

Introduction to Economic Geography

Introduction to Economic Geography
Key concepts, themes, and analytical tools

1. What Is Economic Geography?

Aspect	Description
Definition	The study of the spatial distribution of economic activities (production, consumption, trade) and the processes that shape those patterns.
Core Question	<i>Where</i> are economic activities located, <i>why</i> are they located there, and <i>how</i> do they interact across space?
Interdisciplinary Links	Geography, economics, sociology, urban planning, environmental studies, political science.
Scale of Analysis	- Micro : firms, households, local labor markets. - Meso : cities, regions, industrial clusters. - Macro : national economies, global trade networks.

2. Fundamental Concepts

Concept	Meaning	Example
Location Theory	Explains how firms choose sites based on costs (transport, labor, land) and benefits (market access, agglomeration).	Weber's "least?cost" model for locating a steel plant.
Agglomeration Economies	Cost advantages that arise when firms and people cluster together.	Silicon Valley's tech ecosystem.
Spatial Interaction	The flow of goods, services, people, information between places, often modeled by gravity or radiation models.	Trade volume between New York and London.
Regional Development	Processes that cause uneven economic growth across space; includes convergence/divergence debates.	Rapid growth of East Asian "Tiger" economies vs stagnant regions in Sub-Saharan Africa.

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Concept	Meaning	Example
Global Production Networks (GPNs)	Chains of production dispersed across multiple countries, linked by multinational corporations.	Apple's design in California, components from Taiwan, assembly in China.
Path Dependence	Historical events lock regions into specific economic trajectories.	Coal mining towns that remain dependent on extractive industries.
Spatial Inequality	Unequal distribution of income, employment, and services across space.	Urban?rural wage gaps in the United States.

3. Analytical Tools & Models

Tool / Model	Purpose	Key Variables
Geographic Information Systems (GIS)	Visualize and analyze spatial data (maps, layers).	Coordinates, economic indicators, infrastructure.
Location Quotient (LQ)	Identify regional specialization by comparing local industry share to national average.	$(LQ = \frac{(e_i / e_t)}{(E_i / E_t)})$
Gravity Model	Predict trade or migration flows based on "mass" (GDP, population) and distance.	$(F_{ij})=G \frac{M_i M_j}{D_{ij}^{\beta}}$
Input?Output Analysis	Trace inter?industry linkages within a region.	Technical coefficients, final demand.
Spatial Autocorrelation (Moran's I)	Test whether similar economic values cluster spatially.	Value of variable, spatial weights matrix.
Econometric Spatial Models	Incorporate spatial dependence in regression (SAR, SEM, SDM).	Dependent variable, explanatory variables, spatial lag/error terms.
Network Analysis	Map and quantify connections in GPNs or transport systems.	Nodes (firms/ports), edges (flows), centrality measures.

4. Major Themes in Contemporary Economic Geography

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1. Globalization & the “New Economic Geography”

- Rise of multinational firms, offshoring, and global value chains.
- Core?