

Russia's Ambition toward the IT Revolution



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Russia has never been the easiest nation to understand, at least to the West that has often seen Russia as hostile. This appreciation goes back to Winston Churchill's surly description of the country as a "riddle, wrapped in a mystery inside an enigma." Still, a hefty amount of economists studying the Russian economy's growth might want to share his viewpoint. The difficulty in analyzing the Russian economy's growth may attribute to some atypical features with which Russia has been endowed. As a developing country, Russia has relatively advanced technologies, which in large part may find its roots in the top-notch scientific progressions during the Soviet era. On the contrary, Russia's labor force, especially considering its far-reaching territory, is scarce compared to other developing countries, particularly many southeastern countries such as Vietnam, Indonesia, and Malaysia, to name a few. Hence, one may need a different lens or framework when assessing the Russian economy to identify problems underlying and prescribe a cure for ongoing growth.

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Currently, Russia's economy has a structural problem of relying heavily on energy resources. Exports of energy resources account for nearly 60% of all goods exports, and government revenues from energy resources account for more than 50% of the total revenue. Excessive economic dependence on the resource sector undermines sustainable growth. The long-standing and too-excessive economic dependence on the energy sector has decayed qualitative growth through productivity enhancement, necessary for long-term growth as the economic transition to mid- and high-value-added manufacturing gets delayed. Russia's staggering production efficiency (TFP) seems to have been closely related to its underdevelopment of mid- and high-value-added manufacturing, particularly since the oil-price boom ended around 2014. Mid- and high-value-added manufacturing production takes up only about 3% of the total GDP. This is far below the average of 10% for middle-income countries, even lower than some developing countries with much lower income levels, such as Vietnam (about 6%), regarded as a development paragon.

Theoretically, some may reckon that structural transformation delays from a resource-dependent economy to a high-value-added manufacturing one is the so-called "bad equilibrium" from the multiple equilibria perspective. The thing is that, if so, technological innovation in the IT sector may help address the structural transformation delays that Russia has suffered. This theoretical inference hinges on the intuition that advances in IT technology improve the service sector's productivity, e.g., online banking, e-commerce, and transportation services benefit from online matching. If the IT technology enhancements increase productivity in the service sector, the added value of IT industry production increases, which moves more economic resources (production factors) toward the mid- and high-value-added manufacturing industries, including the IT industry. Moreover, this structural transformation to the mid- and high-value-added manufacturing industries can be expedited by the substitution effect when the service sector's productivity grows faster than the other sectors. Consequently, in the context of the so-called "big push theory," IT technology innovation can function as a big push inducing structural transformation in developing countries with rich natural resources such as Russia.

Coincidentally, Russia has recently exerted all-out national efforts to discover new growth engines restoring growth potential through IT technology innovation. The Russian government is actively supporting the Russian IT industry by shifting to a digital economy through IT development, based on the national program "Digital Economics of the Russian Federation" launched in 2017. It is highly appreciated that the focus of existing economic modernization policies has become more focused on developing the IT industry, making policy objectives

more transparent, and finding policy means more concrete. In light of all of the conscious efforts, Russia's IT sector is expected to continue to proliferate, mainly centered on IT software and services that Russia is considered to have its competitive edges in.

Then, all the stories told above segue into an intriguing question on the brink of the IT revolution era: will Russia surmount the structural challenge its economy has battled against for a quite long time through the development of the IT industry? This is not an easy question to answer, similar to the difficulties of understanding Russia itself. Nor is it clear whether the national efforts for IT industry development will succeed, and IT technologies' progress will guide the Russian economy to the "good equilibrium." However, one thing seems straightforward: Russia's strategy for developing the IT industry is worth giving a shot. The Russian economy may get through the structural problem that it has struggled with by developing the IT industry. This seems particularly reasonable in virtue of Russia's abnormality (in a good way): the abundant relics of its past scientific advances. [KIEP](#)