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Reconstructing quarterly financial accounts for Russia

The Russian financial accounts are compiled using annual data as the primary source, but quarterly estimates are also produced. This quarterly information is of interest for short-term analysis and policy making as well as for usage in econometric models. Therefore, ensuring its reliability is a crucial task. One of the main difficulties in constructing quarterly financial accounts is the necessity of reconciling different sources of information: quarterly data that is available in real time and annual data that becomes available later for a larger set of firms. The objective of this paper is to explore the feasibility of real-time estimation of quarterly financial accounts.

To get reliable estimates of quarterly data we fill missing values for firms, which do not provide quarterly information. The set of firms with similar characteristics was constructed for each «missing» firm and used in approximation of the variable of interest. To achieve better results we compare different nowcasting algorithms including k nearest neighbors, random forest, gradient boosting and neural network among other and choose the best one in terms of out-of-sample properties.