



Bank of Russia

Central Bank of the Russian Federation

**Deposit dollarization and
national currency
depreciation in Russia and
Kazakhstan**

February 2016

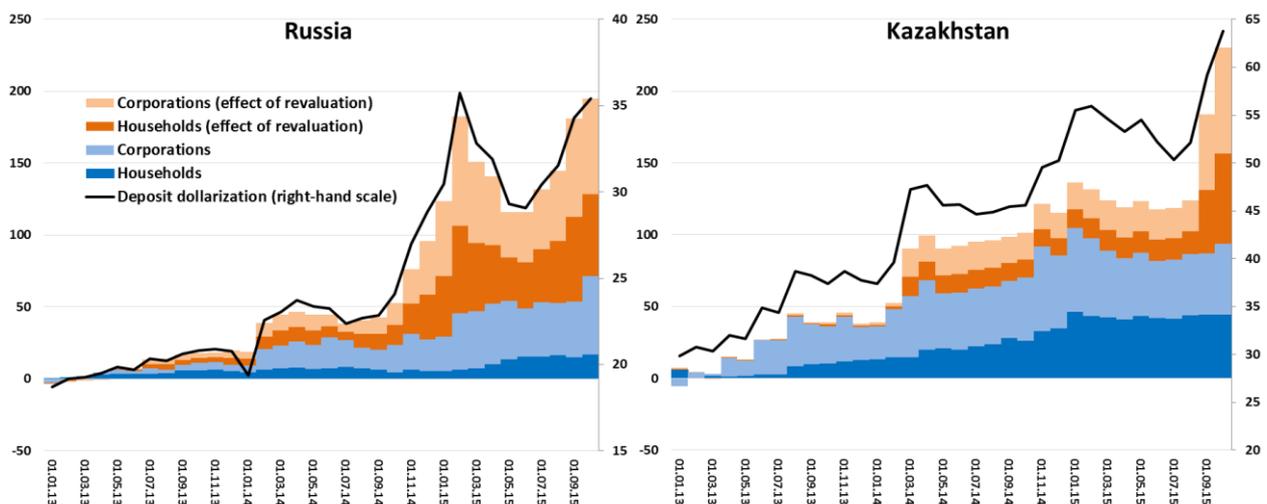
**Analytical note
Research and Forecasting
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In 2014-2015, bank deposit dollarization in Kazakhstan outpaced that in Russia despite a smaller scale depreciation of the national currency. The fixed exchange rate regime, the passive interest rate policy, and the initially higher dollarization level could be conducive to the process.

Episodes of the national currency depreciation in 2014 and 2015 produced a noticeable growth in bank deposit dollarization both in Russia and Kazakhstan. Since the start of 2014, the share of FX deposits increased from 20% to 35% in Russia and from 37% to 65%¹ in Kazakhstan. While the effect of revaluation was a major factor of growth in the share of FX deposits in Russia, dollarization in Kazakhstan was greatly intensified by changes in economic agents' savings preferences towards foreign currency, especially in 2014 (Figure 1).

Figure 1. FX deposits in total deposits and decomposition of their growth against 2012 (%)



Sources: Bank of Russia, National Bank of Kazakhstan

We can use the regression analysis outcome to illustrate the interdependence between the dynamics of dollarization and exchange rate more formally. The estimated coefficients connecting dollarization changes and exchange rate dynamics in Russia and Kazakhstan turned out to be similar (1.25 and 1.28 respectively)². However, these coefficients characterize the said interdependence *on average* based on the used sample (2000-2015)³. Re-

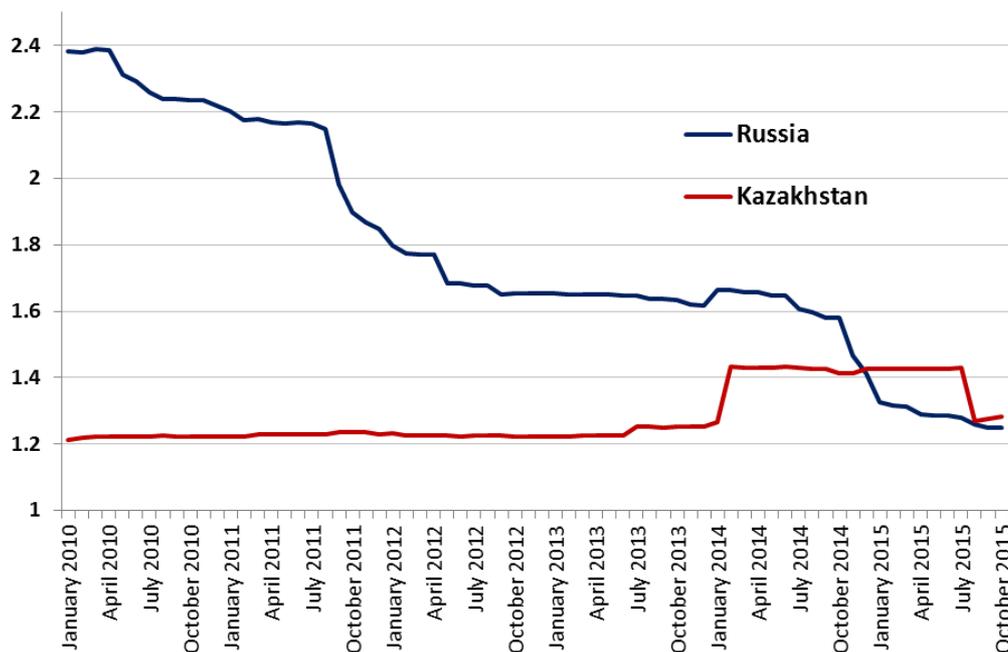
¹ As of the end of 2015 Q3.

² The variable $(1 - d_{t-1}) * d_{t-1} * (E_t / E_{t-1} - 1)$ was used as an exchange rate indicator, where E_t – exchange rate (rubles/tenges per US dollar), d_t – share of FX deposits in total deposits (for details see Honohan (2007)). In this case, the coefficient equal to 1 means that dollarization changes exclusively under the effect of revaluation. Coefficients exceeding 1 reflect more active rebalancing of the deposit structure towards foreign currency in the periods of ruble/tenge depreciation.

³ The coupling coefficient estimated on the sample from 2010 to 2015 equals 0.94 in Russia and 1.3 in Kazakhstan.

cursive estimates point to the instability of this interdependence in Russia (Figure 2): starting 2010 new observations caused a downward review of the coupling coefficient. This means that depositors' response to new episodes of the exchange rate fluctuations became less acute than in the previously considered period on average. This trend persisted including observations for 2014-2015, while in Kazakhstan the addition of observations for this period increased the statistical coupling coefficient.

Figure 2. Recursive estimates of coupling coefficient between changes in deposit dollarization and exchange rate dynamics



Source: Research and Forecasting Department calculations

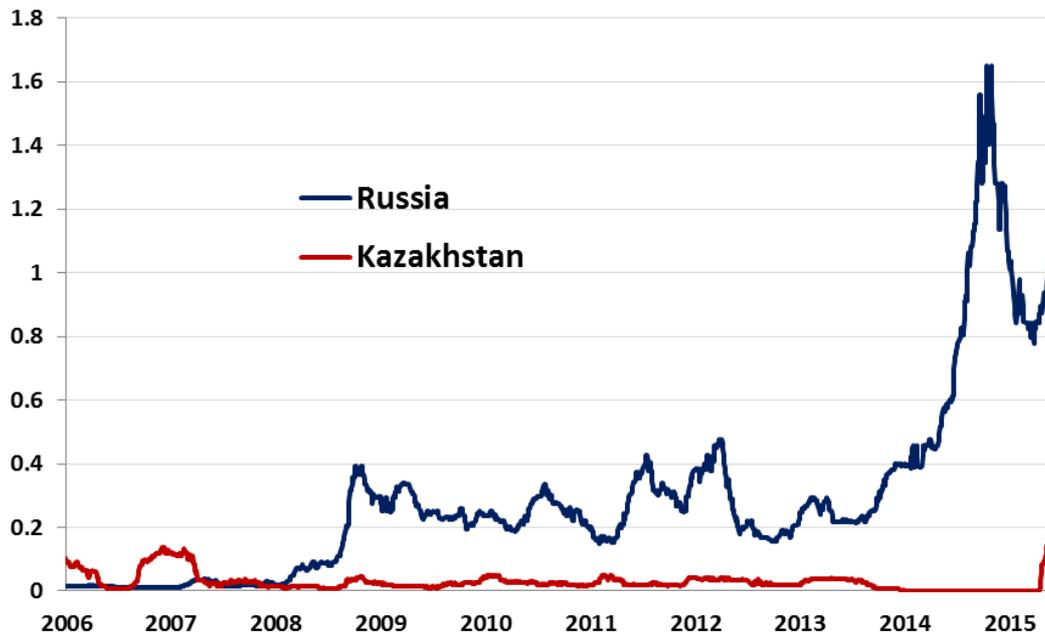
There are several theoretical explanations of such difference in dollarization dynamics.

Firstly, the free floating exchange rate regime may be considered as a factor restraining dollarization (Kokenyne et al. (2010); Ben Naceur et al. (2015)). Exchange rate volatility heightens risks related to conversion of FX assets and brings down liquidity of FX deposits accordingly. Moreover, the fixed exchange rate regime often facilitates asymmetric expectations: economic agents confide in the central bank's desire and ability to curb the national currency appreciation rather than its depreciation.

As compared with Kazakhstan, the exchange rate in Russia ceased to be tightly managed already in 2009, while in 2014 its volatility increased manifold (Figure 3). This may facilitate the falling demand for FX deposits. The frequent exchange rate movements up and down, like in Russia, make the attempts to speculate on exchange rate changes senseless. At

the same time, volatility arising from infrequent, yet significant one-off depreciations, like in Kazakhstan, makes it possible 'to prepare' for the next round of depreciation through buying foreign currency for future use.

Figure 3. Exchange rate volatility in Russia and Kazakhstan (median of exchange rate daily change module over moving 90-day period (pp))

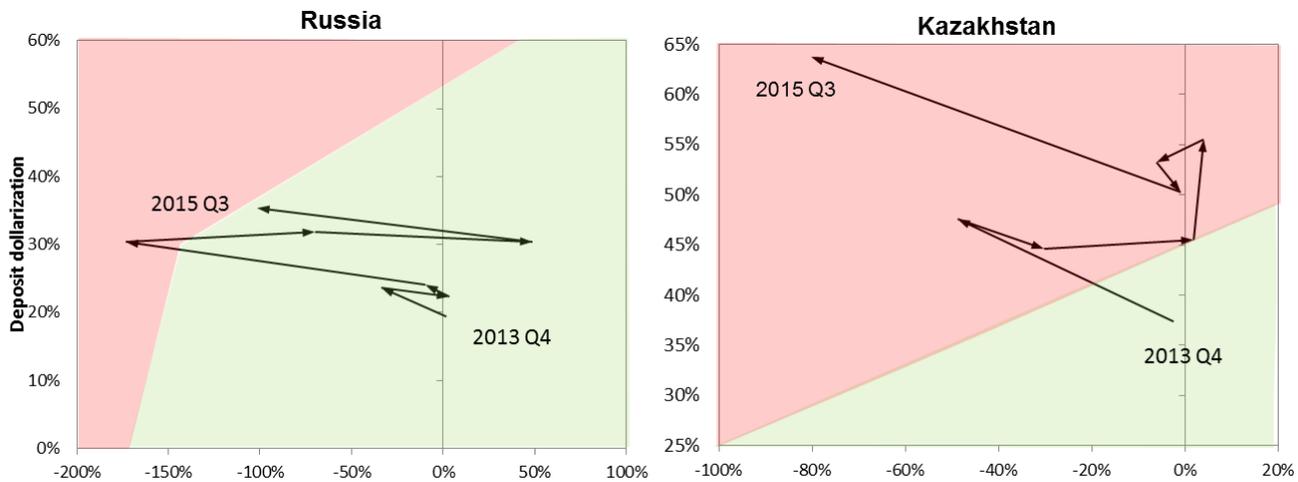


Sources: Bank of Russia, National Bank of Kazakhstan

Secondly, the factor of deposit dollarization intensification in Kazakhstan might be the effect of hysteresis, i.e. the situation when, having reached high values, dollarization takes root in the economy and does not decline even if the national currency exchange rate stabilises. This is attributable to the sustainable change in economic agents' savings preferences towards foreign currency.

As a threshold value of deposit dollarization, after reaching which the return to low dollarization becomes less probable due to the steady change in economic agents' behaviour, we consider the level of 45% (Krupkina and Ponomarenko (2015)). Kazakhstan exceeded this level already in early 2014 and in the subsequent quarters the Kazakh economy converged towards the high dollarization equilibrium (Figure 4). This did not happen in Russia. Although increasing somewhat, dollarization remained below the threshold value.

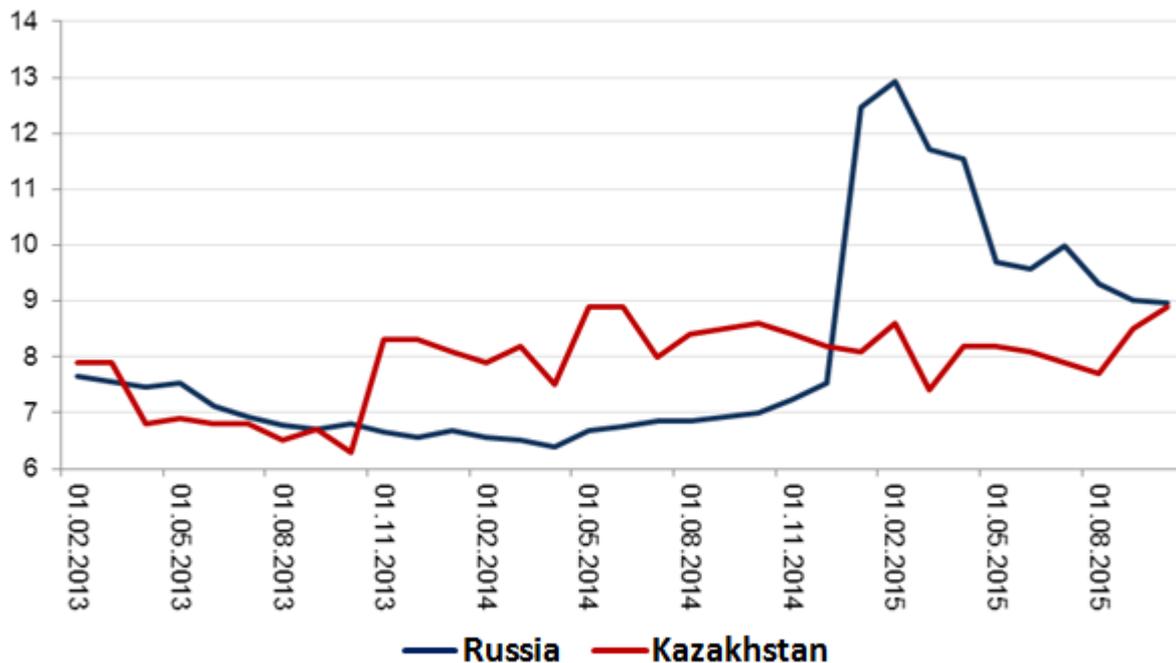
Figure 4. Threshold values of dollarization and net return on foreign-currency deposits and actual values in Russia and Kazakhstan in 2014-2015. Red (green) area corresponds to convergence towards high (low) dollarization equilibrium



Sources: Bank of Russia, National Bank of Kazakhstan, Krupkina and Ponomarenko (2015)

Thirdly, a significant difference between the situations in both countries' financial markets boiled down to a sharp growth in interest rates on national-currency deposits in Russia, while they remained stable in Kazakhstan (Figure 5). This is largely attributable to the passive interest rate policy of the National Bank of Kazakhstan under the managed exchange rate regime, while the Bank of Russia actively impacted on interest rates in the economy and attractiveness of ruble assets through its key rate.

Fourthly, the modern economic theory considers bank behaviour as a separate factor of deposit dollarization (Basso et al. (2011)). We may assume that the sharp growth in interest rates on ruble deposits in Russia could reflect the commercial banks' desire to preserve the currency structure of their balance sheets and not to allow a sharp growth in FX liabilities and a discrepancy between the currency structure of assets and liabilities. At the same time, commercial banks in Kazakhstan were prepared to build up FX assets and did not strive for preserving liabilities in national currency. Yet, in our opinion, the impact of this factor on deposit dollarization in Russia was insignificant. The Bank of Russia's move to raise the key rate to 17% in December 2014 made ruble deposits attractive and stopped deposit outflow. Sufficiently developed instruments to hedge foreign currency risks in Russia through forward contracts, FX swaps, etc., enabled the Russian banks to maintain equilibrium between the currency structure of assets and liabilities.

Figure 5. Rates on household time deposits in national currency (pp)

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Research and Forecasting Department

Anna Krupkina

Alexey Ponomarenko