

## Dynamics in Russian financial markets: what's new?

### **NES Research Project Proposal for 2017-2018**

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This project focuses on some topics that proved to be fruitful in my previous research with financial data, including previous NES research projects. Students having taste to time series econometrics and financial data are invited to participate in the project. The dynamics in financial markets, Russian in particular, was one of my research interests in earlier 2000's (see Anatolyev and Shakin, 2007; Anatolyev, 2008, 2009); now it's time to revisit some of these issues and study new ones. Below are three (among possibly others) topics focused on the dynamics of Russian financial markets:

1. Back in 2008 I published (see Anatolyev, 2008) an article that analyzed 10 years of the dynamics of Russian stock returns, up to 2005. The focus was on the stability of relationship between stock returns and their determinants. Now an additional decade has passed. It would be interesting to analyze these 10 years and find differences in dynamics from the previous period, in particular using new econometric tools that are designed for unstable environments (e.g., Rossi and Sekhposyan, 2010).
2. One of the frameworks of analyzing the dynamics of equity returns is a time-varying parameter model of Rockinger and Urga (2001). The data the authors used there and an accompanying paper Rockinger and Urga (2000) were restricted to the last century. It would be interesting to run a (better thought-through though) model of that type on Russian stock returns data from this century.
3. The dynamics in the Russian ruble exchange rate vs the US dollar is interesting and somewhat puzzling. In particular, the intradaily exchange rate exhibits very high reaction to changes in the oil futures prices despite the delivery dates for these contracts are far in the future. It would be interesting to measure and explain such sensitivity within an appropriate nonlinear model of intradaily exchange rate dynamics.

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