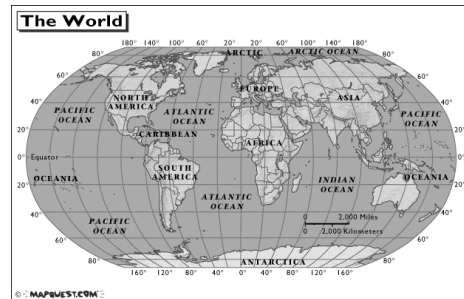


## Geography

- Why economists think geography important to economic development
  - Traditional subsistence economy: climate, bacteria, land, water, etc.
  - Modern economy: trade, coastal lines, ports, roads, etc.
- Jared Diamond, *Guns, Germs, and Steel: The Fates of Human Societies*, Norton, 1997
  - A fascinating book about how geography has shaped human societies

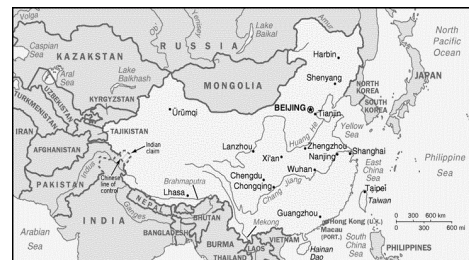
## Geography



## Geography

- Complexity of the effect of geography
  - Resources: fortune or curse
  - Geography and technology
    - air conditioning
    - telecommunication
  - Geography and institutions

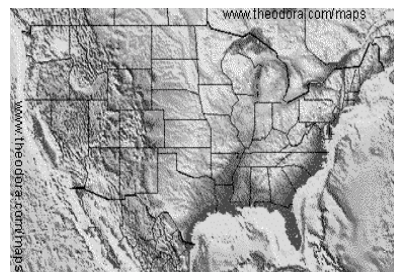
## China



## China



## United States



## India



## Comparisons

- Land and population (1980s figure)
  - China and India similar, U.S. is different (abundant land)

	Pop (m)	cultivated land	cultivated land/pop (h.)
China	1,200	1.39	0.12
India	731	1.41	0.19
U.S.	243	1.7	0.70
- Climate and latitude
  - China and US similar, India is different (south to the tropic of cancer)
- Coastal lines
  - India and US similar, China is different (semi land-locked)

## Time Line

- Basic facts and major events
  - -1840 (pre-modern period)
  - 1840-1911 (pre-Republic period)
  - 1911-1949 (Republic period)
  - 1949-1978 (People's Republic, pre-reform)
  - 1979-present (People's Republic, post-reform)

## Historical Perspective of China's Economic Position in the World

- 1000 A.D. (Song Dynasty): China among the richest in the world
- 1820 A.D. (Qing Daynasty): China's total GDP still the largest in the world
- 1950 A.D. (at the inception of the People's Republic): China's total GDP smallest in history
- 1978 A.D. (at the inception of the reform): China's per capita GDP very low

### Pre-Modern (-1840)

- During Song Dynasty (northern 960-1126; southern 1127-1279) China had the highest per capita production and income in the world, but declined since. A big puzzle.
- "Anyone who looked at the world, say a thousand years ago, would never have predicted great things for this protrusion at the western end of the Eurasian landmass that we call the continent of Europe. ... the probability at that point of European global dominance was somewhere around zero. Five hundred years later, it was getting close to one." (David Landes, *The Wealth and Poverty of Nations*, 1998)
- China's total GDP was still the largest in the world until the middle of the 19<sup>th</sup> century.

### Pre-Republic (1840-1911)

- China's modern history started from "international trade" and "integration into the world" in some sense
  - The problem from the British: balance of payment
  - A special commodity to trade: opium
- The Opium War of 1840, with China's defeat
  - Treaty of Nanking: conceded Hong Kong, opened ports, allowed extraterritorial rights in Chinese territories (foreign exemption from domestic laws)
  - Many other unequal treaties ensued with Germany, France, Japan, etc.

### Lessons from History

- History matters:
  - The Chinese feeling of a combination of pride and humiliation can be traced back to its history
  - The national humiliation is closely related to trade opening and engagement with the West
- Compared with the American war with the British
  - Also began with trade: Tea tax (1767), Boston Tea Party (1773)
  - American won the independence war (1776)
  - Followed by 200+ years of prolonged peace (with brief interruption of the Civil War)

### Republic Period (1911-1949)

- 1911: Ending of Qing Dynasty and beginning of the Republic of China
- 1911-27: Warlords divided China
- 1927-37: Ten years of peace
- 1937-45: Sino-Japanese war
- 1945-49: Civil war

### Two patterns of industrialization

- South of the Great Wall
  - Concentrated in a few treaty ports (Shanghai, Tianjin, Qingdao)
  - Textile, food products for domestic markets
  - Firms started by foreigners but native Chinese capitalists soon became a major force
- Northeast
  - Japanese government-sponsored industrialization
  - Heavy industry and railroads to exploit coal and iron ore for the Japanese market

### Pre-Reform Period (1949-78)

- Initial economic conditions in 1952
  - Heavy industry base in Northeast China inherited from the Japanese
  - Light industry in a few port cities
  - On average a very poor peasant economy
  - Major industrialization indicators even lower than India

### Comparisons: China (1952) vs. India (1950)

	China 1952	India 1950
GDP per capita (\$)	50	60
Population (million)	573	358
Industrial output per capita		
Coal (kg)	96	97
Steel (kg)	2	4
Electricity (kw)	0.005	0.04
Cotton spindles	0.01	0.03
Railroads (km, 1936)	20,746	72,000

### Time Line (1949-78)

- 1949-52: Economic recovery to the 1937 level
- 1953-57: Copy of the Soviet model
- 1958-59: Mao's model: Great Leap Forward
- 1960-62: Worst famine in human history
- 1962-65: Economic recovery
- 1966-76: Mao's model again: Cultural Revolution
- 1977-78: Transitional period
- Less than 10 years of normal development

### Basic Development Strategy

- Socialist heavy industry priority development strategy a la the Soviet Union
  - High investment rate (investment/GDP): > 30%
  - Most in heavy industry (producer goods): > 80%
  - Rapid industrial growth rate: > 10% per year
- Result: Rapid structural change (% of GDP)

	1952	1978
Agriculture	51%	28%
Industry+construction	18%+2%	44%+4%
Service	29%	24%

### Problems

- Slow individual consumption growth
  - Per capita growth by 2.3% per year
  - Urban faster (3%) and rural slower (1.8%)
  - Between 1952 and 1978, rural per capita consumption only 58% higher
  - Shortage of consumer goods
  - Ration coupons for basic goods such as grain and cotton cloth
  - Caution: “Social consumption” not included, such as school education and medical service

### Problems

- Slow employment creation
  - Heavy industry capital intensive, not labor intensive
  - Labor force growth much slower than output (5.4% vs. 11%) in industry sector
  - Employment in non-agriculture sectors grew from 34 million in 1952 to 105 million (net increase of 71 million)
  - But: total labor force grew from 207 million to 398 million (net increase of 191 million)
  - Bottom line: employment creation only absorbed 37% of the increase in labor force
  - Agriculture labor force as 70% larger in 1978 than in 1952, while cultivated land remained constant

### Comparisons with Taiwan and Hong Kong

	Heavy industry priority	Light industry priority
Strategy Key	Upstream industries	Consumer goods industries
Demand	Domestic industries	Domestic/export markets
Investment	Government	Private and government
Savings	Government	Private and government
Household	Income growth slowly	Income growth moderate
Coordination	Plan	Market

### Debates on Development Strategy

- “Balanced development theory”
  - All sectors should be developed simultaneously
  - Rosenstein-Rodan (1943), Nurske (1953), Scitovsky (1954)
- “Leading sector development theory”
  - Limited resources in a few key leading sectors first, to pull up other sectors later
  - Hirschman (1958), *The Strategy of Economic Development*
- “Import substitution” vs. “export promotion”

### Nature of the Socialist System

- Three fundamental features
  - Communist Party in power, guaranteed by the Constitution
  - Dominant public ownership
  - Central planning as the main mechanism of resource allocation
- The three features are common in all centrally planned economies
  - Eastern Europe, the Soviet Union, China, Vietnam, North Korea, Cuba, etc.

### 1. The Party-State

- Monopoly of power
  - Controls every aspect of the society
  - Controls everyone in the society
- The Party's jurisdictions
  - Personnel appointment, promotion, dismissal
  - Major decisions of the government
  - Ideology and propaganda
  - Mass organization (union, students, women, etc.)
- The Government's jurisdictions
  - Formulating plans
  - Implementing plans
  - Control over property, finance, prices, etc.

### 2. Public Ownership

- Property Rights
  - Rights to the income generated by the use of property
  - Rights of use of the property
  - Rights of transfer of the property
- Distinction between two types of property
  - Means of production: for producing products or services
  - Personal property: for personal use
- Distinction between two types of ownership
  - Public vs. private
  - State vs. non-state

### 2. Public Ownership

- State ownership
  - Highest form of public ownership
  - Nominally, ownership belongs to the "whole people"
  - The government exercises all the rights
    - Incomes go to the state budget
    - Government bureaucrats decide how to use property
    - Government bureaucrats decide how to transfer property
- Collective and cooperative ownership
  - Lower form of public ownership
  - Nominally ownership belongs to a group of people
  - In reality, government control and intervention

### 3. Central Planning

- Government control over investment
  - Five year plan and annual plan determine investment priorities
  - Also decide on specific investment projects (large investment projects approved by Politburo)
  - All the necessary resources are allocated to the "key projects" such as funds, labor, foreign exchange, etc.
  - A politicized process, not just for economic objectives
  - "resource mobilization economy," like "war economy"

### 3. Central Planning

- Price determination
  - Prices set by government not to equate supply and demand
  - Basic principle: prices reflect the social necessary costs (excluding land and capital) and prices should be stable
  - Price policy serves the purposes of
    - channeling funds to the government
    - income redistribution
- Price distortion patterns
  - Low prices for consumer basic need (food, rent, health care etc.) and raw materials
  - High prices for manufactured goods and luxury goods
  - Low factor prices (wages, interest rates, exchange rates)

### 3. Central Planning

- Production plan: material balance
  - An output target for each producer
  - A supply plan that transfer resources between producers
  - A schedule of usage coefficients linking inputs and outputs
- The input-out problem
  - How to disaggregate the plan
  - The problem of information
  - A huge number of bureaucrats involved
  - Feasible plan is possible, but not efficient plan

### 3. Central Planning

- Incentives of managers under central planning
  - If plan target is “the total number of nails,” tiny nails will be produced to maximize the number
  - If plan target is “the total weight of nails,” one huge nail will be produced to maximize the weight
  - Managers also bargain with the planner to lower output quotas and to raise input supplies
- Similarity and differences between managers under central planning and in public corporations
  - They all have “incentive problems”: conflict interests
  - Solutions are different. How?

### China’s Difference

- Different initial conditions
  - A huge number of peasants
  - Scarce land, labor intensive agriculture technology
  - Resource poor
  - Lower stage of development
- Mao’s different ideas
  - Won the war on a strategy against Soviet advice
  - Hated Soviet model of planning—too bureaucratic
  - Had no understanding of modern economy (plan or market)
  - Believed in political mobilization

### Initial Income Level

- China: low income level
  - 1978: low-income level at \$600 (in 2002 dollar, PPP)
  - 2002: lower-middle income level at \$4,580 (in 2002 dollar, PPP)
- Central and Eastern Europe: upper-middle income level
  - 1989: \$7,000-\$8,000 and above (in 2002 dollar, PPP)

### China’s Difference

- Three Major Differences
  - Regional decentralization
  - Large urban-rural divide
  - Political dominance and instability

### Regional Decentralization

Mao’s criticism of the Soviet model:

“Our territory is so vast, our population is so large and the conditions are so complex that it is far better to have the initiatives come from both the central and the local authorities than from one source alone. We must not follow the example of the Soviet Union in concentrating everything in the hands of the central authorities, shackling the local authorities and denying them the right to independent action” (Mao, 1956).

### Regional Decentralization

- 1958 decentralization
  - Delegation of SOEs to local governments
  - The central government controlled enterprises: 9,300 in 1957 and 1,200 in 1958
  - Planning (material balancing) at local level
  - Investment decisions by local governments
  - Local government budgets
  - Rural Commune
- Followed by economic disasters
- Recentralization in 1962-65

### Regional Decentralization

- 1970 decentralization
  - Perceived Soviet invasion: moved industry to inland
  - Rely on provincial government to set up independent industrial bases to diverse risks from war
  - Most SOEs delegated to local governments
  - Investment decisions by local governments: > 50% of investment in steel and iron made by local governments
  - Rural small industry to support "agricultural mechanization"
- Recentralization in 1975, but not complete

### Regional Decentralization

Distribution of State-Owned Industrial Enterprises by Administrative Levels (1985)

	Central	Provincial/City	County
Number	3,825	31,254	35,263
Output Share	20%	45%	9%

### Planning targets

- Comparison between Soviet Union and China in the number of planned commodities
  - Soviet Union
    - 1928: 0
    - 1940: 500
    - 1951: 1,600
    - 1970: 60,000
  - China
    - 1953: 0
    - 1957: 500
    - 1978: 800

### Industrial Structure

- A smaller number of industrial firms with very large size in the Soviet Union
  - Total of 40,000 state-run factories in 1970
  - Factories over 1,000 workers accounted for 3/4 of total industrial output
- A larger number of industrial firms with smaller size in China
  - Total of 83,000 state-run factories in 1978, plus 100,000 urban collectives and 700,000 rural collectives
  - Factories over 500 workers accounted for 40% of industrial output

### Industrial Structure

Comparison of Size of Enterprises (1988)  
(Employment/Enterprise)

	Manufacturing	Food Products	Apparel
Czechoslovakia	2,930	1,609	6,600
The Soviet Union	806	290	402
Hungary	460	925	307
Yugoslavia	311	243	402
China	145	75	80
Italy	96	71	71
United Kingdom	35	67	25

### Comparisons with the Soviet model

- China's central planning had special features to represent a radical departure from the standard Soviet model
- These peculiarities could not be attributed solely to China's state of economic underdevelopment. It was the decentralization which produced the systematic difference
- Decentralization within the Chinese state sector took the form of regional governments having some recognized property rights
- None of them existed in the Eastern European model

### Urban-Rural Divide

- A large and systematic urban-rural difference was created and sustained by administrative methods
- Urban residents vs. rural residents: different types of “residence permit”
- Urban residence permit (urban household registration, or *hukou*) is an institution to restrict migration from rural to urban areas
- The clear dividing line between urban and rural residence has been crucially important, and dismantled gradually

### Urban-Rural Divide

- Urban residence privileges
  - Food, cotton cloth, edible oil coupons, and entitlement to other scarce goods (e.g., bikes, watches)
  - Primary and secondary education
  - Guaranteed job
- Additional benefits for those working in the urban sector (state or collective sector)
  - Health care
  - Retirement benefits
  - Work unit-supplied housing at very lost cost

### Urban-Rural Divide

- The institution of *Danwei* (“work unit”)
  - *Danwei* is more than a work unit (e.g., production in enterprises or education in universities)
  - *Danwei* is a microcosm of urban society, into which individuals were born, lived, worked, and died
  - *Danwei* provides most welfare benefits
  - *Danwei* exercises political control
  - *Danwei* is the hub of social networks
- *Danwei* keeps one’s dossier
  - Danwei ownership over labor
  - Barrier of labor mobility

### Urban-Rural Divide

- Rural residents
  - *Danwei* is the residing village within a Commune
  - Absence of all the privileges and benefits listed above
  - Rely on village support
  - Very limited way to convert from a rural to urban residence permit
    - Obtain a job in urban sector
    - Marry to a urban person
    - Much like a foreigner getting a green card in the U.S.
  - A real economic barrier to move to the urban area was the lack of food coupons

### Political Instability

- Politics overweighs economics. Some popular slogans:
  - “Politics should take first priority”
  - “We prefer socialist weeds to capitalist crop seedlings”
  - “We should be on guard against ‘satellite going to sky but red flags falling down””
- Mao’s political targets
  - 1957: rightists
  - 1959: rightist factions within the Party
  - 1966: bureaucratic establishment within the Party
  - 1971: his own successor
  - 1975: his premier and Confucius