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Can Central Banks Always Influence Financial Markets? Evidence from Russia

In many financial markets, including the UK and US, central banks are able to influence asset prices through unexpected interest rate changes (so-called indirect channel of monetary policy). In our paper (Shibanov and Slyusar 2019) we study the Russian market in 2013-2019 and measure policy shocks by the difference between the key rate and analysts' median forecast. We show that in the short-term, the Central Bank of Russia does not significantly influence the general stock market or the ruble exchange rate outside December 2014 and January 2015, while some sectoral stock indices react to the changes opposite to what theoretical models predict. Overall, the Russian case is more similar to the ECB and the case of the German economy than to results from the UK or the US. This may mean that the Bank of Russia has more influence through the direct channel on the interest rates of credits and deposits.



Asset Price Reaction to Policy Changes

What should we expect from a general stock market or a national currency reaction to the central bank interest rate policy? This indirect effect may lead to changes in the collateral available in the economy, or in imports and exports of a country. Theoretical models predict that an expected decrease in the key rate would have no impact on asset prices, while unexpected increases in the key rate may have a negative impact on asset prices (Kontonikas et al. 2013). If the interest rate increases more than the markets or analysts expect, we would see prices decrease as discount rates most probably increase; the opposite happens when the interest rate decreases more than expected.

The results of testing this presumption on different countries are not uniform. While in the US (Kontonikas et al. 2013) and in the UK (Bredin et al. 2009) the impacts of key rate policy surprises are significant, the ECB influences neither the UK nor the German stock markets (Bredin et al. 2009).

Regarding the exchange rate (Hausman and Wongswan, 2011), there is evidence that unexpected changes in the US interest rate have a strong impact on floating currencies.

The Case of Russia

Russian monetary policy has changed a lot since 2013. The introduction of the "key rate" as the main policy tool, switch to the floating ruble and inflation targeting in November 2014 all lead to a new framework used by the Bank of Russia. Therefore, it is of interest to check what happens with the indirect channel of policy transmission (through asset prices and financial markets).

There is at least one paper that precedes our research. Kuznetsova and Ulyanova (2016) study the impact of verbal interventions by the Bank of Russia (Central Bank of Russia) on both the returns and the volatility of the Russian stock market index (RTS) in 2014-2015. Their findings suggest that returns do react to the Bank of Russia communications, while volatility does not.

In our paper (Shibanov and Slyusar 2019) we study the period of 2013-2019, that is the time of Elvira Nabiullina as governor of the Bank of Russia. Our approach is based on the assumption that news are incorporated in the stock market reasonably fast, no later than 4 trading days after the day of announcement. For the exchange rate we take short-term movements 30 minutes before and after the time of publication (like in Hausman and Wongswan 2011). Monetary policy surprise is measured as the difference between the realized key rate and the median expectations of analysts in Thomson Reuters. Abnormal returns are computed using an index model.

Figure 1 shows that the surprises are close to zero except for two dates: December 2014 and January 2015. In the first period the key rate was increased to 17%, while in the second it was reduced to 15%. In the paper we show that these two days are clear outliers that bias the results, so we study the relationship without them.

Results for the Stock Market

The stock market reaction in the symmetric window of four days before the announcement and four days after is muted (see Table 1). While the main index (MICEX) does not react significantly, two sectors (MM - metals and mining, and chemistry) react positively to the unexpected increase in the key rate. This result seems to contradict what we would expect from



the market. The bond index does not significantly react to the changes.

Table 1. Cumulative effect, sample with no shocks (days from -4 to +4).

Sector	Estimate	t-statistic	P-value	Significance	R ²
MICEX	1.6192	0.6803	0.4999		0.041
OG	0.2511	1.125	0.2668		0.005
Finance	-1.2933	-1.080	0.2860		0.024
Energy	-0.4513	-0.7145	0.4787		0.004
MM	2.2876	3.326	0.0018	***	0.113
Telecom	-0.2534	-0.2844	0.7774		0.001
Consum.	0.2178	0.4191	0.6772		0.001
Chemistry	2.9787	2.642	0.0114	**	0.132
Transport	0.3200	0.1548	0.8777		0.001
Bonds	1.4080	1.048	0.3002		0.037

Source: Shibanov and Slyusar (2019), Thomson Reuters, Moscow Stock Exchange and Bank of Russia data.

Results for the Ruble Exchange Rate

The exchange rate should react with a depreciation to the unexpected key rate decrease. If there is an unexpected increase, the return on the ruble-denominated bonds rises and so the currency becomes more attractive to the international investors.

However, we do not observe any significant difference between the cases of expected and unexpected changes (see Table 2). All the movements are quite noisy and do not show any stable pattern.

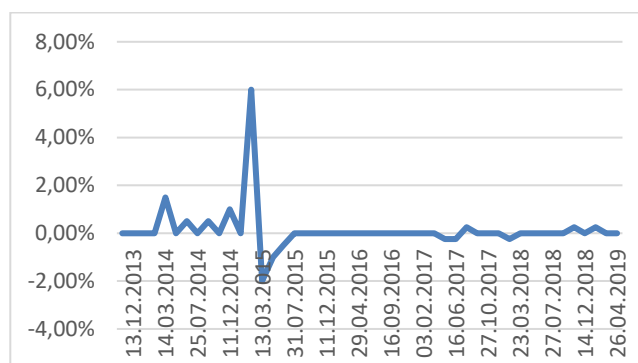
Table 2. Exchange rate reaction to the key rate changes.

	Key rate increase	Key rate decrease
Unexpected	-1.05%	-0.04%

Expected	0.65%	0.003%
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Source: Shibanov and Slyusar (2019), Thomson Reuters and Bank of Russia data.

Figure 1. Deviations of the actual key rate from median expectations (key rate surprises), percentage points.



Source: Shibanov and Slyusar (2019), Thomson Reuters and Bank of Russia data.

Conclusion

As we see from our analysis, the Bank of Russia's impact on financial markets is similar to the one observed in Germany after ECB policy changes. There is almost no sizeable and stable effect neither on asset prices nor on the exchange rate.

The results do not mean, however, that monetary policy in Russia is irrelevant. The direct channel - i.e. the impact of the central bank's decisions on the interest rates of credits and deposits works well. Moreover, we only consider short-term effects concentrated around the announcement date. Longer-term effects may be more pronounced.

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