

Study on the Economic Impacts of Convergence Interventions (2007-2013)

Poland – TFP elasticity = 0.04

Prepared for:

European Commission

Directorate-General for Regional Policy, Unit Evaluation and Additionality

Office CSM2 – 9/126

For the attention of Ms Mahovsky

B-1049 Brussels

EU Tender No:

2006.CE16.0.AT.022

Project Title:

Study on the Economic Impacts of Convergence Interventions (2007-2013)

Report Submitted by:

Prof. Ali BAYAR, President, EcoMod

Released:

15 June 2007

Status:

Final

Administrative information

Contact person for this project:

Name	Prof. Ali BAYAR President, ECOMOD
Address	Université Libre de Bruxelles Avenue F. Roosevelt, 50 C.P. 140 B-1050 Brussels -- Belgium
Telephone	+32 2 650 4115
Fax	+32 2 706 7020 and +32 2 650 4137
e-mail	Ali.Bayar@ulb.ac.be

Poland

Scenario: Past profile of 6 countries 2000-2006

Table 1: Payments profile – Poland (mil. euro, current prices)

Poland (mil. euro, current prices)	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Structural and cohesion funds	2,196	5,541	7,388	7,811	8,323	7,851	7,662	10,341	10,341	67,454
Structural funds	1,472	3,715	4,953	5,236	5,580	5,264	5,137	6,932	6,932	45,221
<i>Productive environment</i>	190	479	639	676	720	679	663	894	894	5,834
Manufacturing	118	297	396	418	446	421	410	554	554	3,613
Services	72	182	243	257	274	258	252	340	340	2,220
<i>Human resources</i>	417	1,051	1,402	1,482	1,579	1,490	1,454	1,962	1,962	12,798
<i>Infrastructure</i>	773	1,950	2,600	2,749	2,930	2,763	2,697	3,640	3,640	23,741
<i>Rest (services)</i>	93	234	312	330	352	332	324	437	437	2,849
Cohesion funds	724	1,826	2,435	2,574	2,743	2,588	2,525	3,408	3,408	22,232

Table 2: Payments profile – Poland (mil. euro, 2004 prices)

Poland (mil. euro, 2004 prices)	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Structural and cohesion funds	2,069	5,119	6,691	6,936	7,246	6,701	6,411	8,483	8,317	57,973
Structural funds	1,387	3,432	4,486	4,650	4,858	4,492	4,298	5,687	5,575	38,866
<i>Productive environment</i>	179	443	579	600	627	580	554	734	719	5,014
Manufacturing	111	274	358	372	388	359	343	454	445	3,105
Services	68	169	220	228	239	221	211	279	274	1,908
<i>Human resources</i>	393	971	1,270	1,316	1,375	1,271	1,216	1,609	1,578	10,999
<i>Infrastructure</i>	728	1,802	2,355	2,441	2,550	2,359	2,257	2,986	2,927	20,405
<i>Rest (services)</i>	87	216	283	293	306	283	271	358	351	2,449
Cohesion funds	682	1,687	2,205	2,286	2,388	2,209	2,113	2,796	2,741	19,108

Table 3: Payments profile – Poland (% of total payments)

Poland (% of total payments)	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Structural and cohesion funds	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Structural funds	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Productive environment	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Manufacturing	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Services	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Human resources	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Infrastructure	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Rest (services)	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0
Cohesion funds	3.6	8.8	11.5	12.0	12.5	11.6	11.1	14.6	14.3	100.0

Table 4: Macroeconomic effects in real terms (% change compared to BAU)

Macroeconomic effects in real terms (% change to the BAU)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GDP	0.25	0.81	1.50	2.23	2.99	3.72	4.42	5.28	6.14	6.41	6.63	6.81	6.99	7.15
Private consumption	0.50	1.25	1.75	2.08	2.48	2.78	3.14	3.87	4.36	3.81	4.06	4.26	4.44	4.60
Government consumption	0.35	1.04	1.77	2.46	3.17	3.81	4.43	5.29	6.07	6.08	6.21	6.34	6.47	6.61
Gross fixed investment	3.79	9.21	12.24	13.27	14.45	14.42	14.76	18.27	18.97	9.42	9.75	10.06	10.36	10.65
Exports	-0.73	-1.55	-1.53	-0.87	-0.19	0.81	1.69	1.81	2.82	6.31	6.50	6.69	6.87	7.05
Imports	2.48	5.79	7.27	7.39	7.66	7.24	7.15	9.04	9.17	3.45	3.74	4.01	4.26	4.50

Table 5: Labour market effects (% change compared to BAU)

Labour market effects	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
National employment	0.20	0.59	1.04	1.46	1.89	2.29	2.67	3.15	3.62	3.76	3.83	3.91	3.99	4.08
Number of unemployed	-0.88	-2.65	-4.62	-6.49	-8.41	-10.15	-11.83	-13.94	-15.99	-16.59	-16.90	-17.23	-17.59	-17.96
Active population	0.02	0.07	0.13	0.18	0.23	0.29	0.34	0.40	0.47	0.49	0.50	0.51	0.52	0.53
Unemployment rate (%)	15.95	15.66	15.34	15.03	14.71	14.42	14.15	13.80	13.46	13.36	13.31	13.26	13.20	13.14
Unemployment rate (% points difference with BAU)	-0.15	-0.44	-0.76	-1.07	-1.39	-1.68	-1.95	-2.30	-2.64	-2.74	-2.79	-2.84	-2.90	-2.96

Table 6: Effects on households (% change compared to BAU)

Effects on households	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Household real income	0.53	1.29	1.79	2.10	2.48	2.75	3.10	3.83	4.29	3.67	3.93	4.14	4.32	4.48
Household real consumption	0.50	1.24	1.75	2.08	2.47	2.77	3.14	3.87	4.35	3.80	4.04	4.25	4.43	4.60
Household real savings	0.86	1.96	2.39	2.40	2.52	2.47	2.58	3.33	3.54	2.04	2.36	2.62	2.83	3.00
Propensity to save (%)	7.02	7.05	7.04	7.02	7.00	6.98	6.97	6.97	6.95	6.89	6.90	6.90	6.90	6.90
Propensity to save (% points difference with BAU)	0.02	0.05	0.04	0.02	0.00	-0.02	-0.04	-0.03	-0.05	-0.11	-0.11	-0.10	-0.10	-0.10
Real average wage	0.12	0.36	0.63	0.90	1.18	1.44	1.69	2.02	2.35	2.45	2.50	2.56	2.62	2.68
Real average return to capital	0.84	1.65	1.47	0.73	0.11	-0.68	-1.26	-1.20	-1.79	-3.90	-3.72	-3.61	-3.54	-3.50

Table 7: Private consumption (% change compared to BAU)

Private consumption	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.75	1.59	1.79	1.71	1.87	1.96	2.28	3.24	3.61	2.37	3.29	3.95	4.44	4.81
Manufacturing	0.69	1.60	2.05	2.20	2.46	2.58	2.84	3.62	3.98	2.93	3.30	3.60	3.86	4.09
High-Tech Manufacturing	0.89	2.03	2.49	2.52	2.67	2.64	2.78	3.59	3.85	2.27	2.64	2.95	3.21	3.44
Services	0.30	0.90	1.59	2.23	2.87	3.44	3.96	4.67	5.34	5.36	5.35	5.37	5.40	5.46
Construction	-0.40	-0.79	-0.65	-0.17	0.32	0.97	1.54	1.74	2.42	4.35	4.45	4.55	4.66	4.77
Public administration	0.31	0.77	1.10	1.33	1.64	1.90	2.21	2.76	3.16	2.95	3.22	3.45	3.65	3.83
Private consumption - total	0.45	1.14	1.66	2.03	2.47	2.82	3.21	3.93	4.44	4.05	4.26	4.44	4.60	4.74

Table 8: Public consumption (% change compared to BAU)

Public consumption	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.96	2.05	2.29	2.18	2.40	2.53	2.98	4.26	4.76	3.17	4.42	5.33	6.00	6.51
Manufacturing	0.93	2.14	2.70	2.85	3.16	3.30	3.61	4.65	5.11	3.66	4.20	4.65	5.03	5.36
High-Tech Manufacturing	1.18	2.69	3.30	3.31	3.50	3.44	3.61	4.70	5.02	2.89	3.41	3.84	4.22	4.54
Services	0.34	1.10	2.01	2.89	3.78	4.56	5.30	6.23	7.14	7.27	7.26	7.29	7.34	7.41
Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public administration	0.36	0.96	1.47	1.91	2.41	2.86	3.35	4.10	4.72	4.59	4.89	5.15	5.39	5.60
Public consumption - total	0.35	1.04	1.77	2.46	3.17	3.81	4.43	5.29	6.07	6.08	6.21	6.34	6.47	6.61

Table 9: Domestic sales (% change compared to BAU)

Domestic sales	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.03	0.14	0.38	0.79	1.34	1.98	2.67	3.38	4.16	5.01	5.63	6.09	6.45	6.74
Manufacturing	0.36	1.00	1.62	2.20	2.84	3.43	4.05	4.91	5.67	5.64	5.94	6.20	6.42	6.63
High-Tech Manufacturing	1.53	3.81	5.25	5.98	6.80	7.18	7.71	9.48	10.23	6.96	7.29	7.59	7.85	8.10
Services	0.36	1.07	1.82	2.52	3.26	3.92	4.57	5.46	6.27	6.25	6.41	6.56	6.71	6.85
Construction	1.91	4.75	6.53	7.38	8.31	8.65	9.15	11.22	11.97	7.60	7.83	8.05	8.26	8.46
Public administration	0.36	0.95	1.47	1.90	2.40	2.85	3.34	4.09	4.70	4.57	4.87	5.13	5.37	5.58
Domestic sales - total	0.63	1.67	2.53	3.20	3.92	4.50	5.10	6.19	6.96	6.19	6.44	6.66	6.85	7.04

Table 10: Domestic production (% change compared to BAU)

Domestic production	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	-0.12	-0.26	-0.16	0.22	0.77	1.50	2.29	3.01	3.85	5.10	5.95	6.56	7.01	7.36
Manufacturing	-0.44	-0.82	-0.54	0.20	0.97	1.95	2.84	3.32	4.33	6.58	6.92	7.21	7.45	7.67
High-Tech Manufacturing	-0.41	-0.74	-0.41	0.39	1.23	2.27	3.24	3.81	4.93	7.23	7.64	8.01	8.34	8.64
Services	0.23	0.80	1.56	2.37	3.19	3.96	4.68	5.52	6.40	6.76	6.85	6.94	7.04	7.14
Construction	1.81	4.53	6.32	7.25	8.25	8.69	9.25	11.29	12.11	8.04	8.23	8.41	8.60	8.79
Public administration	0.36	0.96	1.47	1.89	2.39	2.83	3.32	4.07	4.68	4.54	4.85	5.11	5.35	5.56
Domestic production - total	0.14	0.56	1.23	1.99	2.79	3.59	4.35	5.18	6.10	6.71	6.94	7.14	7.32	7.50

Table 11: Employment (% change compared to BAU)

Employment	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	-0.53	-0.85	-0.31	0.61	1.37	2.22	2.83	2.89	3.63	5.75	5.23	4.89	4.69	4.59
Manufacturing	-0.71	-1.36	-1.07	-0.22	0.58	1.59	2.40	2.51	3.38	6.16	6.04	5.94	5.86	5.80
High-Tech Manufacturing	-0.73	-1.34	-0.92	0.12	1.06	2.21	3.12	3.27	4.29	7.32	7.10	6.96	6.87	6.84
Services	0.51	1.11	1.30	1.28	1.37	1.40	1.56	2.10	2.31	1.53	1.97	2.32	2.59	2.82
Construction	4.00	9.44	11.81	11.85	12.13	11.18	10.79	13.82	13.63	3.09	3.66	4.11	4.48	4.79
Public administration	0.46	1.15	1.63	1.94	2.31	2.58	2.89	3.53	3.93	3.38	3.57	3.72	3.86	3.98
Employment - total	0.20	0.59	1.04	1.46	1.89	2.29	2.67	3.15	3.62	3.76	3.83	3.91	3.99	4.08

Table 12: Investments by branch (% change compared to BAU)

Investments by branch	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	-1.52	-2.01	0.36	3.71	6.21	8.74	10.30	10.20	12.32	18.07	15.18	13.23	11.97	11.18
Manufacturing	-0.44	-0.10	1.81	4.34	6.62	8.88	10.66	11.81	13.88	16.80	15.97	15.29	14.77	14.39
High-Tech Manufacturing	-0.60	-0.36	1.73	4.59	7.10	9.61	11.55	12.65	14.96	18.59	17.53	16.73	16.16	15.76
Services	5.38	12.68	16.09	16.52	17.28	16.40	16.22	20.64	20.82	6.53	7.41	8.14	8.76	9.30
Construction	5.93	13.96	17.74	18.33	19.30	18.51	18.48	23.50	23.92	8.45	9.50	10.37	11.10	11.73
Public administration	0.50	1.68	3.16	4.63	6.12	7.47	8.73	10.25	11.78	12.28	12.28	12.30	12.34	12.42
Total investments - total	3.83	9.31	12.37	13.41	14.59	14.56	14.90	18.44	19.14	9.46	9.80	10.11	10.41	10.70

Table 13: Imports (% change compared to BAU)

Imports	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	1.50	3.88	5.53	6.22	6.57	6.31	5.93	6.45	6.48	3.57	2.01	1.09	0.58	0.34
Manufacturing	2.10	4.86	6.03	6.04	6.18	5.75	5.60	7.06	7.10	2.47	2.63	2.79	2.95	3.12
High-Tech Manufacturing	2.63	6.33	8.29	8.86	9.56	9.46	9.63	11.96	12.40	6.11	6.36	6.59	6.81	7.02
Services	2.74	5.83	6.19	4.95	4.13	2.78	2.08	3.57	3.01	-3.07	-1.93	-1.00	-0.24	0.39
Construction	5.62	13.14	15.94	15.26	15.01	13.12	12.17	16.08	15.41	1.02	1.96	2.73	3.37	3.92
Public administration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Imports - total	2.48	5.79	7.27	7.39	7.66	7.24	7.15	9.04	9.17	3.45	3.74	4.01	4.26	4.50

Table 14: Exports (% change compared to BAU)

Exports	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	-0.48	-1.18	-1.45	-1.24	-0.82	-0.08	0.74	1.19	2.04	4.39	5.55	6.38	6.99	7.45
Manufacturing	-0.76	-1.66	-1.73	-1.16	-0.56	0.39	1.23	1.28	2.24	5.83	6.10	6.34	6.56	6.77
High-Tech Manufacturing	-0.69	-1.52	-1.58	-1.05	-0.47	0.43	1.24	1.34	2.28	5.64	5.96	6.27	6.55	6.83
Services	-0.72	-1.36	-0.93	0.17	1.23	2.56	3.65	3.93	5.21	8.78	8.48	8.28	8.15	8.09
Construction	-0.69	-1.34	-1.00	0.00	0.97	2.23	3.28	3.56	4.81	8.29	8.16	8.11	8.11	8.16
Public administration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exports - total	-0.73	-1.55	-1.53	-0.87	-0.19	0.81	1.69	1.81	2.82	6.31	6.50	6.69	6.87	7.05

Table 15: Consumer prices (% change compared to BAU)

Consumer prices	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	-0.58	-1.04	-0.72	-0.09	0.32	0.77	0.97	0.62	0.88	2.37	1.58	1.05	0.68	0.44
Manufacturing	-0.52	-1.04	-1.00	-0.62	-0.32	0.09	0.37	0.22	0.49	1.76	1.57	1.42	1.30	1.20
High-Tech Manufacturing	-0.73	-1.50	-1.46	-0.96	-0.55	0.03	0.43	0.24	0.63	2.48	2.29	2.13	2.00	1.89
Services	-0.09	-0.29	-0.50	-0.65	-0.76	-0.81	-0.83	-0.89	-0.93	-0.80	-0.59	-0.44	-0.33	-0.24
Construction	0.68	1.58	1.97	1.98	2.02	1.85	1.77	2.25	2.17	0.25	0.34	0.41	0.45	0.48
Public administration	-0.11	-0.15	0.03	0.31	0.57	0.83	1.04	1.13	1.36	1.75	1.65	1.58	1.52	1.47
Consumer price index	-0.26	-0.56	-0.58	-0.44	-0.33	-0.15	-0.03	-0.11	0.01	0.59	0.56	0.55	0.53	0.52

Table 16: Price index of domestic production (% change compared to BAU)

Price index of domestic production	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	-0.65	-1.11	-0.65	0.15	0.67	1.21	1.42	1.00	1.31	3.01	1.96	1.24	0.76	0.43
Manufacturing	-0.49	-0.95	-0.83	-0.39	-0.05	0.38	0.64	0.47	0.74	2.03	1.71	1.46	1.26	1.11
High-Tech Manufacturing	-0.54	-1.07	-0.94	-0.45	-0.07	0.41	0.72	0.55	0.86	2.31	1.99	1.73	1.53	1.37
Services	-0.07	-0.25	-0.45	-0.61	-0.73	-0.79	-0.82	-0.87	-0.92	-0.83	-0.63	-0.48	-0.37	-0.29
Construction	0.65	1.51	1.87	1.86	1.88	1.70	1.61	2.06	1.97	0.14	0.24	0.30	0.34	0.37
Public administration	-0.11	-0.15	0.03	0.31	0.57	0.83	1.04	1.13	1.36	1.75	1.65	1.58	1.52	1.47
Price index of total domestic production	-0.17	-0.36	-0.36	-0.24	-0.15	-0.02	0.06	0.01	0.09	0.50	0.45	0.41	0.38	0.36

Poland

Scenario: Worst case payment scenario (n+3/n+2)

Table 17: Payments profile – Poland (mil. euro, current prices)

Poland (mil. euro, current prices)	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Structural and cohesion funds	0	0	0	8,150	8,686	9,237	19,514	10,631	11,235	67,454
Structural funds	0	0	0	6,147	6,290	6,433	12,861	6,664	6,827	45,221
<i>Productive environment</i>	0	0	0	793	811	830	1,659	860	881	5,834
Manufacturing	0	0	0	491	503	514	1,028	532	545	3,613
Services	0	0	0	302	309	316	631	327	335	2,220
<i>Human resources</i>	0	0	0	1,739	1,780	1,821	3,640	1,886	1,932	12,798
<i>Infrastructure</i>	0	0	0	3,227	3,302	3,378	6,752	3,499	3,584	23,741
<i>Rest (services)</i>	0	0	0	387	396	405	810	420	430	2,849
Cohesion funds	0	0	0	2,004	2,397	2,803	6,653	3,967	4,409	22,232

Table 18: Payments profile – Poland (mil. euro, 2004 prices)

Poland (mil. euro, 2004 prices)	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Structural and cohesion funds	0	0	0	7,237	7,562	7,883	16,328	8,721	9,036	56,768
Structural funds	0	0	0	5,458	5,476	5,491	10,762	5,467	5,490	38,143
<i>Productive environment</i>	0	0	0	704	706	708	1,388	705	708	4,920
Manufacturing	0	0	0	436	438	439	860	437	439	3,048
Services	0	0	0	268	269	270	528	268	270	1,873
<i>Human resources</i>	0	0	0	1,545	1,550	1,554	3,046	1,547	1,554	10,795
<i>Infrastructure</i>	0	0	0	2,865	2,875	2,883	5,650	2,870	2,882	20,025
<i>Rest (services)</i>	0	0	0	344	345	346	678	344	346	2,403
Cohesion funds	0	0	0	1,779	2,086	2,393	5,567	3,255	3,546	18,625

Table 19: Payments profile – Poland (% of total payments)

Poland (% of total payments)	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Structural and cohesion funds	0.0	0.0	0.0	12.7	13.3	13.9	28.8	15.4	15.9	100.0
Structural funds	0.0	0.0	0.0	14.3	14.4	14.4	28.2	14.3	14.4	100.0
Productive environment	0.0	0.0	0.0	14.3	14.4	14.4	28.2	14.3	14.4	100.0
Manufacturing	0.0	0.0	0.0	14.3	14.4	14.4	28.2	14.3	14.4	100.0
Services	0.0	0.0	0.0	14.3	14.4	14.4	28.2	14.3	14.4	100.0
Human resources	0.0	0.0	0.0	14.3	14.4	14.4	28.2	14.3	14.4	100.0
Infrastructure	0.0	0.0	0.0	14.3	14.4	14.4	28.2	14.3	14.4	100.0
Rest (services)	0.0	0.0	0.0	14.3	14.4	14.4	28.2	14.3	14.4	100.0
Cohesion funds	0.0	0.0	0.0	9.6	11.2	12.8	29.9	17.5	19.0	100.0

Table 20: Macroeconomic effects in real terms (% change compared to BAU)

Macroeconomic effects in real terms (% change to the BAU)	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
GDP	0.00	0.00	0.00	0.69	1.41	2.17	3.58	4.54	5.47	5.75	5.97	6.16	6.33	6.49
Private consumption	0.00	0.00	0.00	1.40	1.70	2.07	3.84	3.37	3.95	3.36	3.61	3.82	4.00	4.16
Government consumption	0.00	0.00	0.00	0.99	1.69	2.42	4.11	4.70	5.54	5.54	5.66	5.78	5.90	6.02
Gross fixed investment	0.00	0.00	0.00	11.41	12.55	13.72	25.86	17.51	18.85	8.47	8.80	9.10	9.38	9.66
Exports	0.00	0.00	0.00	-2.45	-1.80	-1.11	-2.88	1.07	1.95	5.71	5.89	6.07	6.24	6.41
Imports	0.00	0.00	0.00	7.22	7.38	7.63	14.89	8.83	9.33	3.07	3.35	3.61	3.85	4.08

Table 21: Labour market effects (% change compared to BAU)

Labour market effects	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
National employment	0.00	0.00	0.00	0.52	0.97	1.43	2.36	2.82	3.31	3.44	3.51	3.58	3.65	3.73
Number of unemployed	0.00	0.00	0.00	-2.31	-4.33	-6.36	-10.45	-12.48	-14.64	-15.21	-15.48	-15.78	-16.11	-16.45
Active population	0.00	0.00	0.00	0.06	0.12	0.18	0.30	0.36	0.42	0.44	0.45	0.46	0.47	0.48
Unemployment rate (%)	16.10	16.10	16.10	15.72	15.38	15.05	14.38	14.04	13.69	13.59	13.55	13.50	13.44	13.39
Unemployment rate (% points difference with BAU)	0.00	0.00	0.00	-0.38	-0.72	-1.05	-1.72	-2.06	-2.41	-2.51	-2.55	-2.60	-2.66	-2.71

Table 22: Effects on households (% change compared to BAU)

Effects on households	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Household real income	0.00	0.00	0.00	1.46	1.74	2.09	3.89	3.33	3.90	3.22	3.49	3.71	3.89	4.06
Household real consumption	0.00	0.00	0.00	1.39	1.69	2.07	3.82	3.36	3.95	3.34	3.60	3.81	4.00	4.16
Household real savings	0.00	0.00	0.00	2.39	2.35	2.42	4.85	2.94	3.32	1.68	2.03	2.31	2.53	2.71
Propensity to save (%)	7.00	7.00	7.00	7.07	7.04	7.02	7.07	6.97	6.96	6.90	6.90	6.91	6.91	6.91
Propensity to save (% points difference with BAU)	0.00	0.00	0.00	0.06	0.04	0.02	0.06	-0.03	-0.04	-0.10	-0.10	-0.09	-0.09	-0.09
Real average wage	0.00	0.00	0.00	0.31	0.59	0.88	1.48	1.80	2.14	2.23	2.27	2.32	2.37	2.43
Real average return to capital	0.00	0.00	0.00	2.31	1.51	0.82	2.31	-0.93	-1.40	-3.69	-3.48	-3.34	-3.25	-3.20

Table 23: Private consumption (% change compared to BAU)

Private consumption	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	2.14	1.75	1.70	3.91	1.95	2.68	1.45	2.51	3.27	3.82	4.23
Manufacturing	0.00	0.00	0.00	1.92	2.02	2.22	4.32	3.07	3.57	2.43	2.82	3.14	3.41	3.64
High-Tech Manufacturing	0.00	0.00	0.00	2.49	2.47	2.56	5.11	3.15	3.56	1.84	2.23	2.55	2.82	3.05
Services	0.00	0.00	0.00	0.82	1.51	2.20	3.68	4.30	5.01	5.01	4.98	4.97	4.99	5.03
Construction	0.00	0.00	0.00	-1.30	-0.82	-0.31	-0.93	1.26	1.87	3.96	4.05	4.15	4.24	4.34
Public administration	0.00	0.00	0.00	0.86	1.05	1.31	2.44	2.25	2.73	2.50	2.79	3.03	3.23	3.41
Private consumption - total	0.00	0.00	0.00	1.24	1.59	2.02	3.67	3.43	4.04	3.61	3.83	4.01	4.16	4.30

Table 24: Public consumption (% change compared to BAU)

Public consumption	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	2.78	2.25	2.17	5.04	2.48	3.47	1.90	3.35	4.39	5.15	5.71
Manufacturing	0.00	0.00	0.00	2.61	2.67	2.88	5.69	3.86	4.52	2.94	3.53	4.01	4.41	4.75
High-Tech Manufacturing	0.00	0.00	0.00	3.33	3.27	3.37	6.76	4.07	4.60	2.28	2.84	3.29	3.68	4.01
Services	0.00	0.00	0.00	0.96	1.91	2.85	4.71	5.71	6.66	6.78	6.74	6.74	6.76	6.81
Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public administration	0.00	0.00	0.00	1.01	1.40	1.87	3.35	3.43	4.13	3.98	4.30	4.57	4.81	5.02
Public consumption - total	0.00	0.00	0.00	0.99	1.69	2.42	4.11	4.70	5.54	5.54	5.66	5.78	5.90	6.02

Table 25: Domestic sales (% change compared to BAU)

Domestic sales	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	0.04	0.26	0.69	1.28	2.16	3.10	4.09	4.80	5.32	5.72	6.02
Manufacturing	0.00	0.00	0.00	1.00	1.54	2.16	3.77	4.14	4.99	4.95	5.27	5.54	5.77	5.98
High-Tech Manufacturing	0.00	0.00	0.00	4.56	5.30	6.10	11.30	8.69	9.72	6.16	6.50	6.80	7.07	7.31
Services	0.00	0.00	0.00	1.02	1.73	2.48	4.22	4.82	5.70	5.66	5.82	5.96	6.10	6.23
Construction	0.00	0.00	0.00	5.72	6.62	7.56	14.02	10.54	11.61	6.86	7.08	7.29	7.49	7.69
Public administration	0.00	0.00	0.00	1.01	1.40	1.87	3.34	3.41	4.11	3.96	4.28	4.55	4.79	5.00
Domestic sales - total	0.00	0.00	0.00	1.82	2.48	3.20	5.68	5.46	6.37	5.52	5.78	6.00	6.20	6.38

Table 26: Domestic production (% change compared to BAU)

Domestic production	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	-0.38	-0.29	0.08	0.29	1.42	2.50	3.97	4.96	5.66	6.17	6.56
Manufacturing	0.00	0.00	0.00	-1.37	-0.70	0.04	-0.50	2.29	3.30	5.73	6.11	6.41	6.67	6.90
High-Tech Manufacturing	0.00	0.00	0.00	-1.31	-0.58	0.22	-0.27	2.66	3.75	6.23	6.67	7.05	7.39	7.70
Services	0.00	0.00	0.00	0.63	1.46	2.32	3.76	4.91	5.83	6.20	6.28	6.36	6.44	6.53
Construction	0.00	0.00	0.00	5.40	6.40	7.42	13.62	10.62	11.74	7.31	7.48	7.65	7.83	8.00
Public administration	0.00	0.00	0.00	1.01	1.40	1.86	3.33	3.39	4.09	3.94	4.26	4.53	4.77	4.98
Domestic production - total	0.00	0.00	0.00	0.37	1.12	1.92	3.08	4.37	5.34	6.00	6.24	6.44	6.63	6.79

Table 27: Employment (% change compared to BAU)

Employment	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	-1.62	-0.44	0.51	-0.24	3.08	3.56	5.76	5.12	4.71	4.45	4.30
Manufacturing	0.00	0.00	0.00	-2.18	-1.29	-0.41	-1.71	2.05	2.85	5.88	5.74	5.62	5.52	5.44
High-Tech Manufacturing	0.00	0.00	0.00	-2.29	-1.14	-0.09	-1.47	2.88	3.75	7.01	6.74	6.55	6.43	6.36
Services	0.00	0.00	0.00	1.40	1.28	1.29	2.67	1.54	1.89	1.05	1.54	1.93	2.23	2.48
Construction	0.00	0.00	0.00	12.21	12.24	12.40	24.76	13.37	13.91	2.46	3.07	3.56	3.96	4.28
Public administration	0.00	0.00	0.00	1.28	1.59	1.94	3.54	3.11	3.61	3.01	3.21	3.38	3.51	3.63
Employment - total	0.00	0.00	0.00	0.52	0.97	1.43	2.36	2.82	3.31	3.44	3.51	3.58	3.65	3.73

Table 28: Investments by branch (% change compared to BAU)

Investments by branch	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	-4.69	0.05	3.54	1.84	12.60	13.50	19.09	15.69	13.33	11.77	10.77
Manufacturing	0.00	0.00	0.00	-1.04	1.70	4.20	4.98	11.23	13.11	16.50	15.56	14.77	14.15	13.67
High-Tech Manufacturing	0.00	0.00	0.00	-1.66	1.57	4.40	4.69	12.33	14.28	18.31	17.07	16.13	15.42	14.92
Services	0.00	0.00	0.00	16.17	16.57	17.19	33.64	19.61	20.81	5.27	6.22	7.00	7.66	8.22
Construction	0.00	0.00	0.00	17.68	18.24	19.05	36.66	22.27	23.76	7.03	8.14	9.05	9.81	10.46
Public administration	0.00	0.00	0.00	1.38	2.96	4.55	7.64	9.34	10.97	11.49	11.45	11.44	11.45	11.49
Total investments - total	0.00	0.00	0.00	11.55	12.68	13.86	26.14	17.67	19.02	8.50	8.84	9.14	9.43	9.71

Table 29: Imports (% change compared to BAU)

Imports	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	3.99	5.55	6.45	10.58	8.96	8.39	4.77	2.77	1.56	0.87	0.50
Manufacturing	0.00	0.00	0.00	5.98	6.07	6.22	12.12	7.10	7.42	2.33	2.46	2.59	2.73	2.88
High-Tech Manufacturing	0.00	0.00	0.00	7.80	8.44	9.14	17.39	11.53	12.40	5.54	5.79	6.01	6.21	6.41
Services	0.00	0.00	0.00	7.86	6.32	5.20	11.79	2.89	2.82	-3.77	-2.51	-1.50	-0.68	-0.01
Construction	0.00	0.00	0.00	17.27	16.48	16.01	33.57	15.63	15.94	0.27	1.28	2.10	2.78	3.35
Public administration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Imports - total	0.00	0.00	0.00	7.22	7.38	7.63	14.89	8.83	9.33	3.07	3.35	3.61	3.85	4.08

Table 30: Exports (% change compared to BAU)

Exports	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	-1.54	-1.69	-1.51	-2.57	-0.67	0.44	3.11	4.46	5.43	6.12	6.63
Manufacturing	0.00	0.00	0.00	-2.56	-2.03	-1.43	-3.41	0.49	1.32	5.18	5.46	5.70	5.92	6.13
High-Tech Manufacturing	0.00	0.00	0.00	-2.35	-1.86	-1.29	-3.09	0.51	1.33	4.93	5.26	5.56	5.84	6.11
Services	0.00	0.00	0.00	-2.36	-1.15	0.03	-1.22	3.60	4.69	8.52	8.14	7.88	7.69	7.58
Construction	0.00	0.00	0.00	-2.32	-1.24	-0.16	-1.51	3.09	4.16	7.89	7.70	7.59	7.55	7.56
Public administration	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exports - total	0.00	0.00	0.00	-2.45	-1.80	-1.11	-2.88	1.07	1.95	5.71	5.89	6.07	6.24	6.41

Table 31: Consumer prices (% change compared to BAU)

Consumer prices	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	-1.69	-0.76	-0.12	-1.33	1.40	1.33	2.85	1.90	1.26	0.83	0.53
Manufacturing	0.00	0.00	0.00	-1.46	-1.04	-0.68	-1.76	0.19	0.38	1.78	1.57	1.40	1.26	1.16
High-Tech Manufacturing	0.00	0.00	0.00	-2.05	-1.52	-1.05	-2.56	0.10	0.40	2.43	2.21	2.04	1.90	1.79
Services	0.00	0.00	0.00	-0.27	-0.50	-0.66	-1.08	-1.11	-1.12	-0.96	-0.72	-0.54	-0.40	-0.30
Construction	0.00	0.00	0.00	2.09	2.08	2.09	3.98	2.16	2.22	0.14	0.25	0.33	0.38	0.42
Public administration	0.00	0.00	0.00	-0.32	0.00	0.29	0.22	1.07	1.28	1.70	1.60	1.52	1.45	1.40
Consumer price index	0.00	0.00	0.00	-0.74	-0.60	-0.47	-1.10	-0.19	-0.11	0.53	0.51	0.49	0.48	0.47

Table 32: Price index of domestic production (% change compared to BAU)

Price index of domestic production	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Agriculture	0.00	0.00	0.00	-1.91	-0.69	0.12	-1.18	2.09	1.98	3.69	2.41	1.56	0.98	0.58
Manufacturing	0.00	0.00	0.00	-1.42	-0.89	-0.46	-1.47	0.62	0.78	2.18	1.81	1.52	1.30	1.13
High-Tech Manufacturing	0.00	0.00	0.00	-1.58	-1.00	-0.53	-1.67	0.66	0.87	2.44	2.08	1.79	1.56	1.38
Services	0.00	0.00	0.00	-0.22	-0.45	-0.62	-1.00	-1.08	-1.10	-0.97	-0.74	-0.57	-0.44	-0.34
Construction	0.00	0.00	0.00	2.00	1.97	1.96	3.77	1.98	2.02	0.04	0.15	0.23	0.28	0.32
Public administration	0.00	0.00	0.00	-0.32	0.00	0.29	0.22	1.07	1.28	1.70	1.60	1.52	1.45	1.40
Price index of total domestic production	0.00	0.00	0.00	-0.49	-0.37	-0.26	-0.66	-0.01	0.04	0.49	0.44	0.39	0.36	0.34