Currency risk and the dynamics of German investors entry and exit in Russia*

Ivan Deseatnicov† Olga Klochko‡

November 14, 2022

Abstract

Using a complete manually collected set of 3,435 Russian firms with German capital in 2003-2020, we examine the effect of currency risk on the dynamics of German investors' entry and exit into the Russian market via foreign direct investment. We document that German investors were relatively tolerant towards currency risk before 2014, and became highly sensitive post 2014. We conclude that, along with geopolitical factors, the free floating exchange rate regime adopted by the Central Bank of Russia in 2014 affected the incentives of German investors. We discuss various mechanisms to explain these findings.

JEL classification: F21, F23, F31

Key words: free floating exchange rate regime, FDI dynamics, multinational enterprises, currency risk

*Declarations of interest: none.

†HSE University, Faculty of World Economy and International Affairs, National Research University Higher School of Economics, Malaya Ordynka str., 17 Moscow 119017, Russian Federation, e-mail: idesyatnikov@hse.ru

‡HSE University, Faculty of World Economy and International Affairs, National Research University Higher School of Economics, Malaya Ordynka str., 17 Moscow 119017, Russian Federation, e-mail: oklochko@hse.ru

1 Introduction

In 2014, the Central Bank of Russia switched to a free floating exchange rate (ER) regime.[1] As a result of this change, as well as simultaneously unfolding geopolitical factors, the Russian ruble depreciated considerably (see fig. 1) and foreign direct investment (FDI) stock in Russia decreased.[2] A non-negligible number of foreign investors decided to withdraw their capital from Russia. Despite close economic and political ties with Germany, its investors' behaviour showed a similar pattern (see fig. 3). Until Q1,2022, , Germany remained one of the key economic partners of Russia and accounted for a considerable share of trade and FDI in Russia.

The main objective of this paper is to examine the effect of currency risk on the behaviour of German investors in the Russian market. Our research question is how the currency risk affected the probability of FDI entry and exit by German investors in Russia. We use micro-level data from several sources, such as SPARK and FIRA, to identify the dynamics of German investors' entry and exit in Russia. Our contribution is threefold. First, we create a unique micro-level database of *all* German investors in Russia for the period of 2003-2020. Thus, we are able to work with a complete set of data. Second, we present a number of stylized facts, in regards to German investors' FDI entry and exit in the Russian market. For instance, we show that the FDI entry rate was higher than the FDI exit rate until 2014, leading to an increase in the number of firms with German investors in Russia. After 2014, the pattern reversed and we saw a declining number of firms with German investors. We formally confirm, that the structural break is observed in 2014 using Chow test (see fig. 7). Finally, we estimate the currency risk effect on the probability of FDI entry and exit in Russia, using a random effects probit model. Currency risk is proxied by the real exchange rate (RER) level and volatility. We use yearly level observations to look at the long-term effects and monthly level observations to examine the short-term effects. Overall, we find

[1]The Central Bank of Russia adopted free floating ER according to IMF 2009 system classification (independently floating in 1998 system classification). Prior to 2014, it adopted floating ER regime (2009 system, managed floating in 1998 system), and the ruble's nominal ER was relatively stable (https://www.cbr.ru/eng/dkp/about_inflation/history/).

[2]We define FDI as a foreign ownership share more than 10% in the capital of a domestic firm.

that there is a clear difference in the behaviour of German investors in regards to the RER level and volatility prior and after 2014.

We document and discuss a number of interesting findings. First, the relative wealth effect dominates prior to 2014 and the ruble's real depreciation increases the probability of FDI entry. This is complemented by the tolerance effect as the RER volatility is tolerated by German investors with their expectation of higher growth in profits. Given the relatively stable behaviour of the ruble RER, this led to an increase in German investors' presence in Russia. However, the effect of the ruble's real depreciation changed after 2014 - it started to discourage new FDI entry. We propose an intermediate trade effect as a mechanism that explains this result. Given that German investors may need to import intermediate goods for production, or final goods for sale, the ruble's real depreciation leads to an increase in import costs. Thus, it becomes less profitable to be in the market and new FDI entries are discouraged. This effect is complemented with the negative effect of currency risk measured by the RER volatility (the uncertainty effect).

Second, the probability of FDI exit increases in the ruble's real depreciation after 2014 and decreases prior to 2014. We introduce two effects to explain these patterns, namely the FDI repatriation value effect and profit repatriation value effect. Both values represent a decreasing function in the ruble's real depreciation. Therefore, it created a trade-off for German investors, whether to accept a lower value of repatriated profits or lower value of the withdrawn capital from the market. Prior to 2014, the FDI repatriation value effect dominated as German investors were inclined to believe in strong long-term economic growth prospects in Russia. However, after 2014, the profit repatriation value effect started to play a stronger role and the incentive to withdraw capital from the market increased.

Finally, at the industry level analysis, we document that non-manufacturing firms were more sensitive to currency risk than manufacturing firms prior to 2014. However, after 2014, the manufacturing firms became more sensitive than non-manufacturing firms. We suggest that the nature of operation of these firms led to different degrees of sensitivity in the two sub-periods. Manufacturing firms are characterised by higher sunk cost of FDI entry and expected profits than non-manufacturing firms which require more frequent operations with the currency for their functioning than manufacturing firms.

The paper is structured as follows. In section 2 we offer literature review, our conjectures discussion and research methodology. Section 3 presents data and stylized facts. Empirical analysis and discussion of the effect of the RER level and volatility on the probability of German investors' entry and exit in Russia is given in section 4. Section 5 concludes.