



GLOBAL ECONOMY AT THE POINT OF INFLECTION: THE UNEASY CHALLENGES OF TRADE AND TRUST? - *CHINA'S JOURNEY FORWARD ?*

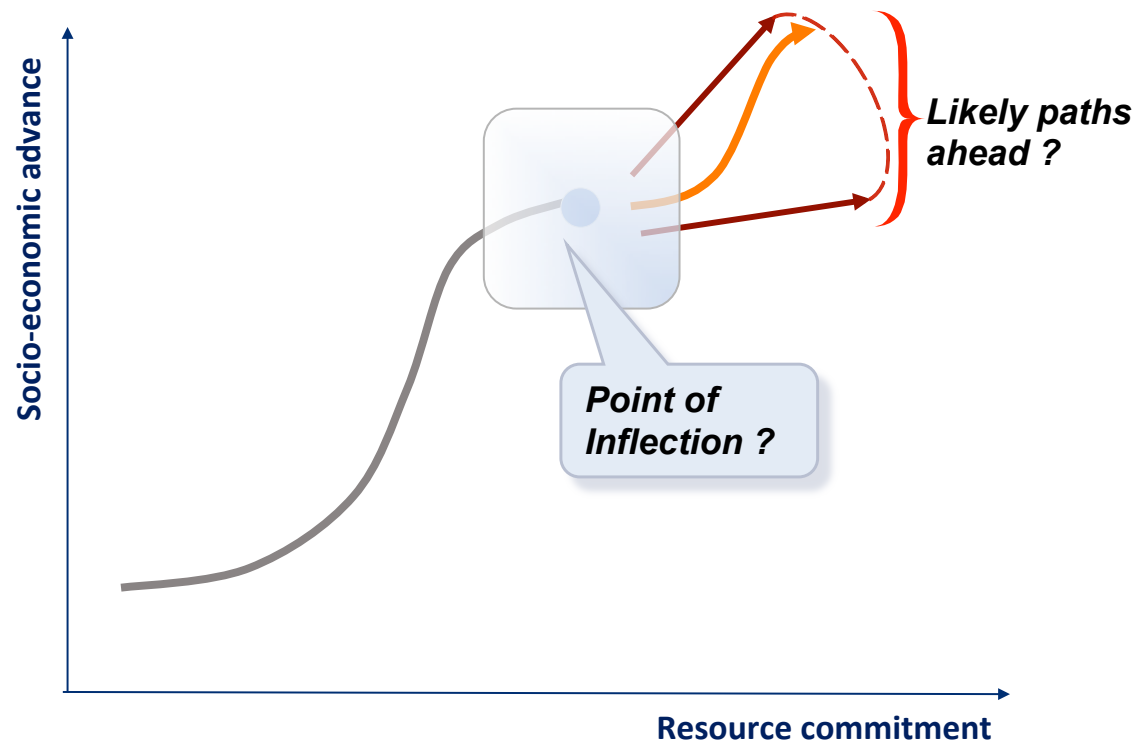


Partha S. Ghosh

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The basic thesis: Need a New Paradigm of Engagement ?





The Leaders and winning organizations of the 21st century will be those.....

who can *innovate next paradigm business models...*

that enable **distributed wealth creation with a social conscience**

Partha Ghosh

.... Through Interoperability & Uncommon connections



& Uncommon
Connections.....



Interoperability

Today three high level points....



1

Our Planet in Perspective
In the 21st Century?

2

Next Phase *Imperatives*
Of Globalization: - Trade & Trust ?

3

China's Journey forward:
Dos & Don'ts?

Significant Changes are in the making



1

Our Planet in Perspective

AT MACRO LEVEL.....

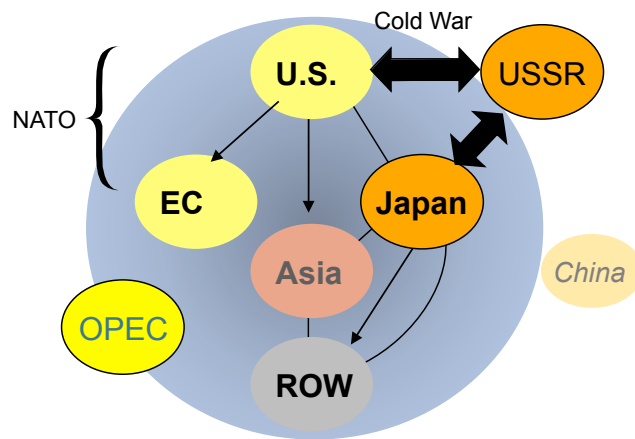
- GEO-POLITICAL DISORDER
- SHIFT IN ECONOMIC CENTER OF GRAVITY
- DIS-EQUILIBRIUM ? IN **3ES**
- CONFLICT OF "ISMS":

Geo-Political Alliances are in a state of transition since the early nineties



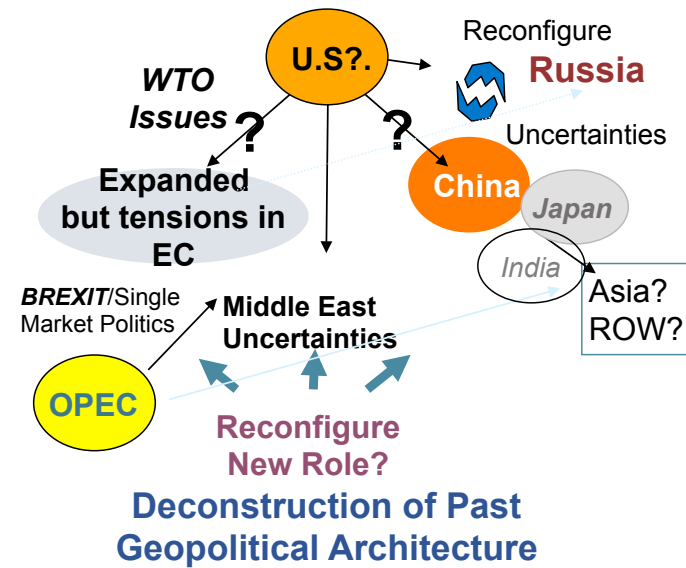
Paradigm Shift

Past (early nineties)



Bond by Cold War Forces of Alliances

Current/Future

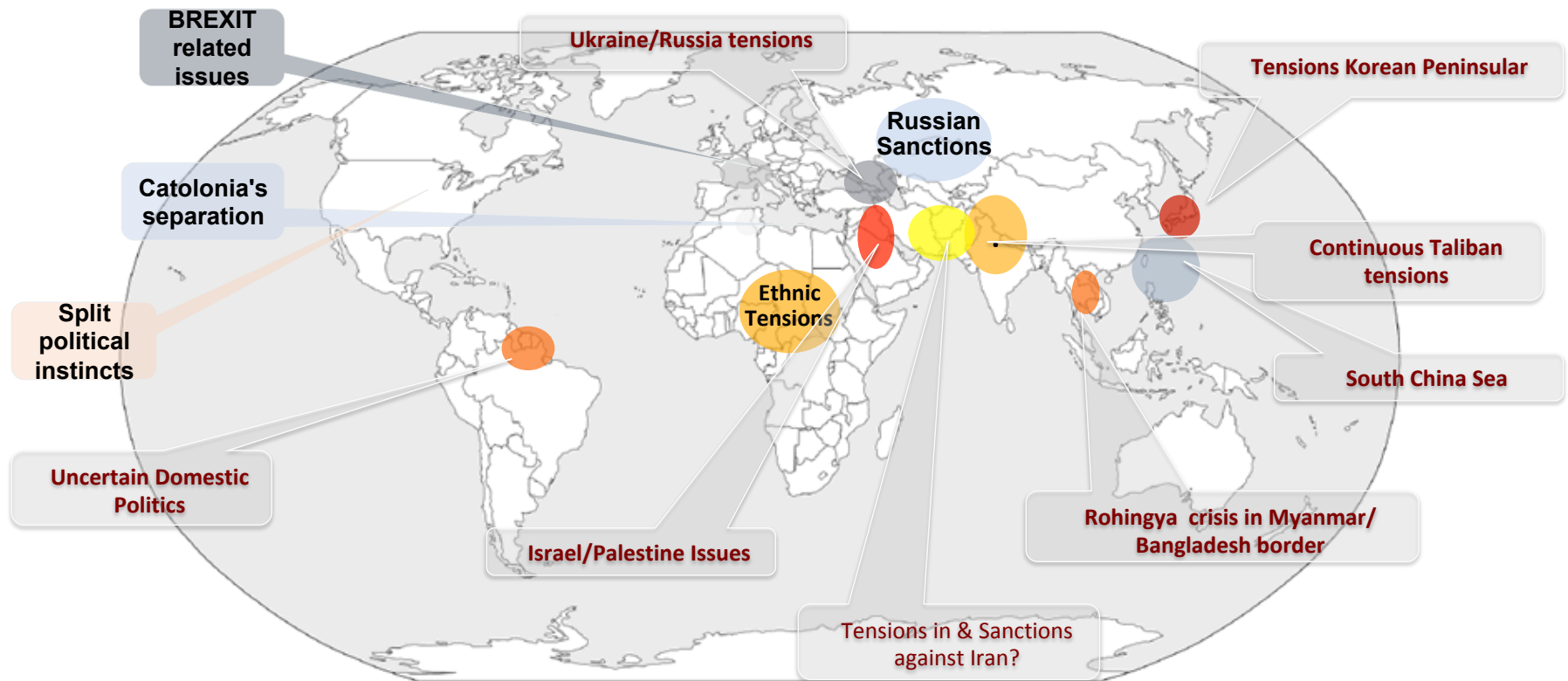


Geo-political tensions are serious and wide spread...



Map of the World Showing Major Countries

GEO-POLITICAL DISORDER



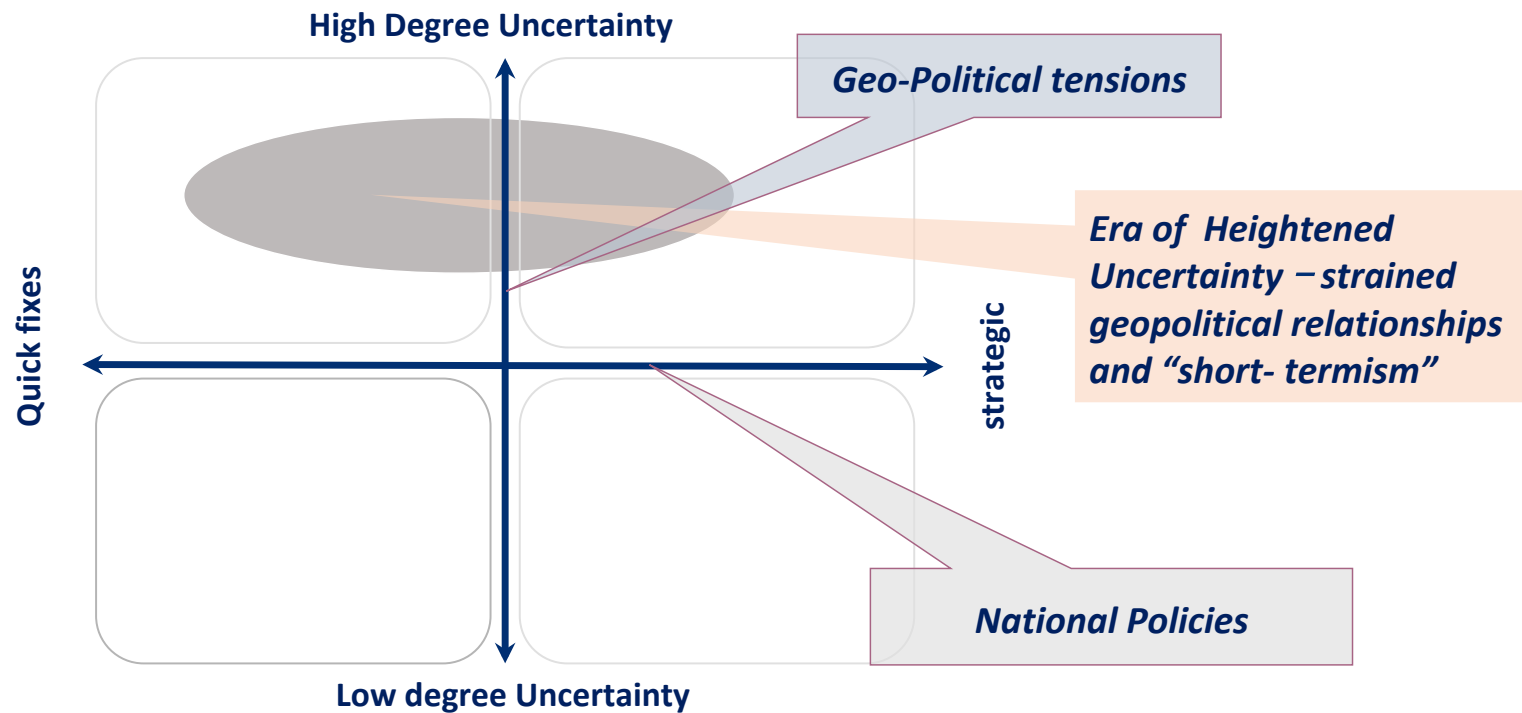


Today we are indeed limited by constrained leadership

THE EMERGING ENVIRONMENT

(Global socio-economic dynamics)

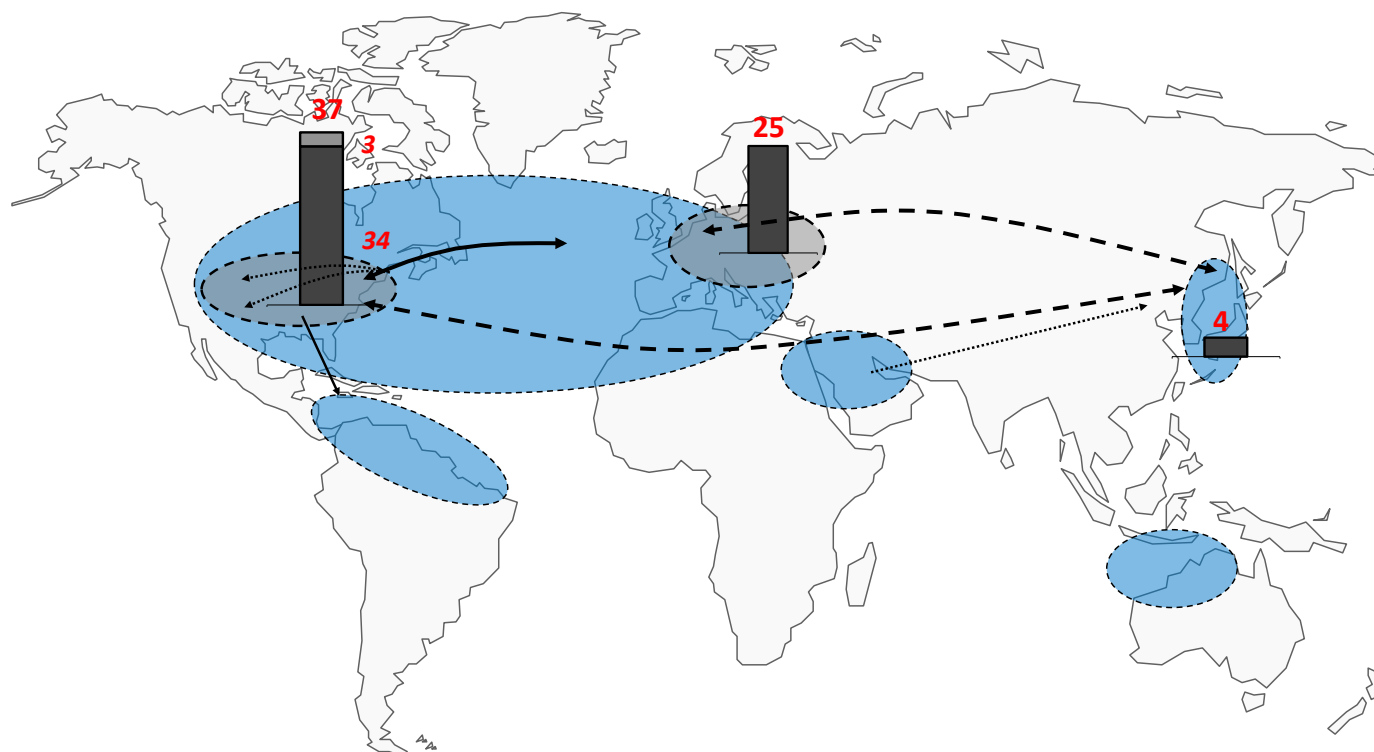
GEO-POLITICAL DISORDER



Shifting Geo-Economic Equations: Globe Half a Century Ago



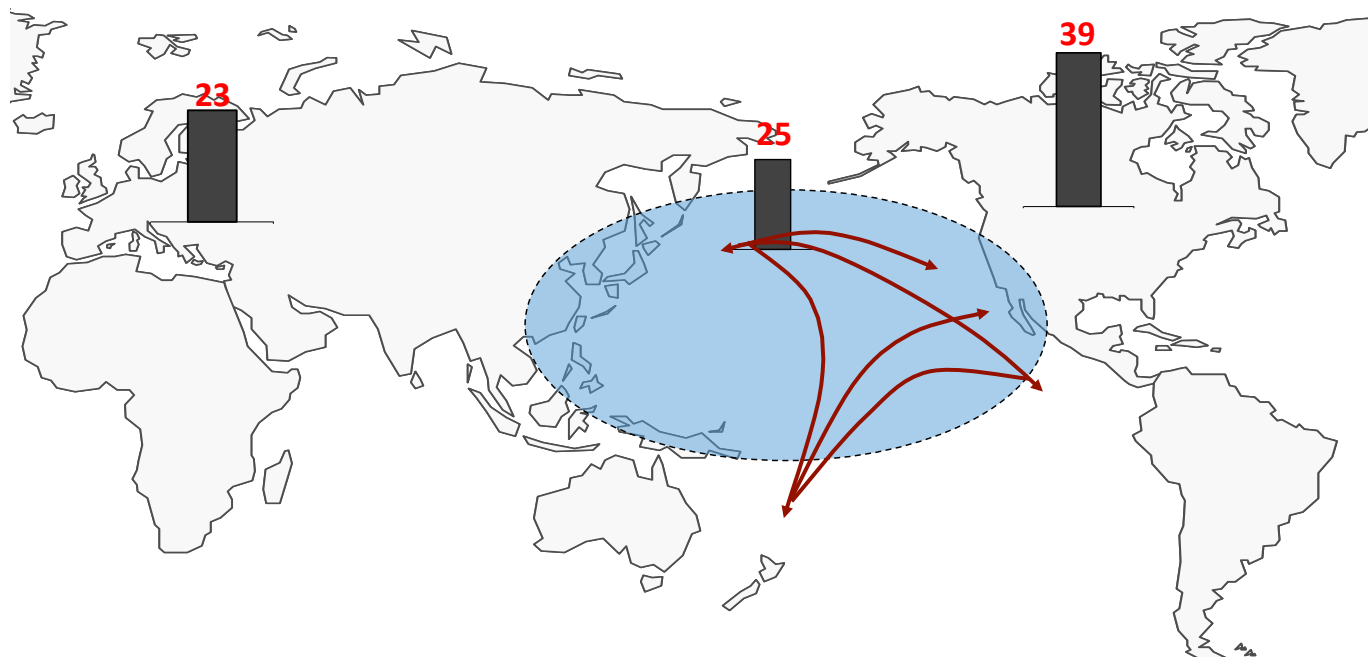
Percent of GDP Distribution in the Mid-Sixties



Globe In the 21st Century: Shifting Center of Gravity



Percent of GDP Distribution

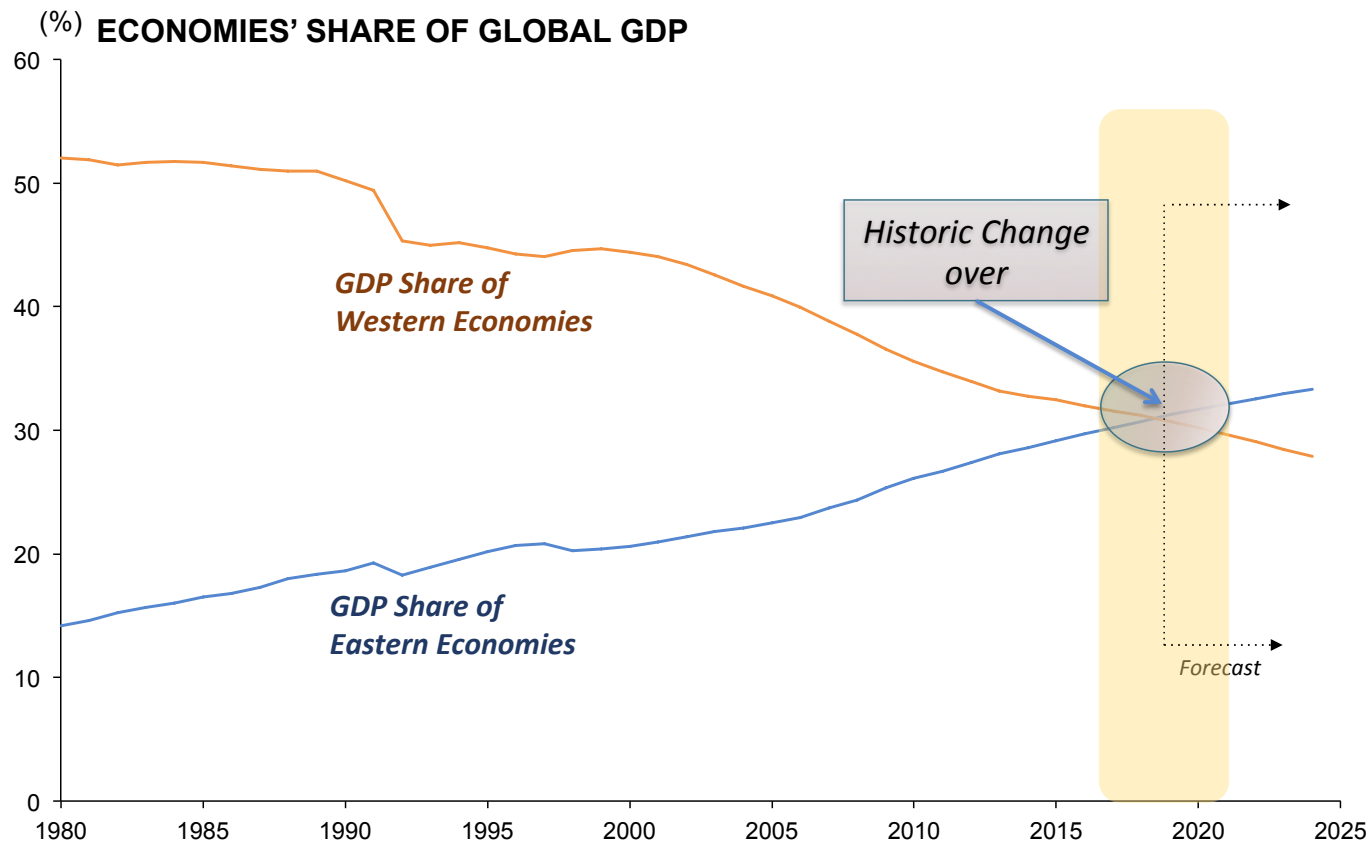


New Economic Alignments?

Economic Power shift is obvious: strategic consequences could be significant



SHIFT IN ECONOMIC CENTER OF GRAVITY



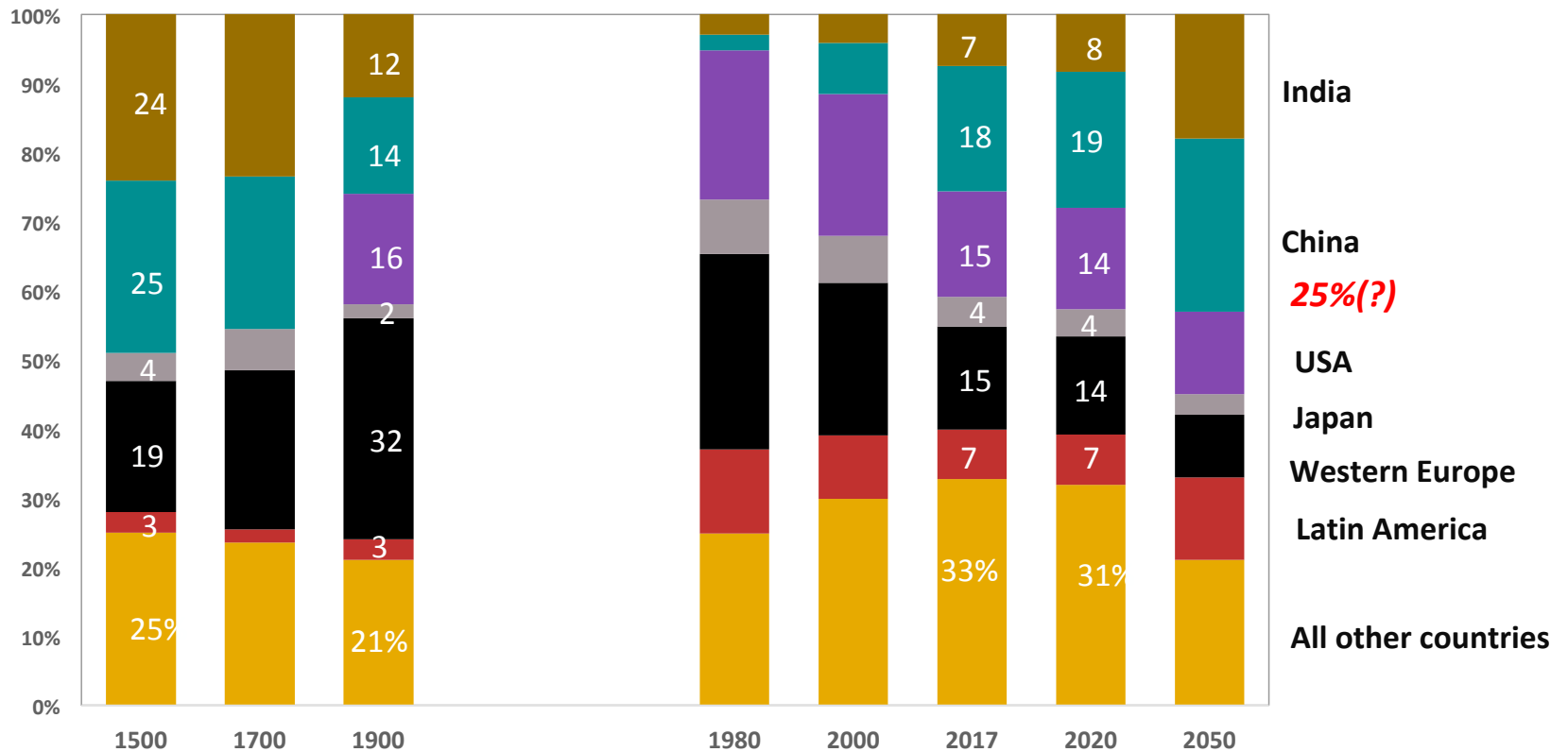
,Source: IMF

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Particularly impressive is China, - on its way to gain its past glory?



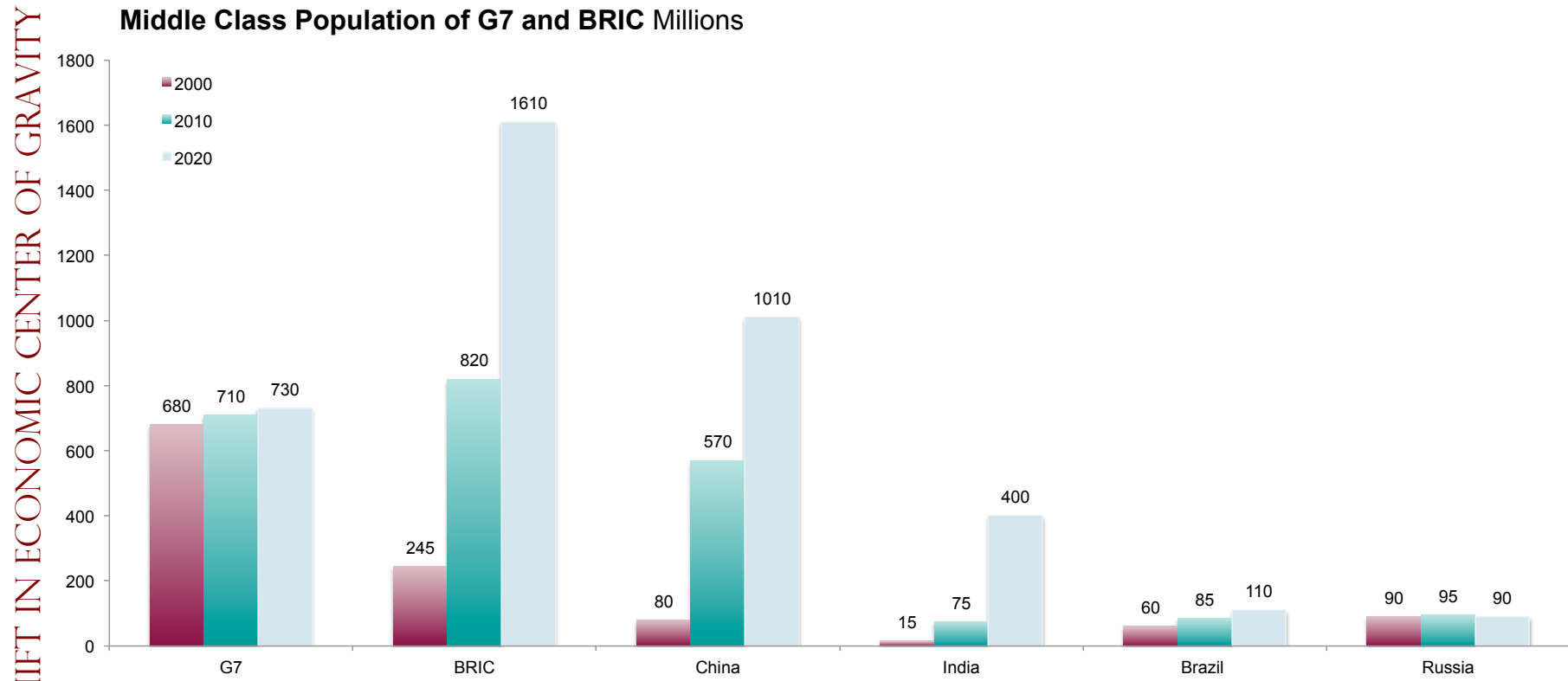
World GDP (in Trillion \$ / percentage based on PPP)



Source: IMF/Maddison Historical Statistics/PWC analysis

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Rising middle class in China....



Source: World Bank and Goldman Sachs

*Middle Class: Annual income(current value) >\$6000, <\$30000

Shifting the economic center of gravity from the Atlantic to the Pacific area



The world's economic center of gravity*



Regional contribution to world in next 10 years (%)

, the Economists, BBVA

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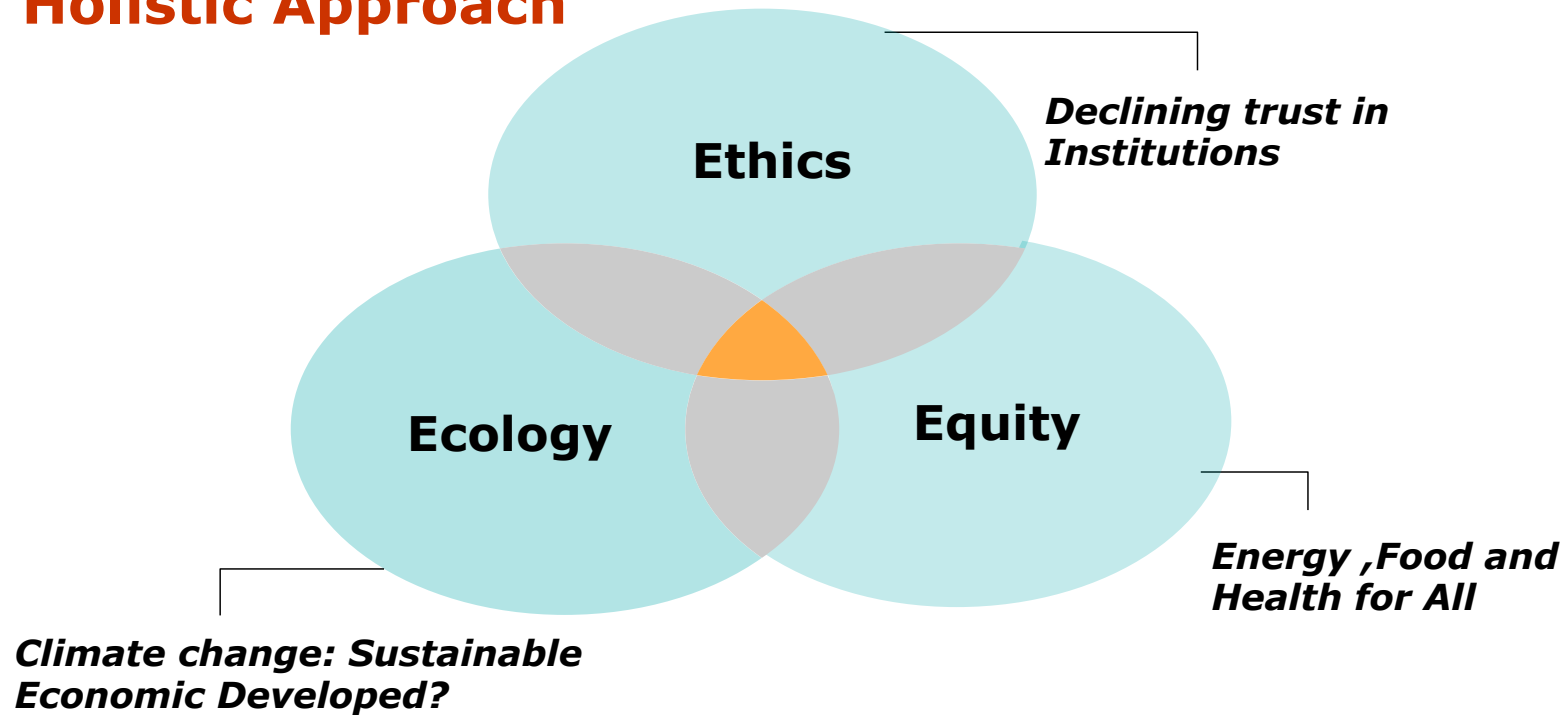
Decadence in 3Es



PROBLEMS ≈ OPPORTUNITIES

Holistic Approach

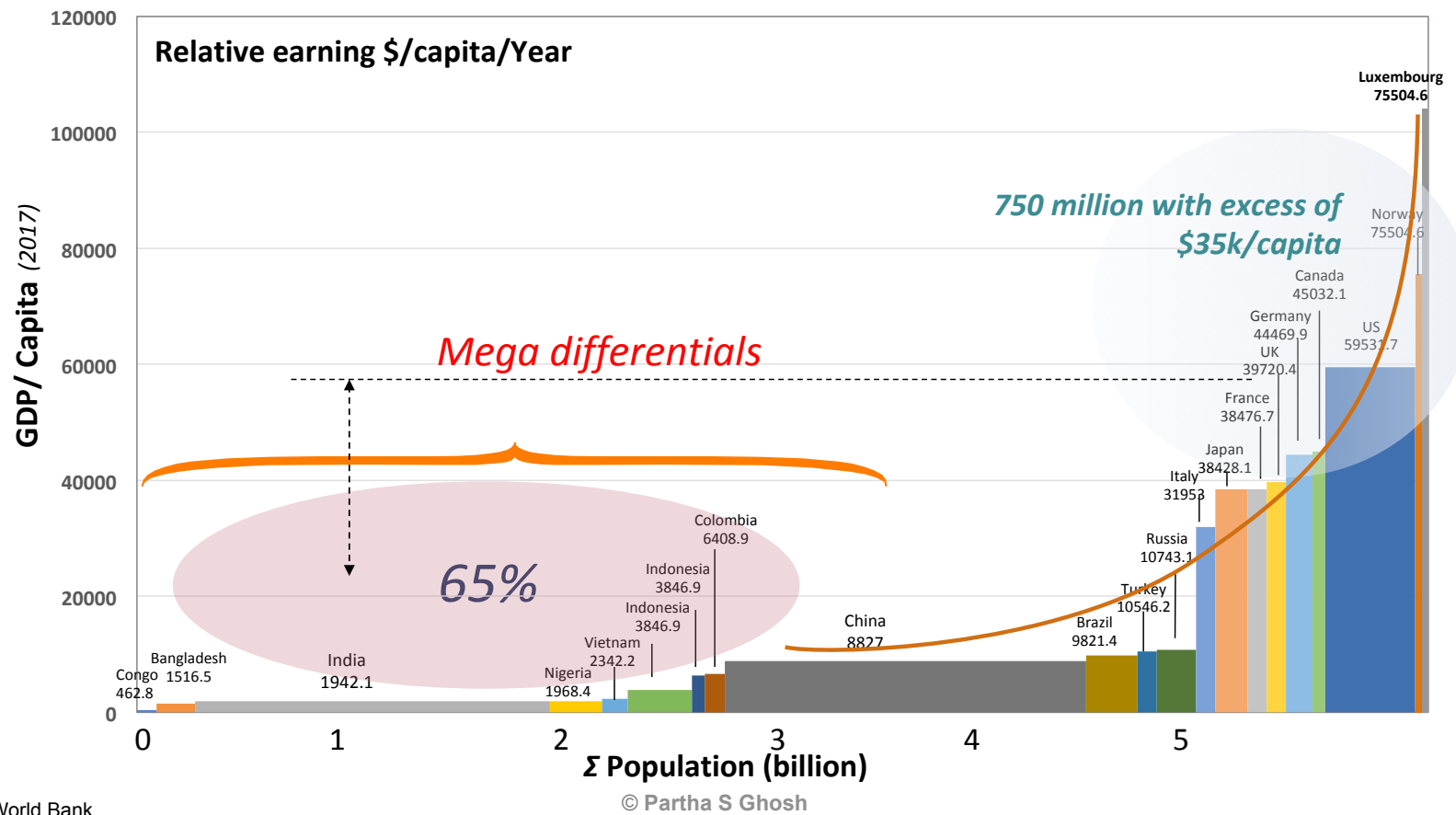
DIS-EQUILIBRIUM ? IN 3ES



Critical Challenge: Mega differentials



DIS-EQUILIBRIUM ? IN 3ES

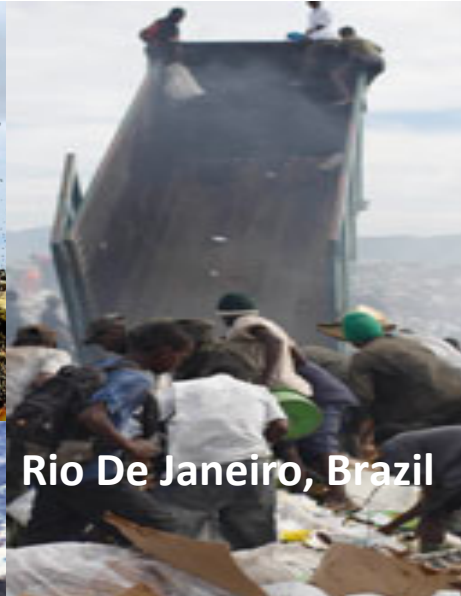


Data Source: World Bank

Rise of slums = Increasing waste-pickers



Phnom Penh, Cambodia



Rio De Janeiro, Brazil



New Delhi, India



Manila, Philippines

Waste of Nations?



Buenos Aires, Argentina

Slums are a globalized problem



Chief Features of a Slum

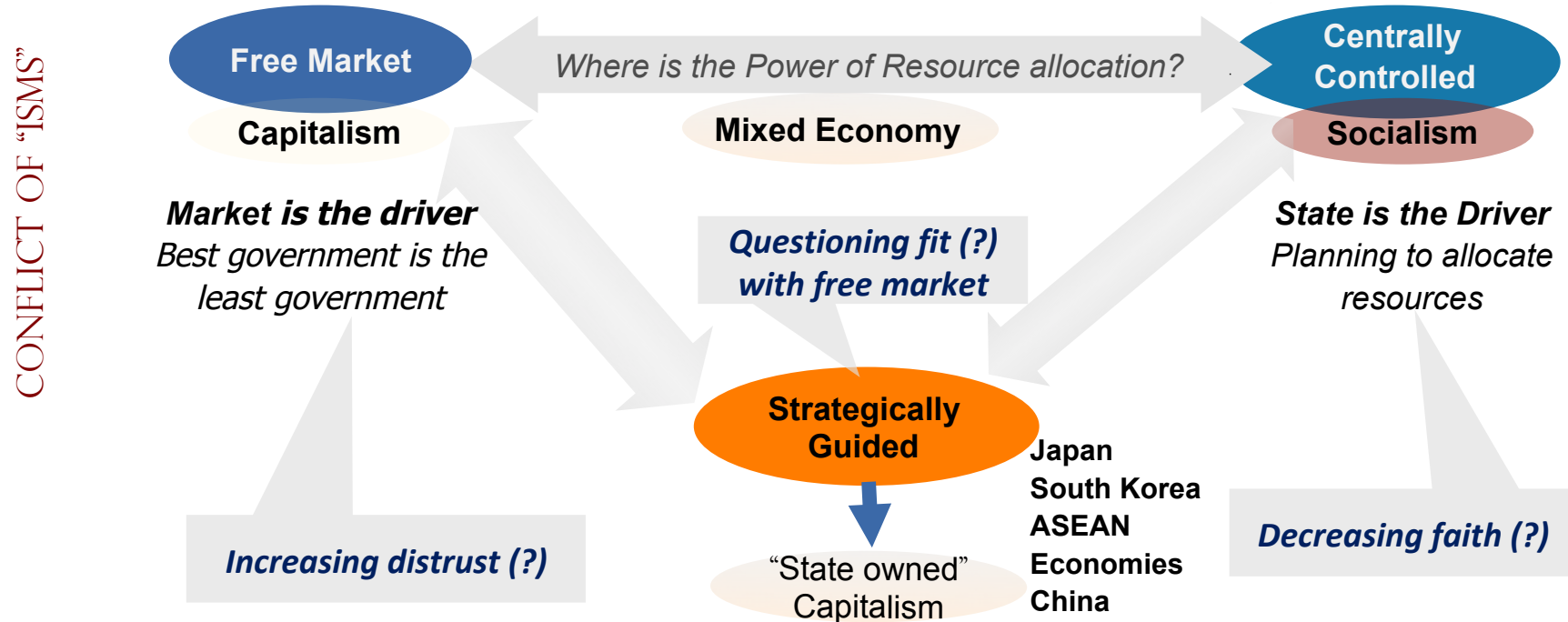
- Lack of durable housing
- Insufficient living area
- Lack of access to clean water
- Inadequate sanitation
- Insecure tenure

Generate large amounts
of untreated waste

So what happens to the waste?

Future of Resource Allocation Mechanisms: Need for Strategic Guidance

ECONOMIC PHILOSOPHIES AT WORK



At Macro-level our planet is indeed in the middle of multiple tensions along several dimensions(?)



Macro-level : Multi tensions





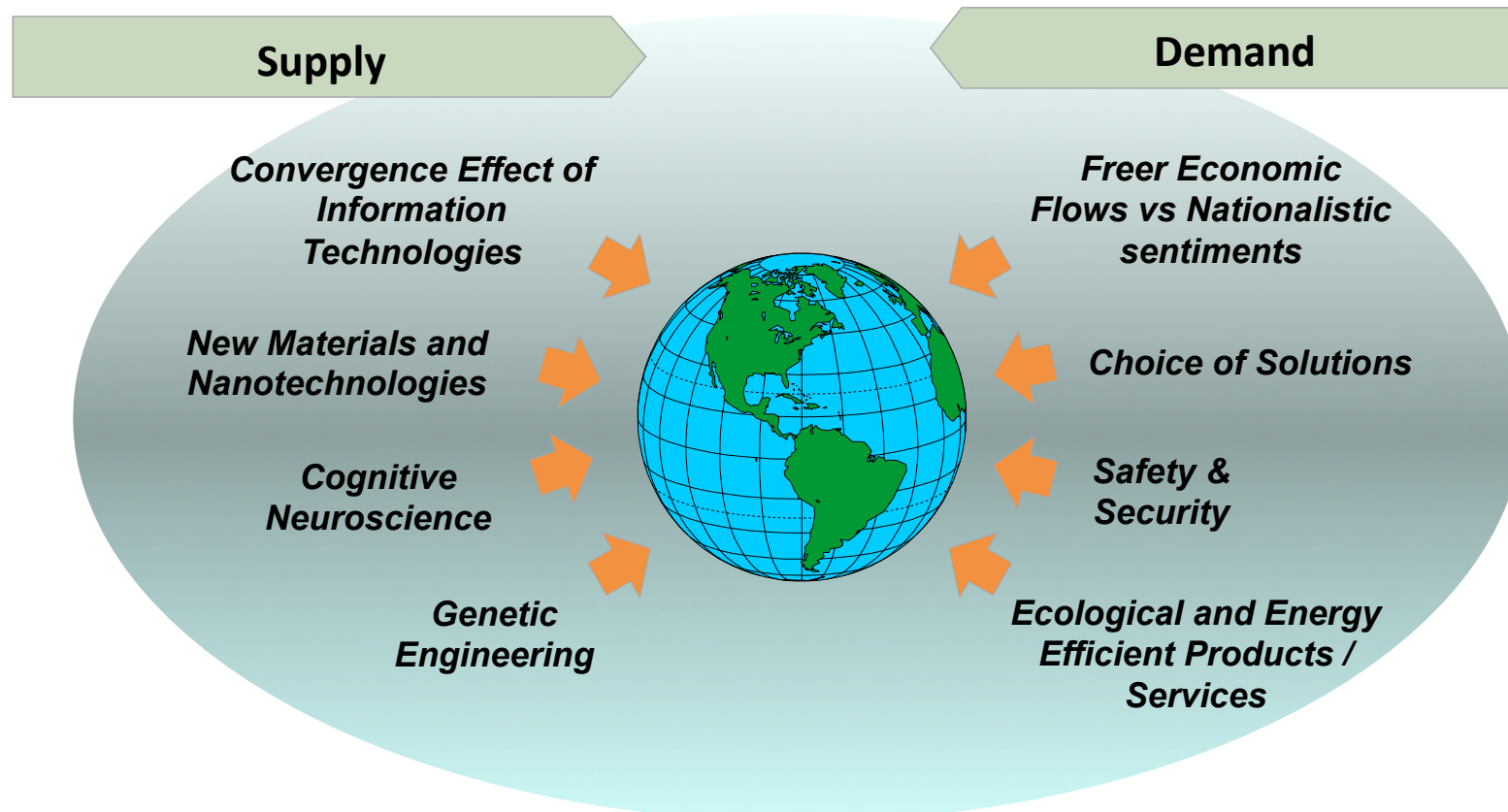
Significant Changes ahead

1 Our Planet in Perspective

AT MICRO LEVEL... 8 FORCES

- CONVERGENCE OF TECHNOLOGIES/AI....
- NEW BUSINESS MODELS...

The Emerging Economic Environment — *The Big Picture*



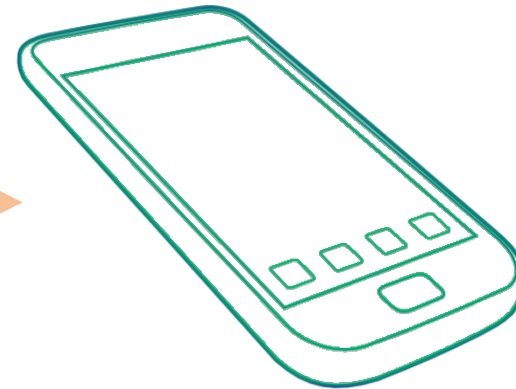
Now of course Auto and Electronics Industry are merging



Automotive Industry



Consumer Electronics Industry

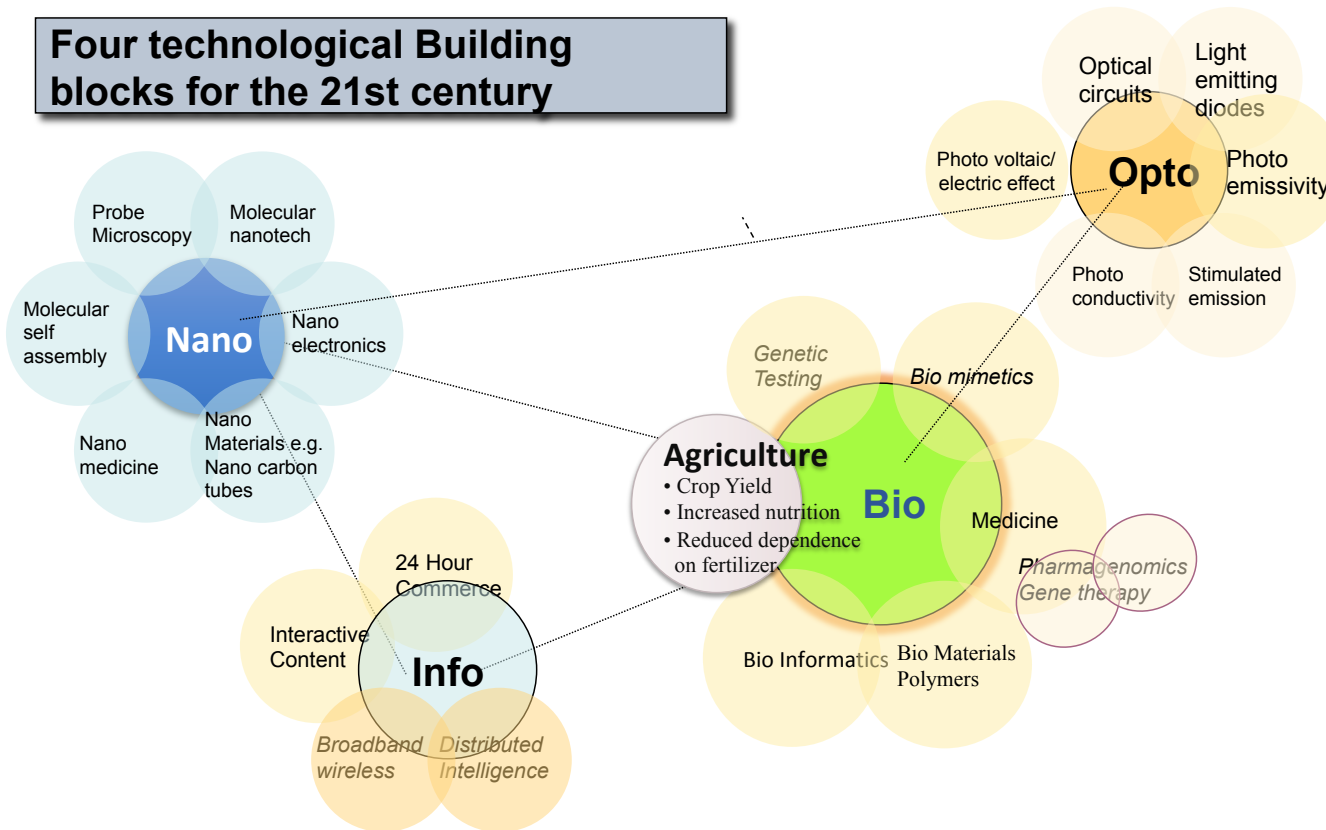


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Four technologies will influence how new Global solutions will develop



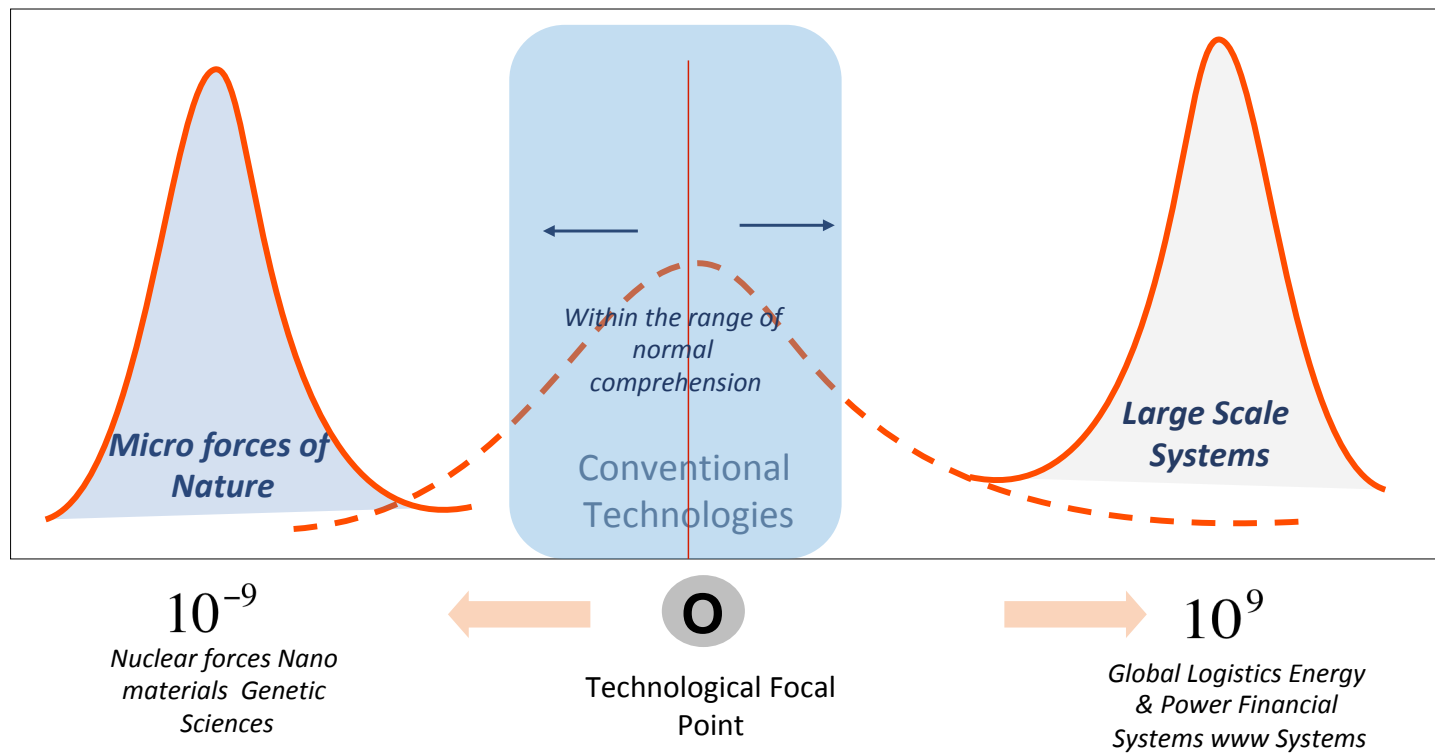
Four technological Building blocks for the 21st century



Shape of things to come...



Influence of Technologies on Society



New Business models are emerging rapidly



Largest **retailer** without retail stores



U B E R

Largest **Taxi Company** without CARS



airbnb

The Power of AI @ Work

Largest in **hospitality** without real estate



Largest in **social media** without content



Largest retailer and developer of SMEs

Same is true in Renewable Energy Development; China as an example



Bioenergy

China overtook the United States as the **largest producer** of **bioelectricity** during 2017.



Solar photo-voltaic

China is leading the growth of Solar PV--it **ranks first** since 2015 in both installed capacity and power generation.



Hydropower

China **remained the leader** in commissioning new hydropower capacity--nearly 40% of new installations in 2017, and was followed by Brazil, India.



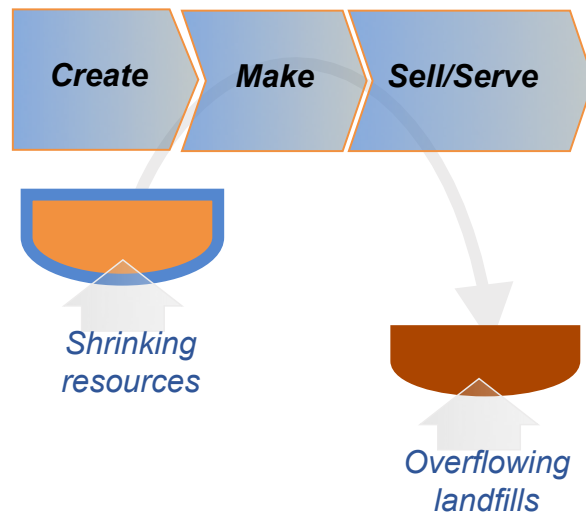
Wind Power

China maintained its **leading position** as a wind energy powerhouse, installing 19.7 GW, while the European Union added 15.6 GW of capacity. The U.S. installed a little over 7 GW of capacity.

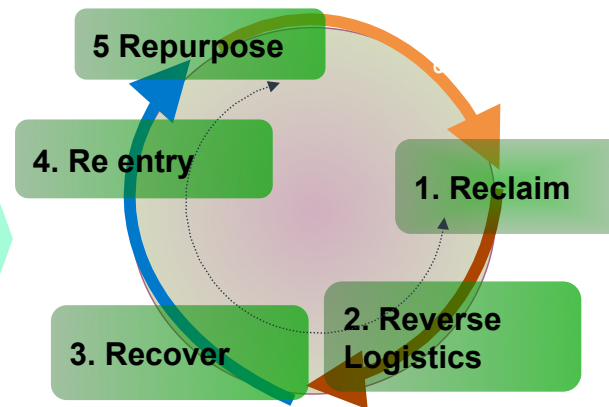
Towards Circular Economics= *Play of 5Rs*



Old paradigm: Linear Business Model



Possibly Paradigm: Circular Business Model



Developing reverse logistics process could open up new Industries



Creating An Industry (*Reverse Logistics*)

The Challenge of Creation of a New Industry:

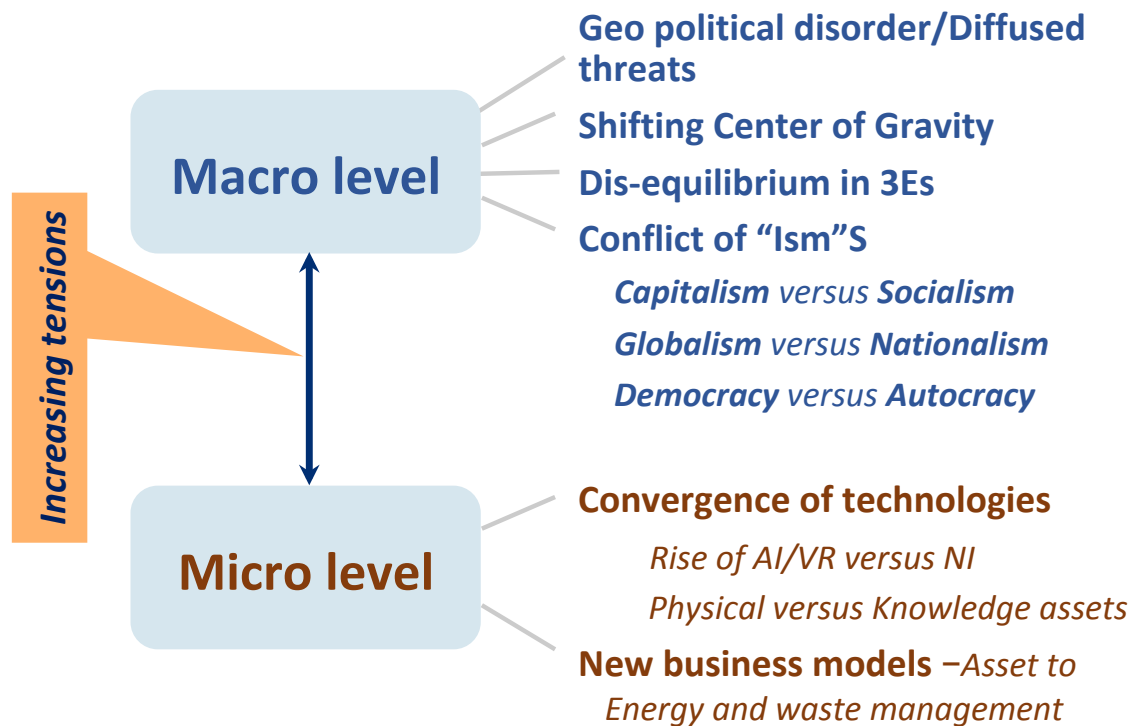
1. Distributed to concentrated
2. Rules of engagement
3. Stewardship

Our Planet in the middle of multi level tensions along several dimensions(?)

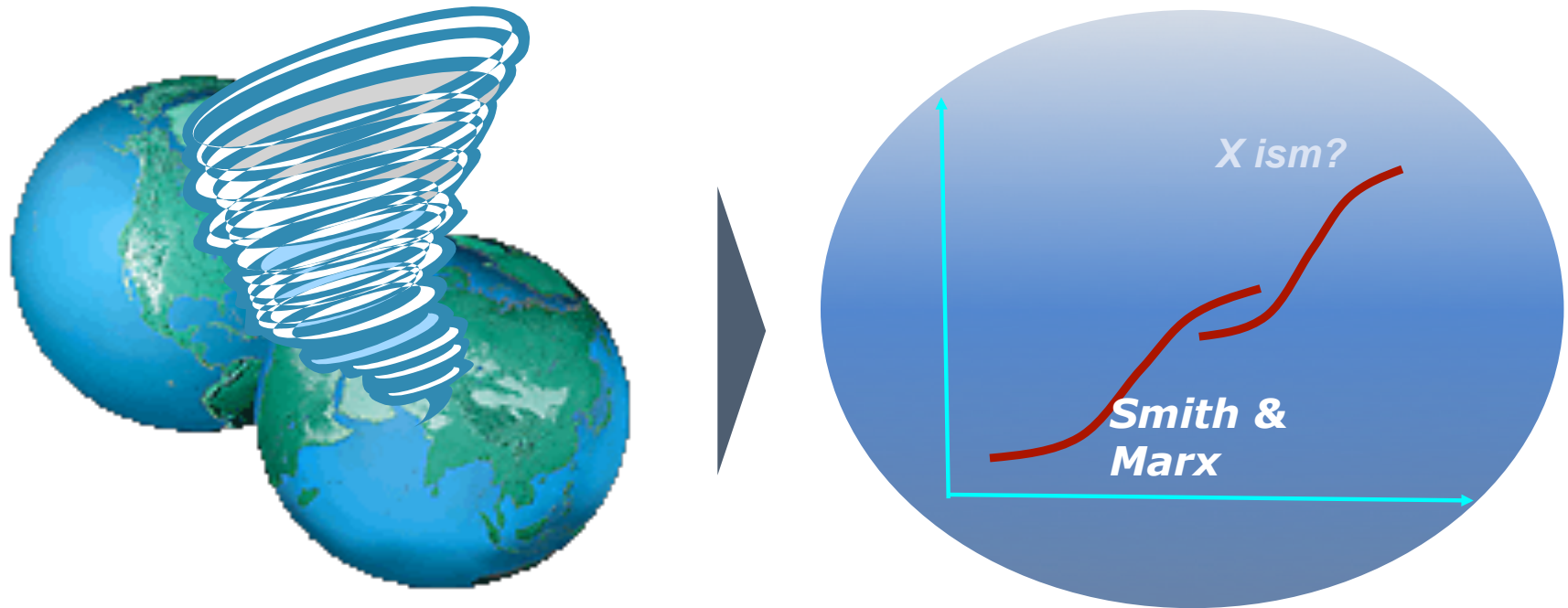


Multi-level : Multi dimensional tensions

Mega Tornado in the making?



Turbulent times: In search of more Efficient Resource Allocation Mechanisms





Today three high level points....

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In the 21st Century?

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Next Phase *Imperatives*
Of Globalization: - Trade & Trust ?

3

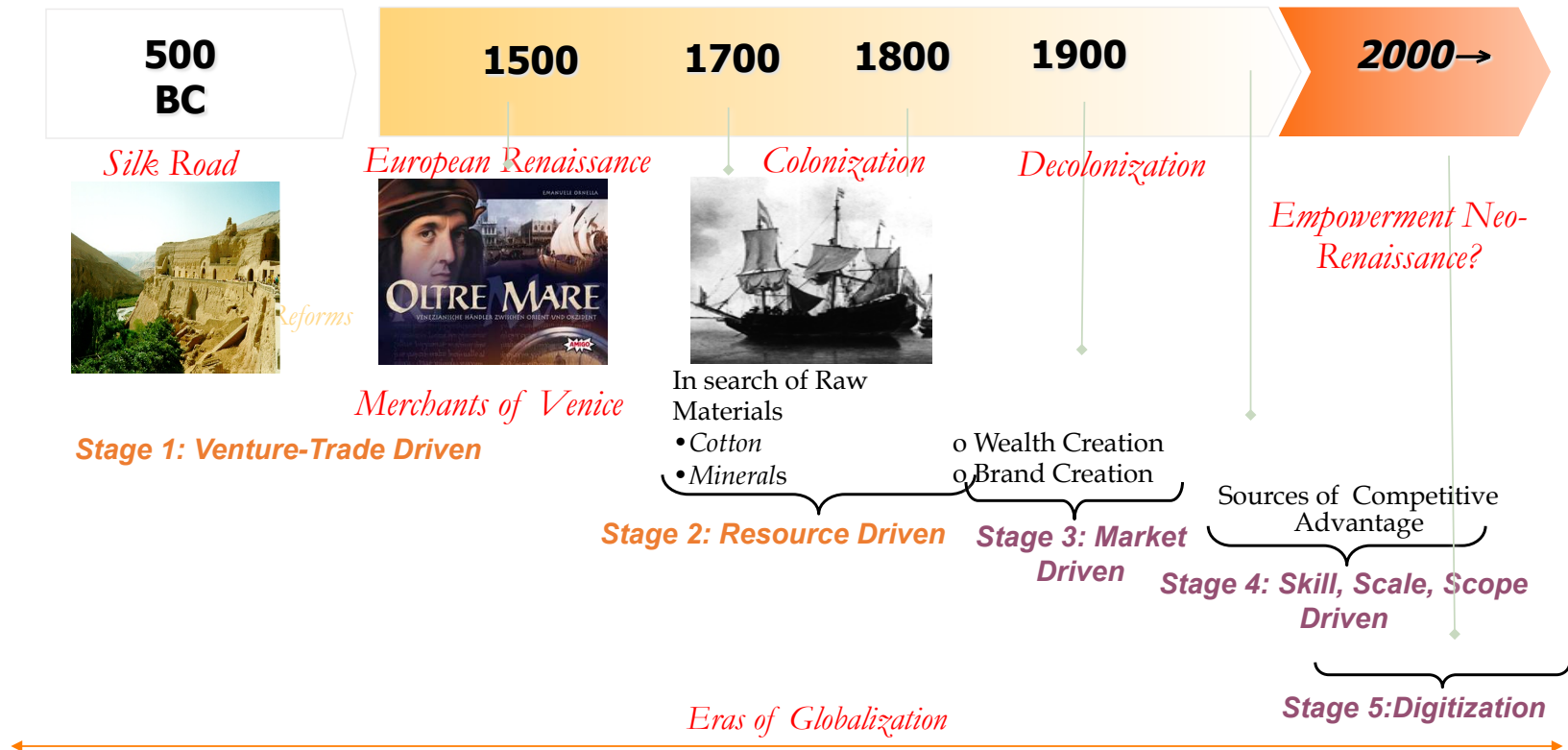
China's Journey forward:
Dos & Don'ts?

Global order at point of inflection:
Not more and better of the same -
Need fundamentally a new approach

Globalization: 2500 Years in Perspective



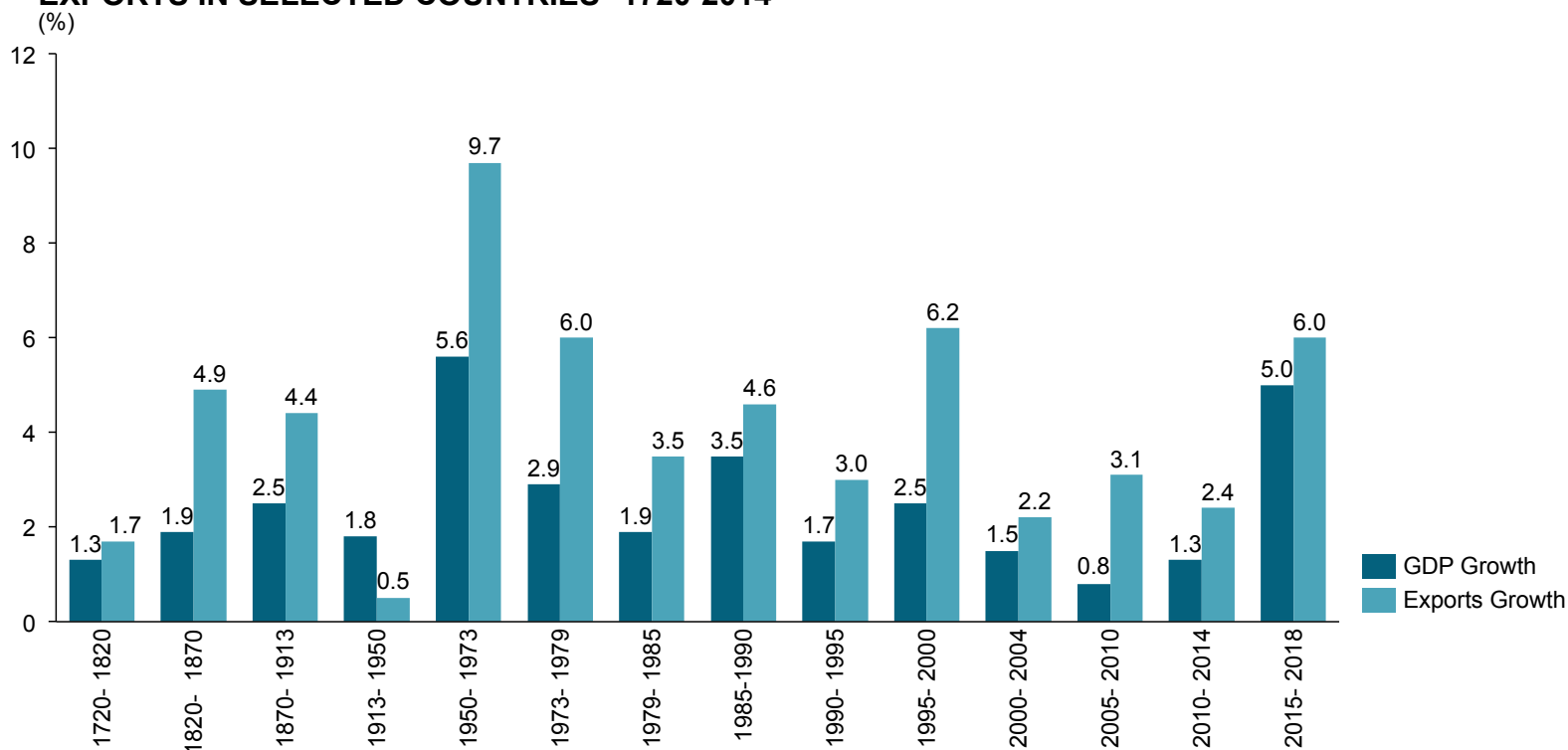
Globalization is not new....



Over the past 300 years world has gotten increasingly connected



HISTORICAL TRENDS IN THE GROWTH OF REAL GDP AND EXPORTS IN SELECTED COUNTRIES* 1720-2014



*Average growth rates for 6 major industrial countries: France, Germany, Italy, Japan, UK, and U.S. For the period 1985-1990 and 1990-1995, countries included are Japan, Germany and US. For the period 1995-2000, countries included are Japan, Germany, Italy, UK and US. For the period, 2000-2004, countries included are Japan, Germany, UK and US.

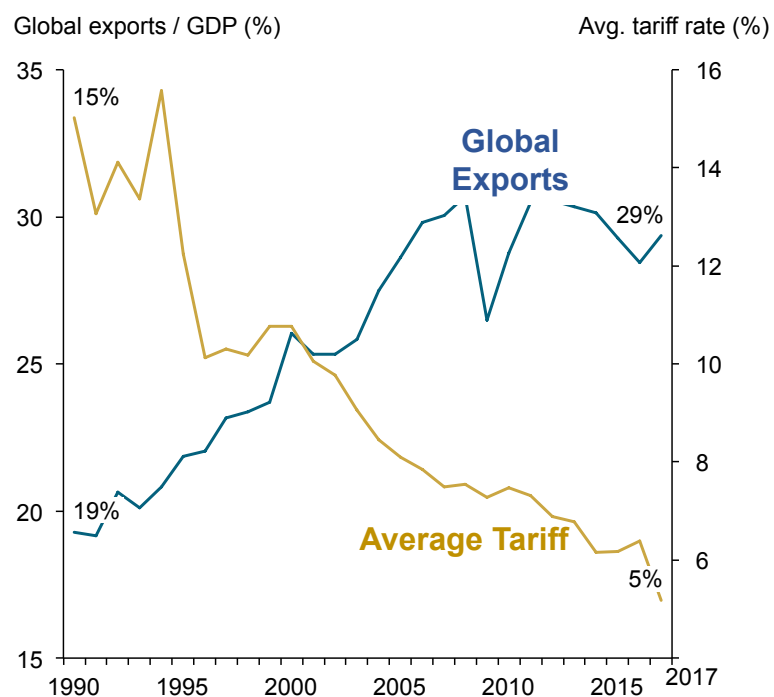
IMF World Economic Outlook Database

© Partha S Ghosh

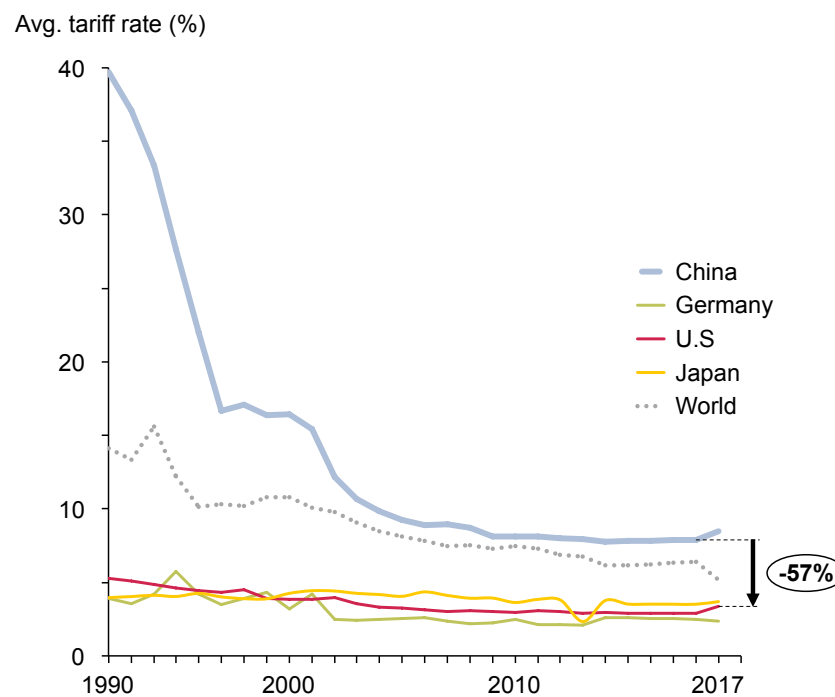
In the last thirty years as tariff has diminished, share of exports in Global GDP has increased



GLOBAL TARIFF AND EXPORTS TREND



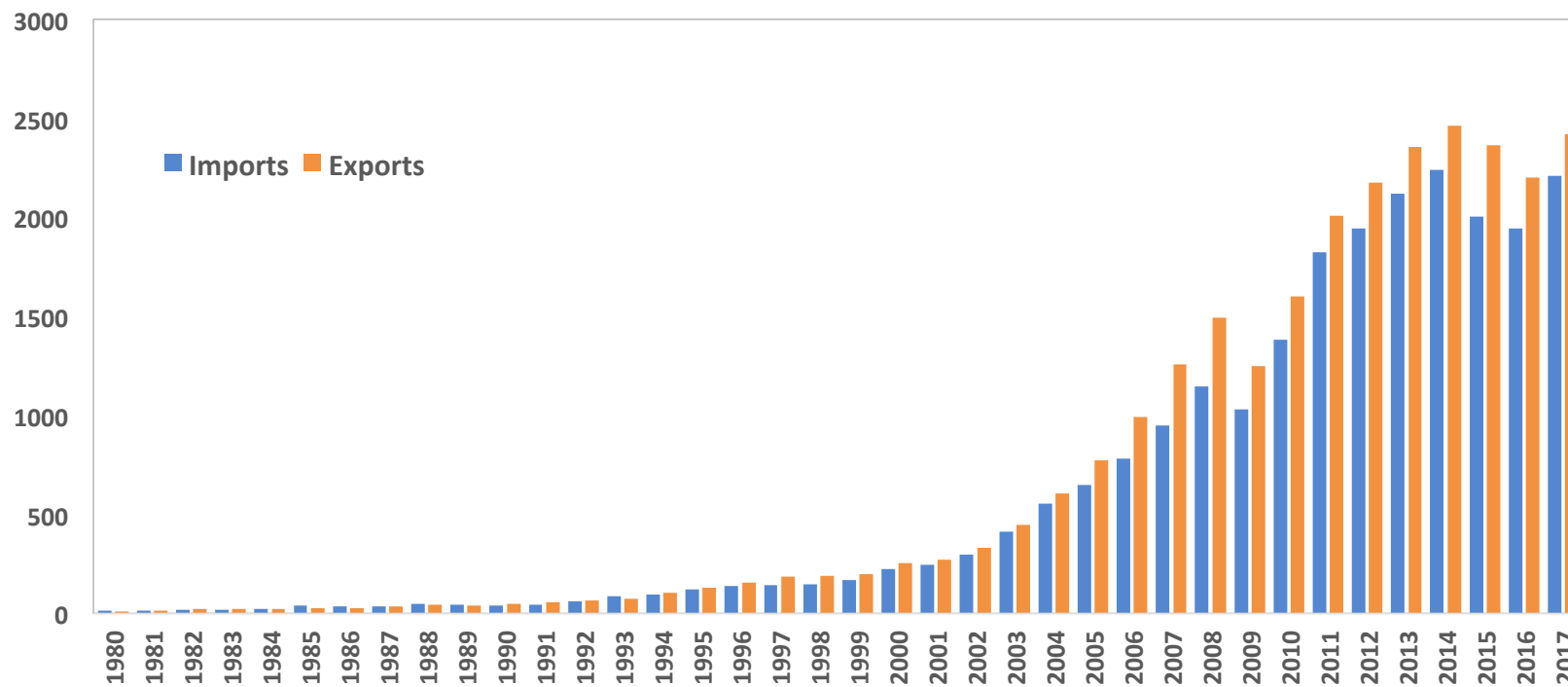
AVERAGE TARIFF RATE TREND BY COUNTRY



China now clearly a major trading nation



Imports & Exports of China(current US\$) 1980-2017

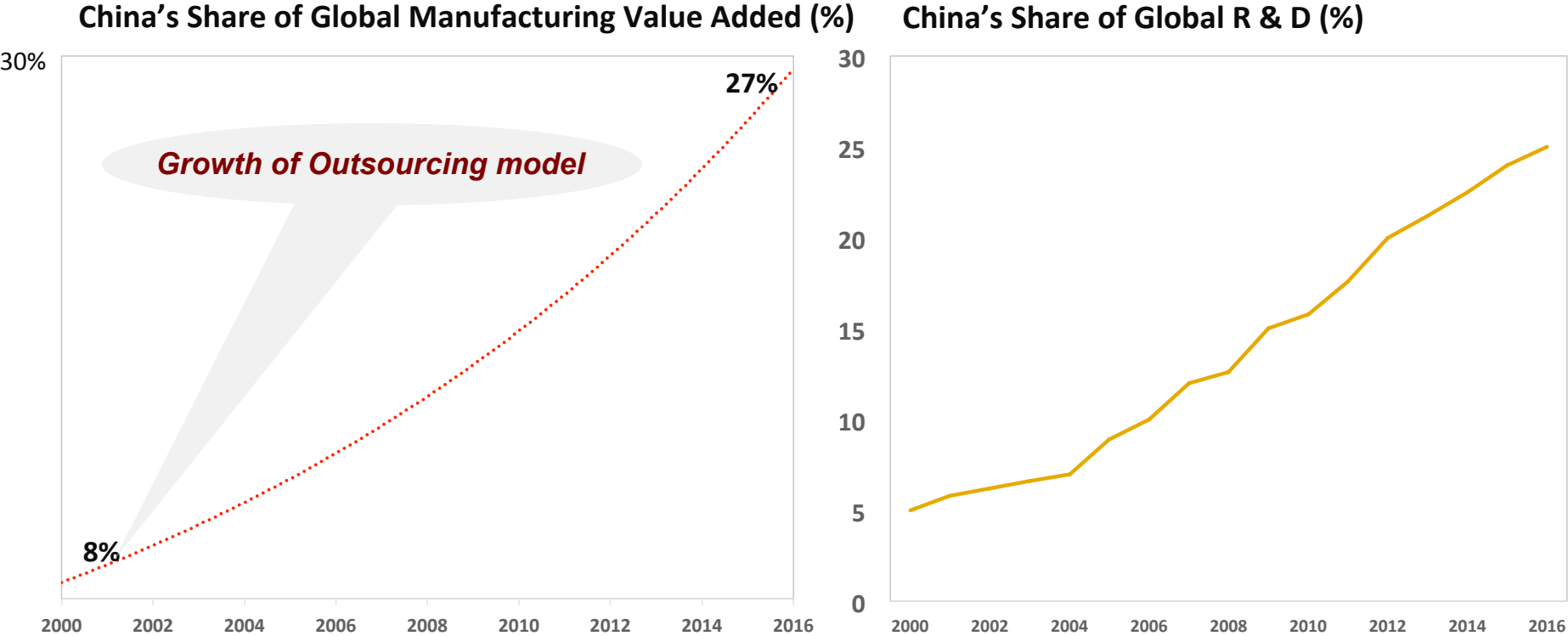


Data Source: World Bank

© Partha S Ghosh



China's share of global manufacturing and R&D commitment has increased significantly



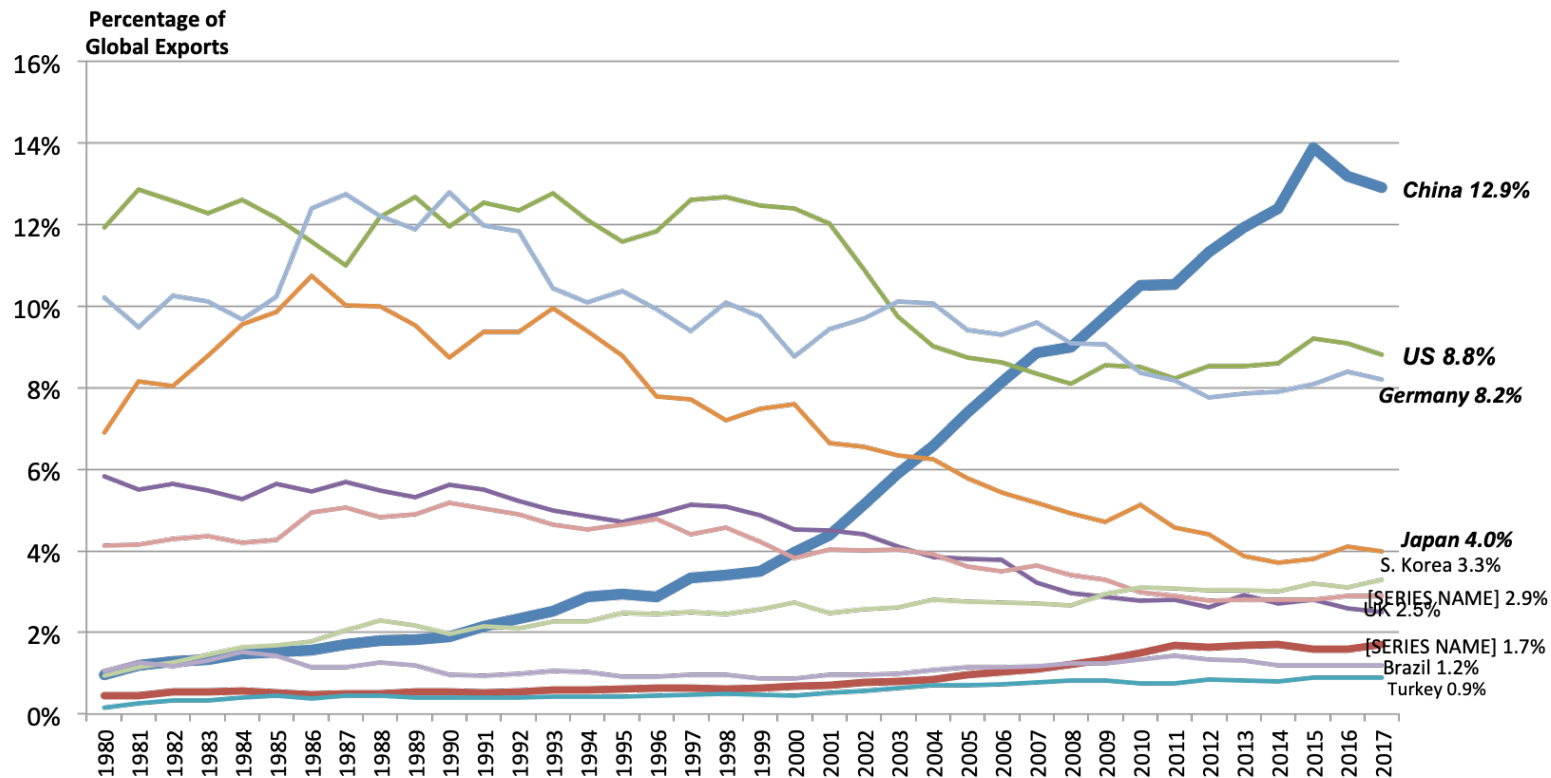
Source: OECD stats database/United Nations Industrial Development Organization

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China's manufacturing exports as a percentage of World manufacturing exports has increased by 10 times



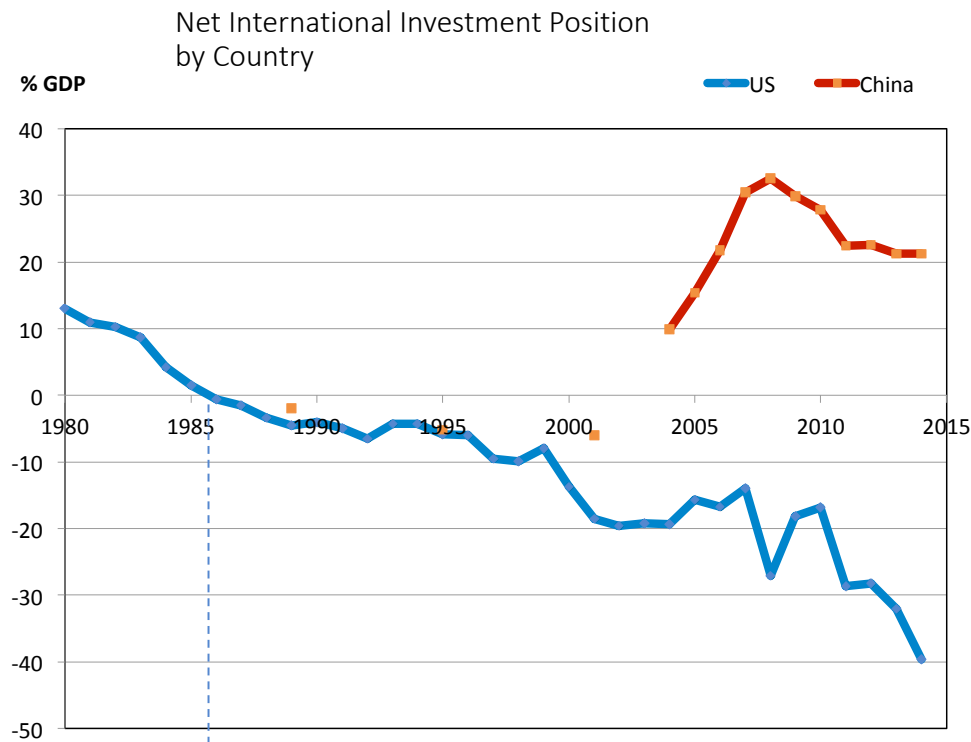
Share of Merchandise Exports of Selected G20 Countries(1980-2017)



Data Source: International Trade Center Statistics

© Partha S Ghosh

China's 3 decades of economic growth has allowed it to accumulate large trade surpluses, increasing its economic influence



*China's increasing economic influence
thru Financing international debt,
developing foreign assets to acquire
natural resources, internally investing in
infrastructure and technology, etc)*

*1999 US-China Free trade agreement under
Clinton Administration*

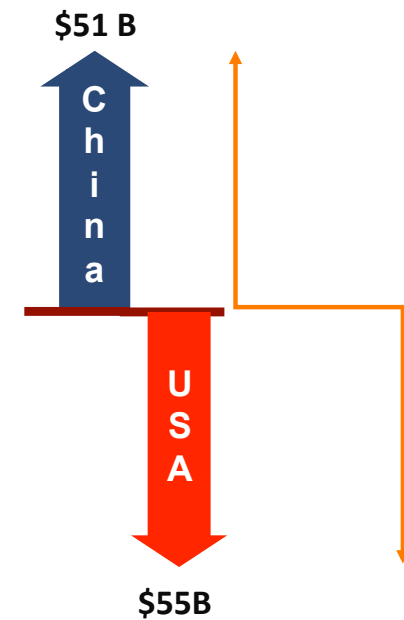
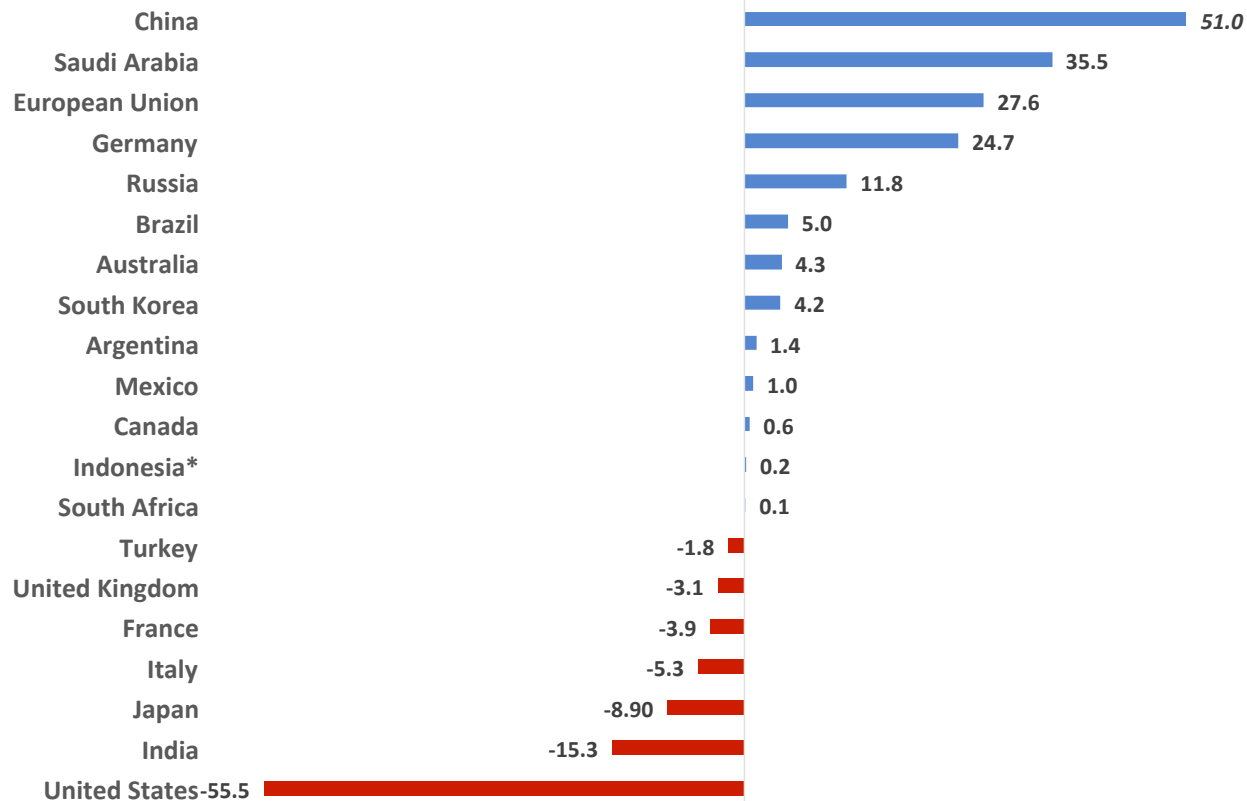
Source: IMF Dataset

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Gap in Balance of trade in the recent years has drawn significant political attention



G20 Nations: Balance of Trade as of May 2019(US\$ Billion)



Source: <https://tradingeconomics.com/country-list/balance-of-trade>

*data from June 2019

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Globalization not a “zero sum” game but “plus sum” process?



Unfortunate developments:

- ✓ Balance of Trade? US (-**VE**), China (+**VE**)
- ✓ Balance of Trust ? (**Protection of IP?**)

Long term issues:

- ✓ Widening Gap between Rich & Poor
- ✓ Limits of Free markets
- ✓ Resource constraints of Governments
- ✓ Climate & Ecology Constraints
- ✓ Eroding Ethics

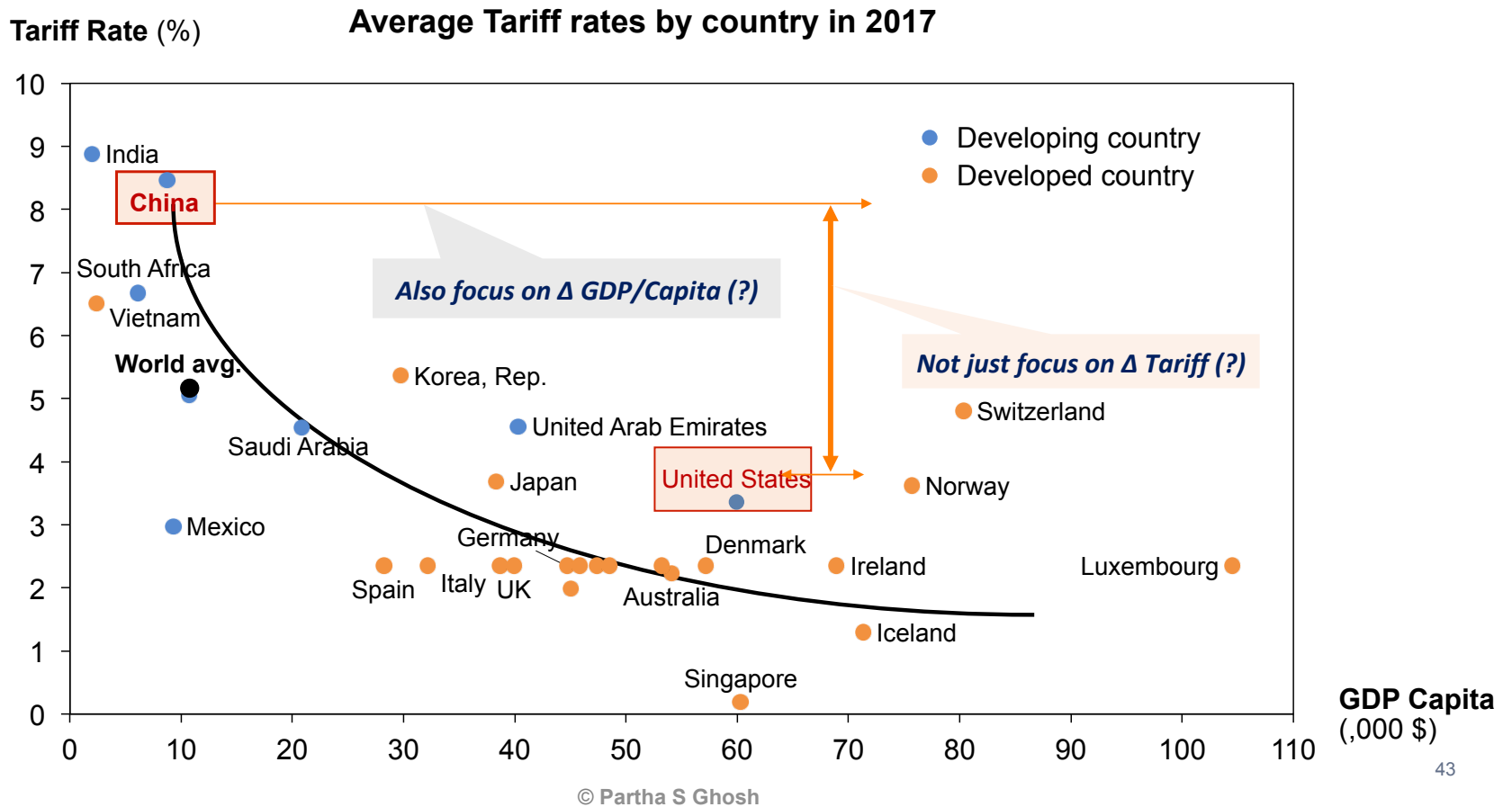


***Promise of
Globalization derailed/
Constrained by Tariffs
& Quotas ?***



***Enlightened &
Responsible Problem
solving?***

Trade and Tariff issues will need to be addressed with broader Global perspective



Today three high level points....



1

Our Planet in Perspective
In the 21st Century?

Global order at point of inflection:
Not more and better of the same -
Need fundamentally a new approach

2

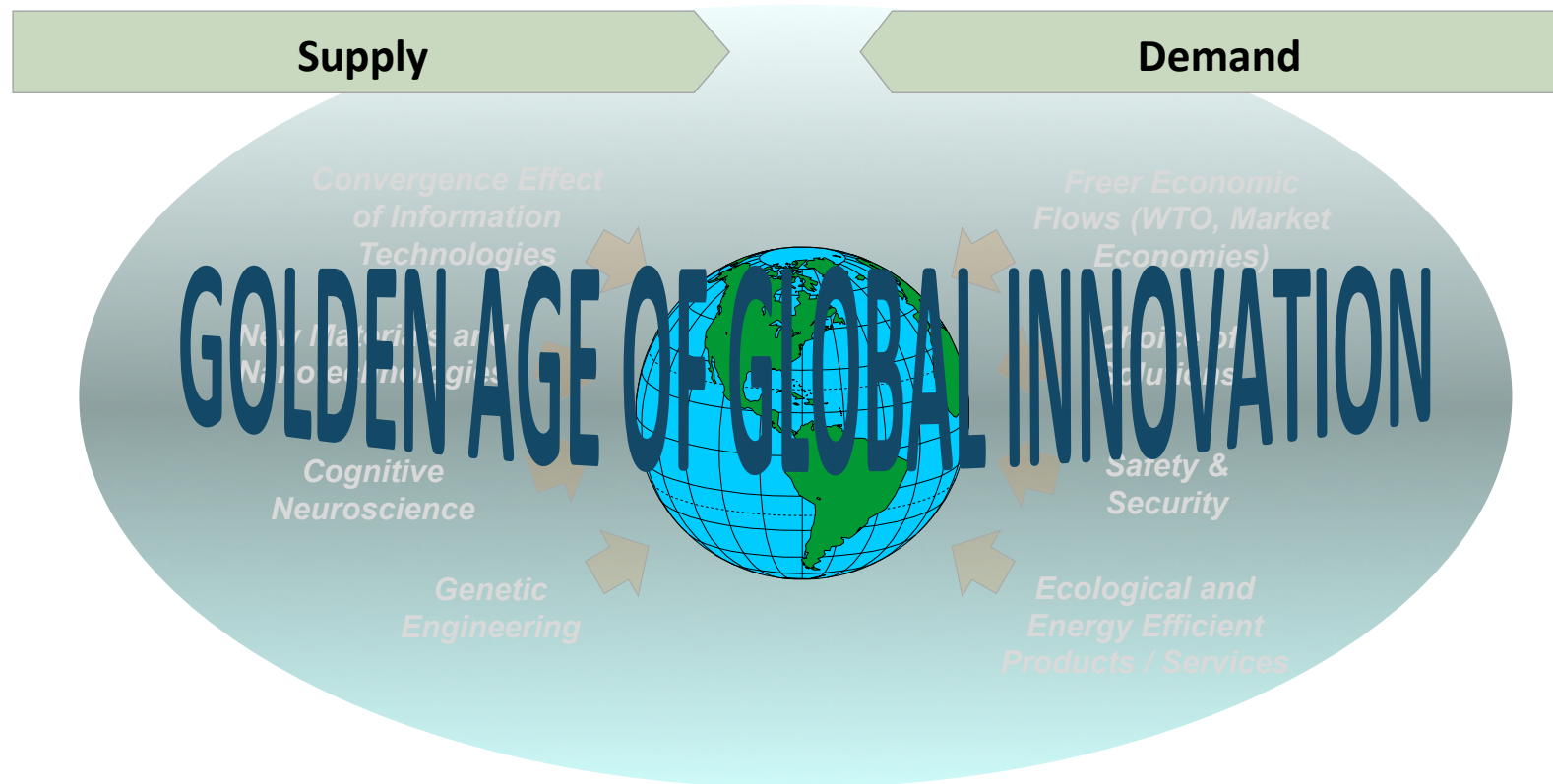
Next Phase *Imperatives*
Of Globalization: - Trade & Trust ?

**Globalization with a broader
perspective:** *Not transactional* -Need
a “plus sum” mind-set

3

China's Journey forward:
Dos & Don'ts?

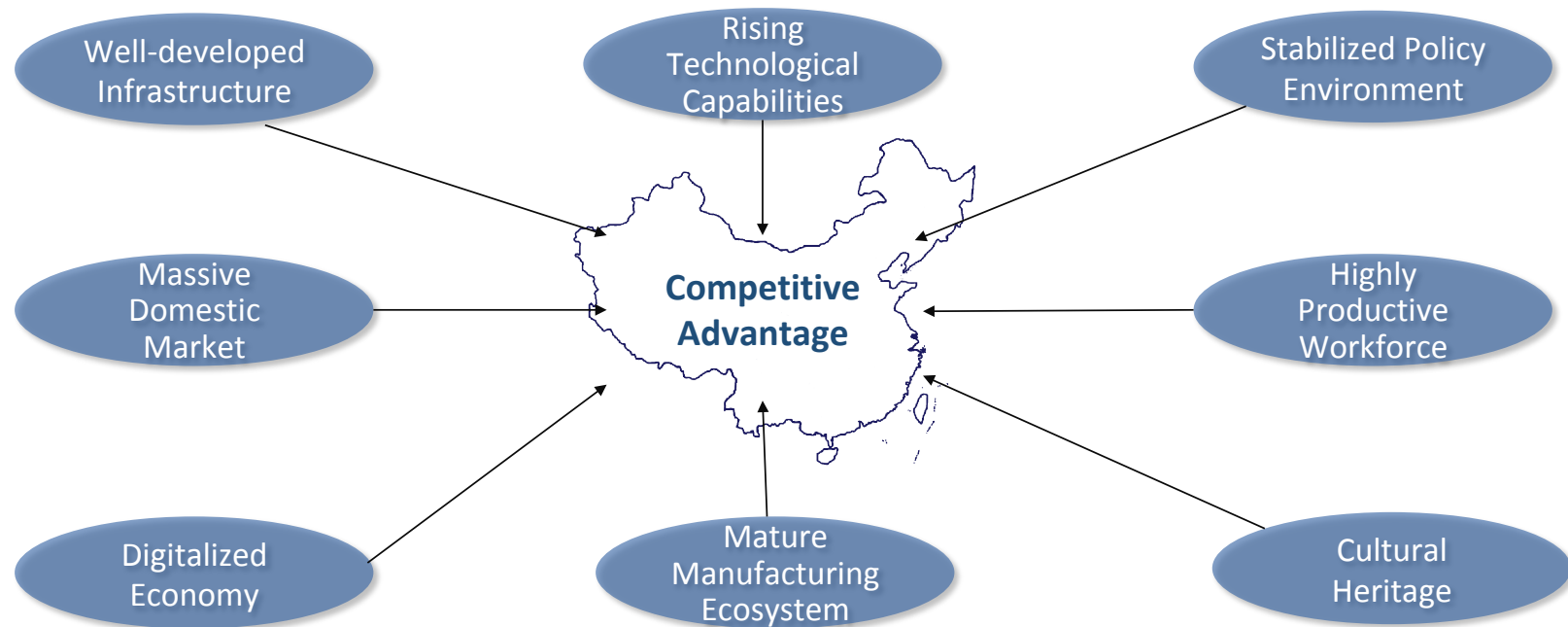
The Emerging Economic Environment — The Big Picture



China's success in the Innovation Economy will be determined by how several critical factors are synchronized



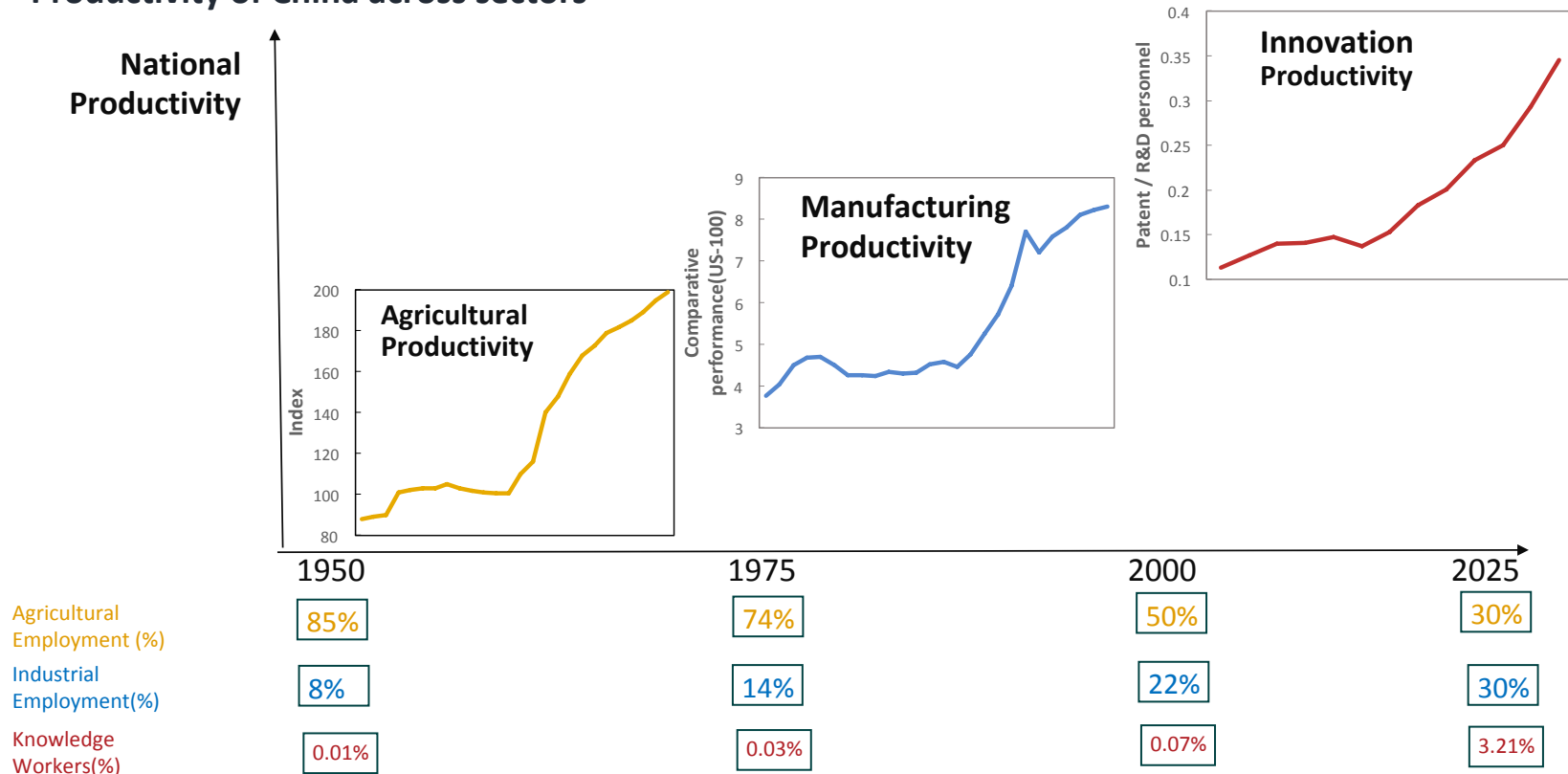
Competitive Advantage of China



Productivity of China's human resources through different eras of development



Productivity of China across sectors



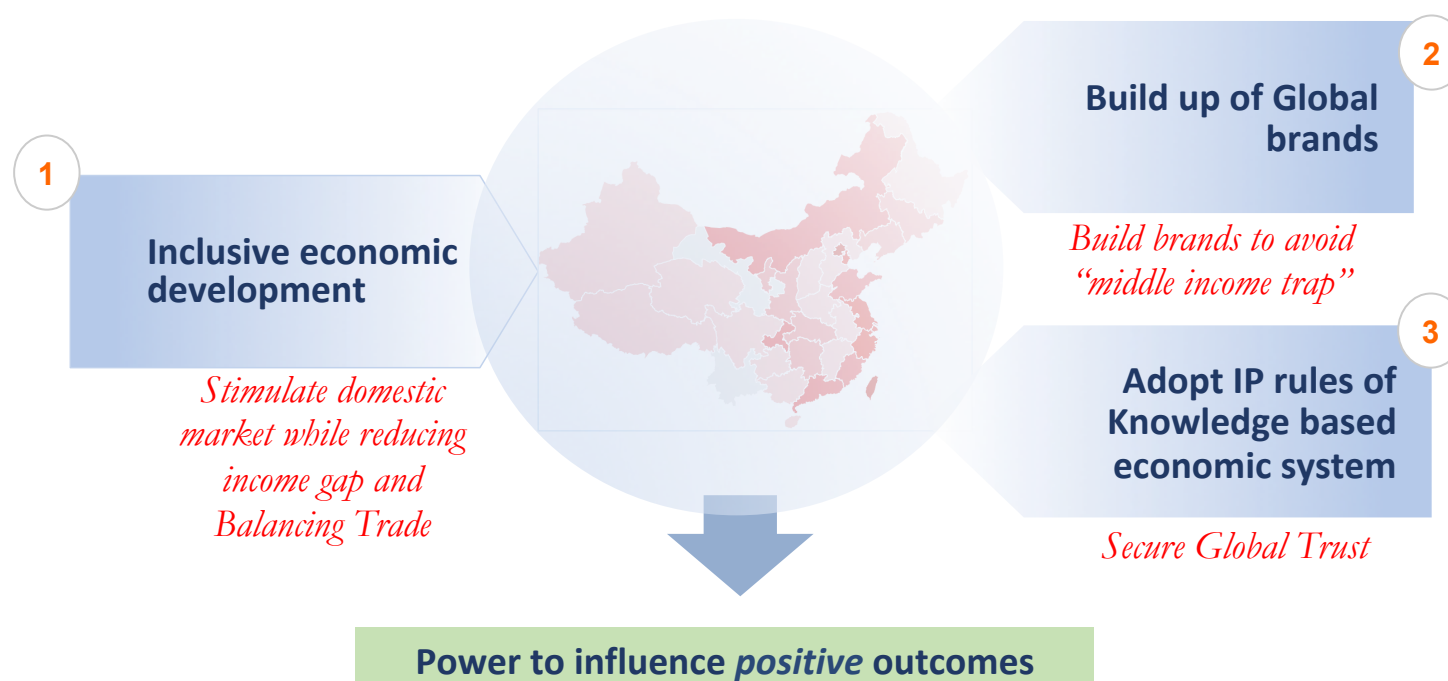
Source: China statistical Yearbook; China Agricultural Statistical Year Book/ World Bank/
 Harry Xu "Comparative labor productivity performance in Chinese manufacturing, 1952-1997: An ICOP PPP
 Approach"

© Partha S Ghosh

Three pronged strategic initiatives to trigger China's *next phase of socio-economic development*



Three Strategic Initiatives for Next Phase(?)

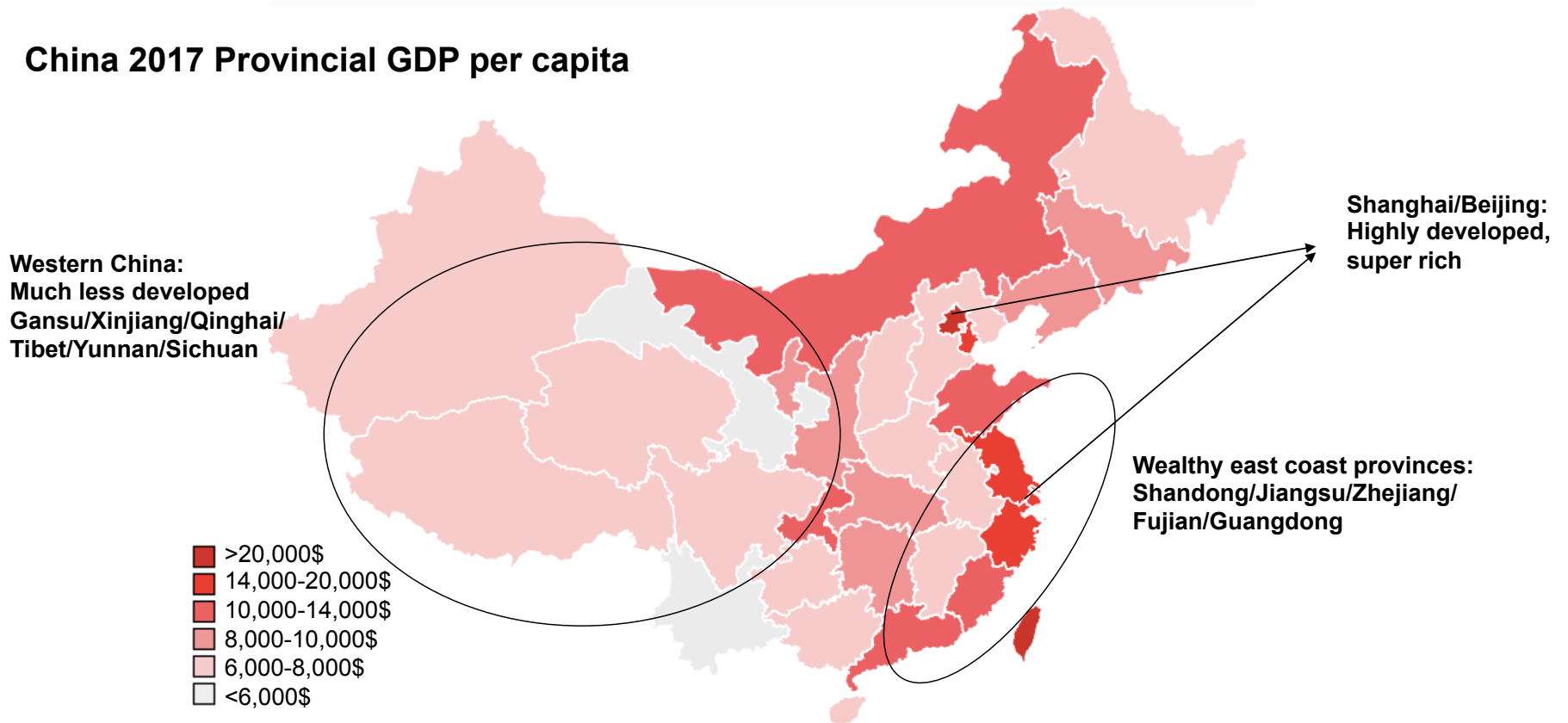


China experienced rapid economic growth but extremely unequal



China 2017 Provincial GDP per capita

INCLUSIVE DEVELOPMENT



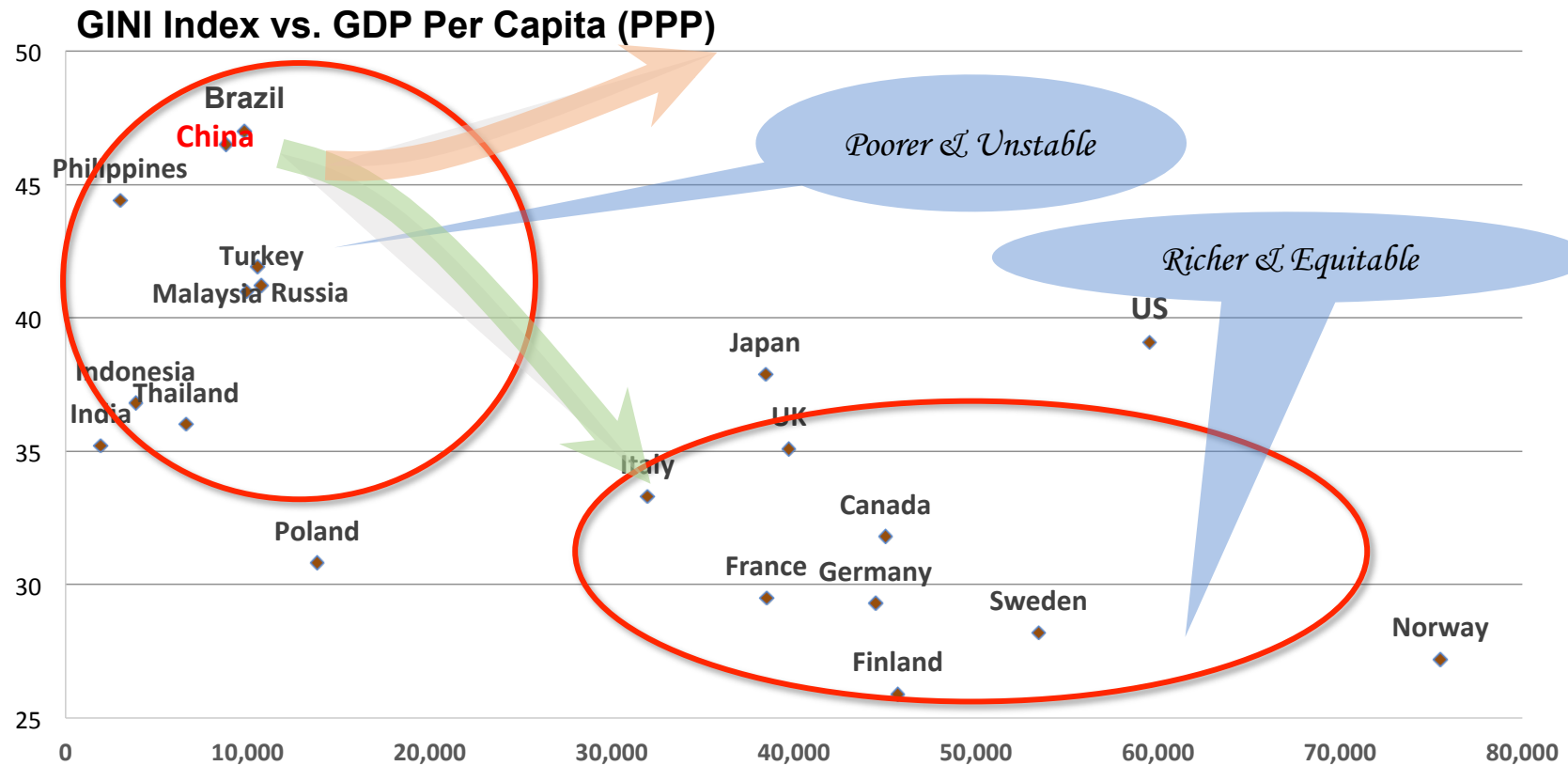
Data Source: China National Bureau of Statistics

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Growth not at the cost of inequality ?



INCLUSIVE DEVELOPMENT

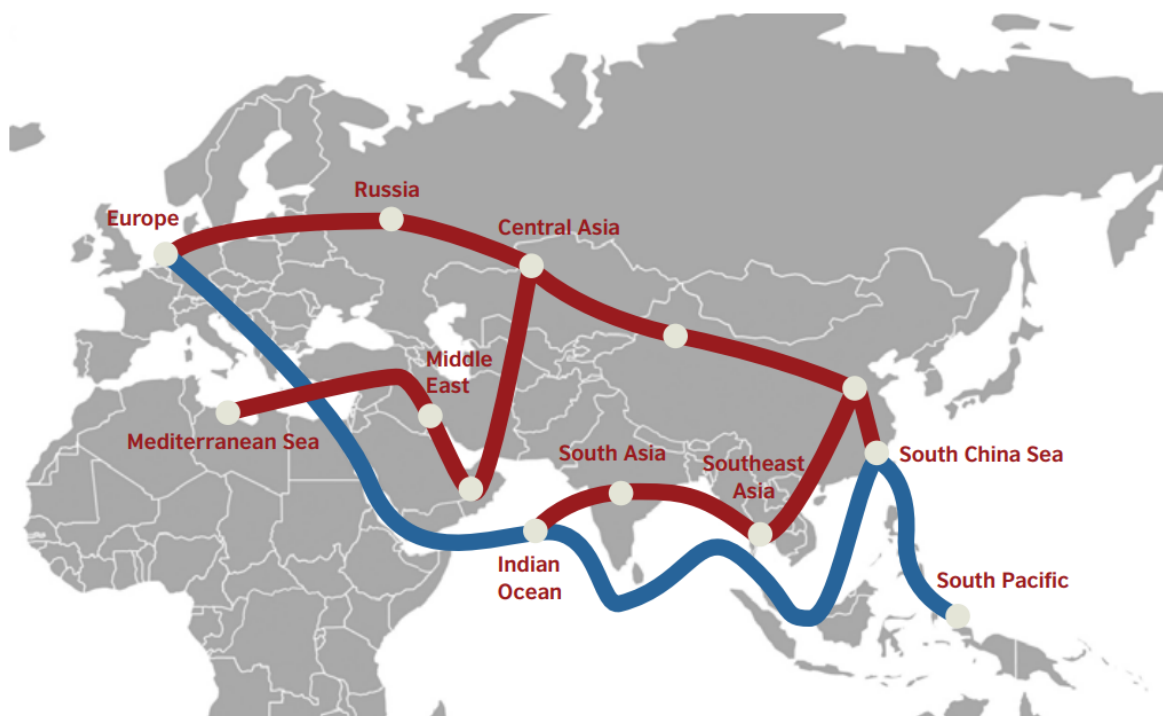


SOURCE: World Bank/OECD/US Central Intelligence Agency

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One Belt One Road (OBOR) clearly a bold step in the right direction has drawn lot of attention:- *timing?*



The blue route is the "21st Century Maritime Silk Road", and the red routes are the "Silk Road Economic Belt"

The OBOR blueprint encompasses over 60 countries, which account for 60% of the world's population and a collective GDP equivalent to 33% of the world's wealth.

Explicit Objectives:

- Prosperity for underdeveloped Western China
- Increased connectivity and economic development along routes through exchange of goods, services, information, and people
- Greater integration between China and neighbors
- Energy security through diversification of resources

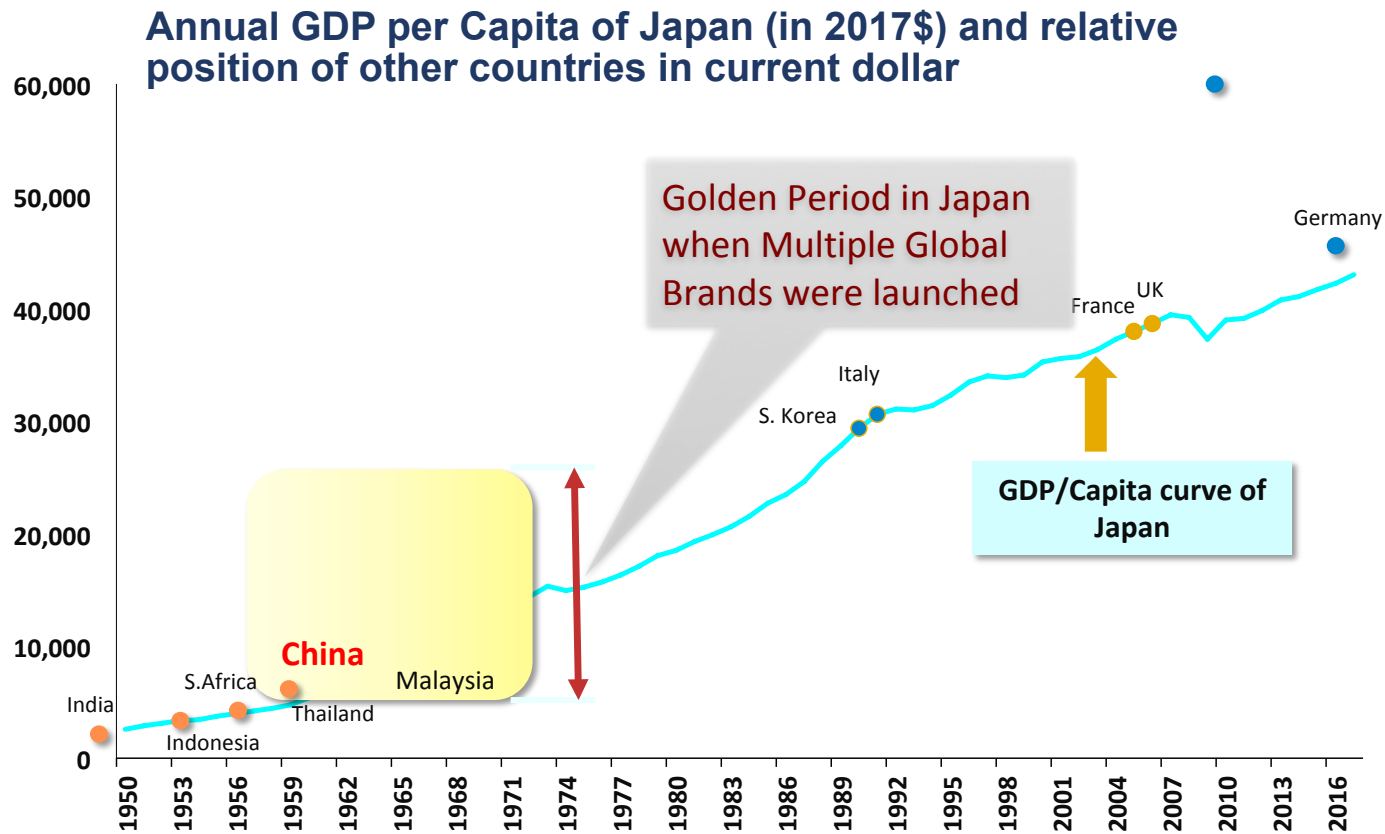
Implicit Objectives:

- Outlet for domestic overcapacity and overseas investment
- New markets for Chinese products and services

China is now at a point in its development trajectory that triggered the golden period of Japan's development curve



FOCUS ON VALUE/BRAND



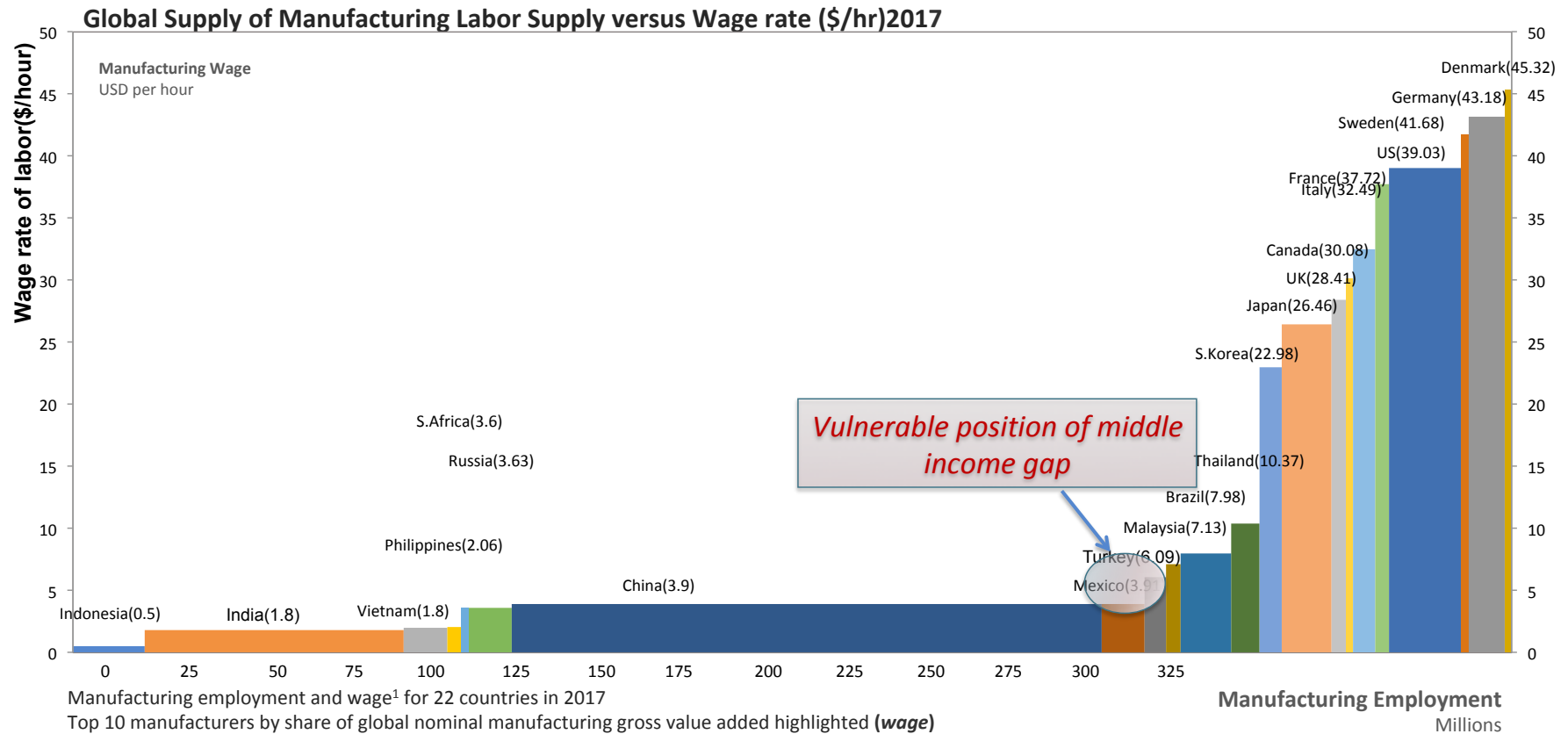
Source: Total Economy Database/World Bank

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As wage rate rises China will need a new “global engagement” formula



FOCUS ON VALUE/BRAND

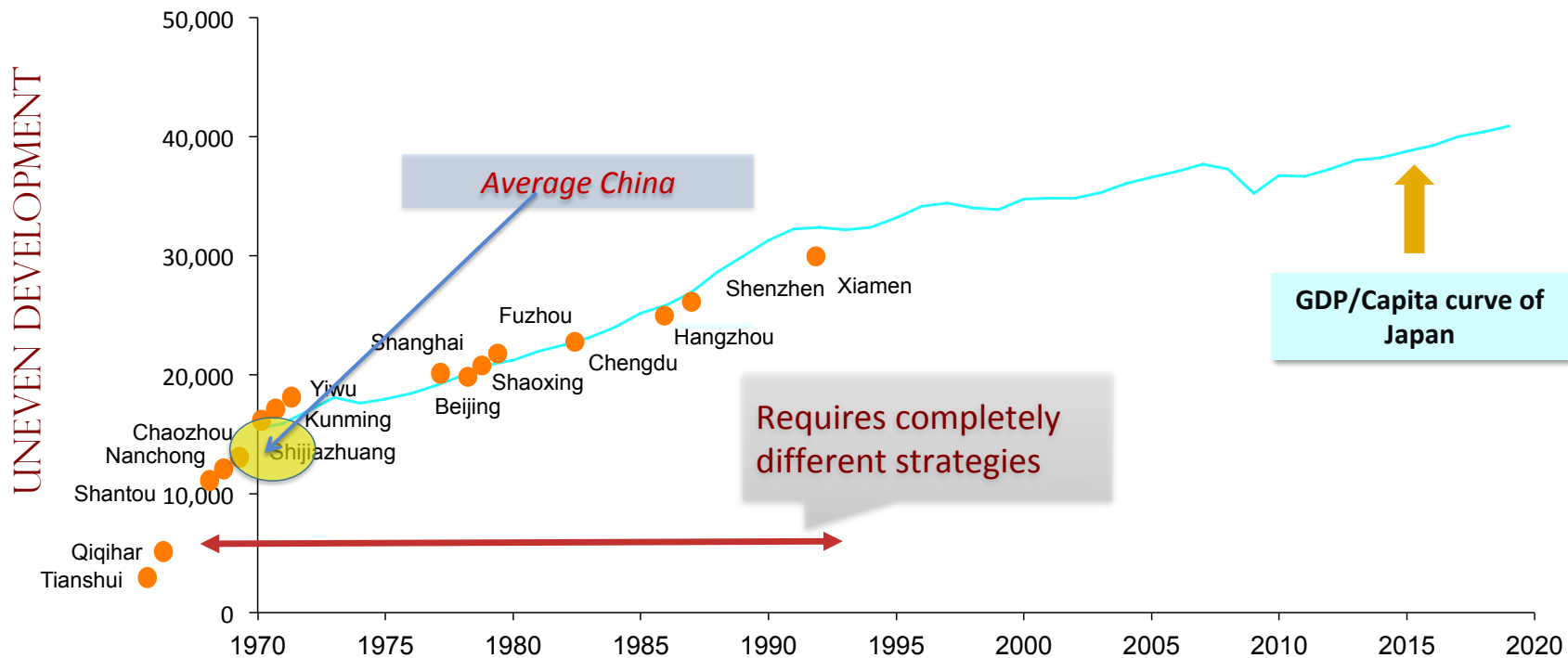


SOURCE: International Labor Organization, ILOSTAT, China Statistical Yearbook, U.S. Bureau of Statistics; Ministry of Labor, Employment of India, Statistics Canada, Ministry of Labor & Employment Government of India

While realizing that the most and the least affluent Chinese cities represent more than 25 years of development gap when viewed on Japan's GDP/capita growth curve



ANNUAL GDP PER CAPITA OF JAPAN (IN 2019 \$) AND RELATIVE POSITION OF CHINESE CITIES IN CURRENT DOLLAR



Beyond income, companies need to be sensitive to the cultural heritage of the various regions (using drinking habits as an example)



Beyond income, there are other factors shaping consumption habits:

BEYOND INCOME



• *Climate*



• *Dietary habits*

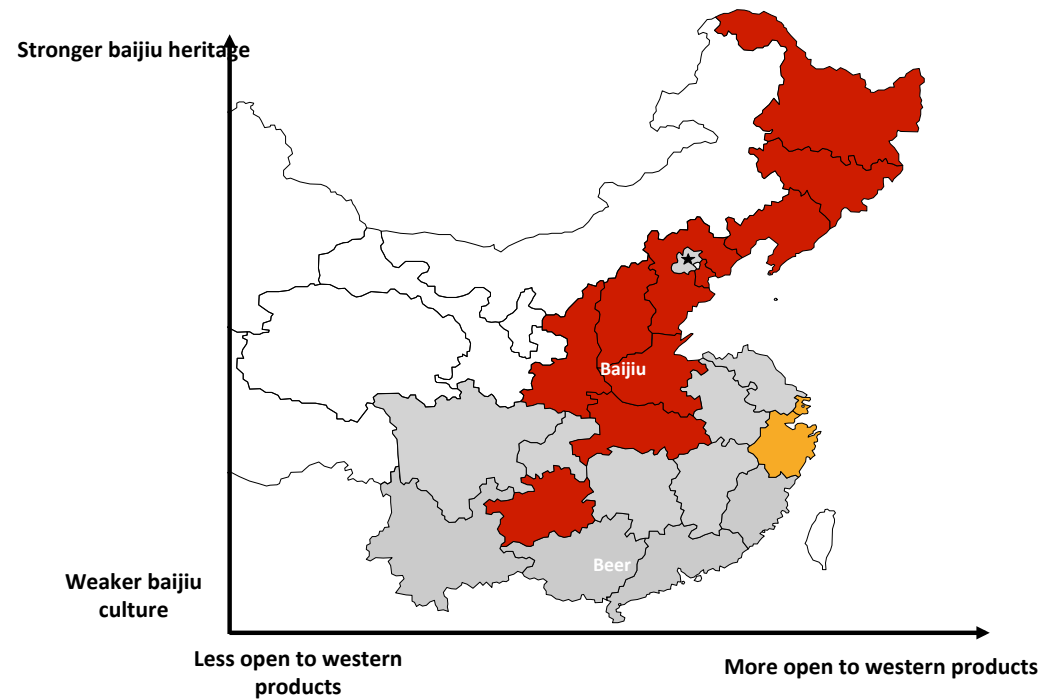


• *Exposure to western culture*



• *Local customs*

EXAMPLE: ALCOHOL HERITAGE BY REGION

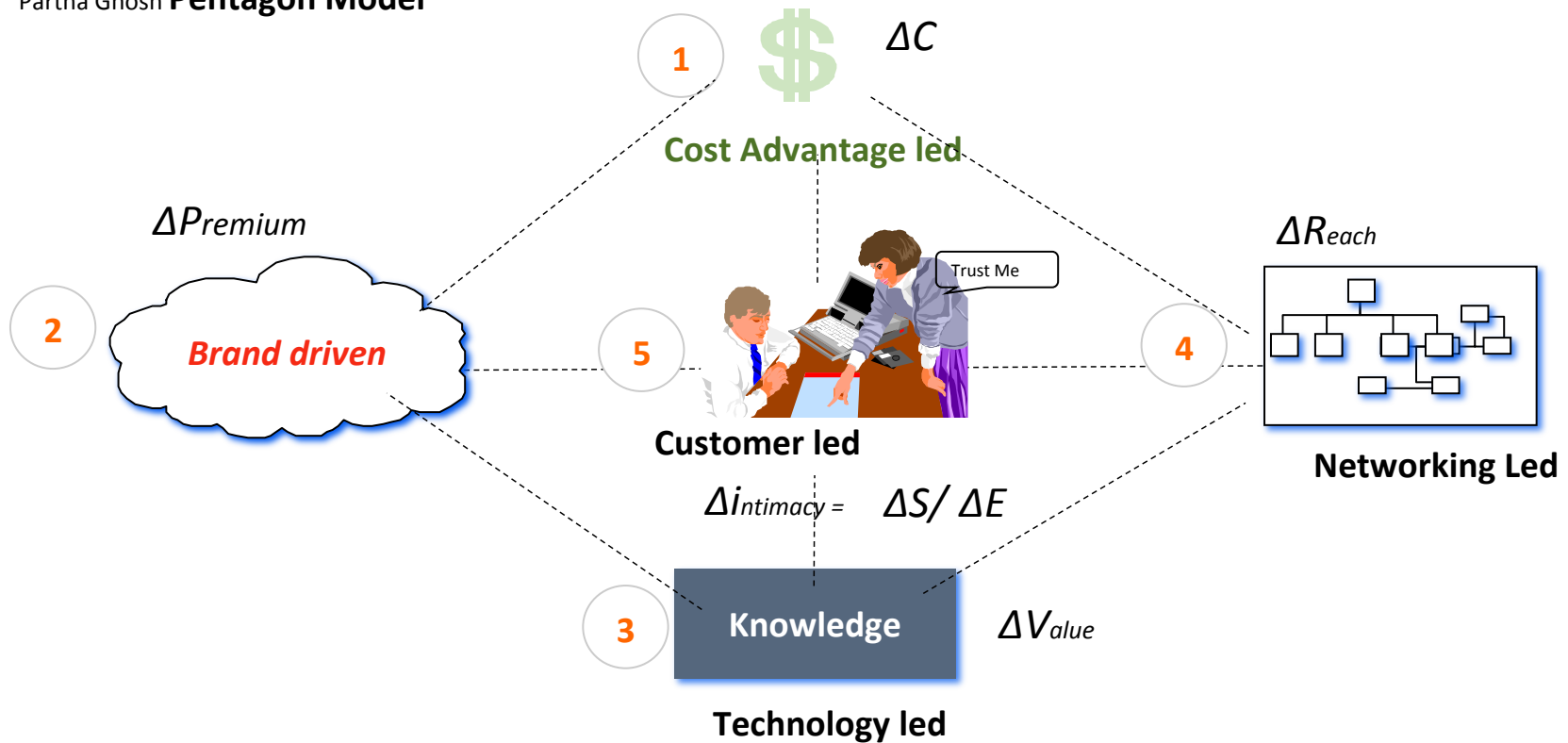




Strategic Differentiation driven by the combination of different factors

Partha Ghosh **Pentagon Model**

FOCUS ON VALUE/BRAND

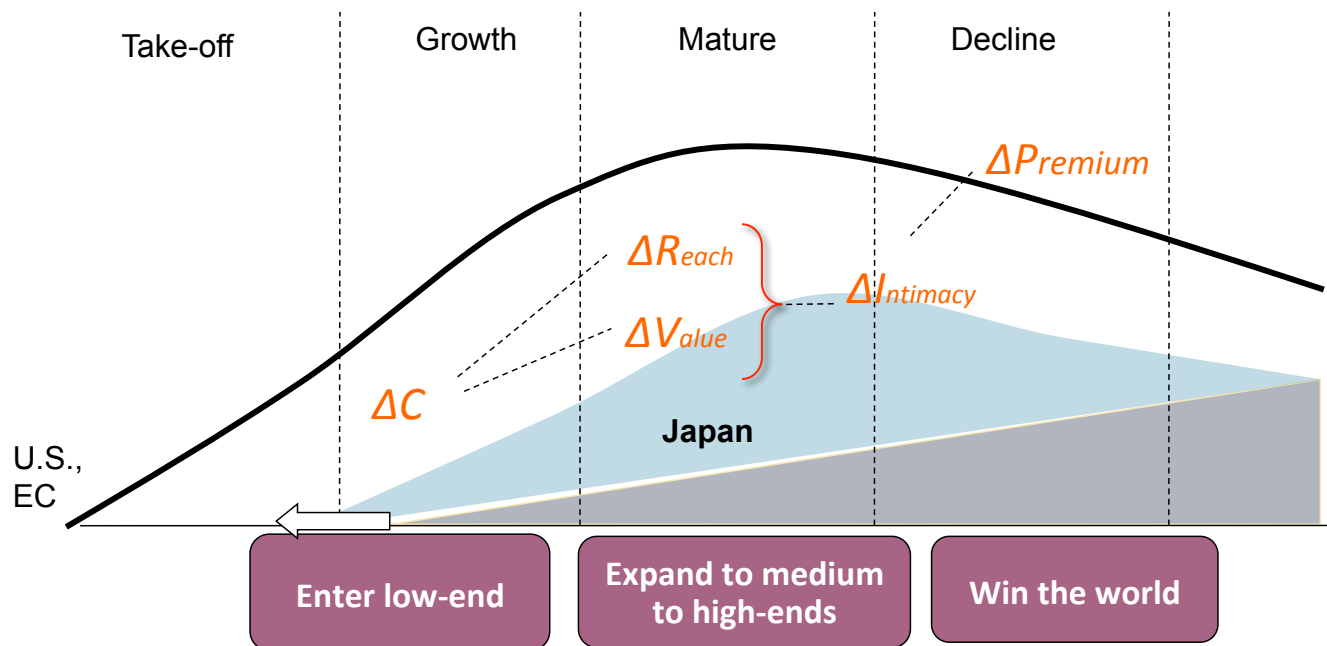


Lessons from Japanese Industrial Strategies



Success formula?

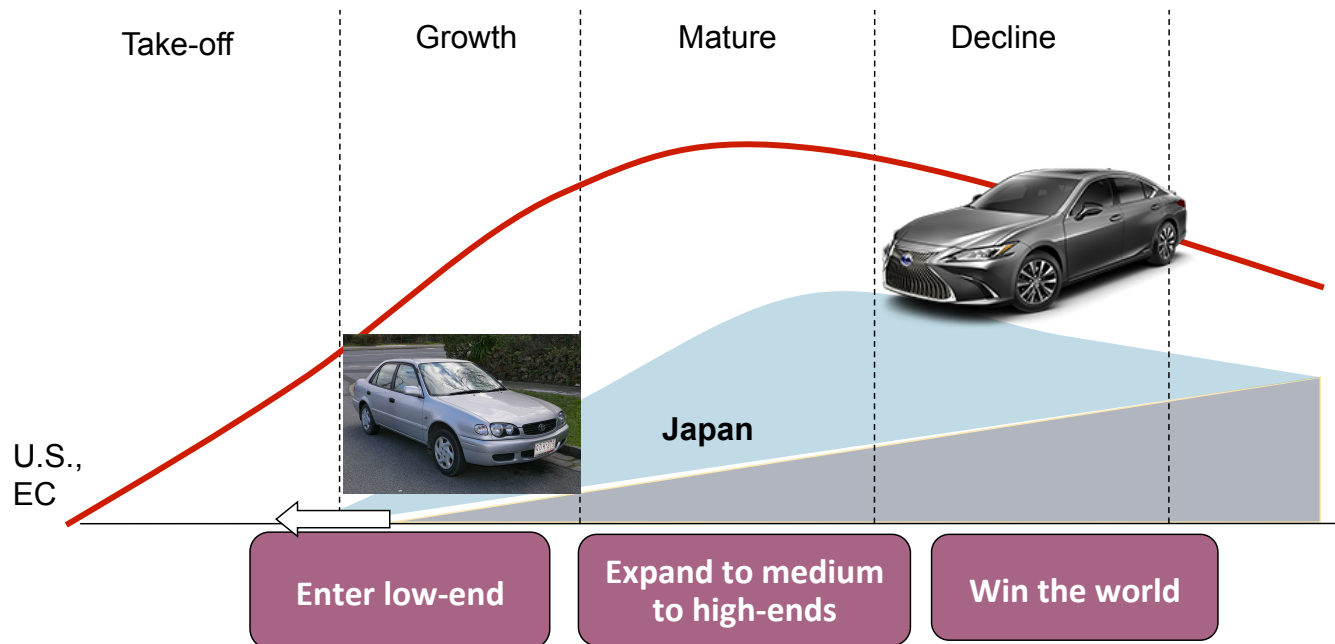
FOCUS ON VALUE/BRAND



Japanese Industrial Strategies

Success formula?

FOCUS ON VALUE/BRAND



Global Strategy of Chinese companies will need to be driven by the combination of different factors



FOCUS ON VALUE/BRAND

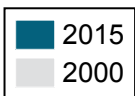
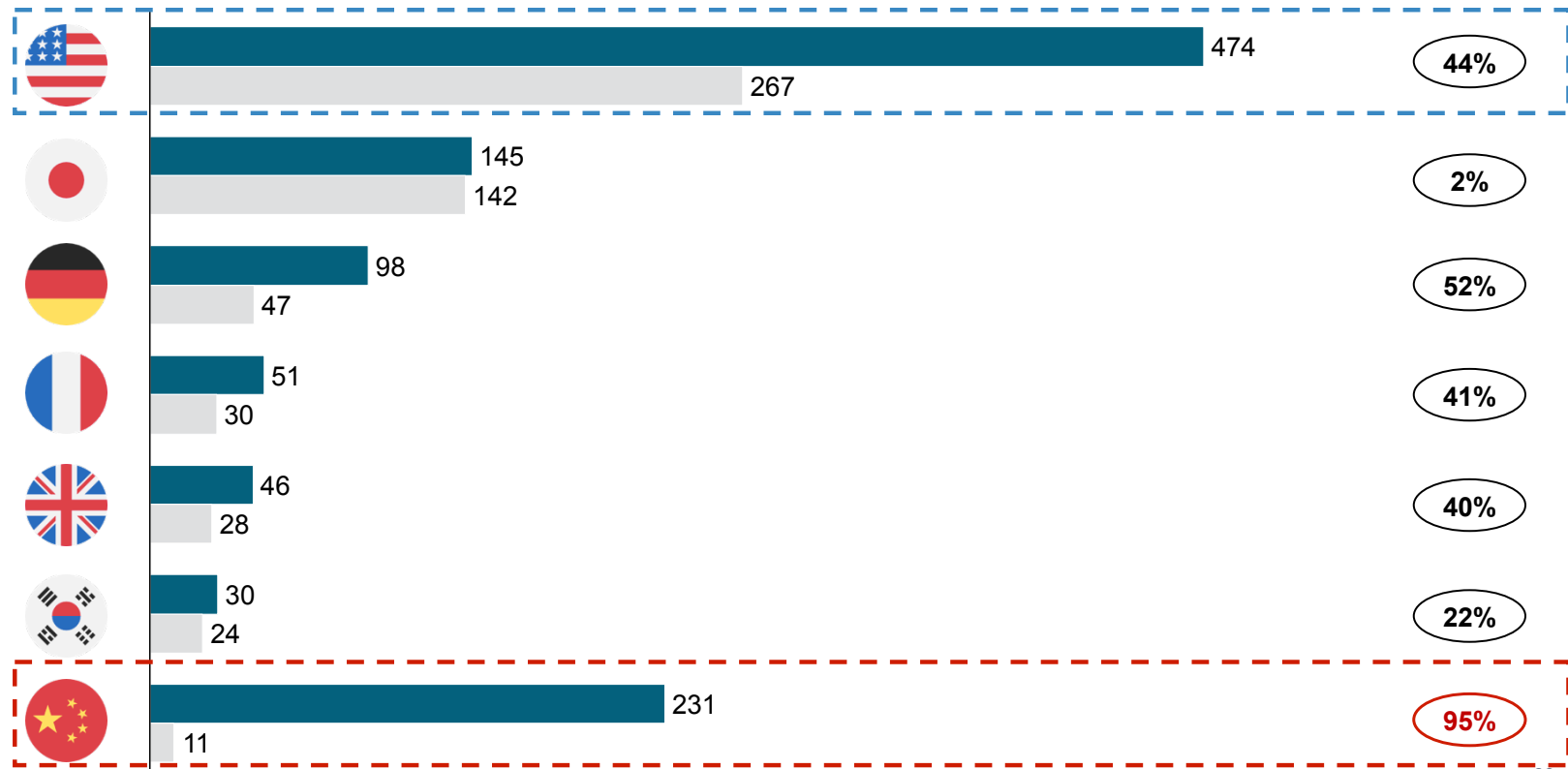
$$\text{Dynamics of Global Strategy} = f \left\{ \begin{array}{l} \Delta C \\ \Delta P_{\text{Premium}} \\ \Delta R_{\text{Reach}} \\ \Delta I_{\text{Intimacy}} \\ \Delta V_{\text{Value}} \end{array} \right.$$

*How to mobilize the Δ s/
differentials to be values/
respected partner of the world*

The total Chinese R&D spending has doubled over the past years, trailing only the U.S

R&D SPENDING PATTERN BY COUNTRY (\$ BILLION)
2000 vs. 2015

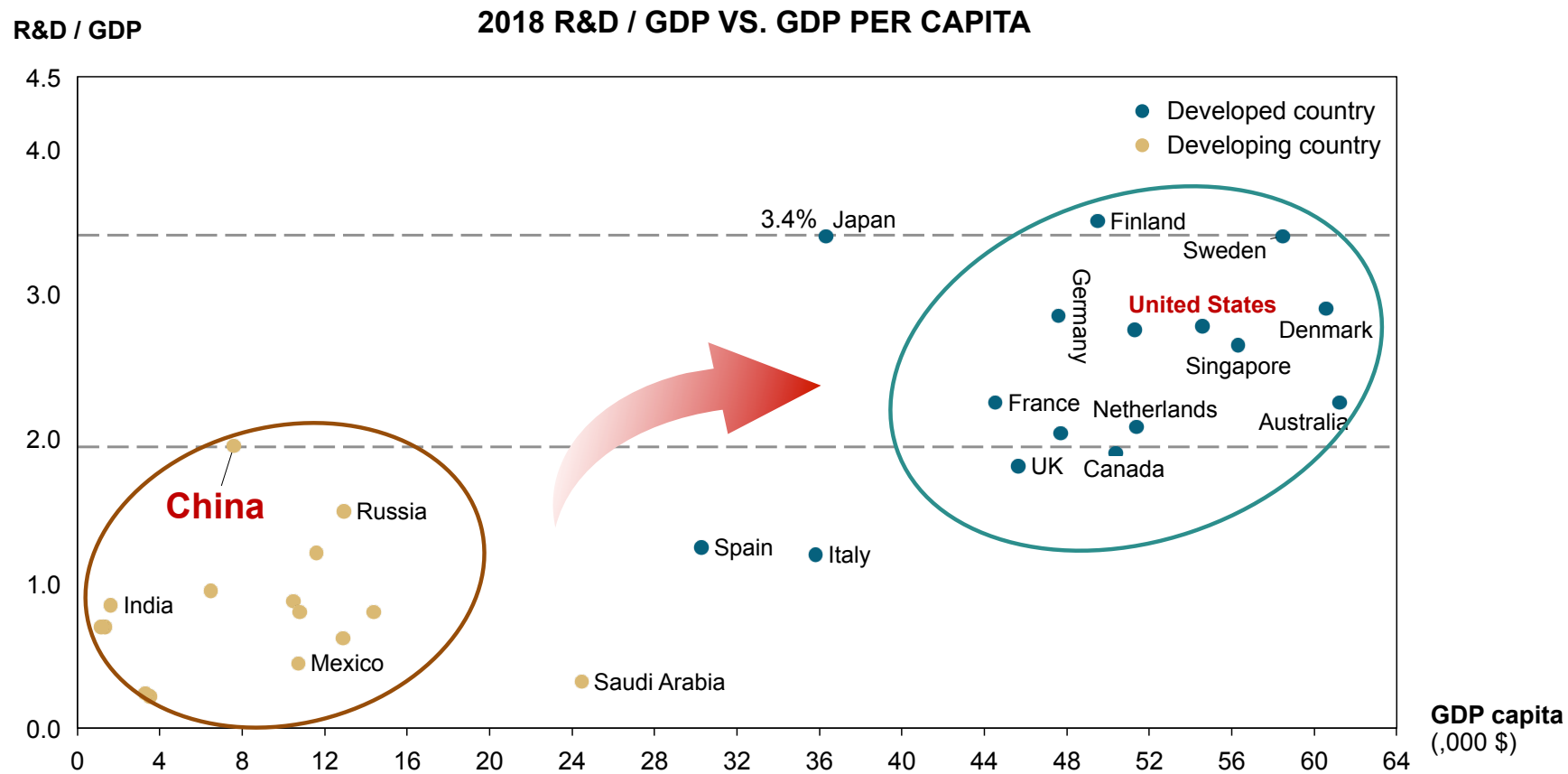
CAGR



Unit \$ Billion

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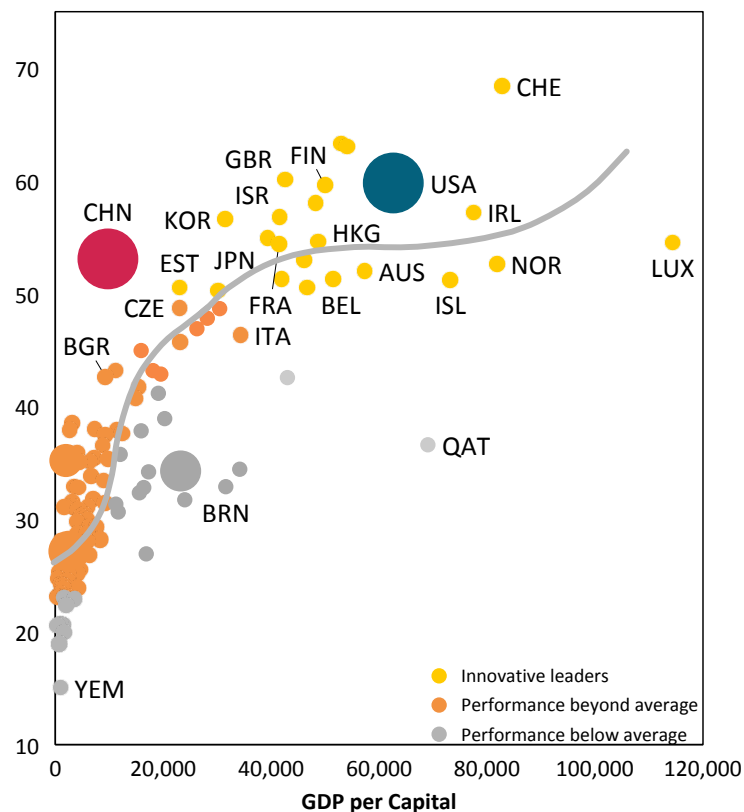
China's commitment to R&D is impressive



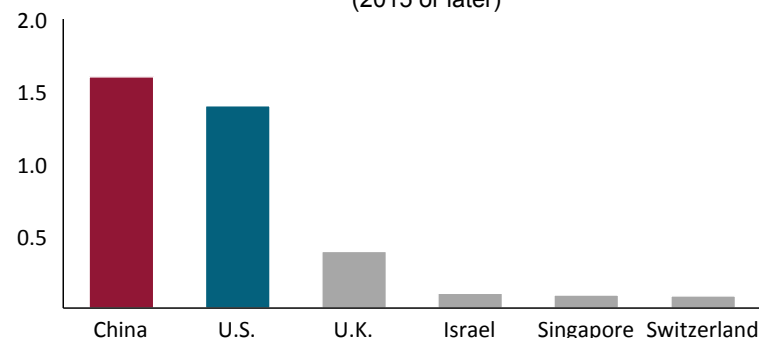
China's performance in Innovation is at par with developed nations



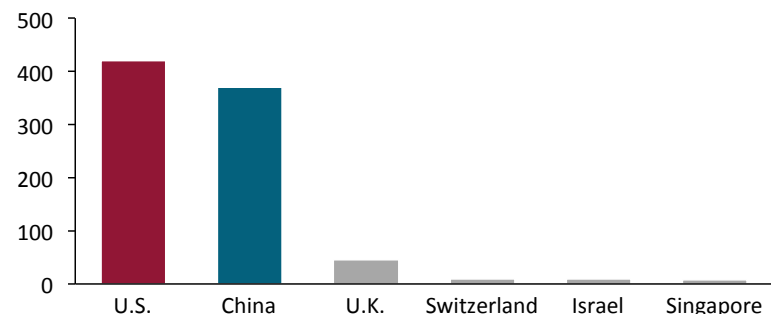
THE INNOVATION (GII) SCORE AND GDP PER CAPITAL*



NUMBERS OF RESEARCHERS, MILLIONS
(2015 or later)



R&D EXPENDITURE, PPP\$ MILLIONS
(2016 or later)

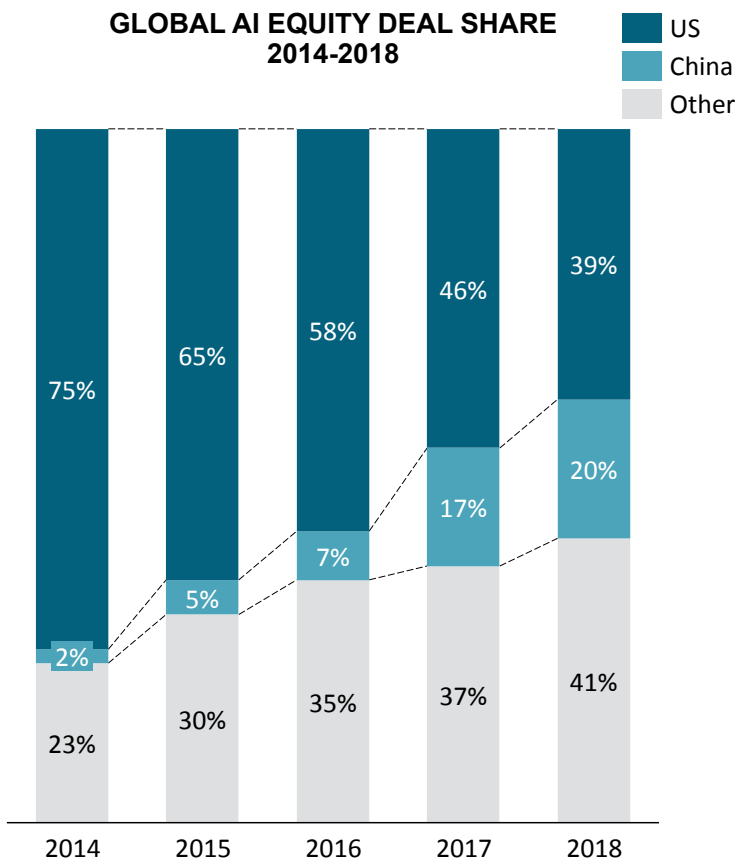


*The overall GII score is the simple average of the Input and Output Sub-Index scores. 1. The Innovation Input Sub-Index is comprised of five input pillars that capture elements of the national economy that enable innovative activities: (1) Institutions, (2) Human capital and research, (3) Infrastructure, (4) Market sophistication, and (5) Business sophistication. 2. The Innovation Output Sub-Index provides information about outputs that are the results of innovative activities within the economy. There are two output pillars: (6) Knowledge and technology outputs and (7) Creative outputs

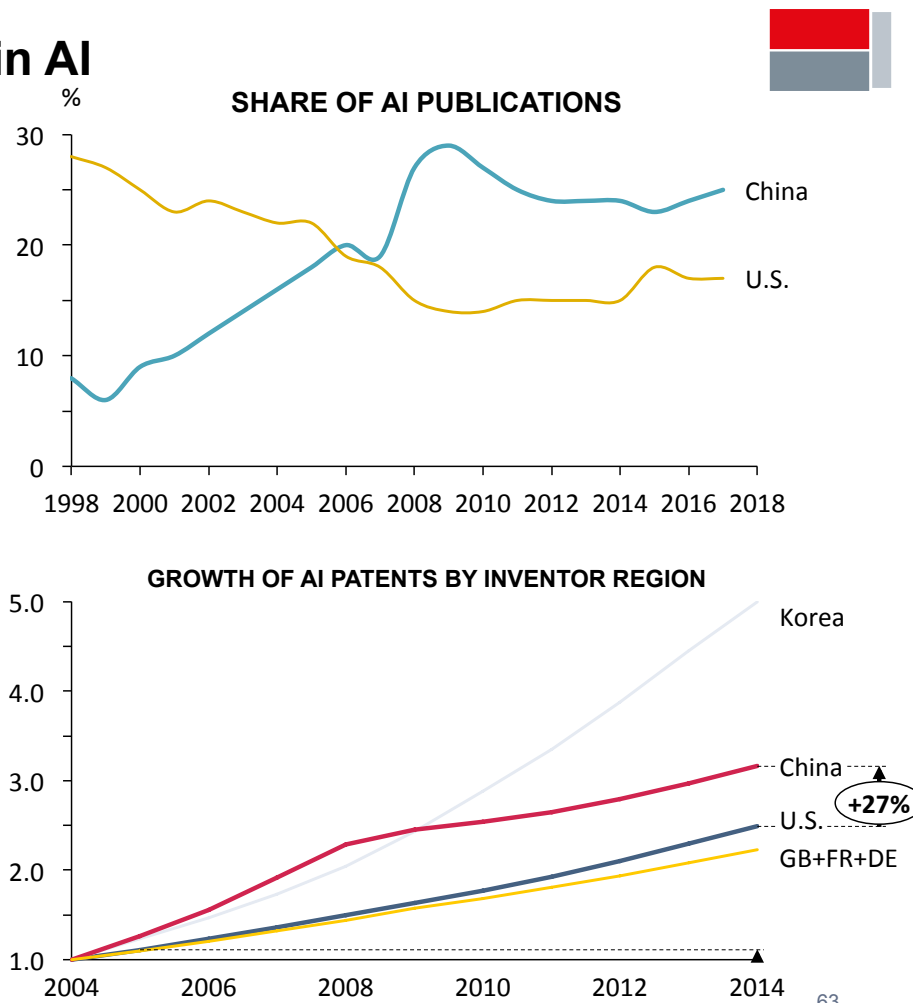
, Key findings global innovations index

© Partha S Ghosh

For example China is clearly leading in AI



, CB Insight, 2018 AI Annual Index



© Partha S Ghosh



Equally impressive is China's commitment to Life Sciences



Policy Support

- Government mandated biotech industry should exceed 4% of GDP by 2020.
- Pharmaceutical sector is one of the high-tech fields targeted under national strategy.



Industry Deregulation

- Introduction of self checking declaration by drug companies, freeing up CFDA trial pipeline.
- Regulatory reforms with the aim of reducing costs for life sciences companies and eliminate some of the cumbersome requirements for conducting R&D activities.



Investment Boom

- China life science investment reaches record high in 2018—\$**43 billion**
- Chinese VCs have contributed roughly **43%** of the capital inflow in the **US healthcare sector** in 2018, increasing from just 11% in 2016.

Data Source: UBS research "China's biotech revolution"; Bloomberg "China Is Getting Ready to Take On the World's Biggest Drugmakers"; McKinsey Analysis

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The New Innovation Economy will operate differently, implying a Fundamental Shift



Principles of Next Phase(?)

Industrial Economy/Build up of basics

- Globalization led by “*outsourcing*” model
- Economies of Scale
- Export led growth
- Leverage of low cost skills/labor
- Investment in physical infrastructure
- Fast follower/Adjust to Western rules
- Imported IP



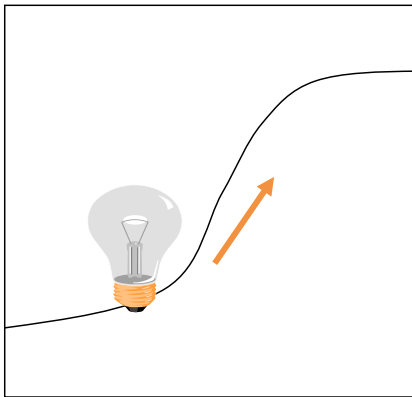
Knowledge Economy/Equal Partner

- Globalization based on thought leadership
- Economies of skill & scope
- Enlightenment led progress
- Value driven
- Investment in “*global wisdom infrastructure*”
- Strategic Partnerships/Shape Global rules
- Collaborative IP development



Global bets during times of change?

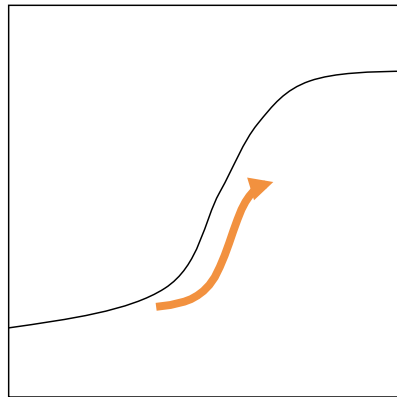
Towards Ideation/"Imagination" Economy?: *Three different strategies*



Shape the future

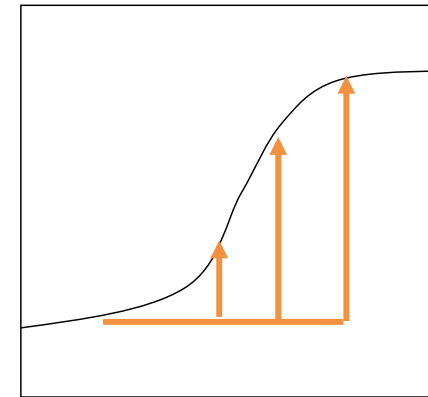
Play a leadership role in establishing how the industry operates, for example:

- set standards
- create demand



Adapt to the future

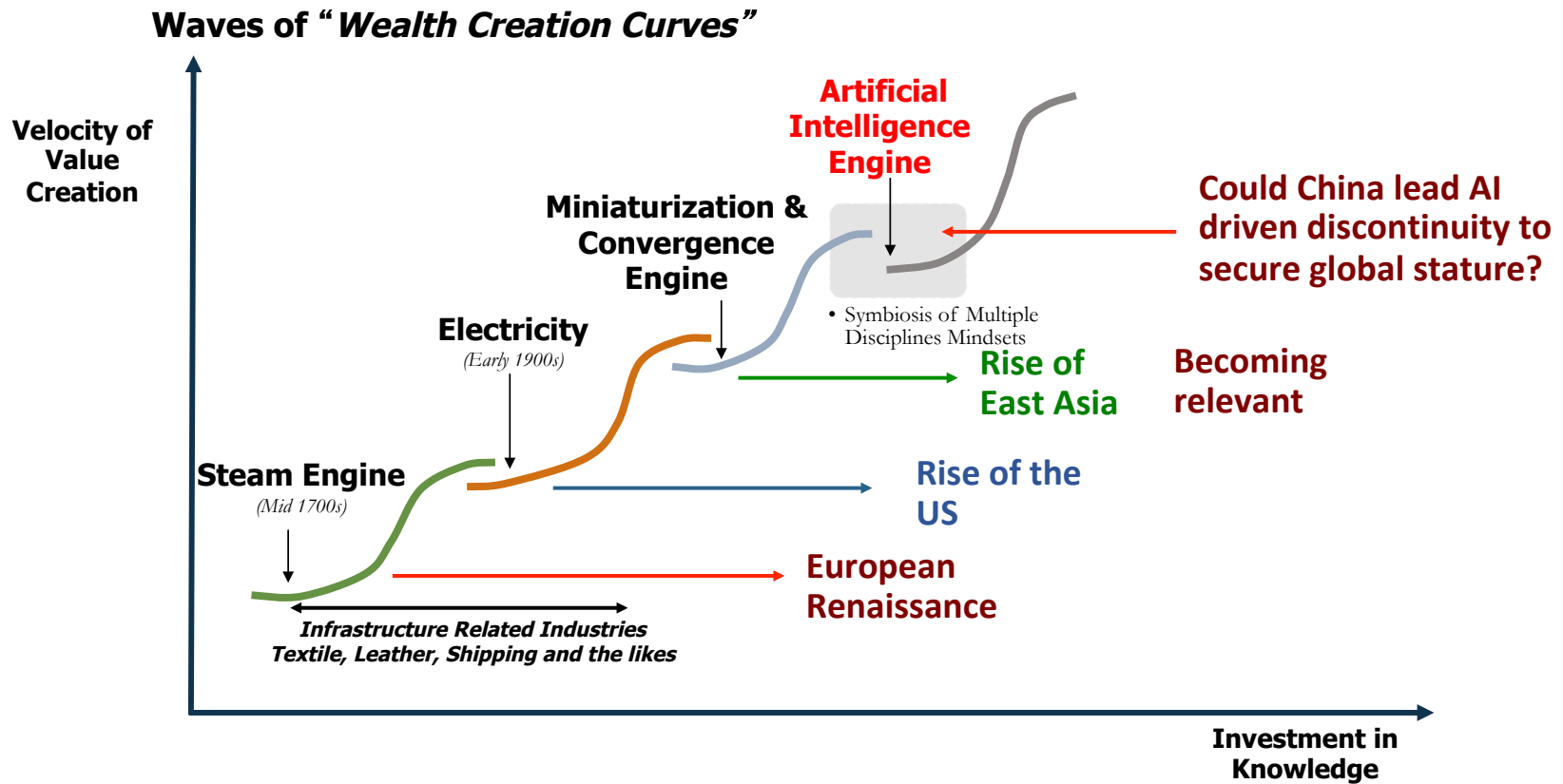
Win through speed, agility, and flexibility in recognizing and capturing opportunities in existing markets



Reserve the Right

Invest sufficiently to stay in the game but avoid premature commitments

So could China become AI-led problem solver for global issues?





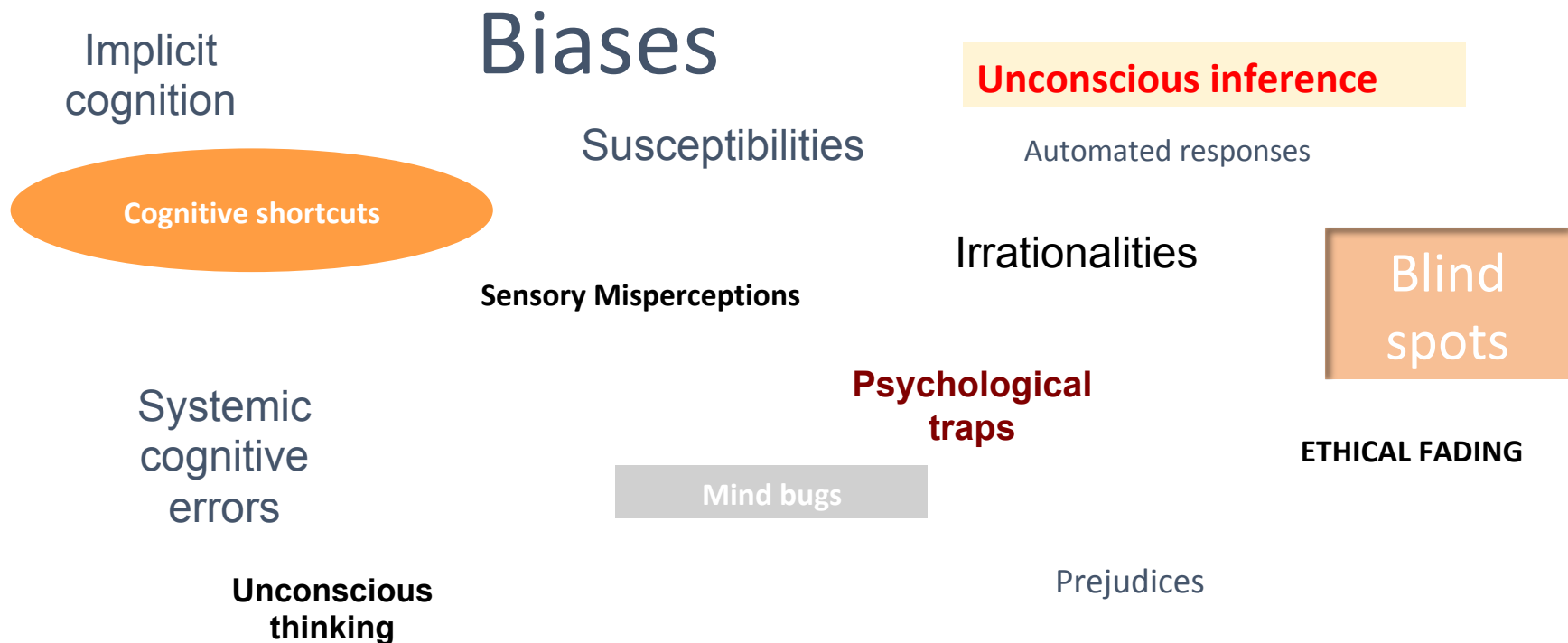
The essential beliefs

Innovation Economy: Essential Principles

- 1 → New engagement formula: “Plus sum game”
- 2 → Domestic market focus for “inclusive development”
- 3 → Leadership in “problem solving as partners”
- 4 → Create an open platform for “Innovation stimulation”
- 5 → Develop knowledge economy based on “mutual trust”



Fundamentals efforts to change at corporate level is required...largely because of our brains have been hard-wired to make certain kinds of errors...



Today three high level points....



1

Our Planet in Perspective
In the 21st Century?

Global order at point of inflection:
Not more and better of the same -
Need fundamentally a new approach

2

Next Phase *Imperatives*
Of Globalization: - Trade & Trust ?

Globalization with a broader perspective: *Not transactional* -Need a “plus sum” mind-set

3

China's Journey forward:
Dos & Don'ts?

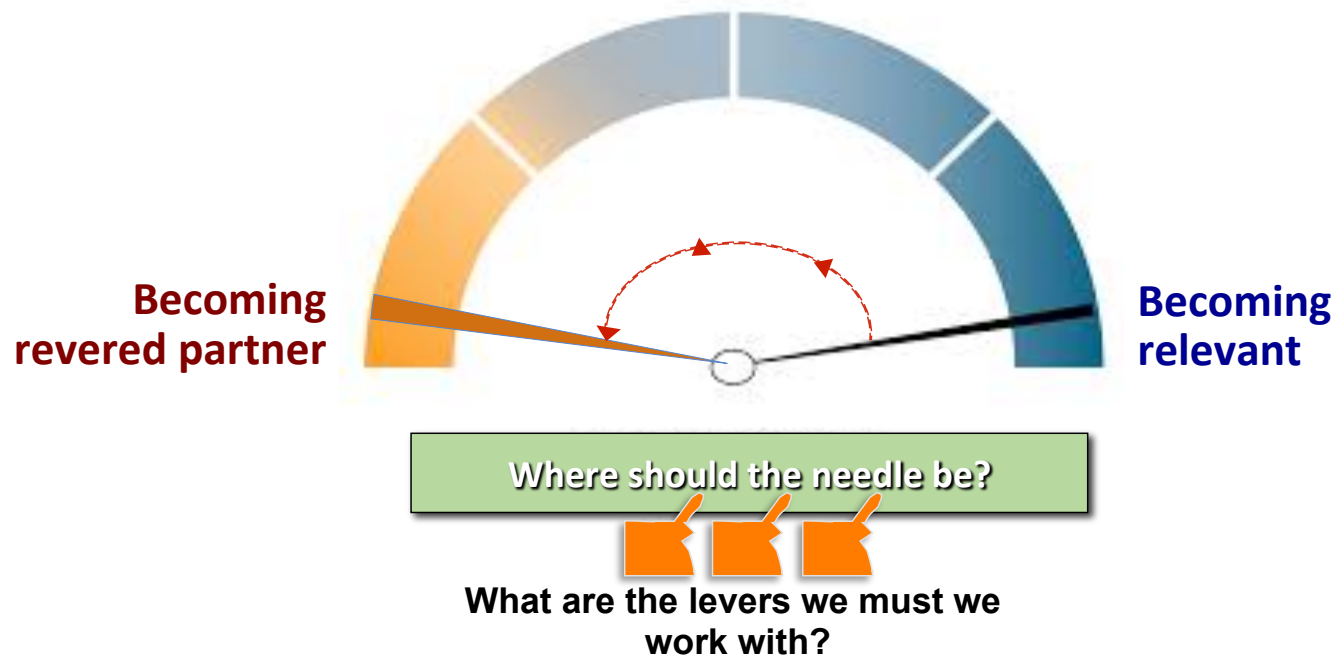
From low cost supplier to **Innovative partner of progress** rooted in its own traditional heritage

“A few closing thoughts.....”

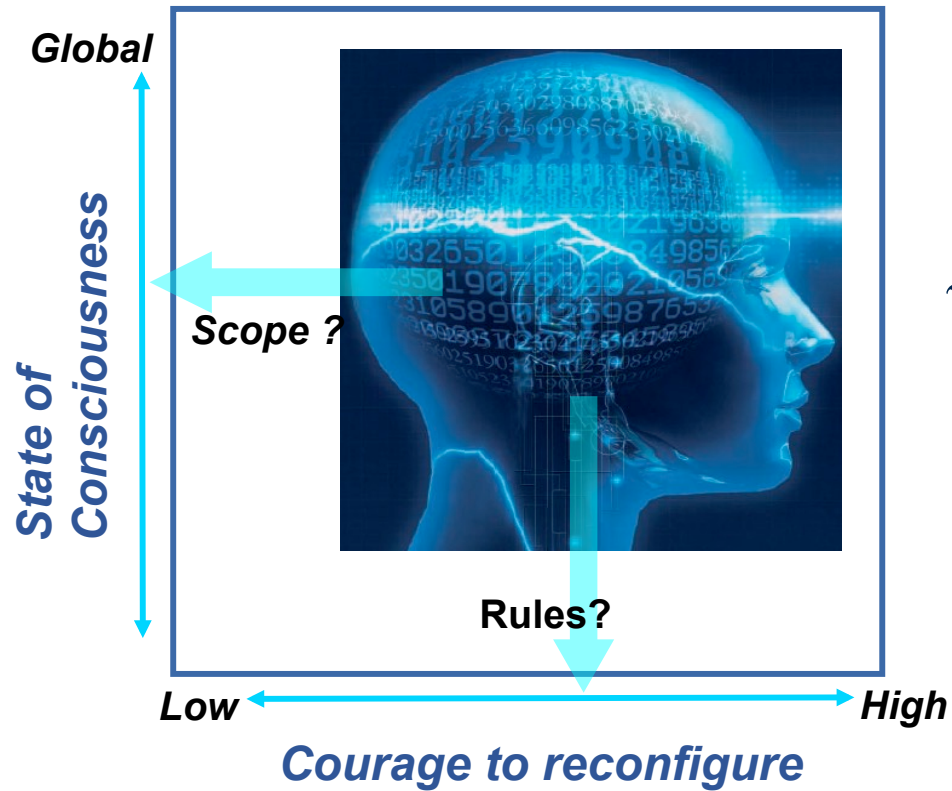
China will need to work with a new set of Leadership metrics (?) in developing a "*New Engagement formula*"



"Measures & Metrics of Progress"



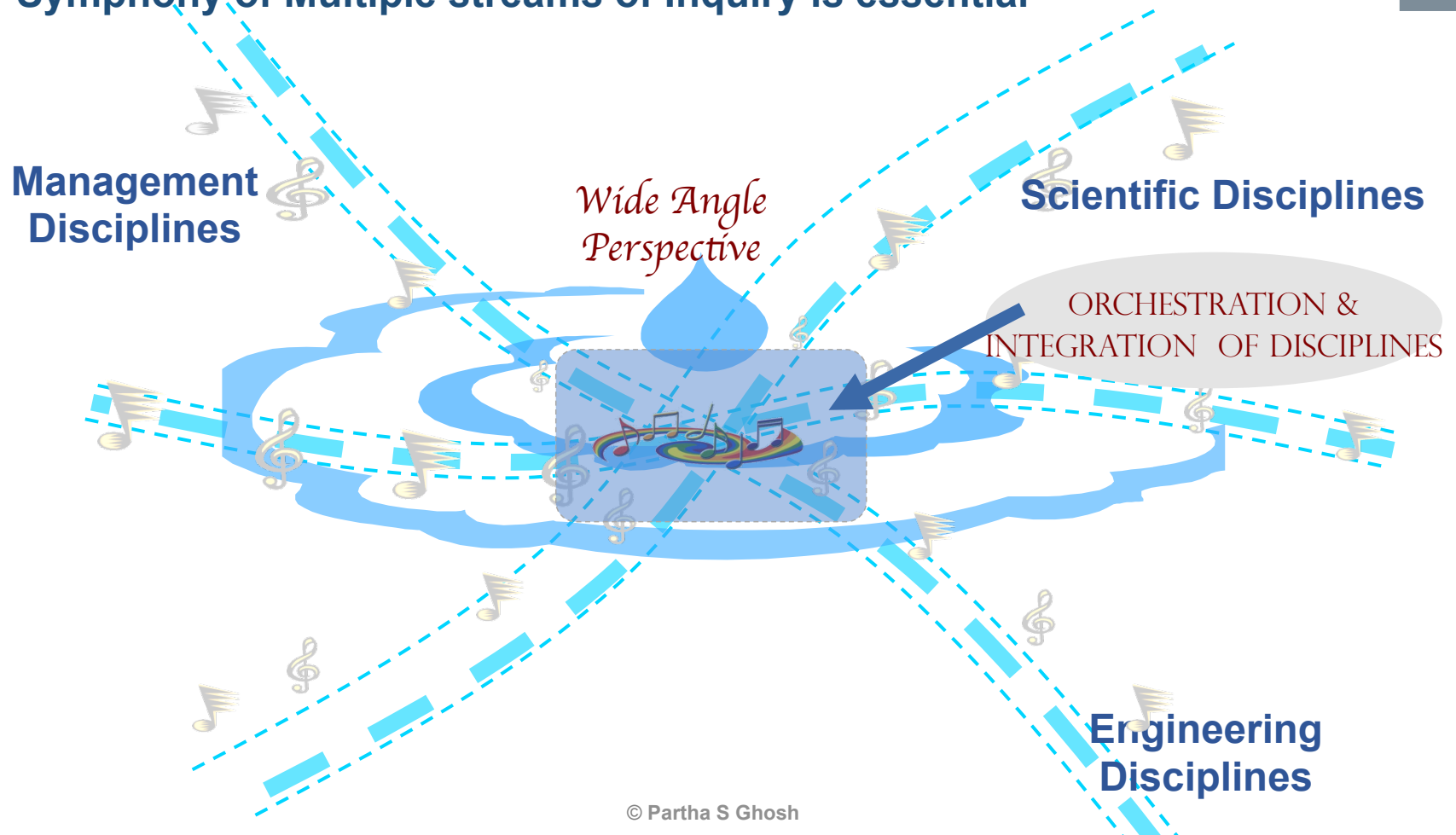
Two Significant Requirements for Ideation Economy



*Future belongs to those
who believe in the beauty
of their dreams"*

- Eleanor Roosevelt

Symphony of Multiple streams of Inquiry is essential



Global Leadership: *The story of Soichiro Honda*

Illustrative

A story of Perseverance, Passion, and Positive mentality



High points:

- Proceed always with ambition and youthfulness.
- Respect sound theory, develop fresh ideas, and make the most effective use of time.
- Enjoy work and encourage open communication.
- Strive constantly for a harmonious flow of work.
- Be ever mindful of the value of research and endeavor.

