

Parag Khanna

The background of the slide is a complex, abstract network of glowing lines. These lines, in shades of orange and yellow, form a dense web of connections that vaguely outline the continents of North America, Europe, and Africa. The lines vary in brightness and thickness, creating a sense of depth and dynamic energy. The overall composition is set against a solid black background, which makes the glowing network stand out prominently.

# *Tomorrow and Beyond*

Parag Khanna

# The Global Connectivity Revolution

## Skeletal System **Transportation**

Highways, railways, bridges, tunnels, airports, seaports

## Vascular System **Energy**

Oil & gas pipelines and refineries, electricity grids and power plants

## Nervous System **Communication**

Internet cables, satellites, data centers



The Infrastructural Matrix: Exoskeleton on the Planetary Body



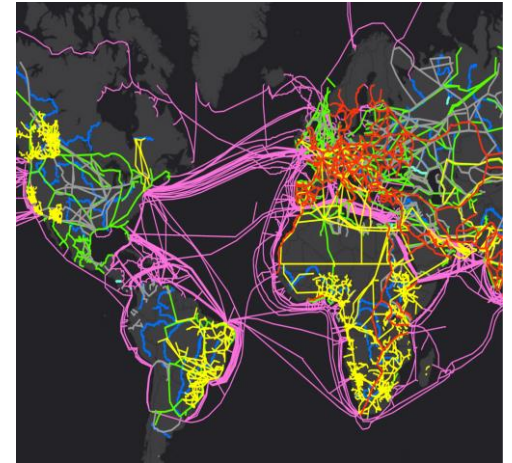
# Cartographic Evolution



Natural Geography



Political Geography



Functional Geography

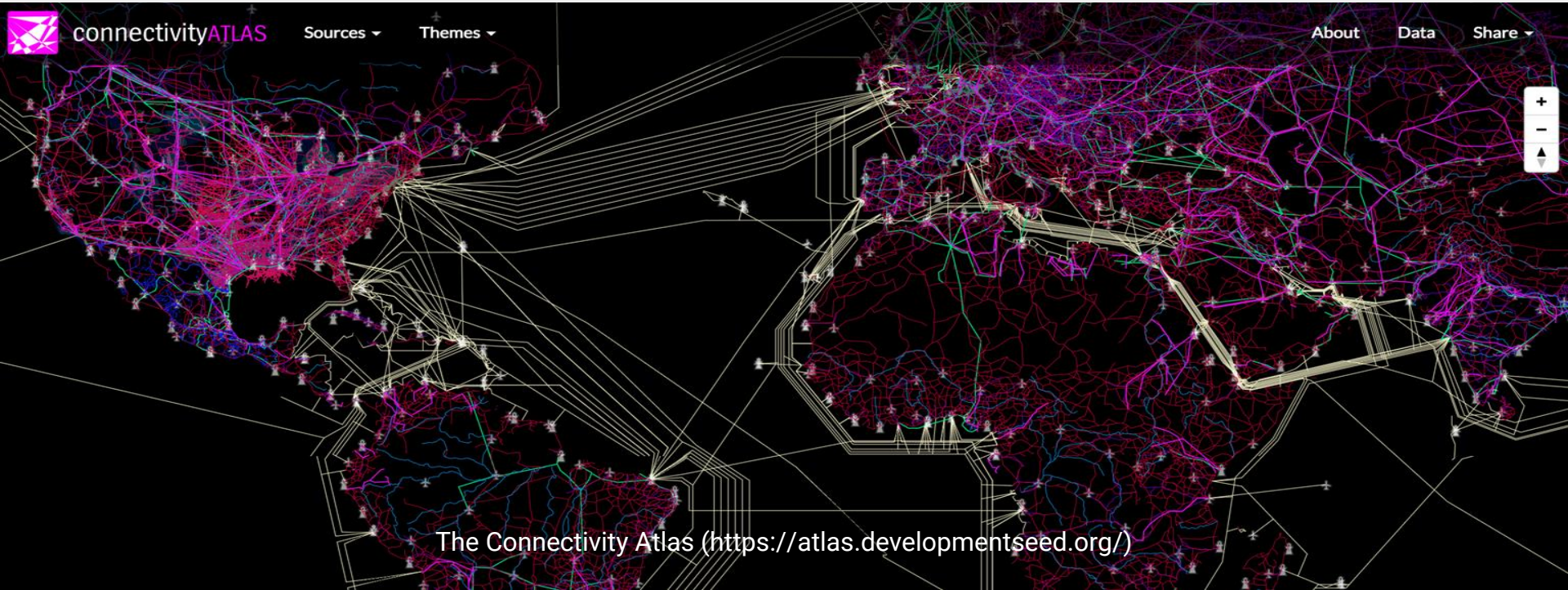
**“What we build today will last centuries.” - Santiago Calatrava**

# From X-Ray to MRI

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## Topographically engineering the planet through mega-infrastructures

Mapping Reality: GPS and Geofusion, IoE and OSM, ArcGIS and Google Earth Pro



# Bridges to Everywhere: Infrastructure Growth

## 19th and early 20th Centuries

American phase: Industrial  
revolution to World War I

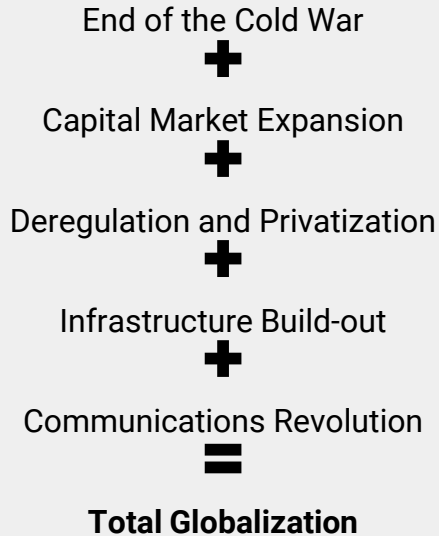
## Great Wars and Resurrection

European phase: Keynes to  
*Wirtschaftswunder*

## Rise of the East

Asian Tigers to China &  
Asian Infrastructure  
Investment Bank (AIIB)

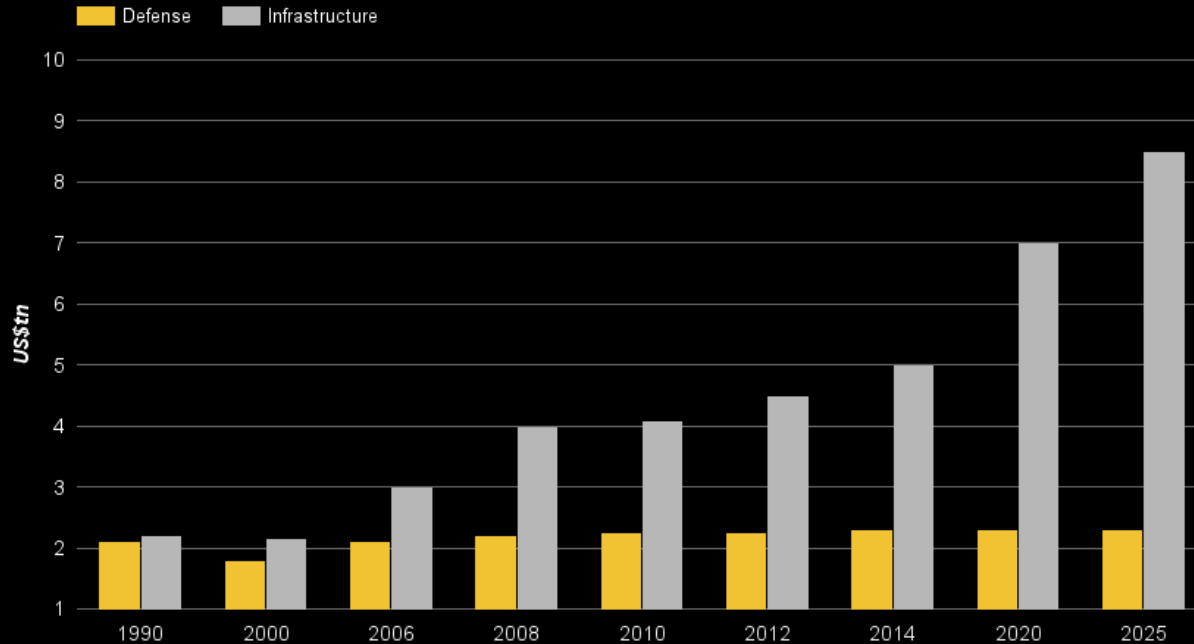
# From Westphalian World (1648) to Supply Chain World (1989)



- Treaty of Westphalia (1648) to Fall of the Berlin Wall (1989)
- 1989: World Wide Web (WWW)
- Supply chains are the original World Wide Webs: Not things but a global system of transactions

**Beyond “Hyper-globalization” versus “End of globalization”: Capacity > Volume**

# Roads to the Future: Infrastructure Spending



We will build more infrastructure in the next 40 years than in the past 4000.

We should spend \$1 trillion on the basic infrastructure needs of every 1 billion people.



# Increasing Infrastructure Demands

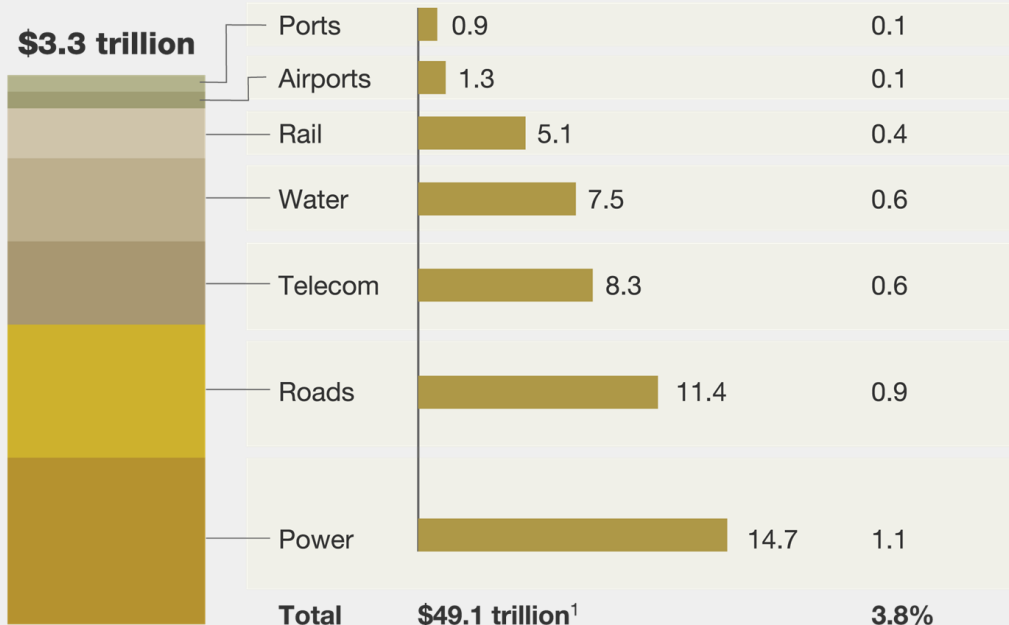
To keep pace with projected growth, the world needs to invest \$3.3 trillion in economic infrastructure annually through 2030.

- No time like the present: New normal of ultra-low interest rates
- US infrastructure investment = 0% (offset by capital depreciation)
- The basics: Power, transport, utilities, telecoms

**Average annual need, 2016–30,**  
in constant 2015 dollars, \$ trillion

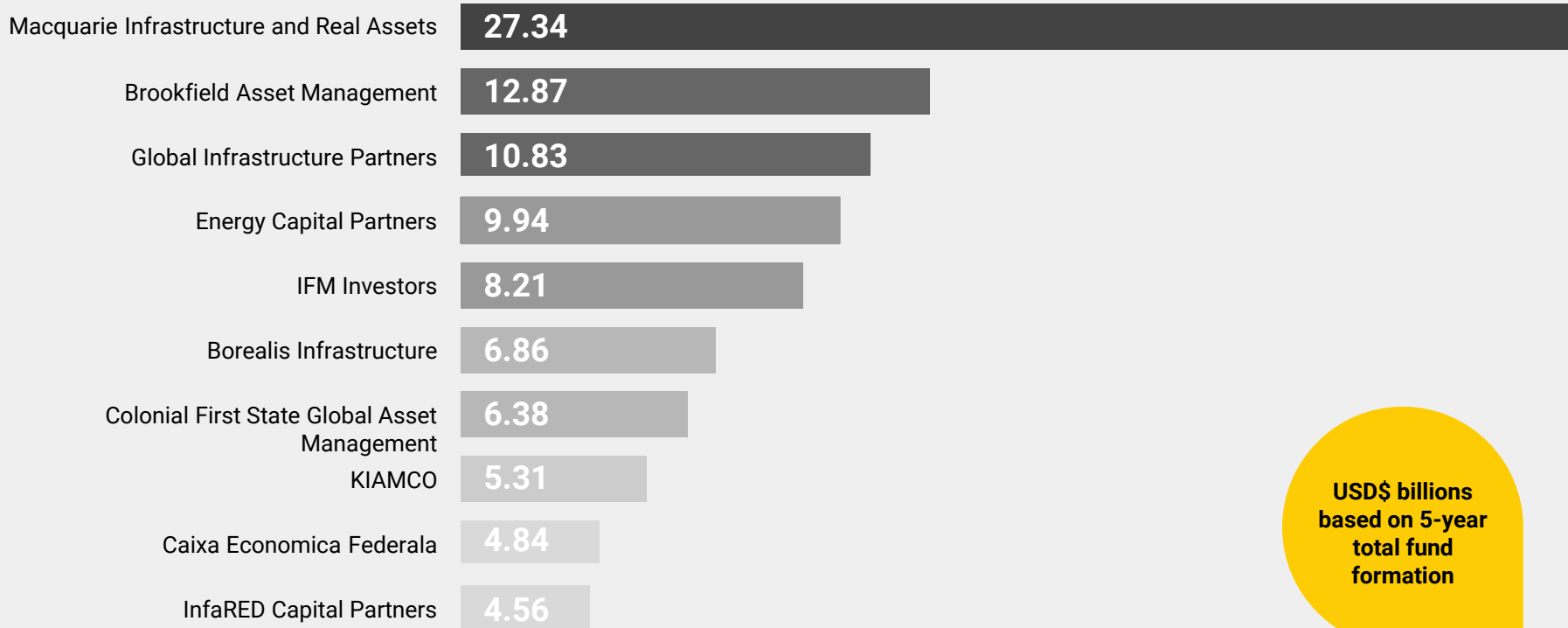
**Aggregate spending, 2016–30, \$ trillion**

**Annual spending, % of GDP**



# World's Top Infrastructure Investors

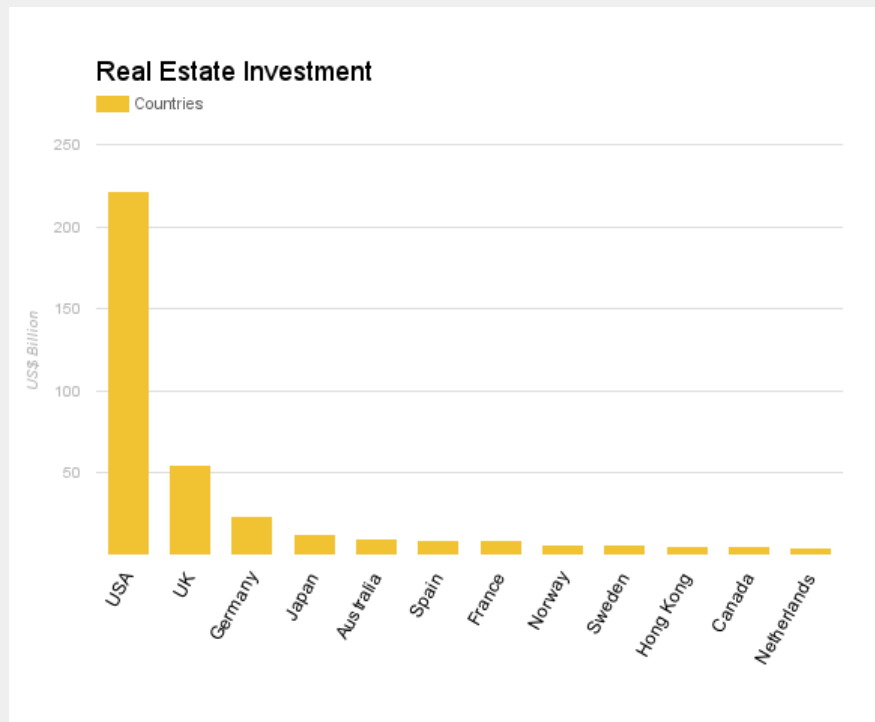
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**USD\$ billions  
based on 5-year  
total fund  
formation**

# US Still Dominates Total Global Real Estate Investment

- **\$72B in FDI (2015):** Dominated by manufacturing, finance, insurance, trade, IT
- **CRE:** Foreign Investment in Real Property Tax Act (FIRPTA) reform enables boost in Institutions and SWF investment beyond REITs into high-yield US industrial and commercial properties
- **Retail:** Shopping mall investment rose 33% to \$10.4B (2015); Hotels: Spike to \$43.4B (2015)
- **New asset classes:** Developers moving into “active adult communities” and “multi-generational living” (80m Baby Boomers)
- **Dems:** Consistent with Obama’s real estate tax policies / **Reps:** “unleash” markets and ease regulations



Top foreign sources of real estate investment:  
Canada, Singapore, Norway, China, Germany, Japan

The map illustrates the proposed high-speed rail network across the United States, overlaid on existing railroads and urban corridors. The regions are color-coded as follows:

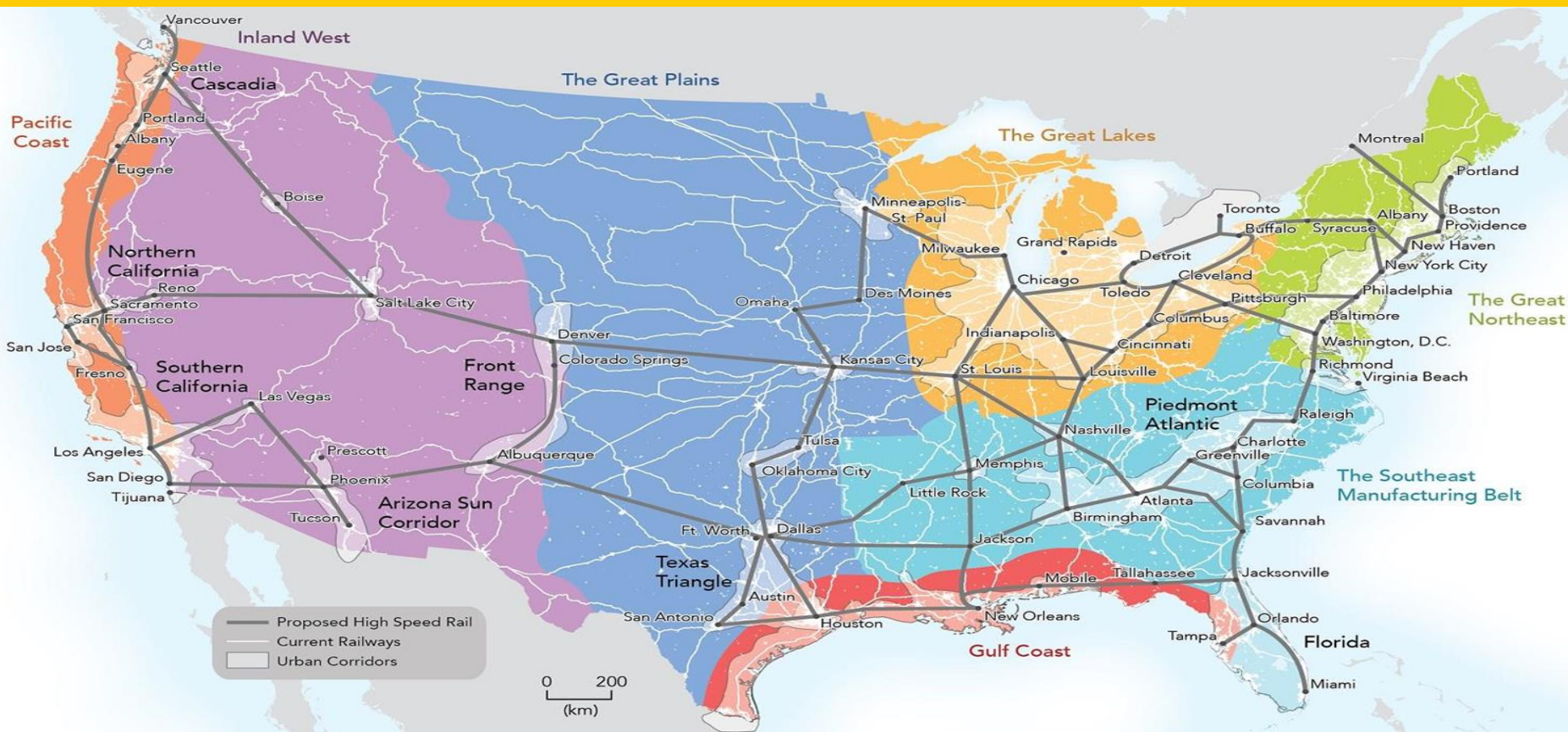
- Pacific Coast:** Orange, including cities like San Francisco, Los Angeles, and San Diego.
- Inland West:** Purple, including cities like Salt Lake City, Denver, and Boise.
- The Great Plains:** Blue, including cities like Minneapolis-St. Paul, Chicago, and Kansas City.
- The Great Lakes:** Yellow, including cities like Detroit, Cleveland, and Columbus.
- The Great Northeast:** Green, including cities like New York City, Philadelphia, and Boston.
- The Southeast Manufacturing Belt:** Teal, including cities like Atlanta, Birmingham, and Charlotte.
- Gulf Coast:** Red, including cities like Houston, New Orleans, and Miami.

Major cities labeled include Vancouver, Seattle, Portland, Eugene, Boise, Reno, Sacramento, San Francisco, San Jose, Fresno, Los Angeles, San Diego, Tijuana, Las Vegas, Prescott, Phoenix, Tucson, Albuquerque, Denver, Colorado Springs, Ft. Worth, Dallas, Austin, San Antonio, Houston, New Orleans, Mobile, Tallahassee, Jacksonville, Orlando, Tampa, Miami, Savannah, Columbia, Greenville, Raleigh, Washington, D.C., Baltimore, Philadelphia, New York City, New Haven, Providence, Boston, Albany, Syracuse, Buffalo, Toronto, Montreal, and Portland.

Legend:

- Proposed High Speed Rail (thick black line)
- Current Railroads (thin grey line)
- Urban Corridors (white line)

Scale: 0 to 200 km.





# Think Geology, not Nationality: From NAFTA to North American Union



# Pax Latina

## Lat-Am Beyond Brazil

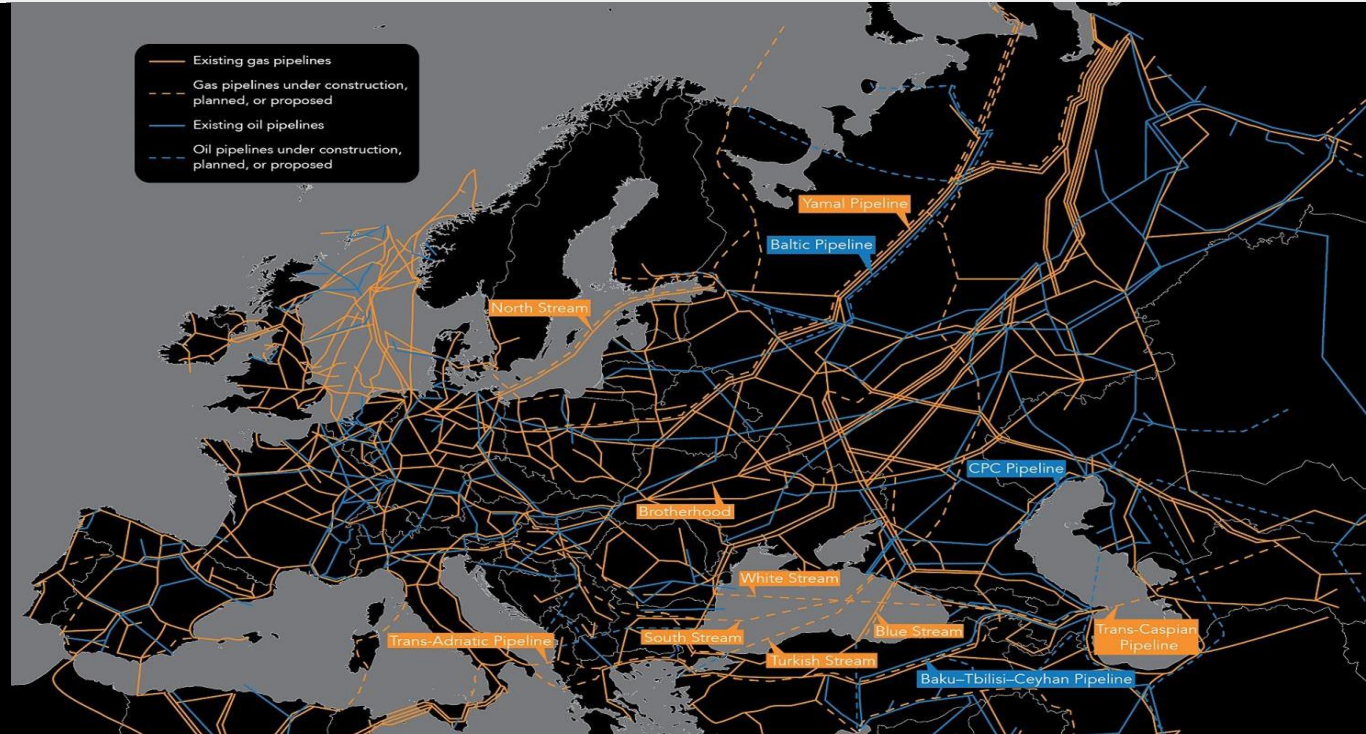
- Mexico: Robust growth in manufacturing and construction; 100-year Euro-bond
- Pacific Alliance poised to reap TPP gains



# Infrastructure as Authority: Reshaping Cross-Border Relations

➤ Baltic Union:  
Shared  
infrastructure and  
governance  
services (Coming  
soon: Helsinki -  
Stockholm  
Hyperloop)

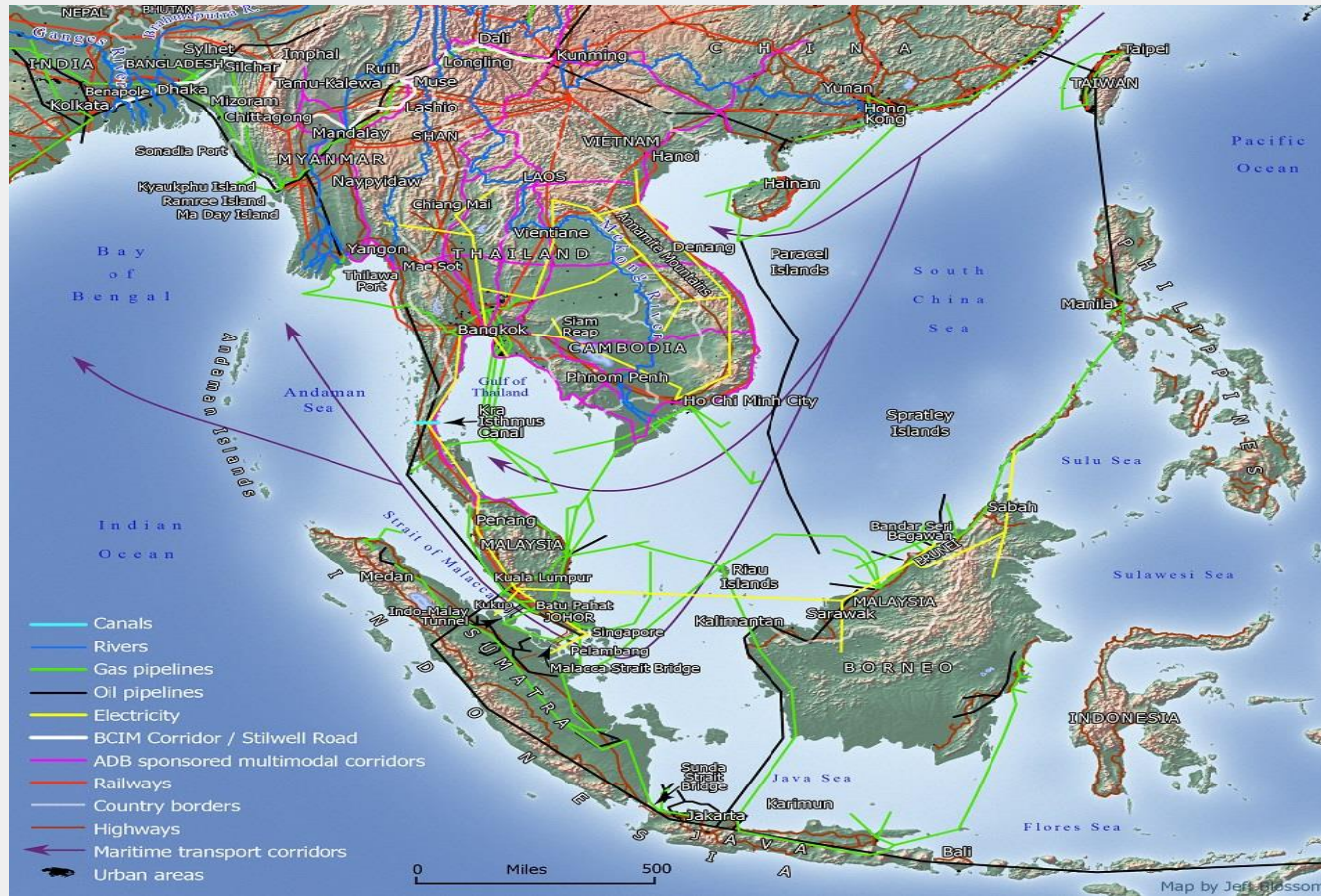
➤ European energy  
grid: Integrated  
gas, electric and  
nuclear power



**“Extrastatecraft”** (*Easterling*): Utility takes priority  
Europe-Russia: From singular dependence to reverse flows



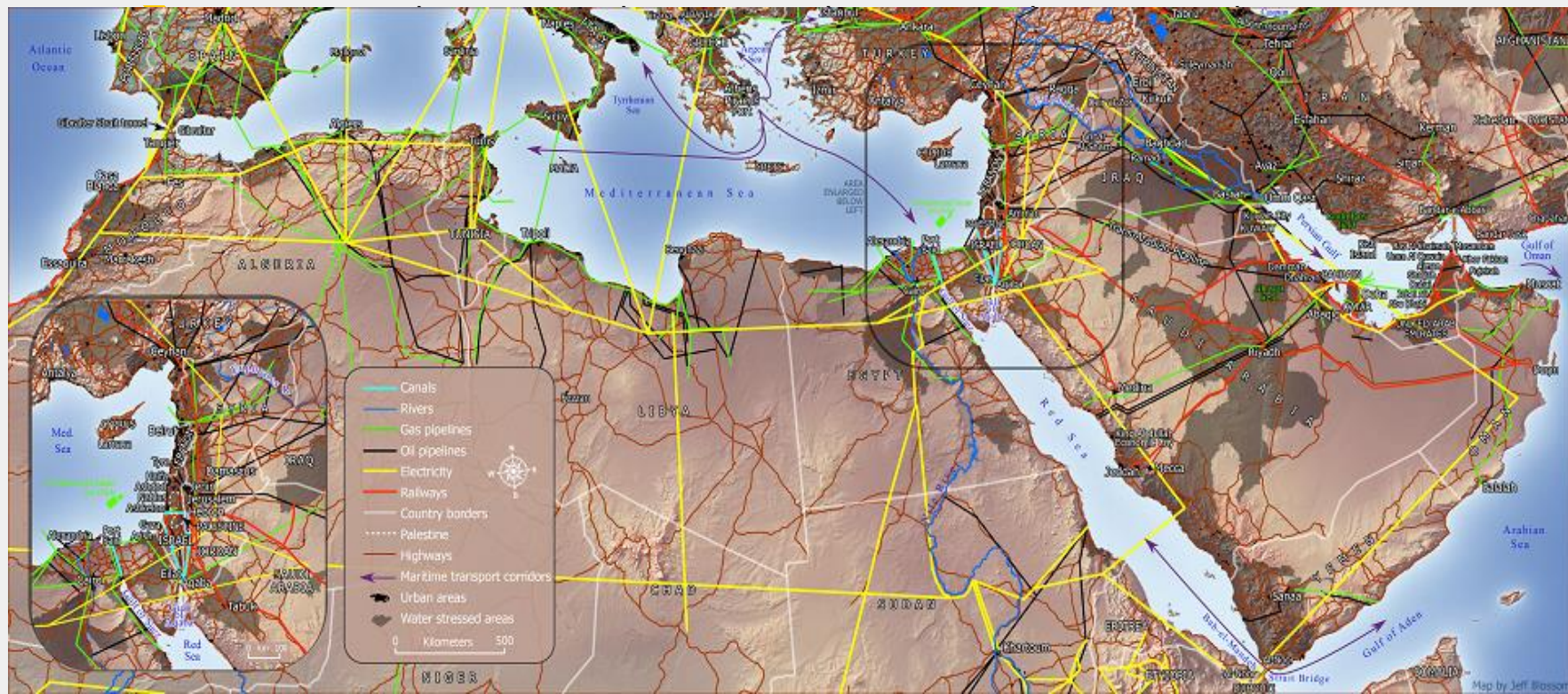
# *Pax Aseana*: How to Grow From Billions to Trillions





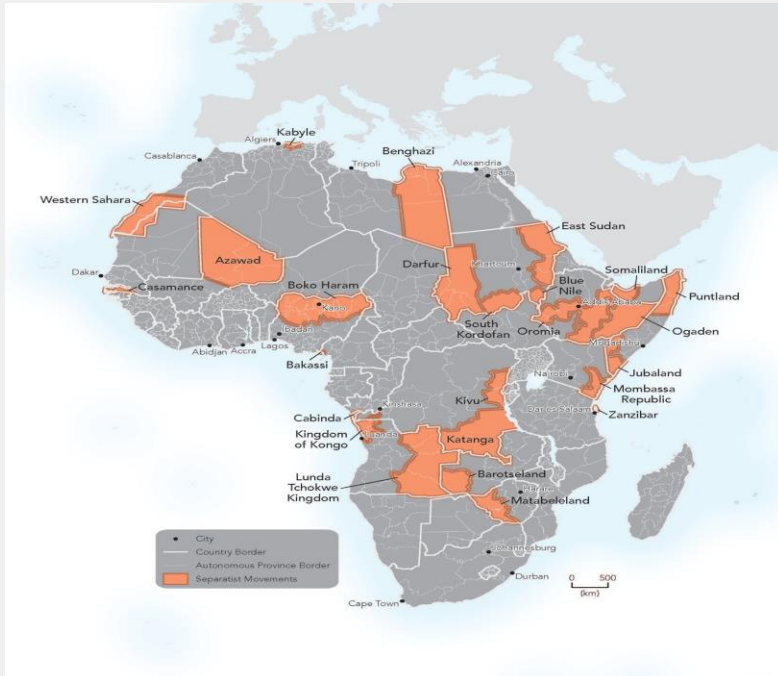
# From Sykes-Picot to *Pax Arabia*

- A century of borders: Post-colonial collapse
- Connecting ancient cities: The new pan-Arabism



# Africa: From Devolution to *Pax Africana*

- Aggregation in sub-regions: East Africa as the continent's “Benalux”
- Pan-African connectivity: Continental infrastructure, free trade, open migration





# The Asian Center of Gravity

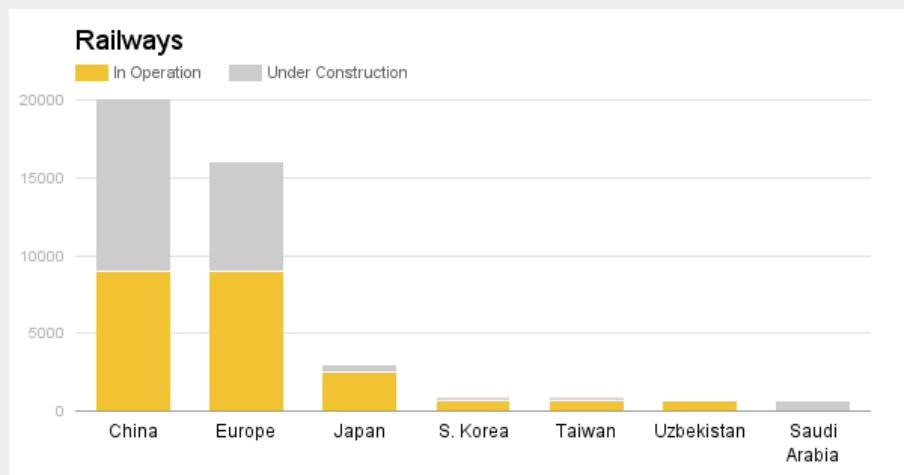
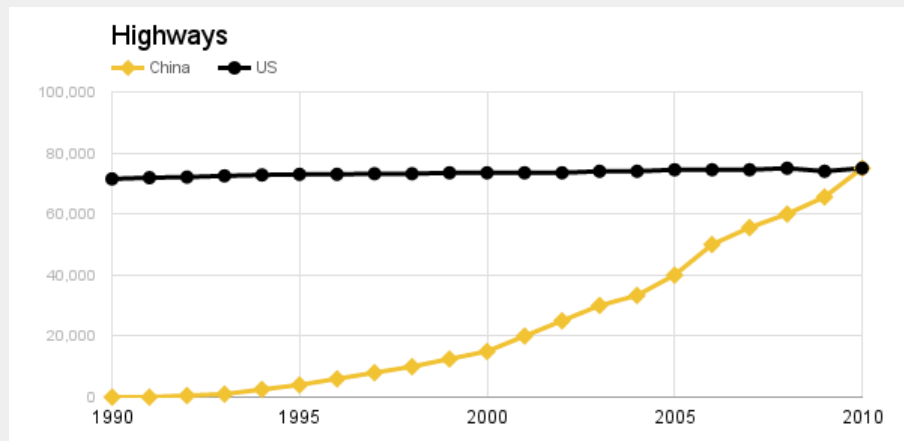
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**POPULATION:** Asia = 4 Billion > Americas (1 Billion) + Europe/Middle East/Africa (2 Billion)

# Connecting China: Highways and High-Speed Rail

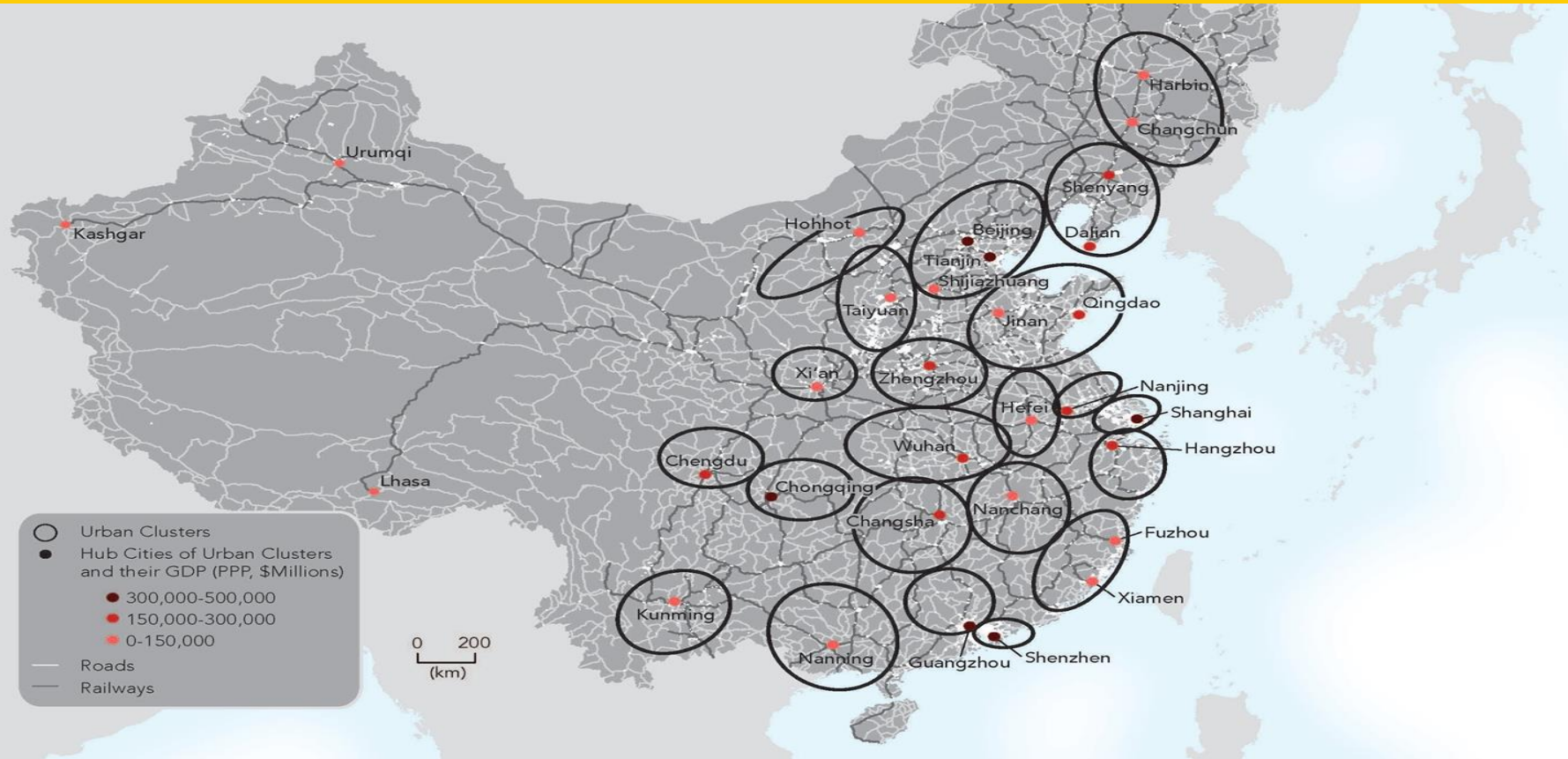
- Connecting the West (Tibet / Xinjiang)
- Promote second-tier city manufacturing
- Accelerated urbanization drive (*hukou* reform)
- Improved labor productivity (WB)
- Social mobility amidst labor dislocation
- Promote logistics and e-commerce



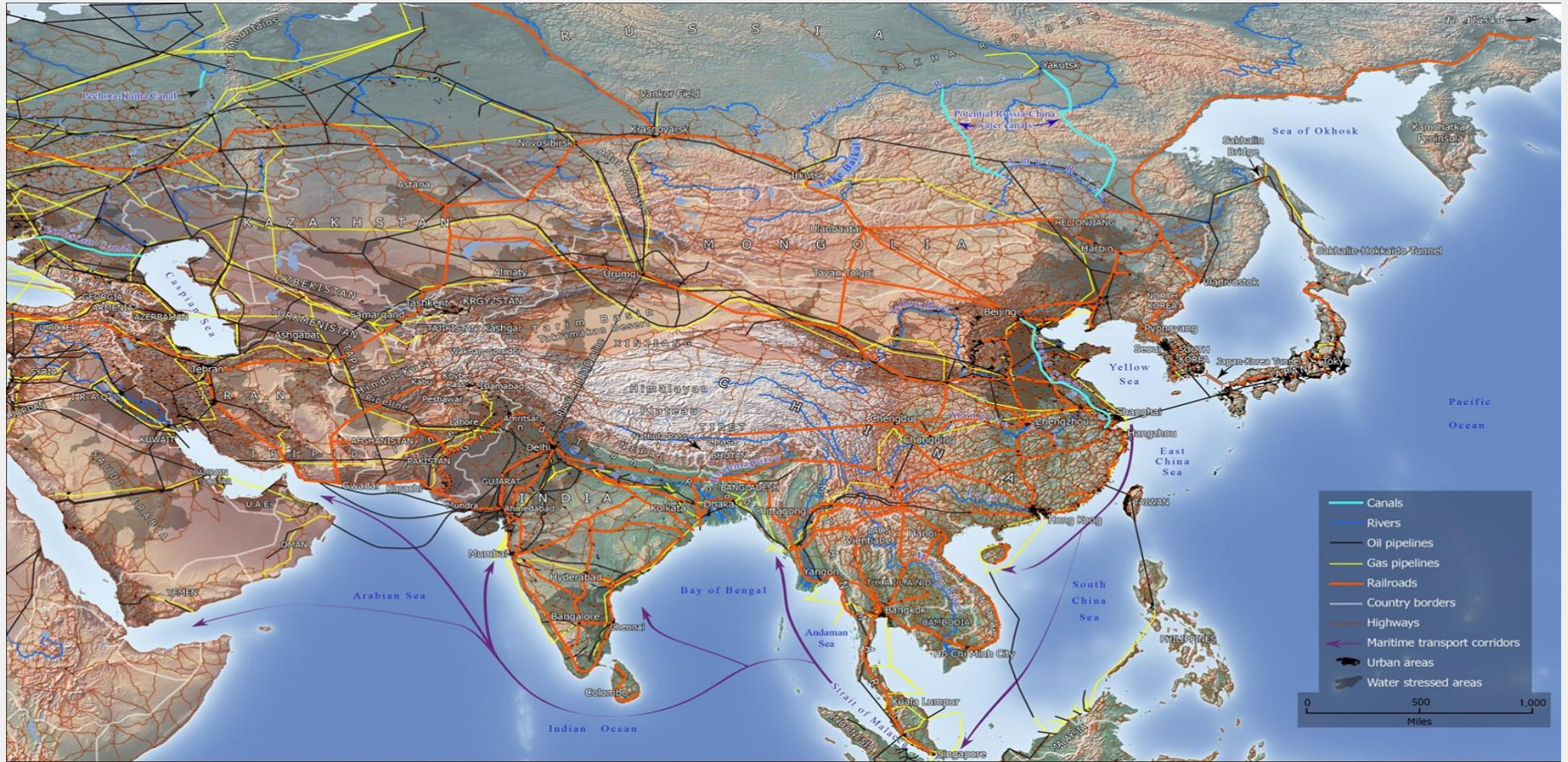
Sources: CEIC, Jeffries, China NBS



# China: Empire of Mega-Cities



# East Meets West: Eurasia's Iron Silk Roads





# Fastening the Belt: Ensuring Inter-Connectivity

## Harmonization of standards and practices

- Taxes / bankruptcy
- Trade facilitation / customs
- ESG standards (KPIs)
- Project management training
- Digitizing information exchange

## Security:

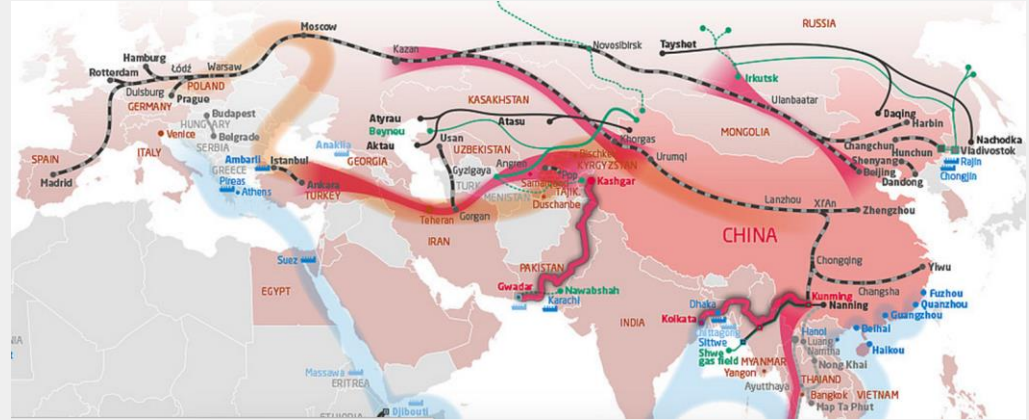
- Counter-terrorism, crisis management, organized crime, cyber-security, political risk, leadership succession

## Ensuring quality:

- Assessment (technical/environmental/social) should determine necessary resources before bidding

## Overcoming national capacity constraints

- Preference for local capabilities and procurement
- International corporate JVs
- Encourage moving up the value chain (ports to SEZs)
- Digital platforms and payments to boost cross-border services economy



*One Belt, One Road: Corridors and Land Bridges*

## Project selection

- Mixing domestic and international priorities.
- Beyond power/utilities, ensure financing for non-monetizable projects.

## First projects

- Pakistan: CPEC
- Indonesia: Housing
- Bangladesh: Power
- Tajikistan: Roads

# Piraeus: China's European Gateway

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*Source: Mercator Group, Rhodium, Financial Times*



Cosco and the Greeks: From fear to loyalty



China's upstream investment drive: finance, real estate



Multi-modal European supply chain: Railway to Slovakia



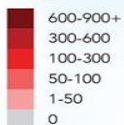
# Pop-Up Cities: SEZs as the Most Rapidly Expanding Global Form

Number of Countries with SEZs  
**130**

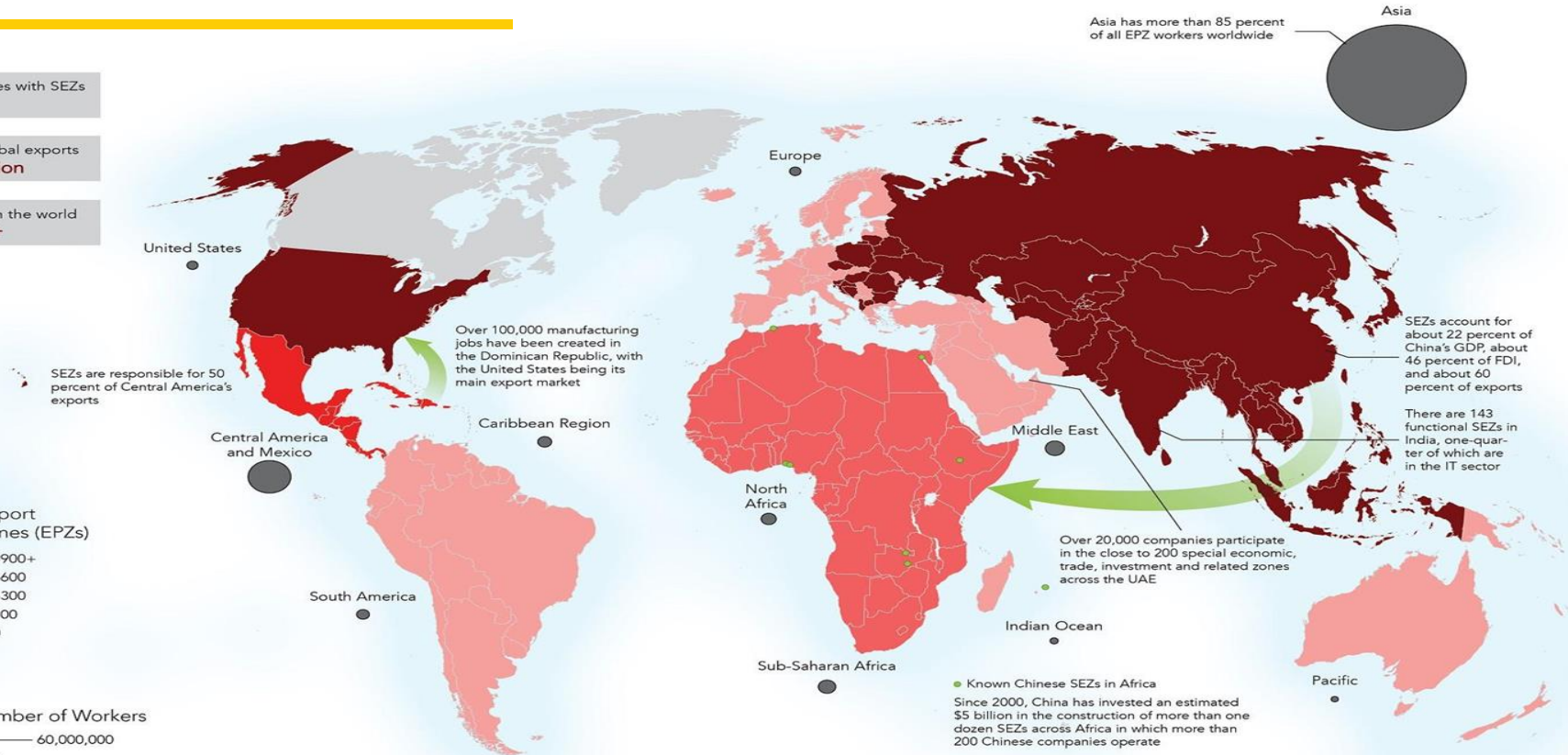
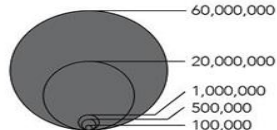
Estimated SEZ global exports  
**\$200 billion**

Number of SEZs in the world  
**3,500+**

Number of Export Processing Zones (EPZs)



Estimated Number of Workers



- Local anchors, global nodes: Connecting to supply chains, rising up the value chain
- From exclaves to enclaves, catalytic not parasitic: Leapfrog to hybrid governance (SPVs)

# India's Smart Cities: Doing Smart Things in Cities

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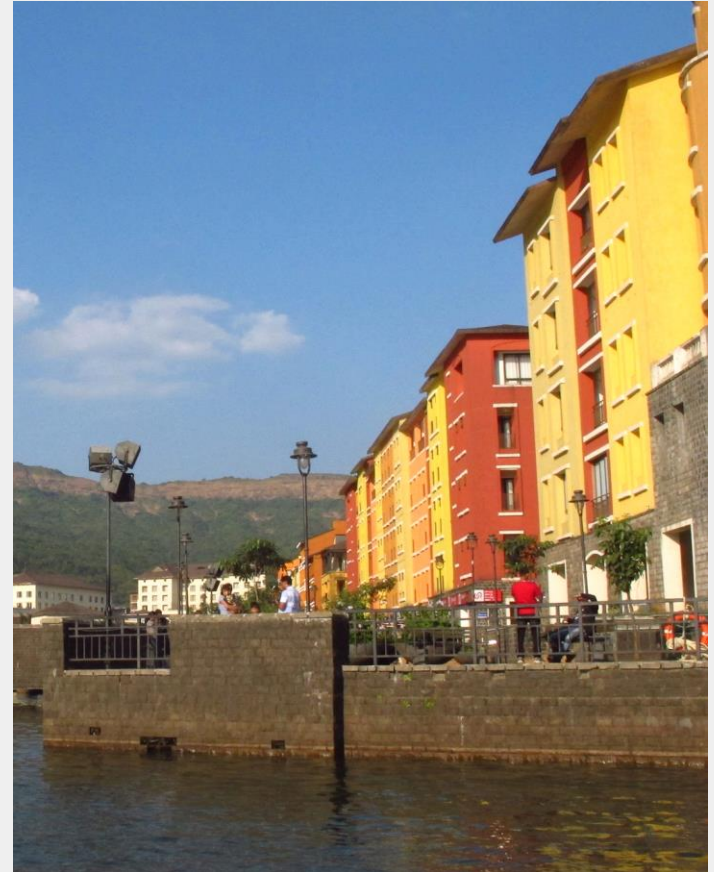
**Beyond the Big 5:** New Delhi, Mumbai, Chennai, Kolkata, Ahmedabad

Focus on building out capital cities and business/industrial centres, enhancing investment climate, improving quality of life and promoting sustainable environment

**Functional priorities:** capital cities, industrial centres, culture/tourism areas, ports, education, healthcare

**Services priorities:** water, power, sanitation, mobility, housing, IT

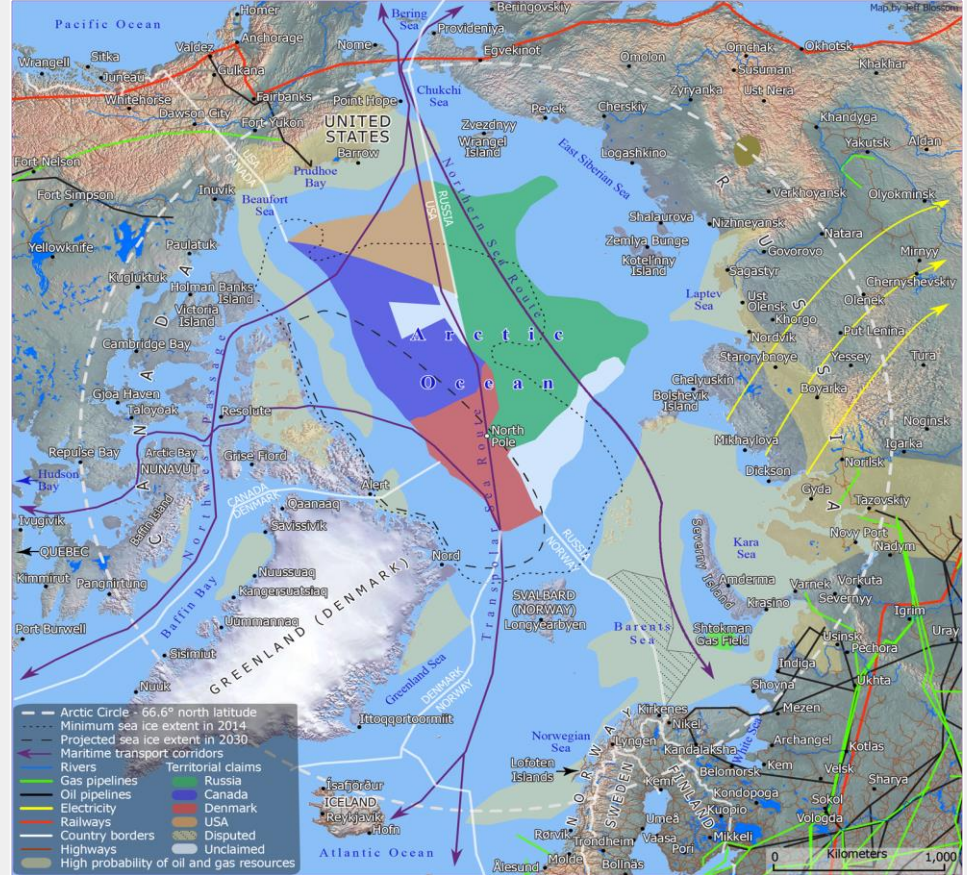
**Cutting red-tape:** Infrastructure PPPs; multi-stakeholder SPV governance



Source: Anil Wadghule/Flickr

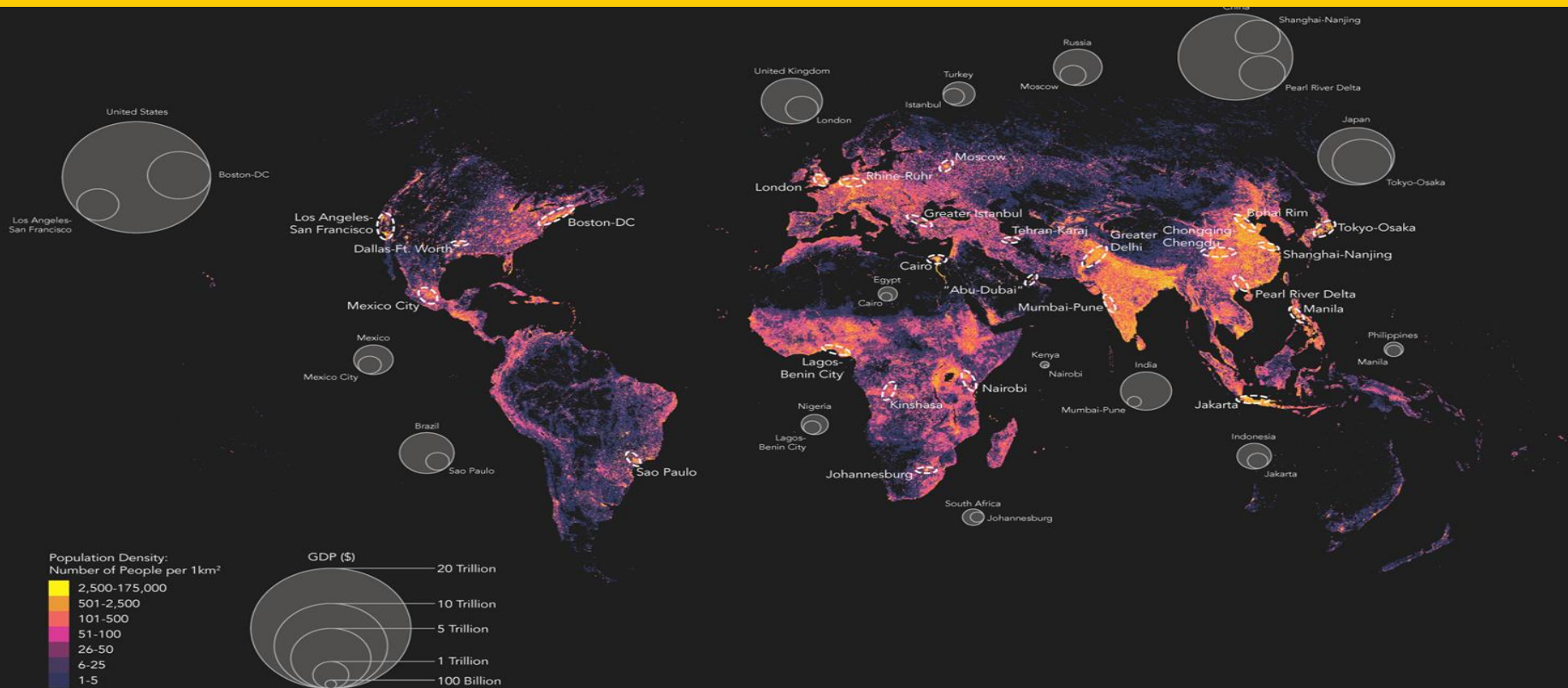
# The Arctic: Navigable and Livable

- Faster Arctic shipping connecting new northern ports
- Overlapping sovereignties to shared supply chain zone
- “Northism”: A new Arctic population and identity





# Planetary Urbanization: Megacity Archipelagos Define Humanity





# From Nations to Nodes: 50 Mega-Cities or 200 Countries?

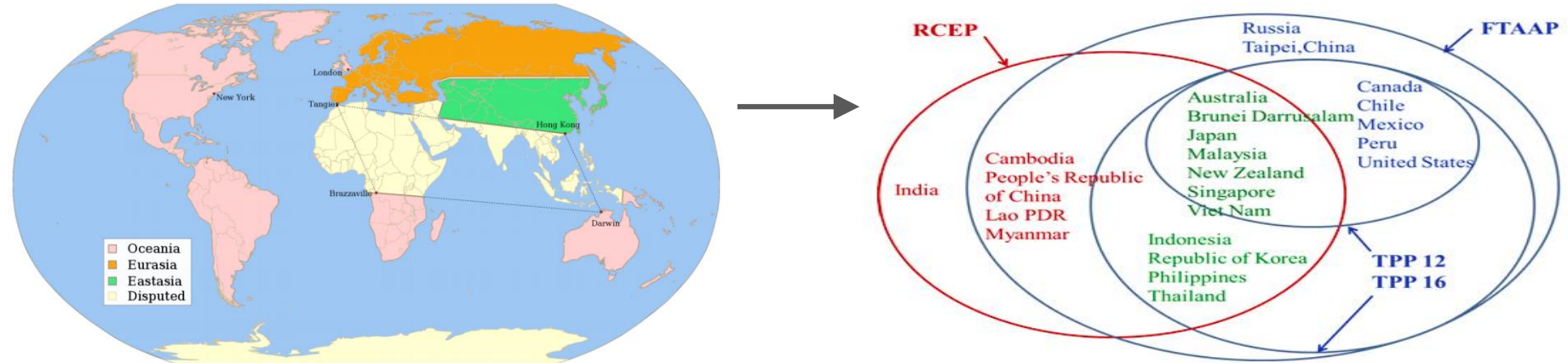


- Now to 2030: More lights, same map
- Cities need countries more than vice-versa



# What's the next global city?

# ***“Who Rules the Supply Chain, Rules the World”***



Beyond Orwell's 1984: Warring or fusing mega-continents?

War b/w systems (capitalism versus communism) ➡ tug-of-war within the collective supply chain matrix

Mackinder Modified: War over Territory ➡ War over Connectivity

## **TTIP and TPP vs RCEP**

- Global trade is additive, not substitutive
- Trade/investment/supply chain nexus



# The Great Supply Chain War

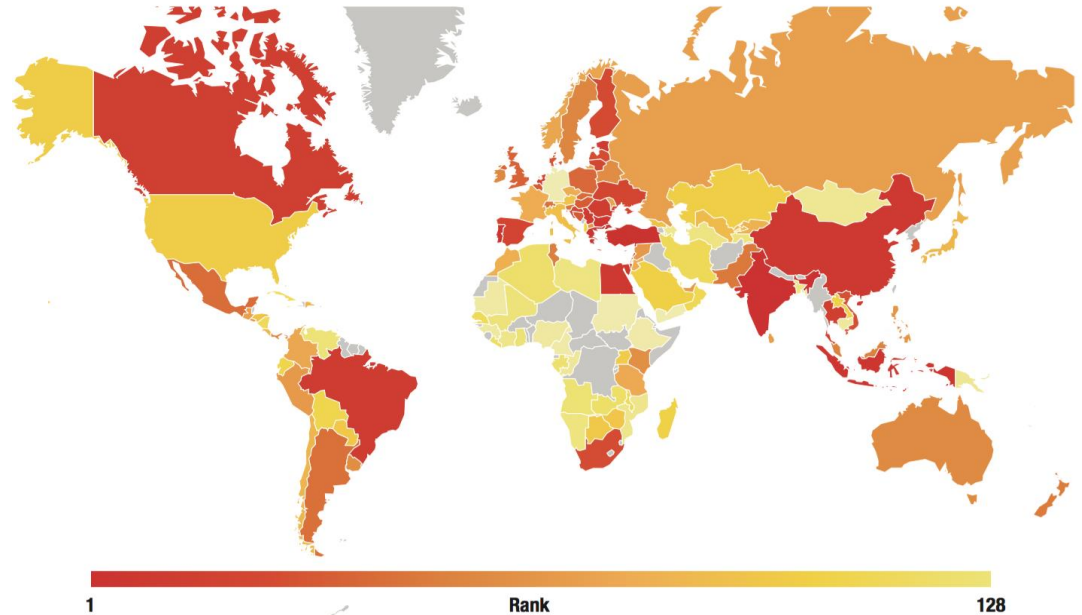
The Race to Complexity (*Hausmann*):  
Horizontal + Vertical = Diagonal

Supply chain alliances: national supply chain nexus (e.g. Toyota/Nagoya and Samsung/Seoul) versus stateless companies (e.g. GE w/o Ex-Im)

China's German quest: From "Made in China" to "Made by China" (e.g. IT GVCs)

Attract investment, displace investors:  
Industrial policy at home (SEZs, IP theft, patent trolling, #MakeInIndia)

Capture global markets: Export credits; national champions



# Global Evolution: From Connectivity to Resilience

## No more chokepoints:

Competitive connectivity builds pathways for supply to meet demand

Ring-fencing volatility: Ukraine, Iraq, Libya, South China Sea

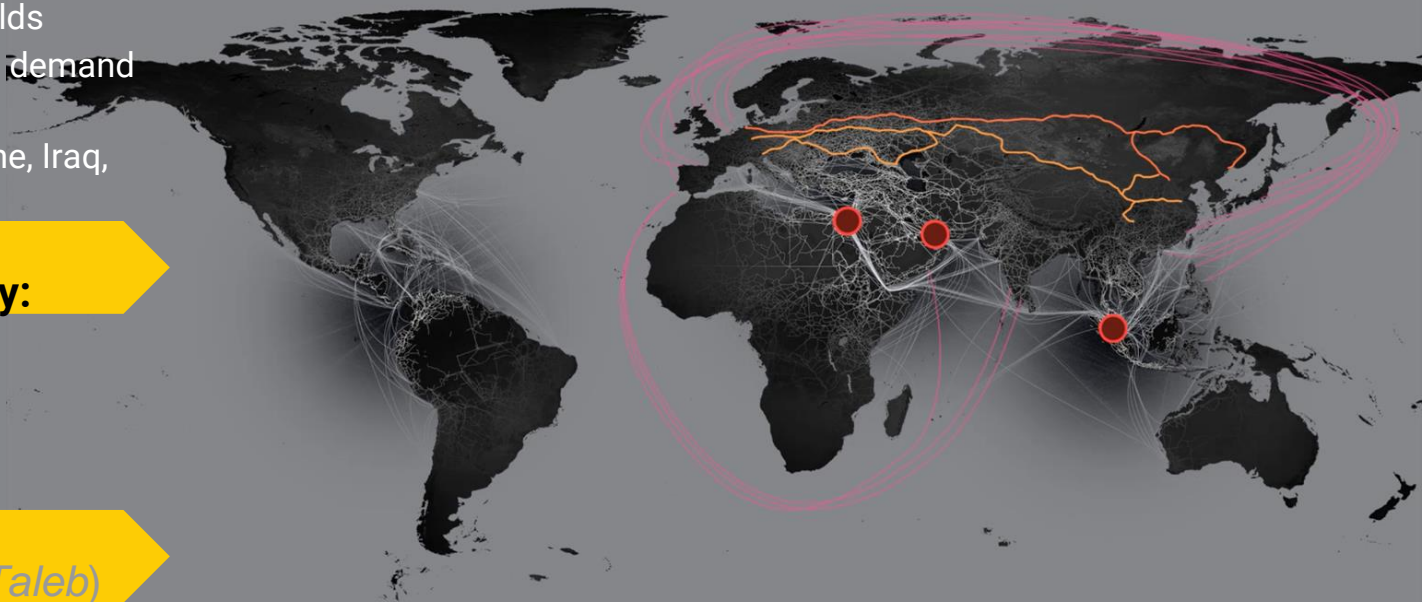
## Abundance and Stability:

From “peak oil” to “gas glut”

US oil sales to China

## Toward Antifragility (*Taleb*)

War is an event; networking building is a process



The background of the slide is a dark image of a globe. Overlaid on the globe are numerous glowing orange lines that crisscross the planet, representing a global network or data flow. Bright yellow and white spots are scattered across the globe, particularly concentrated in the Eastern Hemisphere, representing city lights or data hubs.

***THANK YOU!***

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