

V. V. Martynenko,
Candidate of
Economic Sciences,
University SFS of Ukraine,
O. M. Paliukh,
Candidate of
Economic Sciences,
Ministry of Finance of Ukraine

The authors have implemented a methodical approach to trend analysis and identification the intervals of confidence in forecasting the impact of state funding on the development of the agricultural sector of economy in Ukraine. The article proves the probability of the recession of the agricultural sector of economy in 2016, which can lead to decline in agricultural production from 3 to 25% of the level of 2015, with the productivity decline in agricultural enterprises from 86 to 58% respectively, depending on the forecast scenario. The volume of financial result (balance) before taxing in 2016 can make up from UAH 10.8 billion (according to the lower confidence interval) to UAH 108.1 billion (according to the upper confidence interval), along with the agricultural production profitability – from 15,5 to 40 % respectively.

Keywords: *forecast, forecasting, development, index, state funding, trend, extrapolation, series of dynamics.*

(
 ,
).

·
 ,
 (Oates, 1999) [9]. (Baskaran, 2011) [8], .

· · [2], · · [4], · · [1], · · [6],
 · · [7].

, ,

, , ,

, [3, . 91],

[3, . 90–91],

(⁵)– , ²

3 (,)– ,

,
 ,
 .

() ,
 ,
 ,

² :

;

;

—

6

1, — 2 . . ,

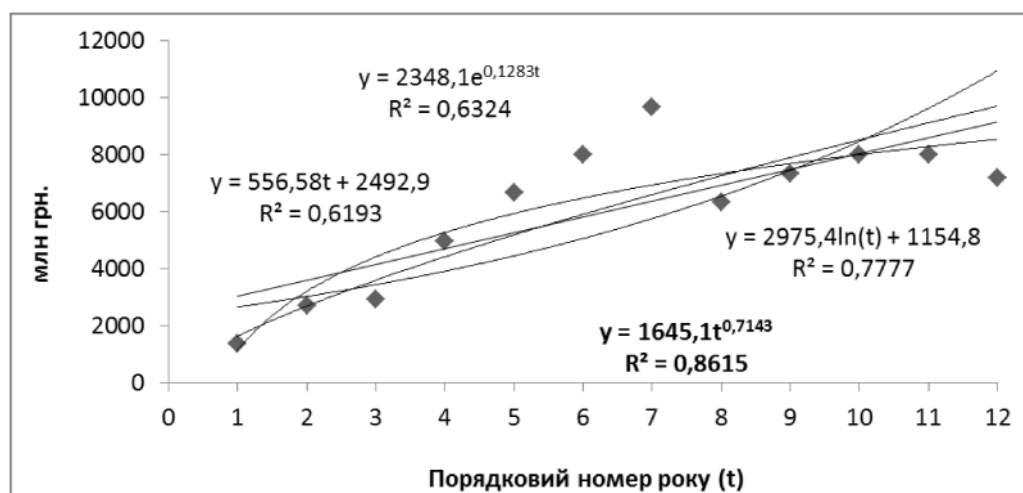
MS Excel t(. 1). . 1

2004–2015 . 4 —

$y = 556,58t + 2492,9$;
 $y = 2348,1 e^{0,1283t}$;
 $y = 2975,4 \ln(t) + 1154,8$;
 $y = 1645,1 t^{0,7143}$.

4

(. 1).



.1.

	Y-						R	R ²	t	F
		X ₁	X ₂	X ₃	X ₄	X ₅				
Y ₁	200,2	0,005	–	–	–0,650	0,205	0,82	0,67	4,1	5,5
Y ₂	110,0	0,013	–	–	–1,298	0,240	0,90	0,82	5,9	11,8
Y ₃	18,4	0,001	–0,452	0,133	–	0,042	0,84	0,70	4,1	4,2
Y ₄	–	0,001	–0,220	0,227	–	–	0,94	0,88	7,8	23,0

: Y₁ – 2010 , ;
 Y₂ – , 2010 , ; Y₃ –
 () , , %; Y₄ –
 , %; –

; –
 , %; –
 , %; –

, %; –
 , ,
 ,
 2004–2015 , : 1 %

0,71 %.
 0,862, , 86 100 .
 , , 86,2 % .
 ,
 .
 ,
 .

2016–2020 . .2.

,
 ,
 .

.3. – , .1.

, () ,

, . 3,

2

2016–2020 .

							2020 . % 2015 (+, -)
	2015	2016	2017	2018	2019	2020	
1. 							

(.3).

3

	*
, (Y ₁)	$Y_1 = 200,2 + 8,226 t^{0,7143} - 48,945 \frac{t^{0,5226}}{t^{0,5965}} + 0,371 t^{1,4744}$
, (Y ₂)	$Y_2 = 110,0 + 21,386 t^{0,7143} - 97,739 \frac{t^{0,5226}}{t^{0,5965}} + 0,435 t^{1,4744}$
() , (Y ₃)	$Y_3 = 18,4 + 1,645 t^{0,7143} - 34,533 \frac{t^{0,6460}}{t^{0,7143}} + 10,148 \frac{t^{0,6685}}{t^{0,5965}} + 0,076 t^{1,4744}$
, % (Y ₄)	$Y_4 = 1,645 t^{0,7143} - 16,808 \frac{t^{0,6460}}{t^{0,7143}} + 17,320 \frac{t^{0,6685}}{t^{0,5965}}$

* : t –

. : , , . 2017. . 1 **107**
 , , 2016
 3 %, 2015 , 105,2 % 2015 2020 .
 , , , 2016
 24,6 %, 79,1 % 2015 2020 .
 2016 18,6 % 2020
 130 % 2015 .
 () . 4.
 . 4
 ,
 ()
 2016–2020 . 3.
 ,
 2015 , ,
 2016–2020 .
 2015
 2016 .

4

2015–2020 .

								2020 . % 2015 . (+, -)
		2015	2016	2017	2018	2019	2020	
1. ,		239,5	284,1	290,9	297,7	304,5	311,5	130,0
			232,3	237,2	242,1	247,0	252,0	105,2
			180,5	183,5	186,5	189,4	192,3	80,3
2. ,		223,3	254,3	266,4	278,5	290,4	302,8	135,6
			191,8	201,6	211,3	220,9	230,9	103,4
			129,2	136,7	144,1	151,4	159,1	71,2
3. () ,		103,5	108,1	114,0	119,9	125,9	132,2	127,7
			59,4	63,6	67,7	71,8	76,1	73,6
			10,8	13,1	15,4	17,7	20,3	19,7
4. , %		43,1	40,0	41,2	42,4	43,5	44,6	
			27,8	28,5	29,2	29,8	30,4	
			15,5	15,7	16,0	16,2	16,4	

* : ,
 [5].

8. Baskaran, T. Fiscal decentralization, ideology and the size of the public sector / T. Baskaran [Electronic recourse]. – Accessed 09 April, 2011. – Access mode. – <http://mpira.ub.uni-muenchen.de/30188>.

9. Oates, W.E. An Essay on Fiscal Federalism / W.E. Oates // Journal of Economic Literature. – 1999. – Vol. XXXVII. – P. 1120–1149.

18 2017