

Cities and Regional Development

J.-F. Thisse
CORE-UCLouvain (Belgium),
Higher School of Economics and CEPR

**Economic Geography and
Urban Economics seek to
explain the riddle of uneven
spatial development...**

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explain the riddle of uneven
spatial development...**

**at all spatial scales, from
the larger to the small**

**Regardless of the spatial
scale, there is no such thing as
a flat economic space**

**Do institutions (or culture,
religion) matter?**

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Think of South Korea versus North
Korea

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Think of South Korea versus North
Korea

Living standards are about 10 times
higher in the former than in the latter



***Another* amazing fact**

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**In 2008, Greater Seoul - 11.8%
of the country area and 48.6%
of its population – produces
47.8% of the Korean GDP**

**The metropolitan area of Paris,
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Inside Greater Paris, only 12% of the available land is used for housing, plants, and roads

In 2000, the 38 largest metropolitan areas of the EU-15 cover less than 1% of the surface area of the Union, but accommodate 27% of its jobs and produce 29,5% of the EU-15 GDP

**What drives
spatial inequality?**

**What drives
spatial inequality?**

And is it necessarily bad?

Nature is unfair

Nature is unfair

BUT

The Basic Trade-off

The Basic Trade-off

(i) Scale Economies

versus

(ii) Transportation Costs

City Wall: $2\pi R / \pi R^2 = 2/R$

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Temple: local public good

1 or 2 facilities

2 regions (East and West)

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- **1 facility: $F + T$**

- **2 facilities: $2 F$**

What is the “optimal” decision?

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- $2 F < F + T \rightarrow 2 \text{ facilities}$
- $F + T < 2 F \rightarrow 1 \text{ facility}$

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1 facility if and only if $T < F$

The 1st Law of Economic Geography

The **1st** Law of Economic Geography

- ***Not** everything can be made available **all** over the places*

**Lowering transport and trade
costs fosters the
geographical concentration
of economic activities**

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From **1000 to 1700, which, in Europe, was on the whole a period of progress, it can be very roughly estimated that the productivity of the whole economy was, at best, multiplied by **2****

Between 1800 and 1910, it can be estimated that the lowering of the real average prices of transportation was on the order of 10 to 1 (Bairoch)

Per capita GDP of European countries expressed in 1960 U.S. dollars and prices

Countries	1800	1830	1850	1870	1890	1900	1913
Austria-Hungary	200	240	275	310	370	425	510
Belgium	200	240	335	450	55	650	815
Bulgaria	175	185	205	225	260	275	285
Denmark	205	225	280	365	525	655	885
Finland	180	190	230	300	370	430	525
France	205	275	345	450	525	610	670
Germany	200	240	305	425	540	645	790
Greece	190	195	220	255	300	310	335
Italy	220	240	260	300	315	345	455
Netherlands	270	320	385	470	570	610	740
Norway	185	225	285	340	430	475	615
Portugal	230	250	275	290	295	320	335
Romania	190	195	205	225	265	300	370
Russia	170	180	190	220	210	260	340
Serbia	185	200	215	235	260	270	300
Spain	210	250	295	315	325	365	400
Sweden	195	235	270	315	405	495	705
Switzerland	190	240	340	485	645	730	895
United Kingdom	240	355	470	650	815	915	1035
Mean	200	240	285	350	400	465	550
Relative standard deviation	12%	18%	23%	31%	38%	39%	42%

Elasticity of GDP per capita with respect to distance to the UK

	1800	1830	1850	1870	1890	1900	1913
Slope	-0.090	-0.195	-0.283	-0.371	-0.426	-0.437	-0.436
Standard-deviation	0.028	0.029	0.028	0.032	0.052	0.058	0.078
R ²	0.376	0.717	0.857	0.883	0.796	0.764	0.647

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**distance to the UK matters
more and more
(a correlation)**

2 “big” regions ($S > 1$)

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- **1 facility** \rightarrow **F + S T**
- **2 facilities** \rightarrow **F + F**

2 “big” regions ($S > 1$)

- 1 facility $\rightarrow F + S T$
- 2 facilities $\rightarrow F + F$

2 facilities if and only if $S T > F$

**Large regional markets
foster the geographical
dispersion of economic
activities**

**Large regional markets
foster the geographical
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activities**

**Large markets attract firms
and workers because they are
large but they are large
because they are attractive**

**Economic journalists have
celebrated**

the *death of distance*

the *weightless economy* or

the emergence of

a *flat world*

**Empirical studies do not
confirm such predictions**

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confirm such predictions**

**Quite the opposite:
proximity still matters**

**for differentiated digital products (such
as music or electronic games)**

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**a 1% increase in distance reduces the
number of websites visits by 3.25%**

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once controlled for other key determinants such as language or internet penetration

The **2d** Law of Economic Geography

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- *What is **nearby** matters more than what is **far away***

- **Market access (customers)**

- **Market access (customers)**
- **Supplier access
(intermediate inputs)**

Increasing returns
internal to firms

Increasing returns
internal to firms

Increasing returns
external to firms

(and workers)

Agglomeration Economies

**Empirical evidence shows
the existence of strong**

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**agglomeration economies
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egg-and-chicken problem

Reverse causality

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To solve this problem we must
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endogeneity → **simultaneity & omitted variables**

employment density

employment density
 \neq
population density

“density economies”

$$\log \mathbf{lp} = \alpha + \beta \log \mathbf{den} + \varepsilon$$

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$$\log \mathbf{lp} = \alpha + \beta \log \mathbf{den} + \varepsilon$$

β ranges from **3 to 11%**

To a large extent, the elasticity of wages with respect to density is explained by differences in workers' skill

**Does proximity matter
at the age of Internet?**

**Does proximity matter
at the age of Internet?**

Yes it does

- **Sharing**

- **Sharing**

- **Matching**

- **Sharing**
- **Matching**
- **Learning**

Information and knowledge spillovers

Information and knowledge spillovers

Tacit and embodied knowledge

Information and knowledge spillovers

Tacit and embodied knowledge

Cities connect (skilled) people

The various facets of knowledge

The various facets of knowledge

Learning-by-doing

The various facets of knowledge

Learning-by-doing

Learning from others

The various facets of knowledge

Learning-by-doing

Learning from others

**Spillovers are more profitable to
skilled workers**

**The world's supply for land
vastly exceeds the demand
for land**

**The world's supply for land
vastly exceeds the demand
for land**

→ **the price of land should be
zero!**

**So why is housing so
expensive in large cities?**

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expensive in large cities?**

Because proximity matters...

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expensive in large cities?**

Because proximity matters...

**otherwise firms and people
wouldn't pay high land rents**

People pay higher prices for housing because they earn higher wages in larger cities, and they earn higher wages because they are more productive in larger cities

**Land rents capitalize the
benefits of being close
to ...**

**Land rents capitalize the
benefits of being close
to ... something**

**What do I mean by
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- **Research centers**
- **Public policies**
- **...**

So do we need cluster?

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Yes but they are not all good

So do we need cluster?

Yes but they are not all good

Should we plan clusters?

So do we need cluster?

Yes but they are not all good

Should we plan clusters?

No but governments can help

Why?

Why?

(i) Clusters often emerge because firms know **when** it's good for them

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(ii) Hard to figure out **which** activities benefit from clusters

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(ii) Hard to figure out **which** activities benefit from clusters

(iii) **Negative** clusters

No need of public policy?

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(i) (Local) Governments should first provide basic **public services**: the rule of law, education, health, and street security

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(ii) **Local** governments may help **coordinate** private agents and provide **some** business infrastructure

More?

More?

**Sure but let's keep some
material for further
discussion**

The bottom line

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**Even in a globalizing world,
what is close still matters**

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what is close still matters**

Land market-savvy policies

Thank you for your attention