## FACTORS OF INFLUENCE ON INVESTMENT AND INNOVATIVE POTENTIAL OF UKRAINE'S REGIONS

The key factors influencing the level of investment and innovation potential of Ukraine's regions are highlighted. The analysis of factors of influence on investment and innovative potential of Ukraine's regions testifies to the presence of negative tendencies that require development of suggestions from their overcoming. The suggestions that are the basis for providing an increase of investment and innovative potential of Ukraine in whole and regions in particular have been worked out. The introduction of suggestions at macro-, mezo- and microeconomic levels will assist the strengthening of investment and innovative potential. Further researches in this direction should be pointed to the formation of a predictive model of the development of investment and innovative potential of regions.

Keywords: investment-innovative potential, factors of influence, index of innovations, financing, factors, regions.

*G.V. Strokovych*, Doctor of Economic Sciences, Assistant Professor, Professor Department of State Management, Public Administration and Regional Economy, Simon Kuznets Kharkiv National University of Economic (Kharkiv, Ukraine)

**Problem statement.** In the conditions of globalization, that are characterized by activation of cooperation between countries, functioning of industrial complex of regions is stipulated by difficult cooperation of factors. The analysis of index of global competitiveness of Ukraine's economy in 2006-2015 gives evidence to the presence of the common negative tendency. From the 69th place in 2006-2007 the country was moved to 89th in 2010-2011, but in 2014-2015 the position of the state was considerably improved (76th place), and in 2015-2016 three positions (79th place) are lost.

In 2015-2016 there was a decline of rating according to such constituents as: institutes (public institutions (safety), private placement (accountability)); infrastructure (transport, electricity and telephony); macroeconomic environment (change of inflation for a year, national debt); financial market (financing through a local capital market, presence of venture capital, durability of banks, adjusting of exchange stocks); technological readiness (use of information & communication technologies, amount of subscribers of the fixed Internet broadband, bandwidth of the Internet, active subscribers of mobile broadband communication); market size(internal, foreign); conforming of business to modern requirements (management, marketing limit, international distribution).

In this connection an important role in improvement of a level of global competitiveness of Ukraine's economy is played by the factors of influence on investment and innovative potential of regions that is the basis for the increase and development of corresponding events to increase the positive effects and minimize the negative ones.

Analysis of the last researches and writings. A substantial contribution to the research of financial and economic mechanisms of innovative-investment development of Ukraine

was made by the collective of authors under the direction of O. A. Kirichenko<sup>1</sup>. To the research of such issues as piling up of innovative potential, its effective use With the aim of realization of innovative model of development the memoirs of M. E. Rogoza<sup>2</sup> and K. Y. Vergal have been devoted. The essence and value of investment and innovative processes in the system of regional development were distinguished by G. V. Tsado<sup>3</sup>. The features of innovative activity management in industry were investigated by Yu. Yu. Burennikov<sup>4</sup>, N. V. Polischuk and V. O. Ermolenko. The methodical approaches to the evaluation of efficiency of innovative expenses of industrial enterprises were examined by S. Yu.Gvozdyu<sup>5</sup> [1], V. O. Koyuda<sup>6</sup>, L. A. Lysenko, D. M. Didukh<sup>7</sup> and V. Y. Zhezhukha. The innovative prospects of Ukraine were also investigated V. M. Geets<sup>8</sup>, V. P. Seminozhenko. Knowledge management as a basis of innovative development of an enterprise was investigated by S. M. Illyashenko<sup>9</sup>, Yu. S. Shipulina, N. S. Illyashenko, O. S. Marchenko<sup>10</sup> and O. V. Yarmak. The problems of innovative processes adjusting in economy were studied by V. S. Ponomarenko<sup>11</sup>, O. M. Kizim, O. M. Yastremskaya, O. V. Karpyuk<sup>12</sup>. The issues of strategic management of innovative development of an enterprise were examined by M. A. Yokhna<sup>13</sup> and V. V. Stadnik. A financial component in the development and functioning of the national innovative system was examined by O. E. Kuzmin<sup>14</sup> and T. M. Shotik. The process of stimulation of innovative activity was investigated by N. A. Mamontova<sup>15</sup>.

Regardless of the substantial contribution of scientists to the research of factors of influence on investment and innovative potential of regions this issue has not been

<sup>1</sup> Кириченко О. А., Єрохін С. А. та ін. (2008). Фінансово-економічні механізми інноваційно-інвестиційного розвитку України: Колективна наукова монографія. К.: Національна академія управління.

<sup>&</sup>lt;sup>2</sup> Рогоза М. €., Вергал К. Ю. (2011). Стратегічний інноваційний розвиток підприємств: моделі та механізми : монографія. Полтава : РВВ ПУЕТ.

 <sup>&</sup>lt;sup>3</sup> Цадо Г. В. (2011). Сутність та значення інвестиційно-інноваційних процесів в системі регіонального розвитку. // Інноваційна економіка. < <a href="http://www.nbuv.gov.ua/portal/Soc Gum/inek/2011\_2/154.pdf">http://www.nbuv.gov.ua/portal/Soc Gum/inek/2011\_2/154.pdf</a>>.
 <sup>4</sup> Бурєнніков Ю. Ю., Поліщук Н. В., Єрмоленко В. О. (2011). Управління інноваційною діяльністю в промисловості: монографія.

<sup>&</sup>lt;sup>4</sup> Бурєнніков Ю. Ю., Поліщук Н. В., Єрмоленко В. О. (2011). Управління інноваційною діяльністю в промисловості: монографія. Вінниця: ВНТУ.

<sup>&</sup>lt;sup>5</sup> Гвоздю С. Ю. (2010). *Методичні підходи до оцінювання ефективності інноваційних витрат промислових підприємств*. Вісн. Нац. ун-ту «Львів. Політехніка». Пробл. економіки та упр., 683, 184-187.

<sup>&</sup>lt;sup>6</sup> Коюда В. О. (2010). Інноваційна діяльність підприємства та оцінка її ефективності : монографія. Харків: ФОП Павленко О. Г., ВД «ІНЖЕК».

Дідух Д. М. (2012). Система показників аналітичного забезпечення управління інноваційною діяльністю підприємства. Вісник ЖНАЕУ, 2, т. 2, 78–90.

<sup>&</sup>lt;sup>8</sup> Геєц В. М. (2006). Інноваційні перспективи України. Х. : Константа.

<sup>&</sup>lt;sup>9</sup> Ілляшенко С. М., Шипуліна Ю. С., Ілляшенко Н. С. (2015). *Управління знаннями як основа інноваційного розвитку підприємства*. Актуальні проблеми економіки, 6, С. 173–181.

 $<sup>^{10}</sup>$  Марченко О. С., Ярмак О. В. (2012). *Національна інноваційна система як інтегратор знань*. Х.: Видавничий Дім «ІНЖЕК».

<sup>11</sup> Пономаренко В. С., Кизим О. М., Ястремська О. М. (2010). *Інновації: проблеми науки і практики: [монографія]*. Х.: ФОП Павленко О.Г., ВД «ІНЖЕК».

<sup>&</sup>lt;sup>12</sup> Карп'юк О. П. (2015). Регулювання інноваційних процесів в економіці [Tекст] : монографія. К. : ННЦ "IAE".

<sup>&</sup>lt;sup>13</sup> Jokhna, M.A. & Stadnyk, V.V. (2011) Stratehichne upravlinnia innovatsijnym rozvytkom pidpryiemstva: [Strategic management of innovative development of the enterprise]. Khmel'nyts'kyj, KhNU. [in Ukrainian].

Kuz'min, O.Ye. & Shotik, T.M. (2009) Finansova skladova v rozvytku j funktsionuvanni natsional'noi innovatsijnoi systemy [The financial component in the development and functioning of the national innovation system]. *Finansy Ukrainy*, 5, 21–30. [in Ukrainian].

<sup>&</sup>lt;sup>15</sup> Mamontova, N.A. (2015) Stymuliuvannia innovatsijnoi aktyvnosti iak peredumova pidvyschennia tekhnolohichnoho rivnia ekonomiky [Stimulation of innovative activity as a prerequisite to improve the technological level of the economy]. *Ekonomika i upravlinnia*, *2*, 36–41. [in Ukrainian].

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exposed well enough and needs further research taking into account current economic tendencies.

The aim of the article is an authentication of factors of influence on investment and innovative potential of Ukraine's regions and development of recommendations in relation to its increase.

**Basic results of the research.** Investment and innovative potential of Ukraine's regions is determined by a number of factors.

Firstly, an innovative and investment potential of Ukraine's regions is determined by the Global index of innovations (The Global Innovation Index) that is calculated on the methodology of international business-school of INSEAD, France<sup>16</sup>. The dynamics of Ukraine according to the Global index of innovations is presented on Figure 1.

Figure 1 – Dynamics of Ukraine according to the Global index of innovations (on the basis of data<sup>17</sup>)

Analysis of features 1.It tends to worsening of innovative activity in 2016 and actually returns to the level of 2013, that diminishes the potential volumes of investment streams to Ukraine as a result of worsening of investment climate.

According to the presented results of analysis 18 the strengthens of Ukraine in 2016 included: charges on education; easy credit drawing; specific gravity of women with a graduate degree; presence of useful models; charges on software. The most weak points that brake introduction and distribution of innovations and reduce investment and innovative potential of regions are the following: political stability and safety, adjusting quality; ease of decision-making as for insolvency; governmental service on-line; gross investments; the GDP on the unit of energy consumption; clusters development status; direct foreign investments; IKT and creation of business models; increase of purchasing power. Therefore for these issue solution it is necessary to make corresponding decisions that will assist the increase of investment and innovative potential on macro-, mezo- and microlevels.

The basis of a long-term improvement of investment and innovative potential of every region and country in whole is capital investments. Dynamics of capital investments of regions in 2010-2016 presented in Table 1.

Table I – C	Capital inv	vestments	s of region	ns in 2010	0-2016, n	nillions of	hrn.
D !	2010	2011	2012	2012	2014	2015	2016

Region	2010	2011	2012	2013	2014	2015	2016
Ukraine	180575,5	241286,0	273256,0	249873,4	219419,9	273116,4	326163,7
Vinnytsya	3544,7	5081,0	5824,1	6109,5	5674,6	7373,0	7781,6
Volyn	1767,0	2577,1	3254,4	3327,1	3389,7	6166,8	5985,7

 $<sup>^{16} \</sup> The \ Global \ Innovation \ Index \ (2016). < http://www.globalinnovationindex.org/content.aspx?page=gii-home \ [in \ English]>.$ 

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The Global Innovation Index (2016).<a href="http://www.globalinnovationindex.org/content.aspx?page=gii-home">http://www.globalinnovationindex.org/content.aspx?page=gii-home</a> [in English]>.

The Global Innovation Index (2016). < http://www.globalinnovationindex.org/content.aspx?page=gii-home [in English]>.

<sup>&</sup>lt;sup>19</sup> Державна служба статистики України (2016). <a href="http://www.ukrstat.gov.ua">http://www.ukrstat.gov.ua</a>

Dnipropetrovsk	16016,9	22116,0	22509,3	21290,1	20356,5	25919,9	30806,4
Donetsk	14993,9	26802,0	31721,9	27912,4	13155,3	8304,3	10774,8
Zhytomyr	2011,5	2519,8	2892,6	3005,4	2904,9	4044,4	5176,1
Zakarpattya	2205,4	3051,9	2736,1	2645,8	2638,7	3778,4	3721,4
Zaporizhzhya	7963,8	6676,5	7204,4	6838,8	7034,5	7794,3	10193,4
Ivano-Frankivsk	4378,7	4256,2	5166,9	4797,2	6837,5	9609,3	6563,5
Kyiv	11331,4	17672,9	20366,8	20696,6	19653,5	24359,1	31057,7
Kirovohrad	2123,1	3993,2	4576,2	3224,0	3122,4	4057,1	6150,6
Luhansk	5646,0	6979,7	8222,6	11369,3	5222,6	2060,1	2910,4
Lviv	8830,2	12114,0	11173,3	9816,7	9555,0	13386,5	16970,8
Mykolaiv	4422,2	4297,8	4696,0	5008,7	3771,4	5989,9	9143,2
Odesa	9723,8	9347,3	14631,2	11872,2	9361,3	9983,5	14987,8
Poltava	6289,4	7859,4	10217,4	9536,3	8827,8	8337,9	10998,6
Rivne	1937,1	2565,8	2770,9	2837,3	2804,6	4334,2	4086,7
Sumy	2187,6	3022,1	2871,2	2721,3	2798,1	3663,0	5188,5
Ternopil	2138,4	2524,2	3374,8	2976,2	2590,0	3827,5	4499,1
Kharkiv	8063,4	13035,0	14759,2	9292,6	8032,3	11246,7	15700,3
Kherson	1890,6	2688,1	2435,7	2124,8	2208,1	3107,4	4336,4
Khmelnytsk	2947,6	3546,8	3489,3	3637,6	4078,3	6809,3	8770,0
Tcherkasy	2831,4	3225,3	3781,0	3413,3	3262,1	4485,8	6126,0
Chernivtsi	1714,7	1794,3	2229,3	2257,4	1686,9	2789,2	2444,9
Chernihiv	1890,9	2397,0	2737,3	2842,0	2621,2	3550,2	4979,1
city of Kyiv	53725,8	71142,4	79614,2	70320,6	67832,6	88138,6	96810,7

Analysis of data listed in Table 1 shows that capital investment in Ukraine as a whole increased in 2016 by 80.62% in comparison with 2010, but it is absorbed by inflation. In general, in Ukraine there was a positive trend during 2010-2012, but the crisis reduced capital investment. It should also be noted that the distribution of capital investments is very uneven, mostly they are concentrated in the city of Kyiv, particularly in  $2016 - 80{,}19$ %. It should therefore be concluded that the volume of capital investments inflation always diminishes and is characterized by an uneven distribution, which reduces investment and innovation potential of the regions.

Another important factor, that directly influences on investment and innovative potential is the sources of capital investments financing presented in Table 2.

Table 2 - Capital investments on financing sources<sup>20</sup>

Sources	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Actual prices, millions of hrn.												
All	93096	125254	188486	233081	151777	180575,5	241286	273256	249873,4	219419,9	273116,4	359216,1
including												
money from	5077	6846	10458	11576	6687	10223,3	17376,7	16288,3	6174,9	2738,7	6919,5	9264,1

 $<sup>^{20}</sup>$  Державна служба статистики України (2005-2016). <a href="http://www.ukrstat.gov.ua">http://www.ukrstat.gov.ua</a>.

the state		Ī		- -								
budget												
money of local	3915	5446	7324	9918	4161	5730,8	7746,9	8555,7	6796,8	5918,2	14260	26817,1
budgets												
personal												
funds of						444054	4.55.60.6	151156	4 - 5 - 5 - 5	1715007	101071.0	2407504
enterprises	53424	72337	106520	132138	96019	111371	147569,6	17117/6,6	165786,7	154629,5	184351,3	248769,4
and organi-												
zations												
bank credits												
and other	13740	19406	31182	40451	21581	22888,1	36651,9	39724,7	34734,7	21739,3	20740,1	27106
loans												
money of												
foreign	4688	4583	6660	7591	6859	3723,9	5038,9	4904,3	4271,3	5639,8	8185,4	9831,4
investors												
money of												
population												
on the	3091	5110	8549	11589	5502	18885,9	17589,2	22575,5	24072,3	22064,2	31985,4	29932,6
individual												
housing												
other	9161	11526	17793	10010	10968	7752,5	9312,8	10030,9	8036,7	6690,2	6674,7	7495,5
sources	9101	11320	17793	19010	10908	1132,3	9312,0	10030,9	8030,7	0090,2	0074,7	1475,5
in % to the g	general	volume	2							•		
All	100	100	100	100	100	100	100	100	100	100	100	100
including												
money from												
the state	5,45	5,47	5,55	4,97	4,41	5,66	7,20	5,96	2,47	1,25	2,53	2,58
budget	,	,	,	,	,	ŕ	ŕ	ŕ	ŕ	ĺ	ŕ	,
money of												
local	4,21	4,35	3,89	4,26	2,74	3,17	3,21	3,13	2,72	2,70	5,22	7,47
budgets	,	,	, , , ,	, -	, ,	ŕ	ŕ	ŕ	ŕ	ĺ	ŕ	,
personal												
funds of												
enterprises	57,39	57,75	56,51	56,69	63,26	61,68	61,16	62,64	66,35	70,47	67,50	69,25
and organi-	37,37	37,73	30,31	30,07	03,20	01,00	01,10	02,0.	00,00	, 0,	07,00	0>,20
zations												
bank credits												
and other	14,76	15,49	16,54	17,35	14,22	12,68	15,19	14,54	13,90	9,91	7,59	7,55
	14,70	13,49	10,54	17,33	14,22	12,00	13,17	14,54	13,70	),)1	7,57	7,55
loans money of												
foreign	5,04	3,66	3,53	3,26	4,52	2,06	2,09	1,79	1,71	2,57	3,00	2,74
_	3,04	3,00	3,33	3,20	4,32	2,00	2,07	1,//	1,/1	2,37	3,00	2,74
investors money of												
_												
population on the	3,32	4,08	4,54	4,97	3,63	10,46	7,29	8,26	9,63	10,06	11,71	8,33
	3,32	4,08	4,34	4,97	3,03	10,40	1,29	0,20	9,03	10,00	11,/1	0,33
individual												
housing												
other	9,84	9,20	9,44	8,50	7,23	4,29	3,86	3,67	3,22	3,05	2,44	2,09
sources												

Information provided in Table 2 shows the increase of capital investments more than 2,5 times during 2005-2008, and then, as well as on the basis old indices analyzed before, fall by 20 % in 2009. Farther, beginning from 2009 there was an increase that arrived at a

maximal value in 2012 - 273256 million hrn., but in 2014 the substantial decrease affected productive enterprises that could use credit funds only for financing of their current necessities.

But in 2016 the situation improved that was confirmed by the index of 359216,1 mln UH. The 3 times increase of state budget funds as a source of capital investments took place. Almost there was a 2 times increase of local budgets spent for capital investments financing. At the same time there was a slight decrease of enterprises private funds, bank loans and other loans on capital investments that affirms the decline of specific gravity of available financial resources of enterprises and disadvantageousness of credit resources use. Thus the specific gravity of bank loans and other loans fluctuates within 7,55–17,35% that is caused by a high value of these resources, by enterprises inability to pay them and by the unfavorable terms of their allocation. It especially concerns the manufacturing enterprises which can use loan funds only for current needs financing.

Mainly investments take place at the expense of enterprises` equity capital (57,39–71,5%). Foreign investments are very insignificant (1,7–5,04 %), and during the period being analyzed tends to a decrease or a slight increase (2012, 2013), that is conditioned by an unfavourable investment climate in Ukraine, presence of political, legal and economic barriers.

The growth of population drawdown for a personal housing could be observed during the whole period being researched except on years of 2009 and 2011.

Basis of increase of investment and innovative potential of regions is an analysis of structure of capital investments distribution on the types of assets, given in Tables 3, 4.

Table 3 – Capital investments on the types of assets in  $2005-2009^{21}$ 

Index	2005	2006	2007	2008	2009
thousand hrn.					
Capital investments	111174080	148972312	222678865	272074,10	192878
including investments in the fixed assets	93096104	125285714	188486112	233081	151776,8
charges on other inconvertible material assets	2928102	2522683	3454110	4421,10	-
charges related to the improvement of objects (major repairs)	11533261	15966636	23644695	27491,20	18966,20
investments in non-material assets	3039323	4584483	6389047	6366,50	5893,10
charges on forming capital assets	577290	644838	704901	714,30	-
in % to the general volume					
Capital investments	100	100	100	100	100
including investments in the fixed assets	83,7	84,1	84,6	85,7	78,7
charges on other inconvertible material assets	2,6	1,7	1,6	1,6	-
charges related to the improvement of objects (major repairs)	10,4	10,7	10,6	10,1	9,8
investments in non-material assets	2,8	3,1	2,9	2,3	3,1
charges on forming capital assets	0,5	0,4	0,3	0,3	-

<sup>&</sup>lt;sup>21</sup> Державна служба статистики України (2005-2016). <a href="http://www.ukrstat.gov.ua">http://www.ukrstat.gov.ua</a>.

Table 4 – Capital investments on the types of assets in  $2010-2016^{22}$ 

Index	2010	2011	2012	2013	2014	2015	2016
		million l	_				
All	180575,5	241286	273256	249873,4	219419,9	273116,4	359216,1
investments in material assets	173662,8	231910,2	264853,7	239393,6	212035,1	254730,9	347390,5
housing building	25753,7	26582,3	34256	36128,9	33177	45609,8	44864,9
unoccupied building	37156,6	49113,5	54772,7	45252,3	40859,7	43330,9	59398,3
engineering building	39062,6	57935,2	61380,3	51844,2	46599,3	50948,7	67517,1
machines, equipment and inventory	54059,2	71771,4	77015,4	79032,9	68948,8	84423,2	123133,3
transport vehicles	11025,3	17014	27015,9	16246,8	13830,4	19650	36685,7
earth	1182,2	2270,1	1755,4	1018,6	999,3	1441,8	1915,8
long-term biological assets of plant-growing and cattle-breeding	1797,2	2889,9	1780,1	2358,4	2034,2	2762,6	3162,7
other material assets	3626	4333,8	6877,9	7511,5	5586,4	6563,9	10712,7
investments in non-material assets	6912,7	9375,8	8402,3	10479,8	7384,8	18385,5	11825,6
among them rights to commercial denotations, objects of industrial property, copyright and contiguous rights, patents, licenses, concessions and others alike	3044	4101,9	3655,9	5631,5	2974,3	12457,8	4180,8
software and databases	2802,4	3254	3409,1	3477,6	3207,3	4908,4	6315,5
in % to the general volume			I.		Į.		
All	100,00	100,00	100,00	100,00	100,00	100,00	100,00
investments in material assets	96,17	96,11	96,93	95,81	96,63	93,27	96,71
housing building	14,26	11,02	12,54	14,46	15,12	16,70	12,49
unoccupied building	20,58	20,35	20,04	18,11	18,62	15,87	16,54
engineering building	21,63	24,01	22,46	20,75	21,24	18,65	18,80
machines, equipment and inventory	29,94	29,75	28,18	31,63	31,42	30,91	34,28
transport vehicles	6,11	7,05	9,89	6,50	6,30	7,19	10,21
earth	0,65	0,94	0,64	0,41	0,46	0,53	0,53
long-term biological assets of plant-growing and cattle-breeding	1,00	1,20	0,65	0,94	0,93	1,01	0,88
other material assets	2,01	1,80	2,52	3,01	2,55	2,40	2,98
investments in non-material assets, among them	3,83	3,89	3,07	4,19	3,37	6,73	3,29
rights to commercial denotations, objects of industrial property, copyright and contiguous rights, patents, licenses, concessions and others alike	1,69	1,70	1,34	2,25	1,36	4,56	1,16

 $<sup>^{22}</sup>$  Державна служба статистики України (2005-2016). <br/> <a href="http://www.ukrstat.gov.ua">http://www.ukrstat.gov.ua</a>.

software and databases	1,55	1,35	1,25	1,39	1,46	1,80	1,76	
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Data presented in Tables 3, 4 testify that during 2005-2009 investing came true mainly in the fixed assets (78,7–75,7 %) and on major repairs (9,8 % and 10,7 %). In 2010-2016 advantage got to the material assets: 96,3 % in 2010 and 96,71% in 2016, those among them such as machines, equipment and inventory counted 29,94 % in 2010 and 34,28 % in 2016, and engineering building – 21,63 % and 18,80 % accordingly. In 2015 substantial investments grew in non-material assets, that positively influenced on investment and innovative potential of enterprises and assisted the appreciation of their value, that, in turn, provided the corresponding strengthening of socio-economic provision of regions.

An important role, providing an investment and innovative potential of regions is played by the advanced, scientific and technical studies, especially those that are executed by own forces of enterprises. Table 5 shows the dynamics of volumes of the advanced, scientific and technical studies executed by own forces of enterprises in 2005-2015.

Table 5 – Volumes of the advanced, scientific and technical studies executed by own forces of enterprises(in actual prices; million hrn.)<sup>23</sup>

	1					1		1		1	
Volume	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
All	4818,6	5354,6	6700,7	8538,9	8653,7	9867,1	10349,9	11252,7	11781,1	10950,7	12611
Fundamental	902,2	11410	1504 1	1927,4	1016 6	2100 4	2205,8	2621,9	2605.4	2475.2	2465 6
researches	902,2	1141,0	1304,1	1927,4	1910,0	2100,4	2203,8	2021,9	2695,4	2475,2	2403,0
Applied	700.0	041.5	1122.5	1515 6	1412.0	1617.1	19667	2057.7	2007.0	1010.2	2271.2
researches	708,8	841,5	1132,3	1545,6	1412,0	101/,1	1866,7	2057,7	2087,8	1910,2	22/1,3
Development	2406,9	2741,6	3303,1	4088,2	4215,9	5037,0	4985,9	5369,9	5772,8	5341,5	6523,0
Scientific and											
technical	800,7	630,5	761,0	977,7	1109,2	1024,6	1291,5	1203,2	1225,1	1223,8	1351,1
services											
Role of											
volume of the											
executed											
advanced,	1.00	0,98	0,93	0.00	0,95	0,90	0,79	0,80	0.80	0.60	0.64
scientific and	1,09	0,98	0,93	0,90	0,93	0,90	0,79	0,80	0,80	0,69	0,64
technical											
studies in											
GDP											

On the whole, positive dynamics is inherent to the development, fundamental and applied research, scientific and technical services, but when taking into account the inflationary correction, the improvements are not observed that confirms the value of the share of carried scientific and technical works in GDP, which fell almost 2 times. This indicates the presence of negative trends, which significantly slow investment and innovation processes.

Also a considerable influence on investment and innovative potential is carried out by regularity of innovations introduction. The analysis of dynamics of innovations introduction at industrial enterprises is given in Table 6.

<sup>&</sup>lt;sup>23</sup> Державна служба статистики України (2005-2016). <a href="http://www.ukrstat.gov.ua">http://www.ukrstat.gov.ua</a>

 $Table\ 6$  – Analysis of innovations introduction at industrial enterprises  $^{24}$ 

Period	Number of enterprises that introduced innovations. %	new technological processes introduced, amount	including low- wasted and resource-saving	The production of innovative types of products, items	including new types of technique	Number of consummated innovative products in the industrial volume, %
2005	8,2	1808	690	3152	657	
2006	10	1145	424	2408	786	6,7
2007	11,5	1419	634	2526	881	6,7
2008	10,8	1647	680	2446	758	5,9
2009	10,7	1893	753	2685	641	4,8
2010	11,5	2043	479	2408	663	3,8
2011	12,8	2510	517	3238	897	3,8
2012	13,6	2188	554	3403	942	3,3
2013	13,6	1576	502	3138	809	3,3
2014	12,1	1743	447	3661	1314	2,5
2015	15,2	1217	458	3136	966	-
2016	16,6	3489	748	4139	1305	•••

The information given in Table 6 shows a significant increase in the number of enterprises that implemented innovations (almost 2 times). Definitely new technological processes take place, but the pace declines. Mastering the production of innovative products is carried out slowly. The share of innovative products sales in industrial volume decreased in 2014 more than 2.5 times compared to 2005. This indicates a significant decrease of innovative capacity at domestic enterprises.

The important factor of influence on investment and innovative potential of a region is an innovative activity of domestic enterprises, that is given in Table 7.

Table 7 – Analysis of innovative activity<sup>25</sup>

	ses	g			In	cluding thos	e in directions			
	rpri n %	din	and nent	includ	ling	of nal e	n for ns	of s, and	ses	
Number of enterprises engaged in innovations %		Total spending	research and development	internal research	external research	acquisition of other external knowledge	production preparation fi innovations introduction	acquisition machines equipment a	other charges	
	N			million hrn.						
2005	11,9	5751,6	612,3	X	X	243,4	991,7	3149,6	754,6	
2006	11,2	6160	992,9	X	X	159,5	954,7	3489,2	563,7	
2007	14,2	10850,9	986,5	793,6	192,9	328,4	X	7471,1	2064,9	
2008	13	11994,2	1243,6	958,8	284,8	421,8	X	7664,8	2664	
2009	12,8	7949,9	846,7	633,3	213,4	115,9	X	4974,7	2012,6	
2010	13,8	8045,5	996,4	818,5	177,9	141,6	X	5051,7	1855,8	
2011	16,2	14333,9	1079,9	833,3	246,6	324,7	X	10489,1	2440,2	
2012	17,4	11480,6	1196,3	965,2	231,1	47	X	8051,8	2185,5	

<sup>&</sup>lt;sup>24</sup> Державна служба статистики України (2005-2016). <<u>http://www.ukrstat.gov.ua</u>>.

<sup>25</sup> Державна служба статистики України (2005-2016). <a href="http://www.ukrstat.gov.ua">http://www.ukrstat.gov.ua</a>>.

2013	16,8	9562,6	1638,5	1312,1	326,4	87	X	5546,3	2290,9
2014	16,1	7695,9	1754,6	1221,5	533,1	47,2	X	5115,3	778,8
2015	17,3	13813,7	2039,5	1834,1	205,4	84,9	X	11141,3	548,0
2016	18,9	23229,5	2457,8	2063,8	394,0	64,2	X	19829,0	878,4

The results of analysis given in Table show that during 2005-2008 the total spending on innovation was growing. In 2009 its substantial reduction introduction took place. Years of 2010 and 2011 are characterized by the gradual increases of innovative activity, then again there was a reduction, especially in 2014 almost 2 times in comparing with 2011, that testifies the difficult financial and economic situation of domestic enterprises and accordingly the minimization of their efforts in relation to the introduction of improvements. In 2016 the innovative charges attained a maximal value, but if to take into account the inflationary processes, then no increase of investment and innovative potential takes place. If such tendency proceeds, it will result in irreversible changes in economy in whole and at domestic enterprises in particular.

On the whole in Ukraine during 2005-2016 there was an oscillation of a part of industrial enterprises engaged in innovations in the range of 11,2-18,9%. The most difficult situation is with an acquisition of external knowledge. The improvements up to 2013 were observed only in directions of acquisition of equipment and software. During 2015-2016 there was an increase of an enterprise density that were engaged in innovations by 1,6 %, that showed the insignificant improvement of investment and innovative potential of domestic enterprises.

Thus the analysis conducted at meta-, macro-, mezolevels, testifies to existence of tendencies that negatively influence on an investment and innovative potential of Ukraine's regions. In particular at a metalevel there are the following:

analysis of global economic competitiveness index shows a downgrade for such components as: institutions; macroeconomic environment; financial market development; technological readiness; market size; compliance with modern business requirements;

analysis of the Global Innovation Index shows that the most problematic are: political stability and safety, quality control; easy decision insolvency; government services online; gross investment; GDP per unit of energy consumption; cluster development; inflows of direct foreign investment; ICT and business models creation; growth of purchasing power;

at a macrolevel:

capital investment analysis shows that there is a 3 times increase in the percentage of funds from the state budget, which is a source of investment capital; local budgets spent on financing of capital investments grew almost 2 times; the volume of own funds of enterprises and organizations using bank loans and other loans for capital investment reduced significantly;

mainly investing comes from the personal funds of enterprises;

insignificant part of investments is from foreign investors;

investing comes true mainly in material assets, investments in non-material assets present insignificant part;

there is a difficult situation with internal and external research works, acquisition of external knowledge, market inputs of innovations and other works;

innovative activity of enterprises diminishes;

at a mezolevel:

the volumes of capital investments taking into account the inflation diminish constantly and are characterized by the unevenness of distribution among regions, that diminishes an investment and innovative potential of regions.

Thus, the conducted analysis of factors of influence on investment-innovative potential of regions testifies to the presence of negative tendencies and allows to form suggestions in relation to its increase:

proportional distribution of investments takes place between all regions;

stimulation of enterprises at the level of the state and at the level of region in relation to acquisition and introduction of New Technologies (NT);

creation of transparent distribution of financing mechanism due to state facilities;

forming of the permanent department of personnel, generation and distribution of knowledge;

activation of the use of communication technologies;

improvement of the infrastructural support;

providing of transparency of mutual relations with imperious structures;

forming of legal and economic grounds in relation to the improvement of investment climate;

stimulation of bringing in of foreign investments at manufacturing enterprises due to the grant of custom and tax privileges;

activity in relation to the use of resource-saving equipment;

stimulation of production of knowledge-intensive goods;

diversification of hopeless production;

creation of the system of encouragements for a financial sector in relation to financing of manufacturing enterprises activity;

distribution and active use of organizational NT and clear determination of zones of responsibility, list of plenary powers;

provision of external and internal adaptability of governmental bodies due to the improvement of organizational structures and adjustment of effective communications;

realization of branch and inter-branch events in relation to presentation of NT and other intellectual products;

stimulation of innovative activity of enterprises and protection of rights on development;

creation of transparent distribution of export-import quotas mechanism between suppliers and producers;

development of the system of encouragements in relation to the introduction of technologies for minimizations of formation of emissions and wastes, also an increase of utilization volume.

**Conclusions.** The analysis of factors of influence on investment and innovative potential of Ukraine's regions testifies to the presence of negative tendencies that require development of suggestions from their overcoming. The suggestions that are the basis for providing an increase of investment and innovative potential of Ukraine in whole and regions in particular have been worked out. The introduction of suggestions at macro-, mezo- and microeconomic levels will assist the strengthening of investment and innovative potential.

## **Further researches** in this direction should be pointed to the formation of a predictive model of the development of investment and innovative potential of regions.

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