

The Future of Chinese Growth: Institutional Perspectives

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The Question

- Why and how has China been so successful over the last 3 1/2 decades and what does this imply for its future growth trajectory?
- Still only partially understood how this has happened and what it implies for economic growth in developing countries (and developed economies) more generally.
- **This talk:** a political interpretation of the origins of Chinese growth and its future prospects based on *Why Nations Fail* (joint with James A. Robinson).

Interpretations of Chinese Growth

- Two common interpretations:
 - 1 China did it with free markets and neoclassical economics (e.g., Gregory Chow *Interpreting China's Economy*): Building functioning market institutions, transition from central planning to the market, encouraging entrepreneurship, a little social protection.
 - 2 China did it with “clever state intervention” (e.g., Dani Rodrik *One Economics, Many Recipes*, Justin Lin, *Demystifying the Chinese Economy*, Qian, Roland and Xu, *JPE* 2006, Xu, *JEL*, 2011, “the Beijing consensus”).

But Perhaps More Thinking Necessary

- Neither is entirely convincing (e.g., Barry Naughton, *The Chinese Economy*, Richard McGregor, *The Party: the Secret World of China's Communist Rulers*, Fan, Morck and Yeung, 2011):
 - China looks nothing like a free market. Largest firms and banks are under government and party control, and political deals essential for market access;
 - Much of the state intervention appears self-interested and aimed at protecting the Party's or the rulers' interests.
- Both interpretations entirely ignore politics:
 - Why were these choices made?
 - What made them feasible?
 - Will they be maintained?
 - How will they be developed?

A Framework

- We argue in *Why Nations Fail* that the institutional foundations are the key to understand economic development and growth.
- These institutional foundations are inherently political because different individuals and groups benefit from different social arrangements.
- Sustained economic growth, which needs innovation and technological change, is ultimately very difficult under institutions that have been designed for the benefit of the politically powerful—the elite.

Taxonomy of Institutions

- **Extractive economic institutions:** Lack of law and order. Insecure property rights; entry barriers and regulations preventing functioning of markets and creating a *nonlevel playing field*.
- **Extractive political institutions**—in the limit “absolutism”: Political institutions concentrating power in the hands of a few, without constraints, checks and balances or “rule of law”.
- **Inclusive economic institutions:** Secure property rights, law and order, markets and state support (public services and regulation) for markets; open to relatively free entry of new businesses; uphold contracts; access to education and opportunity for the great majority of citizens.
- **Inclusive political institutions:** Political institutions allowing broad participation—*pluralism*—and placing constraints and checks on politicians; rule of law (closely related to pluralism).
 - But also some degree of *political centralization* for the states to be able to effectively enforce law and order.

Institutional Synergies

		Economic Institutions	
		Inclusive	Extractive
Political Institutions	Inclusive	↻	← ↓
	Extractive	↑ →	↻

- Put differently:
 - Long-run economic success requires “economic liberty”.
 - But “economic liberty” will be incomplete and unstable without “political liberty”.

Growth under Inclusive Institutions

- Inclusive economic and political institutions (or inclusive institutions for short) create powerful forces towards economic growth by:
 - encouraging investment (because of well-enforced property rights)
 - harnessing the power of markets (better allocation of resources, entry of more efficient firms, ability to finance for starting businesses etc.)
 - generating broad-based participation (education, again free entry, and broad-based property rights).
- Key aspect of growth under inclusive institutions: investment in new technology, innovation and **creative destruction**.
- The role of a **level playing field**: comparative advantage, skills and innovation.

The Logic of Extractive Institutions

- Main thesis is that growth is much more likely under inclusive institutions than extractive institutions.
- Growth, and inclusive institutions that will support it, will create both winners and losers. Thus there is a logic supporting extractive institutions and stagnation:
 - **economic losers:** those who will lose their incomes, for example their monopolies, because of changes in institutions or introduction of new technologies
 - **political losers:** those who will lose their politically privileged position, their unconstrained monopoly of power, because of growth and its supporting institutions—**fear of creative destruction.**
 - both are important in practice, but particularly political losers are a major barrier against the emergence of inclusive institutions and economic growth.

Growth under Extractive Institutions

- Though sustained growth necessitates inclusive institutions, rapid growth is still possible under extractive institutions.
- Why? → Generate output and resources to extract.
- Two types of growth under extractive (political) institutions:
 - ① extractive economic institutions allocating resources to high productivity activities controlled by the elites (e.g., the Caribbean plantation economies).
 - ② when relatively secure in their position, the elites may wish to allow the emergence of relatively inclusive economic institutions under their control.
- **Preconditions for extractive growth:** Political centralization; Direct benefits; Only limited fear of creative destruction.

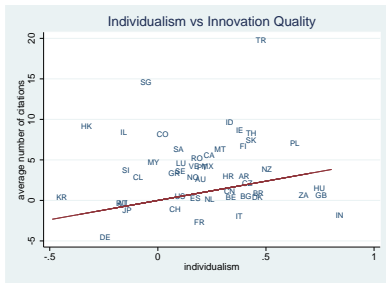
Why Growth under Extractive Institutions Limited?

- No creative destruction and dynamics very different than inclusive growth.
- In particular, potentially quite rapid growth at first but unlikely to translate into **sustained economic growth** because
 - *reallocation*: the structural inefficiencies of economies under extractive institutions create room for improvements by reallocating resources away from the more inefficient parts of the economy or firms. But benefits from reallocation decline after a while.
 - *investment-based growth*: Acemoglu, Aghion and Zilibotti, *JEEA* 2006: large firms, monopolies and investment-based strategies are often not very costly at early stages of development if they can mobilize investment. But they become a real hindrance to growth when innovation and “creative destruction” are important.
 - *limits to inclusivity*: mounting threat of creative destruction and demands from new interests and groups empowered by economic growth likely to ultimately lead to reversals in the elites’ willingness to support economic growth.
 - *freedom and creative innovations*: Acemoglu, Akcigit and Celik, 2013.

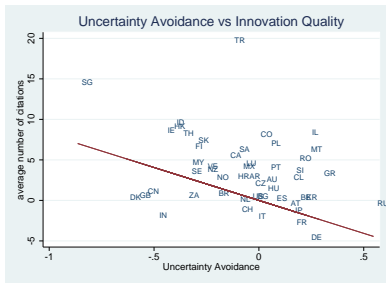
Freedom and Creative Innovations

- What matters for growth are “creative innovations” which introduce transformative technologies.
 - In terms of patents, these are the very highly cited patents or those that combine previously disparate ideas.
- Acemoglu, Akcigit and Celik, 2013: Even more than total amount of innovation, creative innovations depend on economic, political and social freedom.
 - Inventor-level, firm-level and country-level evidence consistent with this.

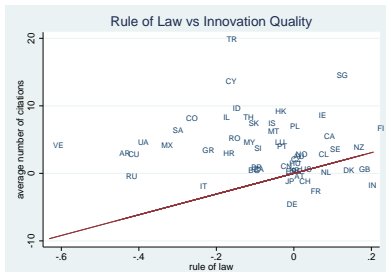
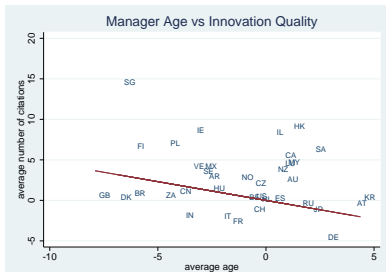
Freedom and Creative Innovations: Country-Level Evidence



(a) Individualism vs Innovation Quality



(b) Uncertainty Avoidance vs Innovation Quality



Freedom and Creative Innovations (continued)

Table 2: Baseline Regressions

	Innov Quality	Superstar Frac	Tail Innov	Originality	Innov Diversity
<i>Panel A: Individualism</i>					
individualism	4.75 (2.38)	12.1 (2.61)	118 (30.2)	7.84 (.615)	4.53 (1.60)
log income	-1.11 (1.37)	-3.25 (1.49)	-24.7 (18.9)	-.876 (.510)	.434 (1.55)
2ndary yrs sch	-.635 (1.19)	-.478 (1.31)	-4.89 (15.4)	.303 (.348)	.470 (.668)
log patents	1.51 (.487)	1.47 (.509)	14.8 (6.29)	.389 (.188)	-.832 (.354)
R^2	0.71	0.85	0.79	0.91	0.48
N	50	50	48	50	50

Freedom and Creative Innovations (continued)

Table 2: Baseline Regressions

	Innov Quality	Superstar Frac	Tail Innov	Originality	Innov Diversity
<i>Panel B: Uncertainty Avoidance</i>					
uncertainty av	-8.12 (2.88)	-15.8 (3.06)	-159 (33.8)	-8.80 (1.32)	-2.71 (2.36)
log income	-.264 (1.13)	-1.38 (.604)	-6.12 (9.85)	.238 (1.04)	.928 (2.37)
2ndary yrs sch	-.922 (1.12)	-.406 (1.26)	-4.91 (14.5)	.595 (.397)	1.03 (.643)
log patents	1.57 (.431)	1.60 (.476)	16.2 (5.97)	.462 (.269)	-.808 (.378)
R^2	0.78	0.88	0.83	0.86	0.32
N	50	50	48	50	50

Freedom and Creative Innovations (continued)

Table 2: Baseline Regressions

	Innov Quality	Superstar Frac	Tail Innov	Originality	Innov Diversity
<i>Panel C: Average Manager Age</i>					
avg manager age	-.463 (.217)	-1.16 (.245)	-11.2 (2.69)	-.687 (.081)	-.343 (.172)
log income	-.425 (1.31)	-1.55 (1.16)	-8.28 (15.8)	.203 (.610)	1.11 (2.01)
2ndary yrs sch	-1.16 (1.44)	-1.77 (1.66)	-16.9 (18.9)	-.303 (.528)	.313 (.793)
log patents	2.08 (.680)	2.91 (.762)	28.7 (9.13)	1.23 (.300)	-.409 (.363)
R^2	0.71	0.86	0.79	0.88	0.43
N	37	37	37	37	37

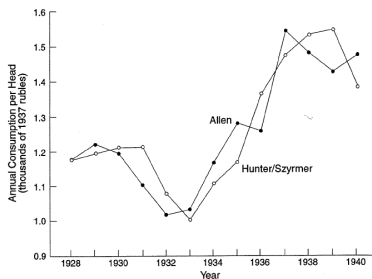
Country-Level Results: Distance to Frontier (I)

Table 5: Stock of Knowledge, Opportunity Cost and Creative Innovations

	Innov Quality	Superstar Frac	Tail Innov	Originality	Innov Diversity
<i>Panel A: Individualism</i>					
individualism	6.94 (1.55)	15.1 (1.39)	149 (18.6)	8.96 (.409)	3.69 (1.34)
individualism × log patents	3.52 (.926)	4.72 (.763)	48.8 (10.9)	1.79 (.298)	-1.33 (.632)
log patents	1.26 (.338)	1.14 (.274)	11.5 (3.92)	.264 (.141)	-.739 (.305)
R^2	0.81	0.94	0.88	0.94	0.52
N	50	50	48	50	50

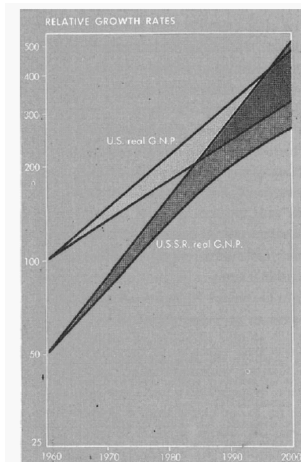
Example: The Soviet Miracle

- Before the Chinese miracle, there was the Soviet miracle.
- Rapid growth under central planning based on reallocation of resources from unproductive agriculture to industry—which was still not sufficiently organized.



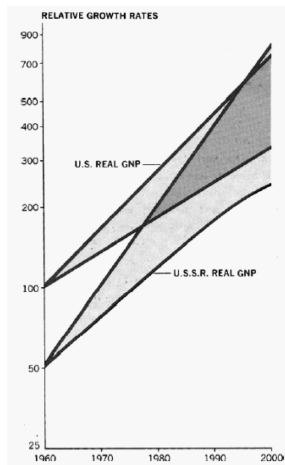
- Similar enthusiasm (to that we see about China) among pundits and academics concerning the Soviet model.

The Soviet Miracle in Samuelson's Textbook



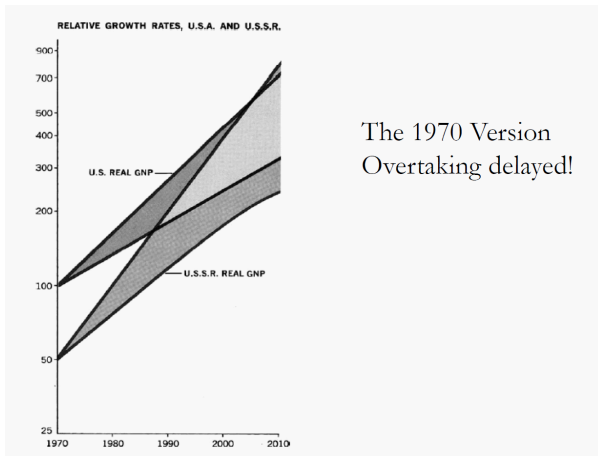
Paul Samuelson's forecast for U.S. and USSR relative economic growth in the 1961 edition of his textbook.

The Soviet Miracle in Later Editions of Samuelson's Textbook



The 1967 Version

The Soviet Miracle in Yet Later Editions of Samuelson's Textbook



What Happened to the Soviet Miracle?

- Lack of incentives —reflecting lack of economic, political and social freedom — meant that the Soviet Union could not go beyond collecting the low hanging fruit of reallocation and basic catch-up growth.
- When it was time for innovation, the Soviet economy stagnated and then collapsed.
- No transition to sustained growth, technological change or innovation (except in the defense industry).

What Happened to the Soviet Miracle? (continued)

- Also no evidence that rapid growth automatically leads to better institutions— either economically or politically.
 - There are examples, such as South Korea and Taiwan, where an extended period of growth under extractive institutions led to significant improvements in institutions, but there is no necessity for this to happen. In fact, no such general pattern in the data.



Some Institutional Hypotheses on China

- 1 Chinese poverty had historical/institutional causes.
- 2 “Rebirth” in China was an essentially political event, resulting from a power struggle within the Communist Party.
- 3 Economic liberalization was partly imposed on China.
- 4 Chinese economic growth has been a form of “growth under extractive institutions,” largely due to catch up during a particularly propitious time due to technological and geopolitical forces.
- 5 Chinese growth will not last without a fundamental political transformation.

Historical/Institutional Causes of Chinese Poverty

- China became backward starting from a position of strength. Why?
- Perhaps a combination of the following factors:
 - ① Central elite generally weak in its ability to control much of China. This can be seen from the generally very low tax rates in China (compared to extraction rates in feudal Europe or the Ottoman Empire) and a very frequent tax riots. E.g., Bin Wong *China Transformed: Historical Change and the Limits of European Experience*, Brandt, Ma and Rawski, 2012.
 - ② As a result, the Chinese elite was afraid of structural, technological and institutional change—fear of creative destruction. Especially under the the Ming and the Qing periods. Adm. Zheng He's overseas missions and all overseas trade banned after 1433 (until 1567). Other bans thereafter. For example, in 1661 the emperor Kangxi ordered that all people living along the (essentially entire) southern coast, once the most commercially active part of China, should move 17 miles inland to prevent overseas trade.
 - ③ Very different institutional reactions to foreign threats.

Historical/Institutional Causes of Chinese Poverty (continued)

- Contrast with Japan, which also faced foreign threat in the 19th century (Commodore Matthew Perry in 1853), starting with a largely extractive society.
- This led to the Meiji restoration of 1868 and particularly the spurt after World War II was the role model for many other countries.
- What created Japanese growth? Until 1868 country divided into territories each run by a feudal lord, no real central state, no national fiscal system (daimyo's collected land taxes in kind), country closed to the outside world—very similar to China.
- Meiji restoration essentially a revolution by the “Satcho Alliance” led by the Satsuma domain against the Tokogawa family who were the ruling Shoguns after 1600 (Emperor marginalized).
- Political revolution generated an institutional transition away from an essentially feudal society towards something much more modern, if not completely inclusive.

Historical/Institutional Causes (continued)

- Meiji's regime's slogan: 'rich country, strong military'. Constructed a more centralized state, encouraging industrialization.
- In the postwar period, this also involved a new constitution, fundamental democratization, mass land reform, and the breakup of the *Zeibatsu* the large business conglomerates.
- Similar threat against the Chinese, coming to a head with the opium wars, led to no effective reform movement and to total collapse—due to absence of any other powerful actor able to compete against the Emperor, even though the Emperor was weak both economically and politically.

Rebirth in China

- Little doubt that huge turnaround in Chinese growth comes from economic reforms relaxing central planning and allowing private or mixed enterprises to respond to market incentives.
- In terms of our simple matrix, this corresponds to a move from the lower right corner towards the lower left corner—even if Chinese economic institutions have not yet become fully inclusive nor is it clear that they are on their way to becoming so.

		Economic Institutions	
		Inclusive	Extractive
Political Institutions	Inclusive	↻	← ↓
	Extractive	↑ →	↻

- Why the change? Standard answers: Deng Xiaoping introduced farsighted reforms and economic liberalization; regional governments and bureaucrats started competing with each other in producing growth.

Rebirth in China (continued)

- Rebirth partly driven by power struggle within the Chinese leadership.
- Deng Xiaoping managed to outmaneuver the Gang of Four after the death of Mao.
 - But this wasn't because—or even majorly aided by the fact that—he wanted to reform economic institutions.
 - In fact, this was most probably not part of the design. Deng Xiaoping, though opposed to the harsher line of the Gang of Four, especially on the Cultural Revolution, was a leader of the “anti-rightist” of the campaigns of the 1950s.
 - Though he was sidelined and jailed in 1967, he was rehabilitated in 1974 and had become first vice-premier.
 - Until 1988, private firms were not recognized.
 - Only in 2001, “capitalists” admitted to the party.
 - Deng Xiaoping and many other post-78 leaders were generally hostile to markets and private enterprises, not willing to remove barriers to private enterprise entry or hugely distortionary taxes on private firms.

Rebirth in China (continued)

- Why did Deng Xiaoping lead economic reform in China?
- Impossible to know with any certainty, but a couple of factors:
 - In his personal battle with the Gang of Four, he probably needed to rally support using a different rhetoric.
 - As we'll discuss next, events on the ground may have forced his hand.
 - Experimentation: not as a sophisticated strategy, but things that were done or imposed early on "worked".
 - The preconditions for extractive growth were there:
 - 1 Political centralization: Brandt, Ma and Rawski, 2012, Ma, 2011; political centralization increasing in China over time.
 - 2 Direct benefits: the leadership's control became stronger once part of the population benefited from some limited growth.
 - 3 Limited fear of creative destruction: not much to be lost starting from the post-cultural revolution state of the economy and society.

Liberalization from Bottom-Up

- Economic growth in the early stages was driven by private initiative, not by the state.
- The state did not provide a modern or independent legal system, but private capitalists got around this by creating their own institutions, using reputational mechanisms to raise capital and enforce contracts—as late as the 2000s, China ranked at the very bottom of the rankings in terms of investor protection or ease of doing business.
- It was only in 1988 that the state recognized the legal existence of private firms with more than 7 workers though the official document still stated that they were supplements to the state owned economy.

Liberalization from Bottom-Up (continued)

- Widespread resistance to private firms from the party.
- Yasheng Huang *Capitalism with Chinese Characteristics*: the Party vs. small businesses.
- Yasheng Huang *Selling China: Foreign Direct Investment during the Reform Era*: missing domestic investment and access of foreign direct investment because of discouragement and insecurity of private Chinese investors.
- In the words of a Chinese economist:

“Big state companies can get involved in huge projects. But when private companies do so, especially in competition with the state, then trouble comes from every corner.”

Liberalization from Bottom-Up (continued)

- Most importantly, as argued by Victor Nee and Sonja Opper *Capitalism from Below*, early reforms were not instituted by the party or outcomes of experimentation, but the party catching up with what's been going on on the ground given the vacuum and crisis wrought by the Cultural Revolution.
- Before Deng Xiaoping's reforms partly because of economic hardships and partly because of the loss of control of the state in many regions in the aftermath of the cultural revolution, privately-led experiments with production for the market and ending collective incentives had started. For example, in Anhui province, peasant households had already dissolved communes and collectives before any reforms, and had started that land-lease system.
- Such developments forced the hand of Deng Xiaoping and Communist Party elites to start a slight loosening of central planning and collectivization.

Liberalization from Bottom-Up (continued)

- Similarly, in financial markets, Nee and Opper argue central government was forced to open the national stock markets to regain state control over the blossoming private financial activities.
- Growth of private enterprise in the urban sector again leads Communist Party's moves to recognize private firms.

Catch-up Growth

- Growth based on reallocation, technology transfer, offshoring of relatively simple parts of the production chain (e.g., assembly) and export.
- Reallocation-based growth in China:
 - Hsieh and Klenow, *QJE* 2009, major reallocation in Chinese industry that has declined over time.
 - Song, Storesletten and Zilibotti, *AER* 2010, growth driven by reallocation from inefficient state firms to entrepreneurial firms in the presence of credit market frictions.

Catch-up Growth (continued)

- Transfer of technology and offshoring perhaps more powerful today in the past:
 - Before the 1990s, catch-up growth would have to take the form of a country performing all the tasks necessary for production in a particular sector, and then supplying its own home market for the most part.
 - This required a range of social changes, including growth of internal demand and development of a range of competences (e.g., Germany and Russia in the late 19th century).
 - Now this is feasible without any of this, because a country can perform just a narrow set of facts and export all its production—much more favorable to extractive catch-up growth without true institutional change.
- But still there are hard limits:
 - Creative innovations still required for the next stage.
 - Offshoring and technologies directed to this activity will slow down as Chinese wages increase (Acemoglu, Gancia and Zilibotti, 2012).

The Future of Chinese Growth

- Of course, we don't know.
- But the institutional framework suggests that even with the new world order that facilitates technology transfer and catch-up growth, catch-up growth cannot last, and without a fundamental institutional transformation, it will not lead to inclusive growth.
- Will gradual or radical institutional change take place in China?
- This depends on our assessment of how China achieve this growth so far, whether it will continue to undertake economic reforms to increase the inclusivity of economic institutions (that “economic liberty”) and most importantly, how its politics will work out.

The Future of Chinese Growth (continued)

- Put differently, according to this perspective, the future of Chinese growth turns on where China is in this matrix and whether it will move:

		Economic Institutions	
		Inclusive	Extractive
Political Institutions	Inclusive	↻	← ↓
	Extractive	↑ →	↻

Conclusion

- Much to be learned about China and from China.
- But Chinese economic growth also has to be put in the context of a broader institutional and political study of economic growth.

THANK YOU