in April 2010, while the share of sight deposits declined.

Chart 1:



Source: National Bank of Serbia.

Increasing almost twentyfold over the same period, the volume of FX savings reached EUR 6,276 mln by end-April 2010. The increase was continuous all the way up to October 2008 when, due to the global financial crisis, the volume of FX savings declined by about one billion euros by the end of the same year. A modest increase was however recorded as early as in January 2009 and the pre-crisis level was restored already by the end of the year.

The maturity structure of FX savings changed during the period observed in favour of longer term deposits. The share of up to one-year deposits rose from 4.2% in 2001 to 40.8% in April 2010, and that of long-term deposits from 1.3% to 12.2% at the expense of sight and three-month deposits.

Considering that the volume of FX savings much exceeded that in dinars during the period between 2001 and April 2010, the question arises as to whether saving in foreign currency was really more profitable than saving in dinars. To verify the above, we carried out two comparative analyses - the rollover of savings and savings profitability by period - to compare interest earnings on FX versus dinar savings during the period observed. Both analyses have shown that at times saving in dinars was more profitable than saving in foreign currency, and at times saving in foreign currency was more profitable, but that on the whole, it was more profitable to save in dinars for most of the period observed.

1. Background data

In calculation of interest on dinar savings during the 2001–April 2010 period, we used the official statistical data of the National Bank of Serbia relating to interest rates applied by banks on three-month and one-year dinar deposits.

Lacking official interest rate statistics on FX time deposits, several calculations were conducted assuming rates of interest of 5.0%, 7.0% and 7.5% since those rates were most commonly applied on FX time savings during the period observed. Based on NBS data, weighted average interest rate paid on one-year FX deposits between 2007 and 2009 ranged from 4.54% to 8.15% per annum. Average interest rate paid on FX savings during the period observed was 6.3%, which is closest to the rate of 7.0%. Weighted average interest rate on three-month deposits ranged from 3.66% to 7.45% per annum. Hence, the weighted average interest rate on FX savings of 4.9% is closest to the rate of 5%.

Interest earnings on dinar and FX savings deposits are reduced at the end of the year by capital gains tax liability. Until 2005, a 20% capital gains tax was applied on earnings from dinar savings. From 2005 the capital gain tax on dinar savings was lifted. Capital gains tax on FX savings was 20% until 26 March 2010, but was temporarily lifted in 2009 due to the global financial crisis. Since 27 March 2010, the capital gains tax rate has been 10%.

2. Analysis

The analysis compared the profitability of dinar and FX savings (rollover of savings and savings profitability by period) from 2001 to 2010.

2.1. Rollover of savings

In the first set of analyses it is assumed that one-year time deposits of EUR 1,000 and the dinar equivalent of EUR 1,000 are placed on 1 January in each of the years in the period observed. Interest accrual on deposits is calculated on a monthly basis and the deposits, increased by the amount of interest accrued, are rolled over each year on the same terms until April 2010. In other words, the first savings deposits in euros and in dinars were placed in January 2001 and increased on maturity by the amount of interest accrued and rolled over year after year until April 2010. The second set of time deposits in euros and in dinars were placed in January 2002 and rolled over each year until April 2010.

The period of analysis that was carefully observed were years since the adoption of the new monetary policy programme and implementation of informal inflation targeting regime, in August 2006. In the analysis, we assumed that savings deposits in the amount of EUR 1,000 and the dinar equivalent of EUR 1,000 were placed on 1 August and rolled over on the same terms each year until April 2010.

The analysis of profitability of savings initially deposited on 1 January 2001 and 1 August 2006 and rolled over until end-2010 was made under the following assumptions:

- interest rates on dinar savings equals those applied in April 2010,
- 7% per annum interest rates on FX savings,
- end-2010 exchange rate remains at its August level of 105 dinars for one euro.

2.2. Analysis of the profitability of savings by period

In the second set of analyses, profitability of savings in dinars versus FX was analysed at the end of the term for three-month and one-year savings deposits. It was assumed that three-month and one-year savings deposits in the amount of EUR 1,000 and the dinar equivalent of EUR 1,000 were placed each month in the period from 2001 to 2010. The results on interest earnings were compared at the end of the deposit term (interest was not accrued on a monthly basis but paid out at the end of the term).

The first period observed for one-year time savings is January 2001–January 2002. The second period observed is February 2001–February 2002, and so on. The last period observed is December 2009–December 2010. Total number of periods observed is 108.

In terms of three-month deposits, the first period observed is January 2001– April 2001, the second period observed is February 2001–May 2001, and so on, while the last period observed is December 2009–March 2010, totalling 108 periods.

3. *Results*

3.1. Rollover of savings

The calculations for the 2001–April 2010 period show that dinar savings deposited before 2008 were more profitable than FX savings, except for FX savings paying 7.5% interest (the highest of the three interest rates). The effect of depreciation of the domestic currency did not offset the difference in interest rates and tax treatment between dinar and FX savings in the last ten years (Table 1).

Calculations show that dinar savings deposited before 2007 were more profitable than FX savings paying interest of 7.5%. For EUR 1,000 deposited in dinars in January 2001, a depositor would get EUR 2,816 on 30 April 2010, whereas for EUR 1,000 deposited in euros, he would get only EUR 1,747 (Table 1 and Chart 2).

Table1: Comparative analysis of savings profitability – RSD vs. FX from 2001 to 2010

FX SAVINGS PAYING 5% INTEREST

Start of saving	Exchange rate	Interest rate on household FX deposits	Amount of savings in EUR	Amount of savings in RSD	Total FX savings principal + interest on 30/04/2010	Total RSD savings principal + interest on 30/04/2010	Total RSD savings recalculated to EUR on 30/04/2010	Total FX savings tax-deducted on 30/04/2010	Total RSD savings tax-deducted on 30/04/2010	Total RSD savings recalculated to EUR on 30/04/2010
01.01.2001.	58.6750	5.00	1.000,00	58.675,00	1.576,41	333.134,26	3.355,90	1.456,16	279.571,92	2.816,33
01.01.2002.	59.6305	5.00	1.000,00	59.630,50	1.501,35	207.936,36	2.094,69	1.400,15	189.095,04	1.904,89
01.01.2003.	61.5845	5.00	1.000,00	61.584,50	1.429,85	172.161,67	1.734,31	1.346,30	163.028,16	1.642,30
01.01.2004.	68.4861	5.00	1.000,00	68.486,10	1.361,76	165.544,82	1.667,65	1.294,52	161.123,46	1.623,11
01.01.2005.	79.0803	5.00	1.000,00	79.080,30	1.296,92	165.626,63	1.668,47	1.244,73	165.626,63	1.668,47
01.01.2006.	85.5000	5.00	1.000,00	85.500,00	1.235,16	154.424,73	1.555,63	1.196,86	154.424,73	1.555,63
01.08.2006.	83.0500	5.00	1.000,00	83.050,00	1.200,65	136.884,06	1.378,93	1.169,85	136.884,06	1.378,93
01.01.2007.	79.0000	5.00	1.000,00	79.000,00	1.176,34	121.921,07	1.228,20	1.150,82	121.921,07	1.228,20
01.01.2008.	79.2362	5.00	1.000,00	79.236,20	1.120,33	106.428,37	1.072,13	1.106,56	106.428,37	1.072,13
01.01.2009.	88.6010	5.00	1.000,00	88.601,00	1.066,98	104.945,72	1.057,19	1.064,00	104.945,72	1.057,19
01.01.2010.	95.8888	5.00	1.000,00	95.888,80	1.016,17	99.831,67	1.005,68	1.013,33	99.831,67	1.005,68

FX SAVINGS PAYING 7% INTEREST

01.01.2001.	58.6750	7.00	1.000,00	58.675,00	1.879,81	333.134,26	3.355,90	1.685,29	279.571,92	2.816,33
01.01.2002.	59.6305	7.00	1.000,00	59.630,50	1.756,83	207.936,36	2.094,69	1.595,92	189.095,04	1.904,89
01.01.2003.	61.5845	7.00	1.000,00	61.584,50	1.641,90	172.161,67	1.734,31	1.511,29	163.028,16	1.642,30
01.01.2004.	68.4861	7.00	1.000,00	68.486,10	1.534,49	165.544,82	1.667,65	1.431,14	161.123,46	1.623,11
01.01.2005.	79.0803	7.00	1.000,00	79.080,30	1.434,10	165.626,63	1.668,47	1.355,25	165.626,63	1.668,47
01.01.2006.	85.5000	7.00	1.000,00	85.500,00	1.340,28	154.424,73	1.555,63	1.283,38	154.424,73	1.555,63
01.08.2006.	83.0500	7.00	1.000,00	83.050,00	1.288,63	136.884,06	1.378,93	1.243,29	136.884,06	1.378,93
01.01.2007.	79.0000	7.00	1.000,00	79.000,00	1.252,60	121.921,07	1.228,20	1.215,32	121.921,07	1.228,20
01.01.2008.	79.2362	7.00	1.000,00	79.236,20	1.170,65	106.428,37	1.072,13	1.150,87	106.428,37	1.072,13
01.01.2009.	88.6010	7.00	1.000,00	88.601,00	1.094,07	104.945,72	1.057,19	1.089,84	104.945,72	1.057,19
01.01.2010.	95.8888	7.00	1.000,00	95.888,80	1.022,49	99.831,67	1.005,68	1.018,54	99.831,67	1.005,68

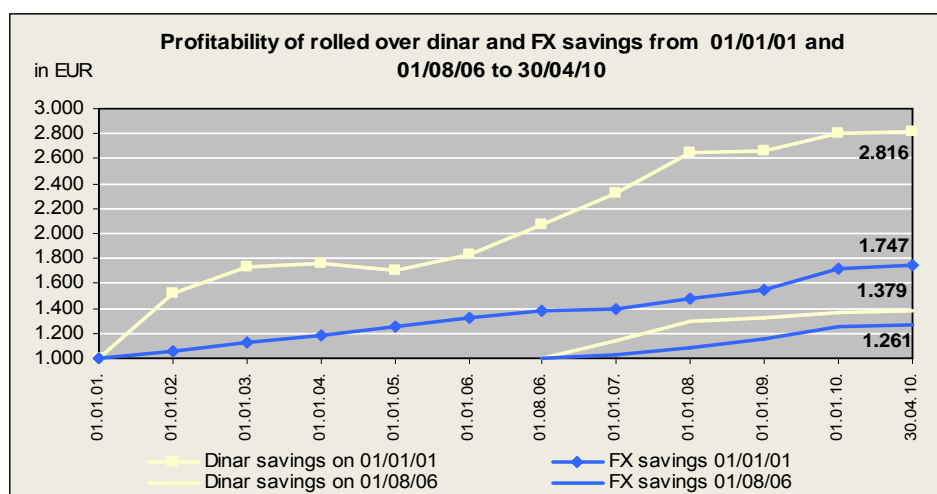
FX SAVINGS PAYING 7.5% INTEREST

01.01.2001.	58.6750	7.50	1.000,00	58.675,00	1.963,37	333.134,26	3.355,90	1.747,37	279.571,92	2.816,33
01.01.2002.	59.6305	7.50	1.000,00	59.630,50	1.826,39	207.936,36	2.094,69	1.648,47	189.095,04	1.904,89
01.01.2003.	61.5845	7.50	1.000,00	61.584,50	1.698,97	172.161,67	1.734,31	1.555,16	163.028,16	1.642,30
01.01.2004.	68.4861	7.50	1.000,00	68.486,10	1.580,44	165.544,82	1.667,65	1.467,13	161.123,46	1.623,11
01.01.2005.	79.0803	7.50	1.000,00	79.080,30	1.470,17	165.626,63	1.668,47	1.384,08	165.626,63	1.668,47
01.01.2006.	85.5000	7.50	1.000,00	85.500,00	1.367,60	154.424,73	1.555,63	1.305,74	154.424,73	1.555,63
01.08.2006.	83.0500	7.50	1.000,00	83.050,00	1.311,35	136.884,06	1.378,93	1.260,61	136.884,06	1.378,93
01.01.2007.	79.0000	7.50	1.000,00	79.000,00	1.272,19	121.921,07	1.228,20	1.231,83	121.921,07	1.228,20
01.01.2008.	79.2362	7.50	1.000,00	79.236,20	1.183,43	106.428,37	1.072,13	1.162,10	106.428,37	1.072,13
01.01.2009.	88.6010	7.50	1.000,00	88.601,00	1.100,87	104.945,72	1.057,19	1.096,32	104.945,72	1.057,19
01.01.2010.	95.8888	7.50	1.000,00	95.888,80	1.024,06	99.831,67	1.005,68	1.019,84	99.831,67	1.005,68

Source: National Bank of Serbia.

Analysis of savings profitability from the start of implementation of the new monetary policy framework (August 2006) to April 2010 reveals that dinar savings were more profitable even when compared with FX savings paying 7.5% (Table 1 and Chart 2). For example, for EUR 1,000 deposited in dinars in August 2006 a depositor would get EUR 1,379 on 30 April this year, whereas for the same amount deposited in euros, she would receive EUR 1,261.

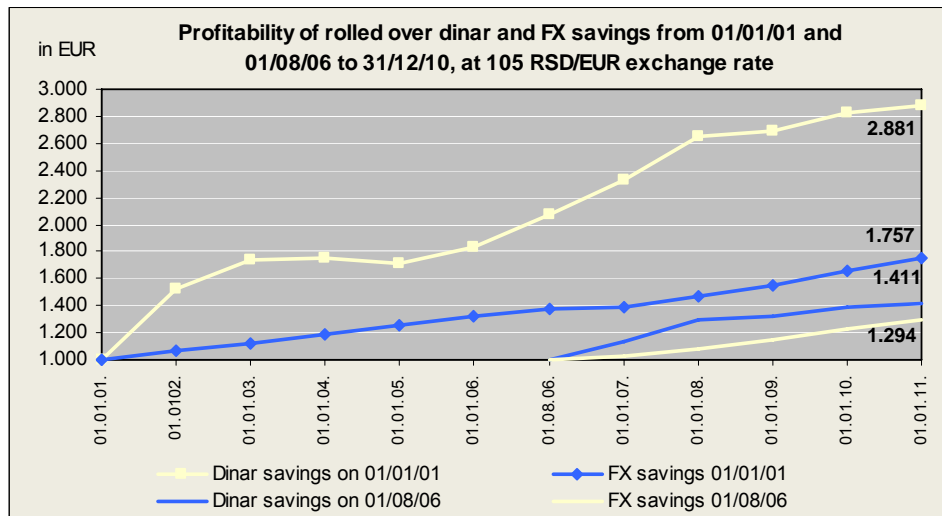
Chart 2:



Source: National Bank of Serbia.

The savings profitability projection until the end of 2010 indicates that for EUR 1,000 deposited in dinars on 1 January 2001, at August 2010 exchange rate, a depositor would get EUR 2,881 (principal plus accrued interest tax deducted) on 31 December 2010, whereas for the same amount deposited in FX, he would get only 1,757 (Chart 3). Dinar savings appear to be more profitable until the end of 2010 even if initially termed in August 2006. In that case, at year-end, dinar savings would equal EUR 1,411 and FX savings EUR 1,294.

Chart 3:



Source: National Bank of Serbia

The savings profitability projection until the end of 2010 shows that dinar savings deposited on 1 January 2001 would be more profitable than FX savings at all exchange rates up to the rate of 172 dinars for one euro.

If the period from the adoption of the new monetary policy framework until end-2010 is observed, dinar savings would be more profitable than FX savings at all exchange rates up to the rate of 114.5 dinars for one euro.

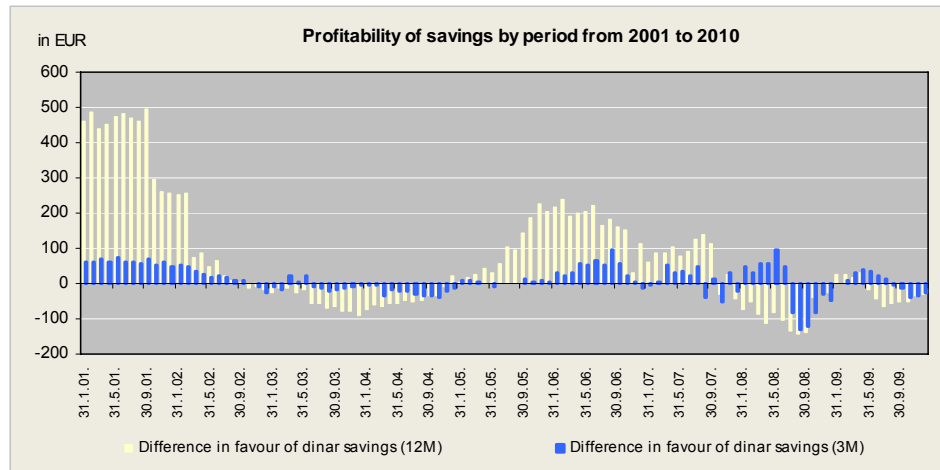
3.2. Profitability by period

The second analysis has shown that from 2001 to 2010 one-year time savings in dinars were more profitable than savings in FX for a larger number of periods. When comparing one-year time savings in dinars with the same maturity FX savings with a per annum interest of 5.0%, dinar savings are more profitable in 67 out of 108 periods. FX savings were more profitable in 41 periods, or to be more specific, from April 2003 to November 2004, then from end-2007 to November 2008, as well as from May 2009 onwards due to the depreciation of the dinar and a concurrent decrease in interest rates on dinar savings. What further reinforced the profitability of FX savings from February 2009 until the end of that year was the suspension of tax on capital gains on FX savings in that period.

Saving in dinars paid off more in a larger number of periods even at 7.0 and 7.5% interest on FX savings – in 61 periods in case of the former (Table 2 in the Appendix and Chart 4) and in 58 periods in case of the latter.

Three-month time deposits in dinars were more profitable in a larger number of periods than those in FX. At a 5.0% p.a. interest on three-month FX deposits, savings in dinars proved more profitable in 63 periods and savings in FX in 45 periods (Table 3 in the Appendix and Chart 4). At an interest rate of 7.0% on FX savings, dinar savings continue to be more profitable in 59 periods. The outcome is similar even at a 7.5% interest on FX savings, in which case savings in dinars are more profitable in 58 and savings in FX in 50 periods.

Chart 4:



Source: National Bank of Serbia.

4. Conclusion

Comparative analyses of the profitability of dinar and FX savings from 2001 to 2010 have shown that:

- dinars savings deposited from 2001 to 2008 and rolled over until April 2010 were more profitable than FX savings paying interest of 5% and 7%, while compared against FX savings paying 7.5% interest, savings in dinars were more profitable up to 2007;
- dinar savings deposited in August 2006 and rolled over until April 2010 paid off better than FX savings for each of the three interest rates on FX savings analysed;
- dinar savings deposited in January 2001 or in August 2006 would be more profitable at the end of 2010 than FX savings up to the exchange rate of 172 or 114.5 dinars for one euro;
- one-year and three-month dinar savings paid off better than FX savings of the same maturities in a larger number of periods observed.

The analyses have shown that for the most part of the period observed it was more profitable to save in dinars than in FX, especially for longer maturities, owing primarily to significantly higher interest rates on dinar savings, as well as to their more favourable tax treatment, since dinar savings have been exempt from the capital gains taxation since 2005.

One can never tell with certainty which savings will be more profitable in the period ahead but the results of the analyses indicate that saving in dinars mostly paid off better over the past ten years. Most households, however, choose to save in FX due to the history of macroeconomic instability and hyperinflation especially during the 1990s when dinar savings were rendered worthless. Households' preferences and the profitability of dinar savings in the future will depend primarily on the overall macroeconomic stability, inflation, interest rate differential between dinar and FX savings, tax treatment and the degree of appreciation/depreciation of the dinar.

Appendix

Table 2: Comparative analysis of 12M savings profitability – RSD vs. FX from 2001 to 2010

Initial deposit			Interest rate on 12M time savings, p.a.		Deposit at the end of the term					Dinar savings more profitable
Date	Savings in EUR	Savings in RSD	FX savings	Dinar savings	Date	Savings in EUR	Savings in RSD	Dinar savings in euro terms	Difference in favour of dinar savings	
1	2	3	4	5	6	7	8	9	10	
31.1.2001.	1.000	58.623	7,00	69,62	31.1.2002.	1.056	91.275	1.517	461	+
28.2.2001.	1.000	58.905	7,00	71,61	28.2.2002.	1.056	92.651	1.543	487	+
31.3.2001.	1.000	59.283	7,00	65,28	31.3.2002.	1.056	90.244	1.497	441	+
30.4.2001.	1.000	59.324	7,00	66,90	30.4.2002.	1.056	91.075	1.507	451	+
31.5.2001.	1.000	59.616	7,00	69,24	31.5.2002.	1.056	92.638	1.531	475	+
30.6.2001.	1.000	59.368	7,00	71,43	30.6.2002.	1.056	93.295	1.538	482	+
31.7.2001.	1.000	59.612	7,00	69,43	31.7.2002.	1.056	92.723	1.525	469	+
31.8.2001.	1.000	59.676	7,00	68,48	31.8.2002.	1.056	92.368	1.516	460	+
30.9.2001.	1.000	59.759	7,00	72,64	30.9.2002.	1.056	94.485	1.551	495	+
31.10.2001.	1.000	59.975	7,00	46,90	31.10.2002.	1.056	82.476	1.350	294	+
30.11.2001.	1.000	60.094	7,00	43,45	30.11.2002.	1.056	80.982	1.315	259	+
31.12.2001.	1.000	59.706	7,00	44,24	31.12.2002.	1.056	80.836	1.314	258	+
31.1.2002.	1.000	60.177	7,00	44,40	31.1.2003.	1.056	81.554	1.307	251	+
28.2.2002.	1.000	60.054	7,00	48,13	28.2.2003.	1.056	83.177	1.314	258	+
31.3.2002.	1.000	60.287	7,00	25,82	31.3.2003.	1.056	72.741	1.130	74	+
30.4.2002.	1.000	60.442	7,00	26,03	30.4.2003.	1.056	73.031	1.141	85	+
31.5.2002.	1.000	60.526	7,00	24,52	31.5.2003.	1.056	72.399	1.103	47	+
30.6.2002.	1.000	60.641	7,00	23,50	30.6.2003.	1.056	72.042	1.121	65	+
31.7.2002.	1.000	60.809	7,00	18,88	31.7.2003.	1.056	69.996	1.076	20	+
31.8.2002.	1.000	60.942	7,00	17,38	31.8.2003.	1.056	69.413	1.063	7	+
30.9.2002.	1.000	60.930	7,00	18,29	30.9.2003.	1.056	69.844	1.059	3	+
31.10.2002.	1.000	61.101	7,00	17,65	31.10.2003.	1.056	69.727	1.044	-12	
30.11.2002.	1.000	61.596	7,00	18,86	30.11.2003.	1.056	70.888	1.047	-9	
31.12.2002.	1.000	61.515	7,00	19,44	31.12.2003.	1.056	71.081	1.041	-15	
31.1.2003.	1.000	62.414	7,00	17,38	31.1.2004.	1.056	71.090	1.032	-24	
28.2.2003.	1.000	63.292	7,00	18,03	28.2.2004.	1.056	72.423	1.042	-14	
31.3.2003.	1.000	64.383	7,00	16,43	31.3.2004.	1.056	72.843	1.044	-12	
30.4.2003.	1.000	63.986	7,00	16,32	30.4.2004.	1.056	72.338	1.029	-27	
31.5.2003.	1.000	65.625	7,00	15,62	31.5.2004.	1.056	73.823	1.038	-18	
30.6.2003.	1.000	64.268	7,00	15,34	30.6.2004.	1.056	72.156	1.000	-56	
31.7.2003.	1.000	65.032	7,00	14,95	31.7.2004.	1.056	72.807	998	-58	
31.8.2003.	1.000	65.291	7,00	14,28	31.8.2004.	1.056	72.749	987	-69	
30.9.2003.	1.000	65.956	7,00	15,90	30.9.2004.	1.056	74.344	991	-65	
31.10.2003.	1.000	66.775	7,00	14,41	31.10.2004.	1.056	74.474	977	-79	
30.11.2003.	1.000	67.689	7,00	14,93	30.11.2004.	1.056	75.772	980	-76	
31.12.2003.	1.000	68.313	7,00	14,54	31.12.2004.	1.056	76.262	967	-89	
31.1.2004.	1.000	68.883	7,00	14,45	31.1.2005.	1.056	78.839	982	-74	
28.2.2004.	1.000	69.517	7,00	15,24	28.2.2005.	1.056	80.109	995	-61	
31.3.2004.	1.000	69.800	7,00	14,86	31.3.2005.	1.056	80.169	989	-67	
30.4.2004.	1.000	70.305	7,00	15,94	30.4.2005.	1.056	81.514	1.000	-56	
31.5.2004.	1.000	71.142	7,00	15,26	31.5.2005.	1.056	81.997	999	-57	
30.6.2004.	1.000	72.176	7,00	15,53	30.6.2005.	1.056	83.382	1.007	-49	
31.7.2004.	1.000	72.979	7,00	15,12	31.7.2005.	1.056	84.016	1.005	-51	
31.8.2004.	1.000	73.744	7,00	15,26	31.8.2005.	1.056	84.996	1.007	-49	
30.9.2004.	1.000	75.000	7,00	15,53	30.9.2005.	1.056	86.644	1.023	-33	
31.10.2004.	1.000	76.255	7,00	14,32	31.10.2005.	1.056	87.175	1.019	-37	
30.11.2004.	1.000	77.347	7,00	16,93	30.11.2005.	1.056	90.439	1.047	-9	
31.12.2004.	1.000	78.885	7,00	16,61	31.12.2005.	1.056	91.987	1.076	20	+

Source: National Bank of Serbia.

Initial deposit			Interest rate on 12M time savings, p.a.		Deposit at the end of the term					Dinar savings more profitable
Date	Savings in EUR	Savings in RSD	FX savings	Dinar savings	Date	Savings in EUR	Savings in RSD	Dinar savings in euro terms	Difference in favour of dinar savings	
1	2	3	4	5	6	7	8	9	10	
31.1.2005.	1.000	80.287	7,00	15,21	31.1.2006.	1.056	92.501	1.062	6	+
28.2.2005.	1.000	80.520	7,00	16,67	28.2.2006.	1.056	93.945	1.073	17	+
31.3.2005.	1.000	81.052	7,00	15,88	31.3.2006.	1.056	93.927	1.081	25	+
30.4.2005.	1.000	81.498	7,00	16,60	30.4.2006.	1.056	95.023	1.100	44	+
31.5.2005.	1.000	82.040	7,00	16,15	31.5.2006.	1.056	95.293	1.087	31	+
30.6.2005.	1.000	82.775	7,00	15,48	30.6.2006.	1.056	95.589	1.111	55	+
31.7.2005.	1.000	83.630	7,00	15,08	31.7.2006.	1.056	96.241	1.160	104	+
31.8.2005.	1.000	84.430	7,00	15,48	31.8.2006.	1.056	97.501	1.152	96	+
30.9.2005.	1.000	84.700	7,00	16,18	30.9.2006.	1.056	98.401	1.200	144	+
31.10.2005.	1.000	85.526	7,00	16,02	31.10.2006.	1.056	99.227	1.242	186	+
30.11.2005.	1.000	86.371	7,00	16,60	30.11.2006.	1.056	100.705	1.280	224	+
31.12.2005.	1.000	85.500	7,00	16,29	31.12.2006.	1.056	99.428	1.259	203	+
31.1.2006.	1.000	87.120	7,00	15,62	31.1.2007.	1.056	100.725	1.275	219	+
28.2.2006.	1.000	87.516	7,00	18,34	28.2.2007.	1.056	103.564	1.295	239	+
31.3.2006.	1.000	86.901	7,00	17,10	31.3.2007.	1.056	101.764	1.247	191	+
30.4.2006.	1.000	86.350	7,00	17,44	30.4.2007.	1.056	101.409	1.256	200	+
31.5.2006.	1.000	87.638	7,00	16,83	31.5.2007.	1.056	102.389	1.261	205	+
30.6.2006.	1.000	86.000	7,00	17,30	30.6.2007.	1.056	100.876	1.277	221	+
31.7.2006.	1.000	83.000	7,00	16,97	31.7.2007.	1.056	97.083	1.221	165	+
31.8.2006.	1.000	84.600	7,00	16,97	31.8.2007.	1.056	98.955	1.239	183	+
30.9.2006.	1.000	82.000	7,00	17,16	30.9.2007.	1.056	96.069	1.218	162	+
31.10.2006.	1.000	79.920	7,00	16,70	31.10.2007.	1.056	93.263	1.207	151	+
30.11.2006.	1.000	78.650	7,00	16,88	30.11.2007.	1.056	91.923	1.085	29	+
31.12.2006.	1.000	79.000	7,00	17,24	31.12.2007.	1.056	92.619	1.169	113	+
31.1.2007.	1.000	79.000	7,00	17,24	31.1.2008.	1.056	92.619	1.119	63	+
28.2.2007.	1.000	79.990	7,00	19,10	28.2.2008.	1.056	95.269	1.141	85	+
31.3.2007.	1.000	81.574	7,00	15,21	31.3.2008.	1.056	93.984	1.142	86	+
30.4.2007.	1.000	80.725	7,00	15,34	30.4.2008.	1.056	93.110	1.162	106	+
31.5.2007.	1.000	81.206	7,00	15,08	31.5.2008.	1.056	93.451	1.134	78	+
30.6.2007.	1.000	79.025	7,00	14,65	30.6.2008.	1.056	90.602	1.147	91	+
31.7.2007.	1.000	79.528	7,00	14,41	31.7.2008.	1.056	90.989	1.182	126	+
31.8.2007.	1.000	79.890	7,00	14,41	31.8.2008.	1.056	91.403	1.196	140	+
30.9.2007.	1.000	78.861	7,00	13,41	30.9.2008.	1.056	89.439	1.168	112	+
31.10.2007.	1.000	77.240	7,00	13,09	31.10.2008.	1.056	87.348	1.028	-28	
30.11.2007.	1.000	84.754	7,00	13,96	30.11.2008.	1.056	96.587	1.083	27	+
31.12.2007.	1.000	79.236	7,00	13,35	31.12.2008.	1.056	89.815	1.014	-42	
31.1.2008.	1.000	82.772	7,00	13,26	31.1.2009.	1.070	93.745	996	-74	
28.2.2008.	1.000	83.464	7,00	14,23	28.2.2009.	1.070	95.343	1.016	-54	
31.3.2008.	1.000	82.315	7,00	13,26	31.3.2009.	1.070	93.227	984	-86	
30.4.2008.	1.000	80.130	7,00	13,59	30.4.2009.	1.070	91.020	956	-114	
31.5.2008.	1.000	82.430	7,00	13,26	31.5.2009.	1.070	93.358	986	-84	
30.6.2008.	1.000	78.978	7,00	14,00	30.6.2009.	1.070	90.038	964	-106	
31.7.2008.	1.000	76.994	7,00	12,99	31.7.2009.	1.070	86.997	934	-136	
31.8.2008.	1.000	76.444	7,00	12,99	31.8.2009.	1.070	86.376	928	-142	
30.9.2008.	1.000	76.597	7,00	13,18	30.9.2009.	1.070	86.693	932	-138	
31.10.2008.	1.000	84.991	7,00	13,39	31.10.2009.	1.070	96.371	1.031	-39	
30.11.2008.	1.000	89.195	7,00	13,87	30.11.2009.	1.070	101.563	1.072	2	+
31.12.2008.	1.000	88.601	7,00	12,86	31.12.2009.	1.070	99.996	1.043	-27	
31.1.2009.	1.000	94.101	7,00	13,09	31.1.2010.	1.056	106.416	1.081	25	+
28.2.2009.	1.000	93.802	7,00	15,03	28.2.2010.	1.056	107.902	1.083	27	+
31.3.2009.	1.000	94.778	7,00	13,75	31.3.2010.	1.063	107.807	1.081	18	+
30.4.2009.	1.000	95.240	7,00	14,10	30.4.2010.	1.063	108.668	1.095	32	+
31.5.2009.	1.000	94.716	7,00	13,22	31.5.2010.	1.063	107.235	1.044	-19	
30.6.2009.	1.000	93.442	7,00	14,10	30.6.2010.	1.063	106.616	1.022	-41	
31.7.2009.	1.000	93.193	7,00	13,75	31.7.2010.	1.063	106.005	998	-65	
31.8.2009.	1.000	93.074	7,00	13,88	31.8.2010.	1.063	105.992	1.008	-55	
30.9.2009.	1.000	93.011	7,00	14,24	30.9.2010.	1.063	106.253	1.011	-52	
31.10.2009.	1.000	93.435	7,00	13,48	31.10.2010.	1.063	106.032	1.009	-54	
30.11.2009.	1.000	94.758	7,00	13,82	30.11.2010.	1.063	107.858	1.026	-37	
31.12.2009.	1.000	95.889	7,00	12,95	31.12.2010.	1.063	108.311	1.031	-32	

Source: National Bank of Serbia.

Table 3: Comparative analysis of 3M savings profitability – RSD vs. FX from 2001 to 2010

Initial deposit			Interest rate on 3M time savings, p.a.		Deposit at the end of the term					Dinar savings more profitable
Date	Savings in EUR	Savings in RSD	FX savings	Dinar savings	Date	Savings in EUR	Savings in RSD	Dinar savings in euro terms	Difference in favour of dinar savings	
1	2	3	4	5	6	7	8	9	10	
31.1.2001.	1.000	58.623	5,00	47,74	30.4.2001.	1.010	63.430	1.069	59	+
28.2.2001.	1.000	58.905	5,00	49,26	31.5.2001.	1.010	63.867	1.071	61	+
31.3.2001.	1.000	59.283	5,00	47,74	30.6.2001.	1.010	64.144	1.080	71	+
30.4.2001.	1.000	59.324	5,00	44,98	31.7.2001.	1.010	63.942	1.073	63	+
31.5.2001.	1.000	59.616	5,00	50,45	31.8.2001.	1.010	64.743	1.085	75	+
30.6.2001.	1.000	59.368	5,00	45,67	30.9.2001.	1.010	64.051	1.072	62	+
31.7.2001.	1.000	59.612	5,00	45,89	31.10.2001.	1.010	64.335	1.073	63	+
31.8.2001.	1.000	59.676	5,00	43,09	30.11.2001.	1.010	64.150	1.067	58	+
30.9.2001.	1.000	59.759	5,00	44,47	31.12.2001.	1.010	64.365	1.078	68	+
31.10.2001.	1.000	59.975	5,00	38,42	31.1.2002.	1.010	64.038	1.064	54	+
30.11.2001.	1.000	60.094	5,00	39,11	28.2.2002.	1.010	64.229	1.070	60	+
31.12.2001.	1.000	59.706	5,00	37,95	31.3.2002.	1.010	63.706	1.057	47	+
31.1.2002.	1.000	60.177	5,00	37,16	30.4.2002.	1.010	64.134	1.061	51	+
28.2.2002.	1.000	60.054	5,00	38,32	31.5.2002.	1.010	64.113	1.059	49	+
31.3.2002.	1.000	60.287	5,00	27,87	30.6.2002.	1.010	63.345	1.045	35	+
30.4.2002.	1.000	60.442	5,00	21,74	31.7.2002.	1.010	62.879	1.034	24	+
31.5.2002.	1.000	60.526	5,00	18,20	31.8.2002.	1.010	62.592	1.027	17	+
30.6.2002.	1.000	60.641	5,00	18,57	30.9.2002.	1.010	62.752	1.030	20	+
31.7.2002.	1.000	60.809	5,00	16,56	31.10.2002.	1.010	62.709	1.026	17	+
31.8.2002.	1.000	60.942	5,00	14,81	30.11.2002.	1.010	62.654	1.017	7	+
30.9.2002.	1.000	60.930	5,00	15,62	31.12.2002.	1.010	62.731	1.020	10	+
31.10.2002.	1.000	61.101	5,00	15,48	31.1.2003.	1.010	62.891	1.008	-2	
30.11.2002.	1.000	61.596	5,00	14,93	28.2.2003.	1.010	63.340	1.001	-9	
31.12.2002.	1.000	61.515	5,00	14,54	31.3.2003.	1.010	63.215	982	-28	
31.1.2003.	1.000	62.414	5,00	14,68	30.4.2003.	1.010	64.153	1.003	-7	
28.2.2003.	1.000	63.292	5,00	14,73	31.5.2003.	1.010	65.062	991	-18	
31.3.2003.	1.000	64.383	5,00	14,68	30.6.2003.	1.010	66.177	1.030	20	+
30.4.2003.	1.000	63.986	5,00	15,62	31.7.2003.	1.010	65.878	1.013	3	+
31.5.2003.	1.000	65.625	5,00	14,54	31.8.2003.	1.010	67.437	1.033	23	+
30.6.2003.	1.000	64.268	5,00	13,69	30.9.2003.	1.010	65.944	1.000	-10	
31.7.2003.	1.000	65.032	5,00	13,35	31.10.2003.	1.010	66.687	999	-11	
31.8.2003.	1.000	65.291	5,00	13,22	30.11.2003.	1.010	66.938	989	-21	
30.9.2003.	1.000	65.956	5,00	14,24	31.12.2003.	1.010	67.741	992	-18	
31.10.2003.	1.000	66.775	5,00	13,75	31.1.2004.	1.010	68.524	995	-15	
30.11.2003.	1.000	67.689	5,00	14,65	28.2.2004.	1.010	69.572	1.001	-9	
31.12.2003.	1.000	68.313	5,00	14,15	31.3.2004.	1.010	70.151	1.005	-5	
31.1.2004.	1.000	68.883	5,00	13,92	30.4.2004.	1.010	70.708	1.006	-4	
28.2.2004.	1.000	69.517	5,00	15,09	31.5.2004.	1.010	71.506	1.005	-5	
31.3.2004.	1.000	69.800	5,00	4,58	30.6.2004.	1.010	70.429	976	-34	
30.4.2004.	1.000	70.305	5,00	15,11	31.7.2004.	1.010	72.318	991	-19	
31.5.2004.	1.000	71.142	5,00	13,79	31.8.2004.	1.010	73.010	990	-20	
30.6.2004.	1.000	72.176	5,00	13,45	30.9.2004.	1.010	74.027	987	-23	
31.7.2004.	1.000	72.979	5,00	12,86	31.10.2004.	1.010	74.772	981	-29	
31.8.2004.	1.000	73.744	5,00	12,60	30.11.2004.	1.010	75.520	976	-33	
30.9.2004.	1.000	75.000	5,00	12,23	31.12.2004.	1.010	76.756	973	-37	
31.10.2004.	1.000	76.255	5,00	12,60	31.1.2005.	1.010	78.551	978	-31	
30.11.2004.	1.000	77.347	5,00	13,87	28.2.2005.	1.010	79.899	992	-18	
31.12.2004.	1.000	78.885	5,00	13,79	31.3.2005.	1.010	81.474	1.005	-5	

Source: National Bank of Serbia.

Initial deposit			Interest rate on 3M time savings, p.a.		Deposit at the end of the term					Dinar savings more profitable
Date	Savings in EUR	Savings in RSD	FX savings	Dinar savings	Date	Savings in EUR	Savings in RSD	Dinar savings in euro terms	Difference in favour of dinar savings	
1	2	3	4	5	6	7	8	9	10	
31.1.2005.	1.000	80.287	5,00	14,01	30.4.2005.	1.010	82.962	1.018	8	+
28.2.2005.	1.000	80.520	5,00	15,48	31.5.2005.	1.010	83.469	1.017	8	+
31.3.2005.	1.000	81.052	5,00	14,68	30.6.2005.	1.010	83.876	1.013	3	+
30.4.2005.	1.000	81.498	5,00	14,79	31.7.2005.	1.010	84.357	1.009	-1	
31.5.2005.	1.000	82.040	5,00	13,48	31.8.2005.	1.010	84.675	1.003	-7	
30.6.2005.	1.000	82.775	5,00	13,55	30.9.2005.	1.010	85.447	1.009	-1	
31.7.2005.	1.000	83.630	5,00	13,35	31.10.2005.	1.010	86.291	1.009	-1	
31.8.2005.	1.000	84.430	5,00	13,48	30.11.2005.	1.010	87.142	1.009	-1	
30.9.2005.	1.000	84.700	5,00	13,82	31.12.2005.	1.010	87.486	1.023	13	+
31.10.2005.	1.000	85.526	5,00	13,75	31.1.2006.	1.010	88.326	1.014	4	+
30.11.2005.	1.000	86.371	5,00	13,82	28.2.2006.	1.010	89.212	1.019	10	+
31.12.2005.	1.000	85.500	5,00	13,09	30.3.2006.	1.010	88.170	1.015	5	+
31.1.2006.	1.000	87.120	5,00	12,56	30.4.2006.	1.010	89.736	1.039	29	+
28.2.2006.	1.000	87.516	5,00	13,56	31.5.2006.	1.010	90.343	1.031	21	+
31.3.2006.	1.000	86.901	5,00	12,43	30.6.2006.	1.010	89.483	1.041	31	+
30.4.2006.	1.000	86.350	5,00	9,78	31.7.2006.	1.010	88.388	1.065	55	+
31.5.2006.	1.000	87.638	5,00	9,71	31.8.2006.	1.010	89.692	1.060	50	+
30.6.2006.	1.000	86.000	5,00	10,05	30.9.2006.	1.010	88.084	1.074	64	+
31.7.2006.	1.000	83.000	5,00	9,84	31.10.2006.	1.010	84.971	1.063	53	+
31.8.2006.	1.000	84.600	5,00	11,65	30.11.2006.	1.010	86.963	1.106	96	+
30.9.2006.	1.000	82.000	5,00	12,06	31.12.2006.	1.010	84.368	1.068	58	+
31.10.2006.	1.000	79.920	5,00	7,93	31.1.2007.	1.010	81.459	1.031	21	+
30.11.2006.	1.000	78.650	5,00	12,46	28.2.2007.	1.010	80.993	1.013	3	+
31.12.2006.	1.000	79.000	5,00	11,91	31.3.2007.	1.010	81.254	996	-14	
31.1.2007.	1.000	79.000	5,00	11,78	30.4.2007.	1.010	81.230	1.006	-4	
28.2.2007.	1.000	79.990	5,00	13,12	31.5.2007.	1.010	82.494	1.016	6	+
31.3.2007.	1.000	81.574	5,00	11,52	30.6.2007.	1.010	83.828	1.061	51	+
30.4.2007.	1.000	80.725	5,00	11,11	31.7.2007.	1.010	82.880	1.042	32	+
31.5.2007.	1.000	81.206	5,00	11,91	31.8.2007.	1.010	83.523	1.045	36	+
30.6.2007.	1.000	79.025	5,00	12,06	30.9.2007.	1.010	81.307	1.031	21	+
31.7.2007.	1.000	79.528	5,00	11,78	31.10.2007.	1.010	81.773	1.059	49	+
31.8.2007.	1.000	79.890	5,00	11,91	30.11.2007.	1.010	82.169	970	-40	
30.9.2007.	1.000	78.861	5,00	11,25	31.12.2007.	1.010	80.991	1.022	12	+
31.10.2007.	1.000	77.240	5,00	10,87	31.1.2008.	1.010	79.258	958	-52	
30.11.2007.	1.000	84.754	5,00	10,85	28.2.2008.	1.010	86.965	1.042	32	+
31.12.2007.	1.000	79.236	5,00	10,22	31.3.2008.	1.010	81.188	986	-24	
31.1.2008.	1.000	82.772	5,00	10,25	30.4.2008.	1.010	84.816	1.058	49	+
28.2.2008.	1.000	83.464	5,00	10,72	31.5.2008.	1.010	85.616	1.039	29	+
31.3.2008.	1.000	82.315	5,00	9,86	30.6.2008.	1.010	84.273	1.067	57	+
30.4.2008.	1.000	80.130	5,00	10,48	31.7.2008.	1.010	82.151	1.067	57	+
31.5.2008.	1.000	82.430	5,00	10,25	31.8.2008.	1.010	84.466	1.105	95	+
30.6.2008.	1.000	78.978	5,00	10,74	30.9.2008.	1.010	81.019	1.058	48	+
31.7.2008.	1.000	76.994	5,00	10,51	31.10.2008.	1.010	78.941	929	-81	
31.8.2008.	1.000	76.444	5,00	10,64	30.11.2008.	1.010	78.401	879	-131	
30.9.2008.	1.000	76.597	5,00	10,88	31.12.2008.	1.010	78.601	887	-123	
31.10.2008.	1.000	84.991	5,00	10,77	31.1.2009.	1.012	87.192	927	-86	
30.11.2008.	1.000	89.195	5,00	11,69	28.2.2009.	1.012	91.695	978	-35	
31.12.2008.	1.000	88.601	5,00	11,55	31.3.2009.	1.012	91.055	961	-52	
31.1.2009.	1.000	94.101	5,00	10,48	30.4.2009.	1.012	96.475	1.013	1	+
28.2.2009.	1.000	93.802	5,00	13,41	31.5.2009.	1.012	96.800	1.022	10	+
31.3.2009.	1.000	94.778	5,00	12,43	30.6.2009.	1.012	97.595	1.044	32	+
30.4.2009.	1.000	95.240	5,00	12,60	31.7.2009.	1.012	98.107	1.053	40	+
31.5.2009.	1.000	94.716	5,00	12,04	31.8.2009.	1.012	97.446	1.047	35	+
30.6.2009.	1.000	93.442	5,00	12,33	30.9.2009.	1.012	96.197	1.034	22	+
31.7.2009.	1.000	93.193	5,00	11,39	31.10.2009.	1.012	95.741	1.025	12	+
31.8.2009.	1.000	93.074	5,00	11,52	30.11.2009.	1.012	95.646	1.009	-3	
30.9.2009.	1.000	93.011	5,00	11,65	31.12.2009.	1.012	95.609	997	-15	
31.10.2009.	1.000	93.435	5,00	10,48	31.1.2010.	1.010	95.792	973	-37	
30.11.2009.	1.000	94.758	5,00	10,98	28.2.2010.	1.010	97.258	976	-34	
31.12.2009.	1.000	95.889	5,00	10,35	31.3.2010.	1.011	98.279	985	-26	

Source: National Bank of Serbia.