

# Facing the global economic crisis: Ukraine's uneven development and regional trajectories, 1990-2009

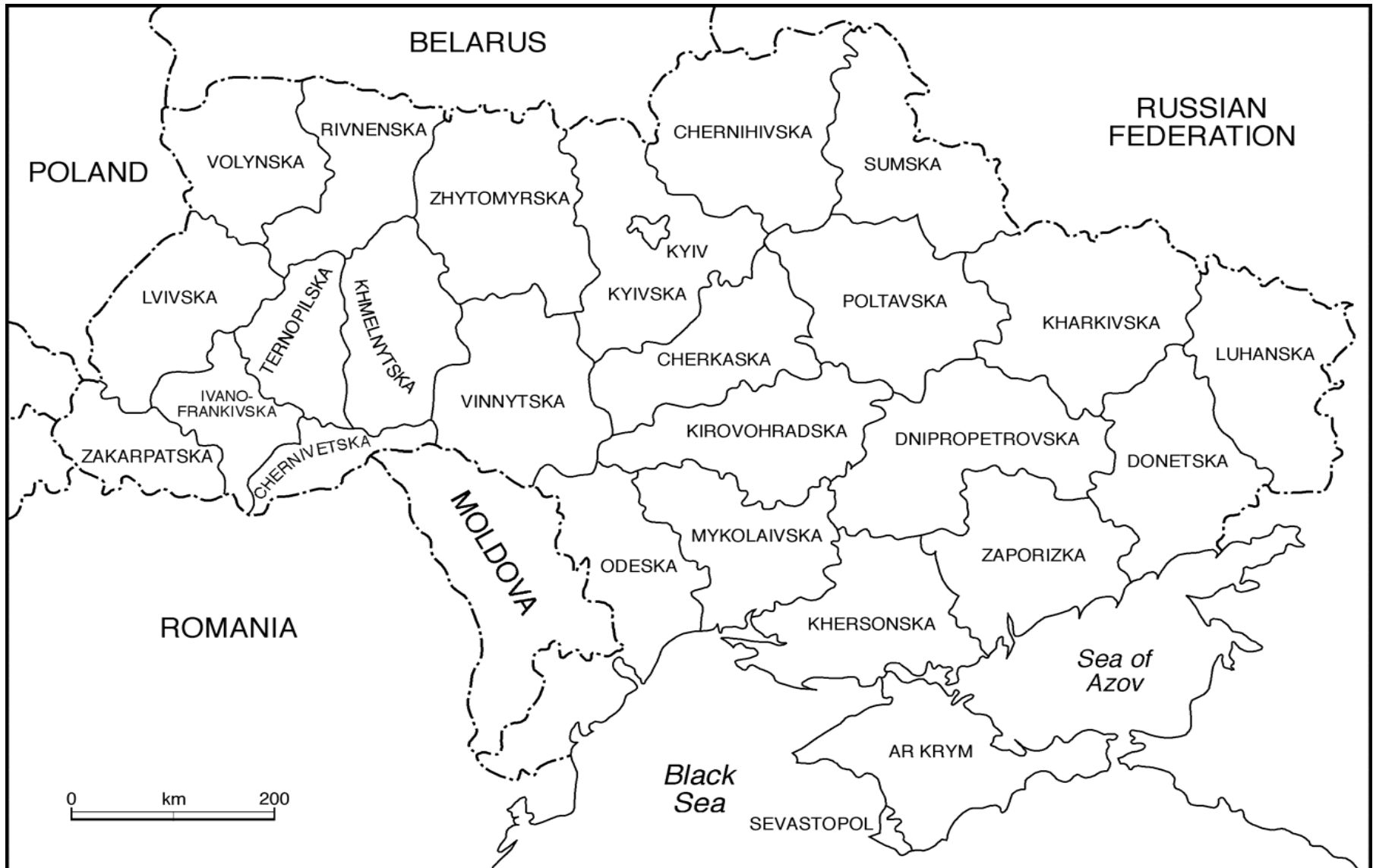
Vlad Mykhnenko\* and Adam Swain†

School of Geography, University of Nottingham

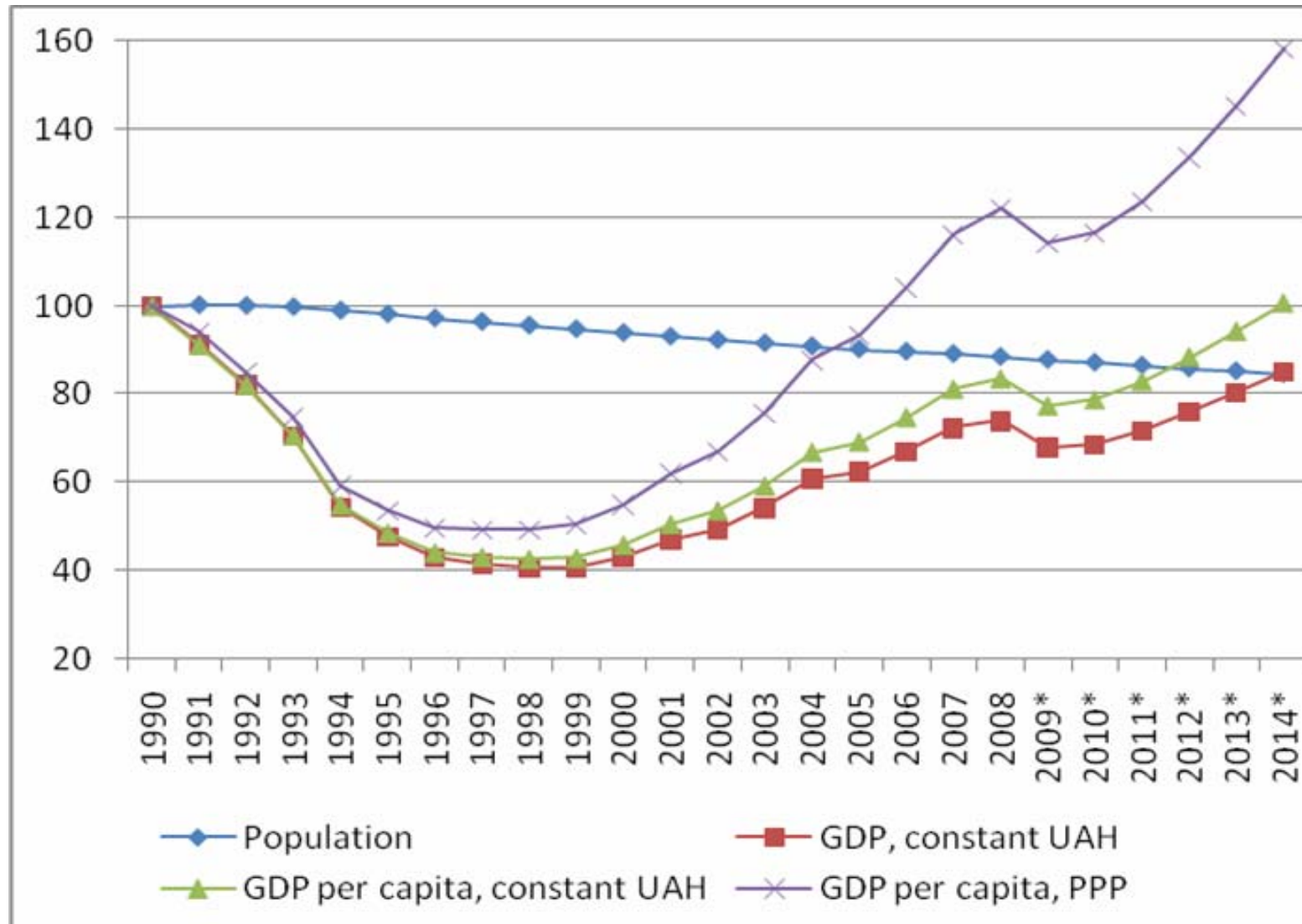
\*[vlad.mykhnenko@nottingham.ac.uk](mailto:vlad.mykhnenko@nottingham.ac.uk)

†[adam.swain@nottingham.ac.uk](mailto:adam.swain@nottingham.ac.uk)

# Map 1. Ukraine's 27 regions



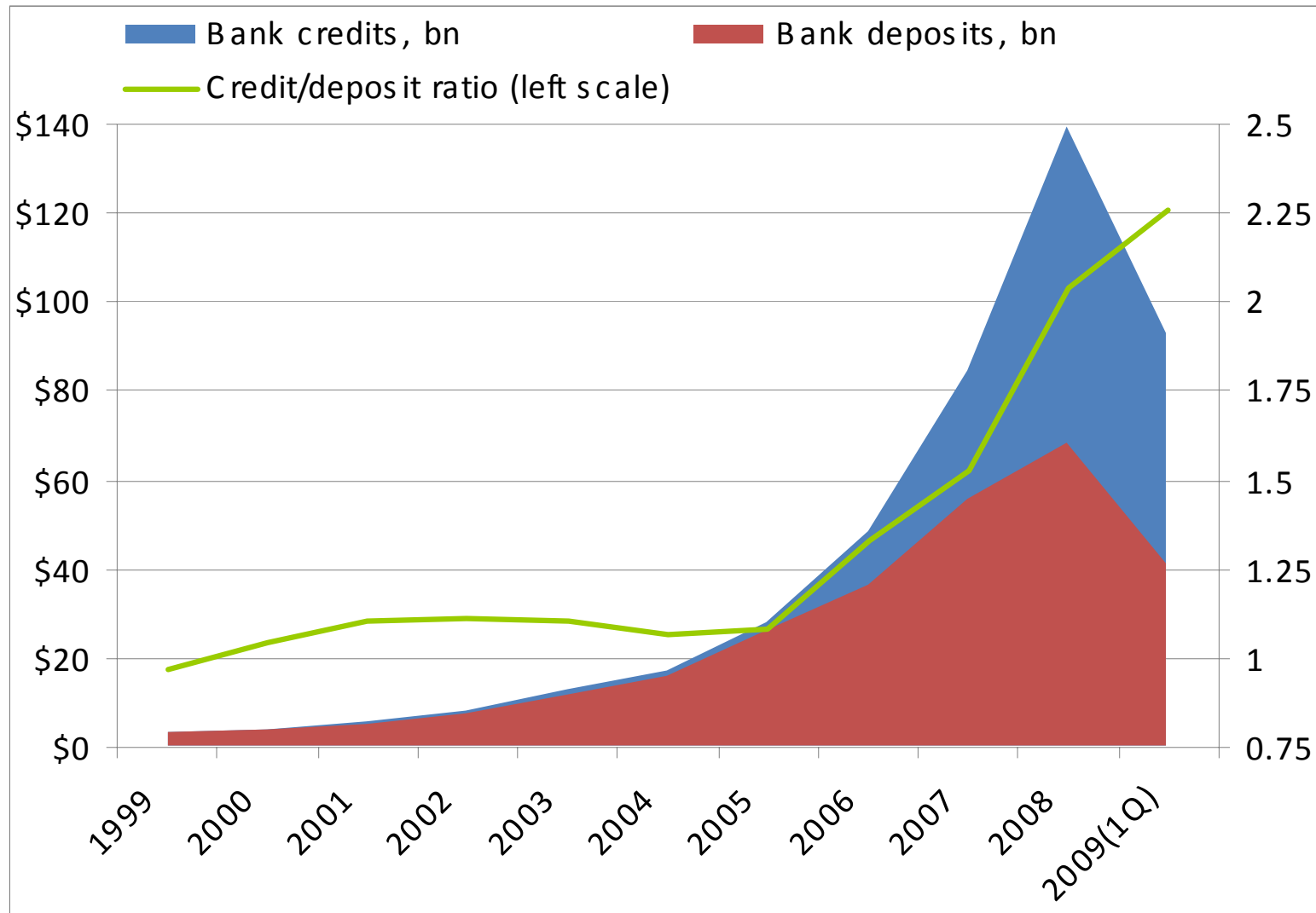
# Figure 1. Ukraine's post-communist growth trajectories, volume index (1990 = 100)



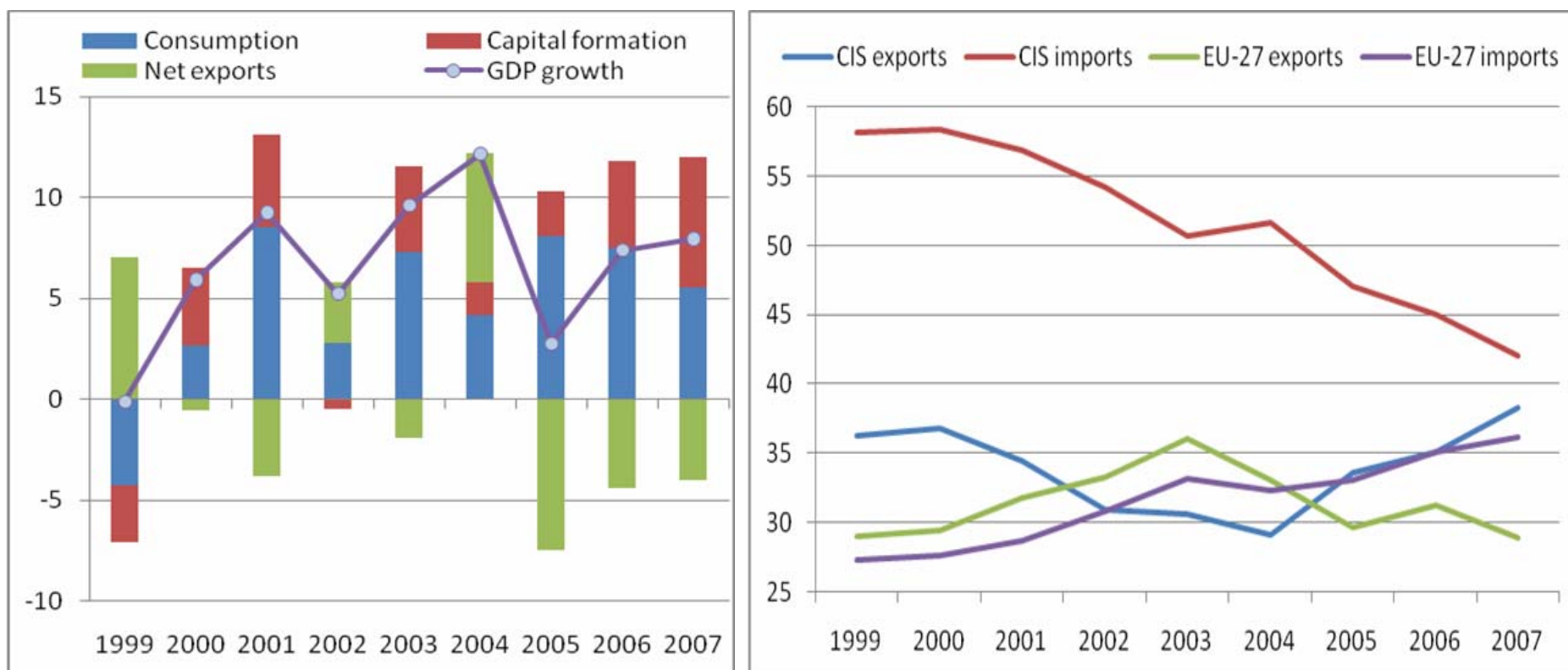
# Table 1. Macro-economic data, 1999-2009

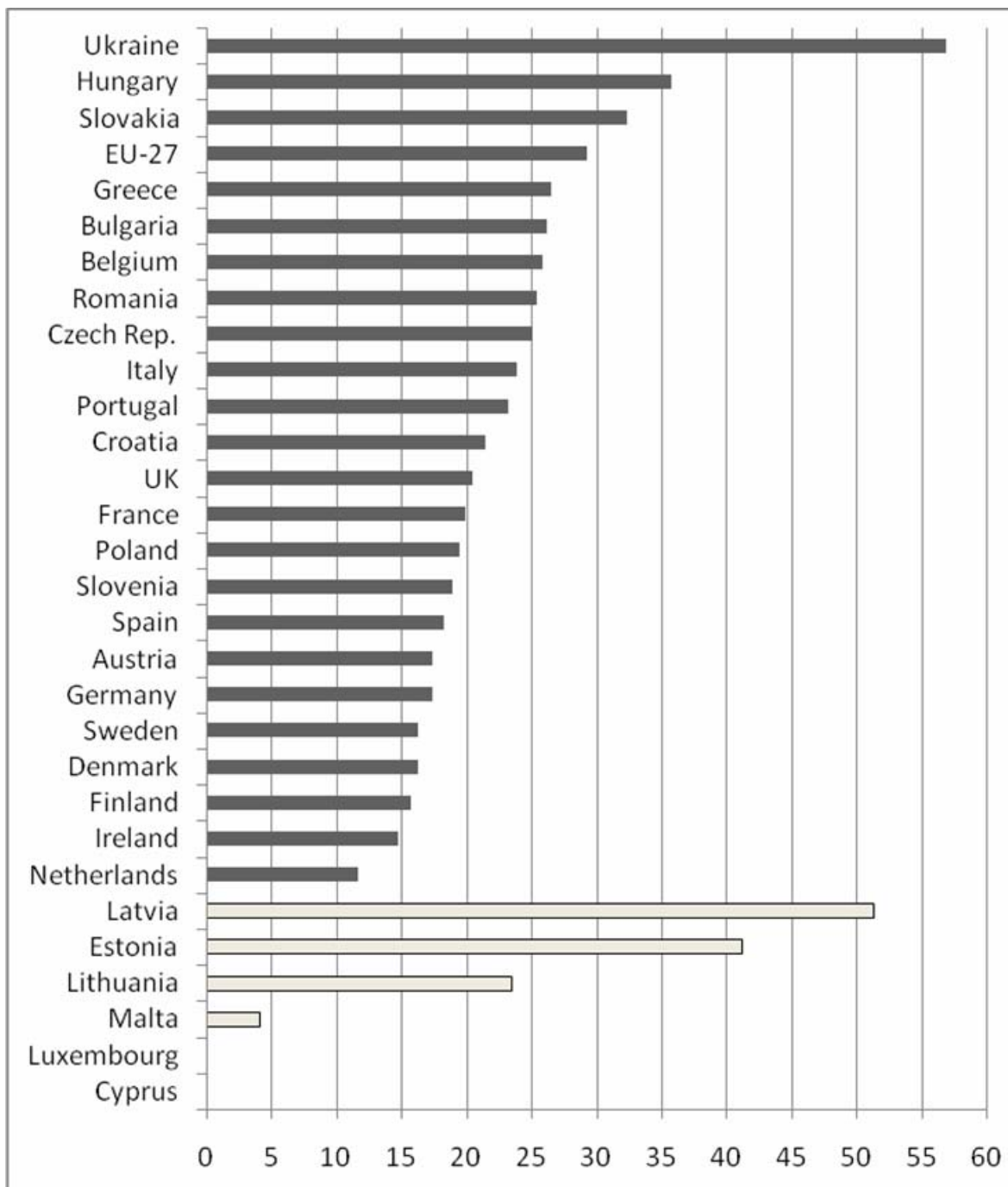
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Real GDP %, IMF	-0.2	5.9	9.2	5.2	9.6	12.1	2.7	7.3	7.9	2.1	-8.0(e)
GDP/capita \$, IMF	643	642	788	886	1057	1378	1843	2324	3100	3920	2521(e)
GDP/capita PPS, IMF	3,038	3,317	3,740	4,038	4,555	5,282	5,626	6,269	6,990	7,347	6,873(e)
Current account balance %GDP, IMF	5.3	4.7	3.7	7.5	5.8	10.6	2.9	-1.5	-3.7	-7.2	0.6(e)
Total trade balance \$bn, Derzhkomstat/NBU	-264.5	616.5	489.6	980.3	46.7	3669.3	-1907.9	-6670.6	-11321.9	-14520.0	-1010.0(1Q)
FDI stock \$mln, UNCTAD	496	595	792	693	1424	1715	7808	5604	9891	...	...
Workers' remittances total \$mln, WorldBank	18.0	33.0	141.0	209.0	330.0	411.0	595.0	829.0	4,503.0	...	...
Gross International reserves \$bn, EBRD/NBU	0.8	1.0	1.4	4.5	6.9	9.7	19.4	22.3	32.5	31.5	25.4(1Q)
Exchange rate, UAH/\$, NBU average rate	4.13	5.44	5.37	5.33	5.33	5.32	5.13	5.05	5.05	5.27	7.70 (1Q)
Real commercial bank credit change yoy%, NBU	15.4	34.9	31.9	41.0	49.4	13.4	30.0	48.9	41.9	33.2	-14.3(1Q)
Loans from non-resident banks (amt outstanding) %GDP, WB	2.5	2.2	2.0	1.9	2.4	3.6	5.5	8.6	12.4	...	...
Stock market capitalisation %GDP, WB	2.7	4.8	4.3	5.3	7.4	12.4	21.3	32.2	55.0	...	...
Real wage growth yoy%, Derzhkomstat	-8.9	-0.9	19.3	18.2	15.2	23.8	20.3	18.3	12.5	6.3	-12.3(1Q)
Real retail trade turnover yoy%, Derzhkomstat	-7.1	8.1	13.7	15.0	20.5	21.9	23.4	26.4	29.5	18.6	-11.5 (1Q)
CPI %, end year, IMF	19.2	25.8	6.1	-0.6	8.2	12.2	10.3	11.6	16.6	22.3	15.0(e)
NBU interest rate (actual weighted average), %	44.0	29.6	20.2	9.2	8.0	16.1	14.7	11.5	10.1	15.3	17.5(1Q)
General government balance % GDP, EBRD	-2.3	-1.1	-0.9	0.1	-0.7	-4.4	-2.3	-1.4	-2.0	-11.7(e)	-1.6(e)
Gross external debt %GDP, EBRD	42.8	37.8	31.8	30.1	47.5	47.2	45.9	50.6	57.6	56.7	...
Foreign public debt %GDP, Segura					21	19	13	12	10	11	
Foreign private debt %GDP, Segura					26	27	30	38	48	47	
Import gas price \$/mcm, Pirani 2007	50*	50*	50*	50*	50*	50*	44-80	95	130	179.50	175-360
Estimated value of gas imports \$bn, Pirani 2009	...	...	...	...	2.84	2.77	3.2	5.06	6.38	8.44	7.0-14.4

**Figure 2. Commercial banking sector, total \$billion, and bank credit to deposit ratio, 1999-2009**



**Figure 3. Composition of GDP growth by final use category, % p.a.; and CIS and EU-27 exports and imports of goods and services, 1999-2007, (% share of Ukraine's foreign trade turnover)**



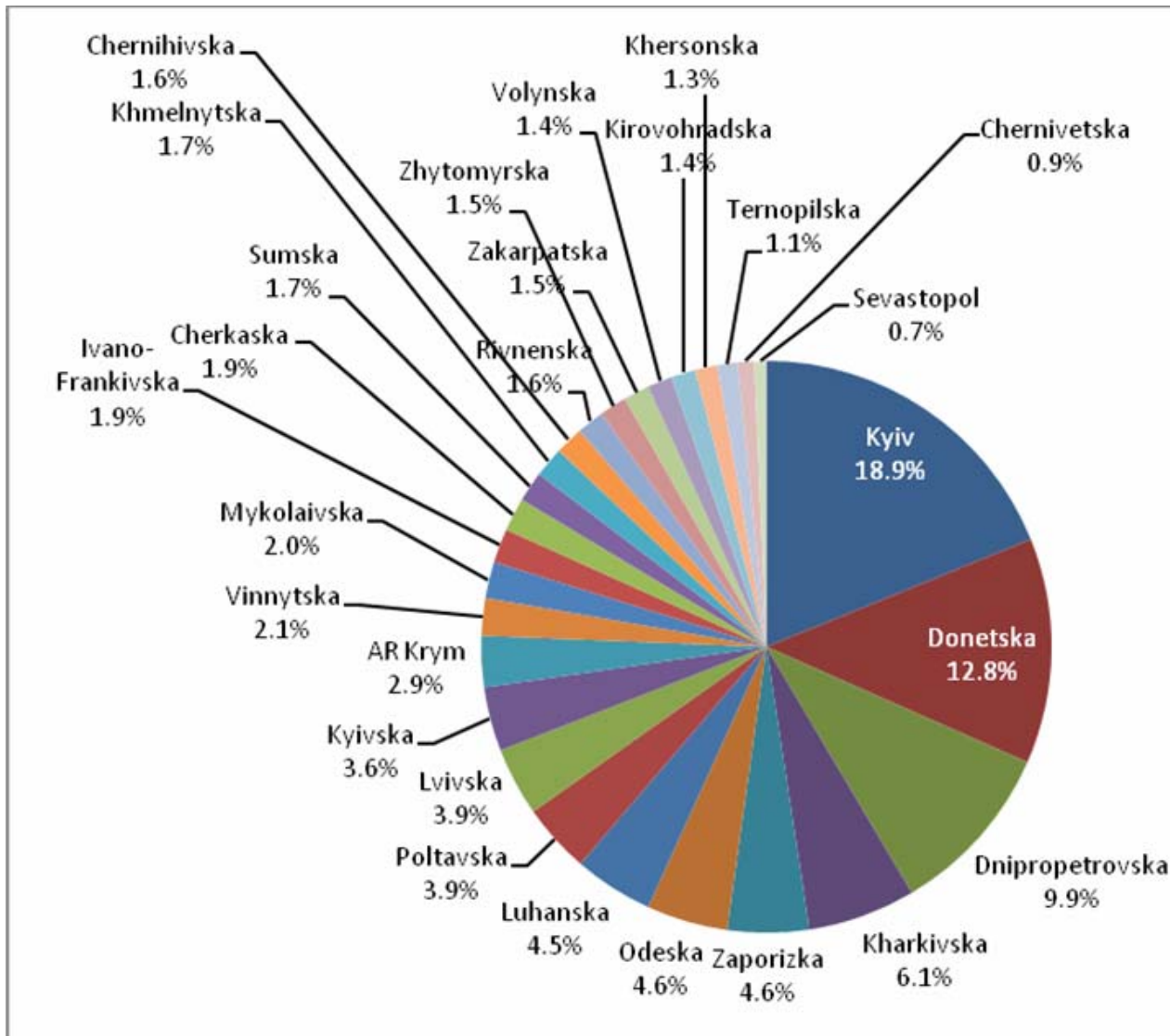


**Figure 4. Dispersion of regional GDP per inhabitant across Europe (as % of national GDP), 2005**

	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	change
Austria	...	19.4	19.6	18.7	18.4	18.3	17.9	18.2	18.7	18.3	17.7	17.4	...	...	0.90
Belgium	...	25.0	25.3	25.1	24.3	25.1	25.3	25.4	25.4	25.0	25.2	25.8	...	...	1.03
Bulgaria	...	...	18.1	18.1	17.9	21.5	17.6	20.3	24.0	24.1	26	26.2	...	...	1.45
Croatia	...	...	...	...	...	...	18.6	19.9	20.6	20.7	19.9	21.4	...	...	1.15
Cyprus*	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	...	
Czech Rep.	...	16.6	16.5	18.3	20.7	22.1	23.0	24.3	24.9	25.0	24.2	25.1	...	...	1.51
Denmark	...	...	...	...	...	...	...	...	...	...	...	16.3	...	...	
Estonia*	...	...	31.6	35	37.1	36.1	38.7	39.3	40.2	41.5	44.0	41.2	...	...	1.30
EU-27	...	...	...	...	...	...	...	...	...	...	...	29.2	...	...	
Finland	...	14.4	15.2	15.4	17.1	17.7	17.6	17.4	16.9	15.3	15.7	15.7	...	...	1.09
France	...	19.5	20.0	20.1	19.6	20.7	20.9	20.4	20.6	20.8	20.0	19.9	...	...	1.02
Germany	...	17.0	16.9	17.0	17.3	17.5	17.6	18.0	17.9	17.8	17.5	17.4	...	...	1.02
Greece	...	...	...	...	...	...	20.7	21.8	23.2	23.8	24.8	26.5	...	...	1.28
Hungary	...	25.7	27.5	28.8	29.1	31.9	32.6	33.0	35.4	34.2	33.4	35.7	...	...	1.39
Ireland	...	12.7	12.2	14.0	13.8	14.2	14.8	15.1	16.5	15.7	14.6	14.7	...	...	1.16
Italy	...	24.6	24.7	24.3	24.4	2.04	24.7	24.3	24.2	24.2	24.3	23.8	...	...	0.97
Latvia*	...	...	31.7	36.2	41.3	46.1	46.8	45.2	51.9	49.0	52.9	51.3	...	...	1.62
Lithuania*	...	11.1	11.3	13.8	15.4	17.3	19.0	20.0	23.0	22.8	22.2	23.5	...	...	2.12
Luxembourg*	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	...	...	
Malta*	...	...	...	...	...	...	3.4	3.0	3.3	3.9	4.0	4.1	...	...	1.21
Netherlands	...	10.7	11.3	11.8	11.6	11.6	11.9	10.9	11.2	11.0	11.3	11.6	...	...	1.08
Poland	...	13.3	15.3	15.8	16.1	17.5	17.4	18.3	17.9	18.3	18.7	19.4	...	...	1.46
Portugal	...	21.4	21.1	22.3	23.1	20.9	22.7	22.1	22.9	22.8	23.0	23.2	...	...	1.08
Romania	...	10.9	12.8	13.9	14.7	19.3	23.9	24.9	25.3	23.0	22.0	25.4	...	...	2.33
Slovakia	...	26.3	25.2	26.3	26.4	25.8	26.7	26.8	28.1	27.8	28.1	32.3	...	...	1.23
Slovenia	...	16.4	16.5	16.4	16.2	17.5	17.3	18.1	18.1	19.3	18.7	18.9	...	...	1.15
Spain	...	18.8	19.3	19.7	20.1	20.5	20.6	20.4	19.8	19.1	18.8	18.2	...	...	0.97
Sweden	...	10.9	12.5	14.5	15.5	16.2	15.9	14.9	15.3	14.9	15.6	16.3	...	...	1.50
Ukraine	25.9	25.5	22.8	29.0	30.8	33.4	35.9	55.8	56.1	58.5	58.3	56.8	56.8	61.6	2.19
United Kingdom	...	15.6	16.1	17.3	18.2	18.5	19.4	19.6	20.2	20.3	20.0	20.4	...	...	1.31

**Table 2. Dispersion of regional GDP per inhabitant across Europe at NUTS 2 level, (as % of national GDP), 1990-2007**

# Figure 5. Ukraine's territorial GDP distribution (as % of total), 2007



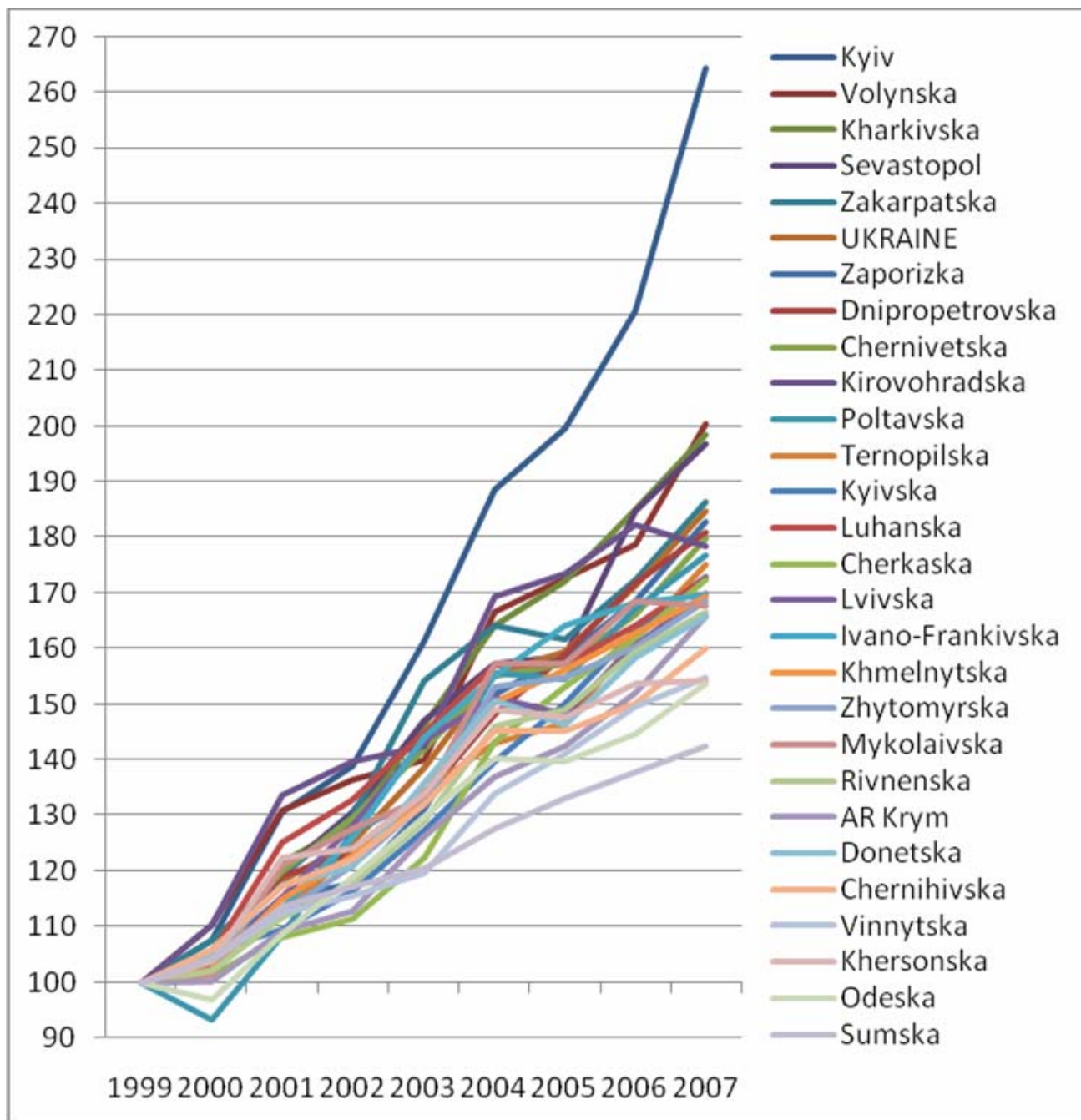
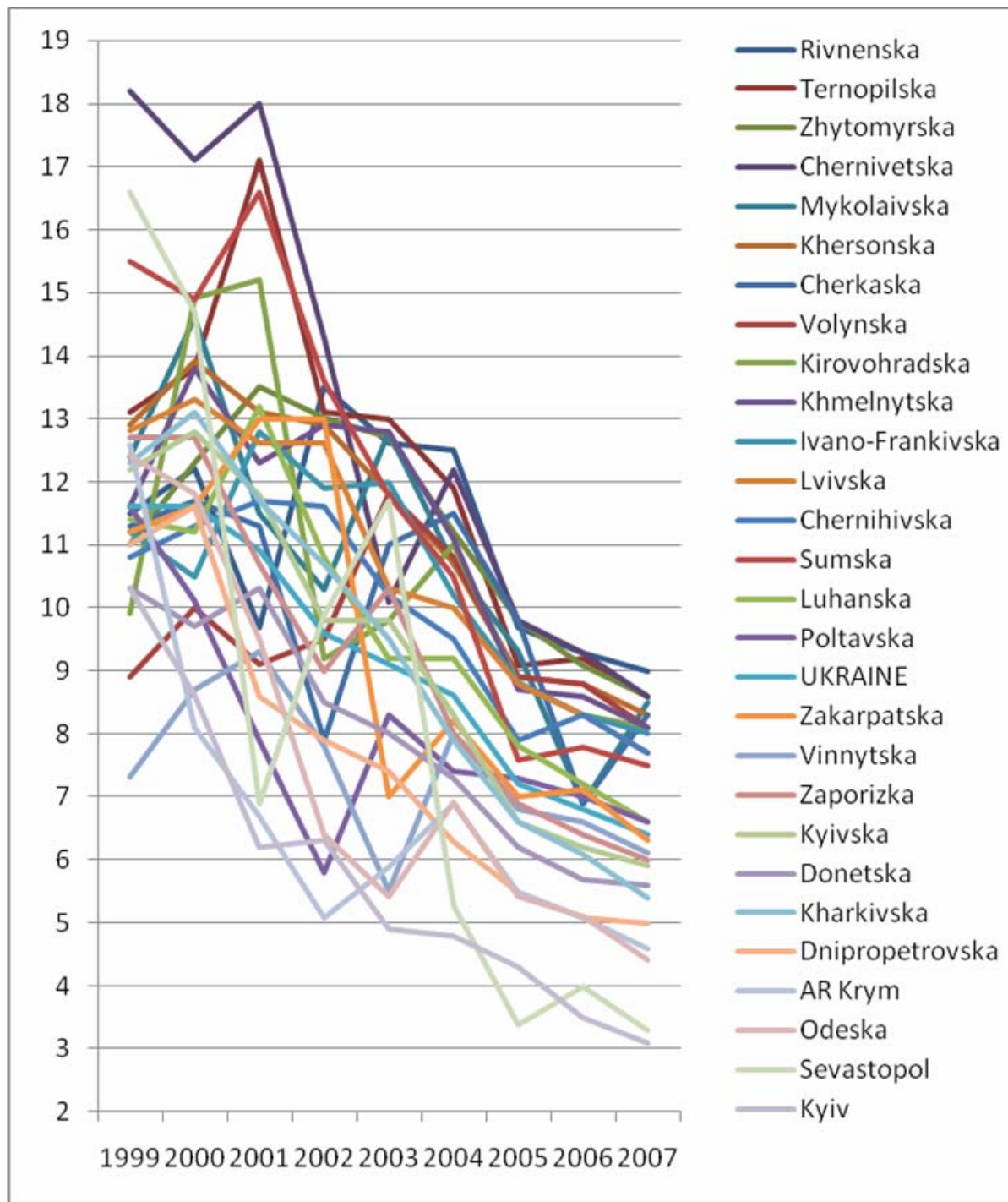
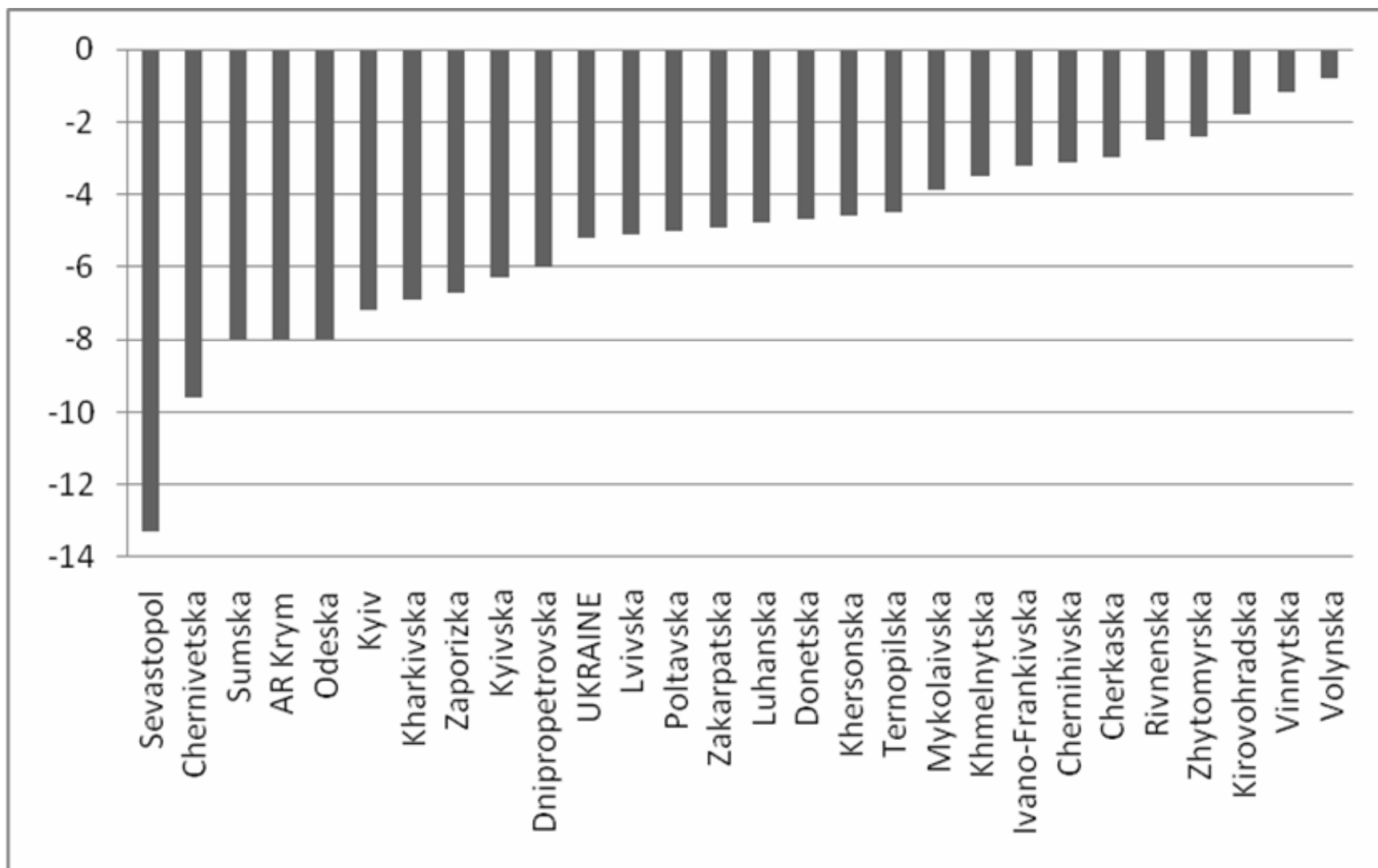


Figure 6. Ukraine: regional GDP growth trajectories, volume index (1999 = 100), 1999-2007

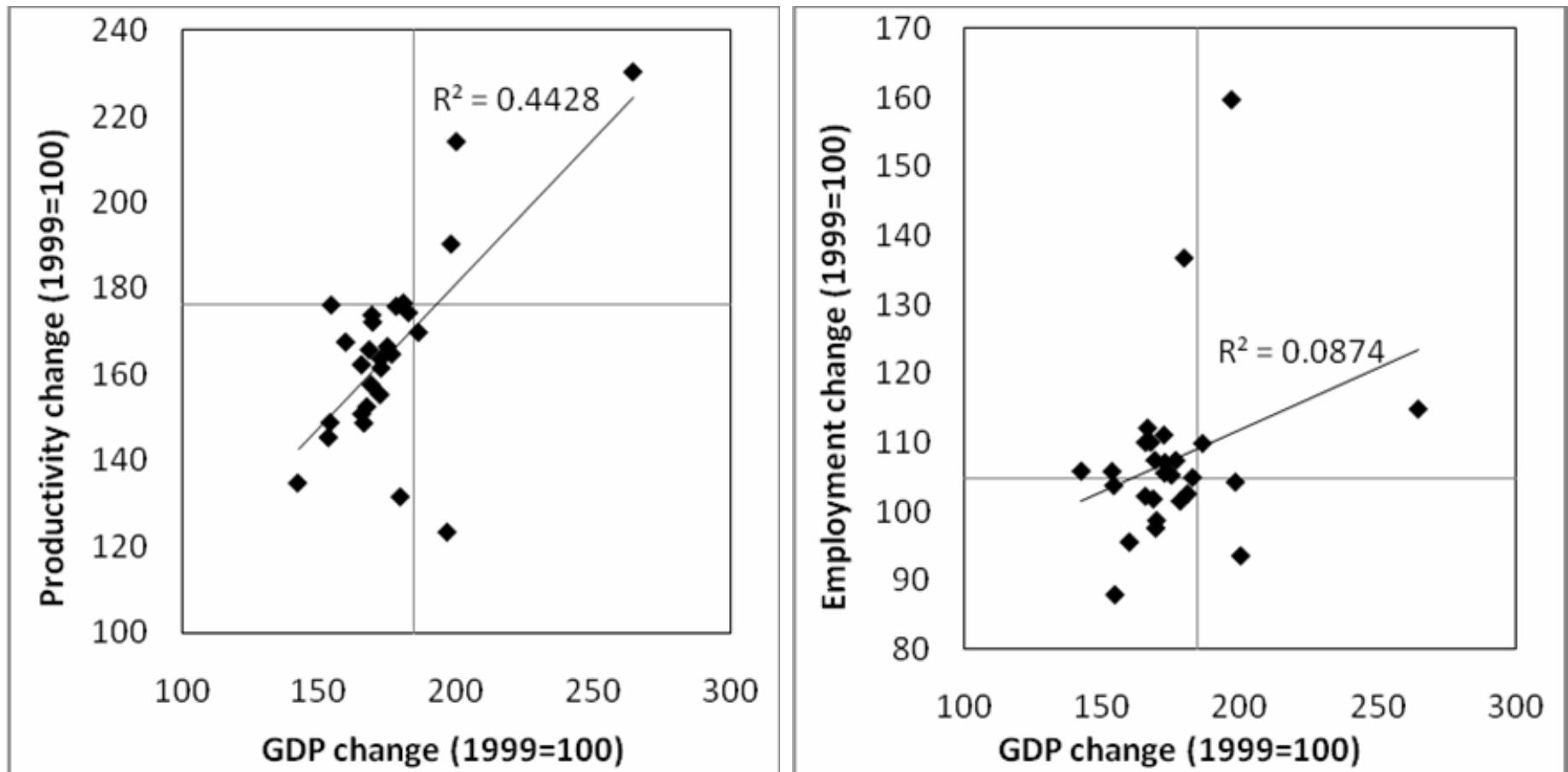


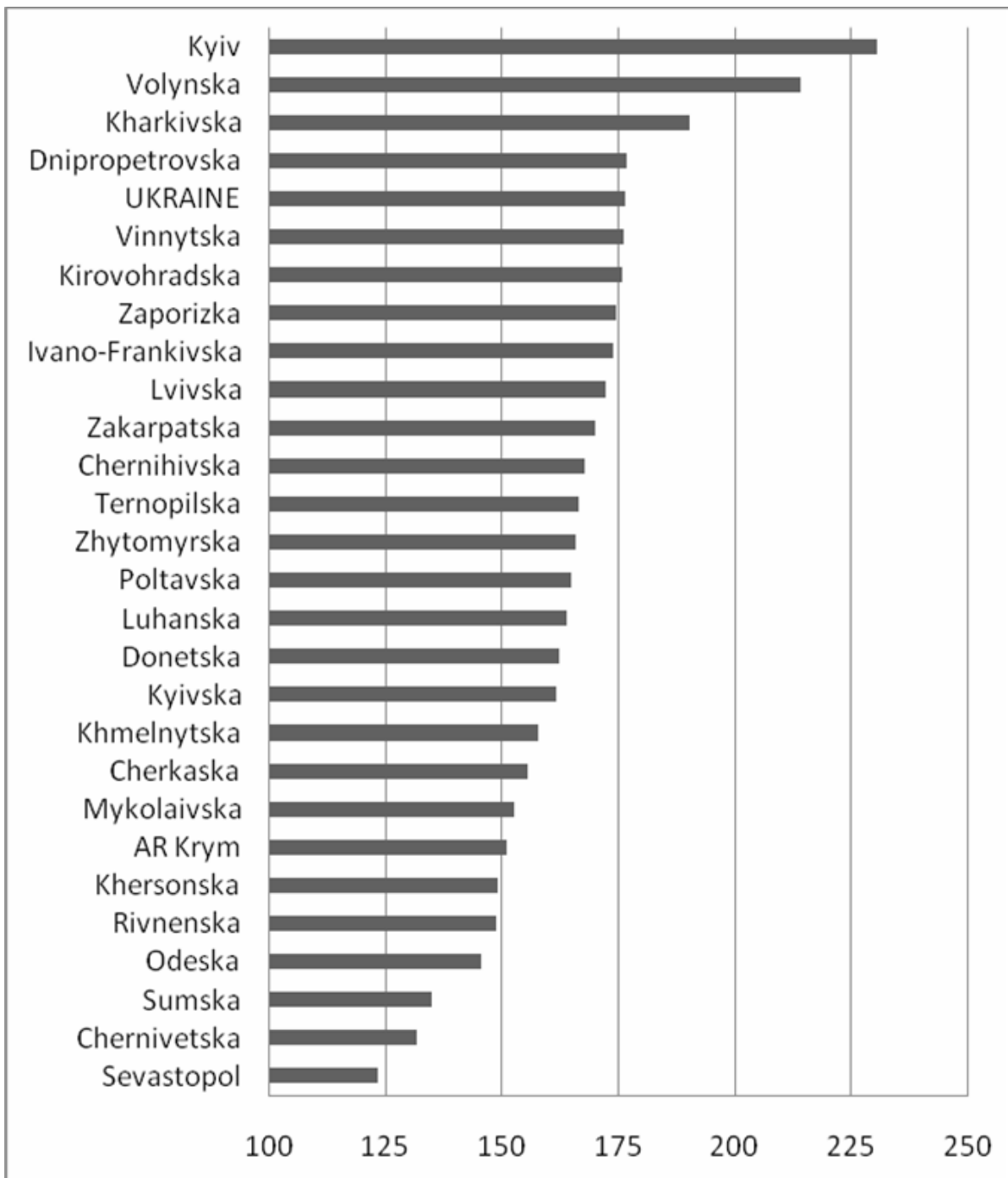
**Figure 7.**  
**Ukraine's territorial**  
**unemployment**  
**trajectories,**  
**unemployment rate**  
**(ILO methodology),**  
**1999-2007**

# Figure 8. Percentage point change in ILO unemployment rates, 1999-2007

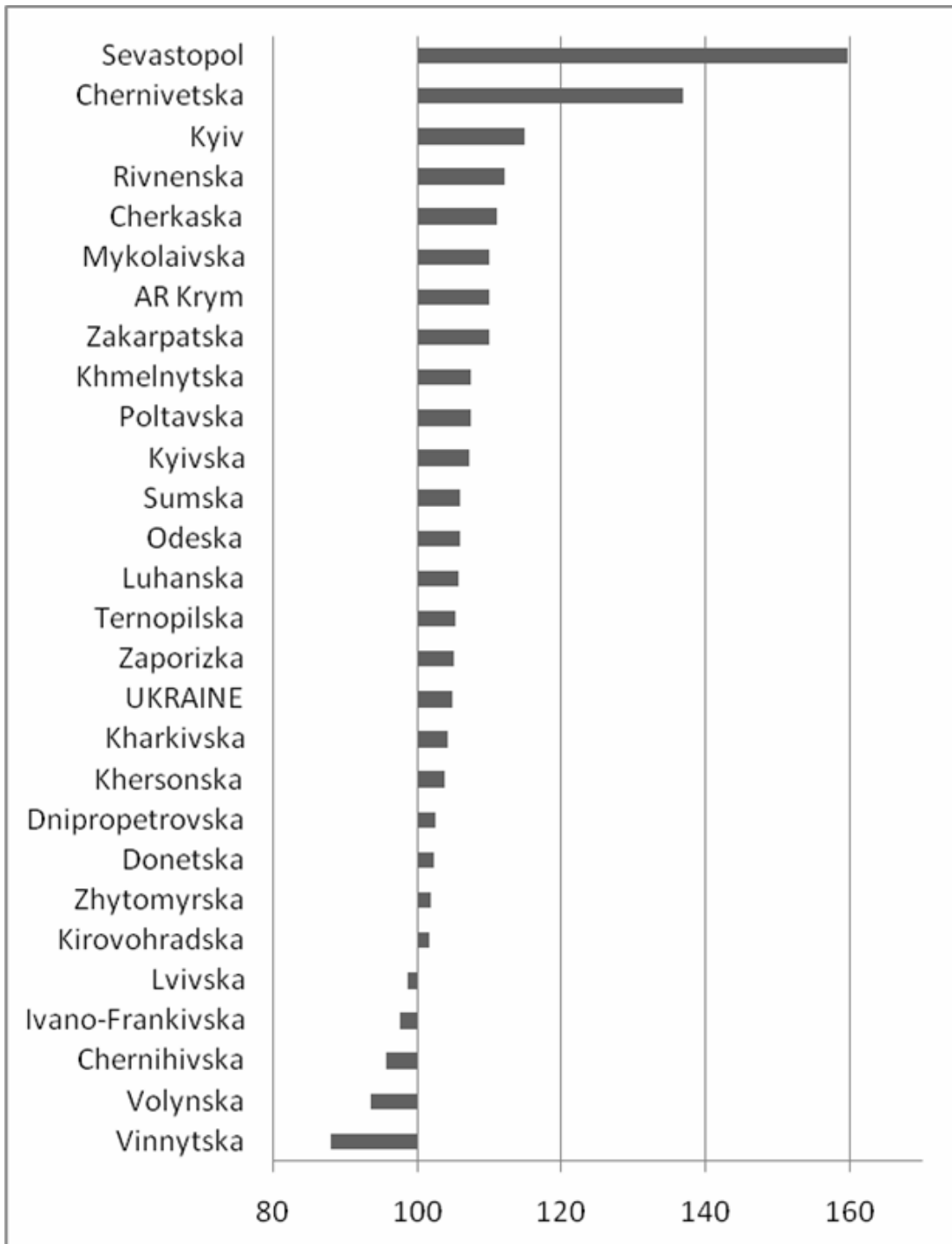


**Figure 9. Impact of labour productivity and employment on growth: GDP, labour productivity, and employment changes, volume index (1999 = 100), 1999-2007**





**Figure 10. Ukraine's territorial productivity growth patterns, output per worker, volume index (1999 = 100), 1999-2007**

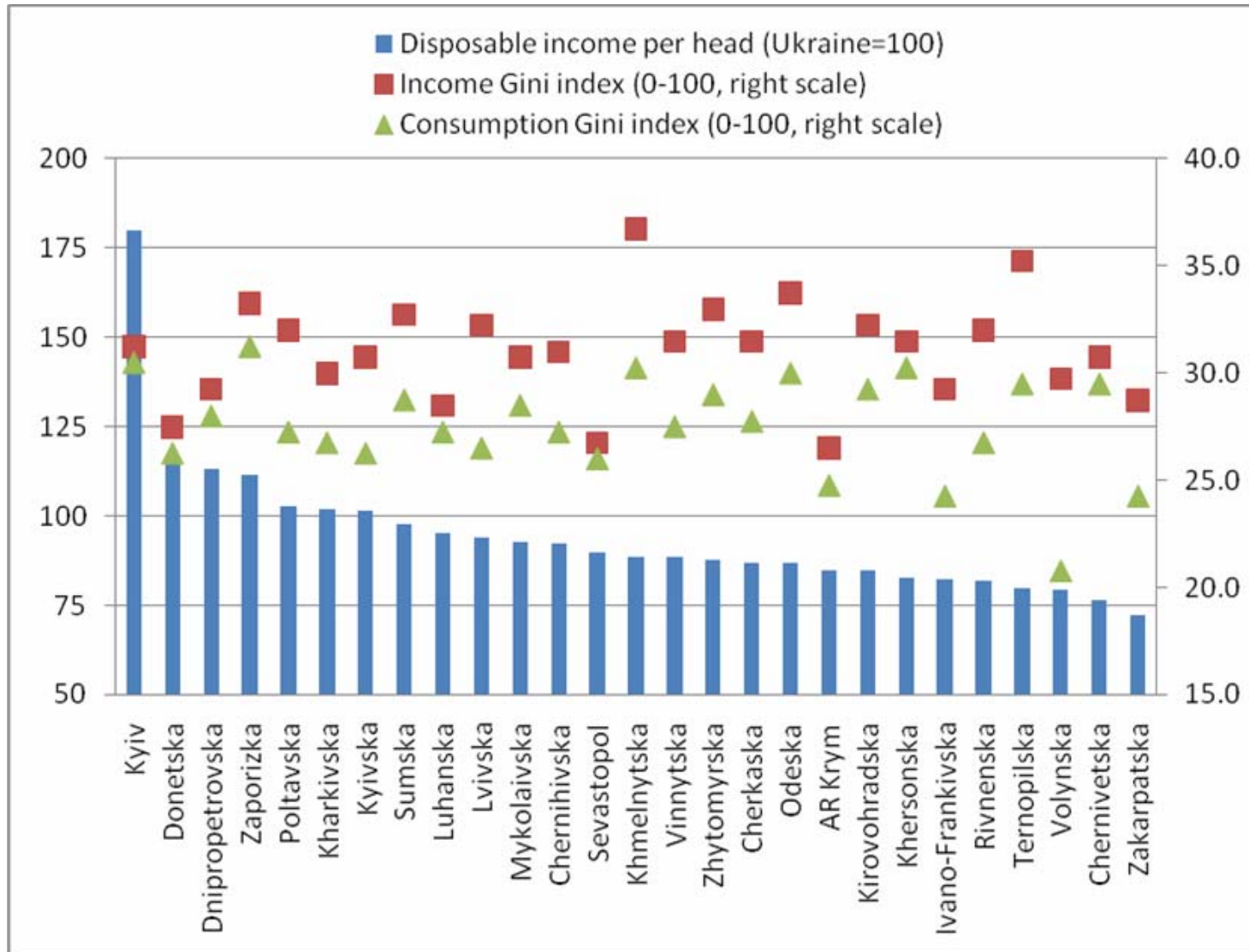


**Figure 11. Ukraine's job growth patterns, employment change, volume index (1999 = 100), 1999-2007**

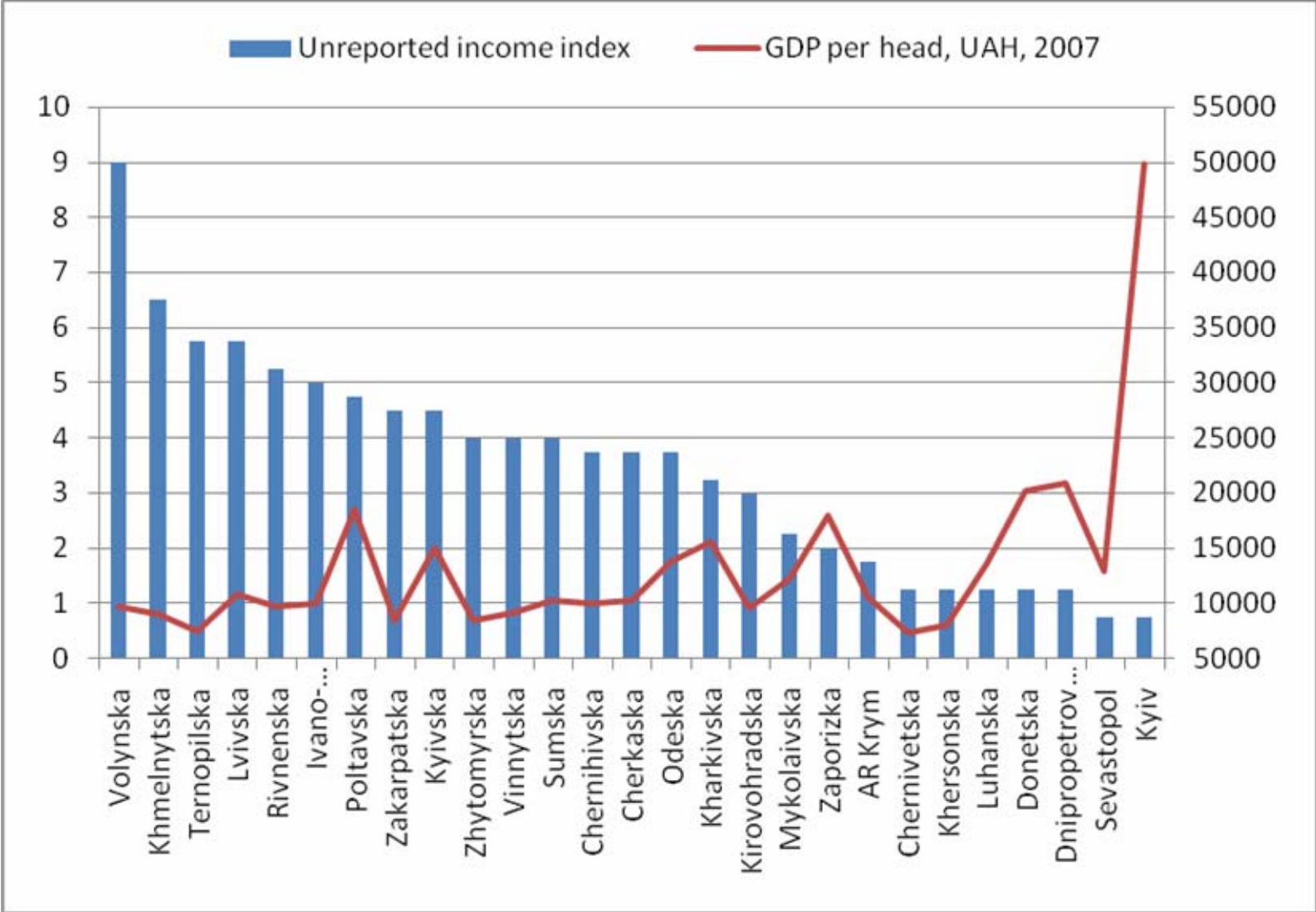
**Table 3.  
Relative GDP  
per head,  
index (Ukraine  
= 100), 1990-  
2007**

	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	ranking change	% point change
Kyiv	153.9	152.6	142.8	187.2	191	203.1	214	317.2	317.4	326.5	318	307.1	302.8	321.3	0	167.5
Sevastopol	53.3	61.5	62.2	63.2	57.7	55.6	60.3	83.7	86.9	89.1	80.4	79.5	86.7	83.6	16	30.4
Dnipropetrovska	124.8	126.2	125.8	121.3	123.6	123.4	127.8	121	120.1	118.5	118.4	127.1	131	134.7	2	9.9
Donetska	123	125.5	121.4	117.4	118.5	122.6	125.9	124.6	124.2	124.9	133.5	133.3	135.2	130.3	2	7.3
Odeska	83.4	92.7	101.1	102	100.2	102.6	101.4	102	103.6	102.6	96.6	92	89.2	89.2	9	5.8
AR Krym	62.6	72.2	72.7	73.4	73.2	75.7	69.5	71.5	70.3	71	68.1	68.9	69.7	68.2	12	5.7
Zakarpatska	51.5	53.3	53.3	52	53.7	58.4	60.2	58.6	60.3	62.7	58.3	57.3	56.5	54.5	3	3
Luhanska	87.1	89.7	92.4	90.7	87.2	90.6	87.5	77	80.1	78.2	82.1	86.8	86.7	87.9	6	0.8
Kharkivska	100.2	104.3	104	105.1	107	104.8	100.4	95.1	96	98.7	98.7	96.3	97.6	101	3	0.8
Ivano-Frank.	67.3	68.8	74.6	71.3	73.8	76.1	76.8	73.2	75.8	77.4	72	73.8	70.1	64.9	7	-2.4
Lvivska	77	82.7	80.8	74.5	74.6	75	77.4	73.5	77.3	79.2	74.2	71	71.8	70.4	9	-6.6
Poltavska	127.4	124.2	126.7	126.4	133.2	129.6	122.8	107.4	113.8	108.2	121.6	123.5	123.2	119.4	-1	-8
Mykolaivska	93.7	91.1	95.8	93	90.1	88.9	91.9	90.9	88.2	83.8	88.3	83.2	84	78.9	2	-14.8
Kirovohradska	79.8	71.5	78.8	73.4	72.3	68.4	66.7	74.1	71.4	71	70.4	68.2	66.4	61.6	-1	-18.2
Volynska	82.4	72.3	69.5	66.8	67.8	68.1	74.5	71.7	69.4	65.3	65.6	67.1	63.6	62.7	0	-19.7
Khersonska	75.5	74.8	77.3	84.1	77.2	72.4	69	67.4	66	64.3	62.5	61	58	52.4	-3	-23.1
Chernivetska	71.5	63.8	65.9	63.7	59.4	54.9	50.6	53.5	54.8	54.2	49.3	49.7	48.6	47.6	-4	-23.9
Kyivska	122.1	120.4	117.8	114.7	115.3	110.6	116.8	93.1	89.2	88.2	91.5	92.5	93.9	97	-2	-25.1
Vinnyska	84.5	80.6	84.4	80.9	80.5	74.5	75.5	74.7	71.2	69.1	64.6	63.7	63	59.1	-5	-25.4
Ternopil'ska	77.9	67.2	68.6	64	64.7	61	57.6	54.4	54.6	53.6	48.3	49.1	50	48.5	-6	-29.4
Cherkaska	98.6	95.4	100.1	96.9	92.7	84	79	67.6	65.2	64.7	66.7	71.3	70.6	66.7	-4	-31.9
Zaporizka	148.4	143.1	134.3	135.2	140	142	136.1	109.2	106.1	104.7	111.3	114	115	116.3	-3	-32.1
Rivnenska	96.5	88.4	86.4	82.2	81.2	80.3	76	71.9	69.9	68	66.2	66.9	66.4	62.6	-8	-33.9
Zhytomyrska	88.8	85.1	88.4	81.5	79.2	75.3	71.3	60.2	60.6	60.1	60.5	59.3	57.1	54.8	-9	-34
Khmelnytska	96.4	90	90.9	87.9	83.2	78	72.7	66.7	65.4	65.3	62.5	61.5	60.4	58.7	-10	-37.7
Sumska	108.1	101.5	100.6	99.5	97.1	90.1	94.4	83.6	80.2	74.2	68.9	69.3	67.5	66.1	-8	-42
Chernihiv'ska	110.3	97.3	95.6	90.4	88.5	88.7	86.3	73.8	73.3	73.6	71	69.1	66.3	65.1	-10	-45.2

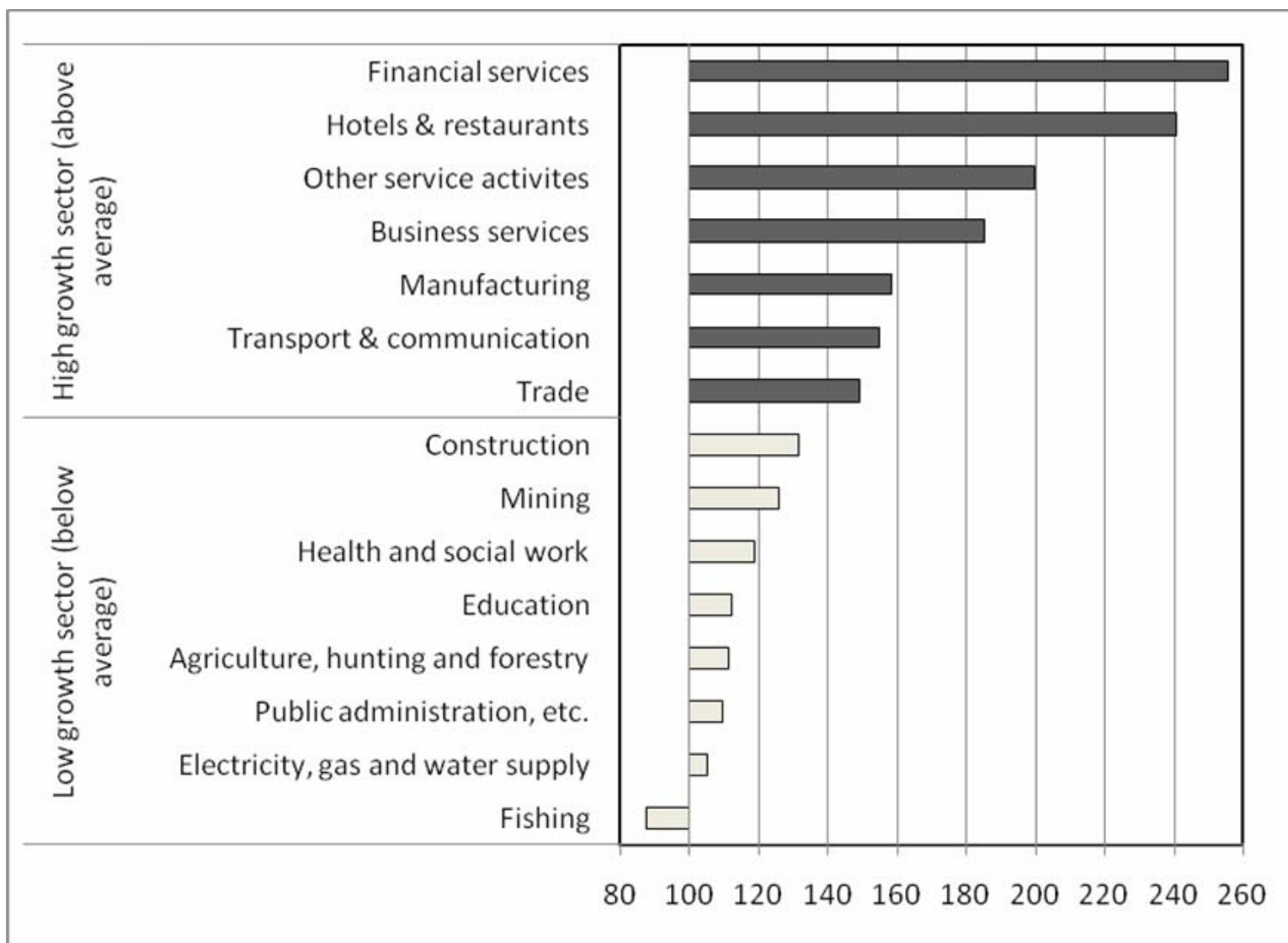
**Figure 12. Disposable income per head, 2007, index (Ukraine = 100), and income and consumption distribution patterns, 2001-2004 (average Gini index, %)**



**Figure 13. Index of unreported income (right scale) and regional GDP per head (left scale, UAH 2007)**



**Figure 14. Ukraine's growth sectors, output change, volume index (2001=100), 2001-2006**



	<i>Agriculture</i>	<i>Industry</i>	<i>Services</i>	<i>Of which: market consumer services</i>	<i>public services</i>	<i>transport, storage &amp; communication</i>	<i>finance &amp; business services</i>
AR Krym	1.09	0.71	1.17	1.16	1.60	1.02	0.84
Vinnyska	2.65	0.80	0.88	0.73	1.38	0.84	0.56
Volynska	2.02	0.70	1.04	1.25	1.27	0.87	0.64
Dnipropetrovska	0.67	1.47	0.75	0.48	0.68	0.75	1.20
Donetska	0.38	1.57	0.74	0.86	0.60	0.68	0.77
Zhytomyrska	2.10	0.80	0.96	0.88	1.57	0.82	0.52
Zakarpatska	1.78	0.80	1.01	1.11	1.35	0.99	0.50
Zaporizka	0.88	1.47	0.72	0.59	0.81	0.53	0.97
Ivano-Frankivska	1.39	1.19	0.82	0.73	1.06	0.88	0.64
Kyivska	1.80	0.95	0.91	0.72	1.30	1.00	0.67
Kirovohradska	2.62	0.80	0.88	0.64	1.23	1.19	0.55
Luhanska	0.73	1.60	0.67	0.46	0.92	0.61	0.70
Lvivska	1.38	0.80	1.07	0.81	1.37	1.32	0.87
Mykolaivska	1.45	0.97	0.95	0.95	1.03	1.06	0.77
Odeska	0.95	0.64	1.23	0.79	1.06	2.30	1.09
Poltavska	1.26	1.49	0.65	0.67	0.74	0.72	0.48
Rivnenska	1.94	0.93	0.90	0.96	1.22	0.83	0.55
Sumska	1.77	1.28	0.71	0.42	1.20	0.73	0.55
Ternopiliska	2.50	0.65	0.99	1.00	1.47	1.00	0.46
Kharkivska	0.88	0.89	1.09	0.75	1.01	1.02	1.68
Khersonska	2.40	0.67	0.99	1.01	1.44	0.86	0.61
Khmelnytska	2.09	0.90	0.90	0.79	1.44	0.82	0.52
Cherkaska	2.49	0.83	0.88	0.94	1.15	0.77	0.63
Chernivetska	2.25	0.63	1.05	1.13	1.52	0.77	0.65
Chernihivska	2.22	0.89	0.88	0.73	1.33	0.88	0.60
Kyiv	0.00	0.41	1.51	2.03	0.89	1.34	1.67
Sevastopol	0.01	0.66	1.36	1.40	1.40	1.41	1.22

**Table 4.  
Location  
quotients of  
regional gross  
value added,  
2006, (1.0 =  
average  
specialization)**

**Figure 15 Ukraine's uneven expansion, GDP per head in 1999 and GDP growth in 1999-2007**

