

Promoting Growth in all Regions

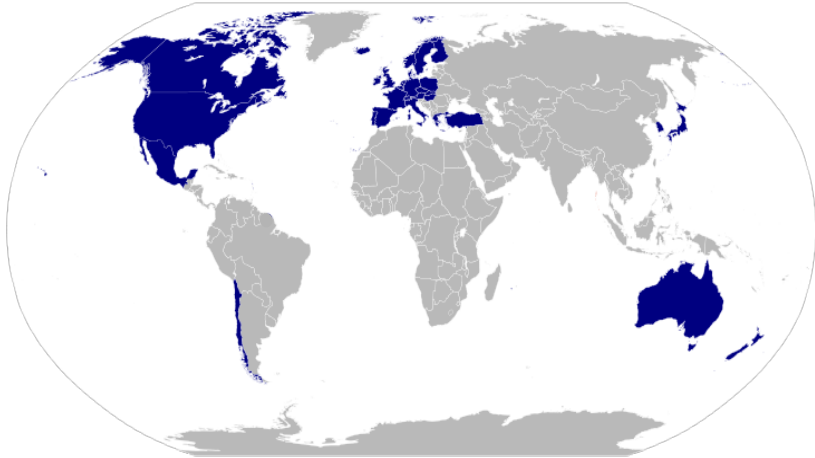
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Directorate for Public Governance and Territorial Development OECD

4th September 2012, Wellington

Outline

1. Trends in regional growth
2. Factors of regional growth
3. Policy lessons

OECD Territorial Reviews: a series of case studies of regional policy



Among 34 member countries:

- ❖ 18 **National** Reviews (+1 ongoing)
- ❖ 21 **Metropolitan** Reviews (+1 ongoing)
- ❖ 2 National Urban Policy Review (+1 ongoing)
- ❖ 13 **Rural** Reviews (+1 ongoing)
- ❖ 4 **Regional** Reviews (+2 ongoing)
- ❖ 5 Regional **Innovation** Reviews

Recent National Territorial Reviews (+2 ongoing) :



Thematic projects

❖ Understanding drivers of Regional Competitiveness:

(1) Empirical evidence

(2) Identifying driving factors:

- Theory
- Econometric modelling



• Policy implications:



3) Implementation
Governance

OECD Regional Data-Base (RDB)

- ❖ The RDB includes regional statistics on 5 major topics:
 - Demographic
 - Regional accounts
 - Labour
 - Social and environmental indicators
 - Innovation

- ❖ To facilitate comparability, regions are
 - Classified in 2 Territorial Levels (TLs):
 - TL2 Territorial Level 2 (337 regions)
 - TL3 Territorial Level 3 (1708 regions)
 - New regions: China, Brazil, South-Africa, Chile etc..
 - Classified by regional type: (PU, I, PR)

- ❖ Database can be directly accessed from the OECD
 - Statistical portal: <http://stats.oecd.org>
 - OECD eXplorer: <http://stats.oecd.org/OECDregionalstatistics>
 - OECD MDB: www.oecd.org/gov/regional/statisticsindicators

Promoting Growth in All Regions

- “How Regions Grow” (OECD 2009)
- “Regions Matter” (OECD 2009)
- “Regional Outlook” (OECD 2011)
- “Promoting Growth in all Regions” (OECD 2012)

Is broader based growth economically viable?

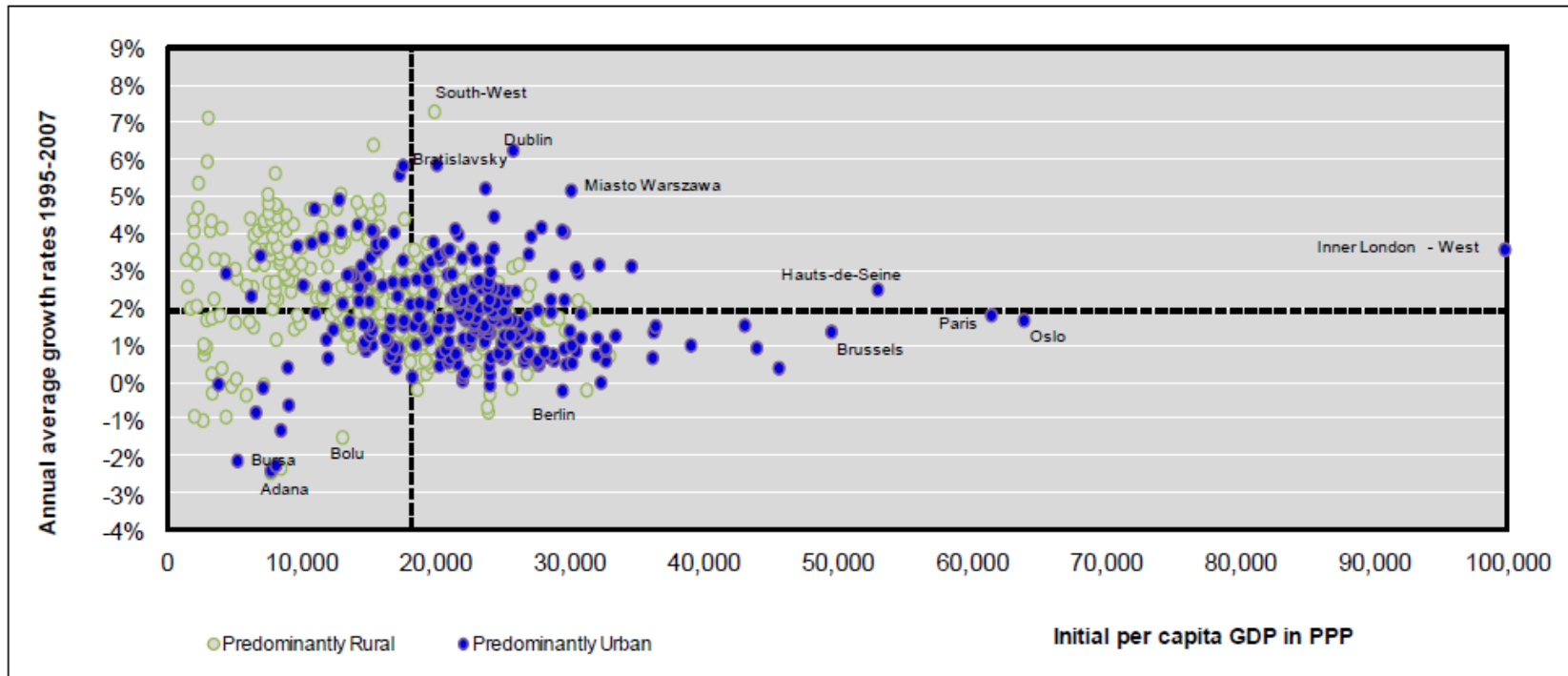
Does growth potential exist in some regions?

Does it matter for national and aggregate growth?

There is no single/unique path to growth...

No marked convergence or divergence profiles by type of region

Predominantly urban and rural regions, 1995-2007

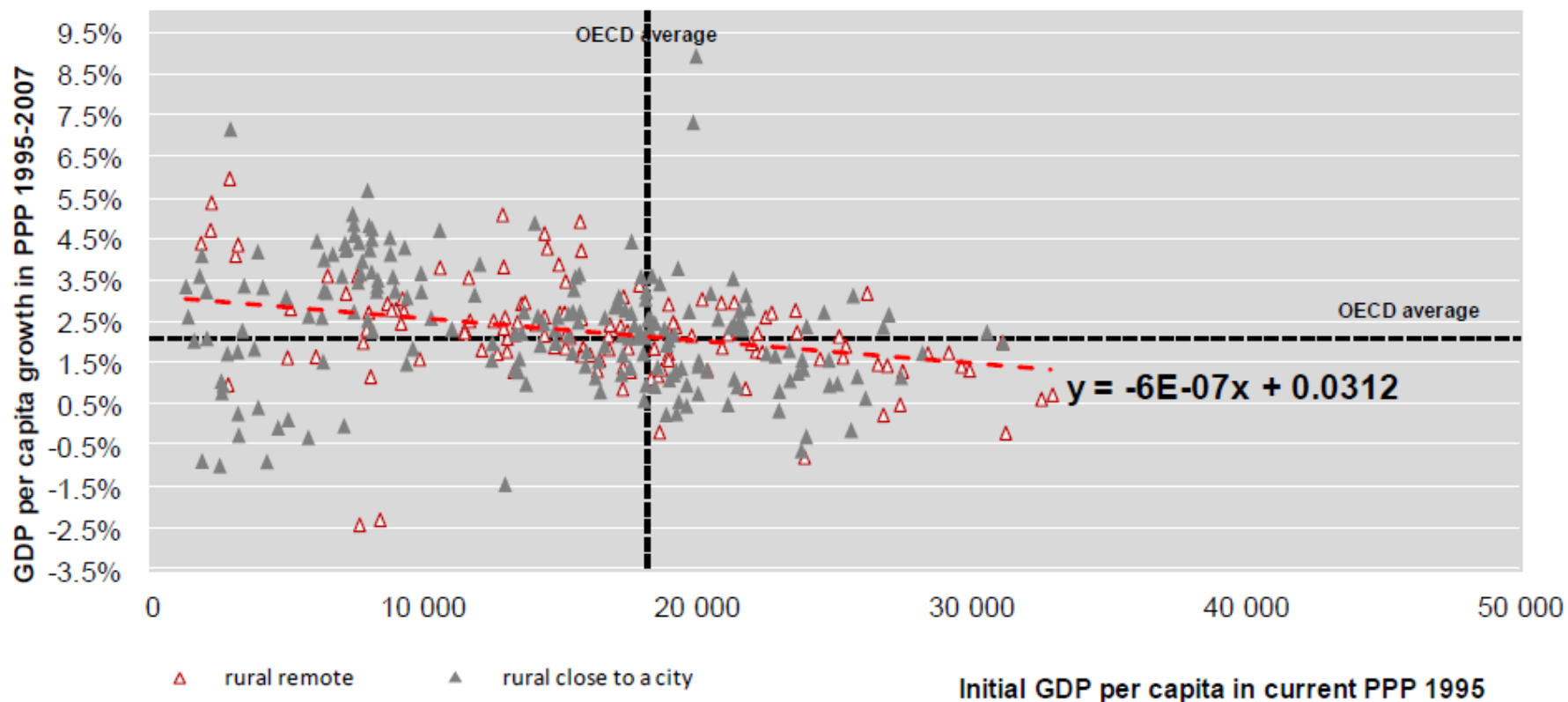


- Opportunities for growth exist in all types of regions.
- Rural not synonymous with decline

Convergence forces in rural regions

Convergence patterns across rural regions

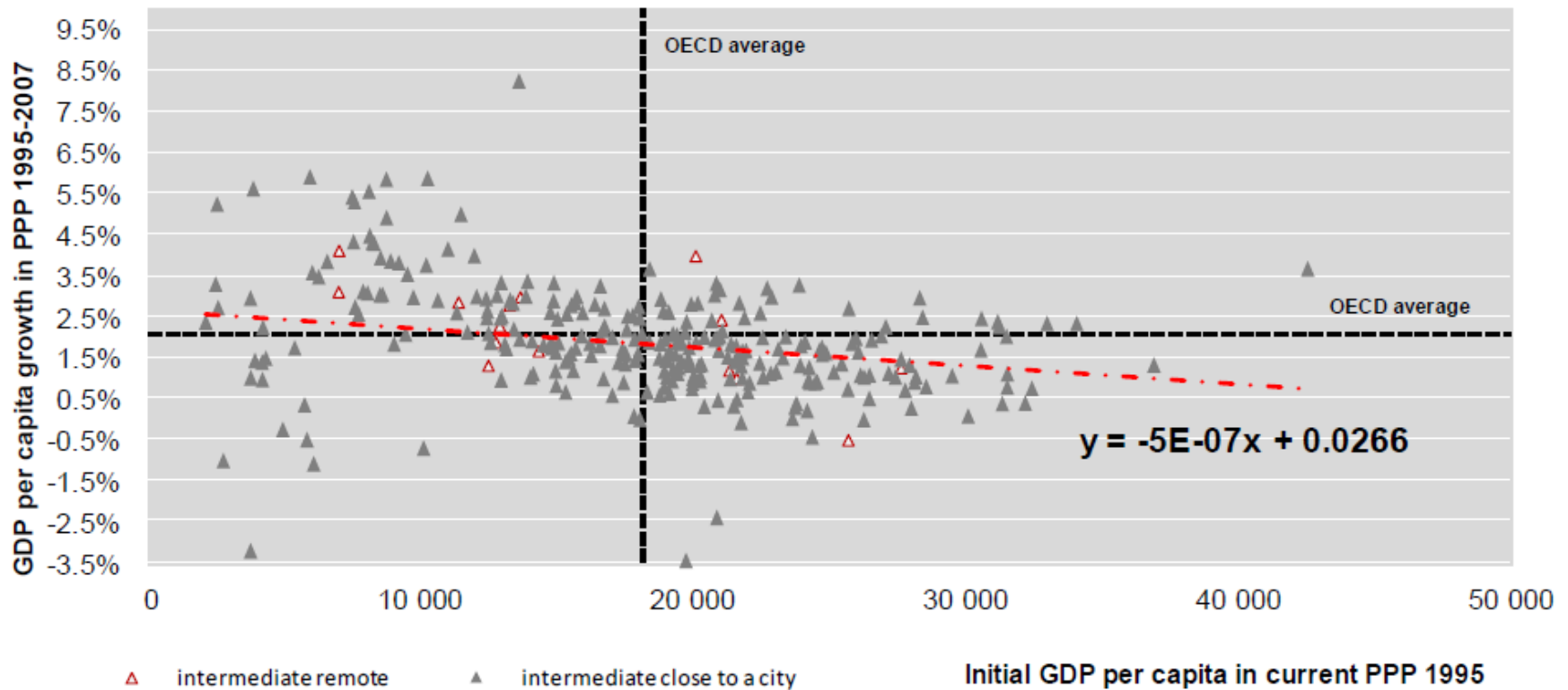
Remote and proximate rural TL3 regions, 1995-2007



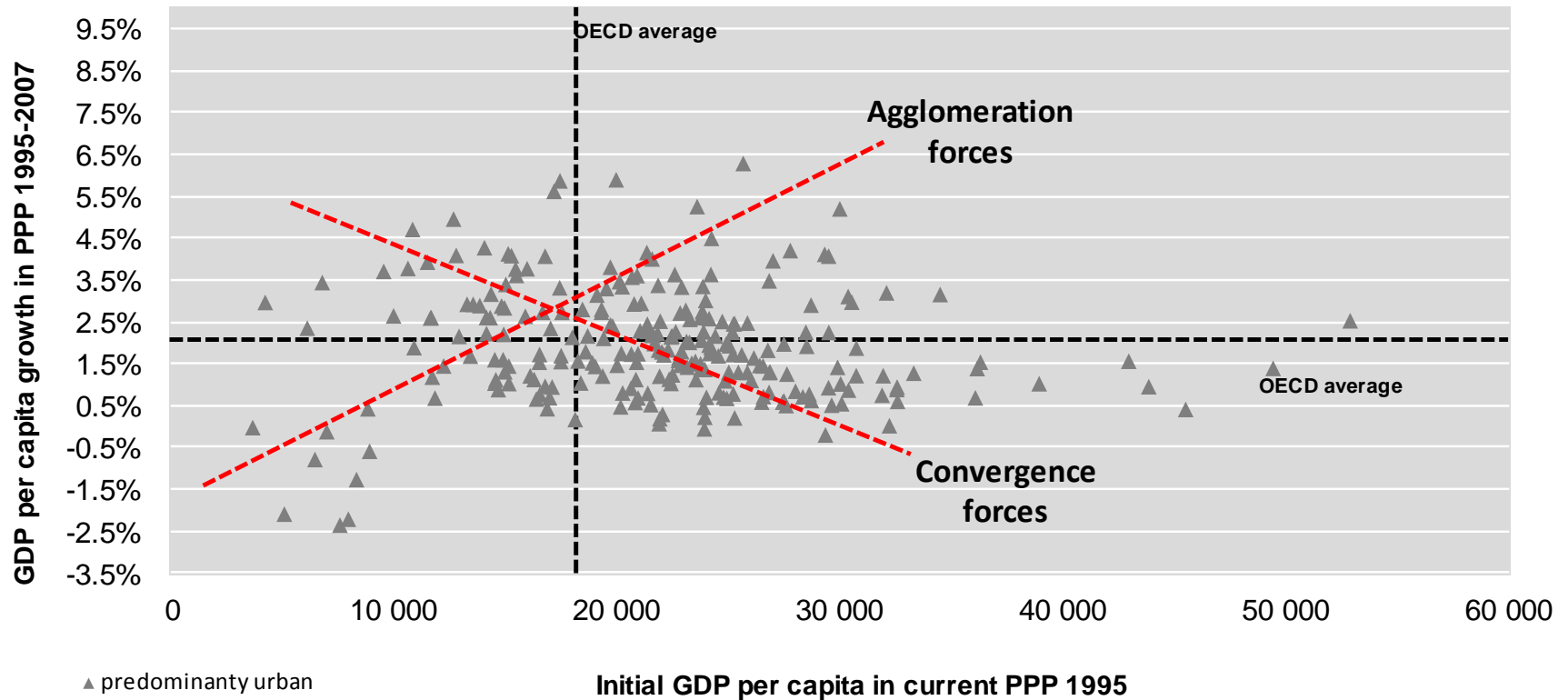
Convergence forces in intermediate regions

Convergence patterns across intermediate regions

Intermediate TL3 regions, 1995-2007



Convergence and divergence forces in urban regions



Agglomerations and sustainable development?

The most dynamic OECD regions over 1995-2007..

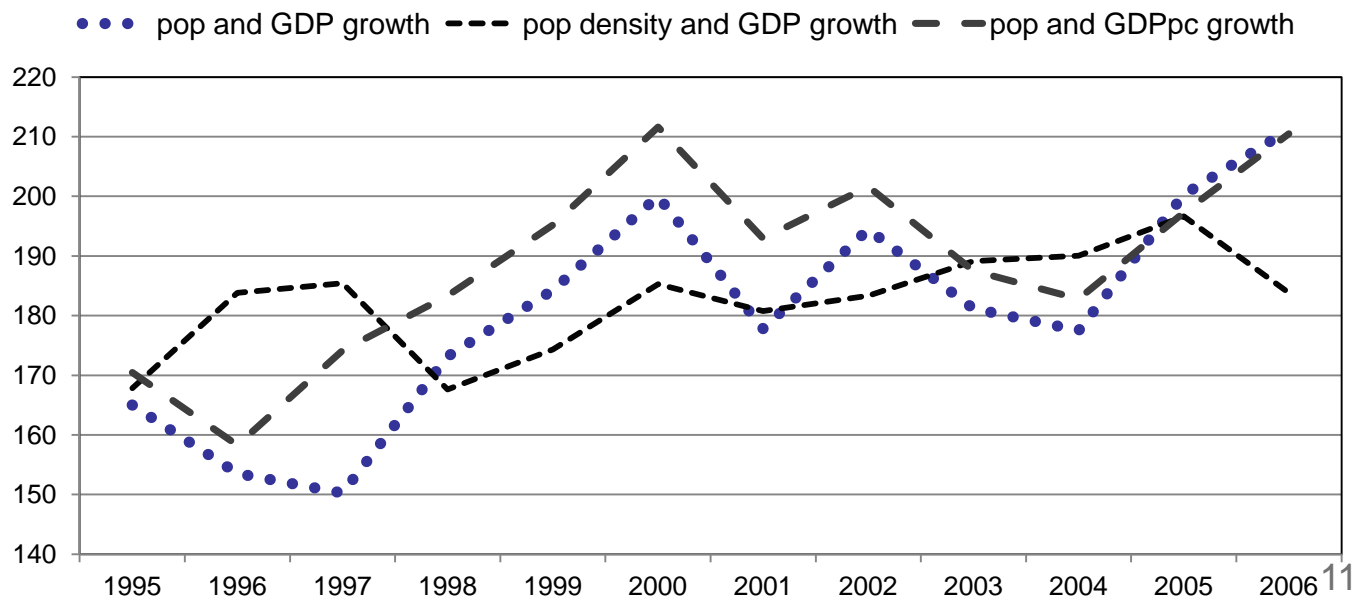
Initial GDP per capita and annual average growth rates in GDP per capita

OECD TL3 regions, 1995-2007

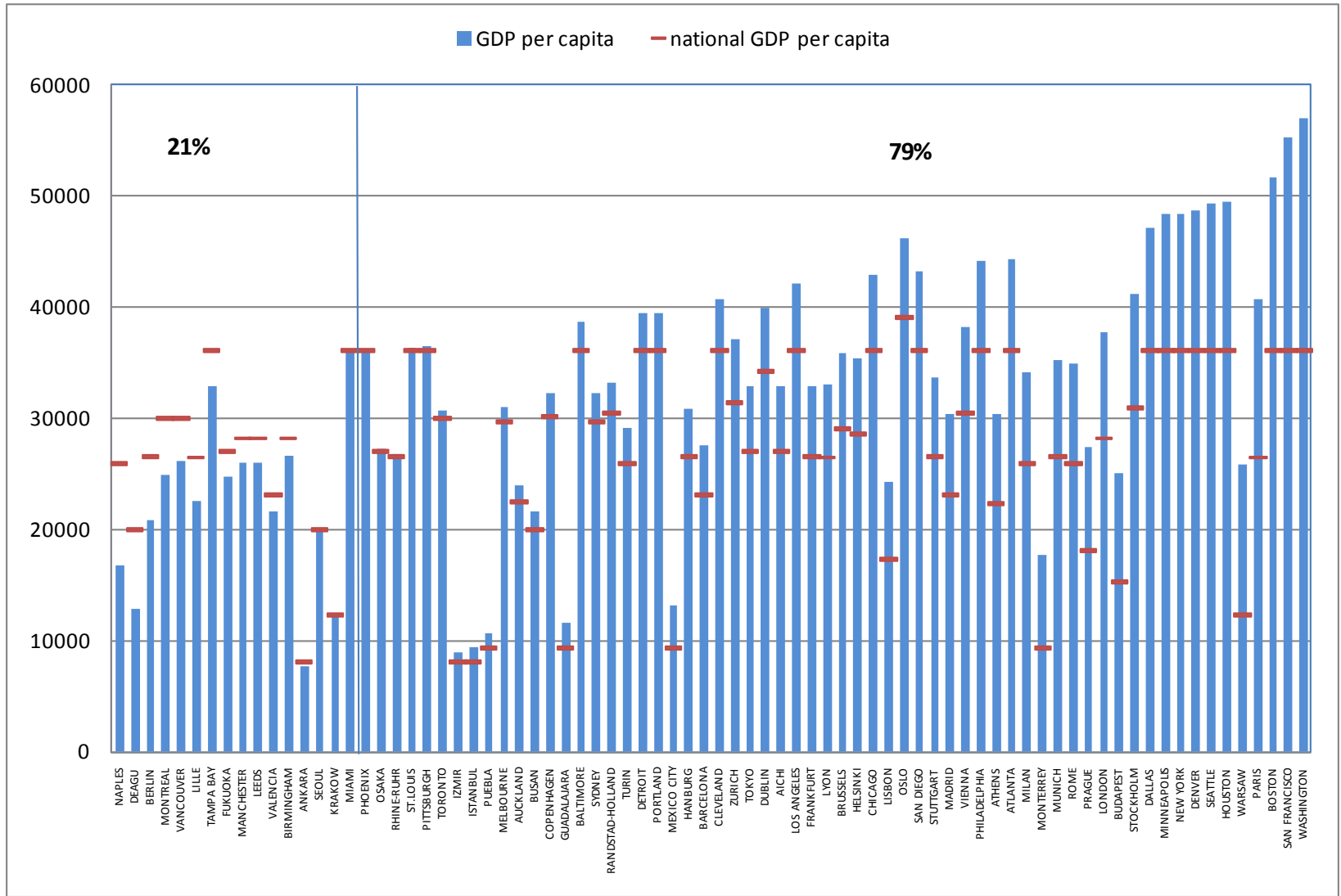
Type of OECD region	n	GDP per capita in PPP		
		Growth (1995-2007)	Initial level (1995)	% of OECD average
Predominantly urban	233	1.93%	22,568	124%
Predominantly rural close to city	199	2.33%	14,324	79%
Predominantly rural remote	123	2.24%	16,234	89%
Intermediate	295	1.83%	17,855	98%
Total	850	2.06%	18,172	100%

Source: OECD Regional Database.

average rank
(1== highest)
 ■ population
 ■ pop density

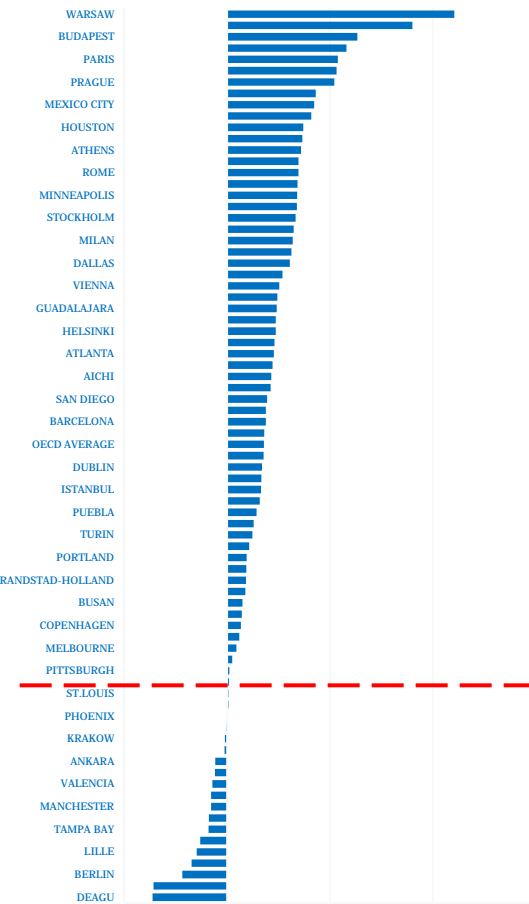


Concentration → high levels of GDP pc

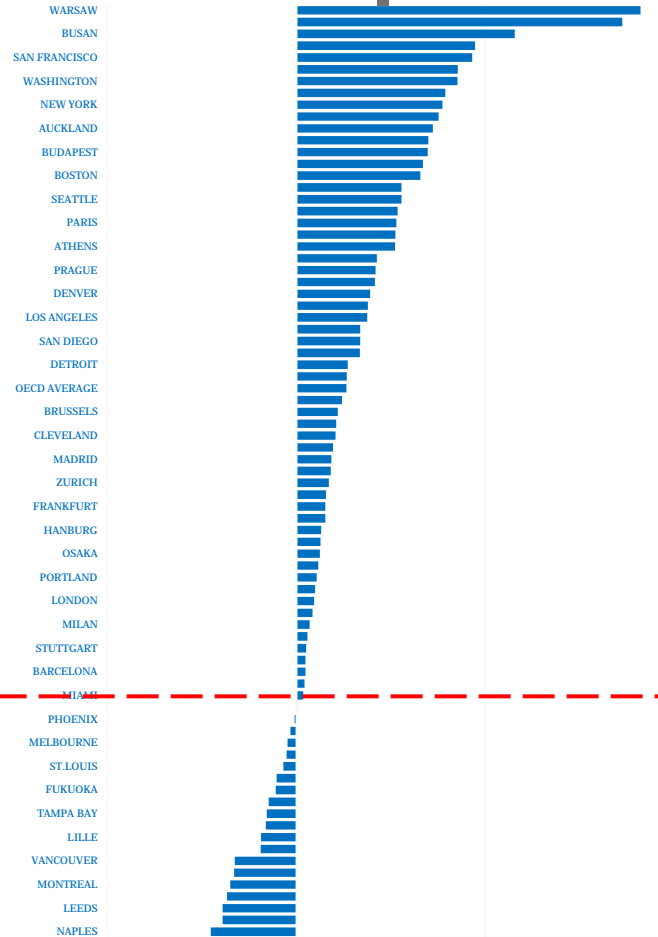


Agglomeration tends to be associated with and higher value added, productivity and employment...

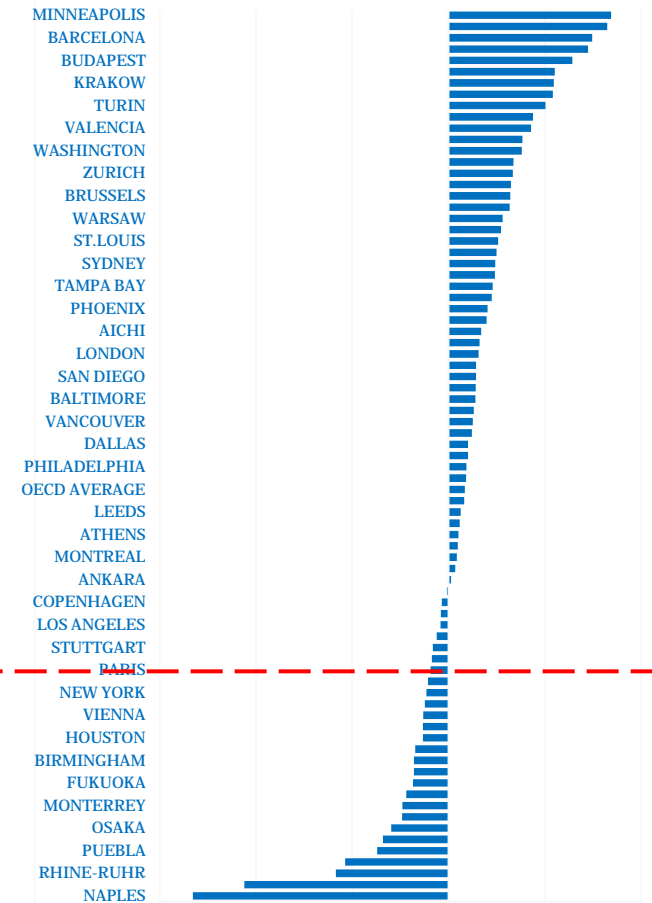
higher GDP per capita...



higher productivity...



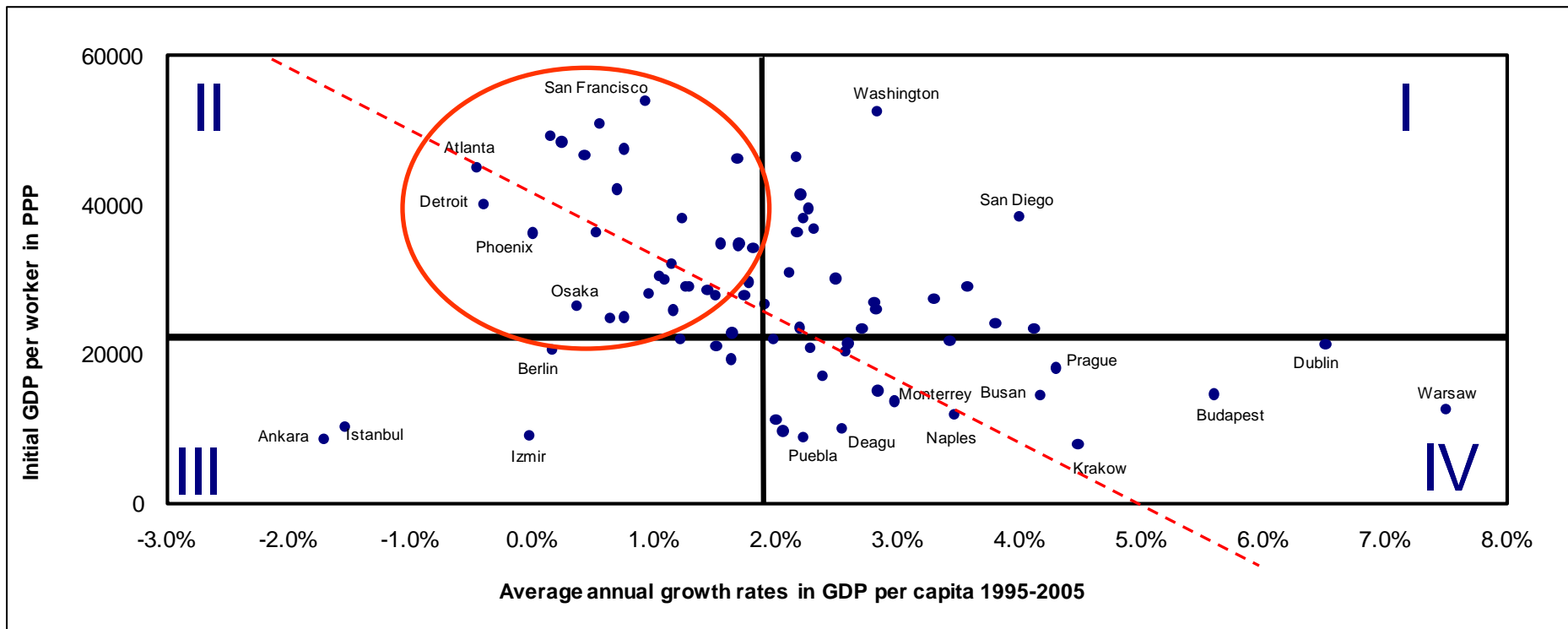
higher employment...



...but not necessarily faster growth

Only 45% of metro--regions grow faster than the national average.

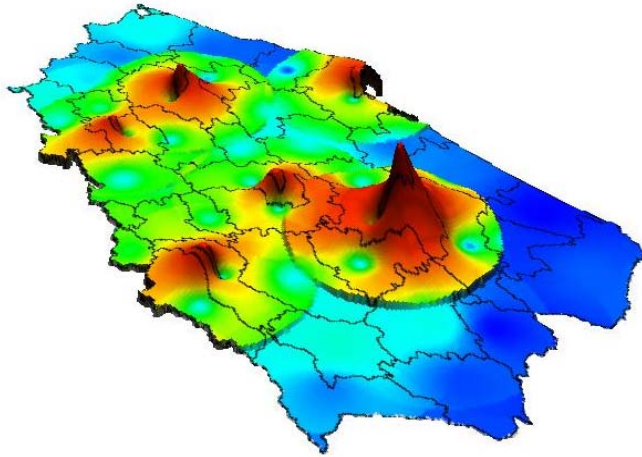
Metro-regions appear to have entered in a process of convergence.



...signs of inefficiencies appear in significant number of metro-regions...

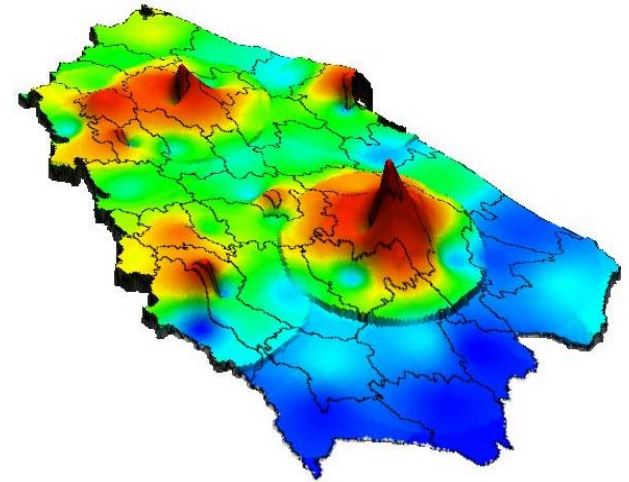
“Concentration = growth”

...in practice, many other paths to growth emerge...

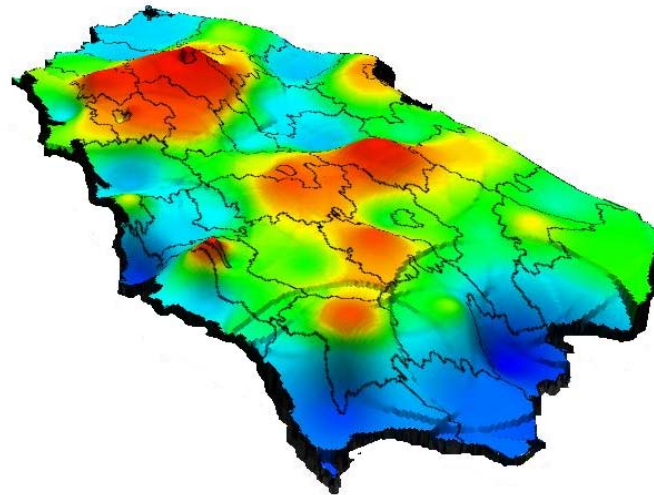


Economic Density
GDP per square kilometre

Poland

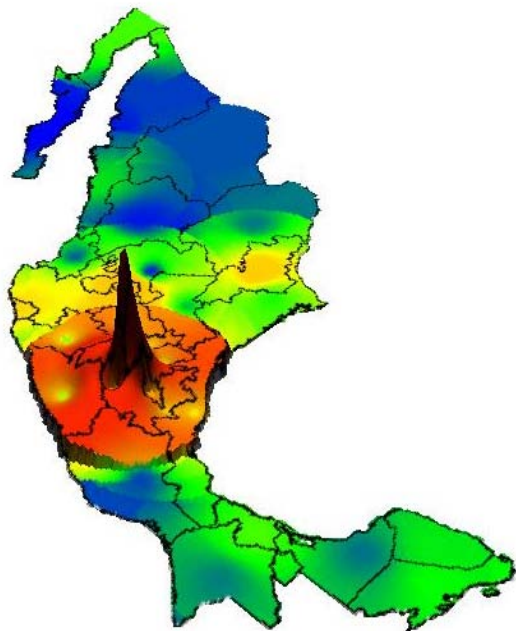


Labour Productivity
GDP per worker

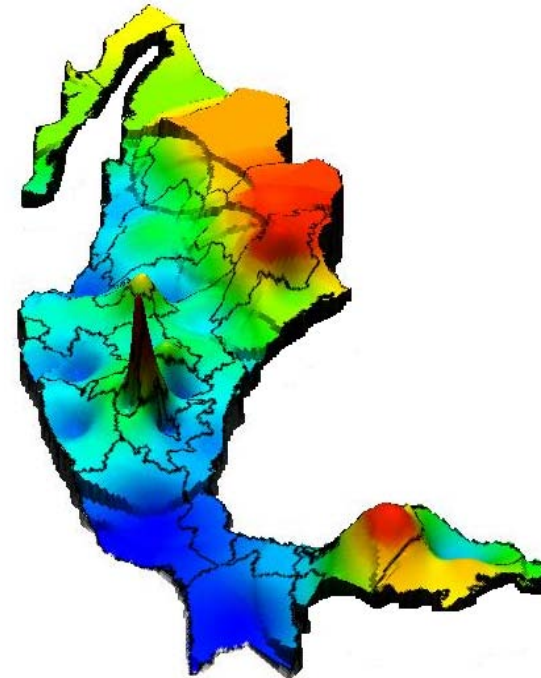


Economic Growth
Real GDP per capita growth

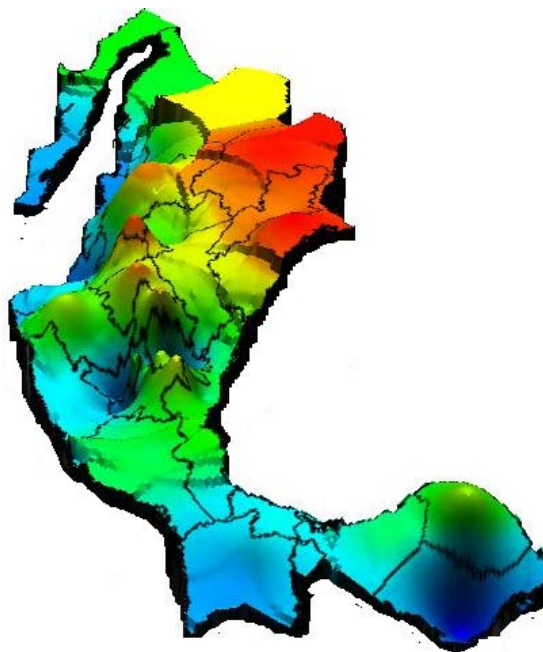
Mexico



Economic Density
GDP per square kilometre



Labour Productivity
GDP per worker



Economic Growth
Real GDP per capita growth

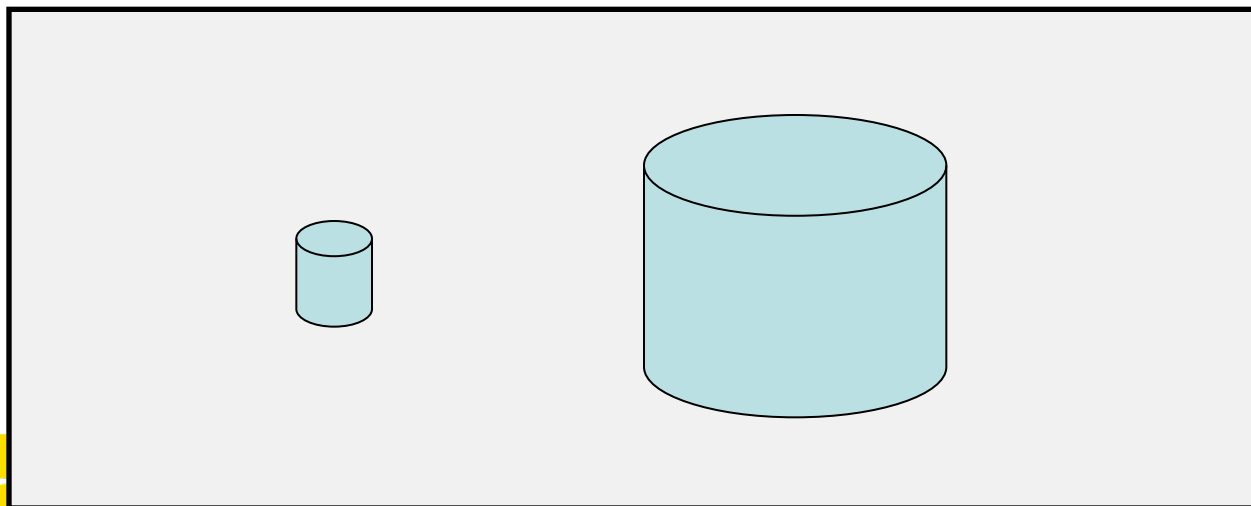
Concentration is not synonymous with growth

- ❖ Concentration not sufficient nor necessary
- ❖ Benefits of concentration not linear nor infinite
- ❖ Diseconomies of scale and congestion costs can hinder growth in agglomerations

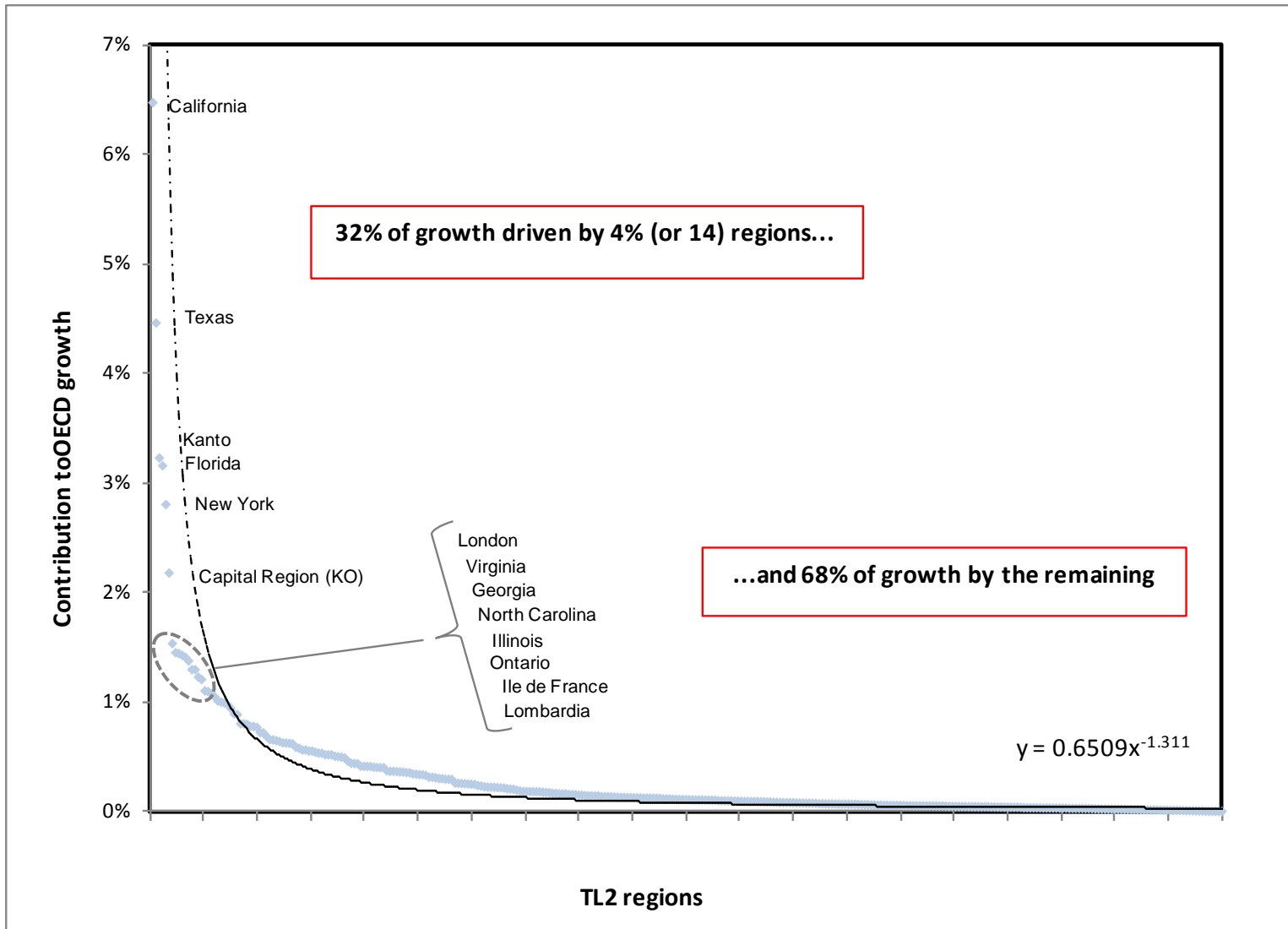
Links between regional and aggregate

- ❖ Where growth actually occurs is also critical:
 - Contributions to growth

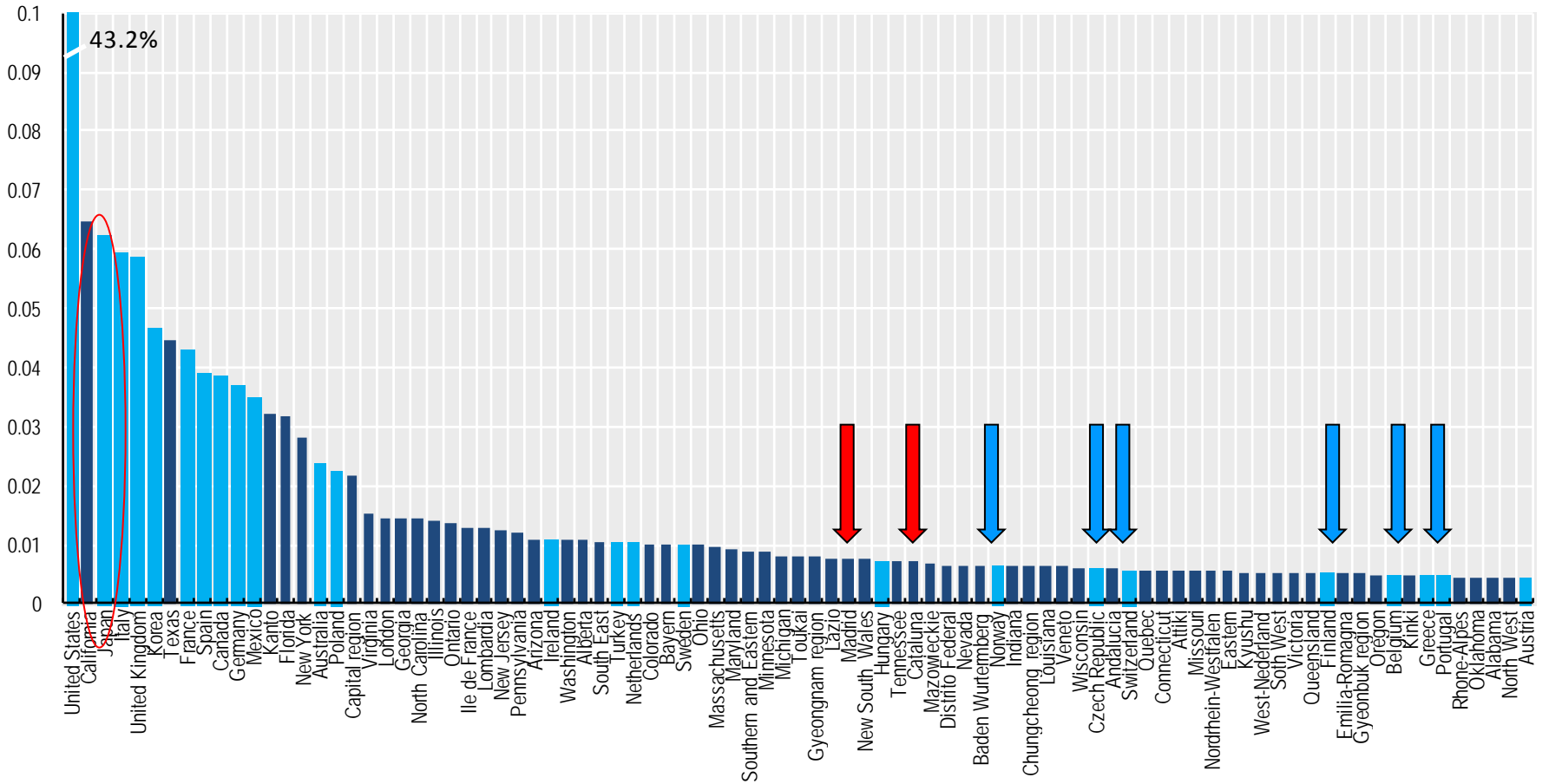
- ❖ Contribution to growth over the a given period (n, n+t):
 - Initial size of a given territory → GDP share (n)
 - Its growth rate between (n, n+t)



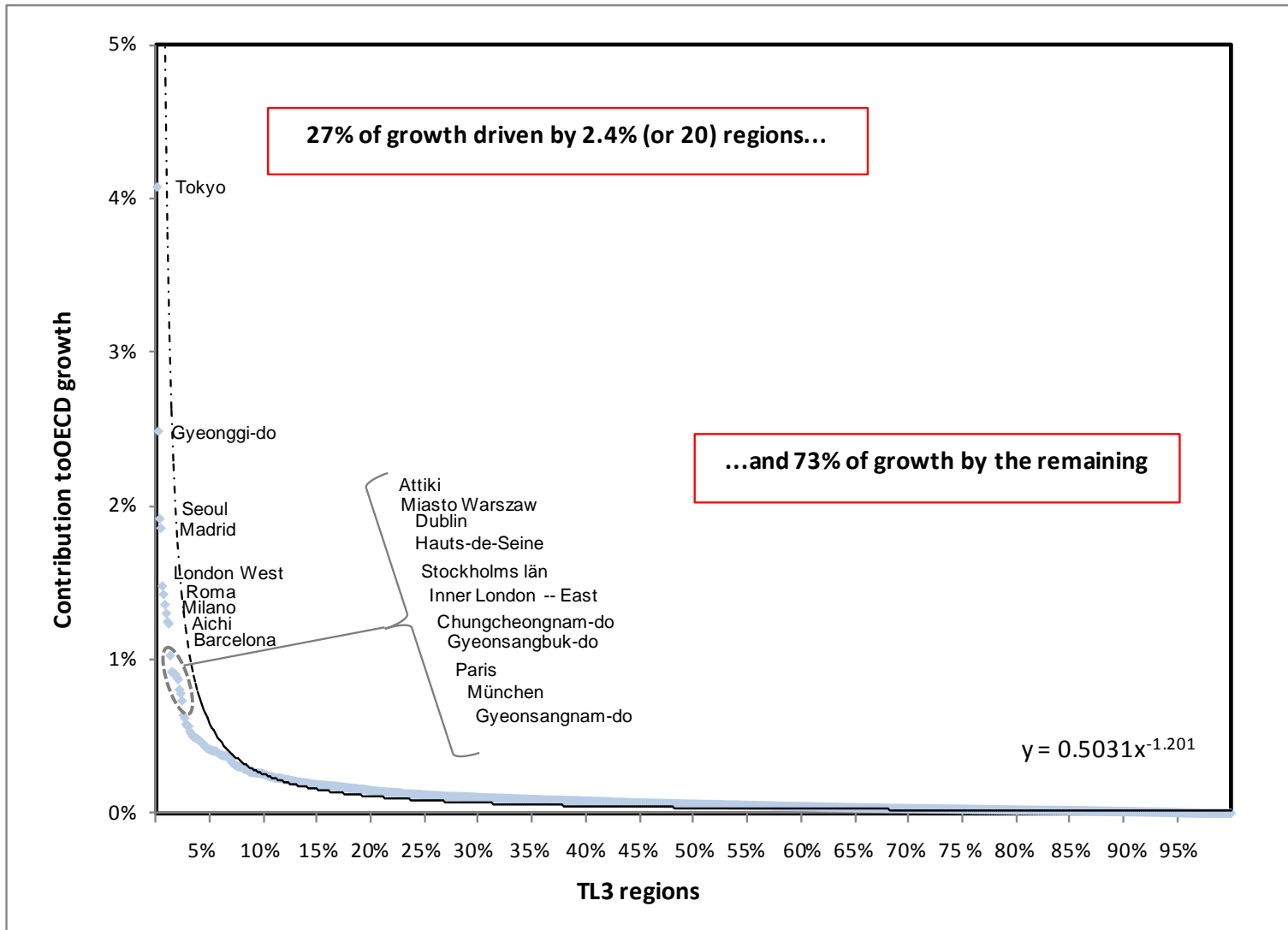
Contributions to growth OECD TL2 regions



Regions vs. countries



Contributions to growth OECD TL3 regions



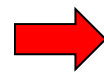
Lagging regions contribute to national growth.

Lagging Regions Contribution to Aggregate Growth

	lagging	leading
Australia	29%	71%
Austria	53%	47%
Canada	26%	74%
Czech Republic	62%	38%
Finland	35%	65%
France	68%	32%
Germany	27%	73%
Greece	-16%	116%
Hungary	34%	66%
Italy	26%	74%
Japan	27%	73%
Korea	23%	77%
Mexico	44%	56%
Netherlands	49%	51%
Norway	61%	39%
Poland	44%	56%
Portugal	54%	46%
Slovak Republic	67%	33%
Spain	48%	52%
Sweden	58%	42%
Turkey	47%	53%
United Kingdom	57%	43%
United States	51%	49%
average unweighted	43%	57%
average weighted	44%	56%

*Overall, they contributed to **44%** of aggregate OECD growth in 1995-2007.*

In eight OECD countries lagging regions contributed more to national growth than leading regions.



Bottom line: support for lagging regions need not be merely a “social” policy. They contribute a large share of national growth.

Stylized facts – growth

❖ Growth Patterns are very Heterogeneous

- Possibilities for growth exist in all types of regions
- Convergence and agglomeration forces at play

❖ Concentration and Growth

- Concentration not a sufficient nor necessary condition
- Benefits of concentration not linear nor infinite
- Diseconomies of scale and congestion costs can hinder growth in agglomerations



What are the main factors of growth at the regional level?

Econometric models

unit of analysis: OECD TL2 Regions, 1995-2007

Cross-Sectional Model

$$\ln\left(\frac{GPD_{i,t}}{GDPI_{i,t-1}}\right) = \alpha + \beta_1 \ln(GDP_{i,t-1}) + \beta_2 \ln(Inf_{i,t-1}) + \beta_3 (\text{Pr_Ed_att}_{i,t-1}) + \beta_4 \ln(Ti_Ed_att_{i,t-1}) + \beta_5 ER_t - 1 + \beta_6 \ln(Pat_{i,t-1}) + \beta_7 \ln(GDExp_Bi_{i,t-1}) + \beta_8 \ln(GDExp_G_{i,t-1}) + \beta_9 \ln(Spec_Ag_{i,t-1}) + \beta_{10} \ln(Spec_Man_{i,t-1}) + \beta_{11} \ln(Market_Dist_{i,t-1}) + \beta_{12} \ln(Accesibility_{i,t-1}) + \gamma_j CD_j + \varphi_t TD_t + u_i + e_{i,t}$$

Panel and Pooled Model

$$\frac{1}{T} \ln\left(\frac{GPD_{i+T}}{GDP_i}\right) = \alpha + \beta_1 \ln(GDP_i) + \beta_2 \ln(Inf_i) + \beta_3 (\text{Pr_Ed_att}_i) + \beta_4 \ln(Ti_Ed_att_i) + \beta_5 ER_t + \beta_6 \ln(Pat_i) + \beta_7 \ln(GDExp_B_i) + \beta_8 \ln(GDExp_G_i) + \beta_9 \ln(Spec_Ag_i) + \beta_{10} \ln(Spec_Man_i) + \beta_{11} \ln(Market_Dist_i) + \beta_{12} \ln(Accesibility_i)$$

Error Correction Model

$$\Delta \ln y(t) = -\lambda \left(\ln y(t-1) - \frac{a}{1-a} \ln s_K(t) - \frac{b}{1-a} \ln h(t) + \frac{a}{1-a} \ln(g(t) + n(t) + d) - \sum_j z_j \ln X_t^j + gt \right) + a_0 + a_1 \Delta \ln s_K(t) + a_2 \Delta \ln h(t) + a_3 \Delta \ln(g(t) + n(t) + d) + \sum_j b_j \Delta \ln X_t^j + \varepsilon_t.$$

How regions grow: model results

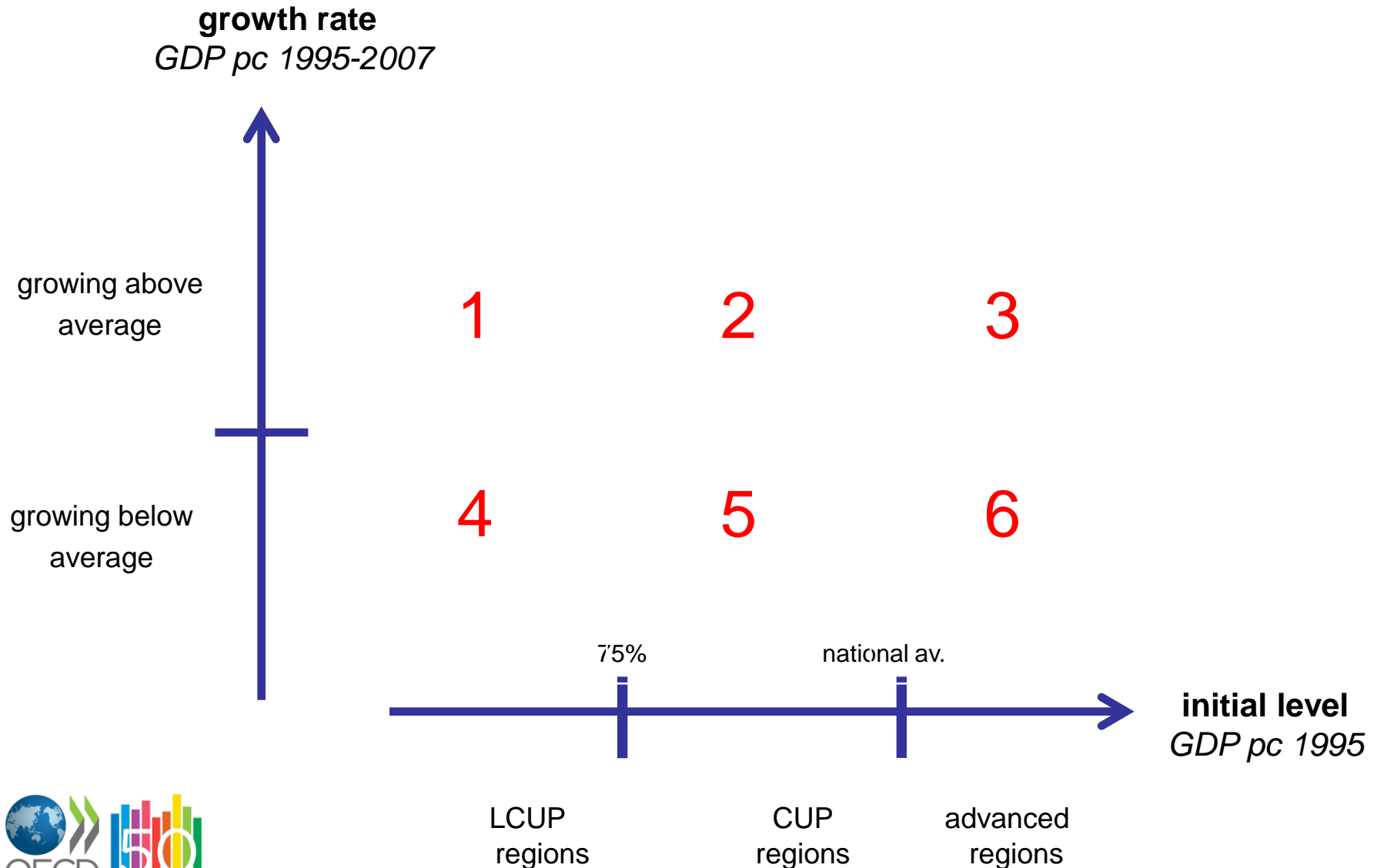
The most important growth drivers are *endogenous* to the region.

- **Convergence** is not absolute – it is conditional
- **Human capital** and **innovation** positively influence regional growth.
- **Infrastructure** influences growth only when human capital and innovation are present. *By itself it does not impact growth.*
- **Agglomeration** influences growth but is not necessary or sufficient.
- *Distance to markets* has a positive impact to growth – not very robust. Regions in periphery growing faster. *Possible measurement bias? (i) No travel time and transportation networks and (ii) size of regions.*

The *relative weight* of different factors depends, *inter alia*, on the level of development of the region.

These findings, in turn, have implications for *governance*.

Regional performance varies with development...



Analysis

Compare indicators relevant for regional growth b/w “growing” and “underperforming” group

<ul style="list-style-type: none">•Population density•GDP density	}	Economic mass/thickness of market economies of agglomeration
<ul style="list-style-type: none">•Employment rate•Unemployment rate•Youth unemployment rate	}	Labour utilisation
<ul style="list-style-type: none">•Patent applications•Patent intensity•Business R&D to GDP•Government R&D to GDP•Higher education R&D to GDP	}	Innovation related indicators
<ul style="list-style-type: none">•Primary attainment rate•Tertiary attainment rate	}	Human capital
<ul style="list-style-type: none">•Connectivity in global network	}	Geography/NEG
<ul style="list-style-type: none">•Productivity		
<ul style="list-style-type: none">•Infrastructure		

Performance of all “growing” regions associated ...

Growth factor	Indicator	Regions with large catching up potential		Regions with catching up potential		Advanced regions	
		Growing above av.	Growing below av.	Growing above av.	Growing below av.	Growing above av.	Growing below av.
Productivity	Productivity (GDP per employee)	31,612	29,728	55,832	50,728	72,551	59,824
Infrastructure	Motorway density	0.15	0.13	0.26	0.18	0.19	0.24
Human capital	Primary educational attainment (% of LF)	42%	46%	26%	22%	25%	29%
	Teritary attainment (% of LF)	21%	19%	26%	25%	31%	26%
	PISA score mathematics	443	405	476	487	484	478
	PISA score reading	459	436	482	485	490	465
Labour market	Employment rate	57%	55%	71%	68%	71%	66%
	Unemployment rate	9%	8%	5%	7%	5%	6%
	Long-term unemployment rate	4%	5%	2%	2%	2%	2%
	Youth unemployment rate	21%	22%	13%	16%	12%	15%
	Participation rate	62%	60%	73%	72%	74%	69%
Innovation	In (patent application)	1.7	1.8	4.4	4.1	5.0	4.0
	Patent applications per million	20	16	91	74	158	82
	In (patent application copatents)	1.1	1.6	4.0	3.6	4.6	3.6
	Co-invention within region	124	90	673	536	2932	1256
	Co-inventions within ctry	105	71	294	261	759	466
	Co-inventions foreign	16	53	126	112	314	206
	R&D expenditure total (as % of GDP)	1.06%	1.03%	1.50%	1.41%	2.21%	1.51%
	BERD % GDP	0.35%	0.42%	0.90%	0.86%	1.35%	1.00%
	GERD % GDP	0.33%	0.22%	0.23%	0.20%	0.42%	0.16%
	High and medium HTM % empl.	3.3%	4.8%	5.2%	6.1%	5.3%	6.4%
KIS (as % of total employment)	22.5%	28.2%	33.3%	32.8%	36.7%	32.2%	
Agglomeration and connectivity	Population density	17.51	18.38	19.40	18.63	29.47	23.41
	GDP density	1.10	0.99	4.29	3.38	29.14	24.19
	Degree of openness	14	15	40	40	65	44
	Clustering coefficient	0.034	0.038	0.089	0.093	0.123	0.084
	Centrality	0.001	0.001	0.002	0.002	0.007	0.005

Performance of regions with low levels of development...

Growth factor	Indicator	Regions with large catching up potential		Regions with catching up potential		Advanced regions	
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...infrastructure and innovation related activities (co-invention within regions and with other regions within countries) are critical, in addition to human capital .

As regions move into higher levels of development...

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...human capital but in addition to adequate infrastructure, efficient labour markets and innovative activity are critical to enhance their performance .

As regions approach the production possibility frontier...

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	BERD % GDP	0.35%	0.42%	0.90%	0.86%	1.35%	1.00%
	GERD % GDP	0.33%	0.22%	0.23%	0.20%	0.42%	0.16%
	High and medium HTM % empl.	3.3%	4.8%	5.2%	6.1%	5.3%	6.4%
KIS (as % of total employment)	22.5%	28.2%	33.3%	32.8%	36.7%	32.2%	
Agglomeration and connectivity	Population density	17.51	18.38	19.40	18.63	29.47	23.41
	GDP density	1.10	0.99	4.29	3.38	29.14	24.19
	Degree of openness	14	15	40	40	65	44
	Clustering coefficient	0.034	0.038	0.089	0.093	0.123	0.084
	Centrality	0.001	0.001	0.002	0.002	0.007	0.005

...in addition to human capital dynamism is mainly associated with innovation-related activities and their connectivity within the global network of regions and agglomeration forces.

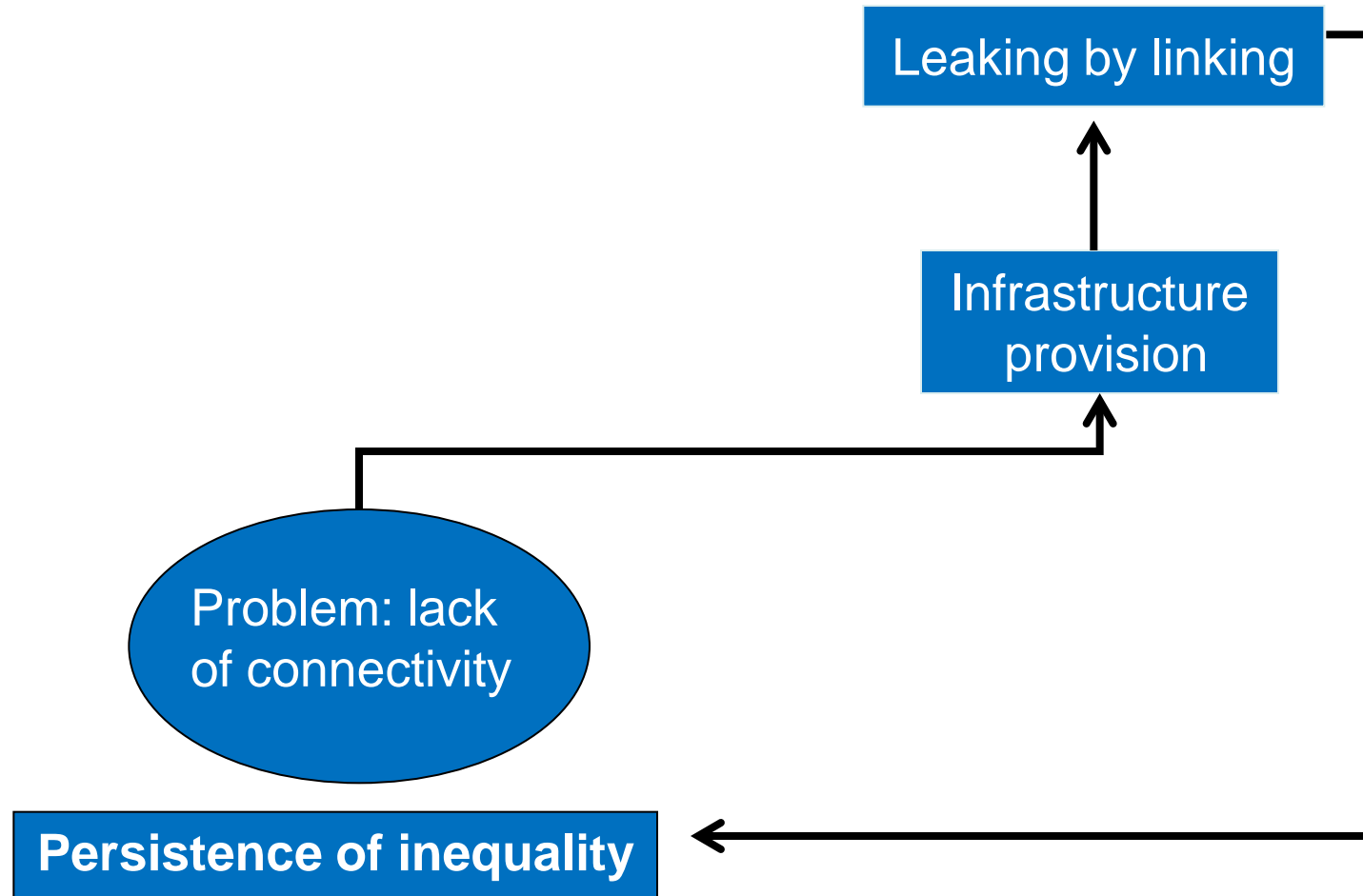
Main Policy Messages

Not as clear as it seems (or as policy-makers might like!):

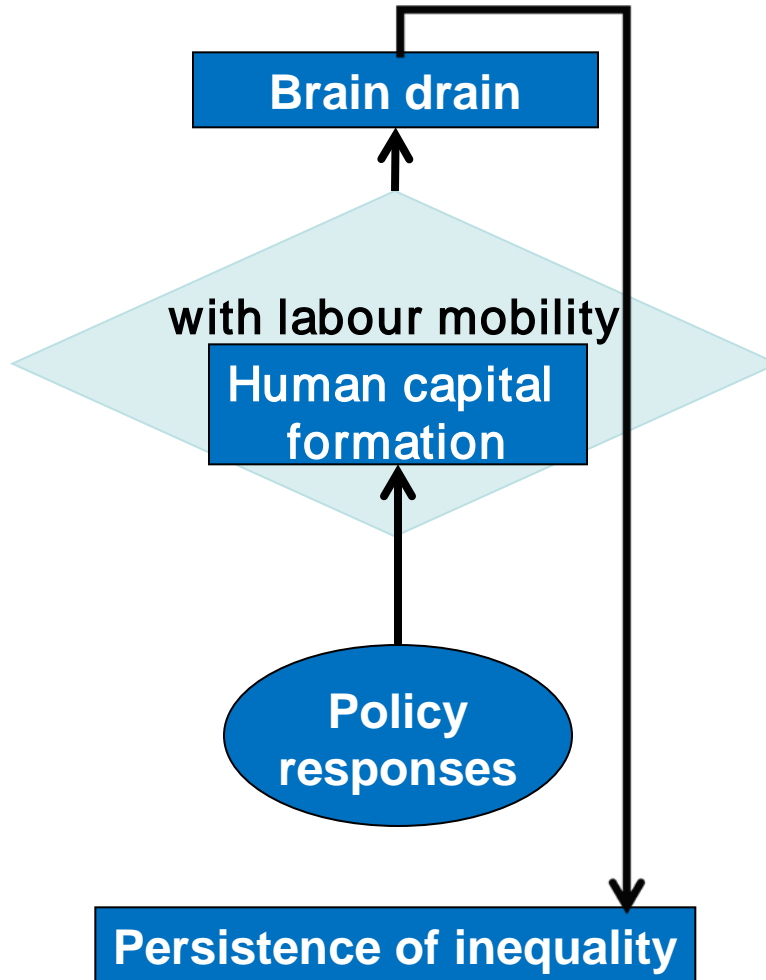
- The foregoing omits important interaction effects.
- Many policy interventions can have unintended effects if undertaken in isolation.
- However, if this implies a constraint in terms of policy *coherence*, it also points to opportunities arising from policy *complementarities*.

In short: no simple messages or solutions.

The policy headache: isolated sectoral action may have unintended outcomes.



The policy headache: isolated targeting of investments may have unintended outcomes.



The need for a differentiated approach

- Place based policies in the new regional paradigm are best suited for this task
 - ❖ Integrated approach – diagnosis is critical
 - ❖ Right level of intervention – local labour markets
 - ❖ A match between bottom and top down information and initiative is critical
 - ❖ Policy design and multilevel governance are key for a successful implementation

Towards a Multidimensional Response

Regional growth
and convergence

Many countries are reforming in this direction,
but implementation is still difficult.

At the regional scale

Innovation

Business
environment

Human capital
formation

Infrastructure
provision

Policy
responses

-Horizontal evidence?
-Policies ?
-Institutions ?

Paradigm shift in regional policies

	Traditional Regional Policies	New Paradigm
Objectives	Balancing economic performances by temporary compensating for disparities	Tapping under-utilised regional potential for competitiveness
Strategies	Sectoral approach	Integrated development projects
Tools	Subsidies and state aid	Soft and hard infrastructures
Actors	Central government	Different levels of government
Unit of analysis	Administrative regions	Functional regions
	Redistributing from leading to lagging regions	Building competitive regions to bring together actors and targeting key local assets

'Mind the Gaps' : a Tool for a Diagnosis


Administrative gap	“Mismatch” between functional areas and administrative boundaries => Need for instruments for reaching “effective size”
Information gap	Asymmetries of information (quantity, quality, type) between different stakeholders, either voluntary or not => Need for instruments for revealing & sharing information
Policy gap	Sectoral fragmentation across ministries and agencies => Need for mechanisms to create multidimensional/systemic approaches, and to exercise political leadership and commitment.
Capacity gap	Insufficient scientific, technical, infrastructural capacity of local actors => Need for instruments to build capacity
Funding gap	Unstable or insufficient revenues undermining effective implementation of responsibilities at subnational level or for crossing policies => Need for shared financing mechanisms
Objective gap	Different rationalities creating obstacles for adopting convergent targets => Need for instruments to align objectives
Accountability gap	Difficulty to ensure the transparency of practices across the different constituencies => Need for institutional quality instruments

Case Studies Methodology

Sample of 23 case study regions

Case study number	Region	Category
Dynamic regions		
1	Aquitaine	CUP and growing above av.
2	Asturias	CUP and growing above av.
3	Brandenburg	LCUP and growing above av.
4	Central Transdanubia	CUP and growing above av.
5	Durango	CUP and growing above av.
6	Jalisco	CUP and growing above av.
7	Marche	CUP and growing above av.
8	Midi-Pyrénées	CUP and growing above av.
9	Sachsen-Anhalt	LCUP and growing above av.
10	San Luis Potosi	LCUP and growing above av.
11	Wielkopolskie	CUP and growing above av.
12	Zuid-Nederland	CUP and growing above av.
Less dynamic regions		
13	Chiapas	LCUP and growing below av.
14	Estado de Mexico	CUP and growing below av.
15	Lubelskie	CUP and growing below av.
16	Nord-Pas-de-Calais	CUP and growing below av.
17	Wear)	CUP and growing below av.
18	North West (CR Manchester)	CUP and growing below av.
19	Podlaskie	CUP and growing below av.
20	Sicilia	LCUP and growing below av.
21	Vychodne Slovensko	CUP and growing below av.
22	(CR Leeds)	CUP and growing below av.
23	Zacatecas	LCUP and growing below av.

Questionnaire (21 questions)


 PUBLIC GOVERNANCE AND TERRITORIAL DEVELOPMENT DIRECTORATE
 REGIONAL COMPETITIVENESS AND GOVERNANCE DIVISION

GROWING LAGGING REGIONS
PHASE 3 CASE STUDIES – EXAMPLES OF BEST PRACTICES
QUESTIONNAIRE

This questionnaire concerns a number of case studies selected for phase 3 of the project “Growing Lagging Regions”. Prior to the actual questionnaire, this document provides basic information on the project “Growing Lagging Regions” and the process of reviewing the case studies.

Please provide answers to the questions in the questionnaire, and add any background documents that you may consider useful for OECD work.

Background information on Growing Lagging Regions Project

The OECD is currently undertaking a project “Growing Lagging Regions” aiming at investigating why some lagging regions manage to catch up vis-à-vis other lagging regions. The goal is to pinpoint those factors have been successful for lagging regions in catching up to national standards and in particular the role regional policies play in this process. The project combines both quantitative (i.e. analytical) and qualitative (i.e. a series of case studies) methods three phases. The three phases are summarised below. The questionnaire applies to phase 3 of the project.

Phase 1 develops a taxonomy based on the performance of OECD TL2 regions comparing initial levels and growth rates of GDP per capita in their respective countries over 1995-2005. This taxonomy defines 6 categories of regions: (1) lagging-growing, (2) lagging-underperforming, (3) quasi-lagging growing, (4) quasi-lagging under-performing, (5) leading growing and (6) leading underperforming. Data are obtained from the OECD Regional Database and regions are classified according to OECD Territorial Level 2 to ensure consistency in comparing regions.

Phase 2 conducts analytical work investigating the main factors responsible for growth among lagging growing regions using econometric models and descriptive methods.

Phase 3 carries out a number of case studies among OECD regions. The aim is to deepen the analysis and improve our understanding of the role policies play in the catching-up process. The selection of case studies is made in regions from the categories (1)-(4) in the taxonomy. The case studies will play special attention to the key factors relevant for growth in lagging regions, the role of institutions, governance mechanisms and regional policies. The selection of the case studies will be decided by countries participating in phase 3 of the project in conjunction with the OECD Secretariat.

1

Field study

Drafting of case study

Structure of Case Studies

- Ex-ante: is the region dynamic yes or no
- Questionnaire and key objectives of case study
 1. Snapshot of the region and historical context:
 - Population, density, area, cities, monocentric, rurality, terrain
 - Historical context
 - Institutional and policy
 2. Economic assessment
 - GDP pc, population, GDP
 - Productivity
 - Labour markets
 - Infrastructure
 - Human capital
 - Structure of growth factors
 3. Key factors for growth
 4. Main bottlenecks for growth and development
 5. Statistical annex





themes	factors and bottlenecks	Region
1. agriculture	Agriculture activity remains an important economic activity	Zacatecas
	Inability to restructure an existing low productive agriculture sector	Lubelskie
	The modernisation of agriculture has been moderate	Zacatecas
2. availability of financing	Limited investment resources available to enterprises	Wielkopolskie
	Lack of public funding is a challenge to strengthen the knowledge infrastructure	Zuid Nederland
	Weak access to credit and venture financing	Marche
3. business environment public sector activity and industry	Attractive business environment	Wielkopolskie
	Strong presence of industry and industrial related activities	Sachsen-Anhalt
	Strong involvement of the private sector in manufacturing tradition	Marche
	Strong involvement of the business sector combined good work ethic culture	Central Trandania
	Limited local business capacities	San Luis Potosi
	Favourable regulatory environment and policies supporting private sector activities	San Luis Potosi
	Strong presence of the private sector driving the diversification of the economy	Yorkshire and Humberside (Leeds)
	Important concentration of clusters and poles of competitiveness	Nord Pas de Calais
	Presence of a significant number of larger firms driving the manufacturing cluster	Estado de Mexico
	Insufficient involvement of the private sector in R&D	Asturias
	Red tape and regulatory burden	Central Trandania
	Insufficient integration of value chains in mining and wood sectors to produce higher value added goods	Durango
	Low competitiveness in the private sector and lack of dynamism driving brain-drain of young, productive talent	Sicily
Low involvement of the private sector leading to excessive reliance on public sector activities	North East (Tyne and Wear)	
Low industrial activities focusing mainly on low-value added activities.	Zacatecas	
4. demographic factors	Challenges brought by population declines and an excessive elderly population	Asturias
	Population decline has been a long-term reality in Brandenburg.	Brandenburg
	Population declines in the region bring important challenges	Sachsen-Anhalt
	Demographic trends bring challenges to public investments and represent a loss of human capital potential	Durango
	Ageing population bring important challenges to the region	Sicily
	Demographics effects -- high population growth in the region.	Estado de Mexico
Demographic effect in the region with high levels of outmigration	Zacatecas	
5. density cohesion internal fragmentation labour market mismatch	Fragmentation in labour markets reduces its growth potential and brings important challenges to governance	Midi Pyrenees
	Lack of internal cohesion due to strong internal fragmentation.	Podlaskie
	Mismatch in skills between demand and supply	North West (Manchester)
	A fragmented labour market area due to poor connectivity within the functional city region	North West (Manchester)
	Improving internal connectivity critical for polycentric settlement	Yorkshire and Humberside (Leeds)
	Low critical mass due to fragmented internal markets and weak internal connections	North East (Tyne and Wear)
	Economic activities in Chiapas are highly fragmented with low links impeding spillover and scale-effects	Chiapas
Low participation of females into the workforce	Zacatecas	
6. diversified differentiated and market awareness economy	Differentiated base for economic development.	Wielkopolskie
	Internal demand for goods and services by small firms	Lubelskie
	A relative diversified economic structure	Yorkshire and Humberside (Leeds)
	Diversification of traditional sectors	North East (Tyne and Wear)
	Growth of the service sector during on ongoing period of restructuring	Nord Pas de Calais
	Small proportion of large scale companies in the region	Brandenburg
	Insufficient size and death of industrial enterprises.	Aquitaine
Low diversification and reliance on agriculture and natural resource brings vulnerable to external fluctuations	Durango	
The region lacks market awareness despite the economy having size and scale	Yorkshire and Humberside (Leeds)	
7. environmental constraint	Exclusion of large parts of the region from economic activities (environmental constrains).	Podlaskie

8. FDI	Largest recipient of FDI in eastern Germany bringing an important influx of funds Strong influx of FDI to the region and strong presence of foreign investors FDI investment in the region have been quite significant	Sachsen-Anhalt Central Trandania Estado de Mexico
9. geography	Favourable geographic location to EU markets and central location in the country Favourable geographic location and proximity to core European markets A favourable geographic position The region has taken advantage of good geographic location Proximity to the Eastern border Central geographic location with proximity to London Proximity to the main production consumer hub in Mexico Unfavourable geographic location on the periphery of the EU border Unfavourable geographic location -- to a large extent the impermeable EU external border Geographic location peripheral to Western markets, separated by mountainous terrain to capital region Privileged geographic location close to Brussels, Paris and London still have not fully translated into economic growth The region's geographic terrain, not prone to productivity gains hampers development efforts	Wielkopolskie Sachsen-Anhalt Central Trandania San Luis Potosi Lubelskie Yorkshire and Humberside (Leeds) Estado de Mexico Podlaskie Lubelskie Vychodne Slovenko Nord Pas de Calais Chiapas
10. human capital	Reduction of low skilled workers improved stock of technical students and more response to the demands of market Adequate and continued supply of skilled workers in the region and better matching the market needs The tertiary education brings a very high research potential to the region Abundant labour force with human capital technical skills in the surging sectors Ability to transform its economy to higher value-added goods through human capital gains Gains in human capital improving adult skills and vocational training adding to the region's capacity Adequate higher educational facilities have brought an important human capital potential to the region Adequate levels of human capital in higher education Higher education institutions supply a diversified pool of highly skilled workers Critical mass in human capital due to a notable concentration of higher education institutions Strong higher educational programmes and institutions Higher education institutions attracting students and improving supply of high skilled workers Low flexibility of the education system which is not adjusted to real needs, Availability of talent is lacking to the growing demands of the region Brain drain in high-skilled workers represents a loss of human capital potential High proportion of low-skilled workers and weak links between educational and business sector Gaps between human capital supplied and the needs of the region. Brain drain due to insufficient industrial production Labour market capacity and skills in selected areas would add to the regions economic capacity Loss of human capital potential for future generations with high dropout rates and low secondary attainments There is an important lack of human capital and loss of human capital potential Deficit in high-skilled labour measured by the proportion of the labour force with tertiary educational attainments Inadequacy of educational level and low availability of jobs-skill in the region	Asturias Brandenburg Midi Pyrenees San Luis Potosi Jalisco Durango Podlaskie Lubelskie North West (Manchester) Yorkshire and Humberside (Leeds) North East (Tyne and Wear) Nord Pas de Calais Wielkopolskie Zuid Nederland Sachsen-Anhalt Central Trandania Jalisco Vychodne Slovenko Yorkshire and Humberside (Leeds) Nord Pas de Calais Chiapas Estado de Mexico Zacatecas
11. infrastructure connectivity	Infrastructure improvements connecting a relatively closed region to external markets Adequate infrastructure facilities providing good external connections to the east and west Adequate infrastructure investments improved attracting and connectivity to European and international markets Important improvements in infrastructure have lifted attracting logistic companies to the region Fairly advanced infrastructure network have strengthened connections to Budapest and to European markets Adequate infrastructure have helped consolidation of an important logistics hub around the metropolitan zone of Adequate transport infrastructure capitalising on the region's privileged geographic position The presence of road and rail infrastructure and adequate geographic location Important improvements in the transport infrastructure networks Capital deepening brought by investments in physical capital in the city centre Infrastructure gains modernising the port, railways and airport have benefited the region over the past decades Uneven development of transportation infrastructure with accessibility lacking in some parts of the region Gaps in ICT infrastructure limits the capacity of disseminating innovation around industrial clusters Connectivity gaps between the metropolitan area San Luis Potosi and the ports of Tampico Altamira Inadequate logistics infrastructure could give greater impetus to the region Inadequate infrastructure in the region lacking an airport and adequate road and rail infrastructure Limited transport network lacking motorways ring roads and the railways and local roads are inefficient Inadequate infrastructure with low motorway density limited connection between cities and with external markets Inadequate infrastructure still represents an important bottleneck for development	Asturias Wielkopolskie Brandenburg Sachsen-Anhalt Central Trandania San Luis Potosi Jalisco Durango Sicily North West (Manchester) Chiapas Wielkopolskie Marche San Luis Potosi Durango Podlaskie Lubelskie Vychodne Slovenko Chiapas

	Strong open innovation value chains with a strong involvement of the private sector	Zuid Nederland
	Entrepreneurial tradition in the region	Marche
	Ability to turnaround traditional sectors through innovation-intensive initiatives	Marche
	Strong research capacity in the regions mainly centred in Gironde	Aquitaine
	Innovation intensity driven by steady growth of the aerospace cluster and active innovation-driven policy	Midi Pyrénées
	Small-scale examples of innovative policy	Sicily
	Low appliance of the research and scientific potential, and relatively low funding of R&D, especially in enterprise	Wielkopolskie
	The application of technologies in the region's natural amenities has brought important gains	Chiapas
	A low entrepreneurial spirit	Asturias
12. innovation includes entrepreneurial	Slow pace of further modernisation of regional economy	Wielkopolskie
	Bottlenecks in further unleashing innovation potential and creating more economic value of existing innovations	Zuid Nederland
	Low level of overall R&D investment especially by the business sector	Brandenburg
	Low innovation capacity due to lack of headquarters and obstacles to enhance links between university and business	Sachsen-Anhalt
	Low innovation due to few connections between large firms and SME's and weak links between HED and business	Central Transdanubia
	Insufficient integration of the region's regional innovation system	Aquitaine
	Low entrepreneurial culture along with sentiments against manufacturing	Aquitaine
	The decline of low tech-activities (textiles, leather, wood processing) in a number of rural areas	Midi Pyrénées
	A lack of regional entrepreneurial culture especially in traditional sectors and smaller firms	Jalisco
	Persistent weakness of R&D investments and low involvement of the private sector in R&D activities	Nord Pas de Calais
	Limited entrepreneurial culture and low private initiative	Nord Pas de Calais
	Mobilising key actors by reaching agreements in a region with a strong legacy of conflict	Asturias
	Institutional arrangements supporting economic development	Wielkopolskie
	A successful turnaround driven by mobilising key actors and stakeholders in the region	Zuid Nederland
	The common voice and strong position	Zuid Nederland
	Active role by key local public and private actors focusing on innovation and workforce development/retention	Marche
	Mobilising stakeholders in the regions through enhanced dialogue and interactions among key stakeholders	Jalisco
13. institutions governance leadership capacity continuity mobilisation	Institutional arrangements supporting economic development	Podlaskie
	Coherence and continuity in governance	North West (Manchester)
	Important gaps in of multi-level governance	Podlaskie
	Lack of political vision to change traditional, entrenched interests vested in the status quo in the region	Sicily
	Institutional capacity building should be improved in terms of organisational efficiency and use of human capital	Sicily
	Inability to define and apply performance-based indicators	Sicily
	An excess of programmes too thinly spread	North West (Manchester)
	Lack of effective mobilisation of all key stakeholders in the region	Yorkshire and Humberside (Leeds)
	Inability to fully mobilise key actors in the region and accelerate a shift towards growth potential	North East (Tyne and Wear)
	Lack continuity in governance and in policy design brought by institutional stability	North East (Tyne and Wear)
	Internationalisation of regional economy	Wielkopolskie
	High international exposition	Midi Pyrénées
	Adequate brand name of Guadalajara	Jalisco
14. interationalisation international competition brandname attractiveness	Mobilising the region's natural environment and resources changing image from typically rural to relatively attractive	Podlaskie
	Improvements of the Sicily brand	Sicily
	Low wage cost attracting foreign investments	Vychodne Slovenko
	The region's brand name has brought positive gains	Chiapas
	International appeal and brand name of the region	Zuid Nederland
	Vulnerability to global competition especially in traditional sectors with low levels of innovation	Marche
	Enhanced competition by Asian importers in wood and wood-related activities in the internal markets	Durango
15. other	Favourable social determinants for economic development	Wielkopolskie
	The flows of remittances, from migrants living outside of the region	Zacatecas
	Balancing traditional culture, social policies with development efforts.	Chiapas

16. policies -- shift mentality, silos fragmentation, adjusting policies to assets, linkages, cross border, urban and spatial	Transitioning from being less reliance on external subsidies and more on growth potential	Asturias
	Continuity in policy programs and goals resulting in a shift from exogenous based programs to internal ones	Zuid Nederland
	Mentality and policy shift from a focused on subsidies to towards growth potential	Brandenburg
	Gradual change of mentality making region less dependent on external interventions and more on internal ones	Sachsen-Anhalt
	The regeneration of the city-centre of Bordeaux through urban and spatial planning	Aquitaine
	Linkages between firms and universities have been improved in recent years	San Luis Potosi
	Urban development in the metropolitan area of Guadalajara has been an important driver in the region	Jalisco
	Cross-regional linkages with its neighbouring region of Coahuila	Durango
	Adjusting of economic activities to the region's assets and its environmental constraints.	Podlaskie
	Enhancing links with Belarus and Lithuania brought benefits to the region's proximity to eastern borders	Podlaskie
	Good border cooperation	Vychodne Slovenko
	The regeneration in the City Region has brought important economic benefits	North East (Tyne and Wear)
	Urban dynamism mainly in the capital city of Lille	Nord Pas de Calais
	Inefficiency of selected policies supporting development undertakings	Wielkopolskie
	Further enhance cross-border cooperation with regions in Germany and Belgium	Zuid Nederland
	Spatial planning and in particular urban planning remains underdeveloped	Midi Pyrenees
A culture of low cooperation due to initiatives lacking yield low inter-firm co-operation	San Luis Potosi	
Problem of urban development with an efficient urban system lacking	San Luis Potosi	
Lack of effective territorial coordination due to high sectorialisation of national policies and lack of leadership	Jalisco	
Inadequate integration of the region into spatial and functional structures at supra-regional and national level	Podlaskie	
Increased commuting and congestion costs represent important bottlenecks to the Guadalajara metropolitan area	Jalisco	
Insufficient links between educational institutions and local and regional business activities	Podlaskie	
Inefficiency of selected policies supporting development undertakings	Podlaskie	
Inadequate integration of the region into spatial and functional structures at the supra-regional and national level	Lubelskie	
Difficulty in creating a paradigm shift toward growth potential	Sicily	
Unfavourable policy environment	Vychodne Slovenko	
Slow reaction by the region to external shocks and slow implementation of structural transformation	Estado de Mexico	
17. presence of natural assets and amenities	The presence of natural resources and improvements in infrastructure and proximity to northern markets	Durango
	The establishment of the nation's largest dairy clusters in the north of Mexico	Durango
	Natural tourism has been an important driver of the region's value-added	Chiapas
	The presence of mineral and mineral activities	Zacatecas
18. Tourism	Tourism development has been an important driver in the region	Aquitaine
	Tourism development	Vychodne Slovenko

Factors for Growth Among Regions Growing Above Average “Growing” Regions

Factors for growth in regions growing above average	Frequency	%
Policies (shift mentality, silos, fragmentation, adjusting policies to assets, linkages, cross border, urban spatial)	8	15%
Infrastructure connectivity	8	15%
Institutions (governance, leadership capacity, continuity, mobilisation)	6	12%
Human capital	6	12%
Innovation, includes entrepreneurial	5	10%
Business environment, public sector activity and industry	5	10%
Geography	4	8%
Internationalisation: international competition and brandname attractiveness	3	6%
Presence of natural assets and amenities	2	4%
FDI	2	4%
Economy (diversified, differentiated and market aware)	1	2%
Other	1	2%
Tourism	1	2%
Density (cohesion, internal fragmentation, labour market mismatch)	0	0%
Demographic factors	0	0%
Agriculture	0	0%
Environmental constraints	0	0%
Availability of financing	0	0%
Total	52	100%

Bottlenecks in Regions Growing Below Average

“Underperforming Regions”

bottlenecks in regions growing below average	frequency	in %
Institutions (governance, leadership capacity, continuity, mobilisation)	8	15%
Policies (shift mentality, silos, fragmentation, adjusting policies to assets, linkages, cross border, urban spatial)	7	13%
Density (cohesion, internal fragmentation, labour market mismatch)	7	13%
Human capital	6	12%
Geography	5	10%
Infrastructure connectivity	4	8%
Business environment, public sector activity and industry	3	6%
Demographic factors	3	6%
Innovation, includes entrepreneurial	2	4%
Agriculture	2	4%
Economy (diversified, differentiated and market aware)	1	2%
Other	1	2%
Environmental constraints	1	2%
Internationalisation: international competition and brandname attractiveness	0	0%
Presence of natural assets and amenities	0	0%
FDI	0	0%
Tourism	0	0%
Availability of financing	0	0%
total	50	100%

A turn-around story: Asturias

		Asturias	Spain	OECD	nat gap	OECD gap
levels						
GDP pc	1995	15,721	17,537	18,926	90%	83%
	2007	22,338	23,802	24,716	94%	90%
GDP	2007	23,647	1,086,054			
GDP share	1995	2.18%	n.a.			
productivity	1995	50,801	52,850	44,702	96%	114%
	2007	54,574	53,353	54,614	102%	100%
population	2008	1,059,136	39,478,186	3,481,456		
population share	2008	2.68%	n.a.	n.a.		
population density	2008	100	89	281		
motorway density (p)	2008	0.37	0.30	0.20	123%	181%
motorway density (a)	2008	36.68	26.71	21.91	137%	167%
primary attainment % LF	2008	39.1%	44.0%	27.4%		
tertiary attainment % LF	2008	37.5%	32.8%	26.0%		
unemployment rate	2008	8.5	11.3	6.3	-2.84	2.2
employment rate	2008	62.6	63.8	66.7	-1.24	-4.1
long term unemployment	2008	2.32	2.5	2.4	-0.18	-0.1
youth unemployment	2008	21.53	24.8	15.3	-3.28	6.2
patent applications	2007	11.18	98.4	430.1		
patents per million	2007	10.6	6.9	85.6	152%	12%
BERD to GDP	2005	0.34%	0.23%	0.93%	150%	36%
GERD to GDP	2005	0.12%	0.09%	0.25%	133%	48%
changes						
GDP pc growth	1995-2007	3.0%	2.6%	2.3%		
GDP growth	1995-2007	2.6%	3.5%	2.8%		
Productivity growth	1995-2007	0.6%	0.08%	1.62%		
population growth	1995-2008	-0.13%	1.06%	0.5%		
primary education (pp ch)	1999-2008	-14.0%	-12.3%	-6.1%		
tertiary education (pp ch)	1999-2008	7.7%	6.6%	5.8%		
employment rate (pp ch)	1995-2008	15.75	10.42	1.87		
unemployment rate (pp ch)	1995-2008	-9.46	-4.13	-1.82		

The keys:

❖ *Human capital*

❖ *Connectivity*

❖ *Leadership & Governance*

Complementarities and Synergies

Common growth factors in regions with above-average growth

	Policies (shift mentality, silos, fragmentation, adjusting policies to assets, linkages, cross-border, urban spatial)	Human capital	Infrastructure, connectivity	Business environment, public sector activity and industry	Geography	Institutions (governance, leadership capacity, continuity, mobilisation)	Innovation and entrepreneurship	Other	International competition and brand-name attractiveness	Presence of natural assets and amenities	FDI	Economy (diversified, differentiated, market awareness)	Tourism
Jalisco	x	x	x			x			x				
Asturias	x	x	x			x							
Brandenburg	x	x	x										
Durango	x	x	x							xx			
San Luis Potosi	x	x	x	x	x								
Sachsen-Anhalt	x	x	x	x	x						x		
Wielkopolskie			x	x	x	x		x	x			x	
Central Transdanubia			x	x	x						x		
Zuid Nederland	x					xx	x						
Marche				x		x	xx						
Midi Pyrénées		x					x		x				
Aquitaine	x						x						x

- Simultaneous improvement in **policies**, **infrastructure** and **human capital**, suggesting strong synergies and avoidance of brain-drain effects.
- Simultaneous improvement in **infrastructure**, **the business environment** and **geographic factors** , thus avoiding leaking-by-linking effects.
- Simultaneous improvement in institutions and in innovation related activities.

Conclusion

1. Institutional factors and policy framework matters

- Institutions that facilitate negotiation and dialogue among key actors in order to mobilise and integrate them into the development process are vital, as are those that enhance policy continuity
- Self-conscious shift towards a growth-oriented policy framework is very often a part of the recipe for success.

2. Complementarities and synergies are critical

- Simultaneous improvement in policies, infrastructure and human capital, suggesting strong synergies and avoidance of brain-drain effects.
- Simultaneous improvement in *infrastructure, the business environment and geographic factors*, thus avoiding leaking-by-linking effects.

3. Upgrading the skills of **low-skilled workers** may be as important for growth as policies aimed at expanding higher education.

4. **Infrastructure** does not appear to be the binding constraint for the great majority of regions.

thank you

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