

# Commodity distribution in the context of post-COVID deformation of the consumer base of the industry market

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**Abstract.** The scientific paper is devoted to the analysis of problems and ways of sales system development in the conditions of deformation of commodity distribution of large manufacturers of vibro-pressed products in the market of the Russian south. The result of the study is the scientific and practical substantiation of decisions to rebalance sales channels in the face of a continuous increase in demand constraints and destabilization of the consumer base of the industry market. The authors outline the limits and specifics of the directed competitive transformation of modern sales systems of large brand suppliers of paving slabs and concrete products against the backdrop of a disruptive growth in the supply of cheap products, as well as the continuous flow of a part of consumer demand to the lower sectors of the market. This made it possible to form a strategic vector for improving the performance of modern distribution systems, the macro-factor of the imbalance of which in 2019-2020 was the chronic deformation of the market consumer base, which disrupts market stability and the potential for competitive differentiation of the product offer in the field of large-scale production of vibro-pressed products in the south of Russia.

## 1 Introduction

Development of the Russian economy in the early 2020s characterized by severe macroeconomic destabilization of demand, which puts pressure on the profitability of production in various industry markets. COVID-2019 and the restriction of business activity in the economy have caused the development of imbalances in production and consumption, which entails an intra-industry restructuring of businesses and production and distribution chains. “By the end of 2020, the Russian economy entered the trajectory of a natural slowdown due to the exhaustion of the effect of deferred demand, on which consumption relied during the coronavirus crisis. Macroeconomic triggers of the crisis were weakened as a result of an effective and consistent countercyclical policy” [18, p.31].

Stagnation of the market consumer base in 2019-2020 showed a close macroeconomic connectivity of the parameters of the functioning of production and consumption. Such a

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correlation can be relevant in the building materials market, which is closed to the housing construction sector, which has been a driver of economic development since 2018.

It is the demand crisis that creates another challenge for industry distribution systems, especially in product categories where the margin is not significant. The flow of demand to the mass market almost turns off the marketing of large producers, since the consumer does not pay attention to the brand and is looking for a price benefit [7]. This forms borderline hybrid growth strategies in the middle market segment, the implementation of which is also costly today, but no longer provides the former economic return: over-elastic demand excludes the possibility of extracting a price premium.

In general, the anti-crisis logic of building multichannel sales becomes opportunistic and reflects a systematic consumer search for a low price. This stimulates the redistribution of demand from offline to online stores, which record a larger volume of orders [12, 14]. In 2019-2020, we are witnessing a shift in demand to lower price segments, similar to the one that marked the development of markets in 2008 or at the end of 2014, when the weakening of the ruble caused price hikes in the import-substituting retail system and industries whose cost structure is sensitive to inflation in foreign exchange costs.

## 2 Materials and Methods

The deformation of distribution systems in stationary sectoral trade empirically actualizes and sharpens the importance of specific economic applied research, which, using the example of a single market, makes it possible to diagnose and uncover the existing potential for the competitive construction of distribution and the development of supply chains [1, 2, 7, 12-18].

An example of such a sectoral market is the sale of vibro-pressed products (paving slabs, curbs), especially in the south of Russia, which shows the highest growth rate by territory (Table 1).

**Table 1.** Volume of the paving slabs market in the Russian Federation in 2018-2020, thousand sq. m. [21].

Macroregion	2018	2019	2020	2020 to 2019	
				Absolute change, thousand sq.m.	Relative change, %
Central Federal District	8 088	10 304	11 000	696	6.75
<b>Southern Federal District (+ Crimea)</b>	<b>4 068</b>	<b>4 983</b>	<b>6 700</b>	<b>1 717</b>	<b>34.46</b>
Northwestern Federal District	2 005	2 291	2 450	159	6.94
Siberian Federal District	1 600	1 574	1 680	106	6.73
Ural Federal District	856	989	1 660	671	67.85
Volga Federal District	1 298	1 522	1 640	118	7.75
North Caucasus Federal District	619	954	1 020	66	6.92
Far Eastern Federal District	305	684	450	-234	-34.21
<b>Russia</b>	<b>18 839</b>	<b>23 301</b>	<b>26 600</b>	<b>3 299</b>	<b>14.16</b>

The paving slab market of the Southern Federal District is a fast-growing market dominated by several large manufacturers - they are first-tier companies: AksaiStroyProm LLC (Bettex TM), Vybor-S LLC, Hess-Stroy LLC, and Landshaft LLC.

During the period of economic and demographic growth of the territories, large brand suppliers implemented market development strategies, which were accompanied by the expansive development of distribution systems, the active consolidation of new dealers in regional locations with high demand. The rise in prices and the infrequent practice of price dumping stimulated the segmentation of the market, in which the capacity of the mass market at a high level of consumption remained relatively small.

However, the continuous decline in household income since 2013 required a more pronounced segmentation of the supply. According to the Institute for Strategic Analysis of FBK Grant Thornton, the share of business income decreased from 15% of GDP in 2000 to 5.6% in the third quarter of 2020, i.e. almost 3 times. In developed economies, the share of income from entrepreneurial activity ranges from 20 to 40%, i.e. 4-8 times more than in the Russian Federation [27, p. 46].

**Table 2.** Average prices of large manufacturers of vibro-pressed products in the Southern Federal District in 2018-2020.

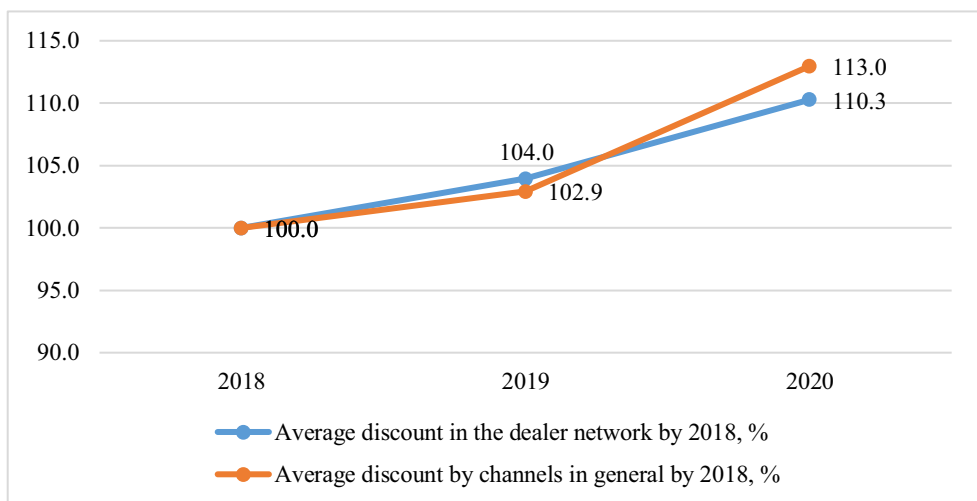
Nomenclature	Unit	Height, mm	Average price				Dynamics of the average price of BETTEX TM / Average market price in 2020
			2018	2019	2020	2020 BETTEX TM	
Paving stones (200x100, smooth, gray, gray cement)	rub/m <sup>2</sup>	40	476	510	496	478	-3.71%
Paving stones (200x100, smooth, gray, gray cement)	rub/m <sup>2</sup>	60	534	575	570	571	0.16%
Paving stones (200x100, smooth, gray, gray cement)	rub/m <sup>2</sup>	80	667	758	765	776	1.45%
Square (200x200, smooth, gray, gray cement)	rub/m <sup>2</sup>	40	472	522	511	476	-6.81%
Square (200x200, smooth, gray, gray cement)	rub/m <sup>2</sup>	60	457	575	580	570	-1.70%
Aurico (3 elements, smooth, gray, gray cement)	rub/m <sup>2</sup>	60	926	1003	591	573	-2.98%
Curb (1000x200x80, smooth, gray, gray cement)	rub/piece	200	180	200	200	166	-16.91%
Curb (1000x300x150, smooth, gray, gray cement)	rub/piece	150	321	365	364	315	-13.40%
Curb (1000x450x180, smooth, gray, gray cement)	rub/piece	180	330	471	465	399	-14.30%

From 2014 to 2019, real revenues of the federal budget of the Russian Federation grew by 9.5%, with a total GDP growth of 5.6%. Real incomes of the population during this period fell [27]. In the economy, the direct link between its growth and the increase in the population's income was violated.

It is important to note that COVID-2019 has increased demand constraints, potentially expanding the capacity of the lower market sectors. A more fundamental scientific assessment of the effects of decrease in demand is presented in the study of the French scientist T. Piketty, who clearly showed the decline in earnings in a social stratum with a low level of income and an increase in savings in groups with surplus incomes [20].

In 2019-2020, the market of paving slabs in the Southern Federal District (+ Crimea) grew from 4.068 million sq. m. up to 6.7 million sq. m., i.e. by 34.46% against + 6.92% in the North Caucasus Federal District (+ 14.16% in the Russian Federation as a whole). Partly overstated, taking into account the effect of the low base of 2019, dynamics of growth in production of paving slabs by BETTEX in 2020 (less than 20% by 2019) allows suggesting that the main increase in the capacity of the southern market is caused by an increase in the supply of small producers with an outstripping growth of their production capacity. A new structure of the market supply is being formed, which is directly adapted to the capacious demand, the growing volume of which is steadily shifting to the lower price segment. Large-scale closing of this demand gap by small manufacturers will increasingly undermine the sales of large brand suppliers, which should reduce the share of sales through dealers, the wholesale discount of which already limits the profitability of sales in the channel, creating downward price pressure on the market (Table 2).

The growth rate of slab production in the Southern Federal District is several times higher than in other constituent entities of the Russian Federation, gradually creating a situation of overproduction in the macroregional market. Note that today the problem of overproduction and sale of products below the cost price occurs in the sugar market, in poultry farming and pork production. The way out of the situation for the last two is export. Considering paving slabs, expensive logistics exclude the possibility of mass “dumping” of products outside their macroregion to maintain the level of capacity utilization, which allows overcoming the break-even point.



**Fig. 1.** Dynamics of the average discount rate of a large brand supplier of paving slabs in the Southern Federal District in 2018-2020 (the 2018 discount rate is taken as the base one - 100%).

The growing supply surplus will weigh on the profitability of major brand suppliers. To maintain market stability, the latter must rebuild the sales system in order to reduce

dependence on sales partners who take part of the manufacturer's profits, including under the pressure of dumping adapted to weak over-elastic demand (Fig. 1).

A developed dealer network as a channel that stabilizes the inflow of orders creates certain risks of a further decrease in the margin in 2021-2022 in case of aggravated competition with weak recovery growth of the market consumer base, when the increase in sales will include not only a discount to the buyer, but also an additional price premium for the dealer.

An increase in the tax burden, a decrease in the level of entrepreneurial income in GDP, a destabilization of the real disposable cash income of the population with an increase in the supply of small suppliers in an actually shrinking market - all this creates a high risk of dependence of large suppliers on sales partners.

### **3 Results**

Thus, in 2021-2022, in the context of a decrease in household consumption (-8.6% in 2020), BETTEX TM and other manufacturers should move to increasing the volume of direct-to-customer sales, expanding their own client base of developers, actively develop small dealers promoting the mono-brand and gradually balance sales across channels, replacing the revenue of sales intermediaries primarily within the radius of the Rostov agglomeration - shipment distance up to 150 km.

The implementation of this maneuver will require the restructuring of the sales departments, which turned out to be organizationally and functionally adapted to work with dealers during the period of market growth.

The second feature of the transformation of value chains in the paving slab market in the Southern Federal District is that the growth in the production of inexpensive slabs in the Southern Federal District and the North Caucasus Federal District follows the classic scheme of disruptive innovations: the launch of small lines allows a cheap product to attack the lower sectors of the market, into which demand flows. Nowadays, changes in the supply structure of paving slabs in the south of Russia completely "fit" into the model of disruptive innovations by K. Christensen, despite the fact that large brands of expensive quality slabs are experiencing a shortage of demand in the upper market sectors, which forces them to compete for an inexpensive order [9,10]. At the same time, small producers have a more efficient cost structure and cost economy, in which, for example, the molding of small premium orders due to the smaller working capacity of the mixers implies a lower meterage of paving slabs during the additional molding of the mixture, which goes to the warehouse and is sold at a discount.

In the perspective of 2022-2023, in our opinion, the profitable growth of small suppliers on mass sales will give them an economic basis for increasing the premium line of paving slabs and moving to the upper sectors of the market, which will begin to recover by this period. All this creates serious risks of a large-scale redistribution of the segment of expensive quality slabs in the future two to three years, undermining the positions of large manufacturers.

For a firmer consolidation in the market, regional first-tier companies must continuously develop a branded premium line, independently, directly and more expansively work with developers and urban land improvement, ensuring a firmer positioning of BETTEX as a recognizable regional brand, create new points of competitive adjustment and correctly broadcast them into the market, build up direct contact with the end consumer and strengthen the position of dealers/pavers offering only a mono-brand and having many years of experience in working with the product.

All this requires the achievement of a higher manageability of sales departments, since in the new market configuration, a wide dealer network will not be able to act as a pivot point

for sustainable growth and successful differentiation of regional brand suppliers from small manufacturers, which, from our point of view, will inevitably increase expansion into the upper market sectors.

Thus, the basic a priori premise of this study is based on the fact that the slow recovery of consumer demand in 2021-2022 will occur in the context of an increase in the number of small manufacturers of cheaper paving slabs. Nowadays, this process is developing momentum. In the Krasnodar Territory (Kushchevskaya stanitsa, Starominskaya stanitsa, etc.), Stavropol Territory (Stroypolimer-K LLC, etc.), new lines are constantly being opened on the periphery, which, due to the low price, take a part of the market, greatly reducing the sales of dealers in these territories. In Krasnodar (the launch of a new line by Euro-Stroy LLC (head plant in Sochi)), the launch of small lines of small producers leads to a rigid redistribution of orders, significantly reducing and undermining the sales of large manufacturers.

From our point of view, the current phase of the downward development of the market and the imbalance between supply and demand form the preconditions for a change in the development strategies of the sales system of large manufacturers of paving slabs. Until 2018, with a relatively stable consumption, sales growth was ensured by the active work of dealers who performed a traffic-generating function, attracting orders from territories in a large distance. In 2019-2020, a sharp destabilization of unstable demand required a more active development of the direct-to-customer sales system and a decrease in dependence on sales partners, a high share of which in revenue creates risks of increasing, critical in the long term, pressure on sales profitability.

The paving slab market forms a relevant industry example, when low sales margins in a product category require strengthening the sales system and abandoning the previous strategy of their development relying on third-party distribution through dealers. The factor of this reversal is not only and not so much weak demand as the disruptive growth in the supply of cheap tiles in the lower sectors of the market from small suppliers. The increase in the dealer's retail discount on high-quality paving slabs from large manufacturers is a marketing form of a personalized offer: instead of additional functionality, the buyer gets better quality "for free" at a reduced cost.

That is, the real spectrum of opportunities for building marketing turned out to be sharply polarized - empirically shifted along a continuum, "on one edge of which there are differentiating tools and strategies, on the other - a proposal without USP, for example, through the lowest price or the price/value balance" [17].

In our opinion, the specificity of industry practice lies in the fact that regional brands cannot reduce the quality and/or become lower in the price list, which makes them differentiate the offer by supporting positioning, complementing a strong quality product with an anti-crisis discount. In 2020, this deepening of the discount worked episodically and exclusively against the disruptive supply of cheap paving slabs: the differentiation of a large regional brand as the basis of USP was still based on cost-intensive quality, textures and premium colors based on expensive pigments, which the consumer received at an extremely low for the supplier or its sales partner price. Low profitability of maintaining the level of sales on the "price pull" allowed keeping some orders from moving to the mass market and stabilizing revenue, while weakening the brand. This practice forms a formula for anti-crisis adaptation of large producers to the decrease in demand and the migration of a part of it to the mass market.

The current market conditions and the dominance of dealer sales in the sales of a large brand supplier create a number of irreducible risks. With the inevitable decrease in demand and tougher competition with small "cheap" manufacturers in 2021-2022, the dealers will go into aggressive dumping, which means the loss of some of the income. The plant will be forced to compensate for these margin losses, which will lead to a critical increase in the

average channel discount. A more aggressive competitive reduction in prices for premium (granite-mix products) will cause a decrease in the profitability of sales in the dealer channel by 1.5-2 times.

For example, in terms of 2021, this means that keeping sales at the level of the sales budget, tightening price dumping in the dealer channel in a shrinking mid-market segment and competition for an order with the mass market will lead to a reduction in operating profit, which means a direct risk of a decrease in net profit. Working ahead of this scenario involves expanding economic incentives for sales departments to reduce dependence on dealers through increasing direct-to-customer sales and aggressive search for new customers.

The solution to this problem will take place in difficult conditions, since:

- sales managers need to overcome the competitive pressure of a wide network of dealers, especially in the home market;

- the redistribution of orders in favor of the plant will take place against the backdrop of a strong long-term stagnation in demand, in which the incomes of not just the population, but the middle class, as the target consumer of the regional brand of paving slabs, are falling.

In the context of the redistribution of household demand, the multiple growth of sales in the state sector on the part of small producers of paving slabs will require a hyperactive search for new objects and developers working in the urban land improvement. Large producers of the Southern Federal District need to carry out a lot of work to expand the base of municipal facilities, to form and work out a base of developers in certain territories, in particular in the Krasnodar and Stavropol Territories. In our opinion, in conditions when most of the shipments for urban land improvement will continue to go to small manufacturers, work within the framework of the previous contact base will reduce sales. Hence, it is necessary to strengthen economic incentives in the work of sales departments in order to significantly expand the base of contacts for B2G and B2B developers and increase the volume of shipment of products despite the redistribution of orders in favor of small cheap suppliers.

In 2018-2020, large manufacturers of paving slabs in the Southern Federal District faced a decrease in sales to developers, since part of these sales was accumulated by large dealers. This practice is applied, for example, in the work of Vybor-S LLC (Krasnodar), which implements a separate bonus program for dealers working with construction organizations. It reflects the general trend towards consolidation of sales partners of large brand suppliers of paving slabs in the south of Russia. The reversal of this trend in 2021-2022 in the tough conditions of increased competition for a large order should be accompanied by an expansion of economic incentives in the work of the sales link of large manufacturers.

The restructuring of sales systems should take into account the specifics of regional competition in the Southern Federal District, as well as the growth strategies of individual manufacturers. Vybor-S LLC (has five sites: three in the Krasnodar Territory, the Moscow Region and the Krasnoyarsk Territory) acquired factories in St. Petersburg and Tyumen and is launching new production lines in the Stavropol Territory and Tatarstan. The manufacturer plans to achieve a 20% increase in sales annually. Vybor-S develops a geographically diversified business, which provides ample opportunities for tactical dumping in certain territories in order to consolidate the brand in the location, attract new dealers and redistribute the market, primarily in its middle segment. With the market shrinking and the supply of cheap paving slabs growing, tough competitor pressure is likely, for example, on BETTEX TM: brake even on the territory of the latter can be financed by marginal sales of Vybor-S at other regional sites. Duplicating this maneuver, the growing supply of cheap slabs from small manufacturers will require a price response to dumping. With the dominance of dealer sales in the revenue structure of BETTEX TM (with a high average discount in 2020), broad pressure from competitors can lead to a deepening discount and convergence of wholesale prices and production costs for both large and small dealers.

In the context of a critical decrease in the middle market segment, Vybor-S LLC can seriously expand its market share only through the purchase of a large asset: BETEX is the most attractive, with a strong independent brand and highly profitable short logistics of capacious sales in the Rostov agglomeration. Hence, AksaiStroyProm LLC must take this fact into account and strengthen its position, especially in the home region.

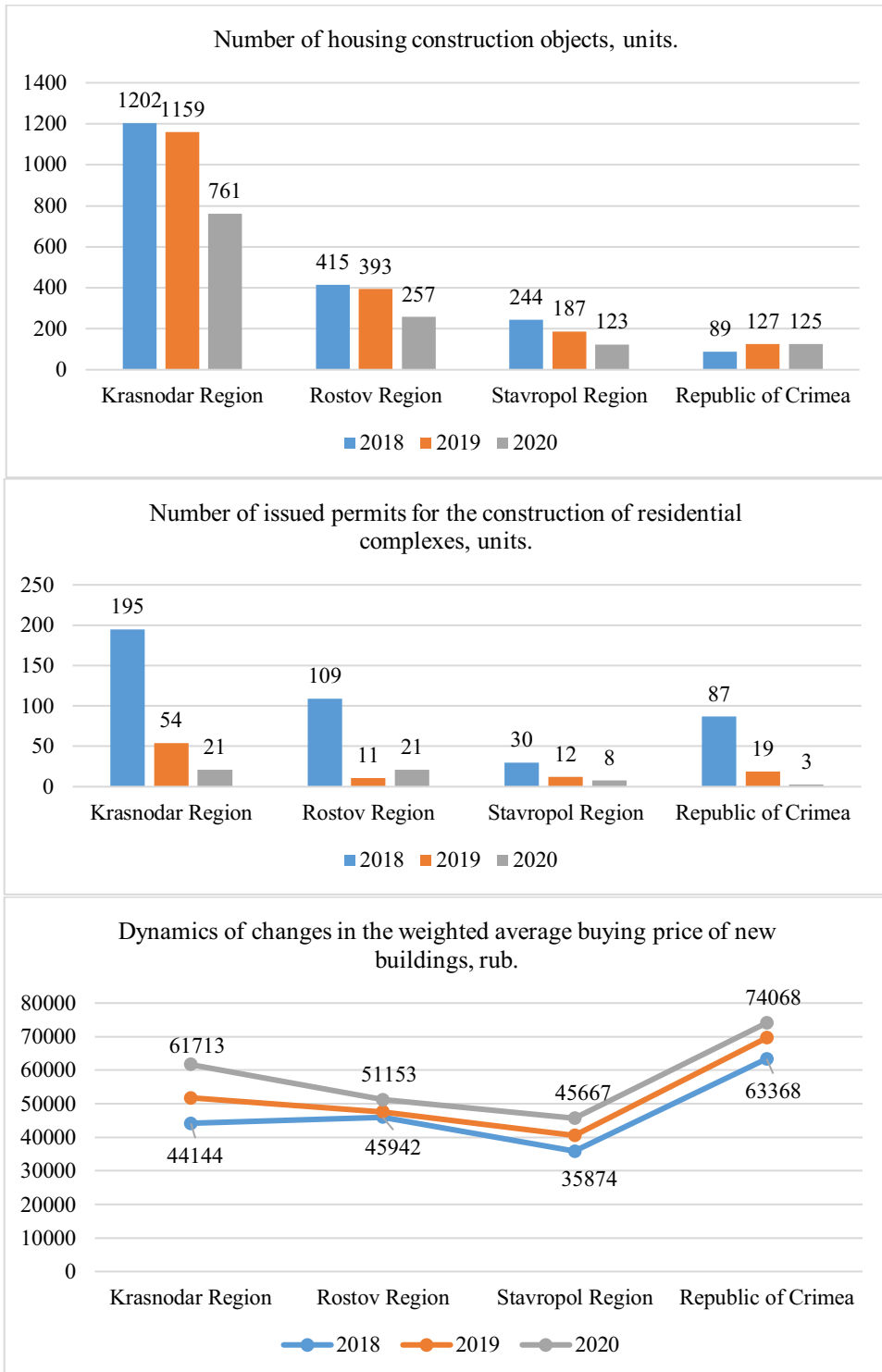
In 2021-2022, the market is likely to face a further increase in competition, now in a new phase of opportunistic adaptation of large competitors to the realities of weak demand: Vybor-S LLC can activate retail sales and increase discounts, which it has never done before, and/or expand the practice of large-scale discounts to new dealers, especially on a long distance - outside the borders of the Krasnodar Territory, primarily within the boundaries of the "rich" Rostov agglomeration [24]. Expansion of the dealer network of Hess-Story LLC and Landshaft LLC can be seen as a response to the protracted decrease in the market under the growing pressure of small producers.

All this will intensify price dumping and the geography of recovery growth of large producers, the potential of which will be determined, among other things, by the cost economy. Analysis of the pricing policy of large brand suppliers of paving slabs in the Southern Federal District allows concluding that most of them have not raised their prices since 2019. That is, the inevitable permanent inflation of costs created a pressure on production costs that was not indexed in price. This potentially narrows the margin as a cost gap between price and cost, which, even if the current discounted sales level is maintained, leads to a decrease in sales profitability in 2021.

In these conditions, it is the change in the balance of revenue between the channels in favor of direct-to-customer sales, sales to developers or to urban land improvement, which will allow maintaining the ratio of profit to revenue of the plant at least at the same level during the crisis. For example, if the price list is raised by competitors, BETEX TM will at least raise the price level to the average for large manufacturers (as a leading regional brand, BETEX TM has never been cheaper in the price list than competitors [7]), but it will have to keep discounts for dealers, i.e. they reflect the "pass-through" discount depth that is competitive in the market, sufficient to close deals, and differentiated by sales channel. If the discount cannot be greatly reduced without losing dealers in sales, then AksaiStroyProm LLC must give up their part and transfer this part of the proceeds to direct-to-customer sales, additionally redistributing the dealers' margin in favor of the plant.

Rebalancing sales channels will require not only increasing direct-to-customer sales, but also limiting the market activity of dealers in certain market segments, for example, in supplying products to the improvement of public spaces in southern Russia. Such an institutional-market overlap forms the systemic effects of asymmetry in the imposition of distribution and direct-to-customer sales on the market of paving slabs and concrete products, which have already received a certain scientific study [15].





**Fig. 2.** Indicators of the development of housing construction in the south of Russia in 2018-2020 [5].

In 2019-2020, a significant trend in the development of distribution systems for large factories producing paving slabs was the consolidation of dealer structures, the wholesale purchase price of which allowed them to independently enter municipal facilities.

From our point of view, in 2021-2022 and in the long term, this practice should be legally limited, especially in the context of severe price dumping from small suppliers, which nullifies the profits of dealers who cannot compete with the basic discounts provided by large manufacturers. That is, dealers should focus on working with their profile category of clients (population, B2B developers), leaving the maximum lag of opportunities for active supplies of paving slabs to municipal facilities. This measure will provide not only an increase in the sales of manufacturers, but also the possibility of an independent, more balanced discounting of prices in the channel of discrete capacious sales of paving slabs, which is important for them.

In general, we identified the main problematic aspects of the transformation of the paving slab supply in the macroregion, identified the factors of restructuring sales by a large manufacturer in the context of the disruptive growth of small suppliers occupying the lower sectors of the market. For a more complete diagnosis of the economic and market context of these decisions, it is necessary to identify the conditions for changing the demand-forming factors in the development of the paving slab market in the Southern Federal District.

In 2021-2022, the growth of supply on the market, taking away part of the potential orders of large regional brand suppliers, will occur against the background of the deterioration of demand-forming factors:

- in 2020, in the south, the number of housing projects decreased by a third: in the Krasnodar Territory - 761 against 1159 in 2019, in the Rostov Region - 257 against 393 in 2019, in the Stavropol Territory - 123 against 187 in 2019 (fig. 2). The main part of the announced projects will be commissioned in 2021, which will entail a decline in construction volumes amid rising housing prices in 2018-2020 in the Rostov region by 1.11 times, in the Krasnodar Territory - by 1.39 times; in the Stavropol Territory - 1.27 times;

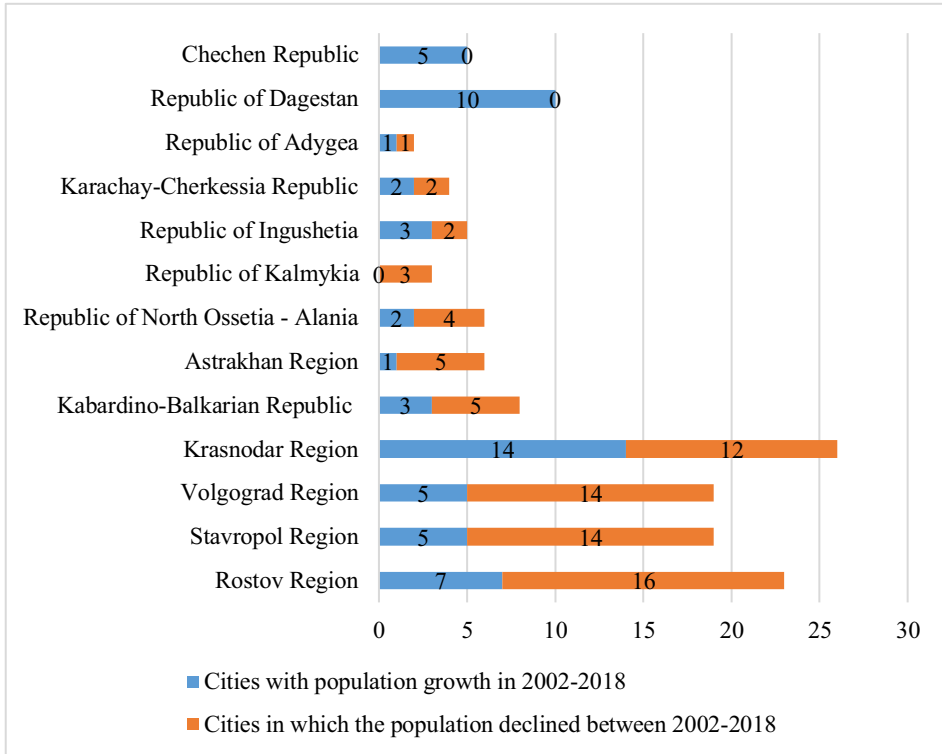
- 2020 also turned out to be a failure in terms of the number of issued building permits. Relative to 2018 (introduction of amendments to the law "On shared construction" No. 214), the number of issued permits decreased in the Krasnodar Territory - by 4 times, in the Rostov Region - by 10 times;

- in January-November 2020, 2 million square meters of housing were commissioned in the Rostov region, which is 6.7% less than in the same period in 2019, in the Krasnodar Territory - 3.6 million square meters or 1.2% less. According to this indicator, the region ranks 10th among the constituent entities of the Russian Federation, and the territory - the third place;

- in 2002-2018 the population decline was demonstrated by 78 cities in the south of Russia, i.e. almost 60% [3]. The Rostov region has the largest number of cities among the subjects of the south of the Russian Federation characterized by a population decline - 16 (Stavropol Territory - 14, Volgograd Region - 14, Krasnodar Territory - 12, Kabardino-Balkarian Republic - 5 and further downward, fig. 3). This means the end of urban growth and the transition of master plans for improvement to the concept of shrinking cities: with a reduction in the demographic and economic growth of the periphery in the Southern Federal District, and especially in the Rostov region, it will be more difficult for large manufacturers to increase long-term logistics sales to the provinces, which may tend to decline in the volume [13].

Hence, the "cleaning" of the home market of the Rostov agglomeration from "unnecessary" dealers will allow proactively increasing the volume of direct-to-customer sales of factories and their profitability in general, since the structure of shrinking shipments to the region with a deterioration in the quality of the urban environment of the Don periphery

will result in a reduction in the share of premium high-margin products in all segments (population, urban land improvement, etc.);



**Fig. 3.** Distribution of cities in southern Russia by population decline in 2002-2018 [3].

- the completion of the concessional mortgage program will lead to a reduction in the volume of construction with an increase in federal budget expenditures for subsidizing concessional mortgages from less than 2 billion rubles in 2019 to 40 billion rubles in 2020 and doubling this indicator in 2021 as the loan portfolio accumulates. Because for developers, mortgage loans are 70% of funds for construction (until 2020 - 50%). The volume of construction will sharply decrease in 2021-2022. The loss of profits in the mass multi-storey buildings will “push” up the prices for low-rise cottage construction with a weakening of the income base of the well-to-do part of the population, which means a reduction in the volume of construction of cottage settlements that are becoming more expensive in margin - the volume of paving slabs;

- COVID-19 and the downturn in business activity have severely undermined the already weak income base of the population as a supporting resource part of the economic growth model, which has been operating since 2018. The development of housing construction has increased the added value of the state sector at the expense of the population, because the cost of housing includes: expenses for municipal infrastructure; mortgage loan in the state bank; the developer's expenses for the purchase of land, which include the cost of a state bank loan, etc. In 2018-2019, payment for construction by the population and private business led to an ultra-rapid growth in tax payments, exceeding the growth rate of GDP. The sharp destabilization of this model after the pandemic creates a direct risk of a decrease in the volume of housing construction, especially after the end of the period of preferential mortgages. This will undermine state budget revenues in the form of “state revenues” in the cost of housing, which the population will not be able to pay by the end of 2021. The

implementation of this scenario may lead to cuts in state expenses, including for the improvement of territories. The destabilization of the work of both developers in the residential segment and the improvement of public spaces entails the risk of a systemic reduction in the volume of work and the paving of slabs included in them as not the cheapest part of the hard surface.

## 4 Conclusions

Summarizing the main results and conclusions of this study, the following can be noted.

During 2019-2020, the decline in prices for paving slabs acted as an industry marker for the systemic adaptation of paving slab suppliers to a critical drop in the incomes of the population, and, as a result, of its purchasing activity. The decline in prices is an indicator of the continuing stagnation of the consumer base of the market, in which quality, premium textures and colors restrain the depth of the discount relative to the market average price reduction, including through the lower-limiting production costs, which are higher for large brand suppliers than for small manufacturers.

In general, this reflects the difficult situation of crisis-related deformation of consumption, which has been exacerbated by the pandemic and the associated anti-COVID restrictions. The projected low rate of recovery of real disposable incomes of the population in 2021, which today are weakly correlated with GDP growth, suggests that price dumping as a growth strategy for companies producing paving slabs will not lose its relevance in the next two years.

The deformation of the consumer base of the paving slab market in southern Russia forms a relevant industry pattern that reflects the instability of modern offline distribution systems. In 2016-2018, the emphasis on the development of a strong dealer network of a large paving slab factory was justified, since in a growing developing market, through dealers, the supplier expanded communication with the client, ensured stable growing sales, while simultaneously strengthening the brand.

From 2019 and closer to 2022, we will see a fundamentally different, more complex market, which is characterized by:

- weak demand: the price comes to the fore; the buyer goes to the lower price segments and does not pay attention to the brand, the quality of textures, the difference in colors, etc.
- an increase in supply, primarily of small manufacturers of cheap paving slabs throughout the Southern Federal District, who take an increasing part of customers, actively enter the field of urban land improvement, creating the resulting effect of a massive redistribution of orders, i.e. market capacity.

The study showed that the overlap of these factors creates a high economic risk of further maintaining an expanded dealer network. AksaiStroyProm LLC, Hess-Stroy LLC, Vybor- S LLC, and Landshaft LLC, whose offer completely covers the needs of the regional buyer in the middle segment, have almost exhausted the possibilities of differentiation in the face of increasing price elasticity of demand, a significant part of which moved to the mass market in 2019-2020. Under these conditions, branding and competitive positioning tools almost stopped working, and discounting of sales caused a deepening of the discount and convergence of wholesale prices and costs in the dealer sales channel.

Most forecasts for 2021 show that demand will decrease, and the consumer base of sales will shrink relative to 2020 for a number of reasons: deferred demand has already found its way out and is reflected in sales in 2020; in 2020, the population, developers implemented projects that had already begun, which supported the intensity of construction on the perimeter of the year - in 2021, the number of such initiatives with the presence of a hard surface can be greatly reduced.

In 2021-2022, large brand suppliers must implement new strategies for the growth and development of distribution systems, a key component of which should be the growth of direct-to-consumer sales in the context of distribution channels. Disruptive innovation by small-scale producers is driving a systemic market redistribution trend, which can grow in scale in the face of a slow recovery in demand.

From our point of view, large plants should reduce the dependence of sales on dealers by 50-100 million rubles, as well as stimulate the work of sales departments, which will allow:

- increasing sales through the creation of a multiply larger customer base among construction organizations and B2G developers;
- launching marketing multichannel customer acquisition activities and achieving continuous growth in direct-to-customer sales;
- carrying out a selection of the dealer network keeping the most effective dealers/pavers in the ratio “discount/sales volume/trade mark sale or multi-brand offer”;
- increasing the number of dealers on the 50-200 km distance and reducing their number within the Rostov agglomeration, replacing the shortfall in revenue with its outrunning growth in the direct-to-customer sales system.

As the analysis showed, a necessary and sufficient condition for the stabilization of volumes/marginality of sales in 2021-2022 is to increase the flexibility of sales departments, expand economic incentives in order to increase revenue from direct-to-customer sales, including by changing the scale of bonuses for managers.

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