

Lessons From 50 Years of Industrial Policy

Date: June 5, 2025

Speaker: Dorien Emmers



What do we know about economic growth in China?

De Standaard

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Chinees mirakel wordt te duur

30 MEI 2012 OM 03:00 UUR | Jan-Frederik Abbeloos

Ruim een op de vijf Europese bedrijven overweegt uit China weg te gaan. De concurrentie knagen steeds sterker aan de winst.

'Chinese economie ongeveer 10% gegroeid in 2010'

DE
TIJD



vrt nws

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De Chinese draak wil de wereld veroveren

Wie had tot voor kort al gehoord van State Grid of China? Amper iemand, durven we gokken, maar ondertussen beheerst het Chinese overheidsbedrijf het nieuws. "De draak" – zoals de bijnaam gaat – is een grote jongen. Na Walmart is het zelfs het grootste bedrijf ter wereld.

Fabian Lefevere

di 27 sep 2016 09:33

Reforms and transition since 1978- ...

1976: End of Cultural Revolution.

- Low-income country
- Inequality was limited

1978: Start leadership of Deng Xiaoping:

- “Reforms and Opening Up” (*Gǎigé kāifàng*, 改革开放)



Two well-known quotes of Deng Xiaoping

1. “It doesn't matter whether a cat is black or white, as long as it catches mice.”
“不管黑猫白猫，能捉老鼠的就是好猫。”
“Bùguǎn hēi māo bái māo, néng zhuō lǎoshǔ de jiùshì hǎo māo.”
2. “Let some people get rich first, to propel a large share of the regions, later we will reach common prosperity.”
“让一部分人先富起来，带动大部分地区，然后达到共同富裕。”
“Ràng yībùfèn rén xiān fù qǐlái, dàidòng dà bùfèn dìqū, ránhòu dádào gòngtóng fùyù.”



Economic growth since 1978

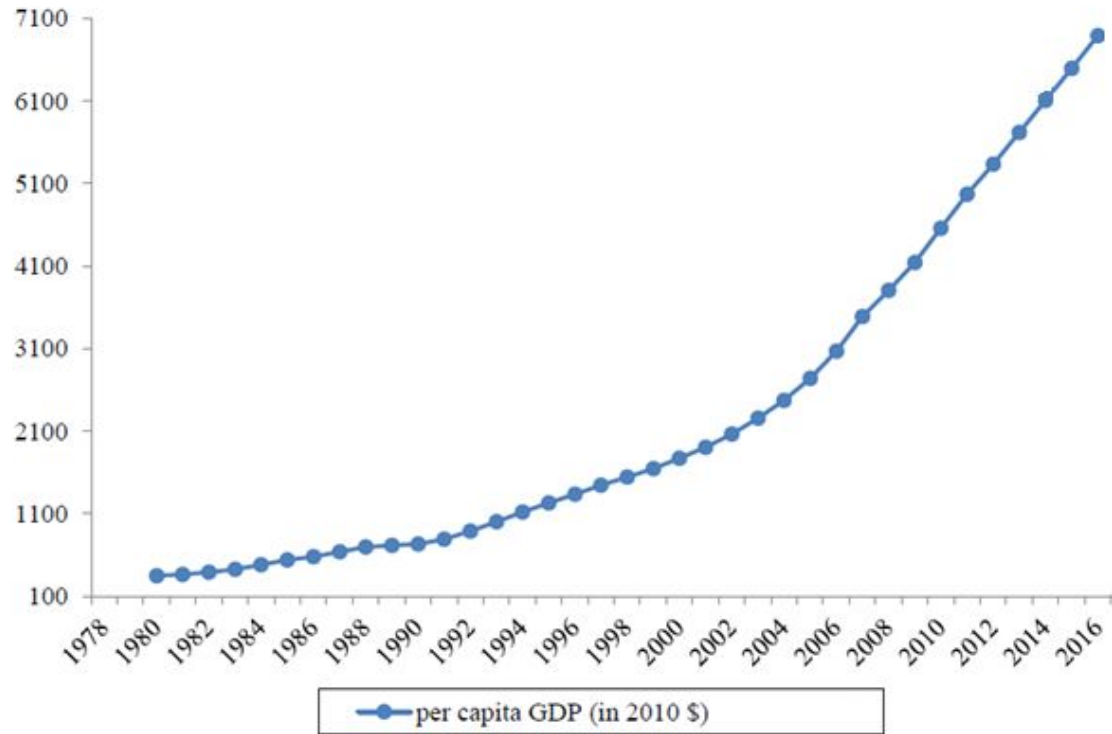


Figure 1: Real Per Capita GDP and Gini Coefficient in China, 1978–2016

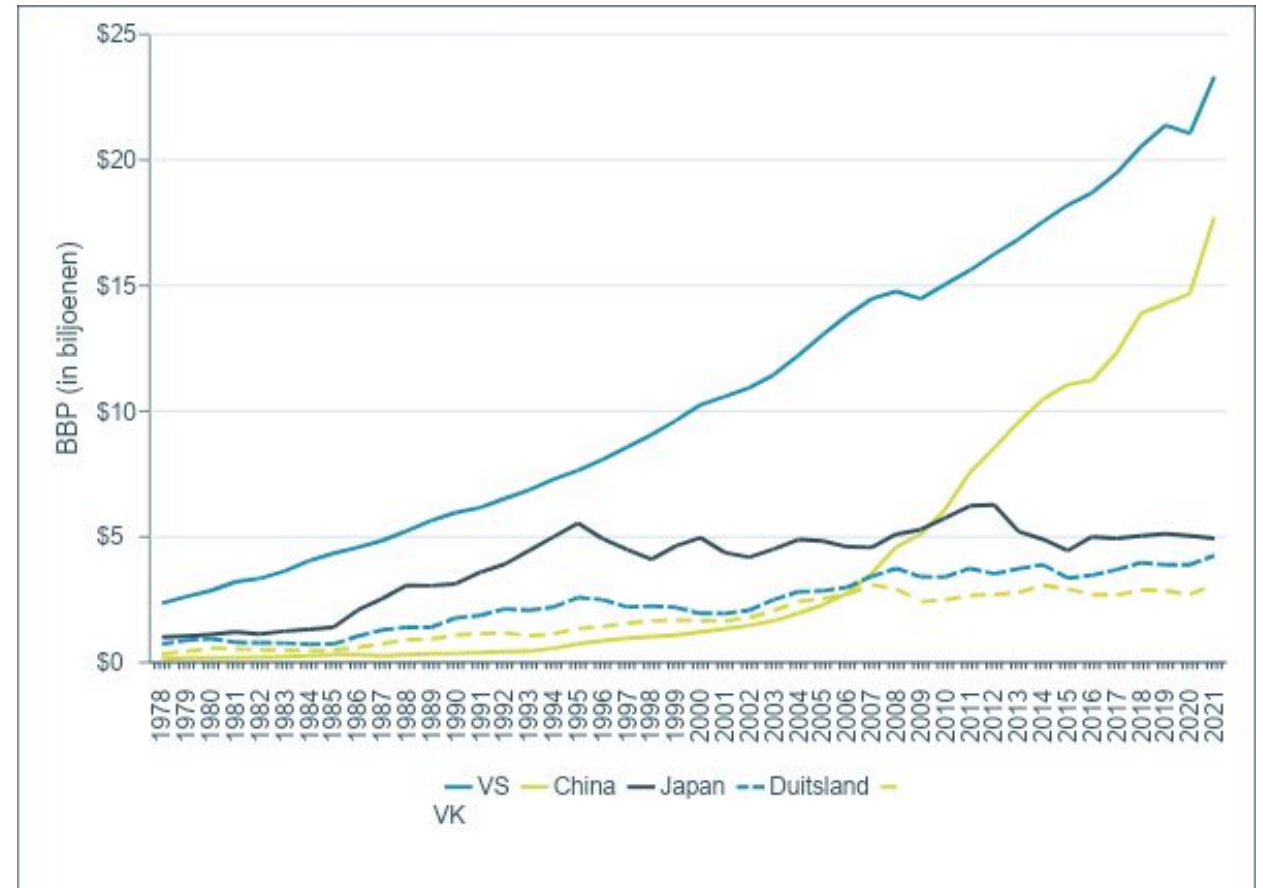
Source: Zhang (2021).

- **GDP per capita** increased more than twentyfold.
- 800 million people lifted out of **poverty**.
- **Extreme poverty** was eradicated.

Economic growth since 1978

- Average annual economic growth rate of nearly 10% per year during several decennia.

□ **Since 2010 the 2nd largest economy** in the world (in terms of nominal GDP).

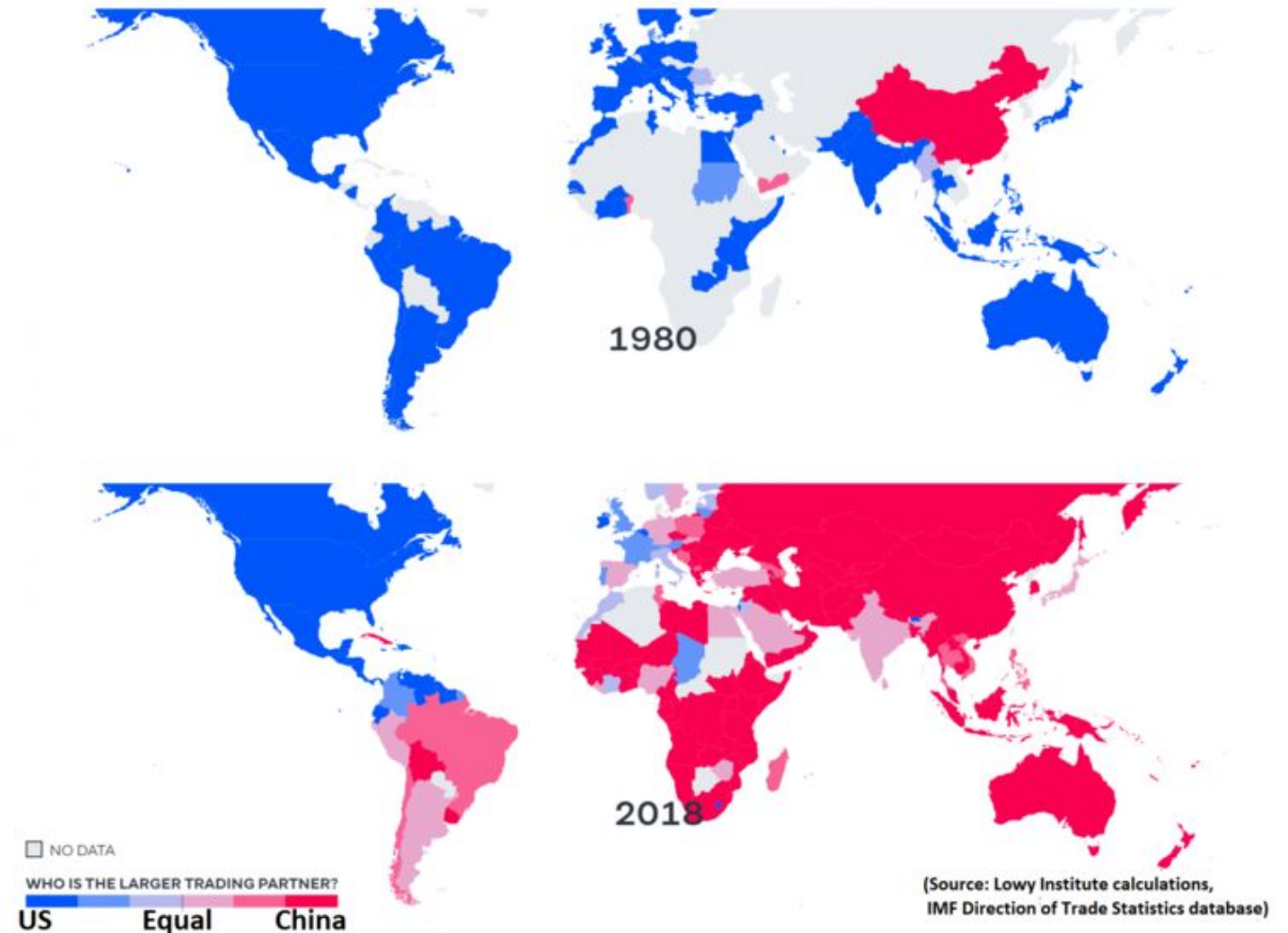


Source: The World Bank. (2021). World Development Indicators.

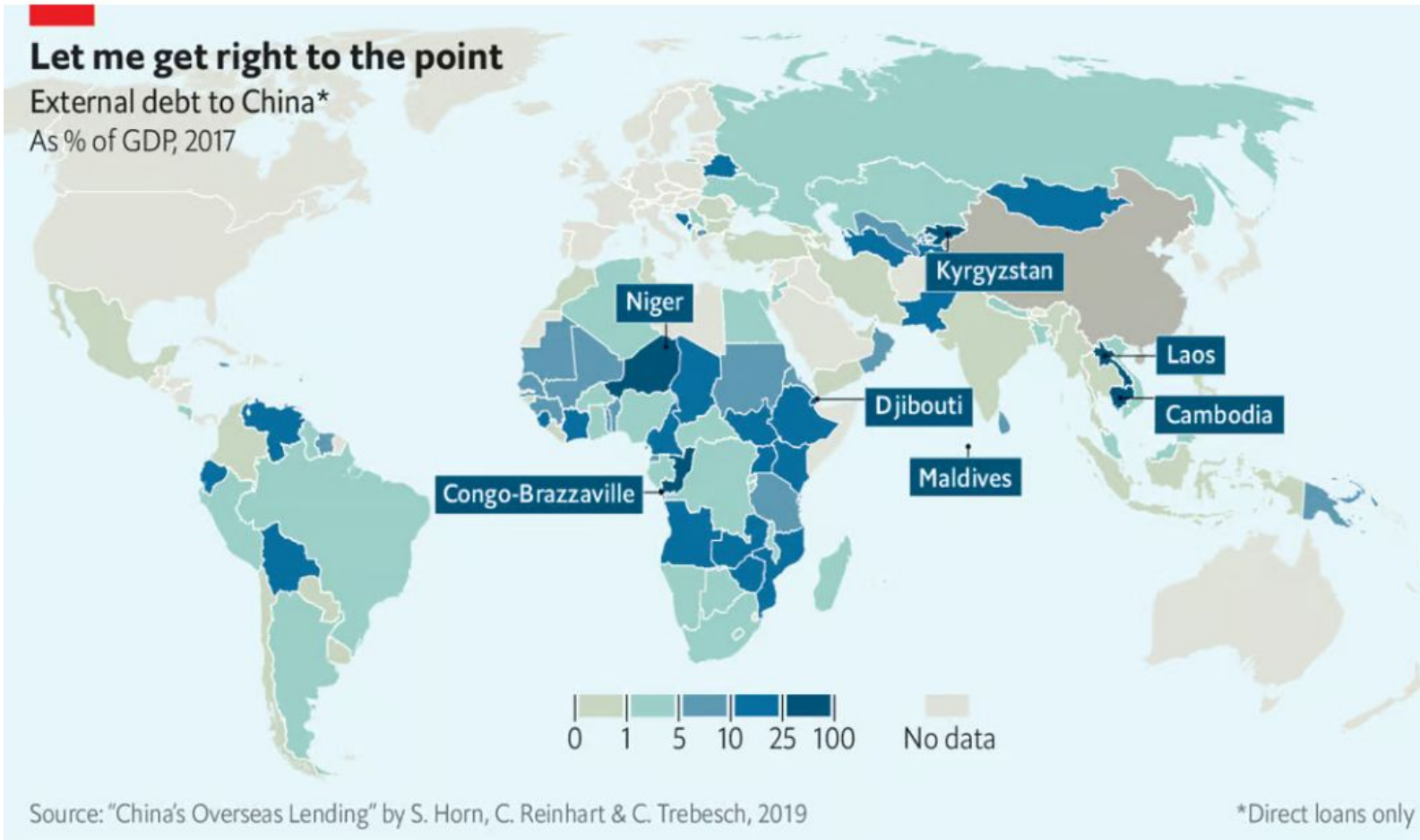
China became an economic powerhouse

- **China is the largest trade partner** in the world: China is a larger trade partner of 128 countries, while the US is a larger trade partner of 62 countries.
- China is **the largest export country** of goods in the world since 2009.

China-US Trade: The Larger Trade Partner for Countries, 1980 and 2018

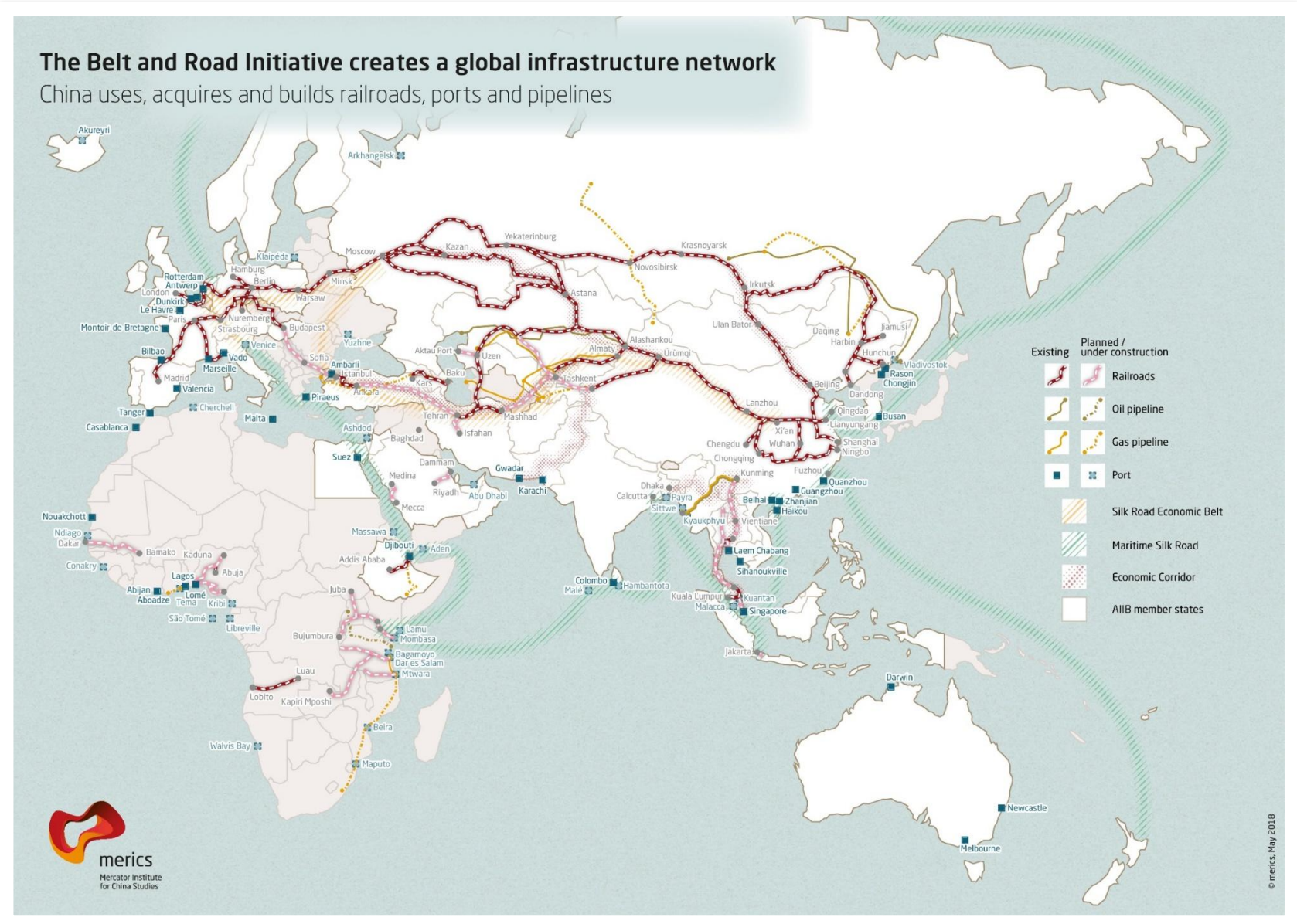


China is the largest lender



- China has been the largest lender in the world since 2017.
- More than \$700 billion in 2019.
- More than twice as much as the World Bank and IMF combined.

Belt and Road Initiative: More than investment in infrastructure



Is the Chinese economy about to collapse?

Is the Chinese economy a ticking timebomb?



- **Lower projections for growth:**
 - **2023:** growth of **5.2%**
 - **Following years:** expected growth of **4.5%****BUT:** China is already the 2nd largest economy.
- The Chinese economy **is not likely to implode**, but **growth rates** will be **lower** and there are many **stumbling blocks** ahead.

Imbalanced growth

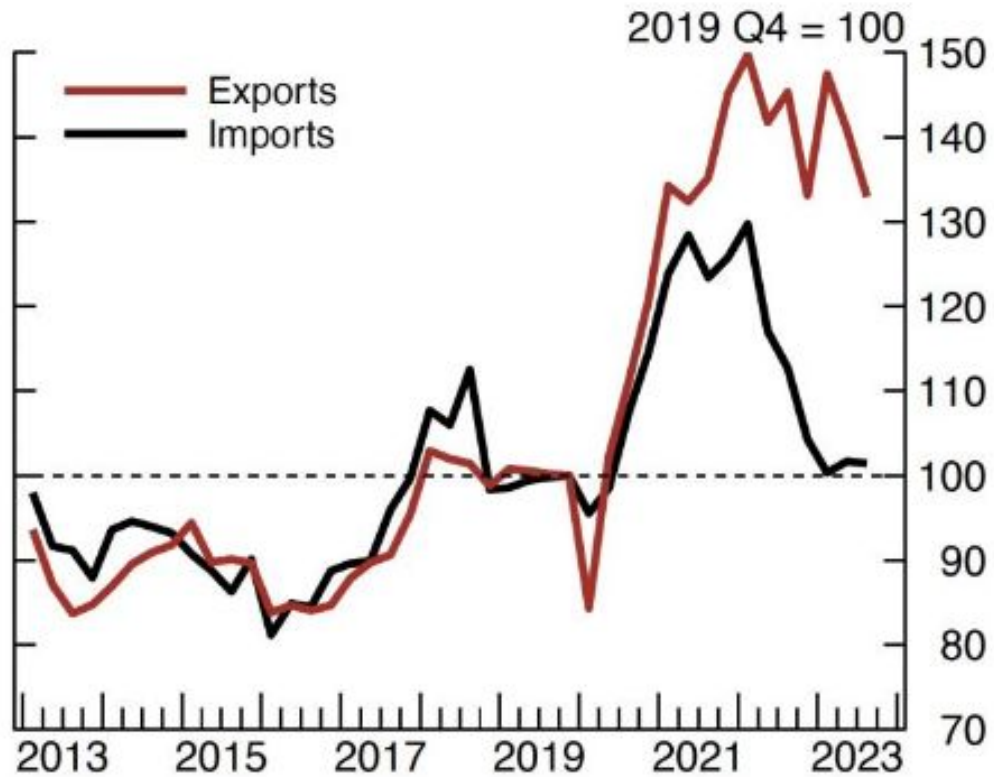
- Paul Krugman (July 18, 2013, [The New York Times](#)):

Yet the signs are now unmistakable: China is in big trouble. We're not talking about some minor setback along the way, but something more fundamental. The country's whole way of doing business, the economic system that has driven three decades of incredible growth, has reached its limits. You could say that the Chinese model is about to hit its Great Wall, and the only question now is just how bad the crash will be.

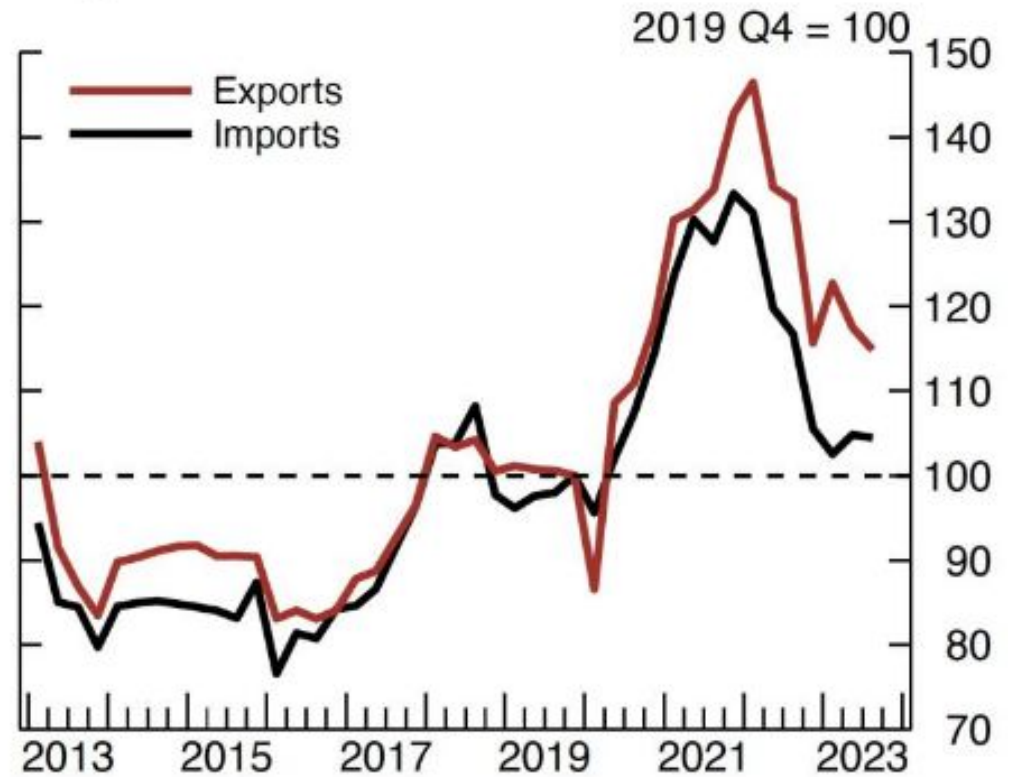
Start with the data, unreliable as they may be. What immediately jumps out at you when you compare China with almost any other economy, aside from its rapid growth, is the lopsided balance between consumption and investment. All successful economies devote part of their current income to investment rather than consumption, so as to expand their future ability to consume. China, however, seems to invest only to expand its future ability to invest even more. America, admittedly on the high side, devotes 70 percent of its gross domestic product to consumption; for China, the number is only half that high, while almost half of G.D.P. is invested.

Export dependency

Mechanical & Electrical Goods



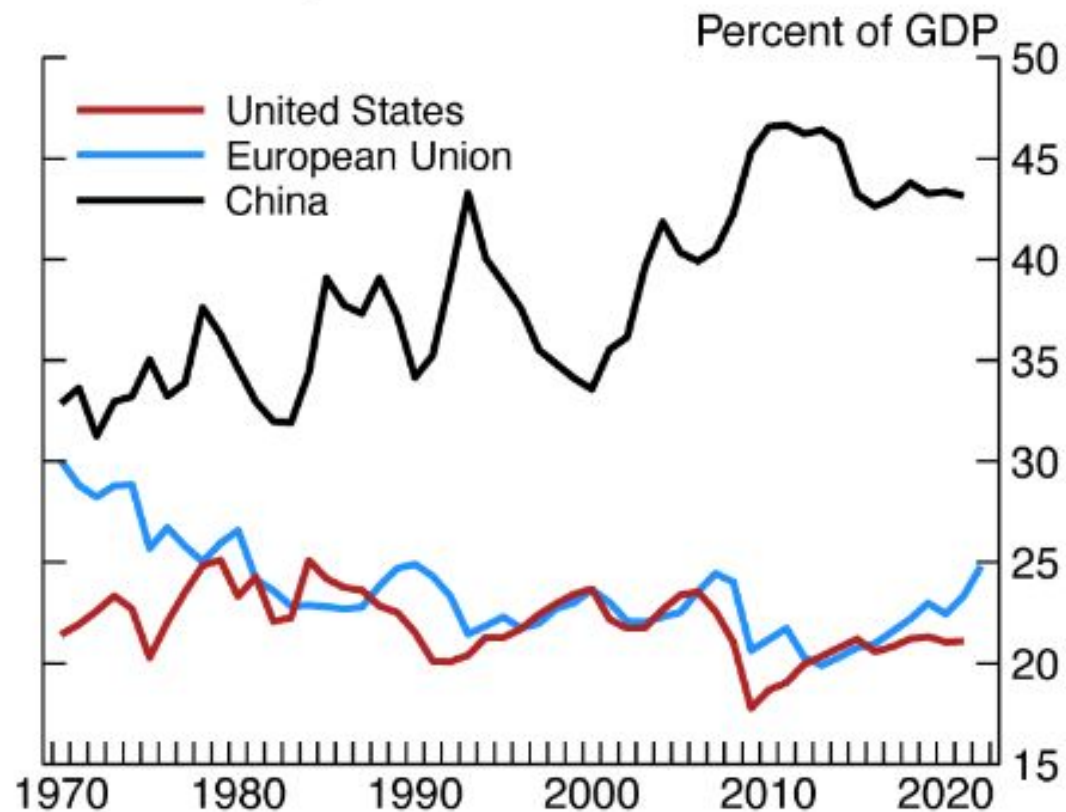
High Tech Goods



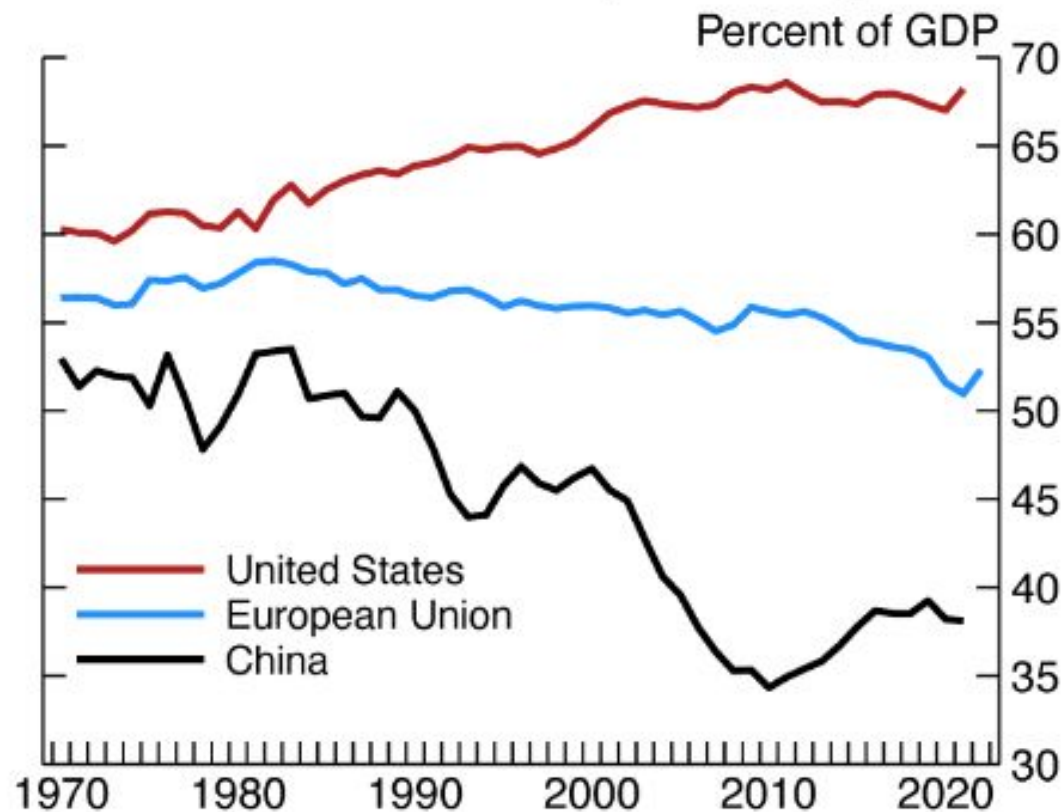
□ What if trade partners no longer want to buy these goods?

Gross capital formation vs. household consumption

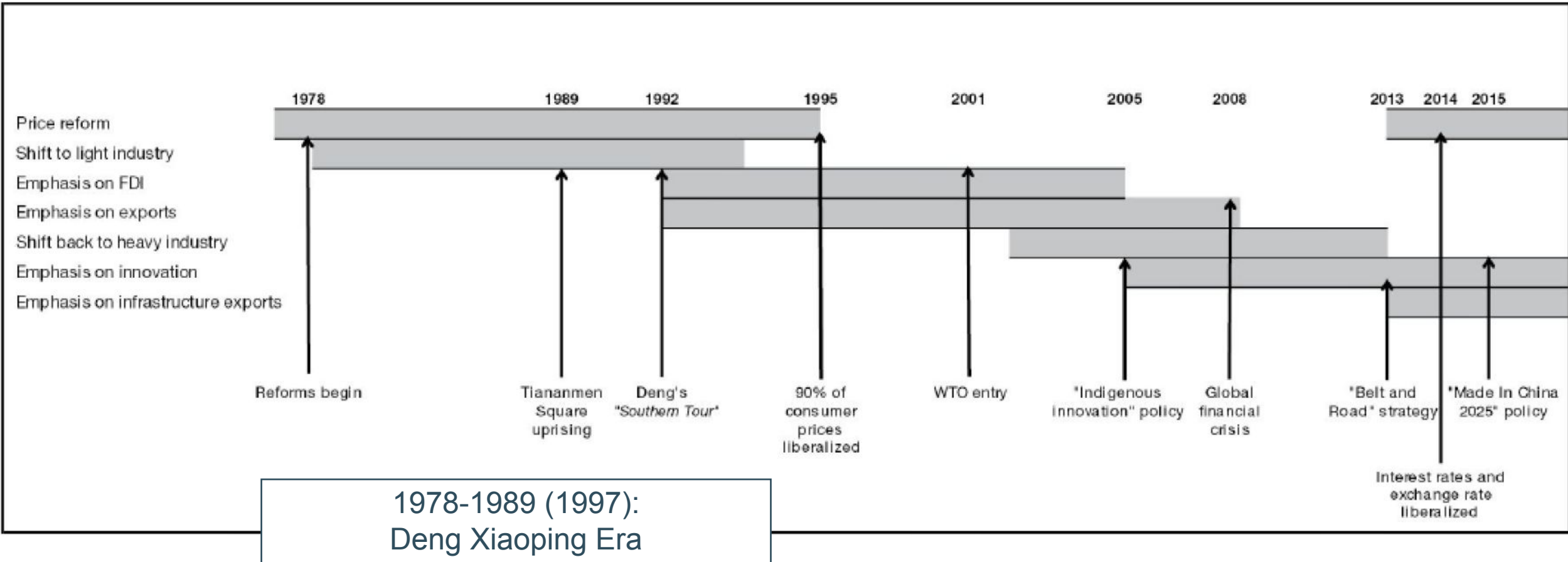
Gross Capital Formation



Household Consumption Expenditure



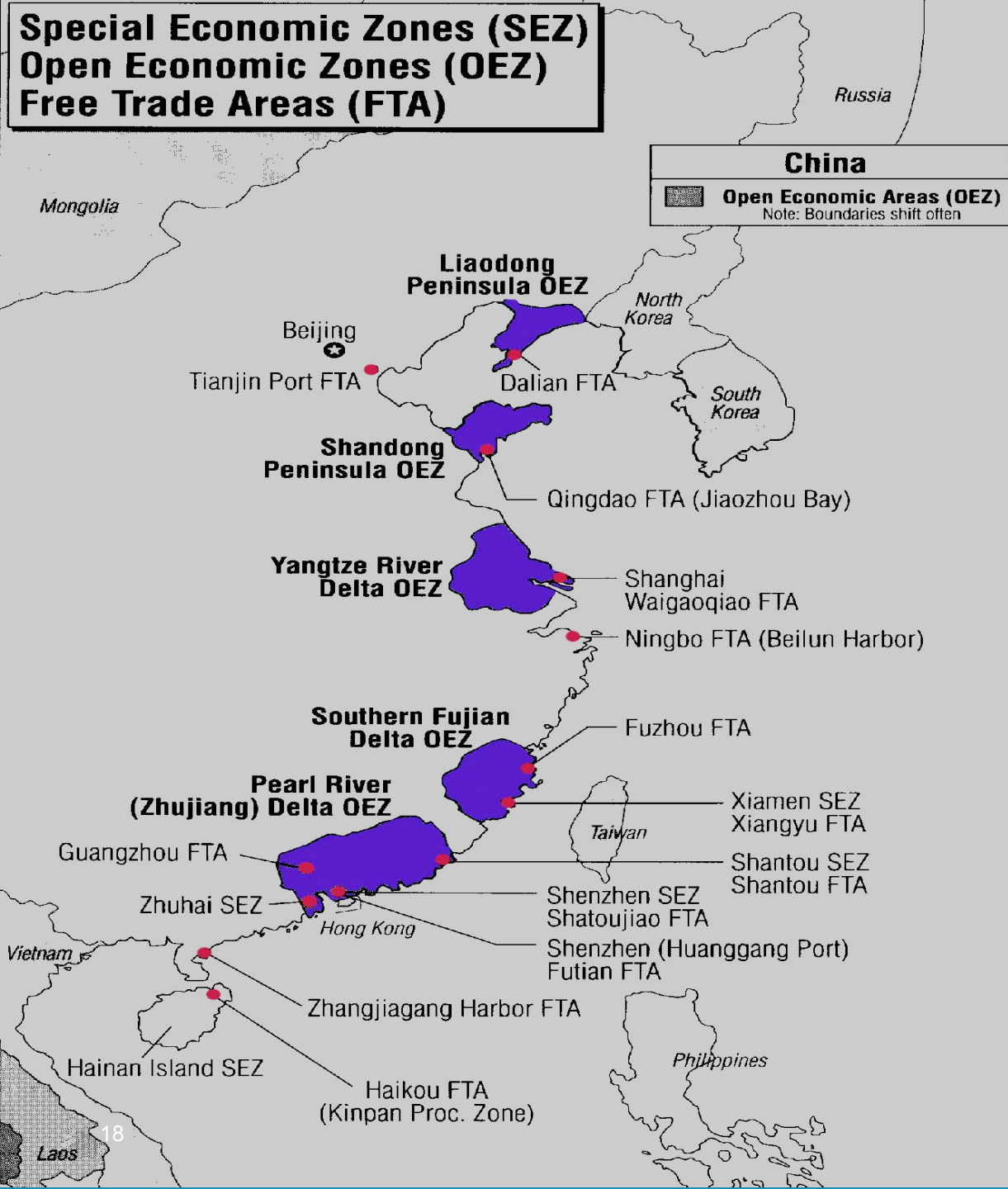
China's industrial policy since 1978



Deng Xiaoping Era

- **In line with the East Asian development model:**
 - Capital-intensive, heavy industry → labor-intensive, light industry
 - Focus on exporting output from light industry
 - Foreign currency used for investments in capital
- **In line with economic transition:**
 - Price reforms: Greater role allocated to the market
 - Increased tolerance for private enterprises
- **Special Economic Zones (SEZs)**

Special Economic Zones (SEZ)
Open Economic Zones (OEZ)
Free Trade Areas (FTA)



Open Door Policy

1978-1992

EXPERIMENTS IN CERTAIN REGIONS

“Gradual development strategy”

In favor of Eastern, coastal regions

Slow opening up and gradual expansion
to other regions

Eastern coastal regions



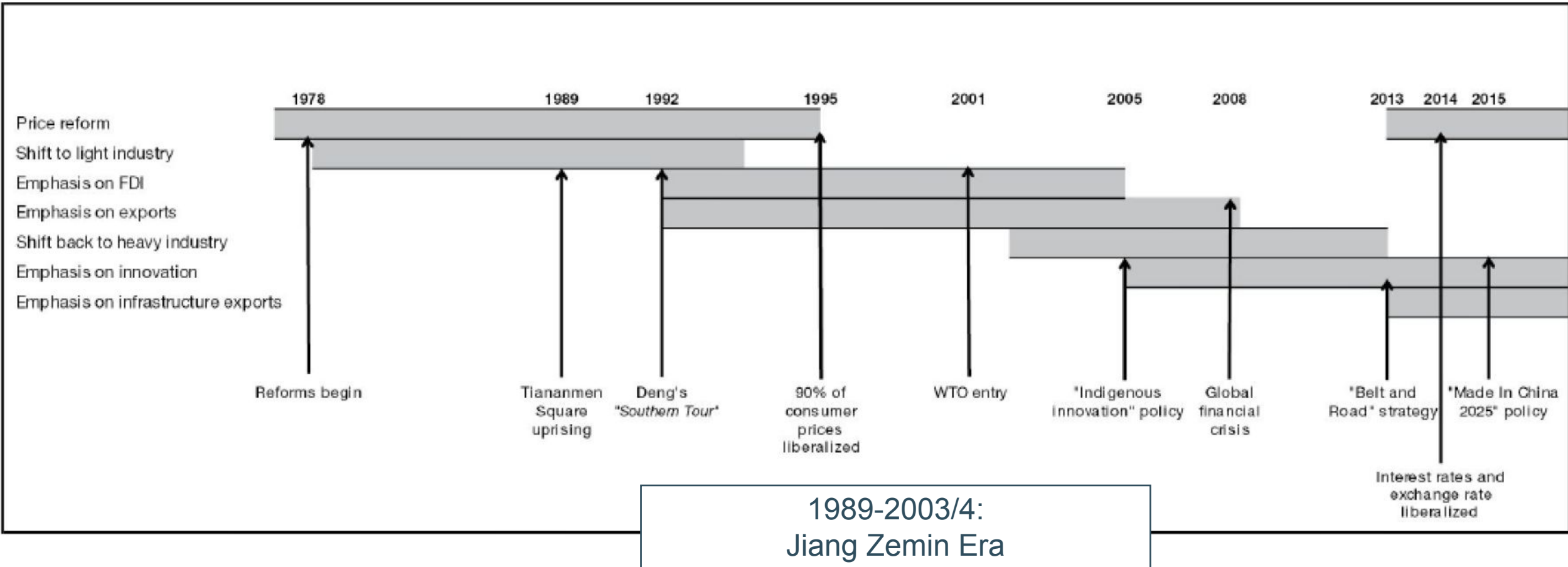
- Gateway for overseas trade
- Proximity to more developed regions: South Korea, Taiwan, Hong Kong
- “Modern industrial environment”
- Infrastructure is more developed than in other parts of the country

Tian'anmen protests in 1989.

China closed to the outside world until 1992.



China's industrial policy since 1978

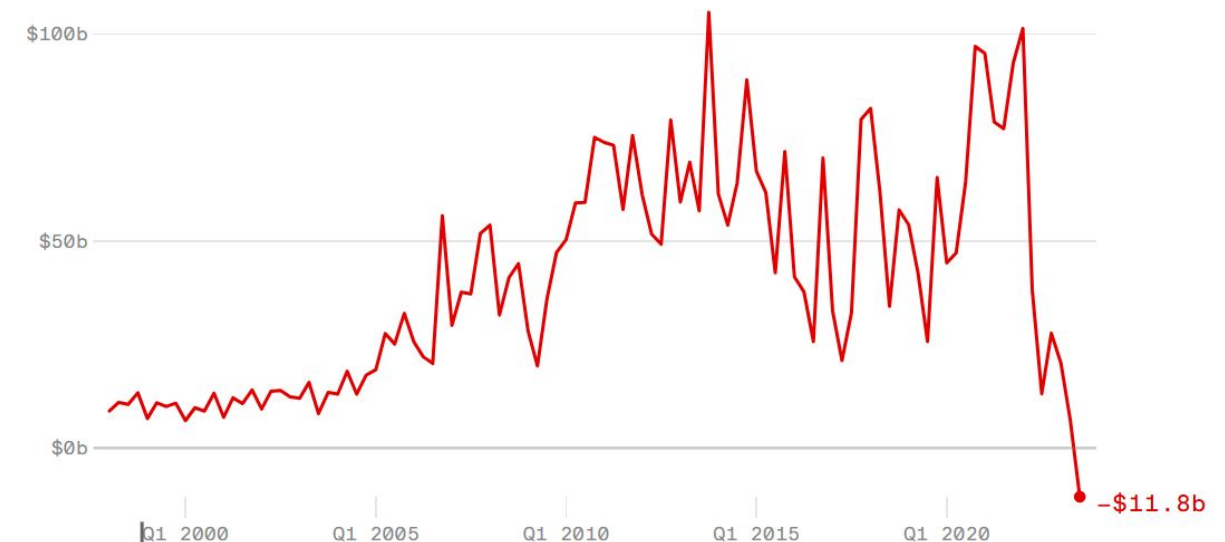


Important rol for FDI

- Divergence from East-Asian development model:
 - Due to difference in timing: improved logistics and transportation options.
- Significant share coming in from overseas Chinese and Hongkongers.
- Mainly in export oriented industry (part of global value chains).

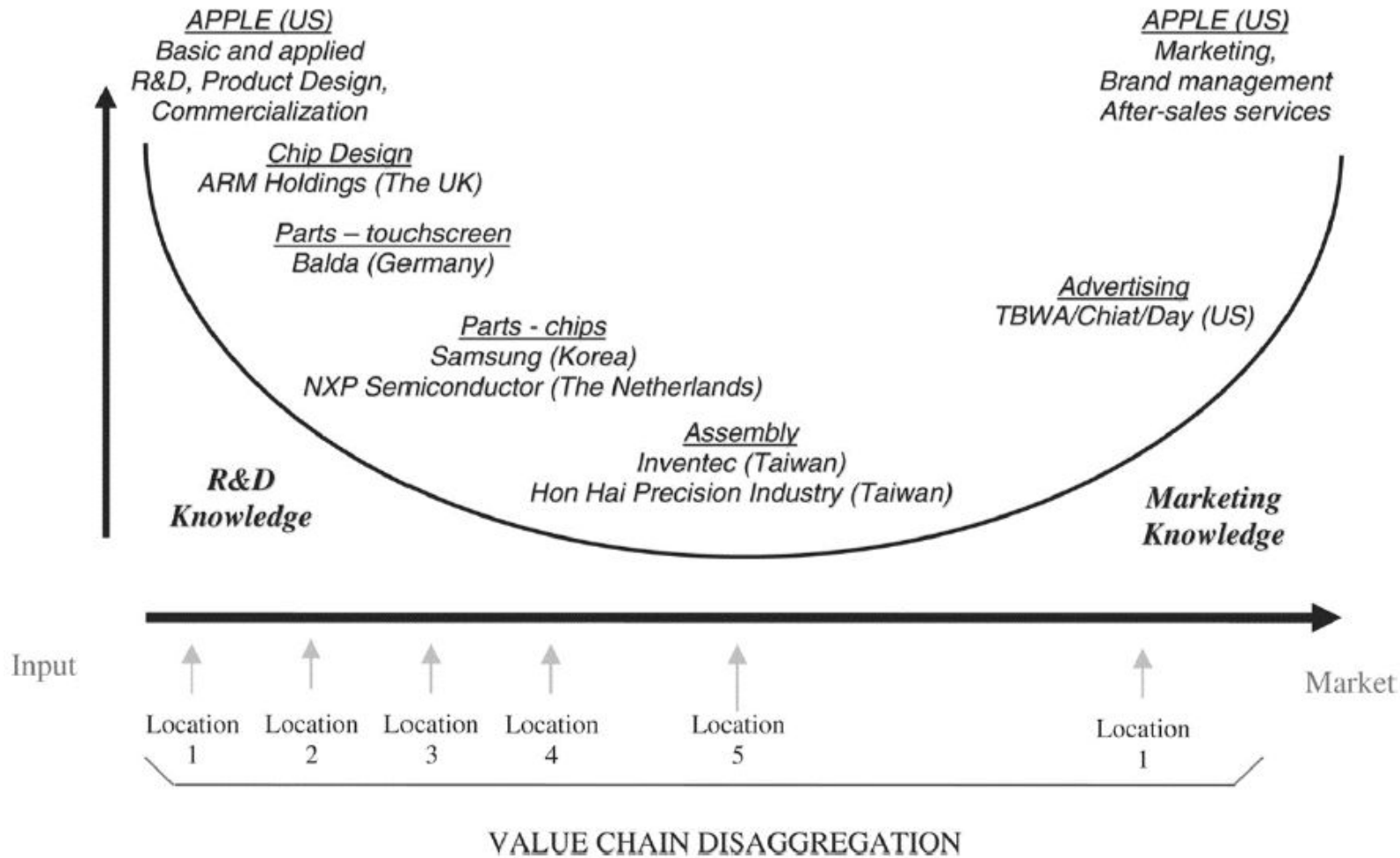
China foreign direct investment

Quarterly; Q1 1998 to Q3 2023

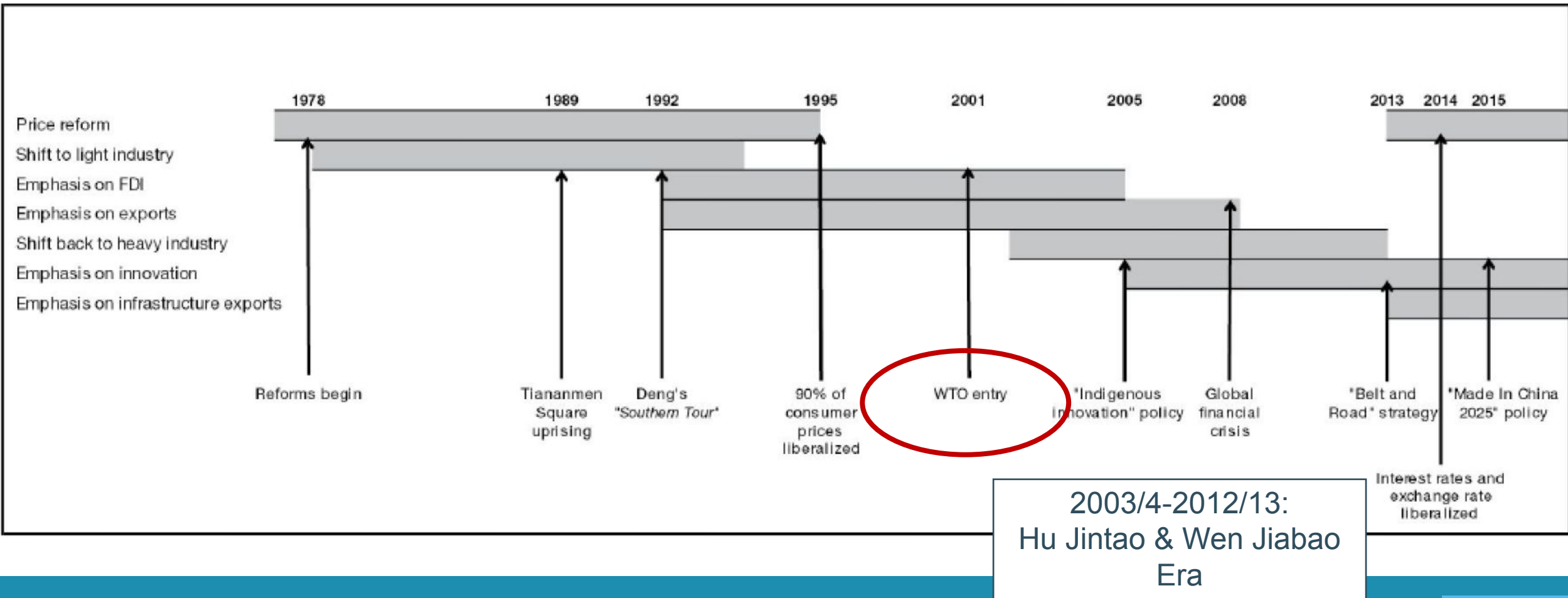


Data: [FactSet](#), [SAFE](#); Chart: Deena Zaidi/Axios Visuals

“Smile curve” of global value chains



China's industriebeleid sinds 1978



FDI and export increased faster

- WTO entry.
- Production capacity moved from Taiwan to Mainland China.
- Global economic boom.

Exports of goods, % of Asian total
12-month moving average

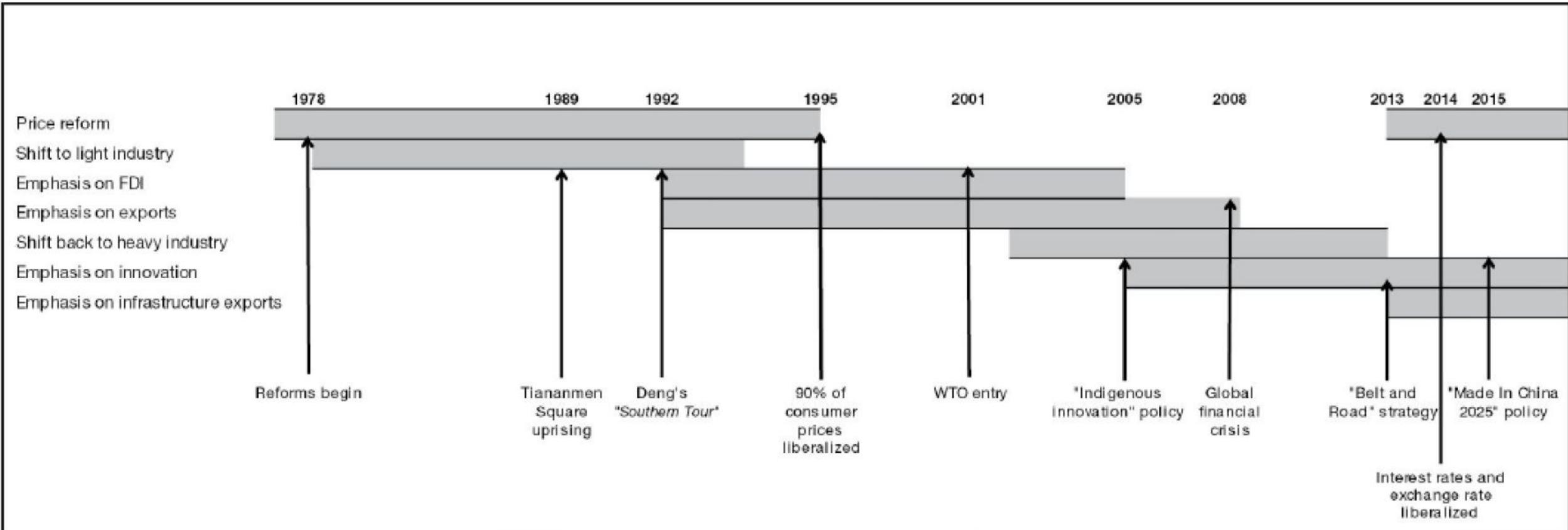


Sources: Oxford Economics; CEIC

Industriebeleid van vierde generatie van leiders

- Renewed focus on heavy industry
 - Support inland development
 - “Go West”-strategy
 - “Revitalize the Northeast”
 - Housing sector is booming as a result of housing privatisation.
- Focus op innovation and technology!
 - 2006: “endemic innovation” (自主创新, *Zìzhǔ chuàngxīn*)
 - Note: Stronger focus on self-sufficiency and autonomy than on creativity.
 - Outlined in Medium- and Long-Term Plan for Science and Technology Development (国家中长期科学和技术发展规划纲要) published in December 2005.

China's industriebeleid sinds 1978



2012/13-....:
Xi Jinping Era

Industrial policy (since 2006)

Table 1: Three Dimensions in China's Industrial Policies from 2006–Present

	2006–2012	2013–2019	2020–Present
Objective (why)	Economic development (with a stress on income and pecuniary advantage)	Economic development plus holistic national security	National security (including economic power and security)
Strategy (what)	Opportunistic sectoral targeting; Indigenous innovation to modify technology import	Innovation-driven development; broaden targeting to cover new tech revolution	S&T self-sufficiency and self-empowerment
Incremental Instruments (how)	Selective industrial policies	Market-conforming instruments; capacity-building industrial policies	New-style national team and NSS&TF

- Relatively “aggressive” industrial policy
- Constant **change**:
 - Evolving “mechanisms” for implementation and planning
 - Economics □ security

Industrial policy: Investment in R&D

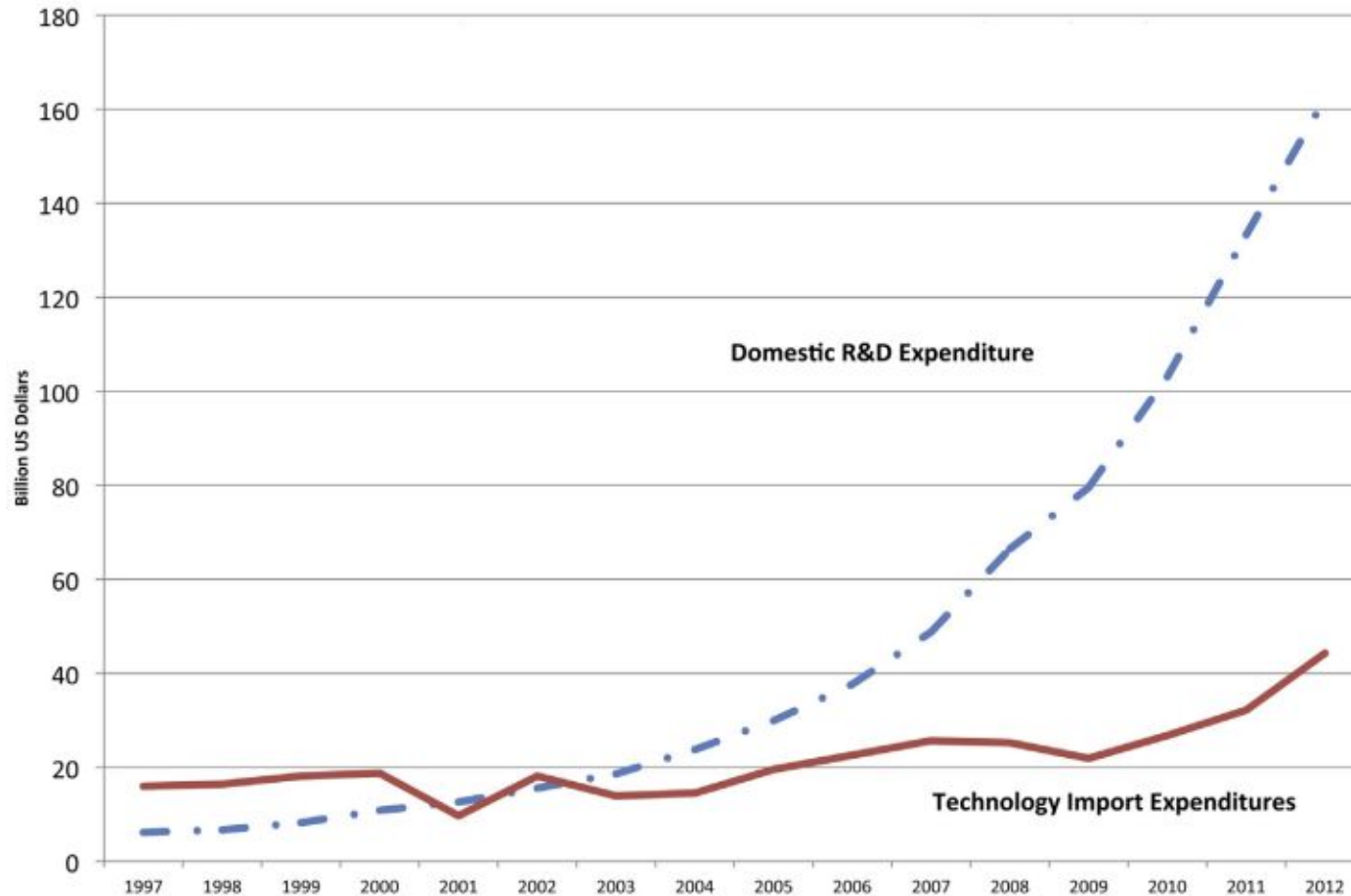


Fig. 1. Expenditure on Domestic R&D and Technology Import.

- Self-sufficiency/autonomy in technological development
 - Increase in R&D expenditure.
 - Reduction in import of foreign technology.

Industrial policy: “Strategic Emerging Industries”

Table 3
Sectoral Focus of Techno-Industrial Policy.

16 Megaprojects (2006-2015)	20 Strategic Emerging Industries (2010-2020)
	Energy Conservation and Environmental Protection
1 Water pollution control and treatment	a. Energy efficient machinery
	→ b. Environmental protection
	c. Recycling and Re-utilization
2 ULSI Semiconductor Manufacturing	
3 Next generation broadband wireless	→ d. Next generation internet
4 Core electronics and high end software	→ e. Core electronic components
	→ f. High end software and information services
	Next Generation Information Technology
	Biotechnology
5 Major New Drug Initiative	→ g. Biopharmaceuticals
6 Major Infectious Disease Initiative	h. Biomedical engineering
7 Genetic transformation and plant breeding	→ i. Biological Agriculture
	j. Bio-manufacturing Industry
	Precision and High-End Machinery
8 Large Passenger Aircraft	→ k. Commercial Aircraft
9 High-Resolution Earth Observation System	→ l. Satellites and Applications
10 Manned Space Flight and Lunar Landing	→ m. Railroad and Transport Machinery
	n. Marine Engineering Equipment
11 High-end Numerically Controlled Machine Tools	o. Intelligent Manufacturing Equipment
	New Energy
12 Large-bed Oil & Gas; Coal Gasification	p. Wind Power
13 Large High-Pressure Nuclear Reactor Technology	q. Solar Power
	r. Biomass Energy
14-16 Three Undisclosed Military Projects	New Materials
	s. New Materials
	New Energy Vehicles
	t. Electric Vehicles & Plug-in Hybrids

□ Investment in strategic emerging industries.

Source for Table 3: State Council. (2012a,b).

Industrial policy: From central to local

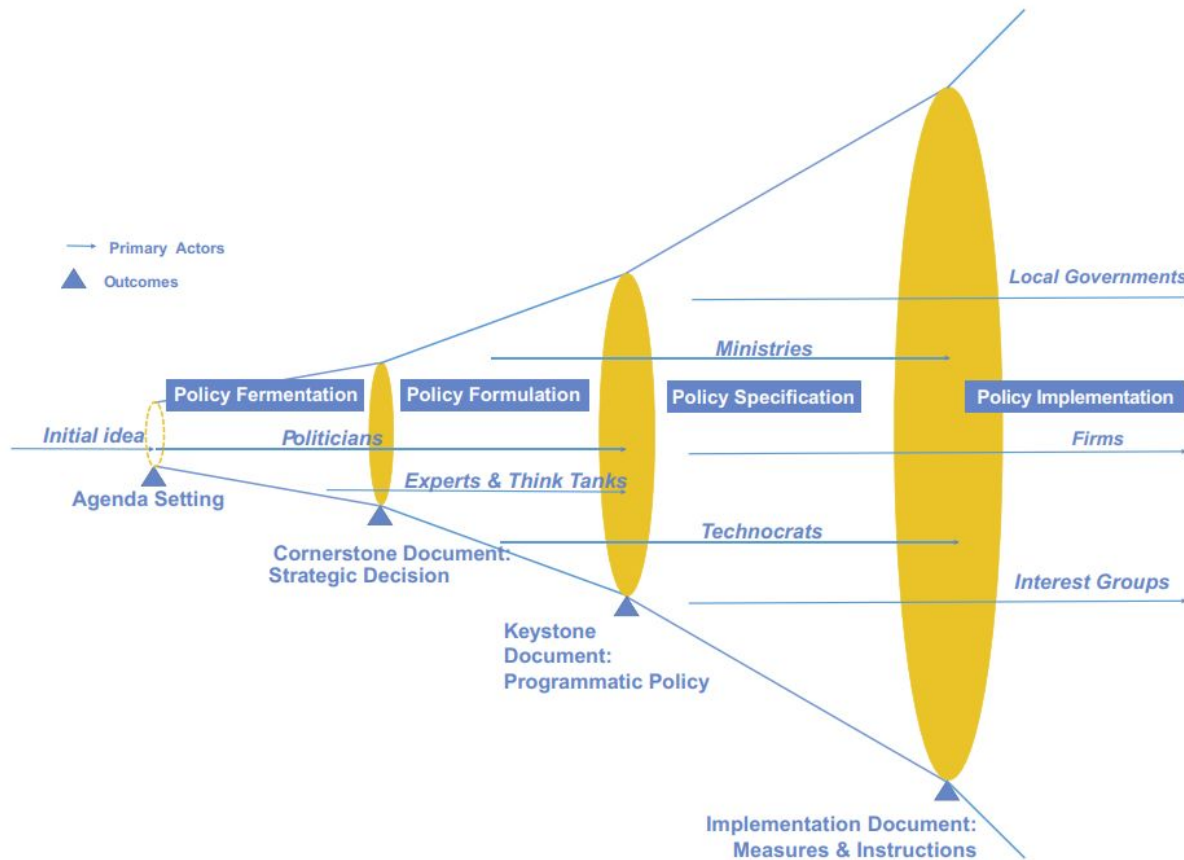
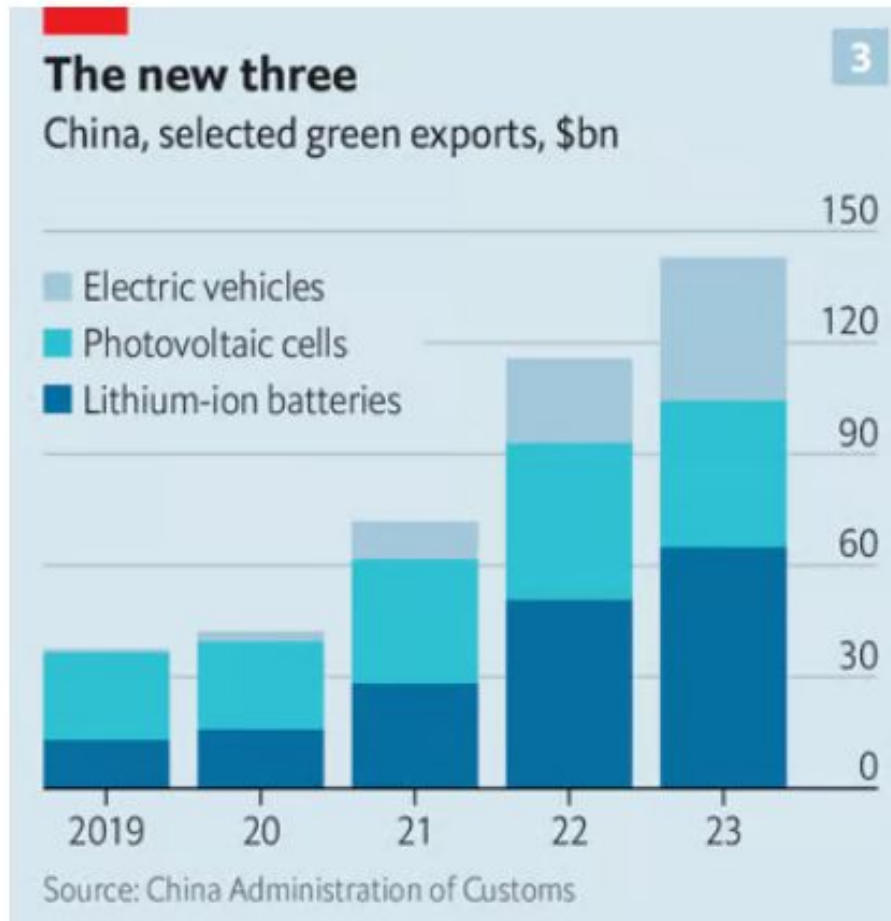


Fig. 3. The Four-phase Model of the Institutionalized Policy-making Mechanism.

□ Centralized agenda setting

□ More decentralized implementation

Industrial policy & Innovation



President Biden @POTUS · 15h

I just imposed a series of tariffs on goods made in China:

25% on steel and aluminum,
50% on semiconductors,
100% on EVs,
And 50% on solar panels.

China is determined to dominate these industries.

I'm determined to ensure America leads the world in them.

12K

12K

40K

11M

11M

- (Over)production of green technologies.
- Counteract with protectionist measures/subsidies/...?



Conclusion

One-size-fits-all strategy?

- Some characteristics of China's industrial policy strategy focusing on innovation:
 1. Targets industries/sectors with *leapfrogging* potential:
 - Fossil fuel cars vs. EVs
 2. Very expensive strategy:
 - 2009-2023: China spent USD 230 billion in support for the EV industry (CSIS estimates).
 3. Internal competition:
 - In 2025, an estimated 12.5 million EVs will be sold in China alone.
- ☐ Maybe some interesting lessons... but mainly at the EU level

Thank you for your attention!

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