

SOURCES OF CHINA'S HIGH-SUSTAINABLE GROWTH, PART II

Getting the Incentives Right

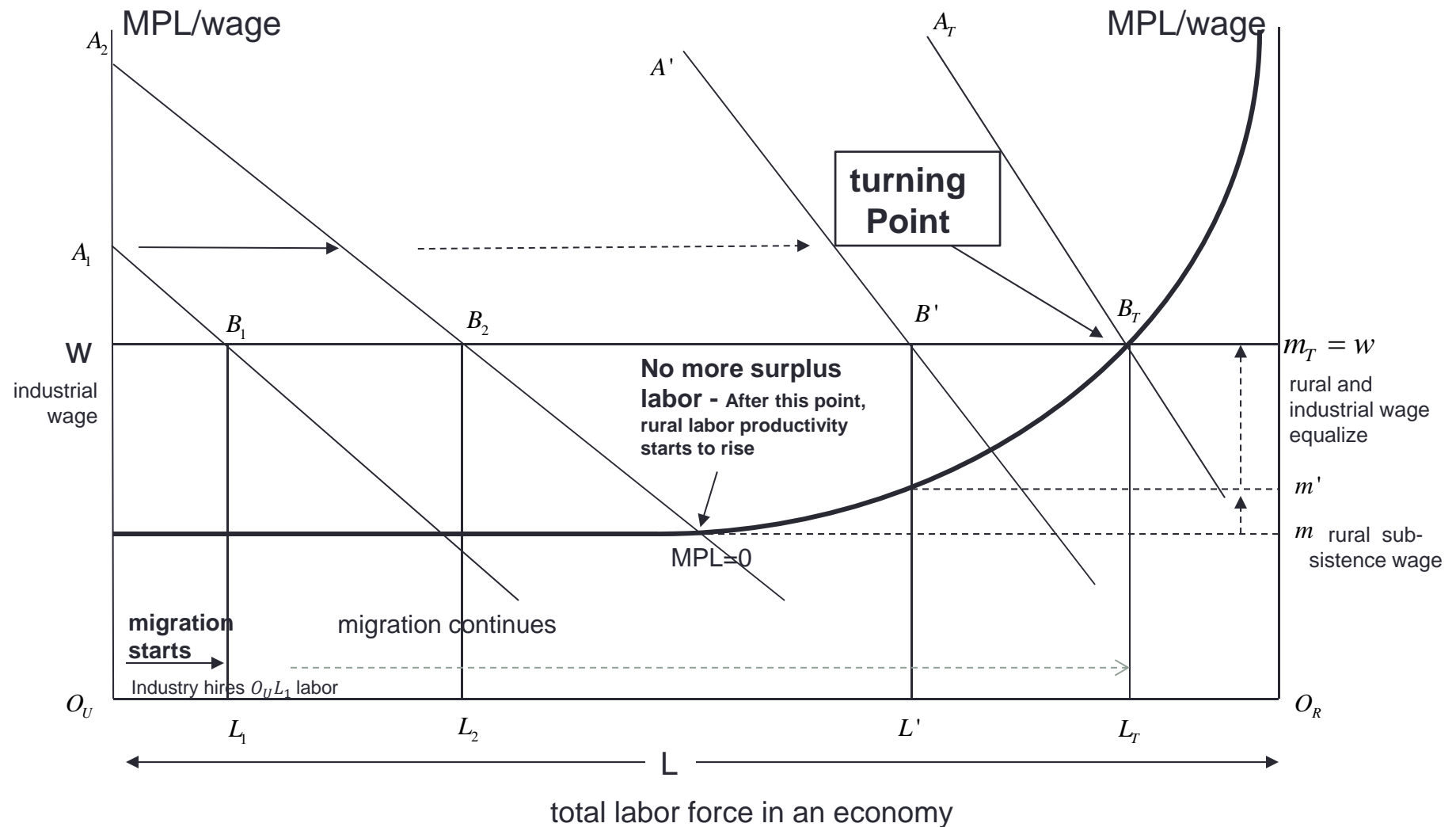
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Preview

- Further discussion on whether China has reached the “turning point”
- Discuss why China has yet to suffer significant diminishing return on (capital) investment
- Household Responsibility System (HRS) and the rise of rural labor productivity
- SOE reforms and restructurings since mid-1990s

Has China reached the turning point?

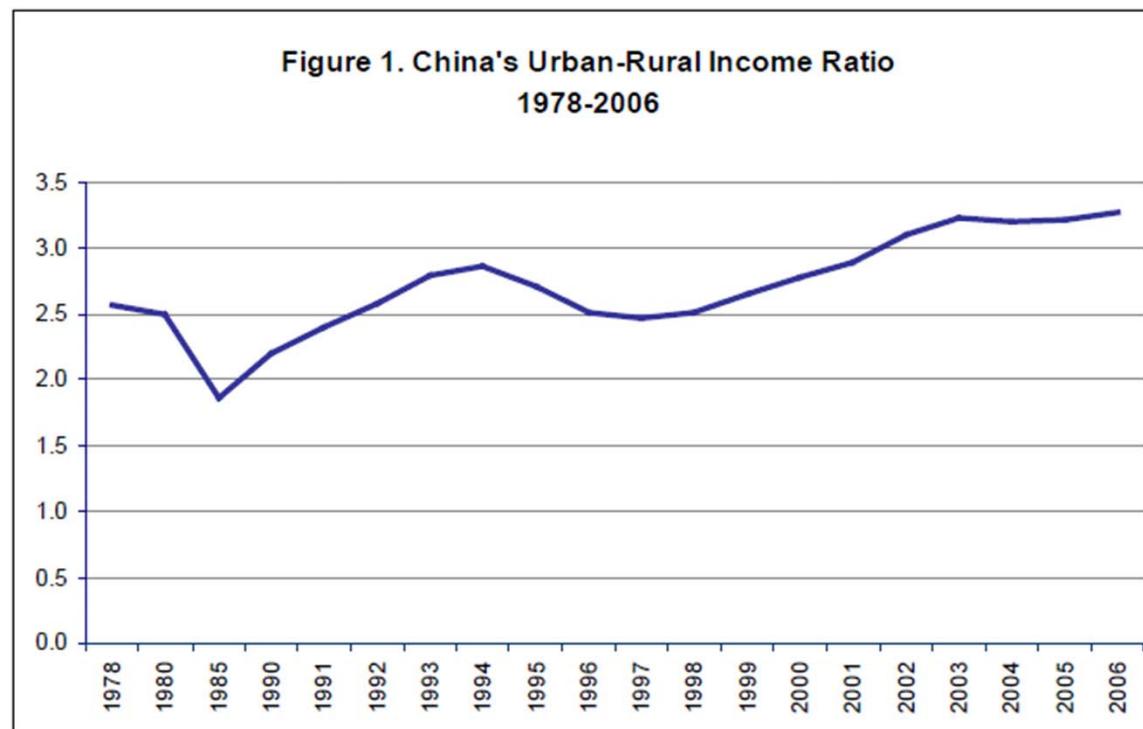


At Turning Point...

- Wages in rural and industrial sectors get equalized
- Further migration is still possible, but slows down dramatically, and it must be due to considerations other than the wage difference
- After reaching the turning point, labor supply into industrial sector stops rising; if the demand from industrial sector continues to expand, wage in industrial sector is set to rise
- **But has China reached the turning point?**

Has China reached the turning point?

- There is still huge gap between average wage in rural and urban areas
- But why labor shortage has been widely reported in China's coastal area in recent years?



Source: National Bureau of Statistics of China and authors' own calculation

How do we explain this puzzle?

Why diminishing return on capital has yet to bite?

- China's ability to maintain 10% annual growth in the past 30 years despite its fast rising income level suggests that China has yet to suffer the diminishing return to capital, at least not dramatically
- One way to untangle this puzzle is to look at the increase of labor supply, thanks to the continuous labor migration from rural area
- As K and L haven been increasing at the same time, capital intensity (K/L) in China's industrial sector must have not increased dramatically (albeit still rising)
- The relatively stable capital intensity (K/L) kept the force of diminishing return in check, for now. But **the “dark” force will eventually bite**, as L (labor supply) dwindles
- This implies capital-led growth will eventually run into a wall

Where is China today?

- According to the estimate by Augus Maddison, China's income per capita in 2008, on PPP basis, was only 21% of the US
- The corresponds to:
 - Japan in 1951
 - Taiwan in 1975
 - South Korea in 1977
- The average growth rate in the following 20 years for
 - Japan - 9.2% during 1951-1971
 - Taiwan - 8.3% during 1975-1995
 - South Korea - 7.6% during 1977-1997
- By this metric, optimists such as Justin Lin and Robert Fogel, believe China could potentially grow at high rate of 8% for another 20 years (2008-2028)
 - By then China's GDP per capita (in PPP term) will be more than 50% of the US
 - China's total GDP (in PPP) will be twice of the US

What's missing so far?

- We have figured out why China so far has been able to maintain a high-sustainable growth rate
 - One important source is to allow rural surplus labor to move more freely to the high-wage industrial sector, resulting in the robust growth in both sectors
- But, we haven't really touched on why there was a sudden reversal of fortune since late 1970s
 - The theory of “the advantage of backwardness” is capable of explaining why growth was so fast once an economy takes off, but it could not explain why China took off in the first place
- We need to look further into how the growth started --- essentially, what happened that was so profoundly different from the past and enabled Chinese economy to take off

The Major Events Leading to the Agricultural Reform in 1978

1948-1952, Land Reform

- Land reform, or 土改 (in Chinese) --- it was more a revolution than a reform: Chinese Communist Party (CCP) confiscated land and assets of landlords and distributed them to poor peasants
- Landlords were vehemently condemned by peasants (upper right picture)...if pointing fingers was not enough, some were shot to death outright; land deeds (proof of ownership) were also burned (lower right picture)



Collectivization and People's Communes

- **1953, agricultural collectivization (cooperatives)** started. By the end of 1956, only 3.7% percent of rural households remained independent.
- **1958, People's Communes** (人民公社) formed. This is an extreme version of agricultural collectivization: One typical commune included 5,000 households, or 10,000 farmers. Any individual initiatives were suppressed (no individual farming allowed). Besides pooling land, farming tools and livestock together, rural households were even not allowed to do their own cooking at home.

Distribution was by need, not by work.

The right picture shows farmers eating together in a big communal canteen.



China's Utopia experiment – communal canteen
free of charge, eat as much as you want

1958-1960, Great Leap Forward (GLF)

- In January 1958, *People's Daily*—the official newspaper of CCP—proclaimed that the GLF would propel China to surpass Britain in industrial production in 15 years and the United States in 20 or 30 years.
- The nation was soon propelled to a state of *irrational exuberance*, as news about extraordinary gains in agricultural and industrial production broke out across the country.
- Most of these numbers turned out to be made up by local officials.



The GLF Zeal -- Launching harvest satellites on daily basis

1958-1960, Great Leap Forward

Left - A Chinese woman sent in her cooking pots and other iron-worthy housewares to support the GLF frenzy – no more home cooking for sure!!!

Right – an example of “backyard mini iron furnaces” during GLF --- nobody seemed to understand the concept of “*economies of scale*”.



1958年全民大炼钢铁，一切为钢铁元帅升帐让路

1959-61, The Great Famine

- Officially known as “*The three-year natural disaster*” (CCP blamed weather, instead). It was estimated **25-30 million** people died of hunger during the famine.
- To put the famine into perspective:
 - 250,000 - 300,000 killed, *Nanjing Massacre*, 1937
 - 1-1.5 million dead, *Irish Potato Famine*, 1845-1852
 - 16 million dead (world total), *WWI*
 - 60 million dead (world total), *WWII*
 - 75-100 million dead, *Black Death*, 1348-1350

1959-61, The Great Famine

- The famine was mostly man-made. According to Li and Yang (JPE, 2005), grain output fell sharply because:
 1. agricultural resources were diverted to industry
 - For example, in 1958, 16.4 million peasants, about twice the size of the industrial labor force in 1957, were *forced* to relocate to cities to support the expansion of industry and construction.
 2. government imposed an excessive procurement burden on peasants, leaving them with insufficient calories to sustain labor productivity
 - For example, grain procurement was increased from 46 million metric tons in 1957 to 64 million in 1959, even as grain output had actually fallen in 1959
- The Great Famine is often used as one of the most powerful evidence against central planning: it simply won't work
 - Soviet under Stalin also had similar famine in 1929: 5 million died

Labor Diversion during GLF

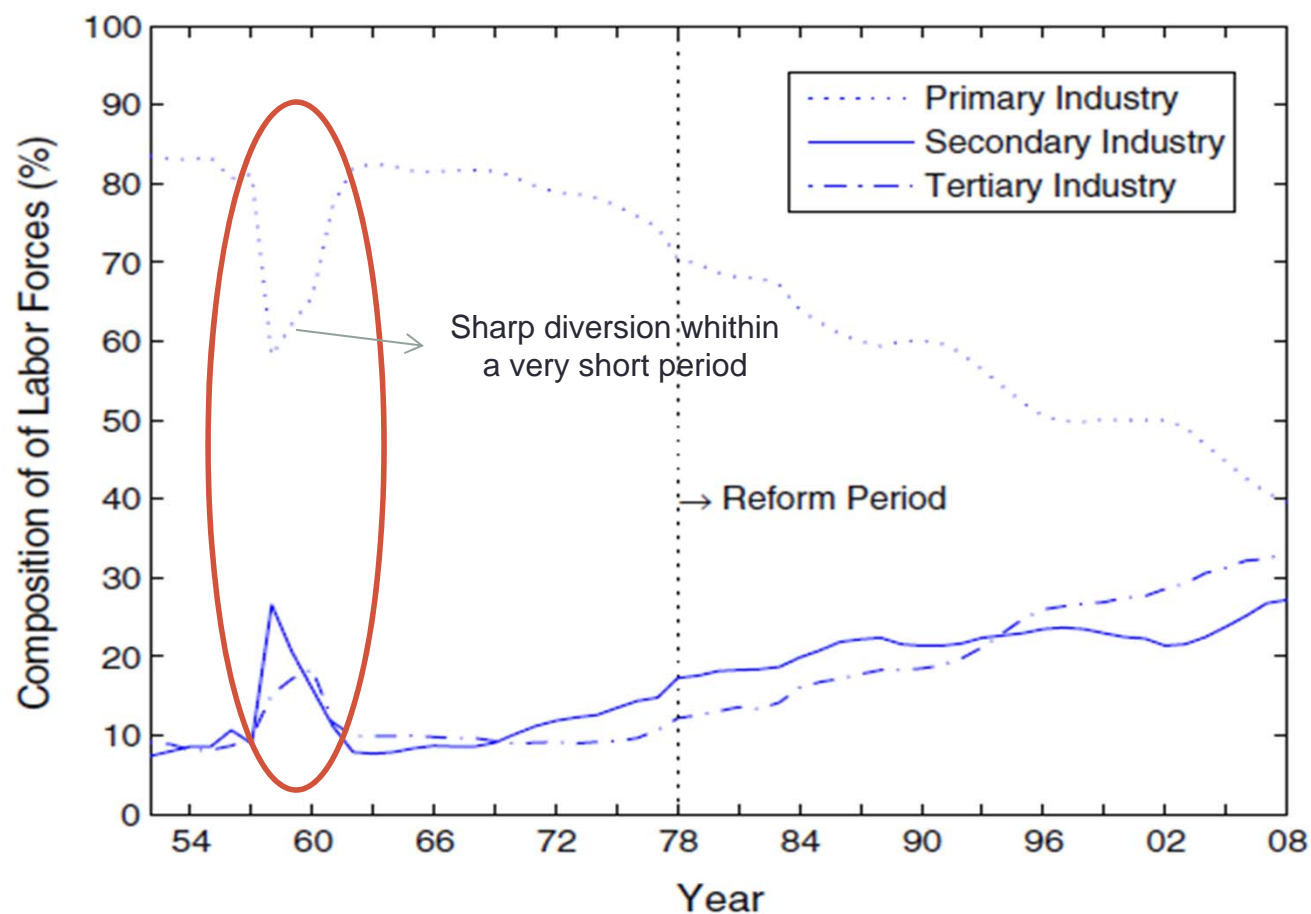


Fig. 1. Composition of labor forces of three strata of industry in China (1952–2008).

Source: Chen, Jefferson, Zhang (2011)

Mao's Revolution

- The GLF greatly tarnished Mao's reputation within the CCP
- Mao was a master of political and military campaigns, but he had not much clue in managing the economy
- In comparison, Liu Shaoqi (刘少奇), and Deng Xiaoping (邓小平) were both good at economic issues. But they were labeled “rightist”, or “capitalism roaders” in the radical Mao era. Liu was left to die in prison, and Deng was sent on exile multiple times
- After the GLF and the Famine, Mao had to mobilize the mass to regain his paramount position within the party. This unfortunately led to another disastrous ten years in Chinese history - *the Cultural Revolution* (1966-1976)

The Cultural Revolution (1966-1976)



In the left propaganda poster, Mao's shining image in the center; Liu Shaoqi was depicted as an evil figure at the bottom; the words read "Down the traitor, the hidden capitalist spy **Liu Shaoqi!**"

In the right poster, a righteous worker holding Mao's pamphlet in his left hand is pounding Deng Xiaoping's head to the floor. Deng was labeled the "No. 2 capitalist roader" after Liu. The words read "crushing **Deng Xiaoping**".



Mao's Legacy

- Despite Mao's many mistakes, Mao probably still remains the most influential Chinese leader among the Chinese people
- His single most important achievement was that he led CCP liberated China from foreign invasions and humiliation since the Opium War (1840) --- useful to understand Chinese nationalism today
- The Communist Revolutions (like French Revolution), however, destroyed many old traditions and institutions. For better or worse, the 1949 revolution and the Cultural Revolution produced long lasting impact on Chinese society for decades to come – both positive and negative.
- Deng Xiaoping's own comments on Mao's legacy: "70% right, 30% wrong" (七分功，三分过)

Household Responsibility System (HRS)

- In 1976, Mao died, *The Cultural Revolution* ended and “*The Gang of Four*” were prosecuted. Deng Xiaoping was back in power. Everything was ripe for a big change.
- Decollectivization started in Anhui, Sichuan and a few other poorest provinces in 1976, by farmers themselves, as bottom-up spontaneous initiatives
- Fully aware of the political risk, farmers experimented private farming only with *marginal* land while keeping majority of collective farming intact

Household Responsibility System (HRS)

- After seeing the vast differences in output of private vs. collective farming, the central government had to recognize the experiments in 1978. But still the ideological debate back then was very heated.
- Only until 1980 did Beijing officially relax its ban on private farming
- The official account was that the government initiated these experiments from top down, but it was not! Government only approved and spread the experiments nationwide.
- Because these bottom-up initiatives started in the poorest provinces, on the marginal share of a landplot, China's HRS is also called by some scholars as "***marginal revolution***"

Household Responsibility System (HRS)

- HRS was nothing more than private farming
- Farmland were not privatized (still not today), and remained in the collective ownership of rural villages, and *ultimately* owned by the state
- Farmers rent farmland under a long-term contract. They no longer work in a production team, together with other households. Each household now is responsible for their own.
- Unlike rural collectives, farmers were allowed to keep the extra output to their own after meeting government's procurement requirement
- This *small* change provided great incentives for farmers to work harder: the more they produce, the more they get paid. Not surprisingly, labor productivity and output soared.

China's Rural Labor Productivity

Growth in China's Agricultural Sector (%)
before and after reform

year	1952-1978	1978-1984
Agriculture	2.9	7.7
Crops	2.5	5.9
Grains	2.4	4.8
Population	2.0	1.3

Source: Justin Yifu Lin, "Demystifying the Chinese economy" (in Chinese)

Incentives Matter

- It took almost 30 years (1949-1978), a disastrous famine, and a chaotic ten years for the CCP to appreciate this simple economic principle
- The CCP had been struggling with its rigid ideology. Under Mao, CCP promoted central planning, state ownership and collectivism; individual endeavors with a tiny hint of self-interest were regarded as “capitalist roaders”, and crushed.
- **Absolute equality** was promoted and *distribution was not according to work*. The result – everyone was equally poor

Equally Poor: CCP's failed attempt to create Utopia

- In 1978, Wang Zhen (王震), China's Vice Premier, during his first visit to Britain, had expected to see slums in London and poverty, destitution and exploitation
- To his surprise, Wang found that his wage was only 1/6 of that of a garbage collector in London
- He commented:
"I think Britain has done a good job. Products are abundant...; social justice and welfare have received a lot of emphasis. Britain would simply be our model of a communist society if it were ruled by a communist party. " (see Coase and Wang, 2012)

Prelude to the Opening Up

- Again, in 1978, China sent out many high-level delegations abroad
- From May 2 to June 6, a high-level delegation visited Western Europe – France, Switzerland, Germany, Denmark and Belgium. (China had no major contact with the West since 1949. The delegation had very little background knowledge of the West)
- Chinese delegation was stunned by the use of computers at a Swiss power plant and at the Charles de Gaulle Airport, where takeoffs and landings were guided electronically
- One official summarized the group's impressions after the visit:

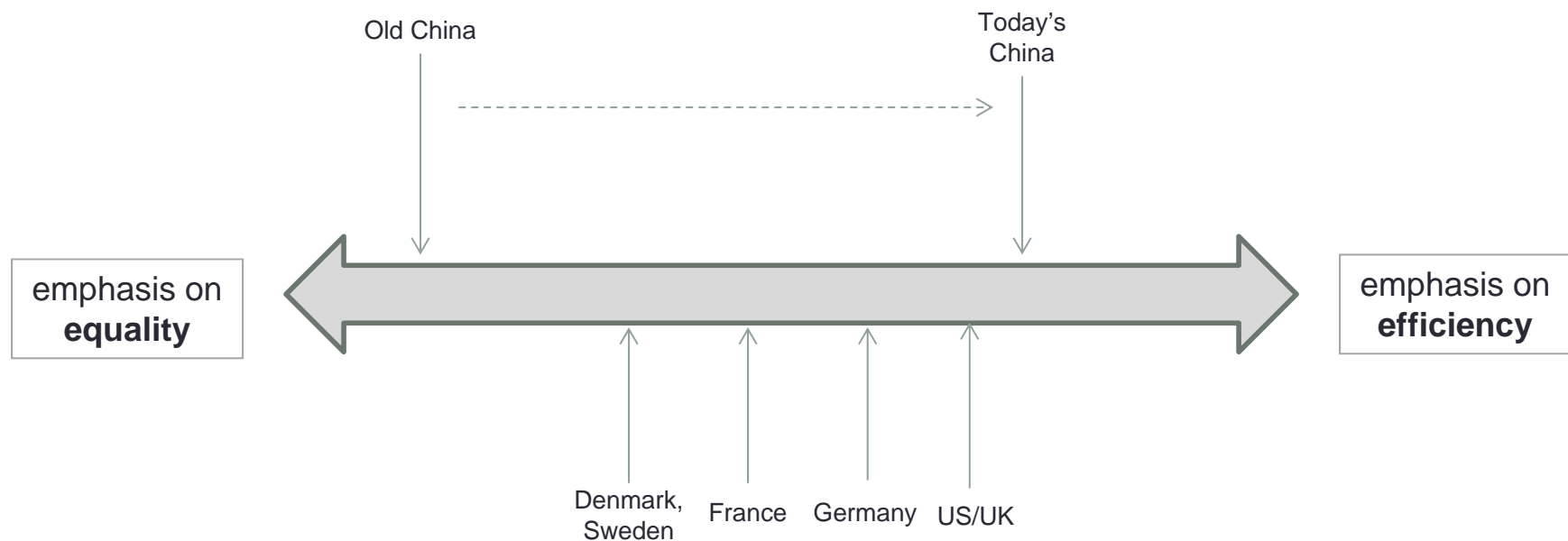
“In a little over one month of inspection, our eyes were opened...Everything we saw and heard startled every one of us...We thought capitalist countries were backward and decadent. When we left our country and took a look, we realized things were completely different.”

(see Vogel's book on Deng Xiaoping)

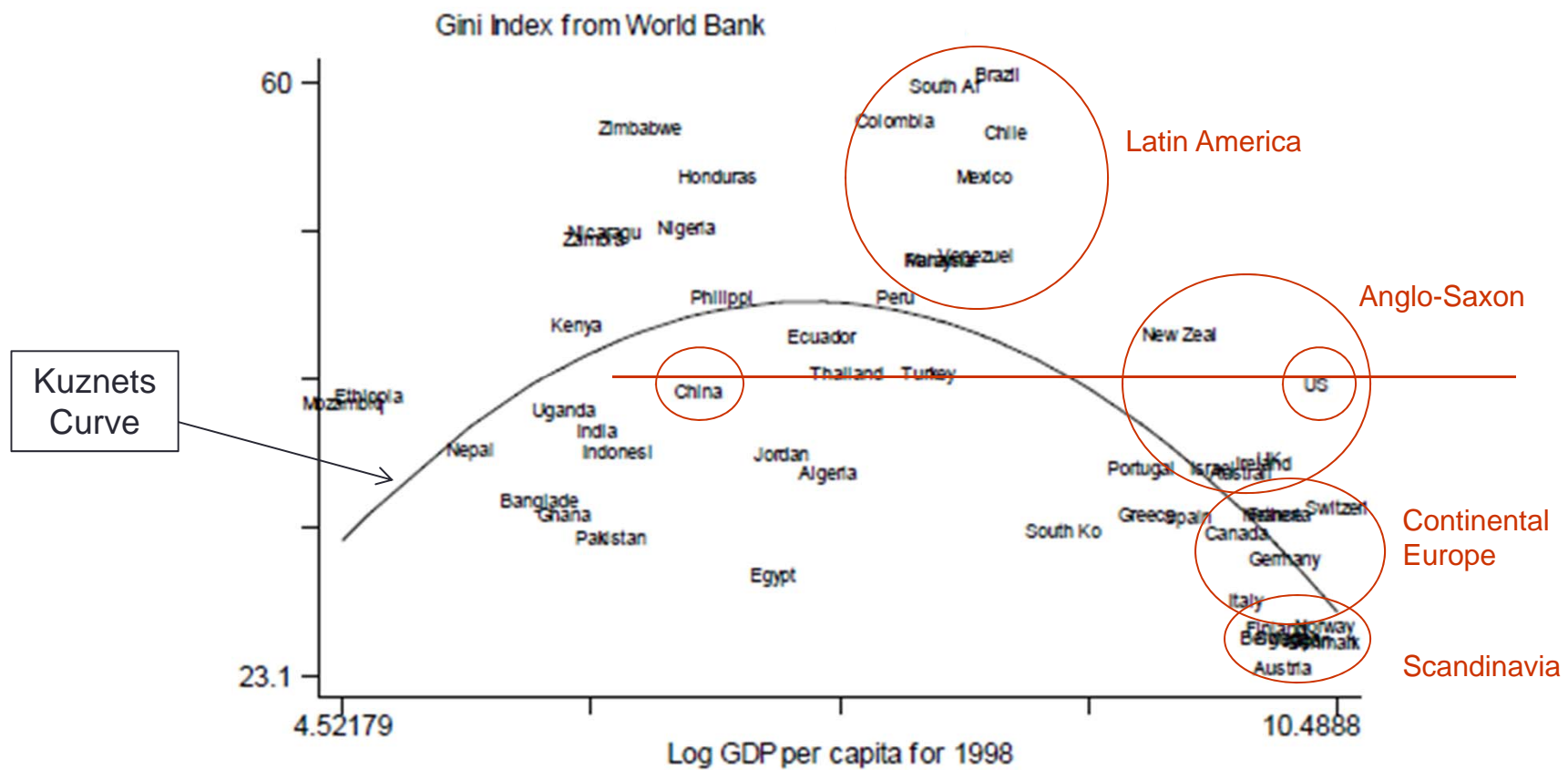
The Real Lesson

- If a system is going to suppress people's incentives, people may oblige, unhappily, but they won't give their 100% full potential (shirking or shading will be common), resulting in poor labor productivity
- A good economic system (or the rules of the game) needs to be designed in such a way that it incentivizes (i.e., encourages with rewards) people to stay more productive *willingly*, even without being monitored
- This, however, will inevitably create inequality --- as people's ability, skills, and working ethics are all different
- Every economic system can be thought as **a tradeoff between equality and efficiency**
- China's economic system before 1978, and socialism in general, tilted too much toward equality (*of outcome*), at the expense of efficiency

Economic Systems



Inequality across Countries



Source: Glaeser (NBER WP 2005)

Sum Up with Two Quotes

“The inherent vice of capitalism is the unequal sharing of blessings; the inherent virtue of socialism is the equal sharing of miseries.”

- *Winston Churchill*

“A society that puts equality --- in the sense of equality of outcomes --- ahead of freedom will end up with neither equality nor freedom; but a society that puts freedom first will, as a happy by-product, end up with both greater freedom and greater equality.”

- *Milton Friedman*