



# Impact of investments in special economic zones upon development of poviats in Poland

*Adam A. Ambroziak, Ph.D.*

associate professor, SGH

# Impact of investments in special economic zones upon development of poviats in Poland

- **Methodological assumptions**
- Outcome of the research
- Conclusions

# SEZ impact mechanism

## INPUTS

- Establishing SEZs and subzones of SEZs
- Issuing of permits for economic activities in SEZ
- Determination of sub-zones in poviat

## ACTIVITIES

- Establishing enterprises in SEZs
- Making investment in SEZs
- Job Creation in SEZs

## OUTPUTS

- Increase in investment in SEZs
- Increase in number of workers in SEZs

## OUTPUTS

- Establishing enterprises in non SEZs areas
- Increase in investment in non SEZs areas
- Increase in number of workers in non SEZs areas

## OUTCOMES

- Increase in gross value of fix assets in enterprises
- Increase in number of economic entities
- Increase in number of workers
- Decrease in unemployment rate

## FINAL OUTCOMES

Improvement of regional development

# Counterfactual approach

▶ the experimental group

▶ the control group

**Experimental group of  
poviats**

**Control group of  
poviats**

# Counterfactual approach

▶ the experimental group

▶ the control group

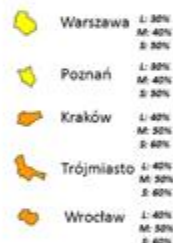
should:

- a) identically respond to intervention,
- b) be identically influenced by other external factors and interventions,



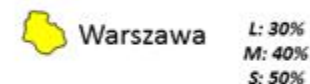
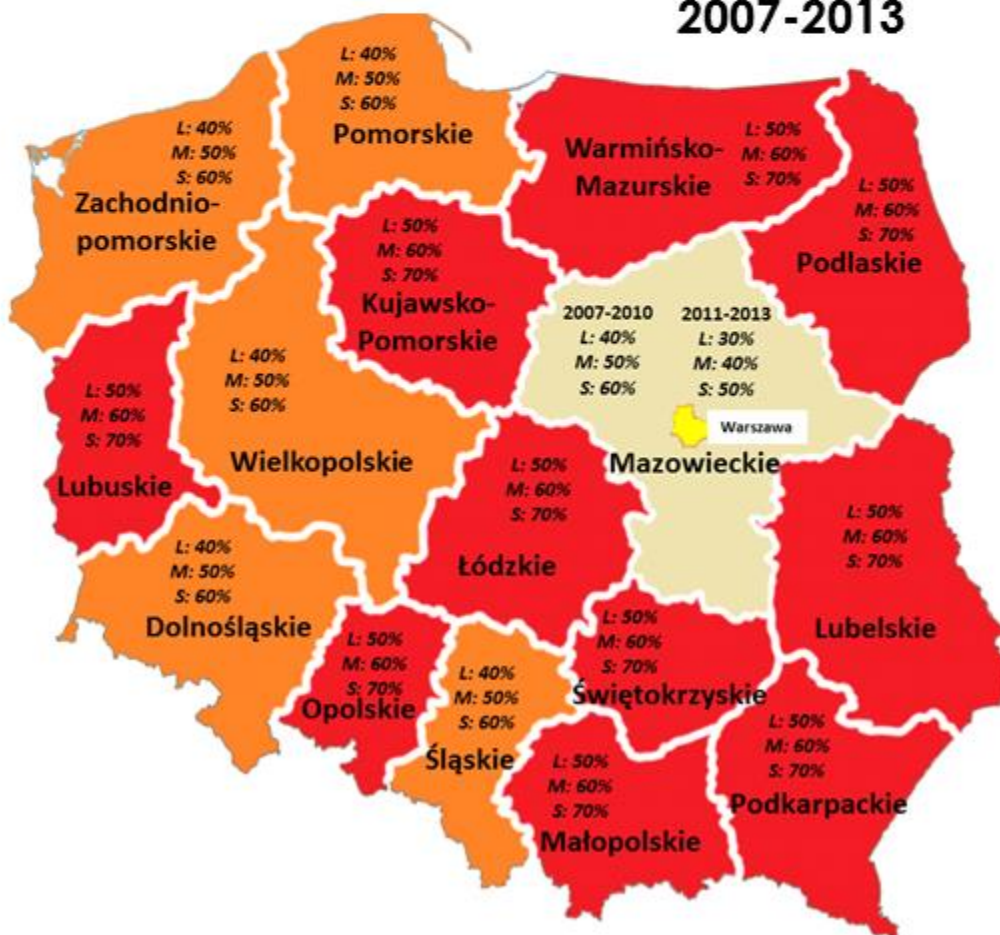
# Regional state aid map

2000-2006



NUTS 2 regions whose GDP per capita is below or equal to 45 % of the EU-average

2007-2013



2007-2010	2011-2013
L: 40%	L: 30%
M: 50%	M: 40%
S: 60%	S: 50%

- NUTS 2 regions whose GDP per capita is below or equal to 45 % of the EU-27 average
- NUTS 2 regions whose GDP per capita is between or equal to 45 % and 60 % of the EU-27 average
- NUTS 2 regions whose GDP per capita is between or equal to 60 % and 75 % of the EU-27 average

**Voivodeships NUTS 2****Experimental group of poviats****<=45% (cat. I)****45-60% (cat. II)****60-75% (cat. III)****Control group of poviats****<=45% (cat. I)****45-60% (cat. II)****60-75% (cat. III)**



# Counterfactual approach

▶ the experimental group

▶ the control group

should:

- a) identically respond to intervention,
- b) be identically influenced by other external factors and interventions,
- c) identical when it comes to their characteristics.



	Voivodeships NUTS 2	Poviats (Subregions) NUTS 4
Experimental group of poviats	<=45% (cat. I)	<=45% (cat. I.1)
		45-60% (cat. I.2)
		60-75% (cat. I.3)
	45-60% (cat. II)	<=45% (cat. II.1)
		45-60% (cat. II.2)
		60-75% (cat. II.3)
	60-75% (cat. III)	<=45% (cat. III.1)
		45-60% (cat. III.2)
		60-75% (cat. III.3)
Control group of poviats	<=45% (cat. I)	<=45% (cat. I.1)
		45-60% (cat. I.2)
		60-75% (cat. I.3)
	45-60% (cat. II)	<=45% (cat. II.1)
		45-60% (cat. II.2)
		60-75% (cat. II.3)
	60-75% (cat. III)	<=45% (cat. III.1)
		45-60% (cat. III.2)
		60-75% (cat. III.3)

# Counterfactual approach

▶ the experimental group

▶ the control group

should:

- a) identically respond to intervention,
- b) be identically influenced by other external factors and interventions,
- c) identical when it comes to their characteristics.

## Differences in

a. changes in the experimental group observed in comparison to

b. changes in the control group

were interpreted as the impact of SEZs businesses (investments)  
on the development of poviats.

# The experimental group

**3 subgroups within the experimental group of poviats**, where investments in SEZs :

- ▶ were **not higher than 5%** of the total gross value of fixed assets;
- ▶ exceeded **5% but were not higher than 20%** of the total gross value of fixed assets;
- ▶ **exceed 20%** of the total gross value of fixed assets.

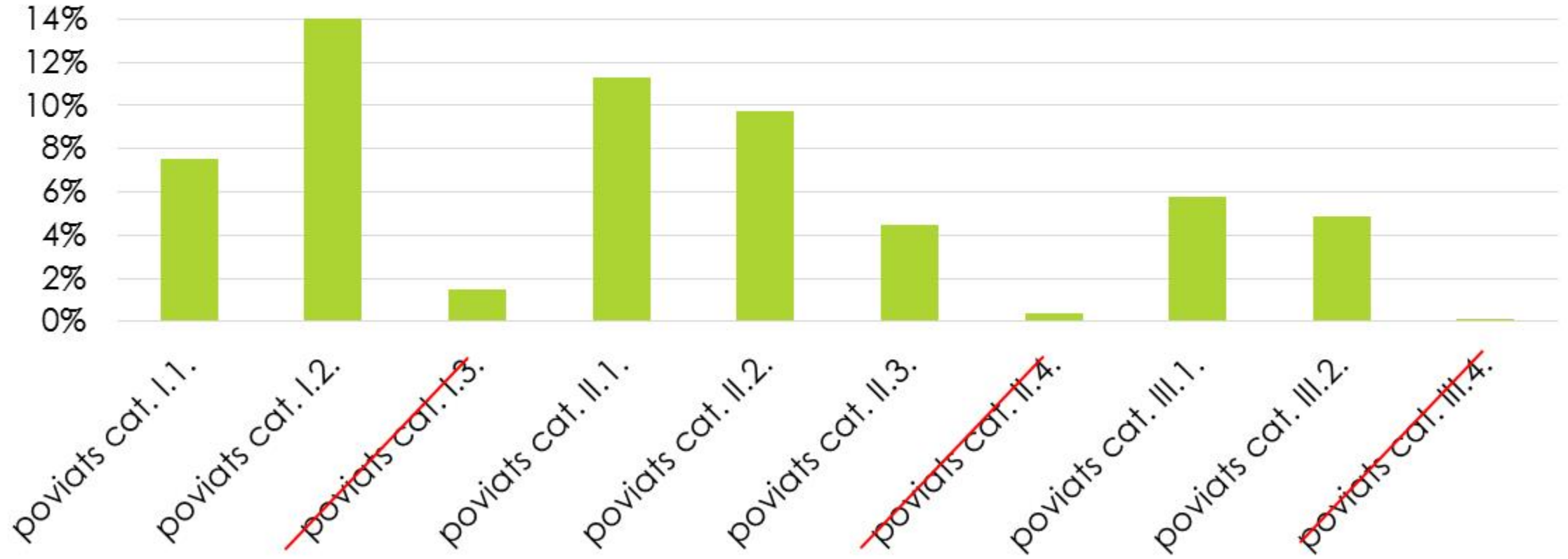
	Voivodeships NUTS 2	Poviats (Subregions) NUTS 4	Invest. Intensity to GVFA	
Experimental group of poviats	<=45% (cat. I)	<=45% (cat. I.1)	<5%	
			5-20%	
			20%>	
	45-60% (cat. II)	45-60% (cat. I.2)	<5%	
			5-20%	
			20%>	
	60-75% (cat. III)	60-75% (cat. I.3)	<5%	
			5-20%	
			20%>	
	45-60% (cat. II)	<=45% (cat. II.1)	<=45% (cat. II.1)	<5%
				5-20%
				20%>
45-60% (cat. II.2)		45-60% (cat. II.2)	<5%	
			5-20%	
			20%>	
60-75% (cat. II.3)	60-75% (cat. II.3)	<5%		
		5-20%		
		20%>		
60-75% (cat. III)	<=45% (cat. III.1)	<=45% (cat. III.1)	<5%	
			5-20%	
			20%>	
	45-60% (cat. III.2)	45-60% (cat. III.2)	<5%	
			5-20%	
			20%>	
60-75% (cat. III.3)	60-75% (cat. III.3)	<5%		
		5-20%		
		20%>		
Control group of poviats	<=45% (cat. I)	<=45% (cat. I.1)		
		45-60% (cat. I.2)		
		60-75% (cat. I.3)		
	45-60% (cat. II)	<=45% (cat. II.1)		
		45-60% (cat. II.2)		
		60-75% (cat. II.3)		
	60-75% (cat. III)	<=45% (cat. III.1)		
		45-60% (cat. III.2)		
		60-75% (cat. III.3)		



# Impact of investments in special economic zones upon development of poviats in Poland

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# Share of investments in SEZs in the total GVFA in selected poviats categories

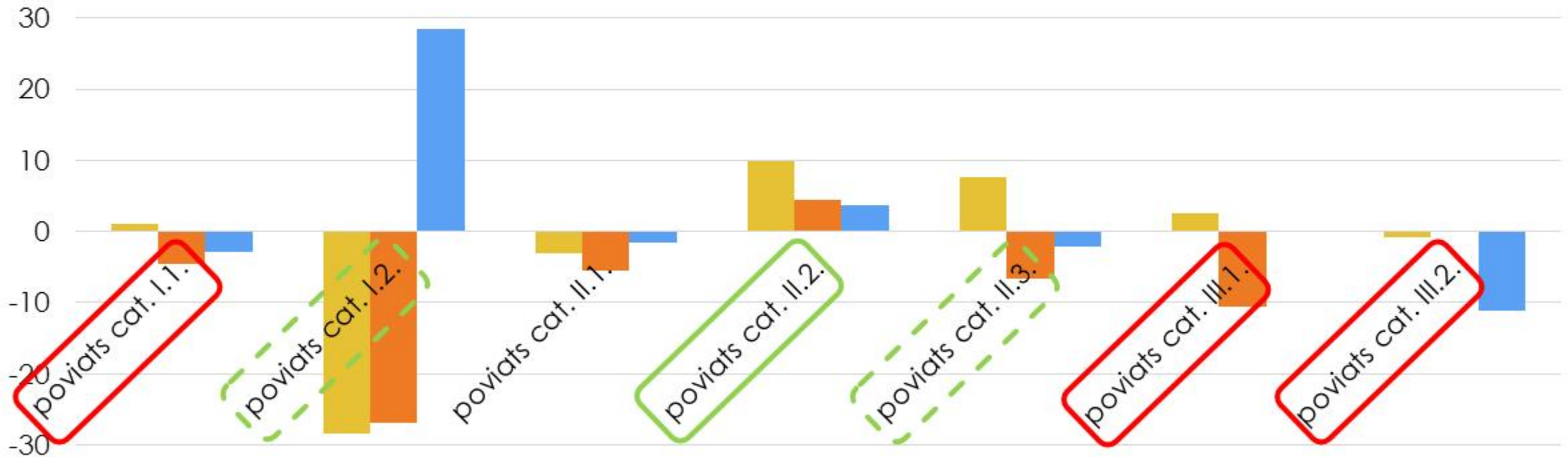


# Change in **GVFA per company** in poviats with SEZs by categories compared to poviats without SEZs in 2005-2012 (in p.p.).



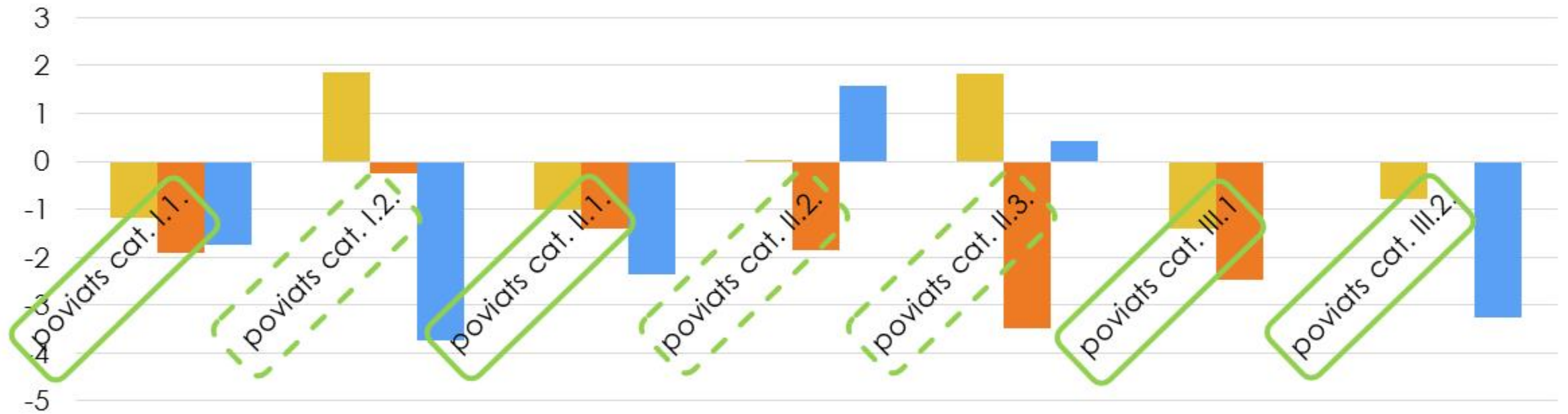


# Change in the number of economic operators in poviats with SEZs by categories compared to poviats without SEZs in the period 2005-2013 (in p.p.).



- Poviats whose the share of SEZs investments in gross value of fixed assets is below 5%
- Poviats whose the share of SEZs investments in gross value of fixed assets ranging between 5 and 20%
- Poviats whose the share of SEZs investments in gross value of fixed assets above 20%

# Unemployment rate change in poviats with SEZs by categories in relation to poviats without SEZs in the period 2005-2013 (in p.p.).



- Poviats whose the share of SEZs investments in gross value of fixed assets is below 5%
- Poviats whose the share of SEZs investments in gross value of fixed assets ranging between 5 and 20%
- Poviats whose the share of SEZs investments in gross value of fixed assets above 20%



# SEZs investments impact upon development of poviats

Voivodeships	Poviats	Categories	Investment intensity in SEZ	Gross value of fixed assets per company	Number of companies	Unemployment rate
GDP <i>per capita</i> below 45% EU average	GDP <i>per capita</i> below 45% EU average	I.1	7.5%	-++	+--	+++
	GDP <i>per capita</i> between 45-60% EU average	I.2	14.5%	+++	--+	-++
GDP <i>per capita</i> between 45-60% EU average	GDP <i>per capita</i> below 45% EU average	II.1	11.3%	+++	---	+++
	GDP <i>per capita</i> between 45-60% EU average	II.2	9.8%	-+-	+++	++-
	GDP <i>per capita</i> between 60-75% EU average	II.3	4.5%	---	+--	-+-
GDP <i>per capita</i> between 60-75% EU average	GDP <i>per capita</i> below 45% EU average	III.1	5.7%	-+0	+ -0	++0
	GDP <i>per capita</i> between 45-60% EU average	III.2	4.9%	-0+	-0-	+0+

Notes: Subsequent + or – means positive or negative impact in poviats whose the share of SEZs in gross value of fixed assets was respectively: below 5%, between 5-20% or above 20%.

Very positive outcome	Negative outcome	Positive and negative outcome
Positive outcome	Very negative outcome	