

IARIW-ESCoE Conference

“Measuring Intangible Assets and Their Contribution to Growth”

The Contribution of Intangible Assets to the Growth of Sectors of the Russian Economy or What Innovations are Active?

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In recent decades the long-term economic growth of leading developed economies is determined by factors of production that are most susceptible to new technologies. Intangible assets take on significant importance among these factors as well as skill-intensive labor and ICT-capital. According Corrado et al. (2017), the share of intangible assets as a growth factor in value added in the period 1998-2007 in a number of countries in Western Europe amounted to 14.4%. Approach developed by Corrado, Hulten and Sichel (CHS) (2005) is widely used for the evaluation of contribution of intangibles to growth. In pioneering CHS work, the aggregate business sector was used, and most studies that followed first have done the same.

Subsequently researchers from different countries have experimented with disaggregate sector and industry-level estimates of intangibles. Often the industry level analysis used to compare the role of the service sector and the manufacturing sector in growth and to identify the importance of intangible assets in this case. For example, according Niebel et al. (2013), in many developed countries, the ratio of intangible investments to value added and the contribution of intangibles to labor productivity growth are the highest in manufacturing and financial intermediation sectors. In the UK, which attained high productivity growth during the period of observation, the contribution of intangibles turns out to be high in a broad range of sectors including services. CHS (2012) identified the role of intangible assets by type in growth of industrial and service sectors. In developed countries such as Finland, Germany, Austria, research and development are important in production, and intangible assets not related to R&D are more important in the service sector.

As for our work, we use the industry specificity of the contribution of intangible assets, firstly, in order to determine the contribution of intangibles to Russian production and services, and secondly, to determine the role of intangible assets separately in the Russian-specific oil and gas industry. Little is known about intangible assets in Russian mining sector. At the same time according OECD study (2019) share of intangible assets is the lowest in Basic Metals, Mining and Transport in developed countries. This may be due to the fact, that the mining R&D is included in R&D investment estimates in Canada and in many other countries (e.g., Australia) (Barnes and McClure 2009). For Russia, we detail information on intangible assets in Mining. These problems have not been previously considered in the framework of growth accounting for Russia. Simultaneously disaggregated estimates may be needed to answer these and other structural questions satisfactorily. Also comparison Russia with other countries provides a better understanding of the role of intangible assets in economic growth.

Following on from our previous studies of intangible assets for the total Russian economy, in these report we present estimating results of the industry contribution of intangible assets based on Russia KLEMS data and the capitalization of an expanded list of intangible assets. The data set covers 34 industries for the period 2004-2016 in the industry classification NACE 1.0. We use data from Russia KLEMS, official statistics from Rosstat, and specialized industry studies.