The Issue of Ensuring Economic Growth in Russia and Innovatizing the Russian Economy

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Abstract
This paper looks into issues related to achieving sustainable economic growth in Russia, with a focus on some of the key requirements that must be met in this regard in the context of economic policy. Its main purpose is to identify some of the key components of economic growth that can help design an effective economic policy aimed at stimulating economic growth. The principal methods employed by the authors include analysis and synthesis, scholarly abstraction, and mathematical modeling. The paper examines some of the major competing strategies for development in Russia. Despite the multiplicity of ideas on the subject, these growth strategies are predicated on the consideration that jumpstarting the economy requires greater investment. Indeed, this is a crucial condition – but that is not enough. Based on an analysis of fundamental economic identities and the economic situation in Russia, the authors formulate a set of key requirements for economic policy on stimulating economic growth. It is suggested that a possible basis for economic growth in Russia is mainly boosts in labor productivity. With that said, the government must maintain a balance in terms of the dynamics of investment and wages, with a focus on advanced growth in pay relative to labor productivity. In this context, it is worth noting that the dynamics of growth in pay is among the key components of economic growth. In this regard, the authors are of the view that growth in pay must be viewed as a key factor in economic growth – not a consequence thereof. Unfortunately, there is a myth in the economic literature that growth in pay is a consequence of economic growth and growth in labor productivity. The findings from the research reported in this paper could be used by Russia’s government authorities in designing their economic policy aimed at stimulating economic growth.

Keywords: Economic growth; Labor productivity; Investment; Pay; Gross domestic product (GDP).

1. Introduction
In the first decade of the 21st century, Russia witnessed substantial boosts in the nation’s overall well-being. These improvements were predicated on fast economic growth. However, starting in 2013, the Russian economy started to slow down significantly, and between 2015 and 2016 it entered a period of recession. In 2017, the Russian economy got out of the slump, but its economic growth remains unstable at the moment. This is attested to by the nation’s low economic growth rate of 1.5%, against a backdrop of declines in real household income and a growth rate of 1.5%, against a backdrop of declines in real household income (Russian Federal State Statistics Service. Rosstat, 2017). Thus, ensuring sustainable economic growth in Russia remains one of the more acute issues today.

In writing this paper, the authors, on the one hand, drew upon material by scholars (McConnell and Brue, 2001); (Fischer et al., 2002), which explores some of the fundamental economic identities, and, on the other hand, publications by Kudrin and Knobel (2017), Kudrin and Sokolov (2017), Kudrin et al. (2017) (Titov and Shirov, 2017), Sukhorukova and Bogorelyi (2017), which formulate some of the major competing strategies for development in Russia. Worth a separate mention is a publication by Idrisov et al. (2017), which reconceptualizes some of the key notions on mechanisms underlying economic growth.

The study’s theoretical basis is focused on strategies for stimulating internal demand (Palley, 2002).

The authors’ conclusions formulated in this paper were substantiated by way of processing a body of statistics on both Russia and other countries.
The paper’s primary focus is on exploring some of the key driving forces that facilitate economic growth by reference to their quantitative interrelationships and working out a set of key requirements for policy on stimulating economic development. Based on this focus, the authors undertook to resolve the following objectives:

1) overview some of the major competing strategies for development in Russia;
2) analyze some of the key components of economic growth through the prism of their mathematical interrelationship;
3) work out a set of key requirements for an effective policy on stimulating economic growth by reference to Russia’s current economic situation.

2. Methods

The study’s methodological basis is grounded in the use of analysis and synthesis, scholarly abstraction, and mathematical modeling. The authors made extensive use of analysis and synthesis in undertaking an overview of key competing strategies for development in Russia, exploring a set of relevant formulas, and investigating the current economic situation in the country. The scholarly abstraction method came in the handiest in identifying the primary driving forces that facilitate economic growth. Mathematical modeling helped establish a set of mathematical interrelationships between the key components of economic growth. On the whole, the use of the above methods did help achieve the goals set by the authors.

3. Results

Currently, despite the relevance of the issue of economic growth, there is a lack of economic ideas on how to stimulate it. The authors are of the view that there is a shortage of not ideas per se but those that could form the basis of an efficient economic policy that could provide a kick-start to the mechanism which underpins sustainable economic growth. This has been noted by K. Simonov (Simonov, 2017) and a number of other Russian scholars, and it is something that is hard to disagree with. The view is shared by foreign scholars as well. For instance, scholar E. Helpman has conducted a detailed investigation of various methods for assessing economic growth to come to the conclusion that the differences in factors viewed as key drivers of economic growth explain the smaller portion of differences in the levels of economic development in various countries (Helpman, 2004). In this regard, it is possible to single out a few positions on how to resolve this highly relevant economic problem. Common to all these positions is an understanding of the need for structural economic reforms. The basis of these structural reforms is investment centricity, i.e. a focus on investment, increased investment to be exact, as an essential starting point in kick-starting economic growth. Thus, these positions are based on a single platform, namely strategies for growth via investment (Borensztein et al., 1998). However, the positions appear to diverge on certain points.

One of the positions is expressed in a strategy developed by the Center for Strategic Research (CSR), headed by A. Kudrin. It incorporates two crucial components – a focus on enhancing the caliber of state institutions and a focus on stepping up investment in human capital. Based on this position, enhanced institutions must lead to improvements in the effectiveness of public administration and reductions in bureaucratic interference in the operation of the national economy, and thereby help create a favorable investment climate. Investing in human capital implies investing in education, which forms this capital, and investing in healthcare to prevent the losses thereof. As a consequence, education and healthcare will be acting as new drivers of economic growth in Russia. In terms of structural reforms, this position is quite authoritative and close to that of experts at the World Bank. However, it is quite hard to agree with. State institutions are not subsumed under economic factors and have little to do with generating economic growth. They are capable of influencing to a certain degree the dynamics of the national economy, but they cannot act as a source of changes in it. Education and healthcare play a crucial role in the development of the present-day economy. Increasing funding for these sectors is a good idea, which will, at least, help avoid degradation in them. But, at the same time, these sectors cannot be drivers of economic growth. Proponents of institutional theory have noted, rightly, that accumulating human or physical capital cannot be a source of economic growth, as it is growth in itself (Williamson, 2000). It is new highly productive jobs created in a growing economy that ensure demand for highly educated and healthy workers – by no means the other way around. One should not mix up the cause with the effect here.

The other position deals with the ‘Growth Strategy' program developed by the Stolypin Club. Proponents of this position have suggested directing trillions of rubles toward various projects within the real sector of the economy, claiming that will help achieve substantial economic growth. A similar position, focused on the need to implement a mild monetary policy, has been pursued by a task force at Financial University (Eskindarov et al., 2016) and academician S.Yu. Glazev. These funds are expected to be obtained through emitting money, borrowing money from the population, increasing the budget deficit, increasing the national debt, and dropping the policy of maintaining a floating exchange rate for the ruble. Maintaining a floating exchange rate for the ruble has played a positive role in overcoming recessionary phenomena in the Russian economy. For this reason, it is hard to agree with V.V. Ivanter concerning the shift to a policy of free floating the ruble being too hasty a decision (Ivanter, 2016) and, all the more so, with a proposal by S.Yu. Glazev to commit to a fixed exchange rate (Glazev and Zhukovskii, 2014). This strategy is based on the tenet that there are many viable projects out there but the economy is experiencing a shortage of money. However, in the authors’ view, the Russian economy, on the contrary, is actually experiencing a shortage of viable projects at the moment. This means a lack of potential for monetary stimulation, and that has been noted by a number of economists (Badasen et al., 2015; SinelnikovMurylev et al., 2014). At the same time, infusing a large
amount of money into the economy may undermine macroeconomic stability, undoing the substantial achievements posted by the Russian Central Bank in recent years.

The Ministry of Economic Development has suggested the following tax maneuver: reduce the premium rate and compensate for declines in funds’ revenue through increasing VAT. This maneuver is aimed at shifting the tax burden from labor to consumption. Since it does not imply changes in the tax burden overall, the maneuver cannot benefit the budget, and the economy as a whole, in any additional way. Its proponents believe it may help boost the competitiveness of exports and sanitize the economy to, eventually, push economic growth. These arguments raise major doubts. Reducing the premium rate will hardly enable the economy to get sanitized automatically but is likely to cause a shift away from an insurance-based pension system. Increasing VAT will translate into rising prices and greater strains on the population, giving also rise to a major risk of poor collectability of the above tax. Regarding boosts in the competitiveness of exports, it is worth noting the following. The last major devaluation of the ruble has had an immensely greater effect on exports compared with what this maneuver can theoretically produce in maximum measure. But even the ruble’s devaluation has failed to provide the required impetus for sustainable economic growth.

To a degree, most positions on stimulating economic growth tend to prioritize a certain sector or technology. Economist A. Tuzikov says the following to this effect: “Economic growth is like horse racing. To win, the gambler (the state) needs to bet on the right, fastest, horse (an industry) which will be able to beat its rivals” (Tuzikov, 2017). In the authors’ view this approach could, more or less, work in the industrial era, but nowadays it is doomed to failure, as is the proposal to create “road maps” for implementing new technology (Apokin et al., 2015). The thing is that today, when the pace of technological change is just exponential, using the above approach is like trying to guess how the world will develop technologically going forward, which is technically impossible. What would be unequivocally effective at this point is not prioritizing a particular sector or technology but striving to ensure, rather, a proper environment for their development.

Putting together an effective economic policy requires gaining a proper insight into the actual concept of economic growth. Economic growth may be construed as progressive economic development with a focus on long-term boosts in the real volume of production based on the development of productive forces. A key objective indicator of the real volume of production is Gross Domestic Product (GDP). For this reason, economic growth is expressed in growth in GDP. However, the authors are inclined to believe that economic growth should be viewed as not just boosts in GDP but boosts that are characterized by the rate of increase in GDP surpassing the rate of increase in the population. Accordingly, this way to construe economic growth is based on the rate of growth in GDP per capita. This is important for the following reasons. Firstly, this way to interpret economic growth implies a focus on growth in a nation’s well-being, not just growth in the size of its economy. Secondly, this way to look at it is aligned with a focus on intensive economic growth, which is founded on growth in labor productivity, as opposed to extensive economic growth, the potential of which has already been exhausted in Russia’s present-day economic conditions.

Let us analyze the notion of GDP based on the above approach to economic growth. In economic theory, there is a crucial identity that expresses the interrelationship between a nation’s total GDP and labor productivity (McConnell and Brue, 2001).

\[
\text{GDP} = H \times L_p, \quad \text{(1)}
\]

where \( H \) is the labor costs, i.e. the number of man-hours worked;

\( L_p \) is the labor productivity.

Labor costs are determined by the number of workers times the average number of hours worked by one worker. Labor productivity is expressed as the average output per hour, i.e. the average value created by a worker in one hour. Since economic growth means growth in GDP, to ensure it, one needs to increase labor costs or labor productivity, or both the former and the latter. But since we are focused here on intensive economic growth, a key factor for ensuring it will be just growth in labor productivity.

However, in essence, GDP is the total market value of end goods and services produced again in a nation’s territory in a certain period of time. Mathematically, this can be expressed via the following formula:

\[
\text{GDP} = \sum_{i=1}^{n} P_i \times Q_i, \quad \text{(2)}
\]

where \( n \) is the number of different types of end product in GDP;

\( P_i \) is the price of the \( i \)-th type of end product in GDP;

\( Q_i \) is the quantity of the \( i \)-th type of end product.

It is worth noting that end products are products that are acquired for end consumption and are not used entirely to turn out other products in the same period of time in which they themselves were turned out. Consequently, apart from consumer products that go to end consumption, capital goods, the value of which does not pass entirely into the value of finished products within one year, are regarded as end products. End products (buildings, equipment, etc.) can be used to turn out other products, the bottom-line being that they are not consumed in the period of time when they are produced. Investment in reserves, i.e. funds invested to increase reserves of goods, is also classified under end products, as it represents reserves of goods that were not used during the year.

Factoring in the price equation, Formula 2 can also represent \( P_i \) as follows (Fischer et al., 2002).

\[
P_i = a_i \times W_i \times (1 + m_i), \quad \text{(3)}
\]

where \( a_i \) is the number of work hours required to turn out a unit of the \( i \)-th type of end product;

\( W_i \) is hourly pay in the sector that turns out the \( i \)-th type of end product;

\( m_i \) is a coefficient that reflects capital costs in the sector that turns out the \( i \)-th type of end product.

Note that all the indicators listed in the right part of the equation are averaged.
As a result, we transform Equation 2 factoring in Equation 3.

\[
\text{GDP} = \sum_{i=1}^{n} a_i \times W_i \times (1 + m_i) \times Q_i
\]  

(4)

Under other equal conditions, an increase in labor productivity in society will be reflected in a decrease in \( a \), and \( m \). The thing is that an increase in labor productivity means an increase in the volume of output created by a unit of labor. In other words, to produce a unit of output we now need fewer work hours, and, consequently, \( a \) will decrease. Note that, if the implementation of innovative technology, which has led to growth in labor productivity, has taken place only in sectors, the end product of which is intended for households, there will be a decrease in \( a \) only. But, if labor productivity increases in sectors, the end product of which is a capital product for other sectors, these other sectors will reduce \( m \). Thus, growth in labor productivity in society mandatorily implies a drop in \( a \) in particular sectors, and, in certain cases (like those discussed above), also a decline in \( m \) in certain sectors.

The aforesaid produces the following crucial inference. On the one hand, to ensure economic growth there is a need to increase labor productivity (as per Formula 1), while, on the other hand, growth in labor productivity reduces \( a \), and \( m \) (as per Formula 4), and, consequently, reduces the nation’s GDP. This means that, to ensure the condition of GDP growth, based on Formula 4, we need greater growth in indicators such as \( W \) and \( Q \). Between these two indicators, the priority is with growth in pay. The thing is that additional boosts in the volume of various types of product make no sense without the emergence of additional demand and can only lead to overproduction in the economy. Ultimately, it turns out that growth in productivity without growth in pay may cause a nation’s economy to shrink and its GDP to drop. What is more, even if labor productivity and pay grow at a similar rate, the economy will be in a static state, i.e. it will neither grow nor shrink. Only advanced growth in pay relative to labor productivity is capable of ensuring sustainable economic growth.

This inference, which follows from an analysis of the formulas, is in obvious contradiction to a tenet that is widely popular in the economic literature, whereby pay ought not to grow faster than labor productivity. Statistics on developed and developing countries attests that each of nations may experience both periods of advanced growth in labor productivity and periods of advanced growth in pay, which means there is no “cast-iron” economic law on advanced growth in labor productivity relative to pay. In the authors’ view, this is an economic myth, and a wrong-headed one at that, as implementing it as part of economic policy will not just fail to produce a positive economic effect but may, actually, have negative impact on the economy. This economic myth relies on a simple logic which is wrong suggesting that, to achieve an economic breakthrough, it will help to concentrate as many resources as possible on investment. With that said, a crucial fact that being overlooked here is that in a market economy capital goods are not valuable intrinsically – their value is determined, above all, by demand for them. Demand for capital goods is derivative and depends on demand for products turned out using those goods. Consequently, for demand on capital goods to grow, there is a need for growth in demand for consumer products created using those capital goods, while growth in demand for consumer products relies on growth in real pay and real household income. However, certain economic experts, including those working for the government, have relied on the above-mentioned myth to recognize pay stagnation as a source of growth. They base their judgement on that, by saving money on pay, firms will be able to step up investment, which will later make it possible to raise pay and redress past losses. This approach is faulty in that saving money on pay is causing today losses that are multiple times greater than profits that one will get from increased capital and growth in production tomorrow. To assess the contribution of fixed capital to faster economic growth, let us examine the following hypothetical economic situation. Let the rate of return on fixed capital be 10%. With that said, gross fixed capital formation in GDP is 20%, and 50% is the share of wage workers’ pay in GDP. It follows from the rate of return that each dollar invested in this year will be making us a profit of 10 cents annually. Consequently, if we increase fixed capital by 1% of GDP, production will be greater in the following year by 0.1% of GDP. Note that, to increase the rate of growth in production by 1% of GDP, we need to increase investment by 10% of GDP. Increasing the nation’s gross formation of fixed capital by 10% of GDP will increase its share in GDP to 30%, and total investment will be 50% greater, while, if this 10% increase in investment were obtained via saving on pay, that would mean a 20% decline in wage workers’ total pay in GDP. Ultimately, this great a decline in consumption in the form of a 20% decrease in total worker pay will increase, through investment, the rate of GDP growth by just 1%. Note that these calculations do not factor in negative side effects that are associated with that kind of movement of funds from the sphere of consumption into the sphere of accumulation.

This disruption of the balance in growth in investment and pay in a market economy activates a defense mechanism that helps restore the balance. This implies a decline in return on investment and a decrease in the number of viable projects. Banks and companies are inclined increasingly to just “sit” on the money and to increasingly invest it in the real sector. Entrepreneurs are losing their “appetite” for investing, and that is taking place even amid low interest rates, i.e. “cheap” money being available.

An analysis of the above hypothetical economic situation helps draw a set of important conclusions. Firstly, trying to save money on pay cannot be a source of sustainable economic growth. In a market economy, the principal source of growth is company revenue. Secondly, to ensure sustainable growth, the state needs positive dynamics both in investment and in pay. Figuratively speaking, economic growth is supported by two “legs” – growth in investment and growth in pay, with both legs growing from the same spot – company revenue.

At the moment, the Russian economy is witnessing an imbalance in the dynamics of investment and pay. Note that this is due to poor pay dynamics. Pay in Russia is low in absolute terms, while its current growth rates also are testimony to a lack of tangible positive changes. On top of that, Russia is not just lagging behind developed countries considerably in pay, but, based on the dynamics of growth in pay in various countries, Russia has actually posted a decline in this indicator lately. More specifically, 2016 registered a remarkable event – China overtook Russia in...
average pay. And that is considering that in 2016 labor productivity in China totaled $25,988, and it came in at $49,085 in Russia that year (International Labour Organization, n.d.). Having said that, average pay does not reflect the way pay is distributed among the various categories of workers, but this distribution is crucial to achieving a balance between investment and pay. For growth in pay is crucial not per se but rather in terms of ensuring growth in consumer demand. Consequently, even if the average pay is kept the same, redistributing it in favor of the majority of workers should lead to growth in consumer demand. This is due to that as a worker’s income grows there also grows the part of their income which goes toward investment products and savings and is not converted into consumer demand. Growing inequality in pay among the various groups of workers may result in an imbalance between investment and pay, leading, eventually, to a slowdown in economic growth. In Russia, there is currently considerable inequality in pay among various groups of workers. Based on estimates by Korn Ferry Hay Group (KFHG), the pay of regular employees in Russia is 3–5 times smaller than that in Germany, the UK, and the US, and the difference in pay for top managers in Russia and in developed countries is 1.5 times (Yudina, 2017). It turns out that top managers’ salaries are very high and are not linked to labor productivity. And that is considering that the top management team is concerned with organizing the production process and it is its activity that the efficiency of that process (and, accordingly, the level of productivity) directly depends on. However, in Russia a major portion of workers live below the poverty line. To be specific, 7.3% of all workers earn below a minimum level of income, and that is 2 million people, based on data from Rosstat for April 2017 (Russian Federal State Statistics Service, Rosstat, 2017). These data do not factor in the small-business sector, where the share of workers living below the poverty line is even larger. This category also includes workers with children with a wage that does not exceed two subsistence minimums if there are two children in the family and a minimum and a half if there is one child. Consequently, the actual number of workers living below the poverty line increases multifold. All this is testimony to the nation being faced with a highly acute problem which is both social and economic in nature. From a perspective of economics, it is impeding the nation’s economic growth, as there cannot be high labor productivity when there is low pay.

An important consequence of the imbalance in the dynamics of investment and pay in Russia is that today many companies are withdrawing their funds from production and putting them in deposit accounts. Companies are losing their interest in investing, which, by the way, is taking place in a climate of loans being available. This trend was the most pronounced within the Russian economy in the fourth quarter of 2017. As a consequence, growth in production and investment has been curbed by consumer demand, and the latter, in turn, – by low pay.

The world economy is entering a new stage in its development which is associated with the advent of a new technological revolution. Groundbreaking areas in the development of innovations are manifesting themselves in the process of robotization of the production process and the development of artificial intelligence. All this poses a serious challenge for Russia, and could lead to either the breakthrough development of the economy or its degradation. An economic policy that prioritizes innovative technology is doomed to failure. This kind of policy relies on the erroneous logic that it helps to implement innovative technology to resolve the issue of poverty and inequality. But the actual issue is that it is poverty and inequality that actually impede the commercially lucrative implementation of innovations. Plus, employing the administrative resource to implement innovations is quite a dubious approach to take. It is dubious not just in terms of the possibility of getting things implemented. Even if it is possible to successfully implement innovations in that way, this is fraught with major spikes in unemployment and in the number of workers living below the poverty line. The process of implementation of innovative technology pursued as part of the Fourth Industrial Revolution may result in the cutting of many millions of jobs, and, at the same time, it could also result in the creation of millions of new jobs. Of major significance to ensuring a positive balance for employment and growth in society’s well-being are advanced rates of growth in pay versus labor productivity. Failure to meet this condition in Russia may result in job cuts within the corporate sector and people getting pushed out into the grey market for labor. As a consequence, the nation may witness declines in real household income and increases in poverty.

The issue of insignificant growth in pay is a concern in developed countries as well, including the US. Growing inequality in income distribution is leading to a tendency among the nation’s wealthy to save their money and a decline in consumer demand (Eggertsson et al., 2017; Summers, 2014). Of course, in developed countries this issue is much less acute than in Russia, but, nevertheless, it has led to their economic growth getting stifled too. Based on estimates by American researchers, a single robot can help cut three jobs and cut pay by 0.25% (Kuvshinova, 2017). In the authors’ view, in this context it may help to set the priorities in a different way, while honoring the actual numerical data – in the US, with rates of growth in pay reduced by 0.25%, introducing one robot into the economy will lead to a cut of three jobs.

To conclude, no economic strategy aimed at stimulating economic growth will be a success without a focus on stimulating growth in pay. It will help to renounce the dangerous economic illusions whereby low pay for wage workers will attract into Russia many investors and help ensure economic growth. A policy of stimulating growth in pay implies implementing a set of economic measures (which include raising the minimum wage) aimed at boosting the share of worker pay in GDP – at the microlevel this implies redistribution of companies’ revenue toward pay. Unfortunately, most of the benefits from growth in productivity are reaped by those who own capital, while wage workers end up being a disadvantaged party. But these gains for owners of capital are of a short-term nature, as, eventually, there will be a decline in consumer demand for the products they themselves turn out.

4. Discussion

The conclusions drawn based on the research reported in this paper are in obvious contradiction to certain tenets that can be subsumed under a category of economic myth (Table 1).
Table 1. Economic Myths and Potential Effects from Utilizing Them

| Tenet                                             | Possible implications of employing the tenet                                                                 |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Pay should not grow faster than labor productivity| Subsequent to pay, there will be a slowdown in growth in labor productivity, and, eventually, economic growth will be stifled. |
| Pay stagnation drives growth                       | Pay stagnation means stagnation within the consumer market. It will subsequently continue into the investment market, and, as a result, the entire economy may end up in stagnation. |
| Innovative technology is primary                   | This may lead to job cuts, greater unemployment, declines in household income, and increased poverty.        |

*Compiled based on the authors’ inferences.

At the same time, the findings from the research reported in this paper could be employed in designing an effective economic policy aimed at stimulating economic growth.

5. Conclusion

Thus, the only possible basis for economic growth in Russia is labor productivity. With that said, the government must maintain a balance between the dynamics of investment and that of wages, with a focus on advanced growth in pay relative to labor productivity.

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