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The Contribution of Intangible Assets to the Long-Term Growth of the Russian Economy

In the modern economy intangible assets provide a significant contribution to economic growth. Their average contribution to the growth of labor productivity in the business sector of developed European countries in 1995–2009 amounted to 0.71 PP. with an average level of labor productivity 1.63 (based on Corrado et al, 2014), and the share of intangible assets as a growth factor in value added in the period 1998-2007 amounted to 36.9% (Corrado et al, 2017). What is the contribution of intangible assets to the growth of the Russian economy? Based on world estimates, we expect it to be also significant.

Currently in the literature on the Russian economy there are few works relating to the contribution of intangible assets to economic growth.

For example, Timmer and Voskoboynikov (2016) for the first time considered industry trends in productivity growth and intangible assets based on the Russian segment of the World KLEMS database and the ICT component.

The contribution of intangible assets to the value added in this paper seems much too low in comparison with developed economies in the period 1995-2002 and estimated at 0.21 pp, while the contribution of intangible capital per hour in the period 1995-2005 in the UK economy was 0.9 pp, Sweden - 0.6 pp, Finland - 0.5 pp, Germany - 0.5 pp (Timmer et al., 2010). Explanation of low contribution of intangible assets in the growth of the Russian economy is not clear. Can this be explaining by measurement issues or differences in development of Russia and other countries?

There is no evidence the Russian economy underdevelopment in terms of intangible assets. In particular, the rating data of the information and communication infrastructure of Russia, which has a complementary relationship with intangible assets (Corrado, Haskel and Jona-Lasinio 2014), confirm Russia's competitive position (45th place in the ICT Development Index 2017 in a line with Czech Republic (43), Portugal (44), Slovakia (46), Italy (47)). International Digital Economy and Society Index, I-DESI 2016 for Russia is calculated at the level of 0.47, which exceeds China (0.45), Brazil (0.38), and Mexico (0.34). In addition, Russia's high ICT indicators ranking (36) in the Global Innovation Index 2017 indicates an effective level of support, active implementation and use of ICT. Also Russia's share is traditionally significant in the global number of patent applications in the ICT (35% in 2016).

Thus, it is necessary to focus on the problem of measurement, which may consist of the following aspects:

1. The limited reliable and systematic data on the actual value of a number of intangible assets .
2. The non-representativeness of the available source of data on the relevant categories of capital stocks.

3. The inconsistency of the classifier of Russian assets with international standards and the real state of affairs.
4. Undervaluation of intangible assets by companies.
5. Low motivation of companies in legal protection of intangible assets.
6. Errors in the calculation of gross output.
7. Difficulties in transformation the value of intangible assets in comparable prices.

The present paper focuses on first three possible aspects of the measurement problem. In particular, we will expand the list of intangible assets estimated by Timmer and Voskoboynikov, suggest alternative methods for measuring intangible assets and their quantitative estimates, and trace how does it affect the contribution of intangible assets to the growth of the Russian economy.

We consider the period of 1995 - 2014, the official statistics of Rosstat, as well as specific research. Also we made a comparison of statistical data from the All-Russian Classifier of Fixed Assets, the System of National Accounts 2008 (2008 SNA) and the European System of National Accounts and Regional Accounts 2010 (ESS 2010) to understand consistency of data sources on intangible assets and in what case estimation of intangible assets for developed countries are higher.