Justification of the need to subsidize small innovative businesses for renting real estate in the context of a new coronavirus infection «covid-19»

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Abstract. The article presents a study of the state of the real estate market in the context of the new coronavirus infection "CoVid-19". The influence of the pandemic on this market is shown on the example of one of the subjects of the Russian Federation - the Irkutsk region. A solution has been proposed for the efficient operation of enterprises in the conditions of a recession in the construction of real estate, which consists in reimbursing the lease of real estate to small and medium-sized enterprises on certain conditions. Preliminary calculations have been carried out, which have shown the effectiveness of the reimbursement of rental space to enterprises. The basis for such calculations was the concept of increasing tax profits obtained from deductions from enterprises to the regional and federal budgets. The conditions that the company must accept as obligations in case of a positive decision regarding the reimbursement of rent payments from the regional budget are given. Eight indicators have been identified that give a definite economic effect to the regional budget. The conclusion is made about the expediency of reimbursing rent payments to small and medium-sized businesses.

Currently, there is a steady downward trend in the volume of real estate construction. This is due, according to the authors, to the pandemic caused by the new coronavirus infection "covid-19." far back, to the level of past decades. But, in particular, this applies to the construction industry, where the construction of facilities is frozen during a pandemic, and the design of new ones is not expected at all. This situation has developed in many regions, practically in all developing countries. But this is not surprising, because the budget, first of all, during a pandemic, is spent on overcoming the consequences of the pandemic itself, on eliminating its sources, on the development of measures to prevent the spread
of infection, on the primary needs of people. However, of no small importance is the problem of the lack of space in small businesses, which also suffer from the lack of opportunities to acquire new production facilities [5]. In this publication, we will look at exactly how the state can provide support to enterprises[6] suffering from a lack of space.

And so, in 2020, the population of the entire planet was faced with the spread of a new coronavirus infection, later called by the World Health Organization "pandemic", it was assigned the code "CoVid-19". It is not the purpose of our publication to address the medical consequences of this phenomenon, but the pandemic has clear economic consequences, and these consequences are negative. And, if before the start of the pandemic, the structure of land use in Russia had a positive trend, now it is negative (Fig. 1).

![Figure 1. Dynamics of price changes for office rent in the Irkutsk region](image1.png)

With the withdrawal to self-isolation, there was also a decline in office rental prices. This was mainly due to a drop in demand. At the time of this writing, and, as can be seen from the graph (Figure 1), the cost of renting 1 square meter of office space is $ 18.78. It is noteworthy that the drop in demand for rental of warehouse production facilities did not occur as rapidly as for offices. This is due to the fact that small and medium-sized enterprises still need storage space for production inventory and stocks of unsold goods. So, now the cost of renting 1 square meter of warehouse-type premises is 4.37 US dollars (Figure 2)

![Figure 2. Dynamics of price changes for the lease of warehouse-type premises in the Irkutsk region](image2.png)

Two important conclusions can be drawn from the above graphs: firstly, the drop in prices for lease of office real estate is more significant - 66.57% than the drop in prices for rental of warehouse premises, which amounted to - 41.73%

As mentioned above, the decrease in rental prices was caused by a decrease in demand, which, in turn, was provoked by the lack of income of enterprises from core activities. However, judging by the polls we conducted among company executives, the demand for production facilities remains high. In connection with the above, it is necessary to consider the feasibility of subsidizing part of the costs associated with the lease of buildings, structures and other premises to enterprises at the expense of the regional budget. We argue that such subsidies will be effective both for enterprises and for the region as a whole [3,4].
The economic effect is calculated for small and medium-sized businesses operating in the Irkutsk region.

The following direct and indirect parameters are taken into account (Table 1).

**Table 1. Indicators and Effects**

| Indicator | Effect |
|-----------|--------|
| 1. An increase in the number of employees due to the possibility of renting additional space | Due to the reimbursement of part of the rental costs, the company is able to hire unemployed citizens, reducing the burden of paying unemployment benefits. |
| 2. Increase in production capacity | When reimbursing part of the cost of renting premises, it will be possible to increase the leased area, as a result, it will be possible to install additional equipment and increase the labor productivity of business entities. |
| 3. Social effect | Decrease in the number of unemployed (the company must undertake the obligation to hire unemployed citizens in the event of a positive decision to reimburse part of the rent). As a result, prevention of offenses in connection with getting rid of the potential increase in crime due to a decrease in unemployment. |
| 4. Gross regional product | There will be an increase in companies' contributions to the regional budget due to the expansion of production areas. |
| 5. Employment of students and collaboration with universities | When reimbursing part of the rent, the company undertakes to take on the practice of students, based on the available space. |
| 6. Products | Increase in the number and expansion of the range of products due to an increase in the reserve area. |
| 7. Business risk | Reducing the risk in entrepreneurial activity (due to the coverage of part of the costs associated with the lease) - will occur in proportion to subsidies. Reducing the risk of closing "businesses" and the risk of liquidation of potentially significant enterprises for the region. |
| 8. Logistic effect | Companies will experience a decrease in the need to rent remote premises outside the city. |

Separate norms exist for those who use computers in their work. The area of the workplace of such employees cannot be less than 4.5 square meters (if a flat monitor is installed) or less than 6 square meters (if the workplace is equipped with an old-type monitor with a kinescope). Let's take into account in the calculations that monitors of the old type are currently not used. To assess the minimum area required for other production activities (not related to working at a computer), we will take into account the interstate standard "Occupational safety standards system. Operator's location in a sitting position. General ergonomic requirements, according to which the area for 1 employee will also not exceed 4.5 square meters. Thus, in the calculations, we set the required minimum area for 1 employee - 4.5 square meters.

Having studied the cost of renting space in the category "up to 100 square meters", we will accept for calculations the cost of renting 1 square meter equal to 422.6 rubles / month, in 2020 prices.

Thus, in order to obtain the effect due to the reimbursement of part of the rental costs, provided that this reimbursement is not less than 4.5 square meters, the enterprise needs a subsidy in the amount of 4 to be able to additionally employ 1 unit of labor. $5 \times 422.6 = 1,901.7$ rubles. Taking into account that the unemployment benefit in the Irkutsk region is from 1,800 to 14,556 rubles / month (planned increase), moreover, the base rate imposed on the federal budget - up to 8,000 rubles / month, the effect will be directly dependent on the number of employed and on how many people will be employed who receive allowances from the regional budget [1,2].
The increase in the gross regional product directly depends on the increase in the profits of small and medium-sized businesses in the region. The amount of the companies' contributions to the regional budget depends on the amount of profit that is expected in connection with the expansion of production areas. 1 additional workplace equipped with high-tech equipment brings an average output of 2,337,166 rubles. / year, of which, under the general taxation system, 3% in the form of tax goes to the federal budget; 17% of the tax profit goes to the regional budget. With a simplified taxation system, this amount will be 6%, and all taxable profit, in this case, goes to the regional budget [7-10].

As a result of a statistical survey of heads of enterprises, about the amount of profit that they predict for the coming years, taking into account the current economic situation in the country, it was established that this figure will be no more than 20% of the developed and sold science-intensive products [20,21].

We denote:
- \( I_{\text{min}_o} \) - receipts to the regional budget in the form of income tax under the general taxation system (17%);
- \( I_{\text{min}_f} \) - receipts to the federal budget in the form of income tax under the general taxation system (3%);
- \( I_{\text{min}_s} \) - receipts to the regional budget in the form of income tax under a simplified taxation system (6%);
- \( T \) - output in its monetary terms per 1 workplace equipped with high-tech equipment \( (T = 2,337\, 166 \text{ million rubles} / \text{year}) \);
- \( P \) is the average profit of small and medium-sized businesses, set at the level of 20% of production, according to the results of statistical surveys.

Thus, the formulas for calculating these receipts will take the following form:

\[
I_{\text{min}_o} = 17\% \times P \times T, \text{ rub.} / \text{year} \\
I_{\text{min}_f} = 3\% \times P \times T, \text{ rub.} / \text{year} \\
I_{\text{min}_s} = 6\% \times P \times T, \text{ rub.} / \text{year}
\]

We get:

\[
I_{\text{min}_o} = 0.2 \times 0.17 \times 2 \, 337 \, 166 = 79 \, 463.6 \text{ rub.} / \text{year} \\
I_{\text{min}_f} = 0.2 \times 0.03 \times 2 \, 337 \, 166 = 14 \, 023 \text{ rub.} / \text{year} \\
I_{\text{min}_s} = 0.2 \times 0.06 \times 2 \, 337 \, 166 = 28 \, 046 \text{ rub.} / \text{year}
\]

We will calculate the full economic effect from the reimbursement of the rent for 1 square meter.

\[
E_{\text{p, min}} = \left( (I_{\text{min}} - Q \times 12) / 4.5 \right)
\]

Where:
- \( Q \) - the cost of renting 4.5 square meters of space for a small / medium-sized enterprise
  \( Q = 4.5 \times 422.6 = 1,901.7 \text{ rubles} \);
- \( I_{\text{min}} \) - the minimum threshold of the effect, defined as% of the increase in tax profit credited to the regional budget, formed by increasing the production capacity of the enterprise due to an increase in the area, hiring an additional working unit and equipping with additional equipment (previously calculated - 79 463.6 rubles - with a total and 28,046 rubles per year - with a simplified taxation system);
- 4.5 is the minimum area required to create one additional workplace.

Thus, the economic effect from the reimbursement of the cost of renting 1 square meter under the general taxation system:

\[
E_{\text{p, total}} = (79 \, 463.6 - 1 \, 901.7 \times 12) / 4.5 = 12 \, 587.4 \text{ rubles.}
\]

The economic effect of reimbursing the cost of renting 1 square meter under a simplified taxation system:

\[
E_{\text{p, cont}} = (28 \, 046 - 1 \, 901.7 \times 12) / 4.5 = 1 \, 161.24 \text{ rubles}
\]

If a decision is made to reimburse rent for 45 m2 to enterprises (113 enterprises of the Irkutsk region expressed a desire, judging by the survey, to receive a subsidy on these conditions), the minimum effect for the region may be:

\[
E_{\text{p, total, min}} = 12 \, 587.4 \text{ rubles} \times 113 \times 45 = 64 \, 006 \, 816 \text{ rubles.}
\]

\[
E_{\text{p, cont, min}} = 1 \, 161.24 \text{ rubles} \times 113 \times 45 = 5,904,905 \text{ rubles.}
\]
The maximum economic effect includes - a decrease in the cost of maintaining the officially unemployed, a decrease in the risk of bankruptcy and liquidation, an increase in the production of innovative products, as well as a social effect, and is several times higher than the minimum values calculated by us [11-14].

Reimbursement of lease payments to small and medium-sized businesses in the Irkutsk region, according to calculations, will lead to positive economic efficiency, profitability of created science-intensive products, a social effect associated with the possibility of creating new jobs, and a decrease in the number of unemployed [15,16]. The relationship between economic results and costs, as well as resources, allows for an assessment of efficiency. Based on the data obtained in the course of the calculations, it was established that reimbursement of lease payments to enterprises is expedient.

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