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² : *Measuring the Non-Observed Economy: A Handbook* / OECD, ILO, IMF, International Statistical Committee of the Commonwealth of Independent States. – Paris: OECD Publ., 2002. – URL: http://www.oecd-ilibrary.org/economics/measuring-the-non-observed-economy-a-handbook_9789264175358-en .
Eurostat (URL: http://ec.europa.eu/eurostat/statistics-explained/index.php/Building_the_System_of_National_Accounts_-_non-observed_sector).

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³ URL: http://www.gks.ru/free_doc/new_site/vvp/vvp-god/tab14-19.htm .

⁴ : : : MIMIC- // : : - 2017. - 1 (93). - . 164–189.

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	<i>sh_mimic</i>	<i>sh_tax</i>	<i>urban</i>	<i>agr_grp</i>	<i>inf_empl</i>
<i>2002–2013</i>					
<i>urban</i>	-0,630				
<i>agr_grp</i>	0,463		-0,778		
<i>2005–2013</i>					
<i>urban</i>	-0,642				
<i>agr_grp</i>	0,426		-0,762		
<i>inf_empl</i>	0,653		-0,760	0,688	
<i>2010–2012</i>					
<i>sh_tax</i>	0,337				
<i>urban</i>	-0,680	-0,414			
<i>agr_grp</i>	0,393	0,497	-0,729		
<i>inf_empl</i>	0,671	0,635	-0,783	0,670	

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	2002	2003	2004	2005	2006	2007
<i>sh_tax</i>						
<i>urban</i>	-0,544	-0,577	-0,579	-0,586	-0,578	-0,581
<i>agr_grp</i>	0,480	0,505	0,530	0,503	0,473	0,375
<i>inf_empl</i>				0,623	0,536	0,544

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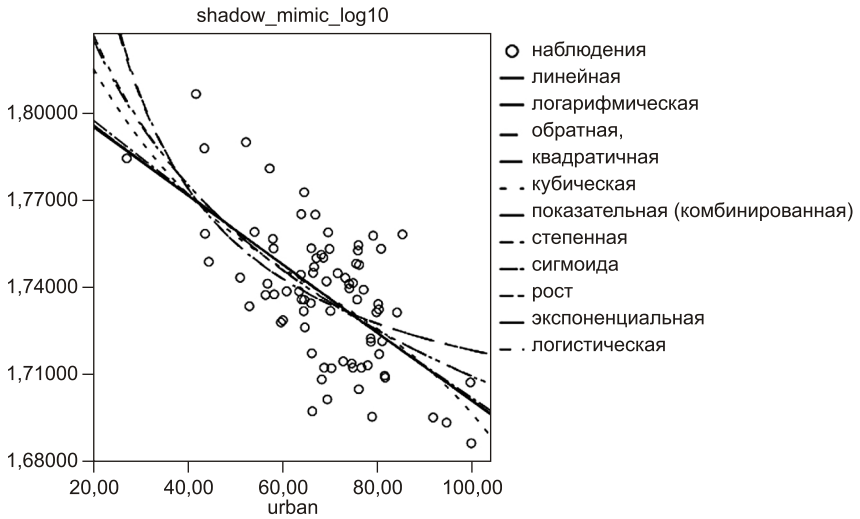
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2008	2009	2010	2011	2012	2013
		0,302	0,325	0,347	
-0,594	-0,609	-0,667	-0,687	-0,675	-0,675
0,383	0,356	0,407	0,392	0,354	0,382
0,578	0,601	0,647	0,675	0,645	0,565

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	R ²	R ²	F-	df1	df2	-	-	b1	b2	b3
	0,395	0,387	50,295	1	77	0,000	1,819	-0,001		
	0,386	0,378	48,470	1	77	0,000	2,040	-0,072		
	0,343	0,335	40,255	1	77	0,000	1,681	3,707		
	0,395	0,379	24,840	2	76	0,000	1,824	-0,001	1,170E-6	
	0,400	0,376	16,691	3	75	0,000	1,889	-0,005	5,452E-5	-2,704E-7
(-)	0,394	0,387	50,167	1	77	0,000	1,820	0,999		
	0,385	0,377	48,113	1	77	0,000	2,067	-0,041		
	0,341	0,332	39,795	1	77	0,000	0,520	2,123		
	0,394	0,387	50,167	1	77	0,000	0,599	0,000		
	0,394	0,387	50,167	1	77	0,000	1,820	0,000		
	0,394	0,387	50,167	1	77	0,000	0,549	1,001		

shadow_mimic_log10 (log10 (- urban (- MIMIC-));



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($R^2 = 0,517$).

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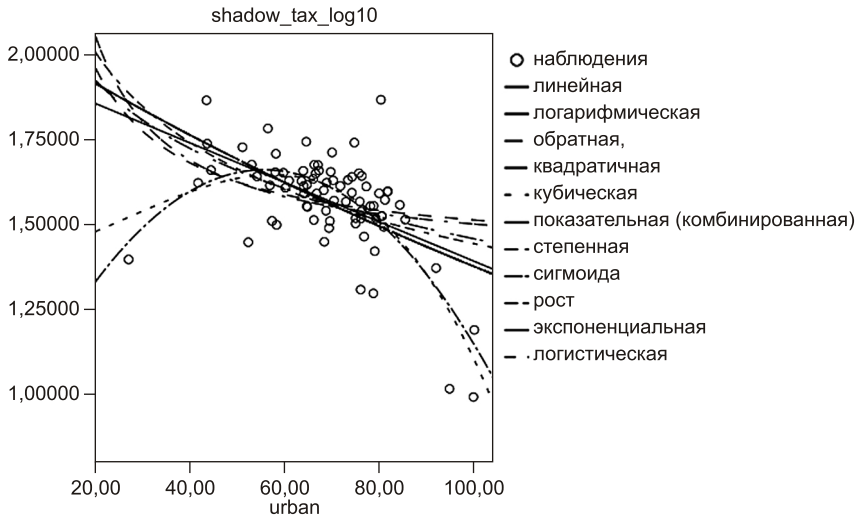
) AICc BIC.

AIC = 8,932; AICc = 9,106; BIC = 3,807.

: AIC = 10,838; AICc = 11,195; BIC = 8,271.

	R ²	R ²	F-	df1	df2	-	-	b1	b2	b3
	0,260	0,250	26,713	1	76	0,000	1,975	-0,006		
	0,170	0,159	15,551	1	76	0,000	2,800	-0,291		
	0,084	0,072	7,012	1	76	0,010	1,402	11,242		
	0,507	0,494	38,559	2	75	0,000	0,854	0,029	0,000	
	0,517	0,497	26,360	3	74	0,000	1,404	0,001	0,000	-2,281E-6
(-)	0,263	0,254	27,182	1	76	0,000	2,084	0,996		
	0,169	0,158	15,489	1	76	0,000	3,719	-0,205		
	0,083	0,071	6,895	1	76	0,010	0,328	7,879		
	0,263	0,254	27,182	1	76	0,000	0,734	-0,004		
	0,263	0,254	27,182	1	76	0,000	2,084	-0,004		
	0,263	0,254	27,182	1	76	0,000	0,480	1,004		

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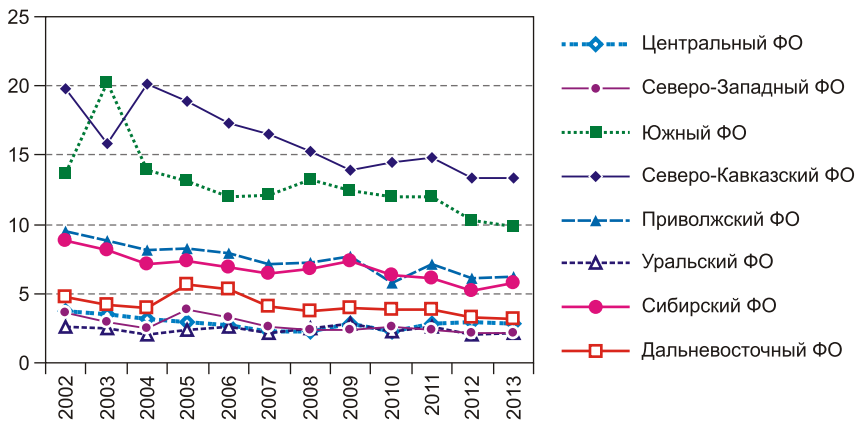
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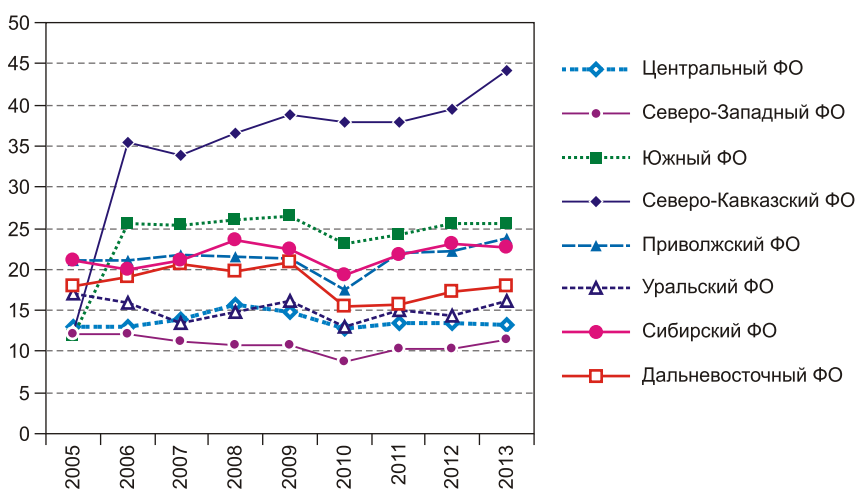
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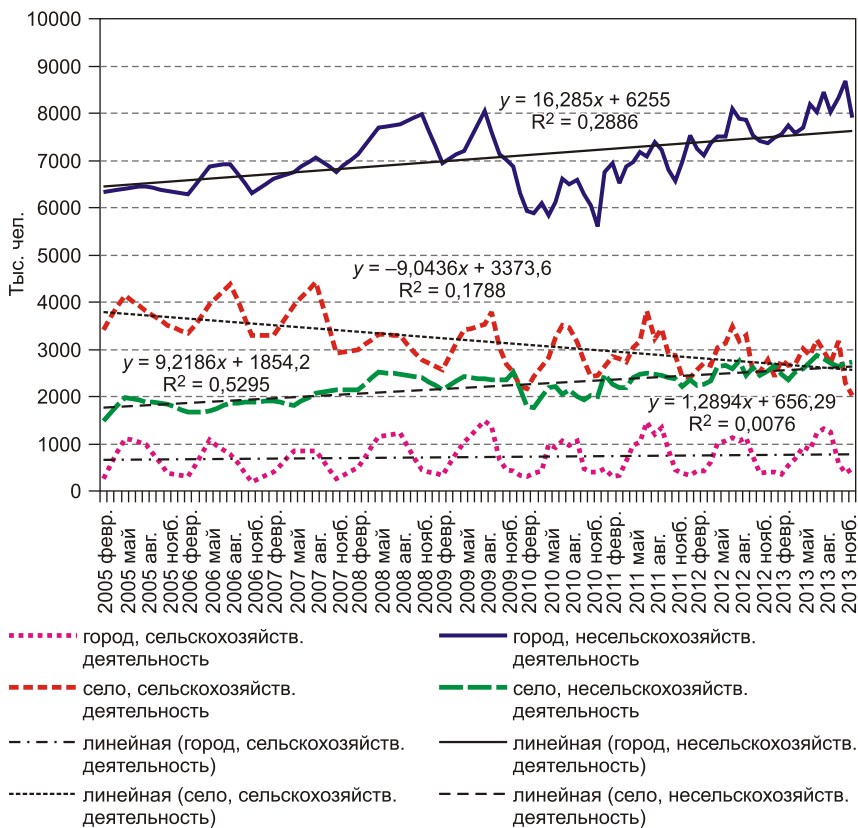
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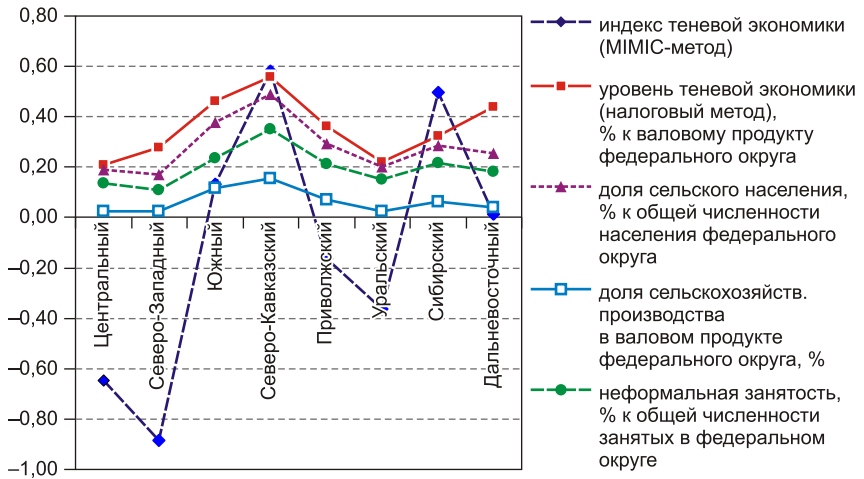
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Region: Economics & Sociology, 2018, No. 1 (97), p. 191–216

A.P. Kireenko, E.N. Nevzorova

SHADOW ECONOMY IN RUSSIAN REGIONS: URBAN AND RURAL AREAS CONTRIBUTIONS

The article explores the relationship between the sizes of the shadow economy and agriculture, and verifies the statement that the growing agricultural share in GDP leads to an increase in the shadow economy. We present

the results of testing the statistical interrelation between the size of the shadow economy in Russian regions and the indicators reflecting the size of agriculture (distribution of the rural and urban population over the total population, the share of agricultural production in the GRP). The research method involves analyzing the approximation curves constructed from scatter plots using the urban population ratio and the logarithm of the shadow sector indicators. We incorporate the Rosstat data and authors' calculations measuring the size of the shadow economy in Russian regions for 2002–2013. The article confirms a hypothesis that there is a direct relationship between the size of the shadow sector and the share of agriculture in the economy. In regions, the size of the shadow economy is notably interrelated with the proportion of the rural population and moderately interrelated with the share of agriculture, hunting, and forestry in GRP. We observe gradually increasing informal employment in non-agricultural activities. The conclusion is as follows: further rural–urban migration and urban population growth will increase the size of the shadow economy in the least urbanized regions and decrease it in semi-urbanized regions.

Keywords: regions; agricultural production; shadow economy; measurement techniques; size; growth factors of the shadow economy

The research is prepared within the framework of the project No. 17-22-21001 supported by funding from the Russian Foundation for Humanities

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