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Are educational reforms necessarily growth-enhancing? Weak institutions as the cause of policy failure



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## Contents

Abstract .....	3
Introduction .....	4
Are educational reforms necessarily growth-enhancing? .....	4
Concluding remarks .....	6
References .....	8

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## Are educational reforms necessarily growth-enhancing? Weak institutions as the cause of policy failure<sup>1</sup>

### Abstract

In this short paper, we emphasize the importance of reforms sequencing and discuss it in the context of potential educational and institutional reforms in Russia. As weak institutions correspond to a more binding constraint on economic growth than a stagnant education system, we argue that an educational policy is likely to be effective only if it takes place after broader institutional reform is implemented. Otherwise, even a properly implemented education reform might fail to boost economic growth.

Keywords: Russia, reforms, institutions

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[http://www.suomenpankki.fi/bofit\\_en/tutkimus/tutkimusjulkaisut/dp/Pages/dp1216.aspx](http://www.suomenpankki.fi/bofit_en/tutkimus/tutkimusjulkaisut/dp/Pages/dp1216.aspx)

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## Introduction

Whenever experts in Russia express their skepticism regarding a particular reform, they typically point at potential political complications which might arise and slow down implementation of the reform. Insufficient political support, powerful resistance groups or incompetent bureaucracy are typically listed as the main potential sources of a failure (see, for instance, Gelman and Starodubtsev, 2016).

Indeed, political resistance and insufficient training pose serious threats to successful policy implementation and as long as these constraints do not receive sufficient attention from the very top of political hierarchy, the success of many important reforms is unlikely. But even if political support is provided, appropriate professionals are recruited, and the other direct determinants of success are present, it is still possible that a particular policy will only impact intermediate targets, leaving more important goals that are pursued by the reform unaffected. For instance, this result might occur if the policy works only when combined with another reform but is not beneficial otherwise.

The possibility that complementary reforms are needed for the success of a given policy change has been widely discussed in the literature (see, for instance, Rodrik, Hausmann and Velasco, 2005, Rodrik, 2010). Suppose a country is experiencing economic stagnation and a problem that policy makers intend to tackle is indeed one of the causes of growth failure. At the same time, economic slowdown could be primarily driven by another constraint, and it is therefore important to redirect the policy focus appropriately. In other words, understanding of the most binding constraint and addressing it should be a priority for reformers.

As long as the latter consideration is not recognized by policymakers and reforms are implemented randomly rather than according to an optimally defined order, the policy effectiveness might be undermined. Thus, the correct sequencing of reform policies might be at least as important as a scrupulous implementation of a single policy.

Below, we place these considerations in the context of educational reform in Russia. We argue that in the presence of institutional imperfections, an educational policy is likely to be effective only if it takes place after broader institutional reform is implemented. Otherwise, even competently implemented educational policy might fail to deliver higher economic growth rates.

## Are educational reforms necessarily growth-enhancing?

According to a number of internationally recognized measures used both by academics and policy makers to make cross-country comparisons<sup>2</sup>, the Russian economy suffers from a long list of ailments including poor institutions and underperforming education system that still represents a version of Soviet schooling. Meanwhile, the Russian authorities apparently are interested in raising the level of complexity of the economy<sup>3</sup> that up until now has been dominated by low value-added sectors such as oil and gas extraction. According to the Atlas of Economic Complexity developed by Hausmann and Hidalgo, a project that aims at making cross-country comparisons in terms of the level of export complexity, in 2014 Russia was placed 50th among 124 countries covered by this year's ranking<sup>4</sup>. Such placement implies that Russia exports mostly commodities that are also exported by many other nations. This is an indication of the relative technological simplicity of the Russian economy.

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<sup>2</sup> Such as, for instance, the Corruption Perception Index calculated and published annually by Transparency International since 1995 or OECD PISA scores that measure the quality of education of 15-year-old students.

<sup>3</sup> <http://www.reuters.com/article/russia-crisis-putin-diversify-idUSR4N0QD05X20141218>

<sup>4</sup> <http://atlas.cid.harvard.edu/rankings>

To become one of the technological leaders, Russia needs to develop new capabilities for producing and exporting more sophisticated products. Many of these production capabilities take the form of high skills or expert knowledge and, therefore, are affected, if not directly impacted, by the quality of domestically supplied education.

Are the Russian schools and universities capable of filling the labor market with the world class graduates? Even though many Russians are proud of their education system, the internationally recognized measures indicate that in fact it becomes less and less internationally competitive. According to PISA 2012 results<sup>5</sup>, Russia is a low achiever in all three categories that the OECD takes into account when it evaluates students' performance, i.e., mathematics, reading, and science. It is true that according to the same ranking, the United States performs even worse than Russia. However, the US possesses the largest collection of the world-class universities while Russian tertiary education is at best of regional importance<sup>6</sup>.

Therefore, the education system in Russia offers only a weak opportunity to acquire advanced skills and is oriented mostly towards providing medium skills to its labor force. Even though medium skills are suitable for performing routinized tasks, they are insufficient to meet the requirements of frontier, advanced professions.

As argued by Acemoglu and Autor (2010), an oversupply of medium skilled workers might result in a larger skill premium and, consequently, in greater income inequality. But apart from its inequality effect, poor education also constrains economic growth. Hanushek and Woessmann (2015) directly point at education as a key ingredient for economic growth. As discussed by Rodrik, even when it is possible to imitate frontier technologies, the lack of education can substantially limit growth opportunities<sup>7</sup>. To let more sectors catch up with the world level of technology, Russia needs to transform its system of education, so that it can train fewer clerks and more engineers, programmers, and managers.

The current state of education in Russia might partly explain Russia's relative weakness in exporting sophisticated products as captured by Hausmann and Hidalgo's index of economic complexity that we briefly mentioned above. Therefore, it seems natural to conclude that a reform of education system should become a priority in Russia. However, this might be a premature verdict as there are many more imperfections that might negatively affect Russia's capability to accumulate more human capital.

A policy that intends to improve the system of education focuses on supply-side issues<sup>8</sup>. But if the demand for education is a more important constraint than the supply of schooling, this kind of policy might exacerbate imbalances in the market for education.

To have incentives to acquire more human capital and to use it in their home economy, individuals need an opportunity to focus on complex tasks. Speaking differently, they need advanced jobs where they can work and interact with frontier technologies. When these jobs are scarce, education hardly provides any substantial reward unless the individuals transfer their human capital to a more advanced economy. Because of technological backwardness, a vast majority of jobs in Russia either require manual labor or are overly routinized, and, therefore, it is not easy to find a place where sophisticated skills are in demand.

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<sup>5</sup> <https://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm>

<sup>6</sup> <http://www.shanghai ranking.com/>

<sup>7</sup> [https://www.project-syndicate.org/commentary/innovation-impact-on-productivity-by-dani-rodrik-2016-06?utm\\_source=June+Newsletter&utm\\_campaign=June+Newsletter&utm\\_medium=email](https://www.project-syndicate.org/commentary/innovation-impact-on-productivity-by-dani-rodrik-2016-06?utm_source=June+Newsletter&utm_campaign=June+Newsletter&utm_medium=email)

<sup>8</sup> In the case of developing economies, the literature has highlighted the role of liquidity constraints, which make it impossible for individuals to choose their education optimally (see the World Bank, 2001). Therefore, by subsidizing education, authorities can also affect the demand for schooling. It is also possible to impact the demand for education indirectly, for instance, by employing or supporting highly educated individuals.

But why does the level of technology in Russia remain low restricting the demand for more advanced education?

One important reason is the state of corporate management. Russian state-owned giants are poorly managed<sup>9</sup>, which explains why they demand bailouts whenever international markets are not at their peak level<sup>10</sup>. Top management in Russia is hierarchical and undersupervised. As a consequence, CEOs at big companies are free to sponsor their favourite soccer clubs and build themselves luxurious offices unencumbered by checks on their authority emerging from traditions and rules that restrain CEOs from diverting their companies' budget away from investment in productive activities. Shareholders and supervisory boards in Russia are not motivated or empowered to monitor CEOs. As a result, corporate offices often lack appropriate lower level staff, the right kind of equipment and new technologies required for a high skilled employee to make a substantial contribution.

Of equal importance is that CEOs in Russia often lack key skills and experience to run their companies. Many of them became CEOs not because they were talented enough to climb the corporate ladder, but because they controlled their firms' assets. When companies, banks or universities are managed by ex-bureaucrats instead of MBAs, one can hardly observe, apart from a few exceptions, how these entities become more technologically developed and professionally sound.

In addition to the problem of poor management and corporate corruption, which is, to a large extent, a result of excessive state ownership, Russia also suffers from weak protection of property rights. Even if the level of management improves to the level of the best international standards, companies might still have weak incentives to invest in new technologies, as the risk of racketeering or nationalization remains substantial. According to Transparency International, in 2015 Russia was as corrupt as Sierra Leone, Guyana or Madagascar, despite the fact that the latter three economies are far behind Russia in terms of GDP per capita, the level of education or technological development<sup>11</sup>. Until the problem of corruption and arbitrariness in dealing with entrepreneurs is properly tackled, there is little chance that the economy will be able to attract large amounts of investment.

Not only corruption reduces the level of investment in new technologies, but because of a slow pace of technological development, it also causes the lack of demand for the high-skilled labor. It is, therefore, essential not to start educational reform prematurely, before there is sufficient demand for advanced skills. Otherwise, new graduates will be more likely to end up in technologically developed economies, where their skills are in high demand.

## Concluding remarks

Thus, to catch up with more technologically advanced economies, policy makers in Russia need to recognize that the mechanism that links reforms and outcomes is complex. Even well-designed reforms might not lead to improvement before all important ingredients are present. To succeed, it might be necessary to detect the most binding constraints and to implement a package of reforms sequentially, targeting the most important constraint at the first place, rather than to introduce a random single reform, even though economic theory and experts might claim that a particular reform has a high potential to accelerate economic growth.

<sup>9</sup> <https://www.bloomberg.com/view/articles/2013-06-09/gazprom-s-demise-could-topple-putin>

<sup>10</sup> [http://www.nytimes.com/2015/03/10/business/dealbook/in-russia-the-well-for-corporate-bailouts-might-run-dry.html?\\_r=0](http://www.nytimes.com/2015/03/10/business/dealbook/in-russia-the-well-for-corporate-bailouts-might-run-dry.html?_r=0)

<sup>11</sup> <http://www.transparency.org/cpi2015>

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We can use a simple metaphorical example from Hausmann, Klinger and Wagner (2008) to illustrate this idea. Imagine a barrel with horizontal wood slabs. Clearly, in this case, the volume is defined by the sum of the width of all slabs. Now imagine a barrel with vertical wood slabs of different length. Here, the volume depends on the length of the shortest slab. The volume of the barrel is not affected if you substitute a longer slab with another slab which is even longer. Only when you replace the shortest slab with a longer one does the volume of the barrel become larger.

Even though the importance of reforms sequencing is emphasized in the literature, the task of identifying the most binding constraints is not easy and a proper methodology is yet to be developed.



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