MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

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Parties to many major projects and agreements in the global economy are as likely as not to wait for at least two years while taking a wait-and-see attitude towards their initiatives and plans. The timeout is associated with hopes to see a more predictable US policy after the upcoming 2018 midterm elections.

Supposing the US-China trade war is boosting Russian gas exporters' chances in China's market as Beijing's willingness to buy US gas is dwindling in response to US threats. It is difficult to predict, however, what China's policy would be if the US policy changes after 2020. There is another example related to this subject matter: European firms that previously showed support for the project Nord Stream II have stopped their participation in the project, fearing repetitive threats of US sanctions. Businesses have found themselves at the crossways: whether to take a risk, giving credibility to promises, or to wait for a couple years, despite facing lost profits from the project, to ultimately see the project completed without their participation.

Uncertainty and volatility are somewhat akin in any market, particularly in the financial market. Increased risks of combining one with another have been considered a good reason for Bank of Russia's decision to raise its benchmark interest rate.

Our experts examined the reasons behind the bank's decision: high probability of new sanctions against Russia, capital outflows from emerging markets influenced by a tighter Fed's monetary policy and the planned VAT hike decision. Pro-inflation factors have forced Russia's central bank to raise its 2019 year-end inflation forecast to 5.5%, and it is not until 2020 that the target inflation rate is expected to rebound to 4%. Although the benchmark rate hike (0.25 percentage points) alone cannot have a strong impact on capital flows, the regulator has sent a clear signal that it is determined to bring inflation back to its target rate in the medium-term perspective. The experts believe that the benchmark interest rate is likely to continue moving up down the road.

Note that if not for high crude oil prices, the rouble's exchange rate could have been more volatile. It was not without reason that fuel exports increased in value terms by 32% in January-July 2018 (compared to the same period a year earlier). Overall, Russia increased its exports by 28% at that period, according to our experts' study of Russia's share of the global exports of all goods, which stood at 2.0% at the 2017 year-end (0.2 p.p. up over a year earlier). The increase was largely driven by the upward global price trend in markets, including the agricultural market (although physical volumes of supplies increased as well). Russia increased its share of the global trade in commodities such as grains from 3.8% in 2013 and from 5.9% in 2016 to 7.2% in 2017.

There are no good reasons whatsoever for restricting grain exports and lobbying attempts to raise prices of meat products on the pretext of falling gross yield of grain and growing grain prices, our authors note. Given

the diversity of crop forecasts, even the lowest forecast level equals that of good-crop year. Grain stocks show an all-time high level (excluding in 2017). If not for the increase in exports allowing silos to be unloaded, the unsold stocks would have been a problem. Although prices have indeed increased on expectations of lower crops worldwide and in Russia, grains are still purchased from producers at much lower prices than those seen in 2015 and in 2016. Neither exports nor prices are posing any reasonable risks to meeting domestic needs.

Our experts' analysis of a Presidential Executive Order (dated May 2018) shows that with the aim to become one of the world's top five economies, Russia's economy should advance in real terms by 30% (in nominal terms by 50%) by 2024 over 2016. The author's model-based estimates show that to reach this goal, given the planned increase in the retirement age and a 20% growth (over 2016) in the productivity of the economy, investments should gradually increase up to 25% of GDP (and further to 27%). They use a model-based analysis to compare and indentify sectors in which higher than normal economic returns (outstripping growth in productivity) can be obtained using labour and capital resources.

1. KEY INTEREST RATE MOVES UP: CAUSES AND EFFECTS

A.Bozheckova, P.Trunin

In September the Russian central bank has raised its key interest rate, for the first time since 2014, by 0.25 p.p. to 7.5% p.a. in response to increasing risks of higher inflation, including the Russian rouble devaluation (induced by new sanctions against Russia and by capital outflows from emerging markets on the back of tightening US Fed's monetary policy) as well as the expected VAT hike scheduled for 2019. Although the above risks have realized only in part, the central bank has had to raise its 2019 inflation forecast to 5.5% and to adopt a tighter monetary policy.

On 14 September 2018, the Bank of Russia's Board of Directors decided to raise the key interest rate by 0.25 p.p. to 7.5%. It was the first jump in the key rate since December 2014 when it soared sharply and then began a gradual descent. Back in 2017 the regulator had to slow the transition to a neutral monetary policy amid worsening conditions for the banking sector, while in 2018 new headwinds to interest rate cuts have emerged on the back of new sanctions imposed in April against Russia, inducing capital outflows from the country and depreciation of the Russian rouble, as well as the VAT hike decision.

At the time when the Bank of Russia's Board of Directors met in September, further easing of the monetary policy became impossible because of sharply accelerating capital outflows from emerging markets that have already caused the national currency collapse in Turkey and in Argentina. Investors' pullback from the Russian market was among other things induced by a new package of sanctions initiated by the United States, involving Russian government bonds and Russian banks' US dollar transactions. The above factors have influenced the increase in inflation forecasts for Russia.

Zero inflation was recorded at the end of August 2018 (-0.5% in August 2017). The year-on-year (over the previous 12 months) inflation reached 3.1% (compared to 3.3% in August 2017 over August 2016), still lower than its target value (4%) but higher than regulator's forecast values (*Fig. 1*). In January through August 2018, the inflation rate was higher than a year earlier (2.4% against 1.8%). In August, the food sector saw deflation (-0.4%) continue, albeit at slower pace than in 2017 (-1.8% in August 2017).

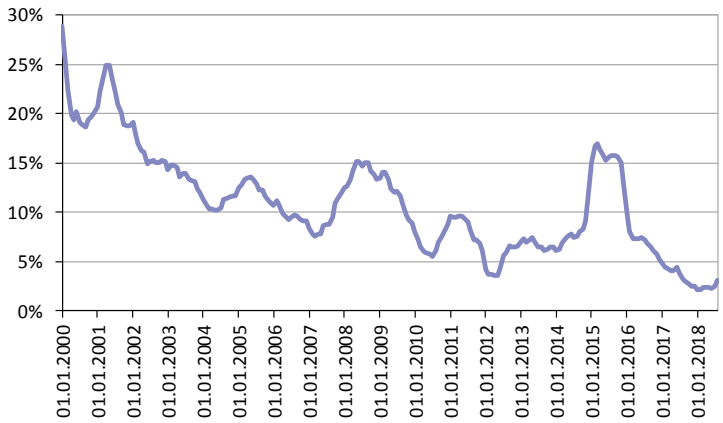

Fig. 1. CPI growth rate in 2000–2018, percentage change over 12 months
Source: Rosstat.

Greengrocery products, with a price growth rate of -6.4% (-15.5% in August 2017), was

customarily the major contributor to slower growth in food prices. Non-food prices in August 2018 increased 0.2% (compared to 0.1% in August 2017). Tobacco products posted the fastest price growth of 0.9% in August 2018. The growth in petrol prices that was seen in April-June 2018 gave way to a deflation of -0.2 (-0.3% in July and August, respectively, on the back of lower excise duties on petrol). The cost of paid services to individuals increased 0.3% in August (+0.4% in August 2017). A marked seasonal contribution to the increase in the cost of services was made by increased prices of outbound tourism services (1.9%) driven up by a weakening rouble.

In August the core inflation (an indicator excluding changes linked to seasonal and administrative factors) continued to increase as well, +2.6% over the same period a year earlier (over the past 12 months). The core inflation has been on a constant rise since March 2018 thus indicating a steady inflation pick-up.

The median one-year ahead expected inflation rate stood at 9.9%, according to InFOM's survey published by the Bank of Russia. Central bank's data based on an inflation expectations survey also shows a sharp increase in individuals' inflation expectations – the inflation rate in August was estimated at 3.4–3.5% (2.8% in July). Heightened inflation expectations were probably due to unstable FX market.

The rouble's exchange rate dynamics is a significant source of inflation risks. In August the rouble lost 8.4% against the US dollar despite relatively high oil prices ($73.9 a barrel on average in August 2018). With the aim to reduce volatility in financial markets, the regulator announced on 23 August 2018 that it would suspend buying foreign currency for the Finance Ministry in September, plus the Bank of Russia's Board of Directors postponed (on 14 September) purchasing foreign currency in the internal market until the end of December 2018. A point to note is that since the beginning of 2018 the Finance Ministry has spent Rb 2.1 trillion on buying foreign currency in

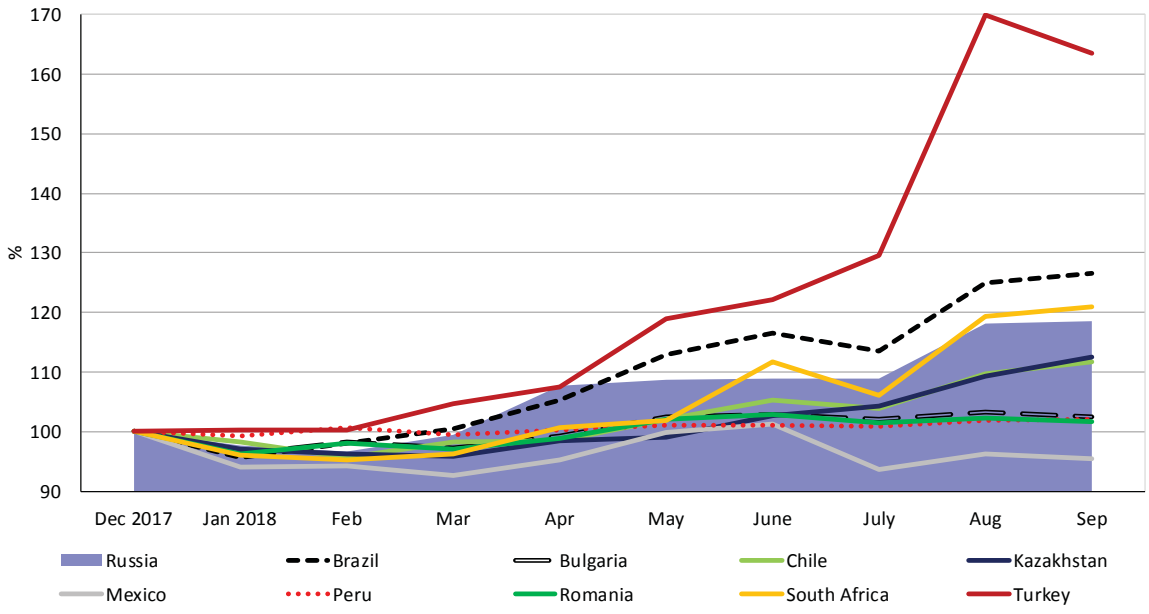

Fig. 2. Dynamics of nominal exchange rate against US dollar for currencies of selected developing countries adopted inflation targeting (December 2017 = 100%)

*as of 15 September 2018

Sources: IMF, websites of central banks.

the internal FX market. Amid adverse external conditions such currency interventions can indeed be an extra source putting pressure on the rouble.

In terms of magnitude, the devaluation of the Russian rouble is comparable with that of other emerging markets' currencies. Excluding the rouble's devaluation in April 2018, which was more pronounced than other currencies, induced by sanctions triggering an instant rise in the risk premium on Russian assets, the dynamics of RUB/USD nominal exchange rate was generally in line with the dynamics of the national currency exchange rate in other developing countries (*Fig. 2*). In other words, the rouble's exchange rate has been affected mostly by capital outflows from a majority of emerging markets induced by a tighter US monetary policy.

The aforesaid pro-inflation factors have led to major revision of inflation forecasts. According to central bank's estimates, inflation may reach 5–5.5% at the 2019 year-end and the target rate will not be regained until 2020. In light of this, it is not until H2 2019 that the Bank of Russia will be able to resume the transition to a neutral monetary policy. Risks of further worsening of geopolitical tensions and capital outflows from emerging markets will be the factors influencing moderately tight credit conditions in the next six months.

Thus, the Russian central bank's monetary policy trend has been reversed by external and internal factors. The key rate hike (0.25 p.p.) alone cannot have a strong impact on capital flows. However, this action of the Bank of Russia represents a clear signal that the bank is determined to bring inflation back to its target rate in the medium-term perspective. Considering the situation unfolding in the global economy and geopolitical risks, the key interest rate is likely to continue moving up down the road.

2. RUSSIA IN GLOBAL EXPORTS: GROWTH IS JUSTIFIED BY THE MARKET ENVIRONMENT

A.Knobel, A.Firanchuk

According to the year-end data for 2017, Russia's share in global exports of all the goods amounted to 2.0%, an increase of 0.2 p.p. on 2016 (1.8%). As compared to the pre-crisis 2013 year, the share of Russian exports on global markets of inorganic chemicals, mineral fuel, nickel, aluminum and furs has fallen while that of cereals, fertilizers, lead and paper increased.

In January-July 2018, exports increased considerably as compared to the relevant period of the previous year (*Fig. 1*). In the first seven months of 2018, in value terms exports amounted to $247.9bn (128% and 83% from the value seen in January-July 2017 and January-July 2013, respectively). Exports of fuel amounted to $159.1bn (132% and 75%, respectively), while those of other goods, to $88.7bn (122% and 103%, respectively). In the first seven months of 2018, the share of fuel exports was equal to 64.2%.

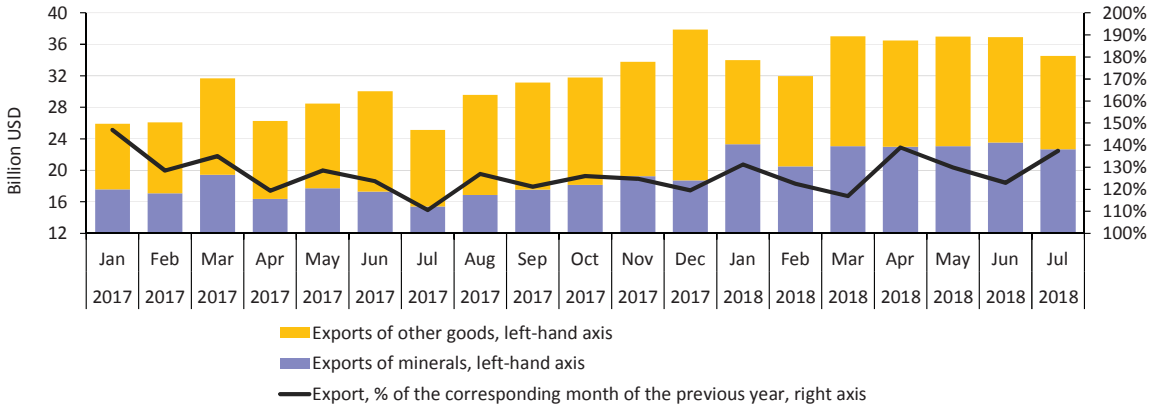

Fig. 1. Dynamics of Russia's exports in 2017–2018

Source: own calculations based on the data the Federal Customs Service of the Russian Federation.

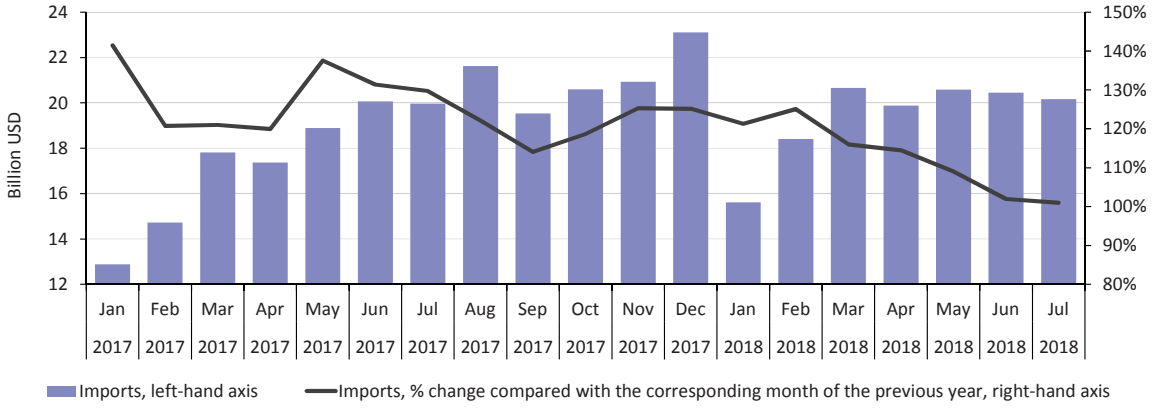

Fig. 2. Dynamics of Russia's imports in 2017–2018

Source: own calculations based on the data the Federal Customs Service of the Russian Federation.

Exports of fuel and other goods keep growing simultaneously in value terms. Negative growth rates (relative to the period of the previous year) were last seen in November and October 2016. From January 2017, average monthly growth (year on year) amounted to 30% and 23% for fuel exports and exports of other goods, respectively.

In January-July, imports amounted to $135.8bn (112% and 76% relative to January-July 2018 and January-July 2013, respectively). Note that in June and July growth in imports (compared to the relevant period of the previous year) virtually stopped, having fallen to 1–2% (*Fig.* 2). It is primarily related to the dynamics of the Rouble/Dollar exchange rate.

Russia's Share in the Global Trade

According to the WTO's data[1], a 11% growth in global exports in value terms (to $17.7 trillion in 2017 from $16.0 trillion in 2016) was justified by growth in global dollar-denominated prices on numerous goods (mostly, minerals). In 2017, in volume terms the global trade increased by 4.5%, primarily, on the back of growth in physical volumes of trade in manufactured goods (+4.9%) and agricultural products (+6.7%). The CIS countries' exports (the WTO does not single out Russia in estimating the volume of exports) increased in volume terms by 4.0%, while imports, by 11.6%. Consequently, in 2017 a 24% growth in the CIS countries' exports in value terms (a 25% growth in Russia) was related by $^{4}/_{5}$ to changes in global prices on main export commodities[2]. A 21% growth[3] in CIS countries' imports in value terms is almost equally related to appreciation of prices (+8%) and an increase in the volume of imports (+11.6%).

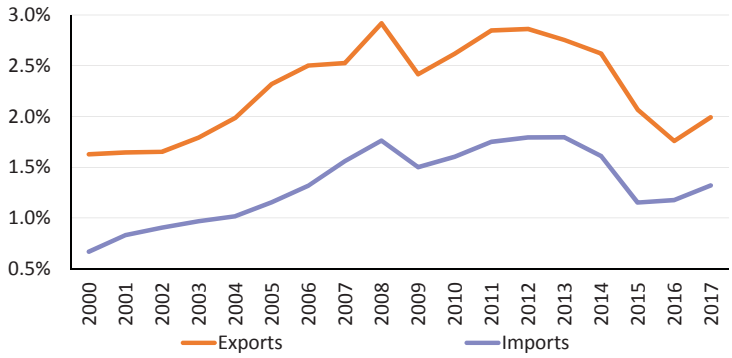

Fig. 3. Dynamics of Russia's share in global exports in 2000–2017
Source: own calculations based on the WTO's data.

The indicator of changes in **Russia's share in global exports** is similar to that of Russia's share on the market of the EU[4], its largest trade partner. In the 21st century, Russia's share in global exports (including the trade inside the EU) varied in the range of 1.6% to 2.9%, while that in imports, from 0.8% to 1.8% (*Fig.* 3). In 2016, Russia's share in global exports (1.76%) was the minimum one since 2003. Despite its growth of 0.23 p.p. (to 1.99%) in 2017, it remains much below the pre-crisis level of 2.7% (the average one in 2009–2013). Russia's share in global imports was growing for two years in succession, having amounted to 1.32% in 2017 (+0.14 p.p.), however, this value is substantially below the pre-crisis level of 1.7%. As regards Russia's share in global exports and imports, in 2017 it moved one position and four positions upwards to the 16th place and the 20th place, respectively.

1 World Trade Statistic Review 2018 (WTO).

2 For more details, see A. Knobel, A. Firanchuk. Russia's Foreign Trade in 2017 // Economic Development of Russia. 2018. No. 3 (25). P. 6–13.

3 Russia's growth of 24%.

4 See A. Knobel, A. Firanchuk. Russia's Exports to the EU in 2017 // Economic Development of Russia. 2018. No. 5 (25). P. 12–17.

Russia's positions in the foreign trade turnover in services changed somewhat: exports increased to $57bn (1.1% of global exports, the 26th place) in 2017 as compared to $50bn (1.0% of global exports) a year before; in 2017 imports grew to $8.7bn (1.7% of global imports, the 16th place) from $73bn (1.6%, the 18th place) in 2016[1].

As regards a number of commodity groups, Russia is among largest exporters: it is rated first as regards the volume of exports of fuel and minerals[2] (if the EU is not taken into account). Exports of these commodities amounted to $196bn with Russia's share being equal to 7.5% (7.4% and 9.2% in 2016 and 2010, respectively). Note that in 2016 in value terms Russia's exports of this category of commodities fell most dramatically (-33%), while in 2017 growth turned out to be the lowest one (+11%) among all large exporters. Russia retained the fifth place among large exporters of iron and steel; Russia's share was equal to 4.8%, an increase of 0.6 p.p. compared to 2016, but much lower than the pre-crisis level (5.6% in 2010).

Russia has moved upwards from the 10th place to the 8th place in the rating of importers of agricultural products with its share of 1.7% (+0.1 p.p.). More importantly, Russia retained its positions as a large importer of food products with its share of 1.9% (+0.2 p.p.) in 2017.

Russia's share in global exports as regards individual commodity groups (two-digit FEACN codes) is presented in *Table 1*.

Due to the fact that the data for 2017 on exports of some countries, including Saudi Arabia and the United Arab Emirates are unavailable in the COMTRADE's database, the overall share of 112 countries (on which the data for 2017 are available) in global exports in previous years (2015) is specified in *Table 1*. Russia's share in *Table 1* is adjusted, that is, in other words, it is believed that the overall share of countries on which the data are available remained in 2017 at the level of 2015 as regards this category of commodities.

As seen from *Table 1*, Russia's share in 2017 increased as regards a greater part of large commodity groups, except for inorganic chemicals, nickel, lead and other non-noble metals. The most considerable growth of this indicator was seen in global exports of cereals (+1.4 p.p.), mineral fuel (+1.5 p.p.)[3], timber (+0.5 p.p.) and fertilizers (+0.5 p.p.).

By comparison with Russia's share on the global market in the pre-crisis period (2013), there is nearly a two-fold reduction of Russia's share in exports of inorganic chemicals (from 4.5% to 2.5% of global exports) and furs (from 2.2% to 0.9%). Also, Russia's share decreased in global exports of nickel (from 14.4% to 11.4%), aluminum (from 4.4% to 3.9%) and mineral fuel (from 13.3% to 11.9%). Note that the indicator of Russia's share in global exports of cereals nearly doubled (from 3.8% to 7.2%). Also, there was growth in the share of Russian exports of lead (from 2.7% to 3.2%) and fertilizers (from 14.8% to 15.4%).

1 For more details on the foreign trade turnover in services, see A. Knobel, A. Firanchuk. Foreign Trade Turnover in Services in 2017 // Economic Development of Russia. 2018. No. 6 (25). P. 15–20.

2 Fuel and energy commodities, ores and other minerals: raw fertilizers (except for those which are attributed to chemical agents) and crude minerals; metal-bearing ores and metal scrap.

3 Due to a lack of data on exports of a number of large exporters, this value may be considerably adjusted.

Table 1

THE SHARE OF RUSSIAN EXPORTS OF COMMODITIES IN THE GLOBAL TRADE*

Commodity position code	Commodity position name	Russia's exports in 2016, billion USD	Russia's exports in 2017, billion USD	Share of Russian exports in global trade (%, based on COMTRADE's data)			Changes in Russia's share on global markets (p.p. , based on COMTRADE's data)	
				2013	2016	2017	2017 on 2013	2017 on 2016
10	Cereals	5.6	7.5	3.8	5.9	7.2	+3.4	+1.4
27	Fuel-bearing commodities and minerals	134.7	212.0	13.3	10.4	11.9	–1.4	+1.5
28	Inorganic chemicals	2.4	2.7	4.5	2.6	2.5	–1.9	–0.1
31	Fertilizers	6.6	7.2	14.8	15.0	15.4	+0.6	+0.5
40	Raw rubber, rubber	2.5	3.1	1.9	1.6	1.7	–0.2	+0.2
43	Natural and artificial fur	0.1	0.1	2.2	0.8	0.9	–1.3	+0.1
44	Timber and wood articles	6.5	7.9	5.8	5.3	5.9	+0.1	+0.6
48	Paper and paperboard	2.1	2.6	1.2	1.3	1.5	+0.3	+0.2
71	Precious metals and stones	8.9	11.0	1.7	1.4	1.8	+0.1	+0.4
72	Ferrous metals	14.1	18.8	5.1	4.8	5.1	+0.0	+0.3
74	Copper	3.3	4.7	3.1	3.1	3.4	+0.2	+0.3
75	Nickel	2.0	2.1	14.4	11.5	11.4	–3.0	–0.1
76	Aluminum	6.0	6.7	4.4	3.9	3.9	–0.5	+0.0
78	Lead	0.2	0.3	2.7	3.5	3.2	+0.5	–0.3
81	Other non-noble metals	0.7	0.8	5.1	5.5	4.9	–0.2	–0.6
Total		285.5	359.2	2.9	1.8	2.0	–0.8	+0.2

Source: own calculations based on the COMTRADE's data on the exports of 112 countries.

* All 112 countries on which the data for 2015–2017 are available in the COMTRADE's database (in 2015–2016 those countries accounted for 89.5–89.6% of global exports). An adjustment made due to the lack of the data on exports of a number of countries explains discrepancies with the data presented in *Table* 1 to the article: A. Knobel, A.Firanchuk. Russia in Global Exports in 2015–2016 // Economic Development of Russia. 2016. No. 9 (23). P. 9–13.

Multidirectional dynamics of Russia's presence on global markets point to the fact that in 2017 growth in Russia's exports was largely related to the global market environment. For example, in 2017 exports of machinery (the *Machines, Equipment and Transport Vehicles* group) amounted to $28.1bn, that is, for the target level of $50bn to be achieved by 2024 growth of 78% or 10% per annum will be required. In 2017, growth in exports of this group of commodities was equal to 15.5%, but was largely driven by appreciation of global prices of metals. In 2017, exports of the *Food Products and Agricultural Raw Materials, Except for Textile* group amounted to $20.7bn, while in accordance with the President's decree the target level is set at $45bn by 2024. A more than two-fold growth over the period of six years requires average annual export growth rates of 13% to be maintained. Last year, exports of this commodity group increased by 21.5%. However, that was related not only with growth in volumes of exports, but also with positive dynamics of global prices of agricultural commodities (grain). Consequently, for target parameters set in the President's Decree No.204 to be achieved it is necessary to carry out measures aimed at promotion of exports.

3. A DROP IN THE 2018 GRAIN YIELD: ARE THERE GROUNDS FOR CONCERN?

N.Shagaida, V.Uzun

A decrease in the gross grain yield in 2018 as compared to the record-high yield of 2017 does not entail any risks to domestic consumption needs. With reserves taken into account, the 2018 yield is quite enough to meet households' needs in grain and cereal products, provide the livestock sector with concentrated fodder and underpin exports at the past three years' average level. The case for prices on meat products to be increased and grain exports limited allegedly due to a decrease in the gross grain yield and appreciation of grain prices is baseless.

As early as August 2018, speculations began about the prospects of grain prices[1] appreciating, grain output shrinking in 2018[2] and possible risks arising for individual-consumers and consumer-producers, primarily, those of meat products. As a matter of fact, meat producers turned to the government with a request to make retailers raise prices[3] because of appreciation of livestock fodder prices. Grain producers faced the risks of export duties being introduced and their incomes getting thinner, while retailers, the risk of losses: though they could raise prices, amid actual stagnation of consumers' incomes there was no much point of doing it. Such a situation added volatility to the market. Let us discuss how the situation was developing on the relevant markets.

The RF Ministry of Agriculture and grain market analysts analyzed the differences in estimates of the 2018 gross yield of 100–114m tons. From 2013, grain output was growing steadily and though there was a decrease in the 2018 output compared to 2017 it should not cause any concern. Firstly, the yield's level is comparable with that seen in favorable years. Secondly, as of the beginning of the year the country amassed the maximum reserves of 88.7m tons of grain. If it is believed that the yield is to be equal minimum to 104m tons[4], grain resources will amount at least to 192.7m tons. It is the highest value of

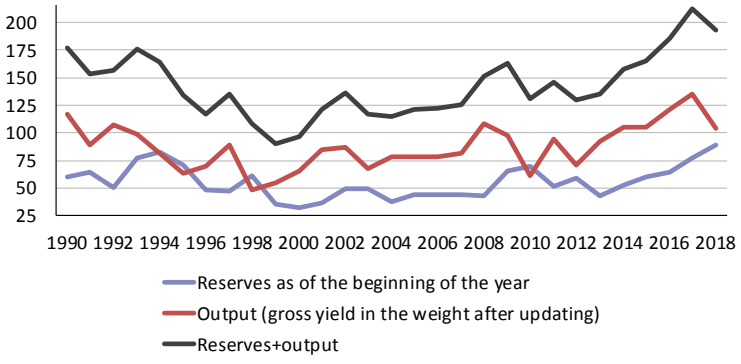

Fig. 1. Grain output and reserves
Source: calculations are based on balances of grain utilization, The Rosstat.

1 This year, Russia's yield is expected to be 20% lower than last year due to very hot summer. As a result, global prices of wheat have already appreciated. Experts believe that Russian export supplies of wheat may fall by nearly 18%, while their cost on the domestic market may appreciate by 20–30%. https://www.gazeta.ru/business/2018/08/01/11879329.shtml?updated

2 https://finance.rambler.ru/markets/40605117-snizhenie-urozhaya-uvelichivaet-risk-vmeshatelstva-gosudarstva-v-regulirovanie-eksporta-zerna/

3 https://www.rbc.ru/business/17/08/2018/5b761ffc9a79477cdd835150

4 http://www.finmarket.ru/news/4846661

the index in the past 30 years without taking into account the year 2017 when it was only 10m lower (*Fig. 1*).

However, actual exports of grain keep growing. For example, within six months of 2018 Russia exported 1.7 times more wheat than in 2017 (*Table 1*).

Table 1

RUSSIA'S EXPORTS OF WHEAT, THOUSAND TONS

	2015	2016	2017	2018
January	2034	1317	1942	2478
February	476	2269	1266	3327
March	573	1812	2942	3903
April	586	1556	2003	3342
May	682	1384	1923	4055
June	1168	968	1320	2152
July	1288	1580	1419	
August	2874	3100	3943	
September	3689	3797	4193	
October	2764	2153	3586	
November	2030	2934	4260	
December	3066	2474	4268	
Total	21231	25343	33066	
Including for January–June	5519	9305	11397	19256

Source: The RF Customs Service (http://stat.customs.ru/apex/f?p=201:7:312341624853673::NO).

In 2018, growth in exports was driven by accumulated grain reserves of the 2017 yield. A somewhat decrease in output with reserves accumulated will make it possible to unload warehouses. With the last year's undistributed reserves, a similar or even higher yield this year would create a problem. Before harvesting started, agricultural organizations had 1.9 times more grain in their reserves, including 2.4 times more wheat than a year before (*Table 2*).

Table 2

AGRICULTURAL AND PROCUREMENT ORGANIZATIONS' GRAIN RESERVES (AS OF 01.07.2018 COMPARED TO THE SAME DATE OF 2017, %)

	Agricultural organizations	Procurement organizations
Grain and pulse crops (without maize)	192.7	113.6
Including wheat	2.4 fold	112.7

Source: The *Grain and Grain Derived Products in the Russian Federation* Bulletin for January-June 2018 (placed on 31.07.2018), the Rosstat (http://www.gks.ru/free_doc/doc_2018/bul_dr/sx/zerno_06_2018.rar).

Exports could be even higher because agricultural organizations' growth rates of realization (the information on private farms is unavailable) lagged behind the rates of accumulation of grain reserves (*Table 2* and *Table 3*).

Table 3

AGRICULTURAL ORGANIZATIONS' REALIZATION OF GRAIN

	January-June 2018 on January-June 2017, %
Grain and pulse crops (without maize)	142.8
Including wheat	143.2
Grain maize	125.8

Source: The *Grain and Grain Derived Products in the Russian Federation* Bulletin for January-June 2018 (placed on 31.07.2018), the Rosstat (http://www.gks.ru/free_doc/doc_2018/bul_dr/sx/zerno_06_2018.rar).

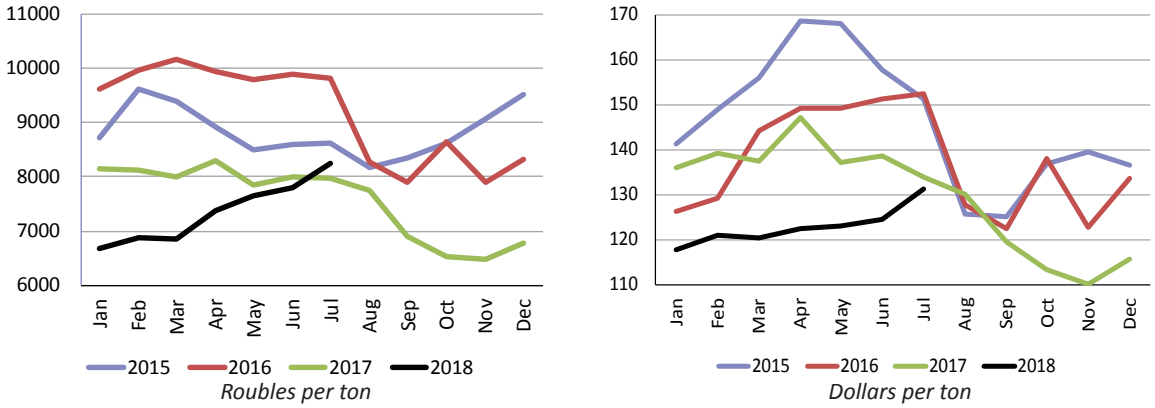

Fig. 2. Price of realization of wheat by agricultural organizations

Source: The Rosstat.

Expectations of a smaller output of grain both in Russia and the world cannot but affect domestic prices: from January 2018 prices have appreciated by nearly 17%. However, as seen from *Fig. 2*, in 2018 (as in H1 2017) agricultural producers' purchase prices (in terms of realization of wheat) were much below the level seen in 2015 and 2016. In July 2018 alone, rouble-denominated prices surpassed the level observed in 2017, but remained below than in 2015 and 2016. In dollar terms, they are just approaching the level seen in 2017.

Growth in agricultural producers' grain prices relative to August-December 2017 and January-May 2018 was driven by the appreciation of global prices and depreciation of the rouble. Within six months of 2018, actual growth in procurement prices of wheat amounted to 5.1% and 16.7% in dollars and roubles, respectively. As is evident, depreciation of the rouble has a greater effect on prices than the global market situation.

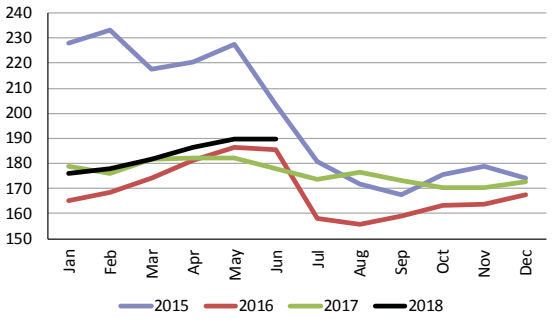

Fig. 3. Dynamics of export prices of wheat and meslin (code 1001), USD per ton

Source: The Customs Service of the Russian Federation.

On the global market, wheat prices denominated in dollars increased by 8% in January-June 2018; as compared to June 2017 they appreciated by 7% (*Fig. 3*).

As seen from the calculation in *Table 4*, the last year's yield led to worsening of agricultural producers' financial situation. In 2017, a 19.4% growth in realization of grain by agricultural producers as compared to 2015 with a 15.8% drop in agricultural producers' average realization prices resulted in a decrease in profits per ton from Rb 2,600 to Rb 1,400, while the mass of profits fell by Rb 54bn. In other words, for agricultural producers the year 2017 turned out to be worse financially not only in terms of pricing, but also, most importantly, in terms of the mass of profit received as compared to 2016 and 2015 (*Table 4*).

The last year's huge yield created problems to agricultural producers and virtually no advantages to consumers *(Fig. 4*). The minimum prices of wheat at which agricultural producers used to sell it were observed in October and November 2017. In October, prices were slightly less than 75% of the prices seen in October 2016. The minimum consumer prices of poultry meat were observed in March-April 2018 and amounted to 92% of the prices prevailing a year before, while minimum pork prices, in March (97% of the prices a year before).

Table 4

AGRICULTURAL ORGANIZATIONS' PROFITS FROM REALIZATION OF GRAIN AND PULSE CROPS IN 2015–2017

Years	Realization, thousand tons	Full cost, billion Rb	Revenues, billion Rb	Profit from realization		Price per ton, thousand Rb
				Total, billion Rb	Per ton, Rb	
2015	55986	329.0	474.2	145.2	2.6	8.5
2016	60674	370.7	511.0	140.2	2.3	8.4
2017	66873	385.9	477.1	91.2	1.4	7.1

Source: calculations based on the data of the RF Ministry of Agriculture.

This year, the beneficiaries are exporters. In 2018, unlike agricultural producers' prices the level of export price exceeded that seen in 2016 and 2017. The share of agricultural producers in the export price of grain was the smallest since July 2017 if the period from 2015 is taken into account (*Fig. 5*).

A decrease in the 2018 yield does not entail any risks to consumers. In 2018, prices of bread grain and fodder grain which were sold by agricultural producers till June included were lower than in 2015–2016, while grain resources – reserves as of the beginning of the year and the expected gross yield – were higher. The case for prices on meat products to be increased and export supplies to be limited allegedly on grounds that the gross grain yield has decreased and prices of grain have appreciated is baseless. The share of grain in the pattern of bread and bakery products is the mere 4–7%; even if grain prices appreciate by 50%, it will pass unnoticed by consumers.

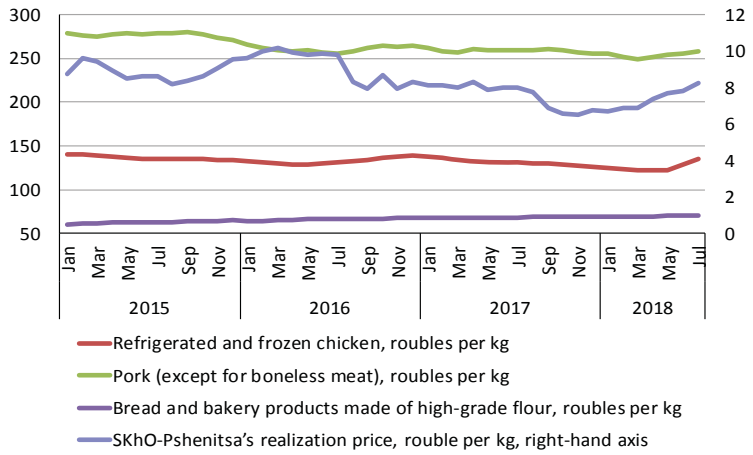

Fig. 4. Agricultural producers' realization prices of wheat and consumer prices of bread, pork and poultry

Source: The Rosstat.

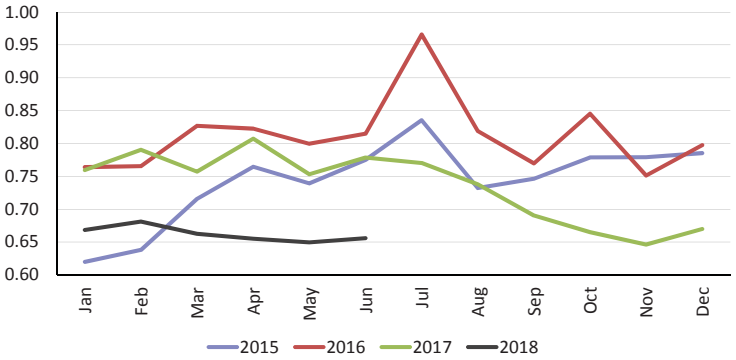

Fig. 5. Correlation of prices of agricultural producers and exporters (the ratio of agricultural producers' wheat realization price to the export price)

Source: The Rosstat and the RF Customs Service.

Demand on meat should be promoted by quite the opposite measures, that is, through cuts in costs, reduction of prices on the domestic market and facilitation of entry into the global market even if it requires a portion of the profit margin per unit of produce to be sacrificed. In this situation, the government's main objective is to create conditions for cutting the cost of production of agricultural products and facilitate growth of individuals' and agricultural producers' incomes, rather than a pursuit of a higher output. Also, introduction of export duties on grain will hinder a 100% growth in exports of agricultural products set as a target by the President's May 2018 Decree.

4. PARAMETERS OF ECONOMIC GROWTH MODEL FOR THE PERIOD UNTIL 2024

G.Idrisov, P.Pavlov

Aiming to become one of the world's top five economies, Russia's economy should advance in real terms by 30% (in nominal terms by 50%) by 2024 over 2016. To reach this goal, investments should represent up to 25% of GDP by 2024. Economic boost can be driven by key investment-led sectors, namely construction sector, investment goods sectors, and sectors that underlie the digital economy infrastructure.

Presidential Executive Order No. 204 of 7 May 2018 "On national goals and strategic tasks for the development of Russia for the period until 2024" sets an objective for the nation to become one of the world's top five economies, with an increase in GDP of approximately 30% (in nominal terms by 50%) by 2024 over 2016[1], and an objective of increasing labour productivity by at least 5% a year at medium and big enterprises operating in key non-resource-based sectors.

Deteriorating demographic figures is one of the major challenges the Russian economy is facing in the medium term. Planned amendments to the pension legislation are intended to slow the decline in the number of working people in the economy, thus easing the impact of labour force contraction on economic growth[2].

According to the charter of the national project "Labour Productivity and Employment Support", labour productivity is envisaged to increase 20% in 2024 over 2016[3]. There is an investment dynamics target set forth in the annual Presidential *Address to the Federal Assembly* dated 1 March 2018: investments as a percentage of GDP are envisaged to increase up to 25% and further to 27%[4].

Our model-based estimates show that given a 20% increase over 2016 in the retirement age and in the productivity of the economy, a gradual, uniform growth in investments of up to 25% of GDP would lead to a 30% increase in

1 This is equivalent to annual average economic growth rates of 3.3% in 2018–2024.

2 However, the number of working persons in 2016–2024 is estimated to decline by about 1% (about 740,000 persons). Overcoming demographic constraints and ensuring increase in labour force and in the number of working persons, given the situation as it stands today, will require greater emphasis to be placed on migration policy.

3 Given a minor change in the number of people working in the Russian economy in 2016–2024, an increase in the labour productivity of 20% would be sufficient to promote a GDP growth of approximately 20%, which is not sufficient to fulfil the objective of ranking in the world's top five largest economies. Therefore, for simplicity reasons, a scenario involving a 20% increase in the productivity of the economy (or Total Factor Productivity (TFP)) rather than in labour productivity will then be considered, making it possible to separately consider fixed investment as an economic growth factor on the supply side.

4 See President of Russia's official website. Presidential Address to the Federal Assembly. URL: http://kremlin.ru/events/president/news/56957

Table 1

MODEL-BASED VERSION OF ALLOCATION OF LABOUR AND INVESTMENT RESOURCES BETWEEN RUSSIAN INDUSTRIES FOR THE PERIOD UNTIL 2024 FOR THE PURPOSE OF REACHING TARGET GROWTH RATES

Sectors of economy		Growth in employment, thousands of persons	Growth in GVA (+NNP), 2016–2024, %	Growth in FAs, 2016–2024, %	Growth in productivity of economy/sectors (TFP), 2016–2024, %	Productivity of economy/sectors (TFP), annual growth rate, %	Labour productivity, annual growth rate, %	Investment at 2016 prices, billions of roubles	GVA in 2024 in 2016 prices, Rb bln	Increment of sector's share in GDP structure in 2016–2024, p.p.
Agriculture and fishery		-385.9	8.5	8.5	11.4	1.4	1.9	3,099.1	4 431.6	-0,7
Extractive industry		-135.2	25.0	21.3	28.7	3.2	4.4	16,701.6	10 139,0	-0,3
Manufacturing industry	Manufacture of food products, including beverages, and tobacco	138.8	56.9	64.2	28.7	3.2	4.9	3 013.0	3 162,5	0.5
	Manufacture of textiles and wearing apparel	61.9	78.0	100.9	35.9	3.9	6.3	208.7	300,9	0.1
	Manufacture of leather, articles of leather, and manufacture of footwear	-4.7	12.0	20.5	11.4	1.4	2.3	12.6	42,4	0.0
	Woodworking and manufacture of articles of wood	-38.0	8.5	8.5	11.4	1.4	1.9	219.4	282,2	0.0
	Manufacture of pulp, paper and paperboard	-28.5	8.5	8.5	11.4	1.4	1.9	340.4	502,9	-0.1
	Manufacture of coke, refined petroleum products	58.2	107.9	80.1	35.9	3.9	4.8	5 570.6	4 614,4	1.6
	Manufacture of chemicals and chemical products	35.7	40.2	46.3	20.7	2.4	3.7	1 956.1	1 236,5	0.1
	Manufacture of rubber and plastics products	17.9	40.2	46.3	20.7	2.4	3.7	453.3	374,6	0.0
	Manufacture of other non-metallic mineral products	-42.7	8.5	8.5	11.4	1.4	1.9	714.8	565,7	-0.1
	Manufacture of metals and finished metal articles	172.9	125.4	131.7	58.9	6.0	8.8	7 006.1	4 590,6	1.8
	Manufacture of machinery and equipment	-264.4	25.3	31.4	42.3	4.5	6.8	602.2	924,4	0.0
	Manufacture of electrical, electronic and optical equipment	132.2	125.4	131.7	58.9	6.0	8.8	1 657.3	1 611,9	0.6
	Manufacture of means of transport and transport equipment	131.4	86.6	94.6	42.3	4.5	6.7	3 223.0	1 557,3	0.4
	Other sectors	15.7	23.5	32.1	11.4	1.4	2.3	85.9	816,2	0.0
Services	Electricity, gas and water	-140.3	8.5	8.5	11.4	1.4	1.9	6 386.8	2 913,8	-0.5
	Trade	-1 722.0	20.8	37.3	20.7	2.4	4.1	3 701.2	16 628,9	-1.0
	Transport and communication	313.3	40.2	46.3	20.7	2.4	3.7	40 428.0	9 456,0	0.7
	Construction	450.4	61.5	80.9	28.7	3.2	5.2	3 993.4	8 583,6	1.6
	Public sector services	251.6	13.4	16.0	7.2	0.9	1.4	11 518.7	14 203,8	-1.7
	Other services	242.5	13.4	16.0	7.2	0.9	1.4	33 877.9	23 933,9	-2.9
Total		-739.2	28.7	31.0	20.0	2.1	3.3	144 770.2	110 873,2	

Source: own calculations based on data from Rosstat.

GDP by 2024 over 2016, thereby placing Russia in the world's top five economies[1, 2].

Let us consider, based on development priorities in the manufacturing sectors and the services mentioned in the Presidential Executive Order, how the structure of Russian economy would look like in these instances.

Our model-based analysis allows us to indentify sectors – extractive industry; manufacture of coke, refined petroleum products – in which using an extra unit of labour force would bring higher than average economic returns, as well as sectors in which using an extra unit of fixes assets can bring higher than normal economic returns: manufacture of textiles and wearing apparel; manufacture of leather, articles of leather, and manufacture of footwear; manufacture of metals and finished metal articles; trade; construction sector; other sectors.

Table 1 presents a model-based version of allocation of resources between Russian economic sectors, which ensures that the target GDP growth is reached, given the constraints (a 1% decline in the number of working persons, a gradual investment increase to 25% of GDP, given an increase of approximately 20% in the productivity of the economy). What is important to note is that the below illustrative example implies no allocation of production factors: it is assumed that the allocation of labour and capital at issue can be shaped by market forces as well as industrial economic policy.

Sectors such as trade (-1.7 million persons) and agriculture (-0.4 million persons) can become the primary source of labour force for other sectors of the Russian economy in this model-based example, which will require the volume of fixed assets within the foregoing sectors to be increased by 37.3% and 8.5%, respectively.

The presented version suggests outstripping growth of about 60% in the productivity of sectors such as manufacture of metals and finished metal articles, as well as manufacture of electrical, electronic and optical equipment, which meets the national objective of accelerating the introduction of digital technologies into the economy and social sector[3]. In doing so, more than a double increase in the volume of fixed assets is expected in the specified sectors in the period of 2016–2024[4]. In addition, a substantial increase in fixed assets (FAs) is expected in the construction sector, manufacture of means of

1 A Cobb-Douglas production function model with the α=1/3 parameter was used as a tool for calculation. The model represents possibilities to produce a certain volume of output, given the resource constraints (labour, capital, level of productivity of the economy). Calculations were based on a simplifying premise that the volume of supply of goods and services offered by the Russian economy is secured by a respective volume of demand. That is, variations of GDP within different phases of economic cycle and under the influence of varying crude oil prices are not considered.

2 The estimates are presented assuming that depreciation of fixed assets is 6%. The real growth in the volume of fixed assets in 2016–2024 is thus estimated at 31%.

3 Note that labour productivity figures can increase through both technological modernization of production facilities and swings of (domestic and foreign) demand for goods and services produced by the economy. Increasing productivity through fundamental production factors and assimilation of new technologies provides more sustainable long-term economic growth rates than a similar increase in productivity led by versatile short-term factors.

4 What is to be considered, however, is that it is assumed within the industrial growth model that returns on investment will remain unchanged even with a substantial increase in the volume of fixed assets. In fact, the decreasing return to scale, adverse changes in investment environment parameters can induce deficit of high-quality investment projects and thus restrict efficient investment opportunities.

transport and transport equipment, manufacture of coke, refined petroleum products, manufacture of textiles and wearing apparel.

Within the version at hand, the objective of Executive Order No. 204 with regard to increasing labour productivity by 5% a year can be implemented only in a small number of sectors including key non-resource-based sectors. The following are the sectors that can be leading sectors with regard to increase in labour productivity (in terms of annual growth):

- Manufacture of electrical, electronic and optical equipment; Manufacture of metals and finished metal articles (+8.8%);
- Manufacture of machinery and equipment (+6.8%);
- Manufacture of means of transport and transport equipment (+6.7%);
- Manufacture of textiles and wearing apparel (+6.3%);
- Construction (+5.2%).

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