

COMPLEXITY & DEVELOPMENT 2.0: ENABLING ADAPTATION **IS** THE PROBLEM

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Solutions When *the* Solution is the Problem: Arraying the Disarray in Development

Lant Pritchett Michael Woolcock

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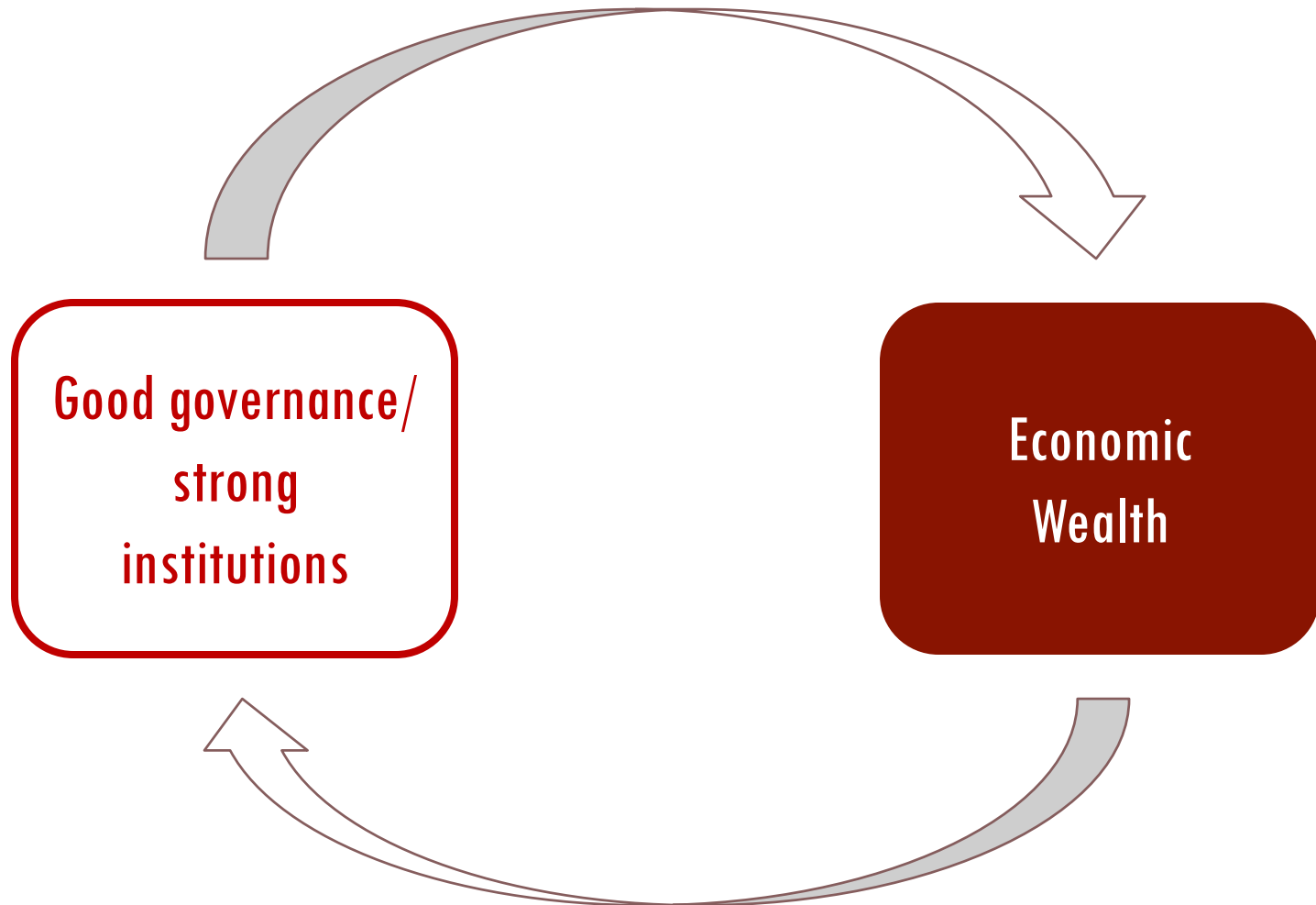
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Abstract

An analytic framework for tracing three waves of efforts to provide key public services in developing countries is provided. Persistent (though not universal) failure has been the product of (a) the imperatives of large bureaucracies to discount decisions that are *inherently* both discretionary and transaction-intensive (and thus less able to be codified

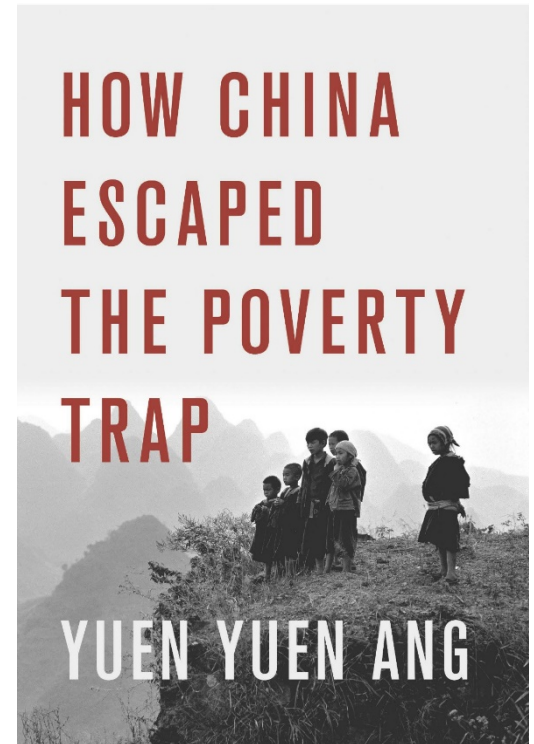


CHICKEN-AND-EGG PROBLEM OF DEVELOPMENT



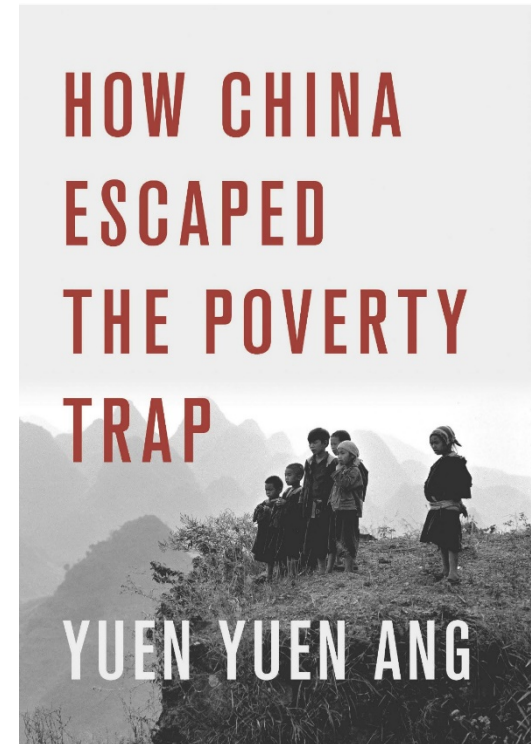
MY ARGUMENT

- 1) First step of development: harness “weak/wrong/bad” institutions to build markets
- 2) Create conducive conditions for adaptation: “directed improvisation”



TODAY'S FOCUS

- 1) First step of development: harness “weak/wrong/bad” institutions to build markets
- 2) Create conducive conditions for adaptation: “directed improvisation” (see circulated Chapter 2)



Complexity

The new rage in
development





Seven policy implications, including:

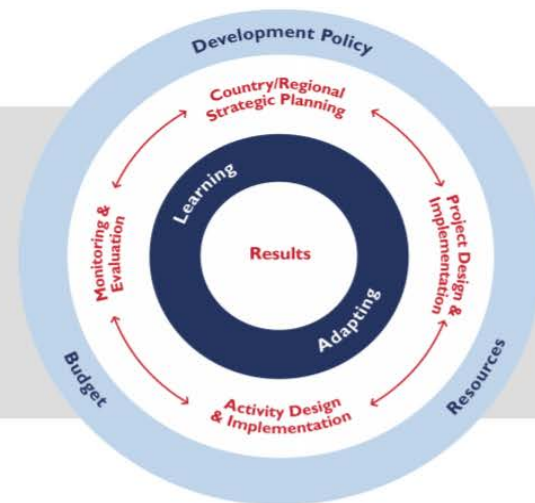
- Resist fatalism
- Promote innovation
- Embrace experimentation



PROGRAM CYCLE GUIDANCE

Discussion Note COMPLEXITY-AWARE MONITORING

MONITORING & EVALUATION SERIES



1

EXISTING APPROACH

Complexity & Development 1.0

- Points out that development problems are complex, with no cookie-cutter solutions
- Prescribes adaptation (innovation, experimentation, feedbacks, etc.) as **solution** to problems

2

MY APPROACH

Complexity & Development 2.0

- Points out that in the first place, enabling adaptation *is* the **problem**
- Explains sources of adaptive capacity: Why are some organizations adaptable but not others?



**What is
complexity?**



**Problems of
facilitating
adaptation**



**Application: Why is
China adaptable?**

OUTLINE



 | ABOUT US

ABOUT US

What is Complex Systems?

History

Mission

Activities

About Us

The Center for the Study of Complex Systems (CSCS) is a multi- and interdisciplinary program at the University of Michigan designed to encourage and facilitate **research** and education in the general area of nonlinear, dynamical and adaptive systems.

Its more than 50 participating **faculty** represent nearly every college of the University. Researchers at the Center recognize that many difference types of systems that include self regulation, feedback or adaptation in their dynamics possess similar underlying structure despite their apparent differences. Their goal is to exploit these deep structural similarities to transfer methods of analysis and understanding from one field to another.

Complex systems
Complex adaptive systems
Complexity

“nonlinear, dynamic, adaptive systems”



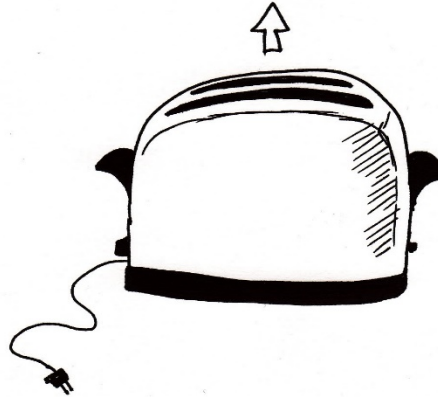
DEFINITION OF COMPLEX SYSTEMS

- “Complex systems comprise many moving parts that interact with one another and change together, triggering outcomes that cannot be precisely controlled or predicted.”

~ *How China Escaped the Poverty Trap*, pp. 10 ~



COMPLICATED



PROPERTIES

- Many separate parts that do not adapt to one another or environment

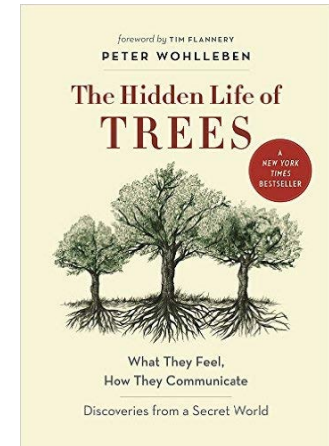
INDETERMINANCY

- Risk (probability)

PUBLIC POLICY

- Plan and control

COMPLEX



- Many moving parts that adapt to one another and environment

- Uncertainty (possibility)

- Influence



Influence

What can public
managers do to facilitate
adaptation in complex
environments?



**What is
complexity?**

**Problems of
facilitating
adaptation**

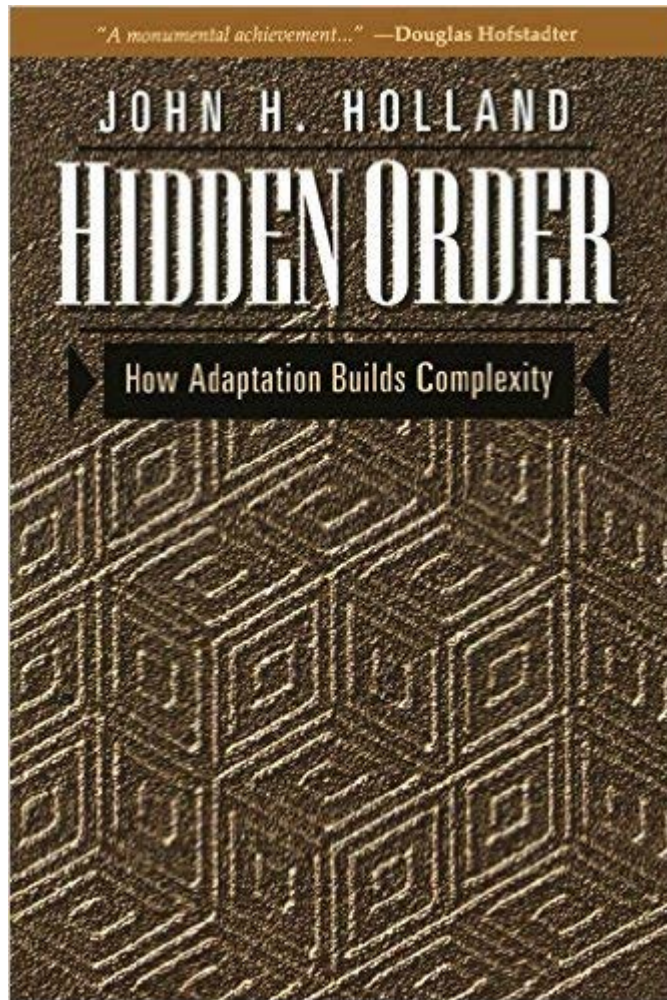
**Application: Why is
China adaptable?**

OUTLINE



Adaptation





Holland defines
adaptation as

“the process where an
organism fits itself to the
environment”

Two Mechanisms of Adaptation

VARIATION



Generate alternatives

SELECTION



Select from
available
alternatives and
form new
combinations



Two Problems of Adaptation

VARIATION



Balance variety and
uniformity: neither too
few nor too many
alternatives

SELECTION



Clearly define and
reward success
(very hard to
achieve in public
organizations)



**What is
complexity?**

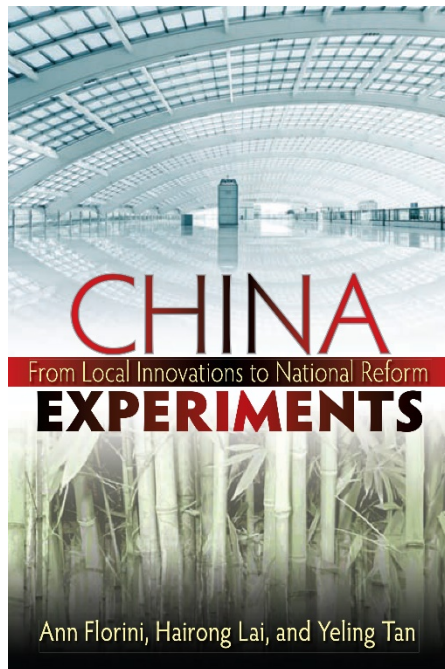
**Problems of
facilitating
adaptation**

**Application: Why is
China unusually
adaptable?**

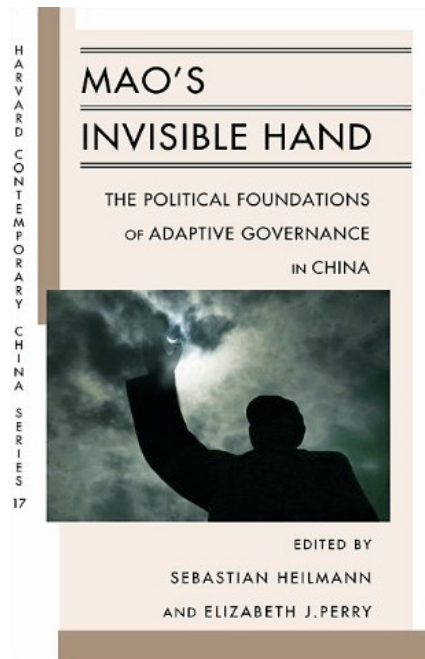
OUTLINE



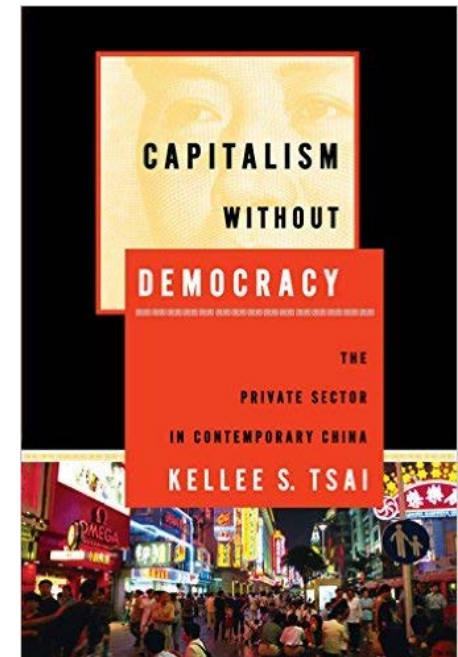
CHINA AS UNUSUALLY ADAPTIVE REGIME



Use of policy
experiments



“Adaptive
governance”

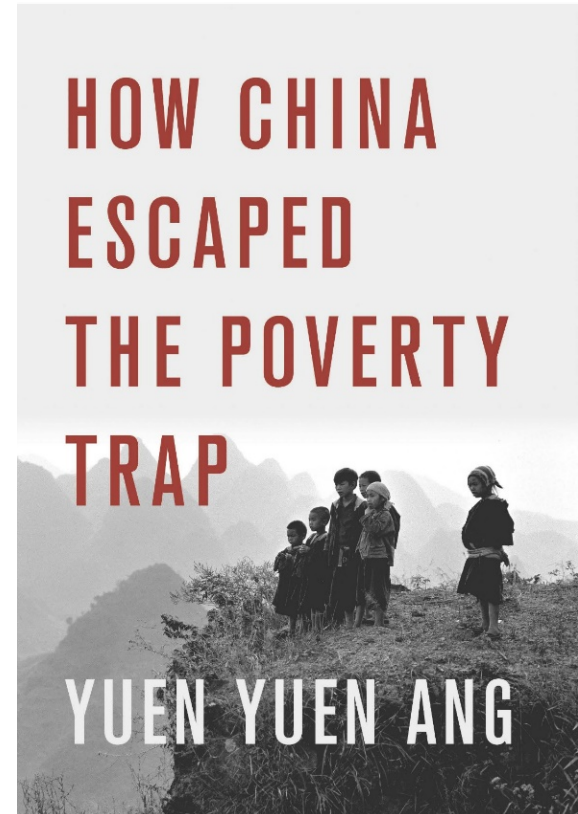


“Adaptive informal
institutions”



BUT WHAT EXPLAINS CHINA'S ABILITY TO ADAPT?

- How China dealt with problems of adaptation
- Entire package of strategies: “directed improvisation”
- Central government provided guidance and incentives for local governments to improvise solutions to local problems



VARIATION



CG wants LG to exercise flexibility when implementing central mandates. Too little flexibility leads to rigidity; too much flexibility leads to chaos.

How to balance variety and uniformity?

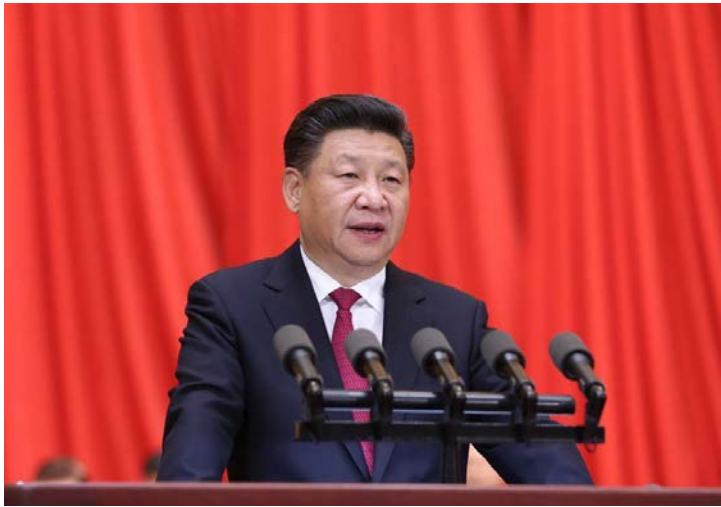


VARIATION



My answer (Chapter 3 of book): By issuing commands in varying degrees of clarity.

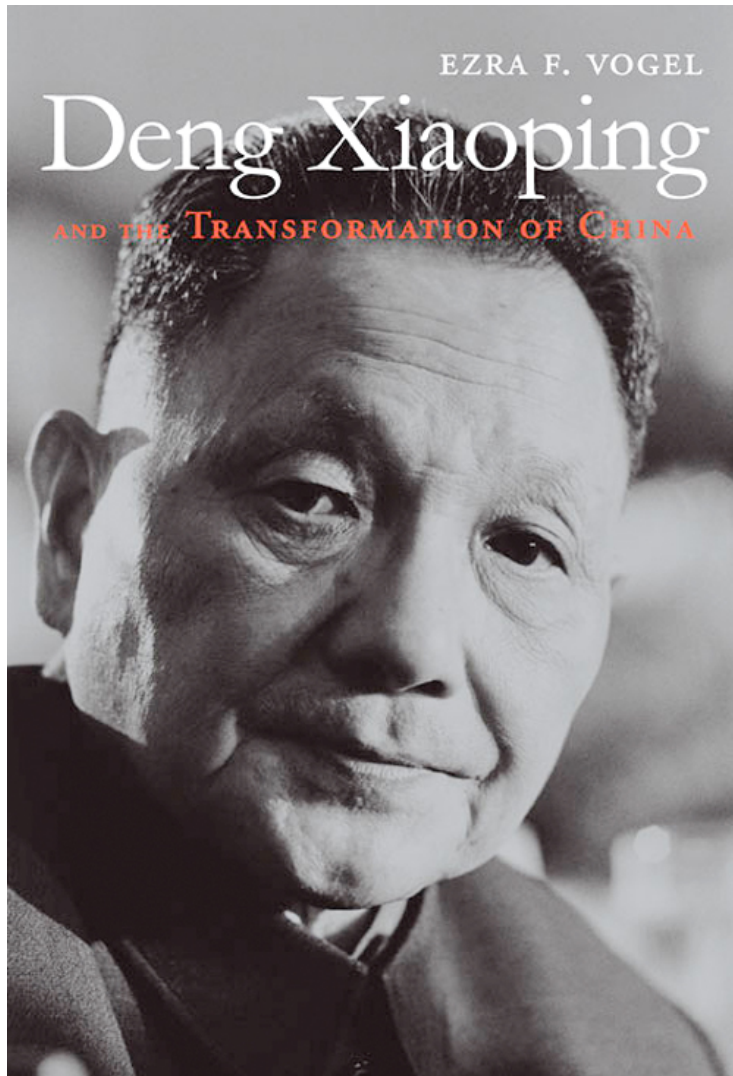




“National policies emphasize broad principles rather than specific instructions.”

(Rawski & Brandt, *China's Great Economic Transformation*)





“a grand but
marvelously vague
expression”

~ On Deng’s famous
slogan of “socialism with
Chinese characteristics” ~



**But are political commands in China
always broad and vague?**

In fact, they are not.



THREE VARIETIES OF COMMANDS



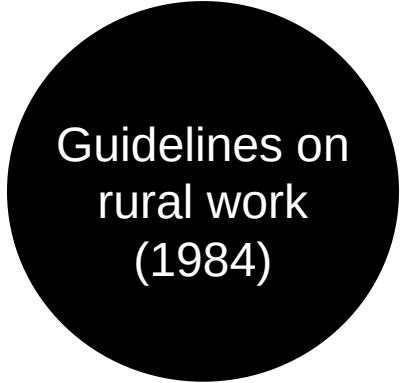
Example:
Land quotas

Clearly forbids
a particular
action



Guidelines on
commune &
brigade
enterprises
(1979)

Deliberately
unclear, permits
bounded
experimentation



Guidelines on
rural work
(1984)

Clearly
sanctions a
particular
action



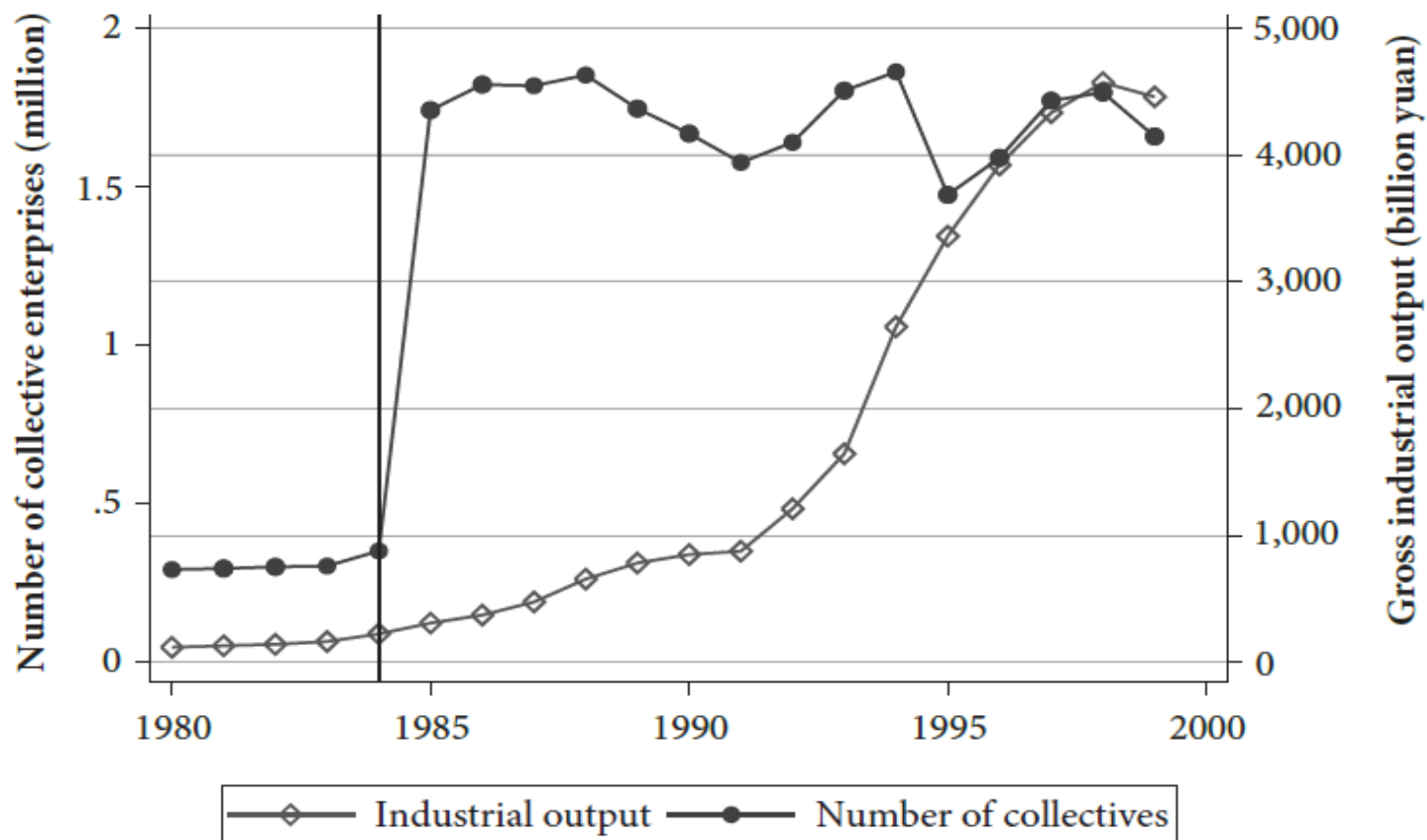


FIGURE 3.3 Change in industrial collective enterprises, 1980–2000. *China*



OUTLINE

**What is
complexity?**



**Problems of
adaptation**



**Application: Why is
China adaptable?**



Conclusions



CONCLUSIONS

- Adaptation is not the solution to complex problems of development—enabling adaptation is the problem.
- Discussed two problems of adaptation today: variation + selection
- Why is China unusually adaptable? Not culture or authoritarianism. But the way it dealt with problems of adaptation.
- One solution: Flexible system of commands; strategic use of ambiguity



APPLICATIONS IN INTERNATIONAL DEVELOPMENT

- “The second takeaway is that we need to think more carefully about **the source of adaptability**. What is the nature of the contestation process around the setting of the goals?... How do we stimulate a dynamic implementation process? How do we empower local actors to experiment and innovate?... This analytical lens has enormous potential for **thinking through the adaptive challenge**, whether at the national level, subnational level or sectoral level.”

~ Review of *How China Escaped the Poverty Trap*, by Yongmei Zhou (World Bank) ~



Thank You!

**Welcome your questions &
reactions at**

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