

Shock-Driven Growth in Korea

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Outline

- Reversals, rather than persistence
- Geopolitical shocks \Rightarrow institutional changes
- Channels of transmission
- Comparison with Taiwan

Korean Height, 1700-2010

18 & 19th C.

Colonial Era

South Korea

North Korea

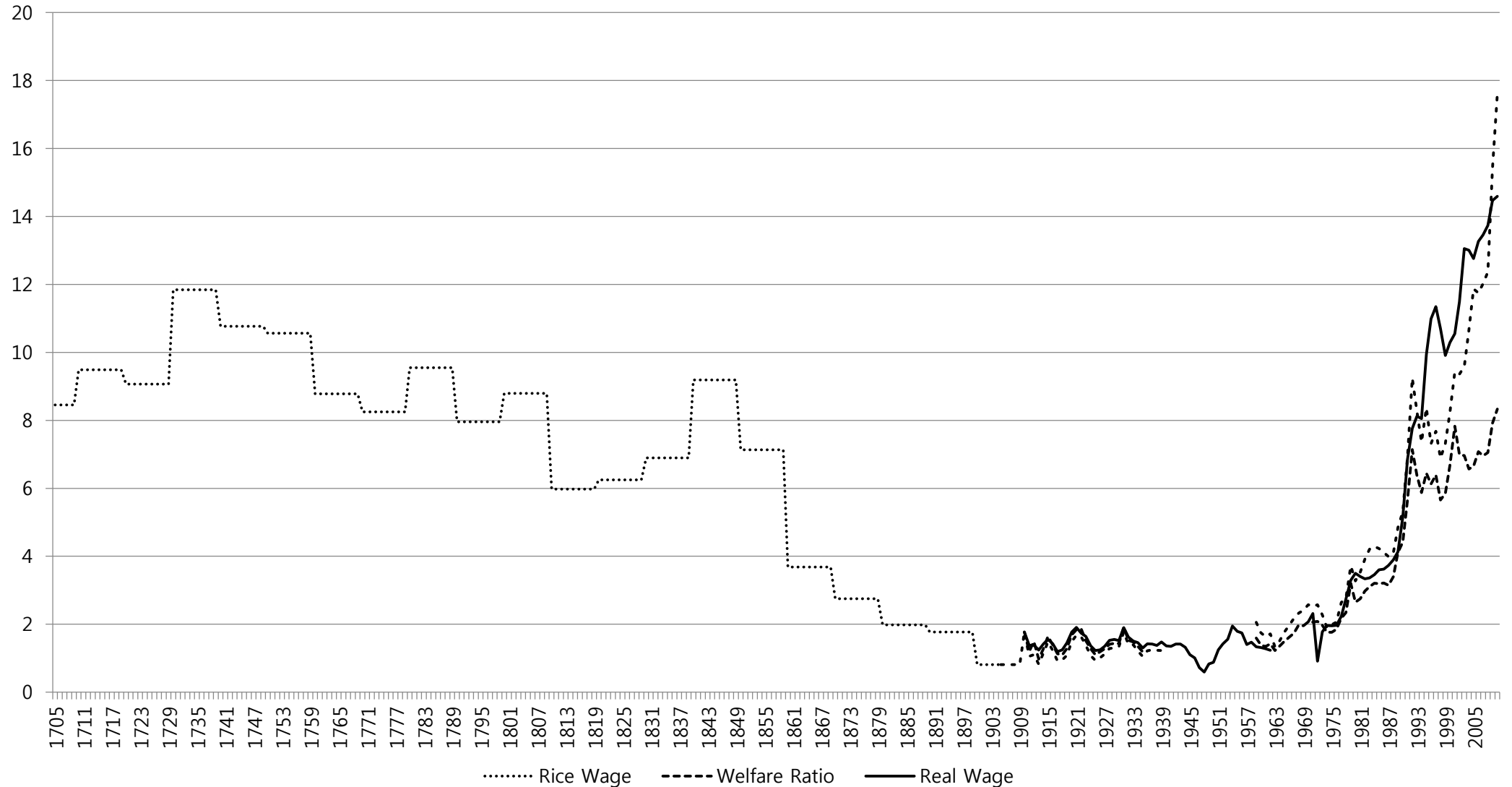
Contraction

+2cm

+14cm

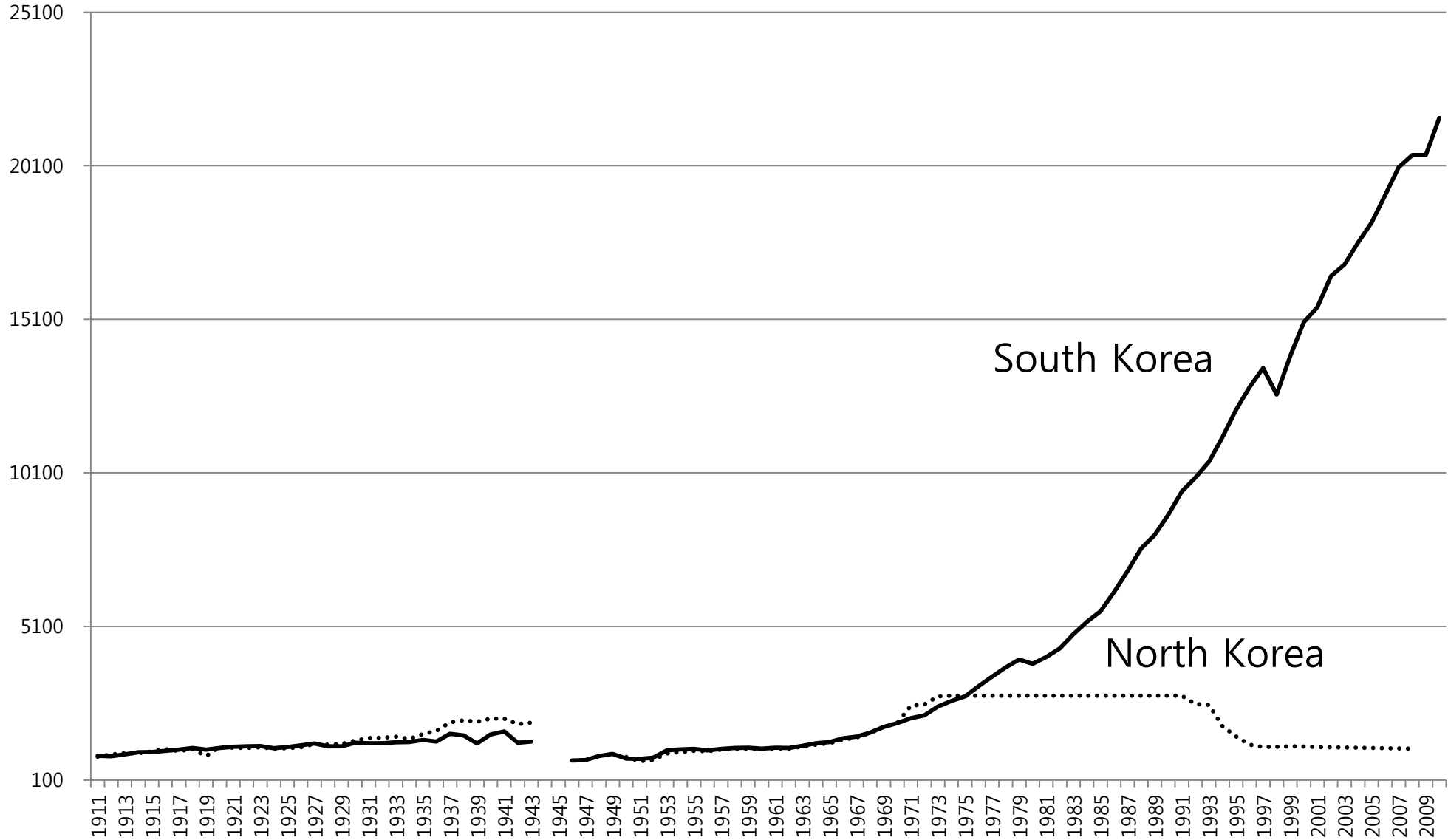
Contraction

Real Wages in Korea, 1700-2010



Source: Cha(2014)

Per Capita GDP



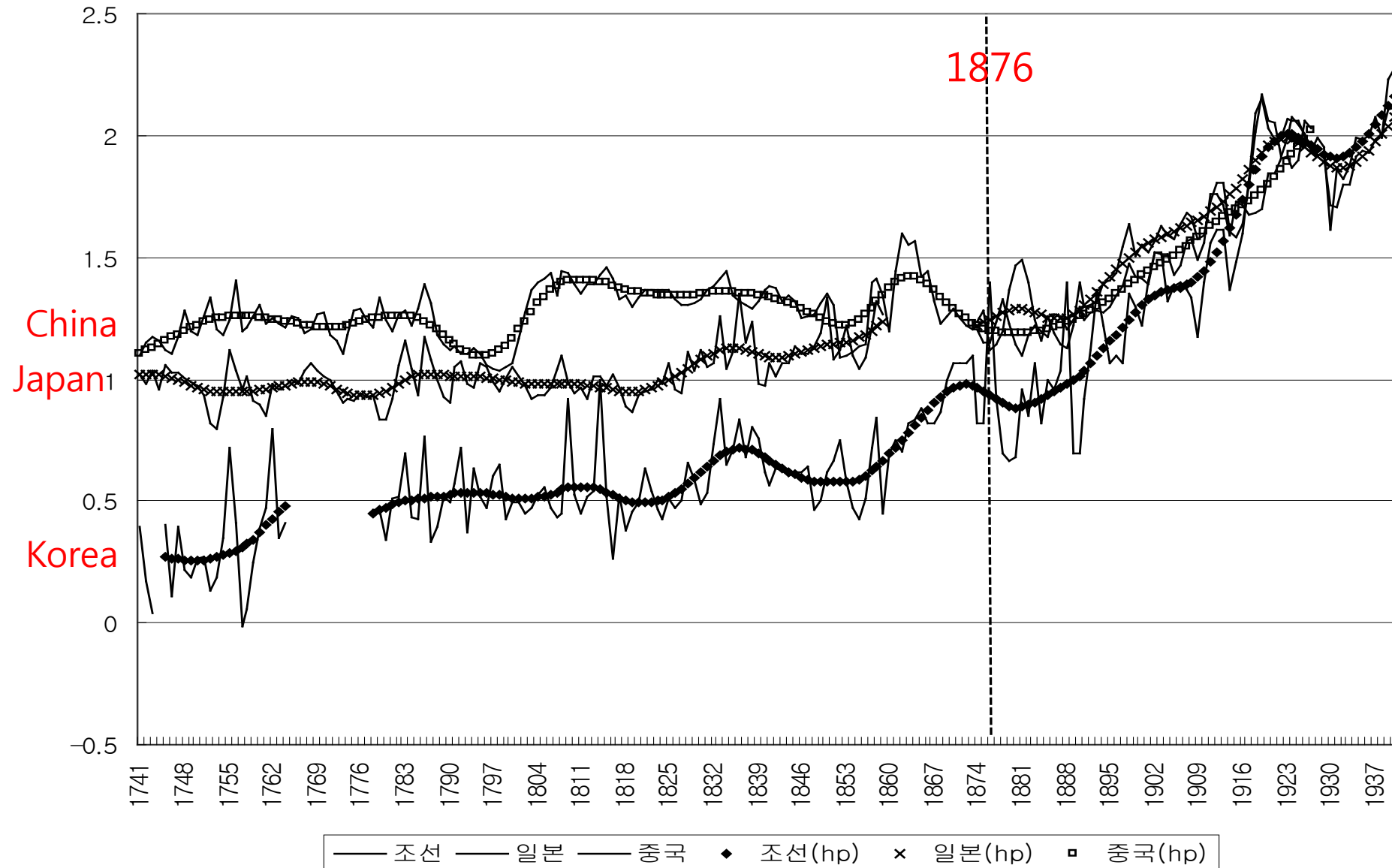
Three Structural Breaks

- From Malthusian decline to modern economic growth
- Post-1945 growth acceleration
- North Korea's return to growth disaster

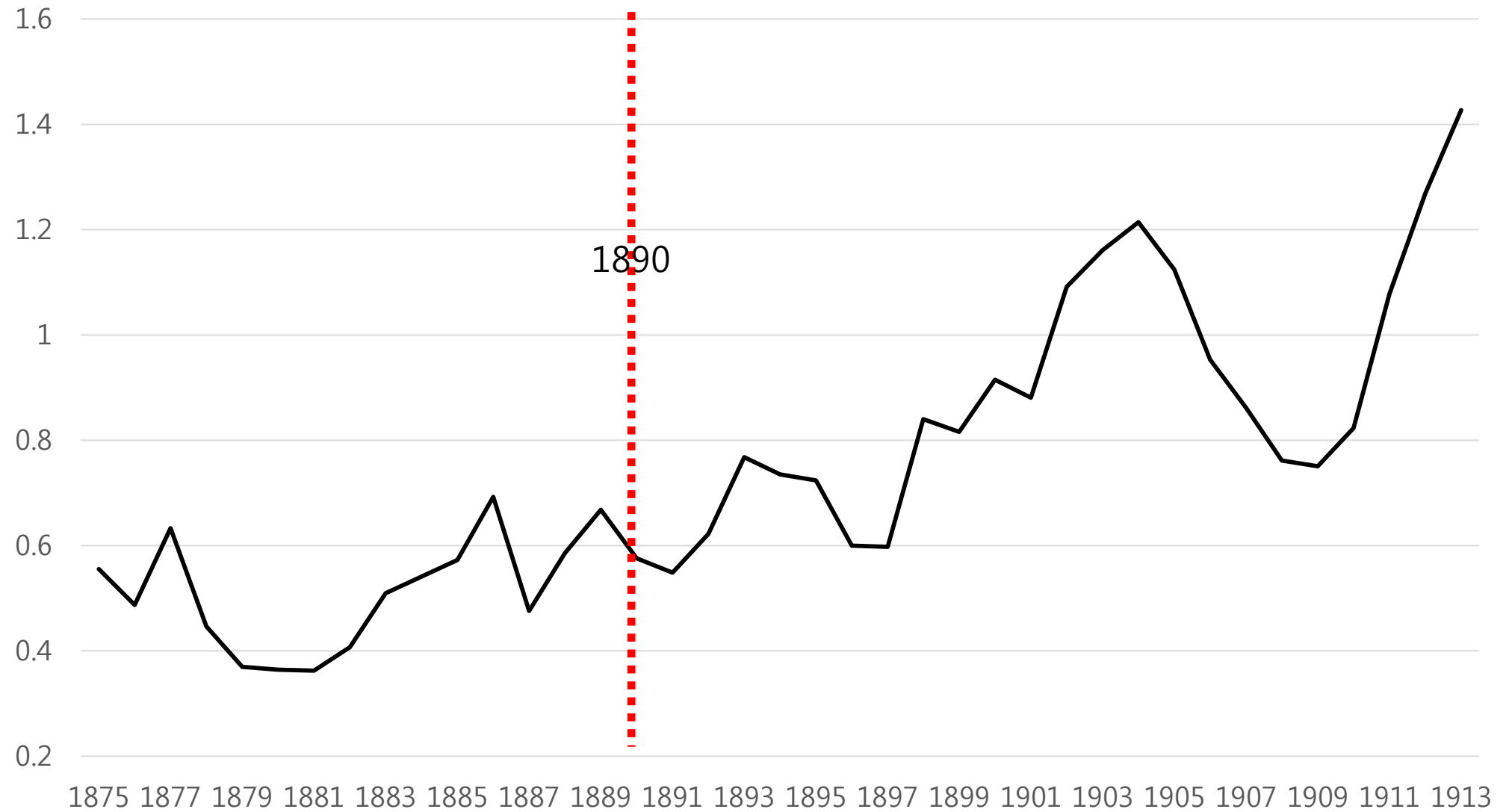
What Reversed the Dynastic Decline?

- Port opening in 1876 \Rightarrow $P_a/P \uparrow$
- Institutional modernization under Japanese rule

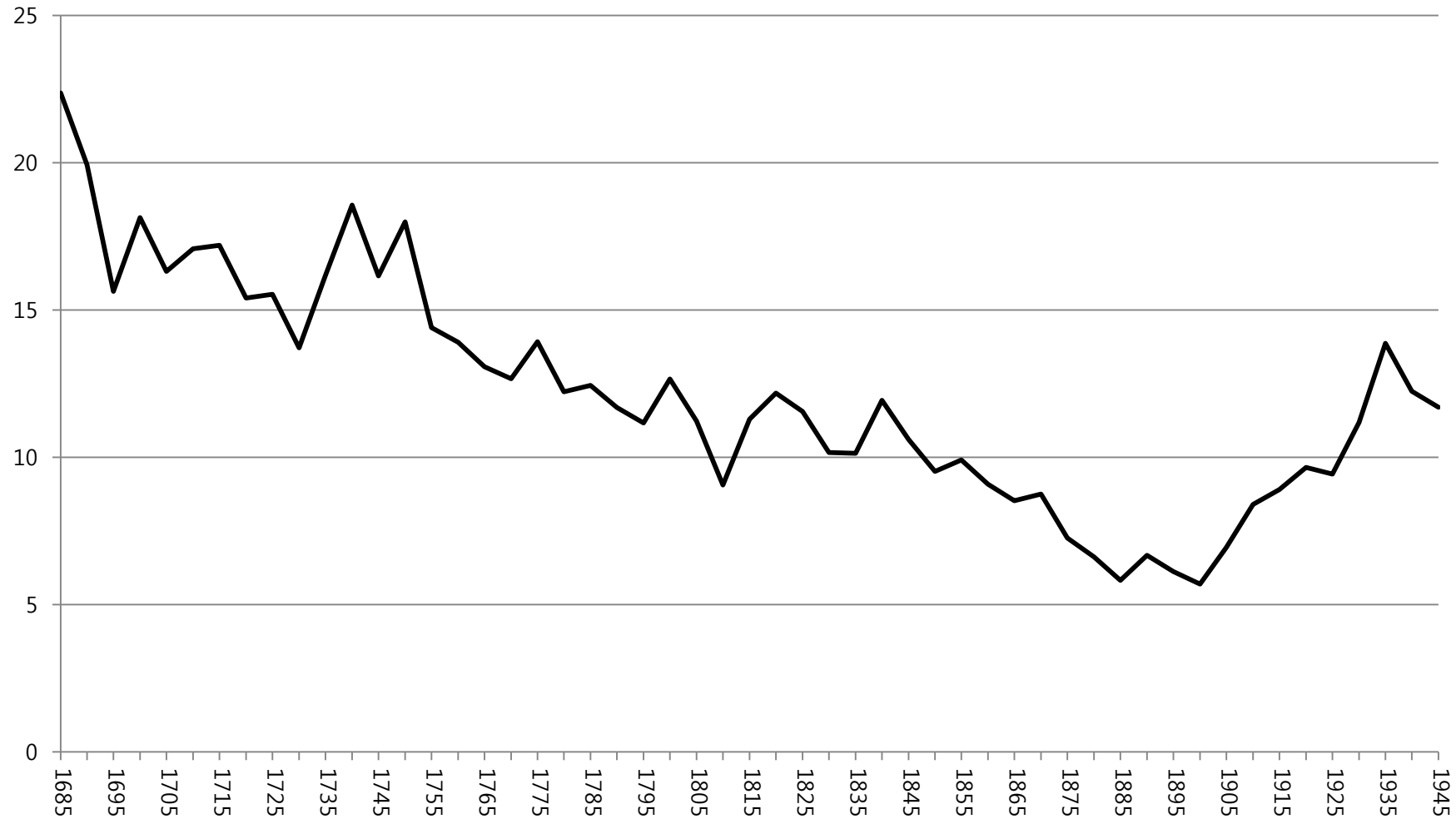
Rice Prices in Silver



Rice Price/Price Level



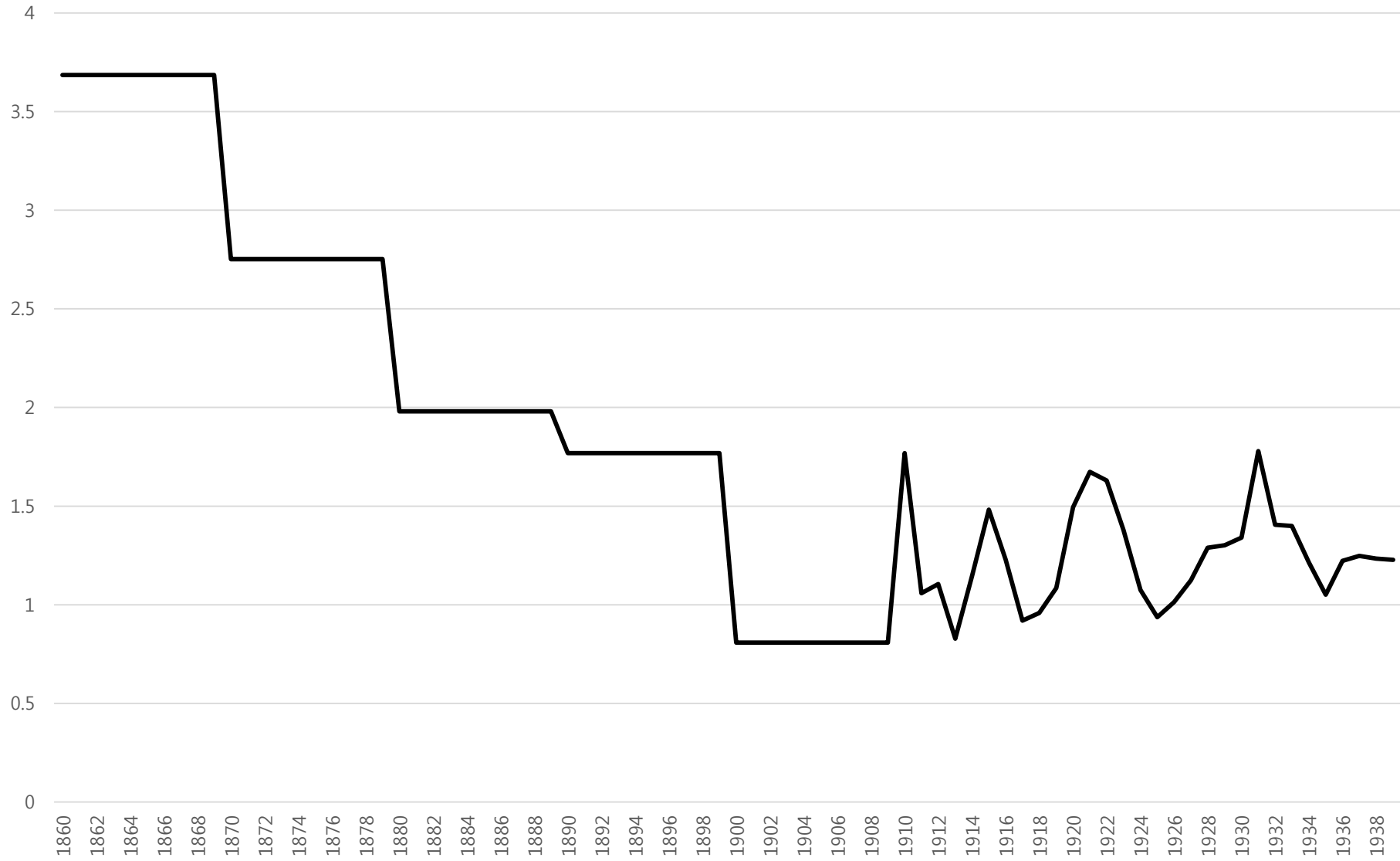
Land Rent per Area



Note: 斗(≡ 9 liters) per 斗落 (≡ 825m²)

Source: Rhee(2012: 417)

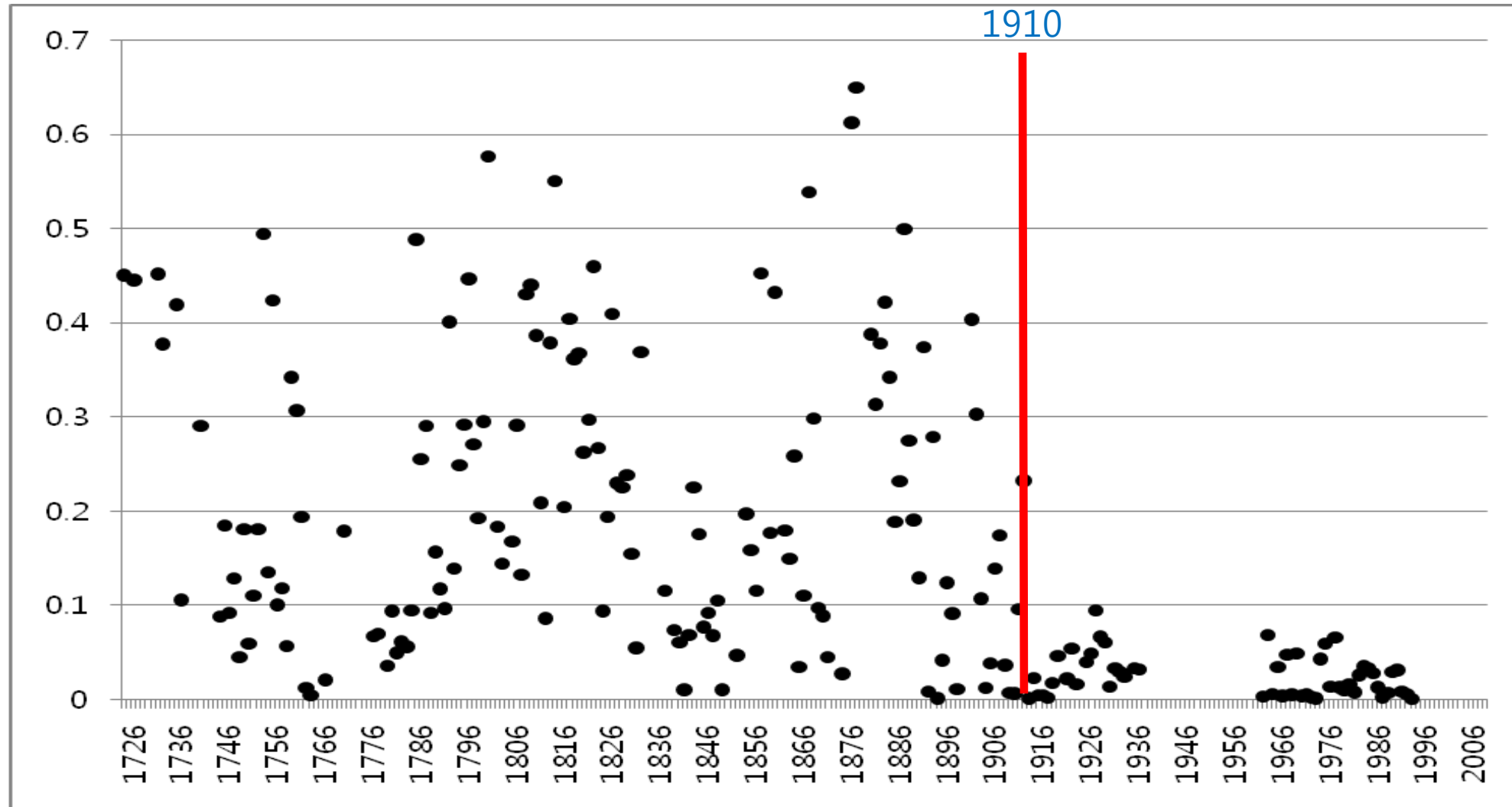
Rice Wage, 1860-1938



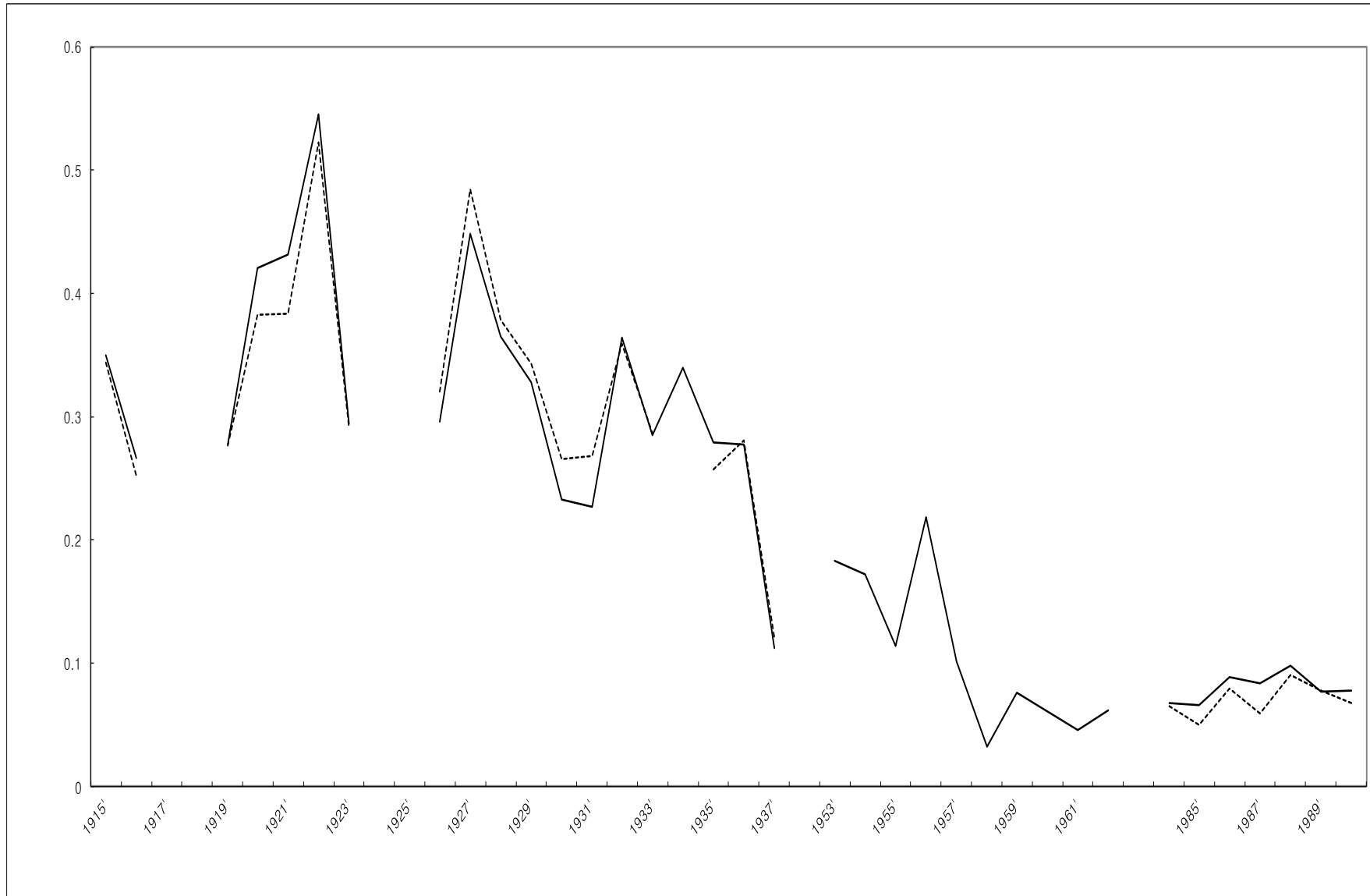
Market-Promoting Reforms

- De-facto colonial rule from 1905
- Monetary stabilization
- Fiscal reform \Rightarrow state capacity \Rightarrow law and order
- Legalized land property rights
- Investment in public utilities

Rice Price Coefficient of Variation



Labor Market Integration



Note: solid – nominal wages; dotted – real wages

Why Did Growth Accelerate After 1945?

- Collapse of traditional land tenancy
- Land reform legislation: 1948
- Repatriation of Japanese landlords
- North Korean land reform

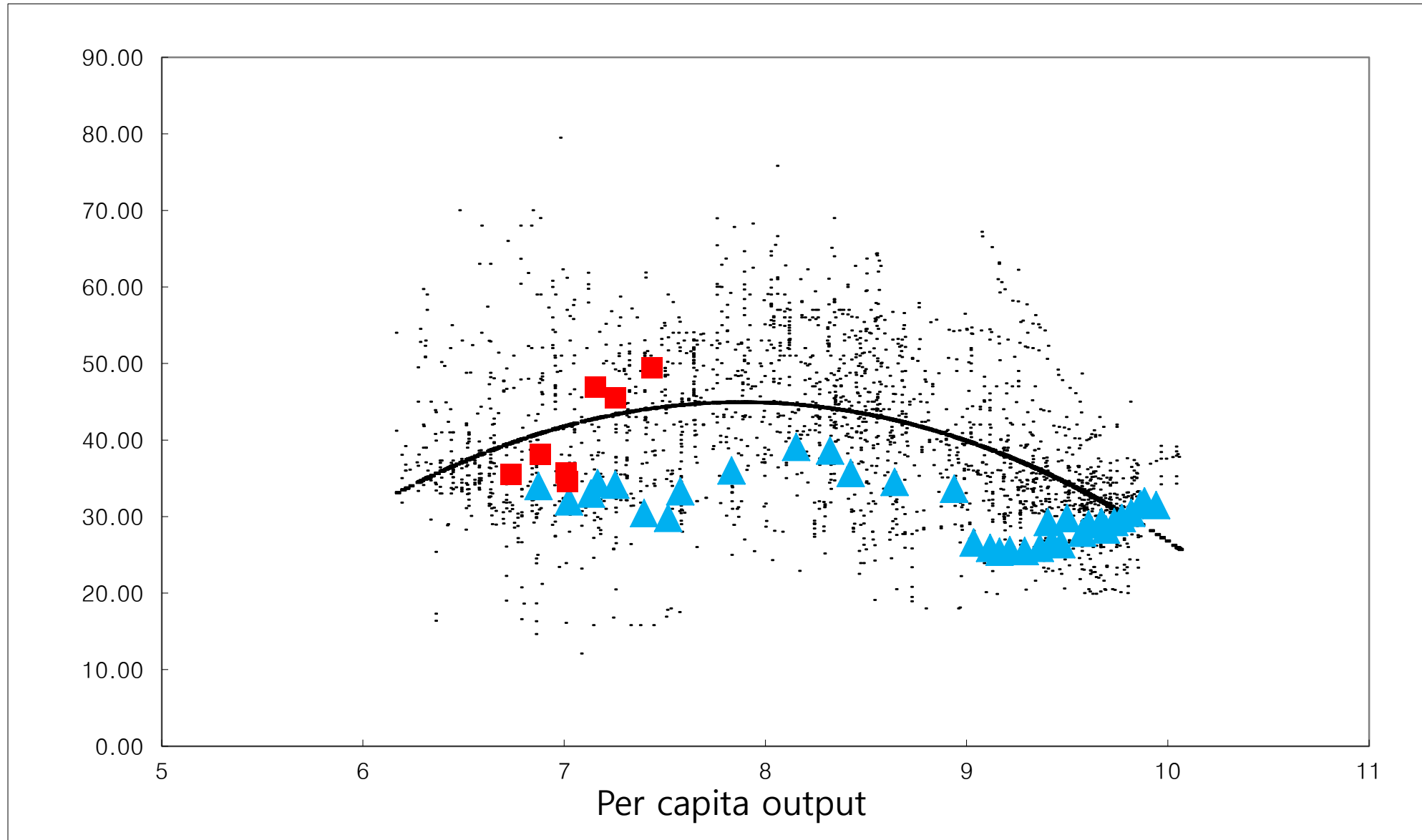
Consequences

- Human capital accumulation
- Fertility decline
- Dependency ratio $\downarrow \Rightarrow$ savings ratio \uparrow

Consequences of Land Redistribution

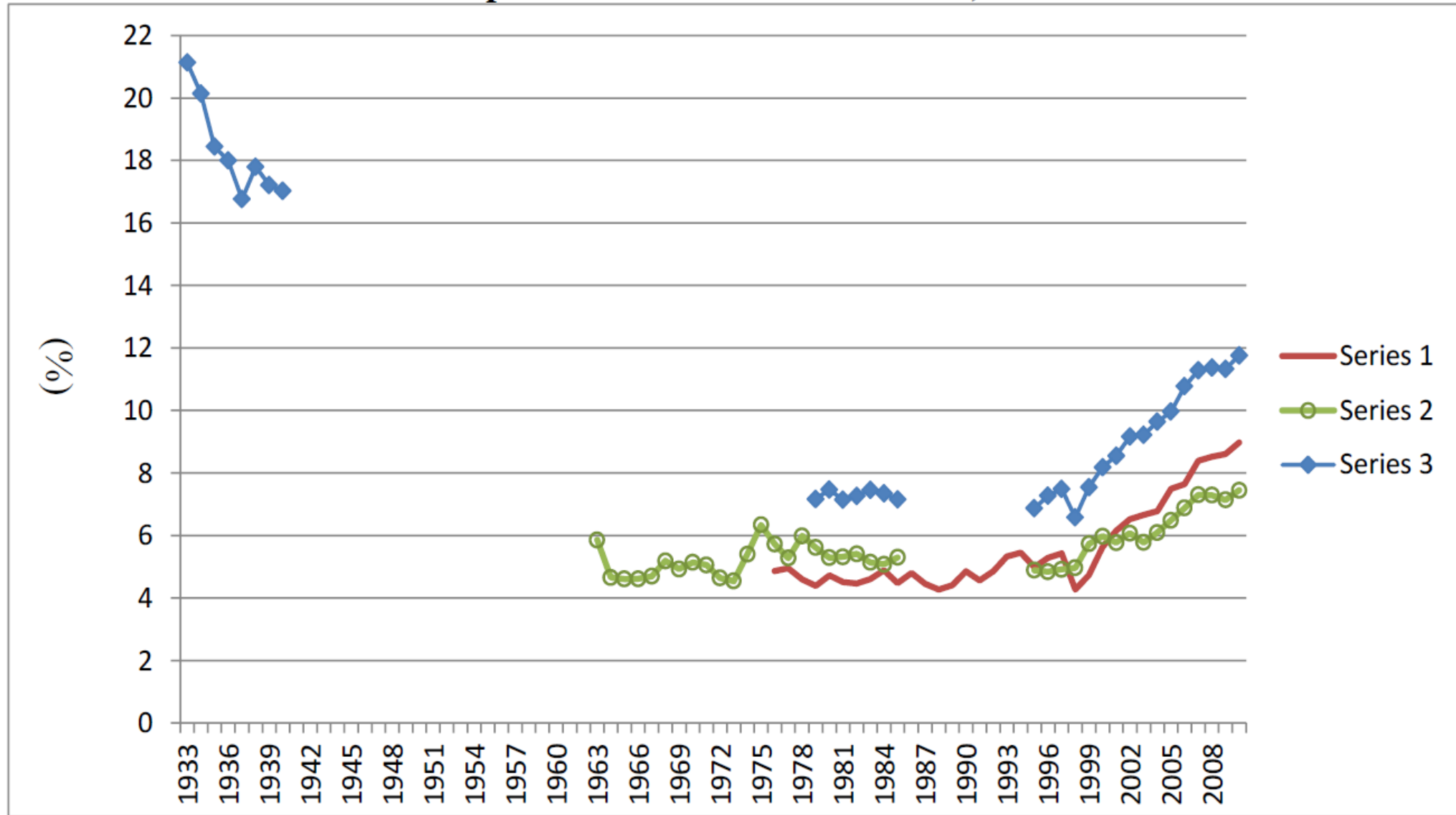
1. Dramatic decline in income and wealth inequality
2. Leap forward in primary schooling
3. Sharp rise in public spending for education

Gini Coefficients



Notes: squares – colonial Korea; triangles – South Korea

FIG. 1. Top 1% Income Shares in Korea, 1933-2010

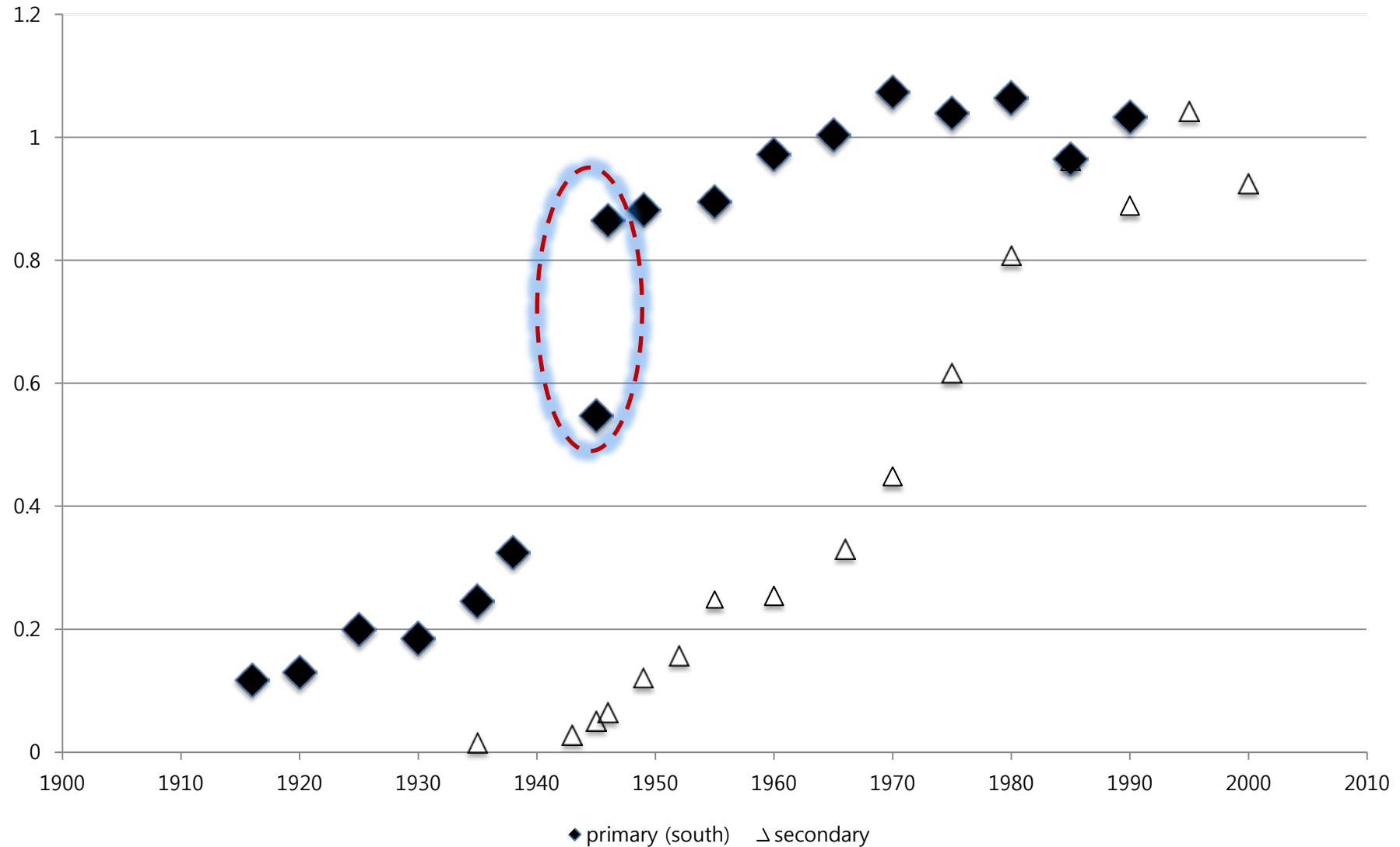


Source: Kim and Kim(2015)

Consequences of Land Redistribution

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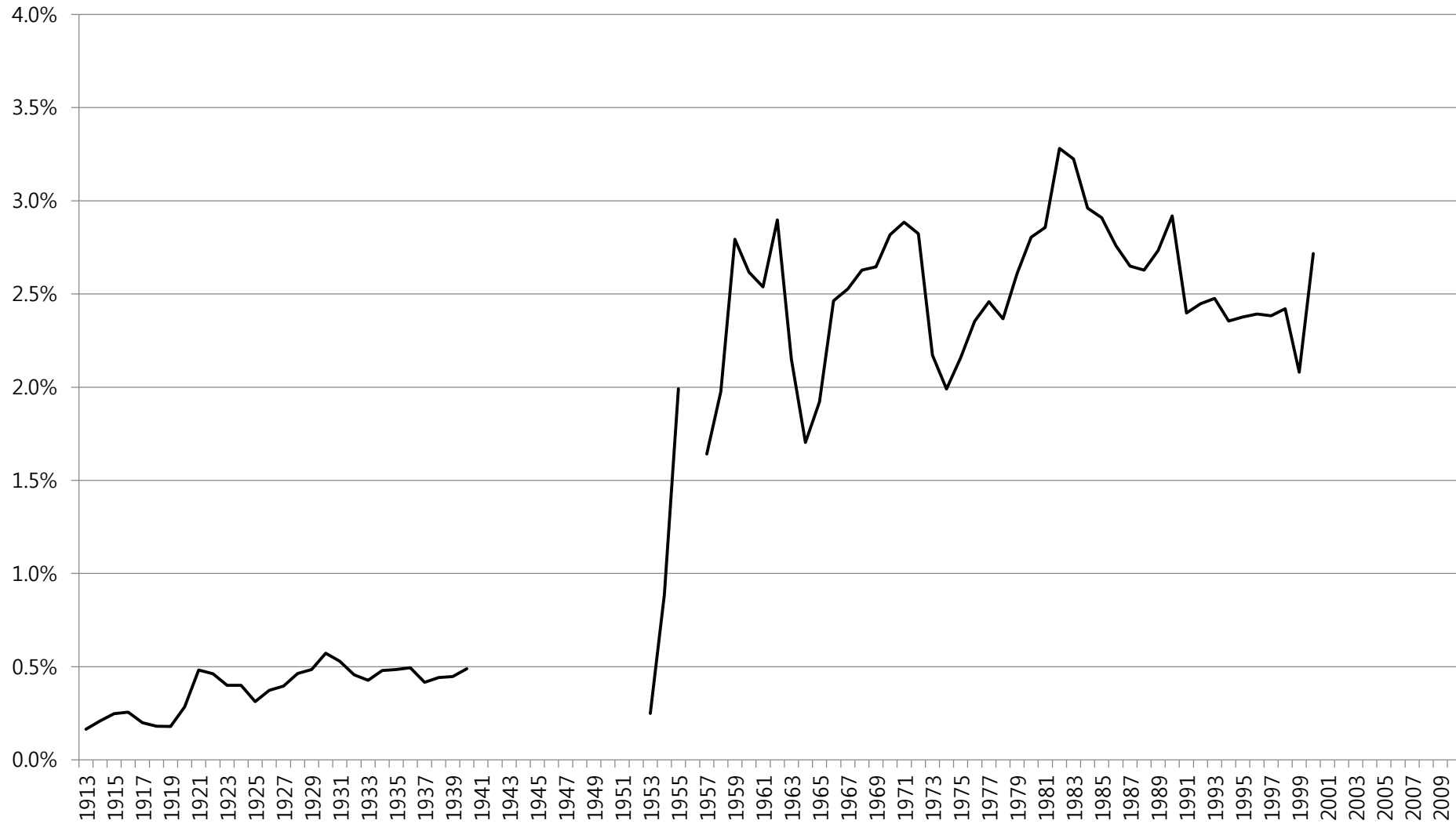
School Enrollment Ratios



Consequences of Land Redistribution

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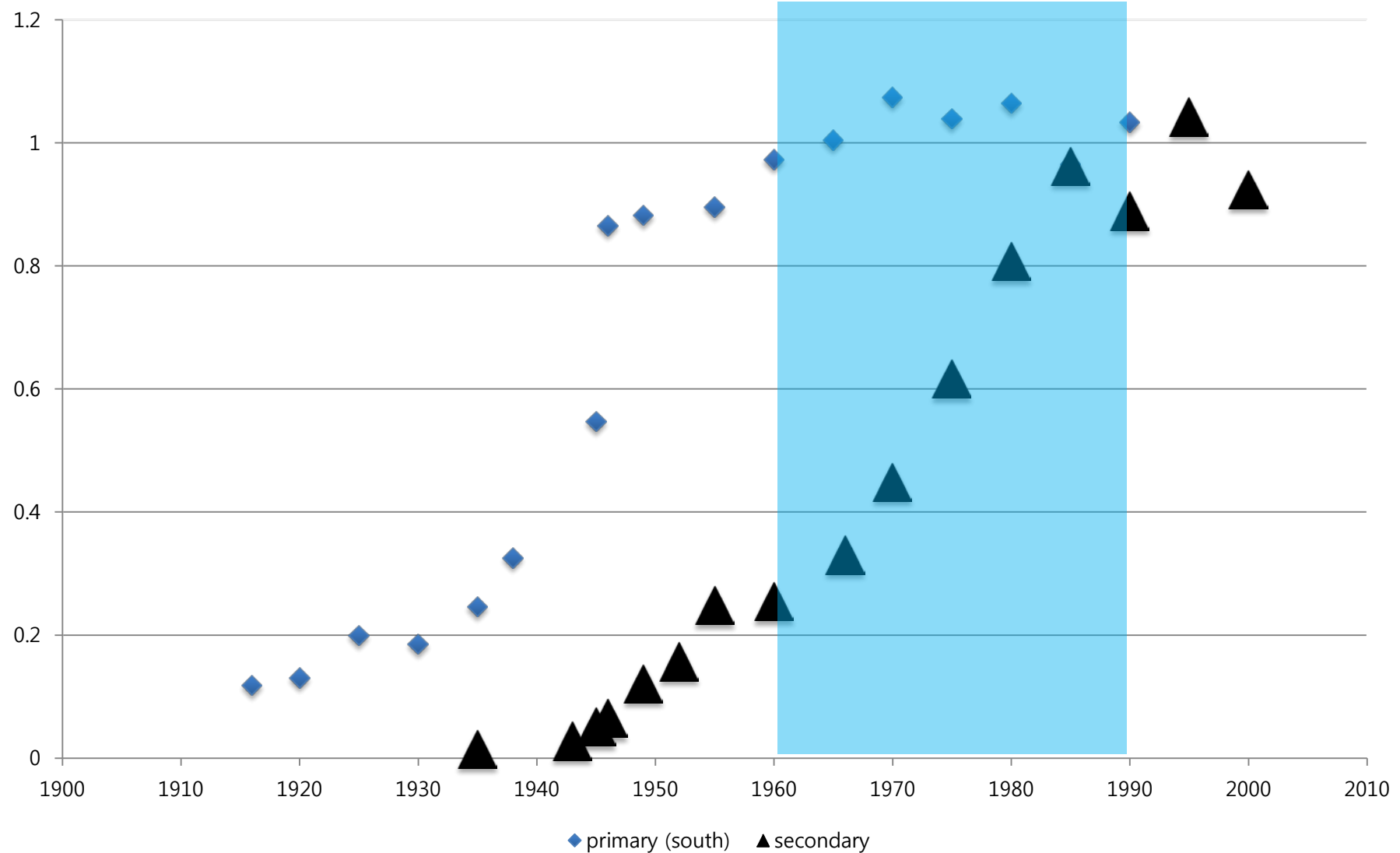
Educational G as Share of GDP



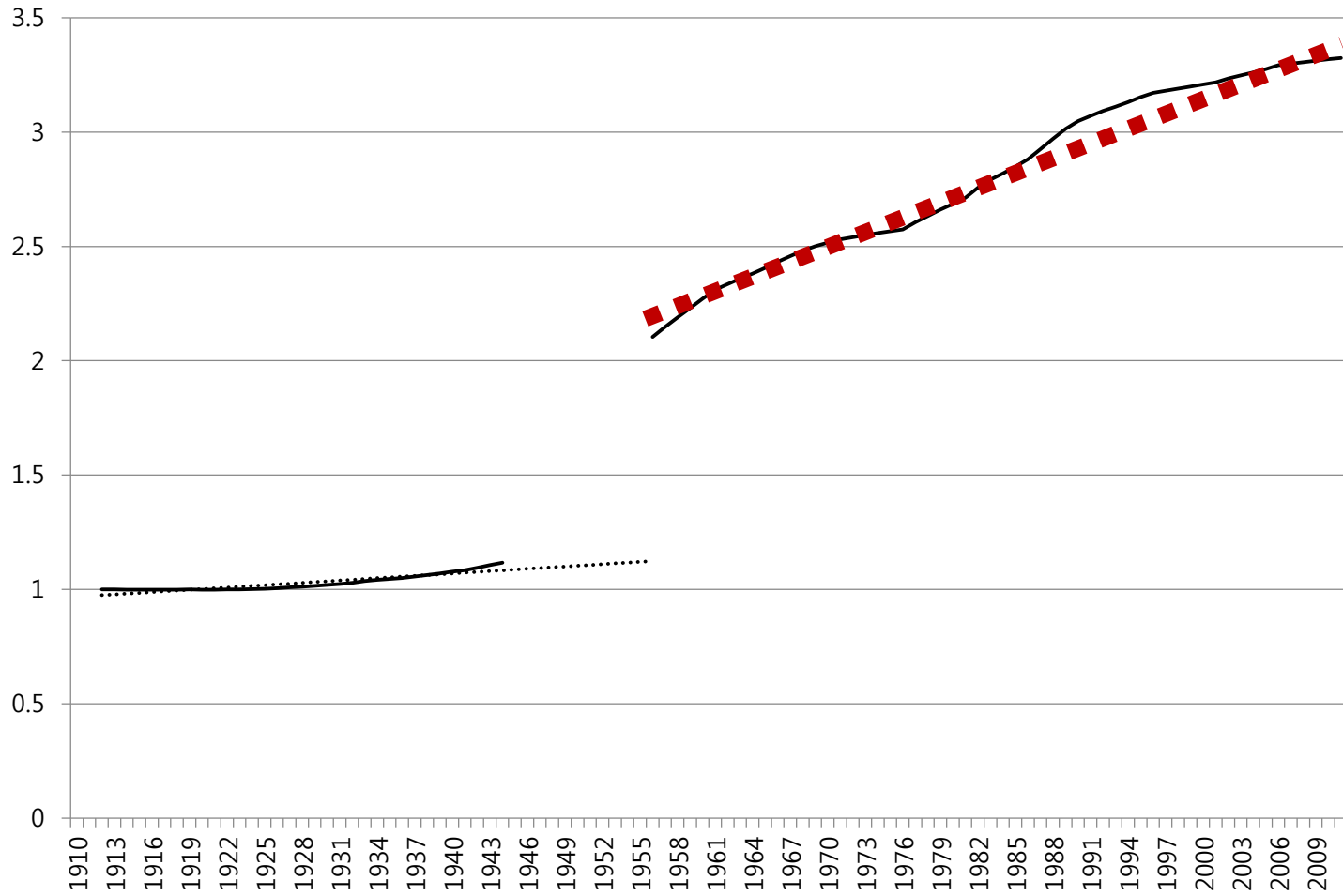
Consequences of the Fiscal Policy

- Spread of secondary schooling, 1960-90 →
- Rapid **human** capital accumulation \Rightarrow faster technological learning →
- Switch to quality of child \Rightarrow fertility transition →
- Fertility decline \Rightarrow lower dependency ratio \Rightarrow higher savings ratio \Rightarrow faster **physical** capital accumulation →

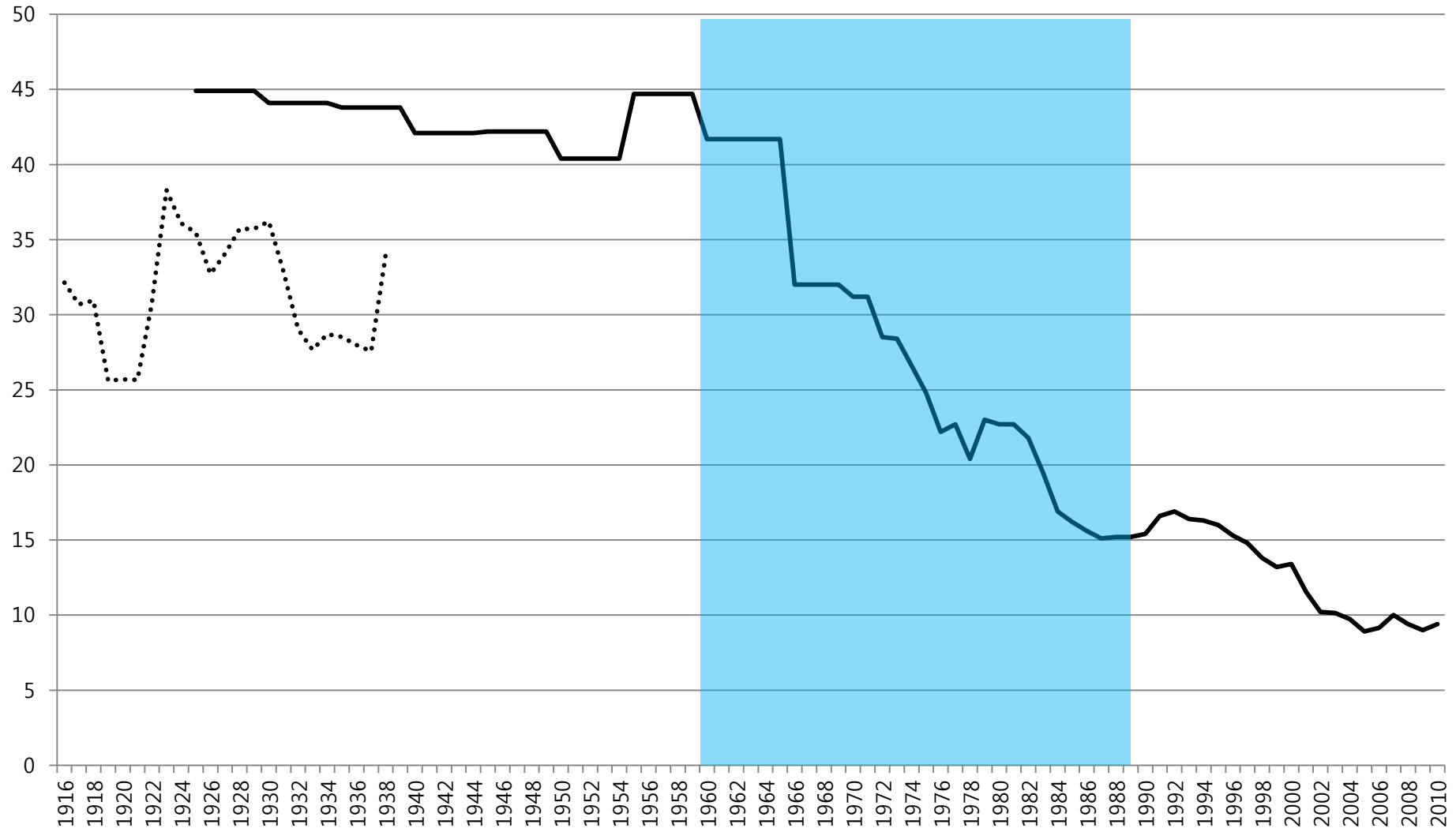
School Enrollment Ratios



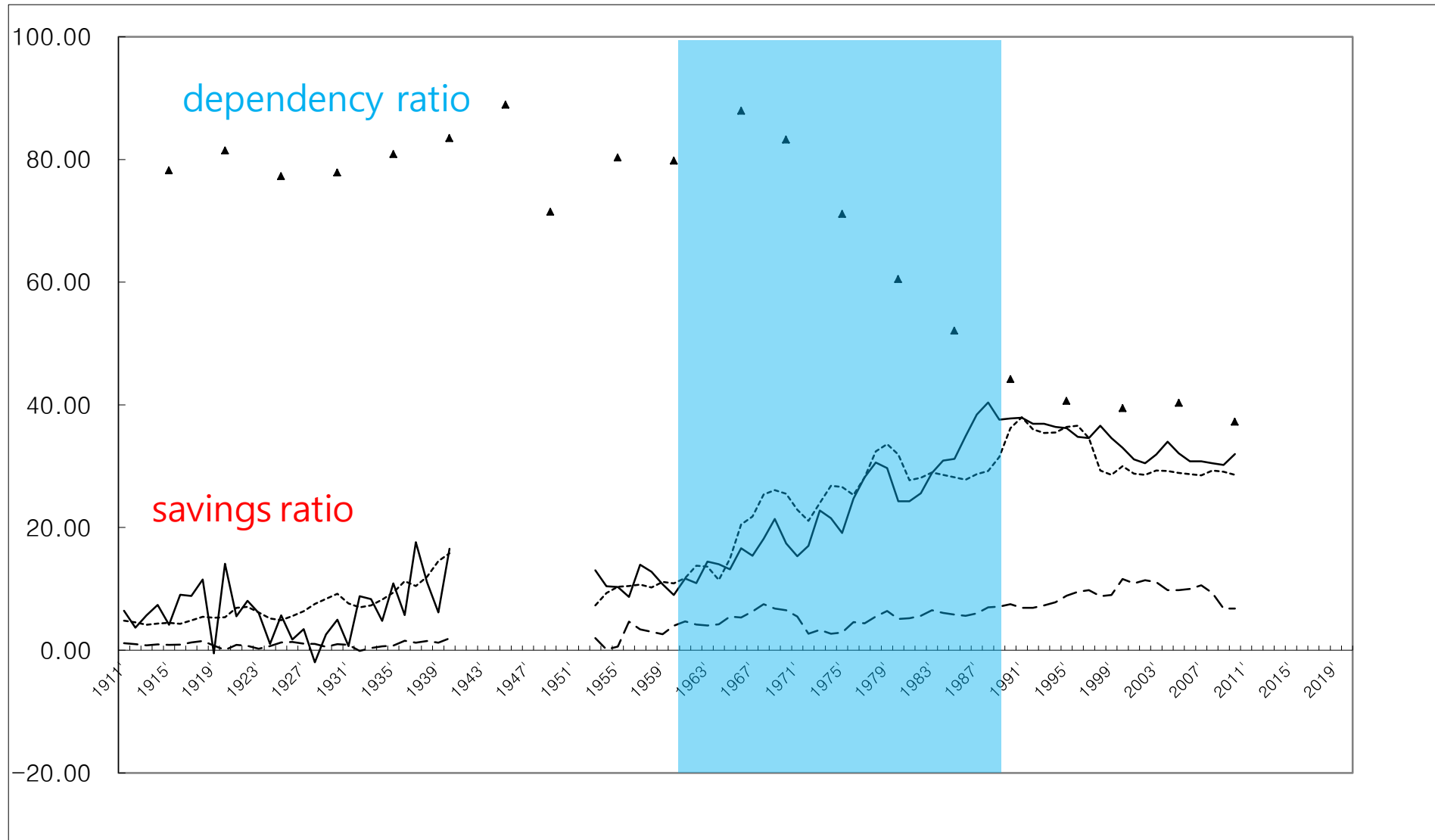
Labor Quality Index, 1910-2010

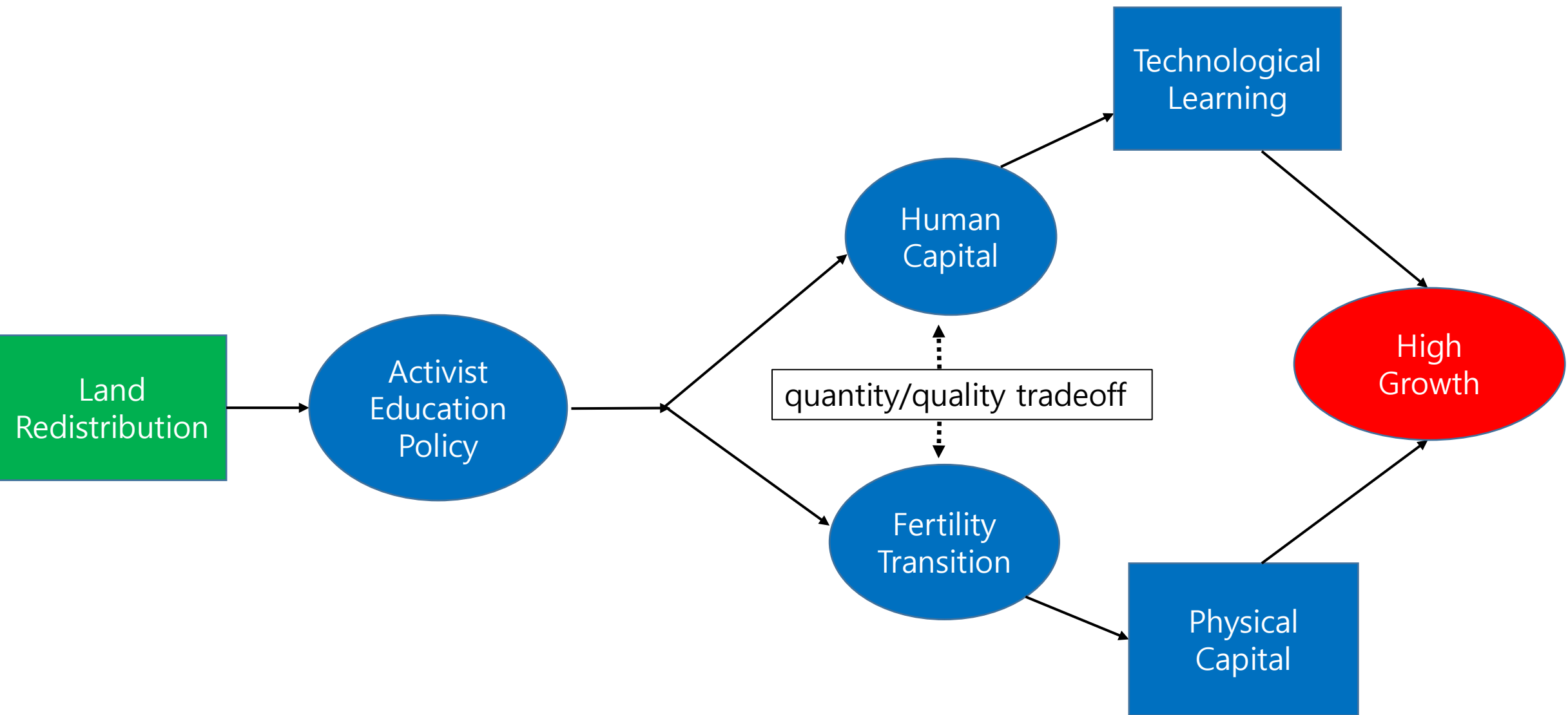


Crude Birth Rate



Savings and Dependency Ratio





Did Industrial Policy Help South Korea Grow Faster?

- Little evidence to indicate market intervention promoted growth
- Substantial deadweight loss as indicated by CGE simulation
- Negative impact of higher tariffs on sectoral total factor productivity growth
- Growth accounting evidence of higher public spending slowing down growth

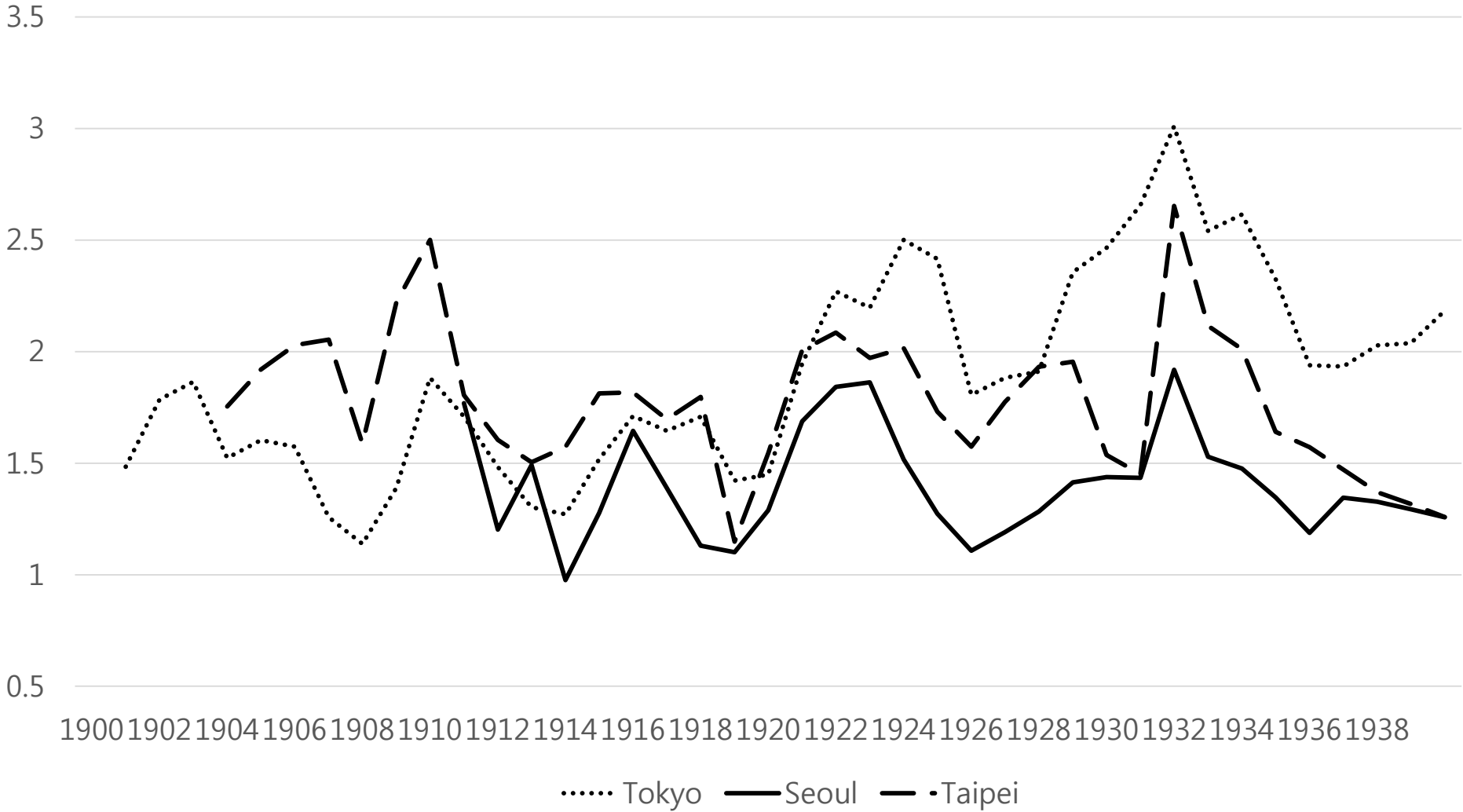
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Many Similarities

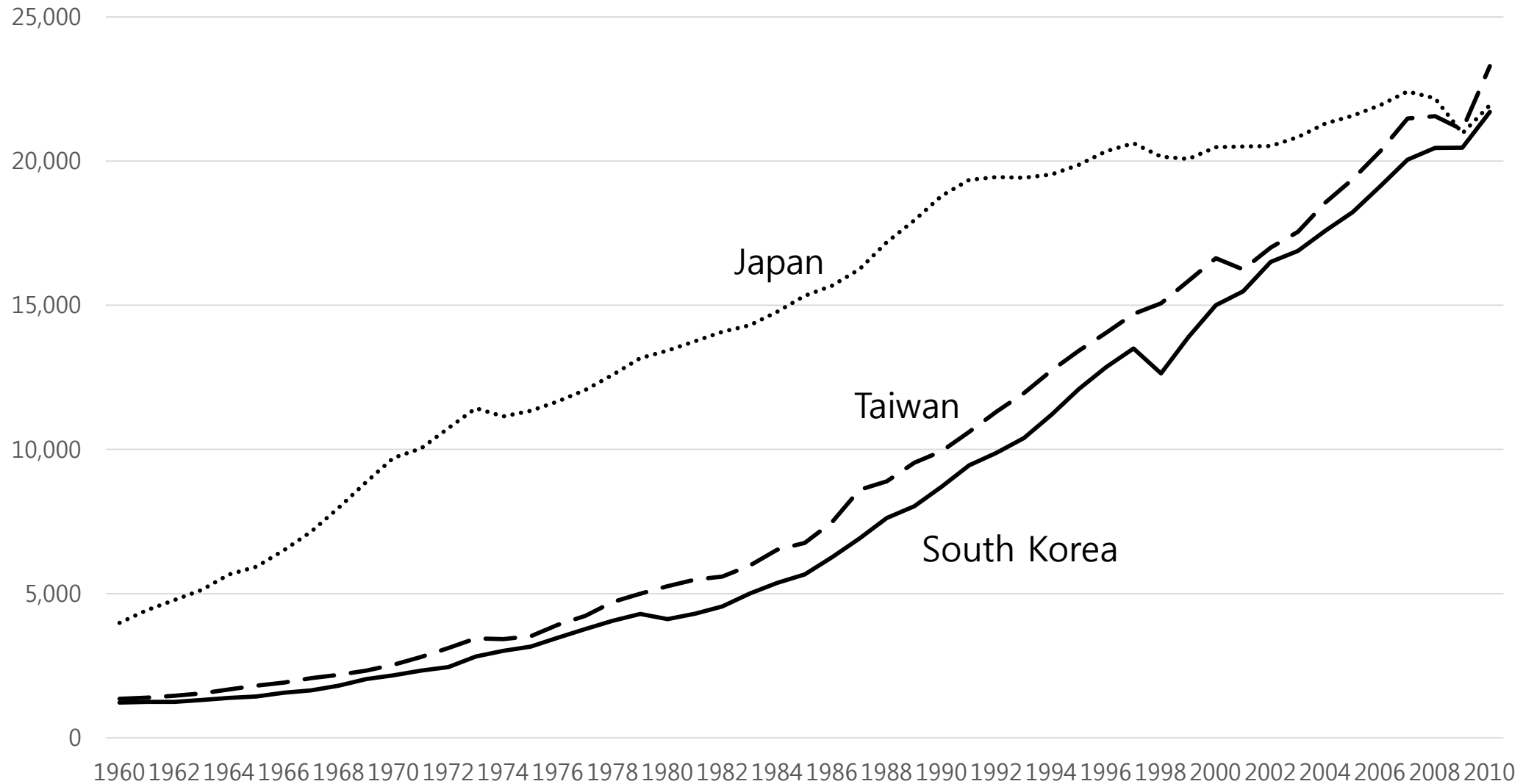
- Part of the Chinese empire
- Part of the Japanese empire
- Post-colonial division
- Post-colonial land reform
- Growth miracles

Welfare Ratios



Source: Cha(2015)

Taiwan vs. Korea and Japan, 1960-2010



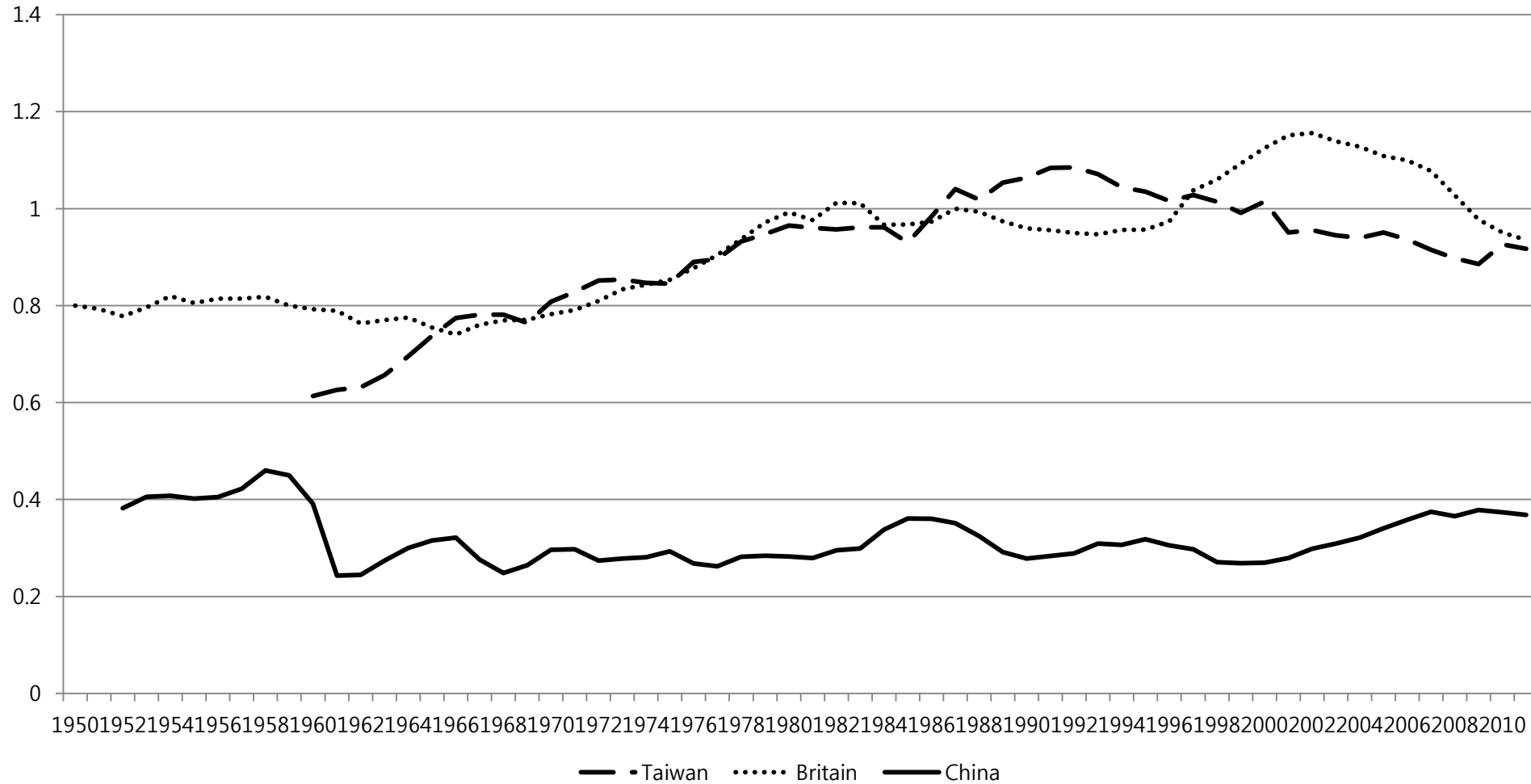
Source: Maddison Project database

TFP Relative to U.S.



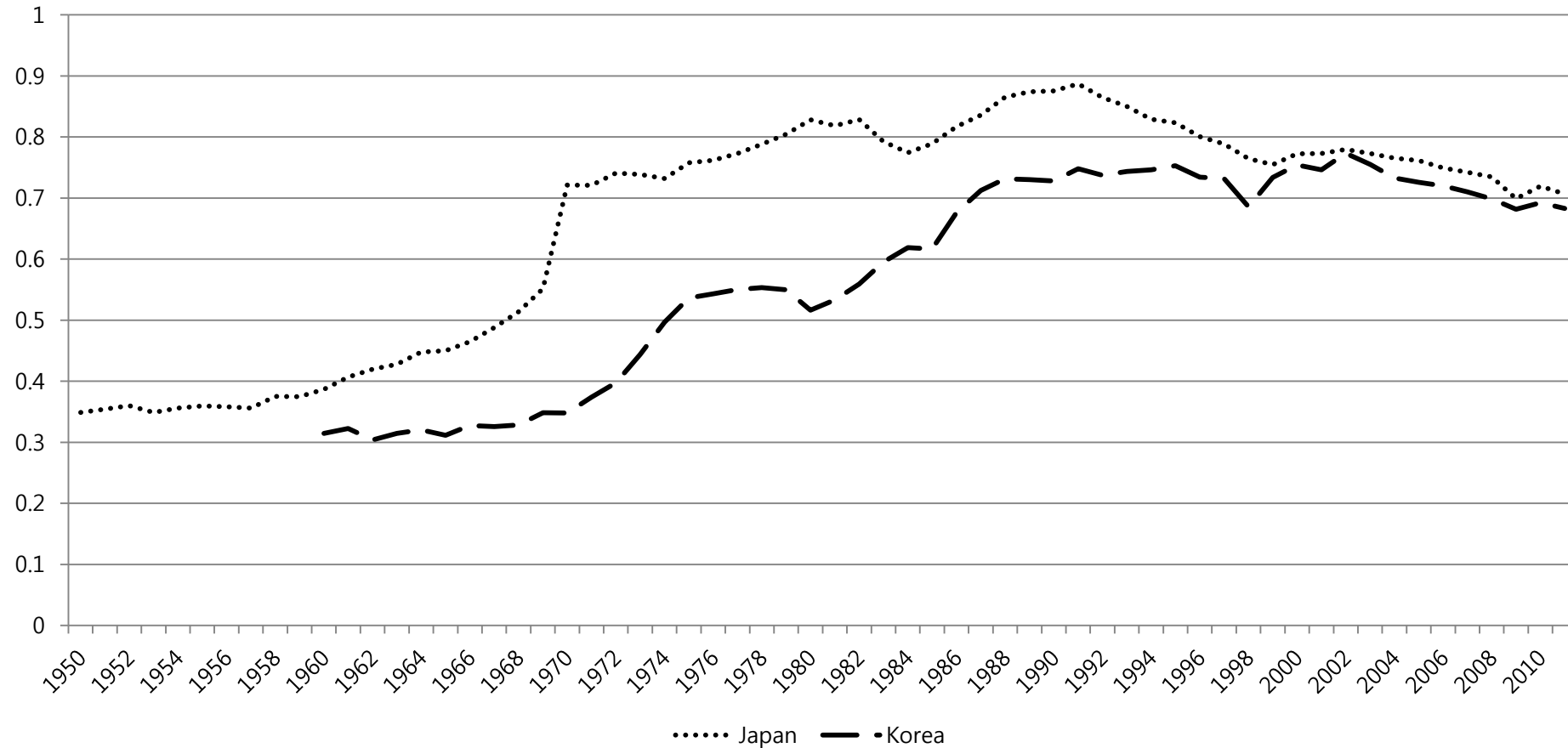
Source: Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2013), "The Next Generation of the Penn World Table" available for download at www.ggdcc.net/pwt.

Taiwanese TFP Catchup vis-à-vis U.S.



Source: Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2013), "The Next Generation of the Penn World Table" available for download at www.ggdcd.net/pwt.

TFP Stagnation in Japan and Korea



Source: Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2013), "The Next Generation of the Penn World Table" available for download at www.ggdc.net/pwt.

Summary

- Transition from autarky to open economy in 1876
- Imposition of colonial rule
- Post-colonial land redistribution
- Reversal and trend shifts, rather than persistence

End of Presentation