World Development Report 2009

Reshaping Economic Geography
Place and progress

- **Tokyo—the biggest city**
  - 35 million out of 120 million, packed into 4 percent of Japan’s land area
  - Every day, its subways move 8 million people

- **USA—the most mobile country**
  - More than 35 million out of 300 million changed residence in 2006
  - Every year, 8 million people migrate between states

- **West Europe—the most integrated continent**
  - About 35 percent of GDP is traded
  - 60 percent of its trade is intra-regional
Crowded cities

Tokyo’s trains have been moving 8 million people every day
Packing in the subways

Tokyo’s “trainpackers” crush commuters into metrorail carriages
Piling up wealth—the fruits of proximity

Japan’s economic mass is concentrated in the Tokyo-Yokohama area
Going home for the holidays

Planes in the air on the Tuesday before Thanksgiving in the US
Going home for the holidays

Some of the 35 million Thanksgiving travelers stuck in traffic jams
Going home for the holidays?

Stranded by storms before the Thanksgiving weekend
Why Americans put up with the pain of moving

Economic mass is concentrated in a few parts of a big country
Specializing and trading in Western Europe

Airbus parts are made, moved, and assembled all over Western Europe.
Made possible by a slow and painful integration

Slow institutional integration in Western Europe during the last 50 years

Figure 1. Institutional index of integration for EU-6 (BE, DE, FR, LU, IT, NL) (1957–2001).
The result?

The US, EU-15, and Japan cover much of the economic globe
Stories being repeated now in developing Asia

• **Mumbai**—the most densely populated city
  – About 30,000 people per sq. km.; already twice the density of Seoul, Shanghai, and Bogota
  – More keep coming

• **China**—the most mobile developing country
  – 60 million migrant workers traveled from home on the last day of Chinese New Year holidays in 2006
  – 200 million travelers were stranded due to snow storms days before Chinese New Year in 2008

• **Southeast Asia**—the most rapidly integrating developing region
  – Trade is big part of GDP
  – More than 25 percent of its trade is within Southeast Asia, more than 50 percent if Northeast Asia is included
Stuffed trains in Mumbai

Mumbai’s trains move 6 million people every day
Trainpackers needed

10 people die every day on Mumbai’s trains
Going to work in China

Millions of Chinese workers migrated despite restrictions in the 1990s
Going home in China

Guangzhou railway station during Chinese New Year, 2008
Specialization and trade in Southeast Asia

Computer parts are made and assembled all over East Asia

Figure 8: An example of interdependence in ‘Factory Asia.’

Note: This shows the nations where parts are sourced for a hard-disk drive assembled in Thailand; the disk drives are then shipped on to various markets to be used in various electronics.

Source: Adapted from Hiratsuka (2005) Figure 2
The result?

China, Southeast Asia, and India are gaining economic density

GDP Density
Spatial transformations needed for progress

- **Higher Densities**
  - No country has grown to high income without urbanizing

- **Shorter Distances**
  - Growth seldom comes without the need to move closer to density

- **Fewer Divisions**
  - Growth seldom comes to a place that is isolated from others
Messages

• **Concentration of economic mass** is inevitable and generally desirable
  – At least within countries

• **But persistent spatial disparities in living standards** are neither desirable nor inevitable
  – Not within countries, not between countries

• **The way to get both concentration and convergence** is **integration**
  – Both within and between countries
Policy concerns

• **Concentration of people** in cities will outstrip concentration of economic mass
  – A billion people in the world’s slums

• **Spatial disparities in living standards** will widen as economic mass concentrates in places distant from where people are
  – A billion people in remote and lagging areas

• **Poor people will be trapped in isolated countries that are not developing**
  – The new ‘Third World’: Collier’s “Bottom Billion”
A billion in slums
A billion in remote areas
The “Bottom Billion”
Spatial scales

The second spatial scale: The **Country of Nigeria**

The first spatial scale: The **Area around Lagos State**

The third spatial scale: The **West African Region**
Report structure

Spatial Scale 1: Area
1. Density: Rural-Urban

Spatial Scale 2: Country
2. Distance: Lagging-leading

Spatial Scale 3: Region
3. Division: Isolated-Connected

Part One: Stylized Facts
4. Scale economies: Agglomeration
5. Factor mobility: Migration

Part Two: Market Forces
6. Transport costs: Specialization and trade

Part Three: Government Policies
7. Urbanization
8. Territorial development
9. Regional integration

May 15, 2008  Trade Course  27
Concentration of economic activity rises, then levels off

The richer, the denser: People concentrate in towns and cities as nations develop.

Agglomeration Index, using a spatial resolution of 1 square kilometer.
Concentration of economic activity rises, then levels off

[Graph showing the concentration of economic activity for various countries over different time periods, highlighting Brazil (1960-2004), Japan (1900-2000), Spain (1850-2000), USA (1960-2000), Canada (1890-2006), Netherlands (1850-2006).]
Divergence, then convergence, but only in growing countries
Divergence, then convergence, in growing Malaysia

Poverty Incidence

Access to sanitation
Divergence, then convergence, but only in growing regions

Convergence in East Asia, 1950-2006
(Coefficient of variation and per capita GDP growth)
Urbanization rates not unprecedented

In charted waters: The pace of urbanization today is not unprecedented

Change in urban shares since 1800

- Canada, 1880-1900
- UK, 1830-1850
- Germany, 1880-1900
- Denmark, and USA, respectively, 1800-1900
- Switzerland, 1880-1900

Mean of high-income countries, 1880-1900

Mean of developing countries, 1985-2005

Median of developing countries, 1985-2005
More borders for today’s developers

Figure: The number of borders between nation-states tripled in the past 50 years

Source: Stinnett and others (2002).
The Drivers of Spatial Transformations

<table>
<thead>
<tr>
<th>Unit</th>
<th>Local</th>
<th>National</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area</td>
<td>Country</td>
<td>Region</td>
</tr>
<tr>
<td>Examples</td>
<td>Guangdong (178,000 sq km)</td>
<td>China (9.6 million sq km)</td>
<td>East Asia (15.9 million sq km)</td>
</tr>
<tr>
<td></td>
<td>Rio de Janeiro State (44,000 sq km)</td>
<td>Brazil (8.5 million sq km)</td>
<td>South America (17.8 million sq km)</td>
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<tr>
<td></td>
<td>Lagos State (3,600 sq km)</td>
<td>Nigeria (933,000 sq km)</td>
<td>West Africa (6.1 million sq km)</td>
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<tr>
<td></td>
<td>Greater Cairo (86,000 sq km)</td>
<td>Egypt (995,000 sq km)</td>
<td>North Africa (6.0 million sq km)</td>
</tr>
</tbody>
</table>

**Economic force**

- **Agglomeration**
  - Speeded by migration, capital mobility, and trade

- **Migration**
  - Influenced by agglomeration and specialization

- **Specialization/Trade**
  - Aided by agglomeration and factor mobility

**Key factor of production**

- **Land**
  - Immobile

- **Labor**
  - Mobile within countries

- **Intermediate inputs**
  - Mobile within and between countries

*Note:* Throughout the report, areas are within-country economic neighborhoods or administrative units such as states or provinces, and regions are groupings of countries based on geographic proximity. *Source:* WDR Team.
Intra-industry trade

![Graph showing trends in intra-industry trade from 1962 to 2006 for primary goods, intermediate goods, and final goods. The graph illustrates the increase in trade over time, with intermediate goods showing the most significant growth.]
Intra-industry trade
Density, distance, and division are the most important dimensions at the local, national, and international scales, respectively.

<table>
<thead>
<tr>
<th>Spatial Scales</th>
<th>Local</th>
<th>National</th>
<th>International</th>
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</thead>
<tbody>
<tr>
<td><strong>Unit</strong></td>
<td><strong>Area</strong></td>
<td><strong>Country</strong></td>
<td><strong>Region</strong></td>
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<tr>
<td><strong>Most important dimension</strong></td>
<td><strong>Density</strong></td>
<td><strong>Distance</strong></td>
<td><strong>Division</strong></td>
</tr>
<tr>
<td></td>
<td>Of rural and urban settlements</td>
<td>Between lagging and leading areas</td>
<td>Between isolated and connected countries</td>
</tr>
<tr>
<td><strong>Second-most important dimension</strong></td>
<td><strong>Distance</strong></td>
<td><strong>Density</strong></td>
<td><strong>Distance</strong></td>
</tr>
<tr>
<td></td>
<td>Due to congestion</td>
<td>Of population and poverty in lagging areas</td>
<td>To major world markets</td>
</tr>
<tr>
<td><strong>Third-most important dimension</strong></td>
<td><strong>Division</strong></td>
<td><strong>Division</strong></td>
<td><strong>Density</strong></td>
</tr>
<tr>
<td></td>
<td>Between formal and informal settlements</td>
<td>Between areas within countries</td>
<td>Absence of large country in region</td>
</tr>
</tbody>
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*Source:* WDR Team.
Borders can be thick
Policies

An ‘I’ for a ‘D’? An indicative matrix for calibrating the policy response

<table>
<thead>
<tr>
<th>Complexity of challenge</th>
<th>Place type—local (L), national (N), and international (I)spatial scales</th>
<th>Policy priorities for economic integration</th>
</tr>
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<tr>
<td></td>
<td></td>
<td>Institutions (Spatially blind)</td>
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<tr>
<td></td>
<td></td>
<td>Infrastructure (Spatially connective)</td>
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<td></td>
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<td>Incentives (Spatially targeted)</td>
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<tr>
<td><strong>One-dimensional</strong></td>
<td>L. Areas of incipient urbanization</td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>N. Nations with sparse lagging areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I. Regions close to world markets</td>
<td></td>
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<tr>
<td><strong>Two-dimensional</strong></td>
<td>L. Areas of intermediate urbanization</td>
<td>•</td>
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<tr>
<td></td>
<td>N. Nations with dense lagging areas</td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>I. Regions distant from world markets</td>
<td></td>
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<tr>
<td><strong>Three-dimensional</strong></td>
<td>L. Areas of advanced urbanization that have within-city divisions</td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>N. Nations with dense lagging areas and domestic divisions</td>
<td>•</td>
</tr>
<tr>
<td></td>
<td>I. Regions distant from markets with small economies</td>
<td>•</td>
</tr>
</tbody>
</table>

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China: Lagging areas have high poverty rates, but leading areas have most of the poor.
2D—Brazil: Lagging areas have high poverty rates and many of the poor

Brazil: Poverty rates are high in the North and Northeast, but most poor people live along the coast.
India: Poverty rates are high in the Central states, and many poor people live there.
Market access measures help to classify regions

Access to (domestic and foreign) markets differs greatly: Real market potential in 2003


The 3Ds suggest a simple taxonomy of the world’s neighborhoods
What the report proposes

1. Understand the spatial transformations necessary for economic progress
   - Higher Densities
   - Shorter Distances
   - Fewer Divisions

2. Unleash the market forces that promote concentration and convergence
   - Agglomeration
   - Migration
   - Specialization and trade

3. Calibrate policies to achieve economic integration
   - Spatially blind “institutions”.
   - Spatially connective “infrastructure”
   - Spatially targeted “incentives”

4. Result:
   - Unbalanced growth, balanced development