

OLD CHINA

MA, "SERICULTURE" (2004)

BACKGROUND

JAPAN VS. CHINA

EARLY 19TH C. JAPAN: NO CONTACT WITH
REST OF WORLD (NO TRADE, TECHNOLOGY TRANSFER...)
TOTALITARIAN GOVT. (TOKUGAWA SHOGUNATE)
1853: AMERICAN ADMIRAL PERRY "BLACK SHIPS"

"MEIJI REFORM":

ADOPT MANY EURO/AMERICAN INSTNS.
(E.G. COMMERCIAL LAW, PARLIAMENT, NOBILITY)
GOVT. CREATES UNIVERSITIES, RESEARCH
INSTITUTES, RAILROADS...

BY 1900, MODERN INDUSTRY, RISING Y/L

AGRICULTURAL TECHNOLOGY: CREATION & DIFFUSION

IN LATE 19TH C. U.S. & EUROPE,
LARGELY BY GOVT.-FUNDED INSTNS
UNLIKE MFG., TRADE

WHY?

- SMALL FIRMS (FARMS), ANY ONE FIRM GETS
SMALL GAIN FROM INNOVATION WHICH HAS
BIG BENEFIT TO AG SECTOR

- MANY USEFUL INNOVATIONS NOT PATENTABLE

OLD CHINA

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MA, SERICULTURE (cont.)

ABOUT RAISING COCOONS (NOT MFG)
EXPORT RAW SILK TO EUROPE, U.S.

1850: JAPAN & CHINA SIMILAR

POST-1850: γ & PRODUCTIVITY \uparrow MUCH
FASTER IN JAPAN

NO DATA FOR $\gamma / K^\alpha L^{1-\alpha}$

SO MEASURE WITH $\frac{\$P_Y}{\alpha(\$P_K) + (1-\alpha)(\$P_L)}$

"COST-BASED TFP"

MA SAYS THIS IS BECAUSE CHINA'S INSTNS
ARE WORSE

JAPANESE GOVT. PROVIDES
"PHYSICAL & SOCIAL INFRASTRUCTURE"

CHINA ALLOWS SOCIAL GROUPS HURT
BY INNOVATION TO BLOCK INNOVATION
(RENTSEEKING)

OLD CHINA

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MA, SILK CULTURE (cont.)

JAPAN SENDS EXPERTS TO GET WESTERN TECHNOLOGY, SETS UP INSTITUTES TO DEVELOP NEW TECHNOLOGY, LOTS OF PUBLICATIONS, REPORTS EXPERIMENT STATIONS.

GROWTH IN DEMAND FOR COCOONS FROM NEW JAPANESE SILK-REELING FACTORIES, RAILROADS REDUCE TRANSPORT COST, NEW SALE/CONTRACT ARRANGEMENTS ELIMINATE "MIDDLEMEN" WHO BUY FROM FARMERS, SELL TO REELERS.

CHINA GUILDS OF MIDDLEMEN, TRADITIONAL-TECHNOLOGY REELERS & WEAVERS USE GOVT. TO BLOCK INNOVATION.

FN. 32: "MECHANIZED SILK-REELING FACTORIES... RIOTS FROM TRADITIONAL SILK WEAVERS... ORDERED TO CLOSE BY LOCAL MAGISTRATE"

OLD CHINA

GREIF & TABELLINI, "CULTURAL & INSTN'L BIFURCATION"

RECALL GREIF ON DOING BUSINESS
(CONTRACTS, AGENCY PROBLEMS) THROUGH

- "INFORMAL," I.E. NON-STATE, ENFORCEMENT &
"MORAL OBLIGATIONS," REPUTATIONS,
PUNISHMENT WITHIN GROUP,
INSIDERS VS. OUTSIDERS
E.G. MAGNARIBI TRADERS
"CLAN."

- "FORMAL" I.E. STATE-SUPPORTED RULES
THAT APPLY TO EVERYONE
MORAL OBLIGATIONS TO EVERYONE
"CITY"

CLAN SYSTEM HAS LOW FIXED COST BUT
CAN'T SCALE UP

CITY HAS HIGH FIXED COST BUT CAN GROW,
"EXPLOIT ECONOMIES OF SCALE"

SELF-REINFORCING SYSTEMS, "HYSTERESIS"

OLD CHINA

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GREIF & TABELLINI (cont.)

CHINA → CLAN ("GUANXI")

EUROPE → CITY (BUSINESS LAW, COURTS,
GENERALIZED TRUST)

WHY? "INITIAL CONDITIONS" 1000 AD

CHINA HAS MORE/STRONGER KINSHIP GROUPS

"DUE TO POLITICAL & RELIGIOUS PROCESSES"

ESP. CHRISTIANITY

— "GENERALIZED MORALITY"

— DISCOURAGED "PRACTICES THAT SUSTAIN
KINSHIP GROUPS" e.g. POLYGAMY, ADOPTION, ...

CHINESE STATE SUPPORTS, WORKS THROUGH
CLANS WHICH GIVE LOW-COST PUBLIC ORDER.