

China:

- quick overview – reverberations of structures and issues throughout the term

historical legacy =

agri base

some industry in Manchuria (see below), Shanghai

commercial infrastructure (not much survived so no mention)

- but: civil war for 100+ years

Qīng (清) Dynasty non-Chinese.

low taxes to help gain support of local elites ←→ government perennially starved for resources

political economy did not emphasize public goods: no monetary system, poor upkeep irrigation

⇒ almost continuous war 1850-1950 [and major rebellions from 1780s, partly because the military was also starved for resources ←→ forestall coup d'etat]

- big push industrialization: common ideology around the world in 1950s

- labor abundant, capital scarce economies → can grow industry quickly **if** can marshal resources

- reinforced by political imperative in China (and many ex-colonies around the world) to bolster national defense.

= so ... mobilize labor directly (or indirectly, by building up an urban labor force supported by farms)

- communes: about 20,000 across China, so a very large

- GLF: Great Leap Forward 大跃进 [Dàyuèjìn 大躍進]

if can boost agricultural output, **then** "surplus workers" are a free resource

collectivization movement to reap economies of scale

unfortunately, there are **no economies of scale in agriculture**, so reaped 30 million deaths

lots of political aspects: local cadre exaggerating output to get ahead, leading to more workers transferred from the field to factory and infrastructure.

bad weather, too

led to short-term purge of Mao Zedong 毛泽东 with Deng Xiaoping prominent

Note: "Z" is a dz sound in Chinese; C is "ts"

- Cultural Revolution 文革 or 文化大革命 [wéngé or wénhuà dàgémìng] by which Mao regained power. Dèng Xiǎopíng [邓小平] purged to a pig farm, not executed. Mao was not Stalin...

Note: "X" and "Sh" are both the English "sh" sound.

- example of chaos: 3rd Front construction of factories in places with natural defenses against a Soviet invasion ... which therefore had naturally horrid logistics and efficiency.

- Mao died in 1976, after a couple years of maneuvering the old survivors of the 1950 leadership gained power. Deng Xiaoping first among equals.

= legacies

- enough growth in industry to supply more and more inputs to agriculture by mid-1970s: chemical fertilizers, cement, irrigation pumps, even tractors (in the north)

- basic education: the communes controlled local resources, and funded elementary schools for all, with some higher education.
- basic public health: treating fevers, minor infections, broken bones and sanitation / water
- administrative infrastructure that reached into every village [and urban neighborhood]

= planning

- look at needed inputs → for steel, (coking) coal, iron ore, limestone, scrap steel, workers (thus food, textiles), engineers [college and tech school grads were assigned jobs]
- take a new goal, and figure out how much more you need of each. [technical: locally linear]
- check for consistency since also trying to increase fertilizer (energy), machinery (steel), etc

can you produce enough steel and coal to make more fertilizer and machinery? if not, cut back on something here, add a bit there.

in modern US business MRP II systems (materials resource planning) that are part of the ERP (Enterprise resource planning) component of SAP and Oracle systems.

[for math types, this is a linear programming problem, essentially matrix inversion. Soviet mathematicians developed efficient algorithms. if you aren't a math type, well, it's a conceptually easy problem which can be solved in practice]

= upside of planning: it beats the alternative of not planning

= downside (as you'll learn in your careers): gaming the system. never admit to having a surplus, always ask for more than you need, and building up inventories of everything.

- provides (necessary) insurance against mistakes in the plan, and interruptions.

- since everyone games the system, and the planners know it, planning well takes experience, stability and commonsense goals. chaos under Mao was not conducive to good planning

= plans can't handle qualitative change: the Chinese were still making a 1930s Soviet design in 1988

- diesel-electric generates more power

→ need more weight per wheel so they don't just spin

→ need stronger rails to support a heavier locomotive

→ need a better roadbed to support all the weight

→ need the Machinery Ministry to supply the diesel engine, the Transportation Ministry to handle the roadbed, the Metals Ministry to turn out better steel rails.

⇒ but planning is top-down (with bottom-up feedback). it's not horizontal. change takes real effort from senior political leadership, so it occurs very slowly

= no monetary system

- **iron rice bowl** [铁饭碗 tiěfànwǎn] where work units and communes were self-contained

→ housing, clothing, food, education, hospitals, even marriage partners handled by collective

- **money had no role** even though all units kept books in monetary units.

- prices under the plan were those of the 1950s, so an enterprise could be efficient and making needed goods but run a deficit. or a surplus.

those showed up as accounting entries of loans and savings in a "bank" but were irrelevant to decision-making. an enterprise couldn't borrow money to expand or use savings to boost worker consumption.

= how reform? our next topic. but under the plan

- money had little role. there were no restaurants in Chinese cities. (but a company dining facility might employ an excellent chef to cook meals for senior management)
- how reform? **Chapter 5 for Tuesday.** but think: in 1980 China had no banks, money had little use, etc. how do you build a financial system from scratch? well, not easily ⇒ one of the topics to which we return at the end of the term