

## GDP GROWTH RATE IN 2015–2016: WHAT ITS DECOMPOSITION SPEAKS OF<sup>1</sup>

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*The RF Ministry of Economic Development presented three scenarios in its socioeconomic development forecast for 2016, which envisaged that the GDP decline trajectory would hit its lowest point in 2015 (-3.9%), and the rate of GDP growth would be fluctuating somewhere between (-1.0) and +2.3% in 2016. A decomposition of the growth rate of GDP, with due regard for the projections of the movement of investment in fixed assets, the number of employed in the economy and the expected level of the price of oil, demonstrates that this growth rate may be achieved either on condition of a dramatic acceleration of the cyclical component, or a revision of the existing projections of the cyclical component's movement with a view towards growth of the total factor productivity in the economy. The input of the foreign trade component, which is linked to the movement of oil price, in the growth rate of GDP in all the scenarios is negative, because at present oil prices are below their multi-year average. All these development, irrespective of the roles played by each separate component in the behavior of GDP in 2016 and of the scenario under consideration, imply that both in 2015 and in 2016 the output gap in Russia's economy will remain negative. In other words, in all the three scenarios the actual output index is expected to be below its potential value.*

The RF Ministry of Economic Development released an adjusted version of its forecast of Russia's socio-economic development in the years 2015–2016, to serve as the foundation for the draft federal budget for 2016. The forecast contains three scenarios – baseline, conservative and target. According to this document, it is expected that in 2015, GDP will decline by 3.9% on 2014, while the average annual price of Urals crude will amount to \$ 53 per barrel; investment in fixed assets will shrink by 9.9%, and the number of employed will amount to 68.4m (in 2014 the number of employed in the Russian industry was 67.8m).

For 2016, the baseline scenario of the forecast 'describes the main macroeconomic parameters of economic development in conditions of persisting conservative trends in the evolution of the external factors and a conservative budgetary policy'<sup>2</sup>. Thus, in the framework of that scenario, it is expected that GDP growth in 2016 will amount to 0.7% on 2015 (in other words, recession in the economy will give way to a slightly positive growth rate), the average annual price of oil will amount to \$ 50 per barrel, investment in fixed assets will shrink by 1.6% on the previous year, the employment rate will change only slightly. So, the baseline version of the forecast for 2016 relies on the continuation of the existing trends in the Russian economy, without the emergence of any additional factors capable of boosting the rate of economic growth.

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<sup>2</sup> <http://economy.gov.ru/minec/about/structure/depmacro/20151026>

The conservative version of the forecast, as noted by the RF Ministry of Economic Development, builds upon the expectation of a very unfavorable external economic situation (where the average annual price of oil declines to \$ 40 per barrel), a continuing decline of investment (by 6,4% on 2015) and consumer demand, a high inflation rate, and a negative movement of indices in the other sectors of the economy (industry and retail). In other words, the main blow under this scenario will be delivered to the consumer and investment spheres. Thus, the conservative scenario is the most pessimistic one in this forecast; it envisages that GDP will decline by 1.0% on 2015.

The target version of the forecast is more optimistic, it is elaborated by way of implementing the RF President's executive order concerning the launch of Russia's economy onto a long-run sustainable growth trajectory at the level of the world's average, and the achievement of a proper macroeconomic balance in conditions of a low inflation rate and labor productivity growth. In fact, this scenario implies a switchover, from 2016 onwards, to a new economic growth model. As noted by the RF Ministry of Economic Development, on the whole 'the main inputs in the accelerating rate of economic growth in 2016–2020 will be made by the following factors:

- growth of investment in production expansion and the production infrastructure;
- growth of investment in exports of commodities other than raw materials, and promotion of hi-tech exports;
- total factor productivity growth as a result of increased investment in the innovation sectors of the economy;
- implementation of measures designed to save resources and cut costs, including labor costs and the tariffs set by natural monopolies;
- development of small businesses, improvement of the conditions for doing business, and other factors'<sup>1</sup>.

As the scenarios offer projections for the movement of oil prices, the investment index and the number of employed, we can decompose the forecasted behavior of the growth rate of GDP in 2016 in accordance with all the three scenarios, on the basis of our algorithm. *The method that we suggest, which relies on the methodology of decomposition of macroeconomic indices into their structural, foreign-trade and situational components (business cycles and accidental shocks), makes it possible to identify separately the input of each of the main factors in GDP growth.* The methodology is broadly applied in the developed countries (OECD), but we further elaborated it with due regard for the specificities of the Russian economy. Its specific feature is the high dependence on foreign trade conditions, which can be approximated on the basis of the movement of world price of oil<sup>2</sup>.

The actual, structural and foreign-trade growth rates in Russia's GDP, as well as that of its situational component (i.e., the sum of the business-cycle component and the accidental-shock component), for the three scenarios presented in the forecast of the development of the Russian economy in 2015–2016 are shown in *Fig. 1–4*.

1 <http://economy.gov.ru/minec/activity/sections/macro/prognoz>

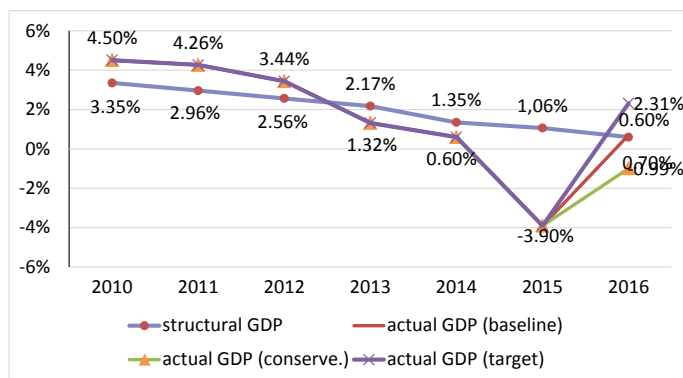
2 For more details on the methodology applied in the decomposition of Russian GDP growth rates, as well as on the interpretation of our results, see S. Sinelnikov-Murylev, S. Drobyshevsky, M. Kazakiva. Decomposition of Russian GDP Growth Rates in 1999–2014. Economic Policy. 2014. No 5. P. 7–37; also see <http://iep.ru/ru/publikacii/7125/publication.html>

According to our estimates, the structural component of GDP growth will continue to decline in 2016 under all the three forecast scenarios (from 1.1% in 2015 to 0.6% in 2016, Fig. 1). Similarly to the situation observed over the previous years, this will be caused by the negative dynamics of the fundamental growth factors (the shrinking number of people engaged in economic activities due to the current demographic trends, the shrinking capital stock due to capital outflow resulting from the negative behavior of the investment index), and the total factor productivity decline.

At the projected oil price levels for 2015–2016 in all the three scenarios, which are expected to be at their multi-year low (\$ 80–85 per barrel), the foreign-trade component of the growth rate of GDP in 2015 will be negative in each scenario (-1.2% in the baseline and target scenarios; and -1.6% in the conservative scenario).

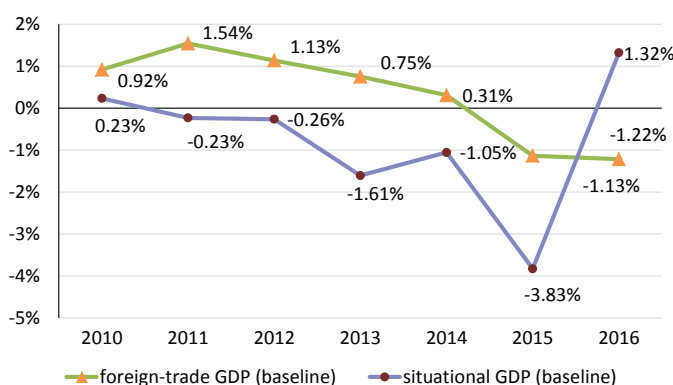
The situational component of the growth rate of Russian GDP in 2015 will remain negative, its cyclical decline obviously having been enhanced by a negative shock, which is estimated to amount to 2.5–3.0 p.p. of the growth rate of GDP. This shock was produced by a combination of negative consequences of the economic sanctions introduced against Russia, and Russia’s retaliatory sanctions, the increasing uncertainty and risks in the economy in view of the highly volatile exchange rate of the ruble against major world currencies, rising inflation and restricted access to borrowed capital.

As far as the GDP growth rate decomposition for 2016 is concerned, we must note that the achievement of the forecasted rate of growth in all the three scenarios, given the relatively low prices of oil and absence



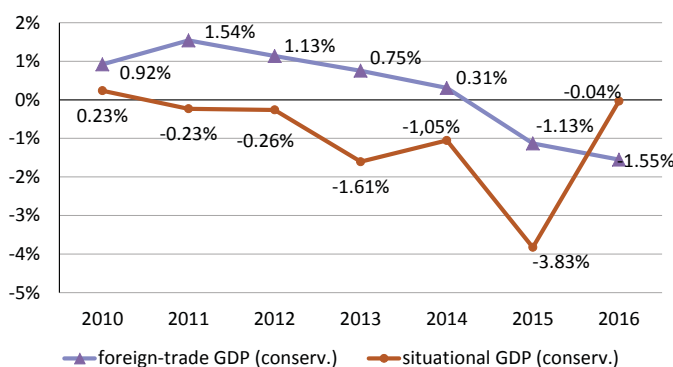
Source: Rosstat; RF Ministry of Economic Development; IMF; the authors’ estimates.

Fig. 1. The Actual and Structural Components of the Growth Rate of GDP, as % of Previous Year, 2010–2016 (All Forecast Scenarios)



Sources: Rosstat; RF Ministry of Economic Development; IMF; the authors’ estimates.

Fig. 2. The Foreign-trade and Situational Components of the Growth Rate of GDP, as % of Previous Year, 2010–2016 (Baseline Scenario Forecast)



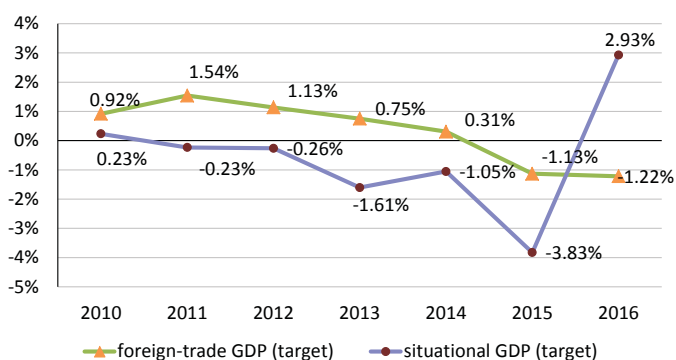
Sources: Rosstat; RF Ministry of Economic Development; IMF; the authors’ estimates.

Fig. 3. The Foreign-trade and Situational Components of the Growth Rate of GDP, as % of Previous Year, 2010–2016 (Conservative Scenario Forecast)

of total factor productivity growth, can be possible only if its situational component should display a sharp rise: in the most optimistic scenario from -3.8% in 2015 to 2.9% in 2016, and in the pessimistic scenario from -3.8% in 2015 to -0.04% in 2016. Such a rise of the situational component may occur as a result of either a sharp acceleration of the cyclical GDP growth rate in a situation when the negative shock of 2015 becomes 'a thing of the past'; or we may make such a projection based on the assumption that the economy, while remaining in the lower phase of the business cycle, will experience a noticeable positive shock, the nature of that shock being unclear.

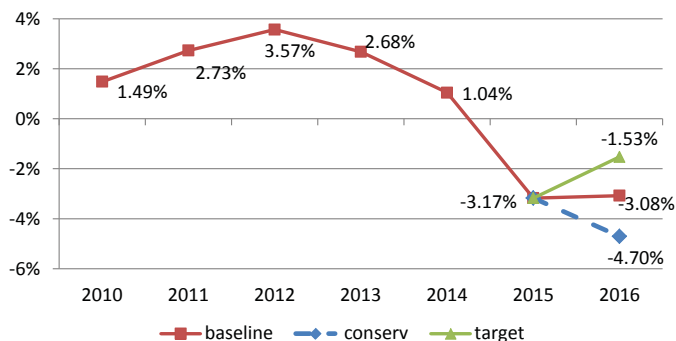
At the same time, our results (and so our conclusions) rely on the total factor productivity model estimates based on the 2000–2014 time series, and consequently, the model structural growth rate of Russia's GDP, which display a stable downward trend. If we assume that the movement of total factor productivity has changed, and the structural growth rate of GDP has halted its decline (for example, due to an increased competitive capacity of Russia's domestic production after the ruble's depreciation, or a boost of economic performance in the current crisis situation after the bankruptcies of a number of companies, cuts on non-production costs, release of part of the previously employed workforce, and 'clear-up' of the banking system), then part of the GDP growth projected for 2016 may indeed be explained by this component. In such a case, the behavior of the situational component (in the interval between -1.5 and 2.0 p.p. of the growth rate of GDP) would appear to be logical after the disappearance of the effects of the negative shock of 2015 and the gradual progress towards the upward phase of the business cycle (and in the target scenario – the acceleration of the cyclical component due to the switchover to a new economic growth model). The econometric data relating to changes in the structural component's growth rate can be estimated only if we augment the model by a time series of new actual annual GDP data – that is, only after a period of no less than 1–2 years.

The results of decomposition of the Russian economy's growth rate have also made it possible to obtain estimates of the output gap for 2015–2016; these estimates which indicate that in 2015 the output gap has slipped into negative territory. This is the upshot of the negative



Sources: Rosstat; RF Ministry of Economic Development; IMF; the authors' estimates.

Fig. 4. The Foreign-trade and Situational Components of the Growth Rate of GDP, as % of Previous Year, 2010–2016 (Target Scenario Forecast)



Source: the authors' estimates.

Fig. 5. Output Gap in the Russian Economy (as %), 2010–2016 (Three Forecast Scenarios)

inputs of two components (foreign-trade and situational – the latter having already been observed over the period of 5 years, since 2011) in combination with the declining structural growth rate. It should also be noted that the output gap is to remain in negative territory also in 2016, even in the RF Ministry of Economic Development's optimistic (target) scenario (*Fig. 5*).

Thus, over the period 2015–2016, actual output in all the three scenarios is below its potential level. If such is the case, then from the point of view of the theory of economics the stimulatory monetary and budgetary policy measures may indeed exert a positive effect on the economy, at least over the short-term period. However, for an acceleration of the long-run economic growth rate to become a reality, it will be necessary, first of all, to ensure an upward movement of the structural growth rate on the basis of fundamental growth factors and total factor productivity. In the present-day economic situation this means an improvement with regard to Russia companies' access to foreign capital and direct foreign investment, a boost of the investment activity of Russian businesses, and easing of the constraints on the use of available labor resources. It should be noted that, in the scenario preconditions developed by the RF Ministry of Economic Development, no mention is made of any such improvements, except in the target scenario. ●