

MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

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Monitoring of Russia's Economic Outlook

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РАНХиГС
РОССИЙСКАЯ АКАДЕМИЯ НАРОДНОГО ХОЗЯЙСТВА
И ГОСУДАРСТВЕННОЙ СЛУЖБЫ
ПРИ ПРЕЗИДЕНТЕ РОССИЙСКОЙ ФЕДЕРАЦИИ

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1. SOCIO-ECONOMIC MITIGATION MEASURES TARGETING COVID-19: INTERNATIONAL EXPERIENCE

P. Trunin, A. Evseev, F. Iskhakova, E. Goryunov

A surge in COVID-19 incidence in early April has shown that the world pandemic has not yet passed its peak. Morningstar and Fitch rating agencies forecast a reduction in global GDP in 2020 by 1.4% and 1.9%, respectively, while the Chinese economy will be the one to be hardest hit by the pandemic, according to Morningstar, Inc. forecasts. Most of the leading economies in the world are launching large-scale programs to provide financial assistance to businesses as a compensation for wages and salaries paid to their employees. A number of developing countries use traditional monetary measures in the form of reduced key rate, increased standing facilities corridor width, and other measures designed to boost liquidity in the money market.

Official changes in the world economy development forecasts

1. Morningstar Rating Agency: The forecast update due to COVID-19 is that the long-term economic outlook will be worse than during the 2008 recession (forecast publication date: April 2, 2020).¹

Table 1

GDP growth rate, %

	Impact of CO-VID-19 on GDP growth rates,%	GDP growth rates in 2020, %		GDP growth rates in 2009, %
		prior to COVID-19	current predic-tion	
Developed countries				
USA	-5	2.1	-2.9	-2.5
Europe	-6.5	1.6	-4.9	-4.2
Japan	-2.5	0.5	-2	-5.4
UK	-4	1.4	-2.6	-4.2
Canada	-5	1.8	-3.2	-2.9
Other countries	-2.5	2	-0.5	-0.8
Subtotal	-5	1.7	-3.3	-3.3
Developing countries				
China	-7.1	4.7	-2.4	9.4
Other countries	-3	3.9	0.9	0.6
Subtotal	-4.3	4.2	-0.1	2.8
World	-4.6	3.2	-1.4	-0.1

Morningstar's new forecast suggests that the social distancing measures will gradually relax from June-July onwards. US GDP is projected to decline 2.9% this

¹ <https://www.morningstar.com/articles/976107/coronavirus-update-long-term-economic-impact-forecast-to-be-less-than-2008-recession>

year. It is also expected that global GDP will decline by 1.4%, that is, deeper than during the 2008-2009 recession (-0.1%).

2. *Fitch Rating Agency*: Downward revisions of the global economy (forecast publication date: April 2, 2020)¹.

Table 2

	Average index for 2014-2018	2018	2019	2020 (forecast)	2021 (forecast)
GDP growth rate, %					
USA	2.5	2.9	2.3	-3.3	3.8
Eurozone	2.0	1.9	1.2	-4.2	2.9
China	7.0	6.7	6.1	1.6	7.6
Japan	0.9	0.3	0.7	-2.7	2.2
UK	2.0	1.3	1.4	-3.9	3.0
Developed countries	2.0	2.1	1.7	-3.4	3.3
Developing countries	4.8	5.1	4.4	0.7	6.0
World	3.0	3.2	2.7	-1.9	4.3
Inflation (period-end), %					
USA	1.5	1.9	2.3	0.9	1.1
Eurozone	0.8	1.5	1.3	0.4	1.1
China	1.8	1.9	4.5	2.0	1.6
Japan	1.0	0.3	0.8	-0.1	0.4
UK	1.5	2.1	1.3	1.0	1.2
Interest rates (period-end)					
USA	0.83	2.50	1.75	0.25	0.25
Eurozone	0.04	0.00	0.00	0.00	0.00
China	3.49	3.30	3.25	2.75	2.75
Japan	-0.02	-0.10	-0.10	-0.10	-0.10
UK	0.46	0.75	0.75	0.10	0.10
US 10 year bonds	2.32	2.68	1.92	1.30	1.50
Oil prices					
Oil, USD/barrel	64.7	71.5	64.1	35.0	45.0

FitchRatings projections for Russia are shown in *Table 3*.

FitchRatings expects global GDP in 2020 to decline by 1.9%. On average, GDP in the developed countries will plunge by 3.4%, and GDP in the developing countries – by 0.7%. In 2021, a recovery is expected – the developed economies will demonstrate growth of 3.3%, and the developing ones, of 6.0%. Oil prices at this year's end will stand at around \$ 35 per barrel. At the same time, FitchRatings predicts that Russia's GDP will lose 1.4% this year, and in 2021 its growth will amount to 2.2%.

1 https://www.fitchratings.com/research/sovereigns/global-economic-outlook-datasheet-covid-19-crisis-update-april-2-2020-02-04-2020?FR_Web-Validation=true&mkt_tok=eyJpIjoiTVdSaU5UQTVaREJtTWpWaSlSnQI0iJCkxXazdmd1g5d1dQSG5hSW90cHQzWk9QYzZYV0MxdWg3QWIKRG9QczJtZ1QwazRHVTJDRmdcL0NobWZrd25Yd3Y0XC9YRmJqZURR3lVGRxXC90eFozRllXxc82VdVjbmNTY1VFh0YU9yN0hhR1pUdURjUGM0UdDdXZl5QjVfZG9ifQ%3D%3D

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Table 3

Growth rate	Average index for 2014-2018	2018	2019	2020 (forecast)	2021 (forecast)
GDP, growth rate, %	0.7	2.5	1.3	-1.4	2.2
Final consumption, growth rate, %	-0.6	3.3	2.3	-3.3	1.4
Investments in fixed assets, growth rate, %	-1.3	0.1	1.4	-3.8	3.8
Net export, growth rate,%	2.1	0.9	-1.1	0.9	0.1
CPI (year-end), %	7.4	4.3	3.0	4.7	4.0
Key rate (year-end),%	9.6	7.75	6.25	6.0	6.0
USD-to-ruble exchange rate (year-end), Rb	57.5	69.5	61.9	74	73.5

Anti-crisis fiscal policy

Recent unemployment data in the world's largest countries suggest that the preservation of jobs and provision of social guarantees to the unemployed are becoming priority goals in the context of lockdown measures undertaken by countries in their fight against the pandemic.

Since the beginning of 2020, all the developed countries have announced the launch of fiscal policy supportive measures. The scale of fiscal incentives is unprecedented. The current economic crisis has a number of characteristics that can explain the decisive actions of the authorities, their scale, and speed of implementation.

Firstly, the crisis is caused by a severe negative shock, which nevertheless is temporary.¹ Therefore, the anti-crisis measures imply massive but time-limited support of economic activity in the affected segments.

Secondly, the scale of the shock is so great that in absence of intensive support measures, the economic recession can have irreversible negative consequences (bankruptcy of biggest enterprises, destruction of production chains, etc.).

Against this background, the risks associated with inadequate incentives outweigh the possible negative consequences of a downturn in budget indicators.

Thirdly, the overwhelming nature of quarantine measures paralyzes the activity of even highly efficient producers; in other words, under the current conditions, the process of purging the economy of inefficient enterprises, which usually accompanies an economic crisis, does not work. In such a situation, a policy of incentive packages oriented predominantly to supporting demand, with limited support for the real sector, including a tolerant attitude to the bankruptcies of some enterprises, does not appear to be reasonable. Instead, incentive measures should necessarily include the provision of massive assistance to enterprises with an emphasis on those sectors where the situation has become critical as a result of the quarantine.

The anti-crisis fiscal policy package can be subdivided into the following main categories.²

1 The estimated possible economic activity decline, according to OECD experts, points to potential losses of up to 30% of GDP for some countries. See https://read.oecd-ilibrary.org/view/?ref=126_126496-evgsi2gmqj&title=Evaluating_the_initial_impact_of_COVID-19_containment_measures_on_economic_activity.

2 A list of fiscal and monetary policy measures across a wide range of countries can be found in the materials released by the Institute of International Finance. See https://www.iif.com/Portals/0/Files/Databases/COVID-19_Responses.xlsx?ver=2020-04-03-163700-867

Firstly, the provision of support for vulnerable groups. The measures include targeted payments to socially disadvantaged groups, additional unemployment benefits, the right to defer mandatory payments, compensations to those individuals who have lost a significant proportion of their wages, and other measures.

Secondly, measures are being taken to support enterprises in the most affected sectors. The measures include tax holidays and the right to defer tax payments, subsidies to cover the wages paid and losses incurred by the affected companies, the allocation of budget funds to recapitalize the companies with a high risk of bankruptcy, and the issuance of budget loans on preferential terms to small and medium-sized businesses.

Thirdly, increased expenditures are earmarked for healthcare, medical research aimed at creating a vaccine, and sanitation.

Fourthly, bank lending to small and medium-sized enterprises is stimulated through the provision of budget guarantees on the loans issued to these enterprises and the allocation of budget funds earmarked for targeted concessional lending.

The scale of these incentives far exceeds the programs implemented by governments in 2008–2009. In the USA over the period 2008–2011, the total volume of incentive measures¹ amounted to about \$ 930 billion (6.3% of GDP in 2008). The current stimulus package approved by the US Congress is estimated to be \$ 2 trillion (9.3% of 2019 GDP). In the other developed countries, the ratios between the stimulus packages adopted in 2008–2010 and 2020 are roughly the same.

By the character of their impact on the budget, two types of measures can be distinguished: 1) direct fiscal stimulation; 2) budget loans, guarantees and tax deferral.² Direct fiscal stimulation implies an increase in current budget expenditures with a simultaneous shrinkage of the budget balance. The provision of loans, guarantees and tax deferrals also increases the budget deficit by reducing current tax-generated revenues, but it is expected that in the future these funds will return to the budget, i.e. the fiscal policy easing will be temporary. At the same time, firstly, the budget becomes heavily encumbered with contingent liabilities related to the guarantees being provided, and secondly, there exists the risk of the deferred tax liabilities not being repaid due to bankruptcy of the relevant enterprises.

Fig. 4 shows the corresponding estimated indices of direct budget incentives, the estimated incentives less government guarantees, and the total volume of incentive measures. The stimulus packages consist, in the main, of tax deferrals and government guarantees, and therefore in the medium term, any large-scale losses of budget revenues in the developed countries will occur only in the event of massive bankruptcies of enterprises. However, even if the expected losses are small, the general deterioration of budget indicators in the developed countries as a result of the economic recession and the budget-funded stimulus measures in the coming years will be significant.

If we compare the size of public debt, then for most countries it is significantly higher than the national debt shortly before the onset of the global financial crisis of 2008–2009. This means that the potential for a fiscal maneuver is more

1 The two major packages are the Economic Stimulus Act of 2008 and the American Recovery and Reinvestment Act of 2009.

2 This by-type distinction is suggested in the review by Bruegel. See <https://www.bruegel.org/publications/datasets/covid-national-dataset/>

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Table 4

The estimated scope of incentives in some countries and the size of public debt

	Estimated incentive volume in 2008-2010, % of GDP in 2008	Estimated volume of approved incentives in 2020, % GDP 2019			Public debt, % of GDP in relevant year	
		Direct incentives	Less gov-ernment guarantees	Total volume	2008	2019
USA	6.3	5.5	8.1	12.2	73.7	106.2
Germany	3.4	4.3	19.0	51.2	65.5	58.6
France	1.3	1.2	10.6	23.1	68.8	99.3
Italy	0.3	0.9	13.9	21.2	102.4	133.2
UK	1.5	1.4	2.8	17.9	49.7	85.6

Source: estimates by Bruegel¹, IMF², CBO³.

limited compared with the situation in 2008–2010. The debt crisis is likely to affect the most vulnerable countries: Greece (public debt increased from 109.4% of GDP in 2008 to 176.6% of GDP in 2019), Italy (public debt increased from 102.4% of GDP in 2008 to 133.2% of GDP in 2019), and Portugal (public debt increased from 71.6% of GDP in 2008 to 117.6% of GDP in 2019).

Because the monetary authorities in the developed countries stick to the zero interest-rate and are devoted to quantitative easing, it can be expected that a considerable portion of their increased budget deficit will be actually financed by the central banks, whose balances will increase significantly. In the short and medium-term perspective, such a policy is fraught with no inflationary risks; on the contrary, in the context of a mighty shrinkage in aggregate demand, the risks of deflation become stronger.

Current trends

In the USA, for the week ending on March 28, the Department of Labor registered a historic high of new jobless claims – 6.65m, which is twice the number of applications filed a week earlier.⁴ In this regard, according to estimates released by the Congressional Budget Office as of April 1, 2020, the US unemployment rate in Q1 may soar above 10%.^{5,6} Canada likewise demonstrates a continual rapid unemployment growth: within 5 days (March 26–30), 580,000 new applications for unemployment benefits were filed. As a result, the total number of applications amounted to 2.13m (about 11% of the economically active population in Canada).⁷

If we turn to the EU countries, in March Spain also saw an unprecedented surge in the number of new applications for unemployment benefits, to 302,000

1 <https://www.bruegel.org/publications/datasets/covid-national-dataset/>

2 <https://www.imf.org/external/np/pp/eng/2009/020109.pdf>

3 <http://www.cbo.gov/sites/default/files/cbofiles/attachments/02-22-ARRA.pdf>

4 This index is almost ten times larger than the previous record high registered in October 1982, when 695,000 persons filed first-time claims for unemployment benefits in the USA over the course of one week.

5 <https://www.cbo.gov/publication/56314/>

6 In February, US unemployment index was 3.5%. <https://www.nytimes.com/2020/04/02/business/economy/coronavirus-unemployment-claims.html>

7 <https://www.bloomberg.com/news/articles/2020-04-02/jobless-claims-reach-2-13-million-in-canada-after-lockdowns>

(the total number of unemployed rising to 3.5m).¹ Meanwhile, in Germany the unemployment rate in March did not change relative to February, remaining at the level of 5%. The German labor market stability is explained by the successful switchover to shorter working hours (*Kurzarbeit*), with the government compensation of the lost income in the amount of 60% or 67%. During the first week after the launch of the expanded *Kurzarbeit* program (March 23), 76,000 new applications for participation in it filed by companies were registered.²

However, in the United Kingdom, in spite of the introduction of a similar measure on March 20, whereby the government was to cover 80% of the income lost as a result of the transfer of employees to shorter working hours, the national unemployment rate continued to grow. Over the period March 16–31, the number of new applications for unemployment benefits reached a record high of 950,000.³ This movement pattern can be explained by the fact that, unlike Germany, the job preservation program is not part of the existing package designed for supporting UK workers, and so more time is needed for its proper implementation. According to the government plans, companies will receive the payments to cover their salaries at the end of April, and it is assumed that until that time they will be able to rely on lending schemes backed by government guarantees in order to reduce their cash flow gap and save jobs.⁴ Nevertheless, preliminary data indicate that one-fifth of all small and medium-sized enterprises in the UK are not entitled to these government-backed loans.⁵ On the one hand, their annual income is above the established cap for claiming such loans, while on the other, their solvency ratio is too low for them to provide eligible collateral and take advantage of the Bank of England's liquidity insurance schemes. In this connection, on April 3, the program of lending to small businesses against government guarantees was expanded, to include companies with proceeds up to £ 500m (previously, the cap was set at £ 45m).

At the same time, several other countries, following the example set by Germany, launched their own shorter-working-hours programs. Thus, on March 31, France introduced a compensation program covering 70% of gross earnings received by employees. In Australia starting March 30, businesses will be able to apply every two weeks for a fixed subsidy in the amount of A\$ 1,500 per employee to cover their salary costs.

Speaking about monetary incentives, it can be noted that central banks continue to consolidate their measures designed to provide banks with liquidity in order to increase loan availability for households and businesses. While the developed countries have been expanding their quantitative easing programs, the developing ones rely on the traditional measures designed to maintain money market rates: reduced key rates, increased standing facilities corridor width, and open market operations (*Table 5*).

1 <https://www.bloomberg.com/news/articles/2020-04-01/climate-talks-delayed-china-hid-outbreak-s-extent-virus-update/>.

2 <https://think.ing.com/snaps/germany-last-calm-before-the-storm/>; <https://www.dw.com/en/short-time-work-a-vital-tool-in-germanys-economic-armory-against-coronavirus/a-52952657>.

3 <https://www.theguardian.com/society/2020/apr/01/950000-apply-for-universal-credit-in-two-weeks-of-uk-lockdown/>.

4 <https://think.ing.com/articles/uk-economic-challenges-build-despite-bold-stimulus/>.

5 <https://www.bbc.com/news/business-52114414>

Table 5

Comparison of the monetary measures introduced by regulators to mitigate the pandemic effects (as of 03.04)

	Rate reduction	Broadening of quantitative easing (QE) program	Assets purchased under QE measures	Countercyclical capital buffer reduction	Targeted loans for commercial banks
US Federal reserve	☒ 150 bps	Unlimited	Treasury bonds, mortgage-backed securities, corporate bonds	Permission to use liquidity and capital buffers	Direct loans to banks (at 0.25%, 90-day maturity)
ECB	None	€ 750bn	Government and corporate bonds	Yes (value is set by national regulators)	Additional operations of targeted long-term refinancing (rate 25 bps below the average rate on refinancing operations)
Bank of Japan	None	¥ 19.58 trillion	Corporate bonds, ETFs, J-REITs (real estate investment trusts)	Remains at 0%	Bank lending program secured by corporate loans (at 0%, 1-year maturity)
Central Bank of China	☒ 30 bps	None	None	None	Yes - targeting SMEs
Bank of England	☒ 65 bps	£ 200bn	Government bonds, corporate bonds	Yes (up to 0%)	Yes - targeting SMEs (4-year maturity, rate close to key rate)
Bank of Canada	☒ 150 bps	CA\$ 5bn per week	Government bonds, mortgage bonds, corporate bonds	Stability buffer reduction	–
Reserve Bank of Australia	☒ 50 bps	Not established / volume necessary to maintain rate of return on government bonds with 3-year maturities at 0.25%	Government bonds, other bonds	Remains at 0%	Yes - urgent lending program for all companies, focused on SMEs (3-year maturity, at 0.25%)
Bank of Turkey	☒ 100 bps	None	None	None	Yes, targeting all companies (interest rate is 125 bps below 7-day repo rate, 6-month maturity)
Bank of India	☒ 75 bps	None	None	None	LTRO with 3-year maturity, to boost investment in corporate bonds
Bank of South Korea	☒ 50 bps	None	None	None	Yes - targeting SMEs
Bank of South Africa	☒ 100 bps	None	None	None	None
Bank of Russia	None (remains at 6%)	None	None	Remains at 0%	Yes - focused on SMEs (500bn, 4% per annum, 1-year maturity)

Table 6

Emergency measures to support the financial sector, companies and people in countries to mitigate the economic impact of the pandemic

Country	Measure	Date of adoption	Content	Source
USA	Temporary eased requirements for large banks to calculate supplementary leverage ratio (SLR) (Comments: SLR rule was adopted in 2013 and required large banks to maintain reserve capital of at least 3% of their total assets, to cover losses)	April 1, 2020	Reasons for introducing measure: Deteriorating conditions in US treasury bond markets and influx of customer deposits, alongside increase in reserve funds. In this connection, regulatory restrictions linked to increase in some items on banks' balance sheets may limit firms' ability to secure loans. Content: This initiative implies that banks may calculate SLR less their investments in treasury bonds and deposits with Federal Reserve Banks (FRB). Measure temporarily reduces Tier 1 capital requirements by approximately 2%. Measure to be effective until March 31, 2021 for financial institutions with consolidated assets in excess of \$ 250bn. Expected effect: Reduced tension in treasury bond market and increased ability of financial institutions to lend to consumers and businesses.	https://www.federalreserve.gov/newsevents/pressreleases/bcreg20200401a.htm
UK	Expansion of Corporate Bond Purchase Scheme (CBPS) by Bank of England	April 2, 2020	Repurchase of non-financial sector's corporate bonds to be increased from £ 10bn to £ 20bn. Repurchase operations scheduled to begin on April 7, to be conducted three times per week. Maximum repurchase amount per bond issue at each auction increased from £ 10m to £ 20m.	https://www.bankofengland.co.uk/markets/market-notices/2020/asset-purchase-facility-additional-corporate-bond-purchases
	Expansion of state small business loan guarantee program (Coronavirus Business Interruption Loan Scheme, CBILS)	April 3, 2020	Under expanded program, companies with turnover of £ 45m to £ 500m will be able to apply for loan (earlier from March 23) this program was only valid for companies with turnover under £ 45m). Also, under revised program, lenders are prohibited to demand personal guarantees from directors of small companies on loans amounting to less than £ 250,000. Under CBILS, state-guaranteed amount covers 80% of loan amount, and also interest payments for 12 months.	https://www.gov.uk/government/news/chancellor-strengthens-support-on-offer-for-business-as-first-government-backed-loans-reach-firms-in-need
Germany	Expansion of export credit guarantees by government	March 30, 2020	Export credit guarantees covers for export operations with shorter payment terms (up to 24 months), carried on within EU, as well as in Australia, Canada, Japan, New Zealand, Norway, UK, and USA.	https://www.bundesfinanzministerium.de/Content/DE/Pressemitteilungen/Finanzpolitik/2020/03/2020-03-30-PM-Exportkreditgarantien.html
France	Extension of guarantees for export companies' liabilities	March 31, 2020	Raised cap on guarantees for liabilities of export companies with average capitalization of 80% to 90%. Expansion of export credit schemes.	https://www.economie.gouv.fr/plan-soutien-entreprises-francaises-exportatrices#
	Launch of part-time employment support mechanism	March 31, 2020	State pays compensation to employees for reduction of working hours, at 70% of gross earnings (for workers with earnings below minimum wage, compensation is 100%). Compensation cap is set at € 6,927 per month (4.5 times higher than minimum wage).	https://www.economie.gouv.fr/coronavirus-soutien-entreprises

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Country	Measure	Date of adoption	Content	Source
China	Reduced required reserves for small and medium-sized banks	April 3, 2020	Reduction of required reserves by 1 pp for agricultural credit cooperatives, agricultural commercial banks, agricultural cooperative banks, agricultural banks. Reserve ratio to be reduced by 0.5 pp twice, on April 15 and May 15. Reduced required reserves will release liquidity in amount of RMB 400bn (\$ 56.4 bn).	http://www.pbc.gov.cn/en/3688110/3688172/4002931/index.html
India	Prolongation of terms for sale and repatriation of export revenue	April 1, 2020	Prolongation from 9 to 15 months of period for repatriation of export earnings generated by goods and software sold before July 31, 2020. Measure allows exporters longer period for collecting their export earnings denominated in foreign currencies from countries affected by coronavirus, and provides greater flexibility in concluding future export contracts with their customers.	https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=49619
	Increased TLTRO volume to boost liquidity	April 3, 2020	Provision of second liquidity tranche through repos in amount of INR 250bn. This measure is designed to sustain corporate bond liquidity.	https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=49598
South Korea	Expansion of target group of recipients of financial support package	April 3, 2020	Entry of big companies on list of loan recipients as part of lending program for businesses affected by COVID-19. Previously, assistance under this program targeted only small and medium-sized businesses.	http://www.fsc.go.kr/downManager?bbsid=BBS0048&no=151186
Brazil	Emergency credit line to support employment by micro, small and medium-sized enterprises	March 30, 2020	Provision of credit line in amount of BRL 40bn to support payroll costs of micro, small and medium-sized enterprises. Financing will be released in two tranches, BRL 20bn each, over 2 months.	https://www.bcb.gov.br/en/pressdetail/2324/nota
	Employment Support Program	April 1, 2020	Launch of Emergency Employment and Income Maintenance Program targeting short-term or temporary workers. Program involves payments of BRL 600 per month for up to 90 days to workers, unemployed individuals, and individual entrepreneurs supporting low-income families.	https://www.gov.br/economia/pt-br/assuntos/noticias/2020/abril/governo-lanca-programa-emergencial-de-manutencao-do-emprego-para-enfrentar-efeitos-economicos-da-covid-19
Australia	Employment Support Program	March 30, 2020	Launch of job-saving program (JobKeeper Payment) under which businesses affected by coronavirus can receive government subsidies to cover their salary costs. Affected companies from March 30, 2020 have right to demand payments every two weeks in amount of A\$ 1,500 for each employee for 6 months.	https://www.bcb.gov.br/en/pressdetail/2324/nota
Russia	RF Central Bank's additional measures to support housing mortgage lending	April 3, 2020	Abolition of risk premiums on housing mortgage loans issued before April 1, 2020. Measure allows banks to absorb loan losses in amount above Rb 100bn, thus eliminating negative consequences of compliance with capital adequacy standards and promoting housing mortgage lending.	http://www.cbr.ru/press/pr/?file=03042020_161415if2020-04-03T16_13_26.htm
	RF Central Bank's measures to sustain lending potential of SMEs	April 3, 2020	Easing of requirements for minimum rating of credit institutions to 'A' (from 'AA') for them to be eligible for participation in RF CB's 4% preferential refinancing program. This measure is designed to significantly increase number of banks covered by program and make it more accessible for small and medium-sized businesses.	http://www.cbr.ru/press/pr/?file=03042020_161415if2020-04-03T16_13_26.htm

Country	Measure	Date of adoption	Content	Source
	RF Central Bank's measures to provide liquidity to credit institutions	April 3, 2020	Announced possibility of resuming auctions of long-term repos and long-term loans secured by credit claims. These auctions, along with liquidity management operations, will extend funding period in banking sector and bring money market rate closer to key rate. Besides, Central Bank, considering possible uneven distribution of liquidity due to banks providing credit holidays to companies from affected sectors, launches measures to expand Lombard List and ease requirements for liquidity level of securities used by credit institutions in refinancing operations with Bank of Russia, while maintaining credit quality requirements.	http://www.cbr.ru/press/pr/?file=03042020_161415if2020-04-03T16_13_26.htm
	RF Central Bank's measures to sustain availability of insurance services	April 3, 2020	Permission to insurers to conclude OSAGO agreements in absence of diagnostic cards, provided that they are subsequently submitted to insurer within one month from date of termination of the restrictive measures imposed by state authorities.	http://www.cbr.ru/press/pr/?file=03042020_161415if2020-04-03T16_13_26.htm
	RF Central Bank's measures to support professional securities market participants	April 3, 2020	Introduction of temporary regulatory and supervisory exemptions for professional participants in securities market and in trading and clearing infrastructure. Central Bank will not apply punitive measures from March 1, 2020 to January 1, 2021, particularly in relation to failure to provide information on OTC transactions to trade organizer, breach by brokers of obligations to calculate short-term liquidity, violation by dealers, brokers, managers and forex dealers their obligation to calculate capital adequacy ratio, failure of trade organizers to conduct operational audit.	https://tass.ru/obschestvo/8113755
	RF Central Bank's measures to support collective investment market participants	April 3, 2020	Measures include but not limited to: postponement for 1 year (until July 1, 2021) of period for reducing concentration limits for investing accumulated pension assets by NPFs and mutual funds; postponement until January 1, 2021 entry into force of new requirements for investment of pension reserves.	https://tass.ru/obschestvo/8113755
	Extension of holiday period until April 30, 2020	April 2, 2020	Expected effect: Assessment in accordance with statement of Chairman of RF Central Bank: reduction of annual GDP by 1.5-2% [26]. Raiffeisenbank estimates: five weeks of non-working quarantine to take about 3 pp from GDP growth, resulting in recession of 2.5-3%. Alfa-Bank estimates: GDP in Q2 to decline by 6% in annual terms. Assessment of CICAC: losses to amount to 1.5-2% of GDP. Renaissance Capital rating: 0.8% decline in GDP in 2020 [27]	https://tass.ru/obschestvo/8113755

2. ON NWF MANAGEMENT IN 2020

I. Sokolov

Coronavirus pandemic, collapse of the OPEC+ deal and subsequent world crude oil plummet adversely affected the real oil and gas revenue of the federal budget in March 2020. The economy has slipped into recession, which can result in a reduction of oil and gas revenue for the federal budget. The issue of management of reserves accumulated in the National Wealth Fund (NWF) is being analyzed. The ideal allocation of the fund's assets seems to be exclusively as a stabilizing mechanism for balancing the federal budget including both compensation for a shortfall in oil and gas revenue and for financing a bailout and stimulus package.

In March 2020, additional oil and gas revenues of the federal budget for 2019 to the tune of USD 20.6bn, Euro 18.4bn, and £3.6bn have been transferred to the NWF.¹ As of April 1, 2020, the amount of NWF available assets (funds placed on bank accounts of the Bank of Russia) constituted roughly Rb 11.1 trillion (9.8% of GDP), and the total assets volume in NWF as of April 1, 2020 has surpassed Rb 12.8 trillion, or 11.3% of GDP. Having said that, the exchange difference from the revaluation of the Fund's assets from January 1 through March 31, 2020 has come to over Rb 1.7 trillion.

Accumulated over the previous years, the NWF assets will permit to meet all state obligations in full amount in 2020 without budget cuts. At the same time, in the event of a negative scenario (average annual Urals crude price stays at the March level of \$ 30 per barrel and the current USD/RUB exchange rate) a shortfall in oil and gas revenues in the federal budget will amount to around Rb 4.5 trillion, which together with contracting oil and gas revenues will result in a budget deficit to the tune of Rb 4 trillion rubles. In this context, the NWF assets will have to offset the difference in the oil and gas revenues obtained under the real and base crude oil prices, which can amount to Rb 2 trillion. In addition, part of the NWF assets will be allocated to support the PFR budget's balance (in the midst of a shortfall in insurance contributions up to Rb 0.5 trillion) and implementation of crisis bailout plan. This happened, for example, in 2009, when during the year the Reserve fund decreased by Rb 3 trillion. The annual amount of anti-crisis aid to the economy, population, and the financial sector is very hard to estimate at present, but according to various expert estimates it can vary from 1.5² to 8%³ of GDP depending on the gravity and duration of the crisis.

According to the official data released by the Finance Ministry, average Urals crude price in March 2020 stood at \$29.17 per barrel,⁴ given that the current version of the Federal budget law was written on the assumption of \$57.7 per

1 https://www.minfin.ru/ru/press-center/?id_4=37023-minfin_rossii_informiruet_o_rezultatakh_razmeshcheniya_sredstv_fonda_natsionalnogo_blagosostoyaniya_za_period_s_1_yanvarya_po_31_marta_2020_g

2 Fitch estimates (<https://www.rbc.ru/economics/02/04/2020/5e85e5b29a7947f9947add49>) и ЦБ РФ (<https://cbr.ru/press/event/?id=6615>)

3 Bank of America estimates (<http://www.finmarket.ru/shares/analytics/5206735?nt=2>) и Счётной Палаты РФ (<https://tass.ru/ekonomika/8137407>)

4 https://www.minfin.ru/ru/press-center/?id_4=37017-informatsionnoe_soobshchenie

barrel annualized.¹ The Finance Ministry has also announced that “aggregate deviation of really received oil and gas revenue from the expected monthly volume of oil and gas revenue and estimate of basic monthly volume of oil and gas revenue at March-end 2020 constituted Rb -22.0bn.² At the average monthly exchange rate of Rb73 per 1USD, it will require to spend \$300 mn from the National Welfare Fund.

Provided that the coronavirus pandemic has not peaked yet in the developed countries, one can expect that the crude oil price in April can even be below the March benchmark (by the way, a lot depends on the OPEC+ deal implementation). In this case, the amount of shortfall for April according to our estimates will total more than Rb 65bn (according to the Finance Ministry, these losses will amount to Rb 55.8 bn).

Concurrently, in the midst of the commenced economic recession a reduction of proceeds to the federal budget across all non-oil and gas revenue including insurance contributions into all extra-budgetary funds is imminent. This fact will force to increase transfers from the federal budget to the latter and regarding the pension system’s balance expenses on its maintenance will be disbursed, most likely, from the National Wealth Fund. In the context of increased demand on the Fund’s assets in highly liquid assets, to our mind, purchase of Sberbank packet of shares from the Bank of Russia by the NWF’s assets is expedient to postpone till the stabilization of the situation with coronavirus and obtaining better understanding regarding crude oil prices at least for the near future. In March 2020, for the purchase of Sberbank shares and according to the government decree dated January 19, 2008 No. 18 part of the NWF currency assets was converted into Rb 1.5 trillion.

In our view, in current context and onwards, the NWF should be a stabilizing mechanism for balancing federal budget. All optional (assistance investments in infrastructure) and particular (the PFR balance) targets should be replaced with the key one. Within the stabilization mechanism, in addition to compensation of shortfall of oil and gas revenue in compliance with the fiscal rule, one can consider the use of the NWF’s assets for bailout and stimulus measures in the real sector of the economy (subsidies not on permanent nature on finance assistance to strategic enterprises during crisis, subsidies in support of employment). Having said that, assistance to the finance sector should be carried out either by the Bank of Russia directly or by finance institutions of development (for example, VEB, DIA, etc.).

1 <https://sozd.duma.gov.ru/bill/904447-7>

2 https://www.minfin.ru/ru/press-center/?id_4=37021-neftegazovye_dokhody_i_provedenie_operatsii_po_pokupkeprodazhe_inostrannoi_valyuty_na_vnutrennem_valyutnom_rynke

3. PROSPECTS FOR THE HIGHER EDUCATION SYSTEM'S DEVELOPMENT IN THE PANDEMIC

S. Sinelnikov-Murylev

The progress of the pandemic is poorly predictable. In this context, two scenarios for the education system adapting to it can be possible. The first scenario relies on the pandemic ending by the summer of this year, when the educational process, for the most part, will return to a normal mode - that is, to mainly a direct contact between teachers and students. The second scenario involves a continuation of the pandemic, where remote learning methods will have to be relied on at least for the duration of the fall semester, and possibly, over the entire next school year.

By the beginning of the long weekend announced by the RF President, the majority of Russia's leading universities had been able to restructure their work so as to continue training students in a remote mode, with only some minimal changes to their curricula. In other words, in addition to the fully fledged on-line courses, however few they might be, that had already become part of the educational process, universities could, by rapidly building up and upgrading their digital learning environment infrastructure, organize distance learning for the students. The tutors, through their personal accounts, post online the materials necessary for the study of each academic discipline, deliver lectures and conduct seminars that are broadcast over the Internet.

Students, by logging in to their own private accounts, get access to the materials posted by tutors, as well as the opportunity to listen to lectures and participate in seminars. This format of the educational process is not distance learning, where the contact with teachers takes place during the one month of full-time study each semester, but, to put it simply, is an almost complete replica of a classroom setting, but without the students having physical contact with one other and with the teacher. Meanwhile, universities have dramatically accelerated their activities aimed at creating fully fledged online courses and proctoring systems (the procedures of monitoring tests being taken at a remote location), which will allow undergraduate and graduate students to sit for the spring semester exams and state exams in order to complete their bachelor and master's degree programs.

Of course, distance learning is difficult to implement when teaching sports and physical education, or the disciplines that involve laboratory work on special equipment, medical disciplines, and creative professions. An important component of the successful completion of a school year is a distance learning system that can be used in quarantine. The decision not to extend the long weekend for students and university staff after April 6, 2020 has been quite correct. The high workload that the students will have to shoulder as part of the remote learning process will discourage them from violating the quarantine restrictions.

If the pandemic develops according to the first scenario (waning over the next few months, and disappearing in the summer), there may be setbacks in the conduct of the Unified State Exams (USE) (the relevant decisions concerning their possible postponement have already been issued), as well as in the univer-

sity admission campaign, which even under an optimistic scenario should be organized mostly in a remote format. However, the way we see it, universities will have little difficulty in returning, in the autumn, to their habitual full-time study mode. At the same time, one can hope that one important positive outcome of the forced short-term switchover of the educational process to remote mode will be a qualitatively new level of qualification of the teaching and administrative staff of the universities, who will thus become expert in handling a digital learning environment. It can also be hoped that the processes like the university admission campaign; the conclusion of student contracts with universities; the issuance to and submission by students of statements and certificates; tuition fee payment; the formation and delivery to students and teachers of their class schedule and changes thereto; the provision of access, for students and teachers, to the textbooks created by a university and the electronic databases of books and journals; distribution of homework assignments and collection of completed homework; the conduct of tests and written exams; the selection of location for internships and practicum programs; travel planning in the context of student academic mobility, etc. will still be handled through the personal accounts of students and teaching staff of universities.

The second scenario of the course of the pandemic, oriented to the prolongation of the remote mode to the next six to twelve months, will require the adoption of a number of organizational and financial decisions whereby the forced and temporary measures will be here to stay and thus change our Russian education system for a long time. So, let us consider some problems that the education system will be faced with.

1. **University admission campaign.** All applicants will have to make the decision as to which university they would like to choose to study at without a personal visit to that university and an opportunity to offer their questions in person to the admission board. This creates an uncommon psychological situation for the applicants and their parents alike. It requires from the university staff to engage in proactive promotion of their educational establishments on the Internet, in social networks, and to focus both on personalized communication with each applicant and their parents, and on impersonal interaction with consumers of educational services.

However, the information asymmetry will be more strongly felt not only in the relationship between universities and the applicants thereto. Depending on the particular method of organizing the final exams at school (for example, if an exam is taken in remote mode, its level of objectivity will obviously become lower), universities may also have to struggle with the problems created by their insufficient knowledge of the state of preparedness of secondary school graduates.

2. **University financing.** Quite predictably, universities' two main sources of income – the state budget and paid educational services – will both become less plentiful. In addition to the shock produced by shrinking domestic and foreign demand, the Russian economy experienced another one – that of altered terms of foreign trade. The collapse in oil prices and the prices of other commodities and investment goods can lead to a significant plunge in revenue (under different scenarios, from 4 to 7 p.p. of GDP) across the national economy. If the epidemic continues, a very deep economic crisis followed by dwindling economic activity can be expected, the scale of which is as yet difficult to assess. Thus, the existence of the National Welfare Fund notwithstanding, a sequestration of federal budget expenditures cannot be ruled out, which in

3. Prospects for the higher education system's development in the pandemic

turn may affect the financing of the higher education system. The per student budget financing allotted to universities, as well as subsidies earmarked for other purposes, can all be reduced.

In the context of an epidemic coupled with an economic crisis, the incomes of higher educational establishments from their supplementary education programs will inevitably decline. If a university conducts the learning process in the remote format described above, its educational process costs not only do not decrease – in fact, they will increase in the initial phase. This increase will be due to the need to buy additional equipment and software and to retrain the tutors. However, students and their parents perceive distance education as a replica of 'education by correspondence', and so they will not be prepared to pay for it the same amount of money as had been asked for the full-time studies over the past few years. In addition, the deep economic crisis and the sanitary measures required to combat the epidemic will produce a significant personal income shrinkage, and thus a lower effective demand for higher education services. This applies both to the new cohort of secondary school graduates to be enrolled in 2020 and to the senior students and those who enroll in master's degree programs and postgraduate courses.

Due to the need to keep their incomes at the same level while lowering their prices, universities may start to actively compete for additional students, including in terms of prices of education services. When the distance learning format is used, the competition for students may become even more acute, because student enrollment will no longer be restricted by the physical classroom capacity. Besides, distance learning does not require that the student should actually move to the region where the university is situated. Therefore, those who previously could not afford or did not want to relocate, can now apply for admission in a university situated in another region.

A situation may arise where many universities will be faced with serious financial issues, thus requiring additional government expenditures, including those that will be needed in order to meet the salary standard for university researchers and pedagogues, which should be at a level not less than 200% of the average salary in a given region. For non-state universities, the situation may become even more troublesome.

3. Education quality. It is obvious that after a long period of distance (non-contact) learning, its quality will deteriorate. The main reasons are as follows.

With an increased number of students attending a university that has been able to increase its student contingent, the quality of education will inevitably experience a downturn, because there will be more students per teacher, and each of them will require some personal attention, with their questions to be answered, and their homework and tests checked. In addition, and very importantly, an increasing student body also increases its heterogeneity. Even within the framework of one and the same educational program, a lecturer simply cannot deliver one and the same lecture to students with very different levels of training (USE scores), and expect that the result will be high quality education.

It should be noted that it is this particular circumstance (the pronounced differences in both the level of preparedness and the abilities of students), along with the material and technical base of each university (in the context of conventional 'contact' (hands-on) training), that may actually become a constraint on its enlargement. Even in the context of studies in remote mode, it will be impossible to pool all mathematicians-to-be at Moscow State University's

Faculty of Mechanics and Mathematics, simply because for the students with USE maths and physics cores below 80-85 points it will be necessary to create another, less complex curriculum. Similarly, it will be impossible to organize distance learning for all the budget-funded and self-paying students at Russia's top universities, because high quality education means a high level of education complexity, which is geared to well-trained students, but not for everyone who wants to study but cannot master the complex programs due to lack of proper training.

However, the most important reason for the deteriorating education quality is the nature of distance learning methods per se, because even if the quality of learning itself remains high, the opportunities for training students in their habit of long concentration, increasing their attention span, social interaction skills, etc. during the learning process are greatly reduced. Only those students who are highly motivated and are able to work hard without constant supervision and advice from their tutors and fellow students will effectively learn remotely (by correspondence, online), but the proportion of such students, especially under the age of 20 years, is not very large.

The government bodies responsible for the education sector may respond in several different ways to the problems discussed above. Let us consider some possible solutions that can be offered in the nearest future.

Firstly, depending on the pandemic intensity, not only the USE timeframe, but also that of admission to universities, and possibly also the start of the next school year, can be moved and adjusted. There is an urgent necessity to create a single nationwide platform for all the universities in this country for online admission of students. Previously, it was planned to launch this platform in pilot mode. If the epidemic develops aggressively, the procedure for sitting for the USE should be revised. For example, a remote participation in the exams may be allowed, and potential violations will have to be put up with; or, the USE may be canceled altogether, and secondary schools allowed to assign grades to their graduates based on their average grades received during the school year (a similar decision has already been made in the UK).

The accumulation and analysis of information, including the development of a national ranking of universities and a graduates database, can help all the participants reduce the information asymmetry noted above (in this connection, it will be necessary to deal with the issue of personal data use).

In the context of a remotely conducted admission campaign, the issue of organizing not only the submission of necessary documents by applicants, but also the remote conclusion of contracts for self-paying students, which at present can only be possible by way of a qualified electronic signature, will become extremely important.

Secondly, it will be necessary to ensure the compatibility of digital educational environment systems operating in different universities. Perhaps new centralized software should be developed and installed. It might be feasible to provide all universities (public and private) with a centralized free access, on a federal level, to electronic databases of books and journals.

The implementation of distance learning will not only create the need for an additional IT infrastructure across universities, with its specific software, but also entail the additional high costs associated with the preparation of online courses, which will depend on the level of development of the general-use communications infrastructure in one or other region of Russia. For this particu-

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lar reason, the accelerated deployment of 5G networks can become critically important.

Thirdly, in the context of distance learning, the per student standards for the allocation of funding to universities will have to give way to funding based on the cost estimates (plans for financial and economic activities) drawn up individually for each university. This can be explained by the fact that the costs of universities under such conditions will depend even less on the number of their students than they do in case of classroom studies. These costs much more strongly depend on the number and qualifications of faculty staff, as well as the upkeep of the university's material and technical base. However, when moving in the other direction, from remote or distance learning to a traditional classroom setting, the system of funding should not also switch back to the per capita standards, at least at the top universities, where the educational process relies not on the universal standards, but on their own unique principles.

It is possible that additional budget funding will have to be allocated to universities in order to replace their dwindling incomes derived from extrabudgetary sources, for the reasons described above. We believe that, since in their distance learning mode the universities are not constrained by their classroom capacity, the allocation of additional budget funding should go hand in hand with an increase in the state assignment (enrollment norm). The goal should be to enroll, on a budget-funded basis, all those who would want to get a higher education, including graduates of secondary vocational educational establishments. In this case, after a return to the normal full-time studies mode, it will be necessary to provide this additional contingent of students with classroom space and funding for their studies, at least during the first year, as it is done in France, where everyone can enroll at a university, but those students who later fail their exams are subject to expulsion.

Fourth, the control and supervision model should be revised. We do not mean the fire safety or sanitary issues, but the control of compliance with licensing requirements and education quality. Similarly to the transition to a remote learning process during the crisis, in the situation after a return to full-time studies the priority measures should be as follows:

1) the introduction of a risk-based approach to monitoring the compliance with mandatory licensing requirements, based on continual monitoring of a broad set of observable indicators of a university's activity, and identification on this basis of those situations where violations can most likely occur; in the latter case, a documentary (online) audit or an on-site audit is to be scheduled;

2) the abolition of the procedure of periodic curriculum accreditations, when the quality of education is checked inadequately by ascertaining the compliance of each curriculum with the approved educational standards; its replacement with uniform nationwide exams, designed to verify not the formal set of student competencies to be acquired under a curriculum, but their real knowledge. An analysis of digital educational materials (including by means of IT technologies) applied in distance learning can also play a role in monitoring the quality of education. ▀

4. PREPAREDNESS OF RUSSIAN SCHOOLS, TEACHERS AND STUDENTS TO DISTANCE TEACHING

E. Semionova, G. Tokareva

39% of parents consider distance learning as holidays. Nearly half of students (49%) share the same point of view. Moreover, 62% of students and 56% of their families do not consider that the online format can be considered as a full-fledged alternative to live classroom studies, which was revealed by the survey carried out by Maximum Education Co. Schools must be ready for that they will have to study again the material which was taught online during the transition to customary forms of education.

Current epidemiological situation in Russia and around the world has led to the need to conduct education in the midst of wide-scale transition to e-learning with the help of new educational technologies.

As of early 2019–2020 school year in Russia as a whole from 16 to 18% of students (depending on education program) recourse to e-learning modalities.¹ Actually when a teacher uses computer in his/her work and gets information for a lesson from the Internet data bases, as well as uploads homework for the students in electronic journal—according to law such education already can be treated as e-learning. Nevertheless, solely in 20 Russian regions more than 10% of learners have turned to e-learning and only in 7 RF subjects more than half of students are taught via e-learning (*Table 1*).

As statistics report, distance learning technologies on the whole have not been widely practiced. As of early 2019/2020 school year in Russia as a whole from 4 to 6% of learners (depending on educational program) studied via distance learning technologies.² Only in 12 regions of Russia more than 10% of learners studied via partial interaction of learners of teachers. This being said, around half of learners were partially studying online in Tyumen region (*Table 2*). Roughly 9% of learners studied via distance learning technologies in Moscow.

Evidently that under such insignificant use of online technologies in education of students, a large-scale transition to distance learning amid epidemiological situation in the country and overseas leads to objective hardships in the organization of educational process based on the employment of distant educational technologies.

In this context, it is necessary to ensure a full scale if not training then consulting of teachers on how to use the distant educational technologies in regions where possible as well as provide teachers with a chance to apply resources which are in the possession of those organizations who have experience

1 According Article 16 FZ “On Education in the Russian Federation” dated 29.12.2012 (ver. Of 01.03.2020) No. 273-FZ “Under e-learning is understood organization of educational activity with the use of available in the data bases and usage in the implementation of the educational programs information and supportive information technologies, hardware and software as well as information and telecommunication networks ensuring transmission via lines of communication of indicated information, interaction of learners and pedagogical staff.”

2 According to Article 16 FZ “On Education in the Russian Federation” dated 29.12.2012 (ver.01.03.2020) No. 273-FZ “Under distance learning technologies is understood educational technologies implemented mainly by using information and telecommunication networks in indirect (at a distance) interaction of learners and pedagogical staff...”

4. Preparedness of Russian schools, teachers and students to distance teaching

Table 1

Share of learners by educational programs via online education, as of early 2019/20 school year, %

Subject of Russian Federation	Educational programs of general education	Educational programs of general education	Educational programs of secondary general education
Moscow	98.82	98.26	96.22
Republic of Bashkortostan	70.73	74.67	80.91
Novgorod region	75.46	83.2	79.68
Tyumen region	80.58	80.94	76.95
Leningrad region	65.59	65.72	64.76
Khabarovsk krai	69.66	43.63	62.25
Udmurt republic	47.51	47.77	46.46
Kaliningrad region	33.5	33.84	43.74
Komi Republic	8.32	25.76	37.48
Kemerovo region	30.09	30.21	33.91
Orenburg region	29.77	27.86	28.47
Irkutsk region	25.8	26.58	28.39
Tambov region	16.89	19.64	23.81
Yaroslavl region	11.91	15.75	21.82
Tomsk region	18.1	20.35	21.56
Chelyabinsk region	21.93	21.94	21
Republic of Dagestan	20.69	20.1	17.55
Voronezh region	7.42	9.65	14.01
Perm krai	8.65	11.63	12.2
Sverdlovsk region	9.76	10.36	11.61

Source: Ministry of Education of Russia.¹

Table 2

Twelve Russian regions with a share of learners studying on educational programs via distance learning technologies surpasses 10%, as of early 2019/2020 school year, %²

Subject of Russian Federation	Educational programs of primary general education	Educational programs of compulsory education	Educational programs of secondary general education
Tyumen region	50.13	52.04	47.7
Kaliningrad region	28.06	30.95	38.12
Khanty-Mansi autonomous okrug – Yugra	26.32	29.16	31.38
Republic of Bashkortostan	22.3	22.69	27.47
Kemerovo region	21.14	22.04	26.38
Leningrad region	22.54	25.5	25.75
Udmurt Republic	19.4	21.94	23.33
Tomsk region	10.03	9.36	13.87
Sverdlovsk region	7.52	9.14	11.41
Nenets autonomous okrug	15.49	14.96	11.24
Yamal-Nenets autonomous okrug	1.68	2.92	10.56
Lipetsk region	5.61	7.21	10.34


Source: Ministry of Education of Russia.¹

- 1 Form No. 00-1 "Information on organization implementing the educational activity according to educational programs of primary general, compulsory general, secondary general education". – Ministry of Education of the Russian Federation [Electronic resource]. – URL: https://edu.gov.ru/activity/statistics/general_edu. (дата обращения: 24.03.2020).
- 2 Information released by state educational institutions of urban and rural settlements.

of conducting online lessons with pupils. In particular, it is necessary to inform teachers that major Russian edtech-projects opened for free their services for schools all around Russia striving to help school learners to continue their education amid lockdown.

Moreover, transition of pupils towards online education requires that not only teachers but parents as well were briefed about how to help children especially at elementary schools to study in new unfamiliar conditions. Special attention should be drawn towards those families where parents due to various reasons cannot help the child in coping with the material provided online.

Apparently, due to stress which is common to school children and to teachers it would be expedient to refrain from giving marks to school children for a time being before new technologies are mastered both by adults and children as well.

This being said, schools must be getting ready to a situation where during the transition to customary forms of education the major part of the school children will have to go again through the material that was studied online. 

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