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FORMATION OF FORECAST ON THE INFLATION LEVEL IN SFD TAKING INTO ACCOUNT DYNAMICS OF DEVELOPMENT OF REGIONAL ECONOMY

Inflation is a complex multilateral process, which, in general, has a negative impact on the economy, reduces the level of economic activity of the population and leads to a decrease in the level of real income. The article studies the main constituent elements of the inflation category, reveals the parameters of the impact on the economy of the inflation process, studies the dynamics of factors affecting the forecast inflation rate in the Southern Federal District, develops a regional multifactor inflation model, and based on the approximated data, a forecast of the annual inflation rate is constructed in the Southern Federal District at the end of 2020.

The most significant factors affecting the inflation rate in the Russian Federation were identified from the position of the direction of their influence: acceleration or deceleration of inflation, as well as from the point of view of their degree of influence

on the inflation rate. At the same time, the influence of the coronavirus pandemic and fluctuations in the oil market on the economic parameters in the Russian Federation in 2020, on the price level of individual food and non-food products was examined.

The analyzed indicator of the inflation rate is defined as an indicator of the state of the economic situation in the country, it is revealed that this variable will be dependent. Using the methods of correlation and regression analysis, a mathematical expression is found in the form of a regression model and its adequacy and statistical significance are evaluated. The coefficient of pair correlation, which characterizes the degree of statistical dependence between two variables, without taking into account the influence of other variables, was adopted as the main indicator characterizing the relationship between the analyzed variables.

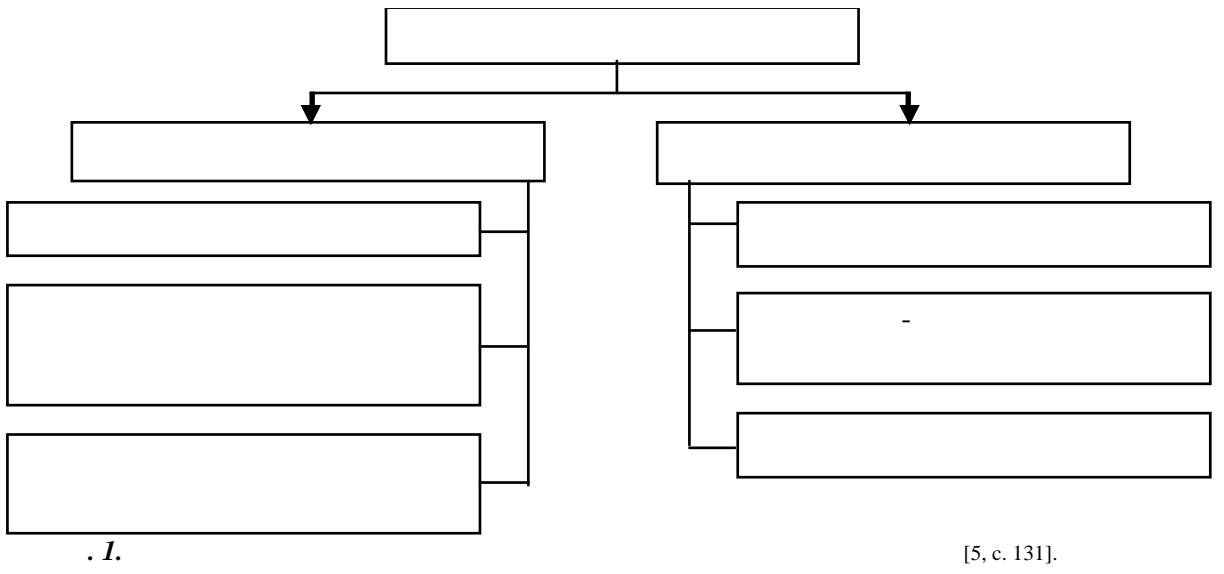
As a result of the calculations, a model of multiple linear regression of the inflation rate was built, the average monthly nominal accrued wages of the employees of the organizations were approximated, and approximation equations were obtained, which made it possible to build an inflation rate forecast for the Southern Federal District for 2019-2020.

Keywords: inflation, factors affecting the inflation rate, regression model, approximation, forecast inflation rate.

2020

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Год	I. *												У
	X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀	X ₁₁	X ₁₂	
Наименование факторов	среднедушевые денежные доходы (в месяц), руб.	среднедушевые денежные расходы (в месяц), руб.	среднемесячная номинальная начисленная заработная плата работников организации, руб.	взвешенной ретинальной продукт (в текущих основных ценах), млрд руб.	основные фонды в экономике (по полной учетной стоимости на конец периода), млрд руб.	объем отгруженных товаров собственного производства, выполненных работ и услуг собственными силами, млн руб.	продукция сельского хозяйства, млн руб.	оборот розничной торговли, млрд руб.	сальдированный финансовый результат (прибыль минус убыток) в экономике, млн руб.	индекс потребительских цен (ИПЦ), %	инвестиции в основной капитал, млрд руб.	импорт, млн долл. США	уровень инфляции, %
2010	14929,7	15379,2	15545,0	1988,6	5062,0	1348772,0	406331,0	6803,1	193375,0	109,0	794,4	392700,0	9,0
2011	16317,0	17044,0	17408,0	2293,7	5706,0	1685198,0	550051,0	6931,1	195390,0	106,1	1026,6	522000,0	6,1
2012	18389,0	19355,0	20208,0	2745,0	6549,0	1885863,0	505297,0	1919,6	264133,0	106,5	1232,2	529300,0	6,6
2013	21885,0	22055,0	22496,0	3163,2	7222,0	2042451,0	584177,0	2134,6	237241,0	106,5	1428,6	523300,0	6,6
2014	24281,0	24764,0	24518,0	3528,2	8348,0	2253346,0	645267,0	2405,2	116603,0	111,9	1277,2	496800,0	11,9
2015	27025,0	27971,0	25279,0	3920,3	9225,0	2604788,0	766832,0	2597,8	304221,0	112,5	1207,5	341400,0	12,6
2016	26519,0	26883,0	26968,0	4590,6	12418,0	2904640,0	1027383,0	2994,5	610499,0	105,7	1110,4	281900,0	5,7
2017	27234,0	27238,0	28653,0	4896,3	14201,0	3253197,0	996771,0	3120,2	530459,0	102,1	1397,3	353500,0	2,1
2018	28161,0	24828,0	31532,0	5361,9	15327,0	3937866,0	857378,0	3290,3	573181,0	104,5	1406,1	444000,0	4,5

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1	1												
2	0,97	1											
3	0,97	0,88	1										
4	0,95	0,86	0,99	1									
5	0,88	0,77	0,95	0,98	1								
6	0,90	0,78	0,97	0,98	0,98	1							
7	0,88	0,86	0,87	0,92	0,91	0,86	1						
8	-0,64	-0,69	-0,61	-0,52	-0,39	-0,44	-0,39	1					
9	0,68	0,59	0,76	0,84	0,89	0,84	0,87	-0,25	1				
10	-0,12	-0,01	-0,31	-0,38	-0,50	-0,42	-0,42	-0,05	-0,65	1			
11	0,68	0,63	0,74	0,66	0,58	0,65	0,47	-0,78	0,34	-0,31	1		
12	-0,51	-0,56	-0,40	-0,50	-0,52	-0,42	-0,68	0,01	-0,64	0,05	0,19	1	
y	-0,12	-0,01	-0,31	-0,38	-0,50	-0,42	-0,42	-0,05	-0,65	1,00	-0,31	0,05	1

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			t-	P-
Y-	-0,22935	3,20275	-0,07161	0,94569
X ₃	0,00246	0,00038	6,40816	0,00137
X ₅	-0,00314	0,00044	-7,07690	0,00087
X ₁₁	-0,01771	0,00373	-4,74810	0,00511

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$$= -2,22935 + 0,00246 X_3 - 0,00314 X_5 - 0,01771 X_{11} \quad (2)$$

-0,22935

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0,00246%.

(-0,00314) (-0,01771)

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F = 18,944

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	df	SS	MS	F	F
	3	84,5236475	28,17454917	18,94379614	0,003677013
	5	7,436352501	1,4872705		
	8	91,96			

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R	0,958715246
R-	0,919134923
R-	0,870615876
	1,219537002
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R²=0,919

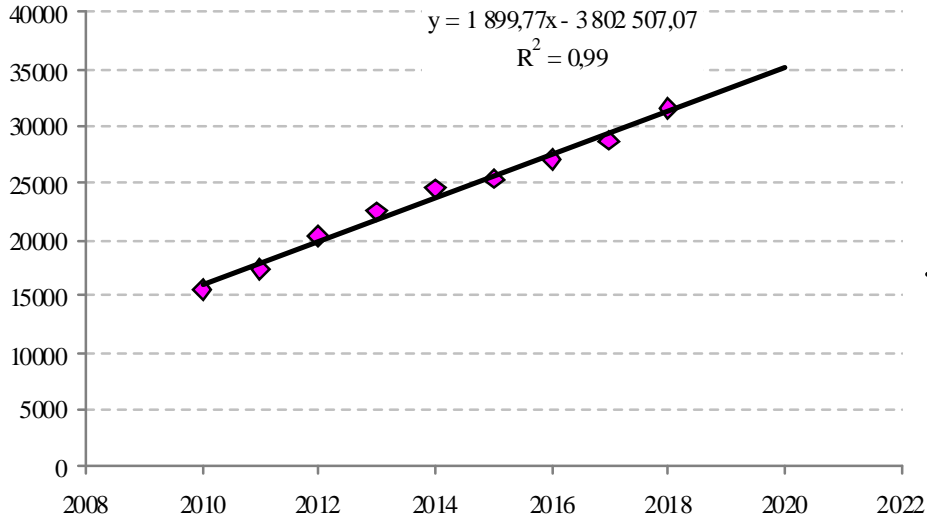
, 91,9%

(8,1%)—

3' 5 11'

2019

2020



.3.

$y = 1899,77x - 3802507,07$
 $R^2 = 0,99$

— 33189,13 2020 — 35088,93

2019 2020

(3)
 99%
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2019–2020

	3	5	11	, %
2019	33189,13	16030,28	1466,83	5,23
2020	35088,93	17368,38	1518,40	4,79

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2020 — 4,79%

2019 — 5,23%

2020 — 5,23 % 4,79 %

2019

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