

On the Role of Policy Intervention in Structural Change and Economic Development: The Case of Japan's Postwar

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I like this paper

What's this paper about?

- Quantitative analysis of the effects of policy interventions on the structural change during the rapid growth period
 - neoclassical growth model with two sectors; agriculture and non-agriculture
- main findings
 - industrial policies did not affect growth
 - agriculture pricing policy
 - agriculture investment subsidies
 - non-agricultural FILP
 - with labor migration barrier GNP growth would have been lower

- representative household chooses consumption of agriculture and non-agricultural goods, sectoral share of employment and capital and aggregate capital stock
 - aggregate employment and hours worked in both sectors exogenous
- the household gains utility according to Stone-Geary preferences on agriculture and non-agricultural goods
 - subsistence consumption level for agricultural goods
 - Engel's law holds

$$u = \mu_a \log(c_a - \bar{a}) + \mu_n \log c_n$$

- wage premium depends on cost of urban life

$$w_{at}h_{at} + 3(1 - \tau_{lt})w_{nt}h_{nt} = 4(1 - \tau_{lt} - \phi_t)w_{nt}h_{nt}$$

- ϕ_t computed as residual
- three out of four family members living in rural areas are non-agricultural workers who don't pay urban cost of living

$$\Phi_t((1 - s_{et})E_t - 3s_{et}E_t)$$

$$1 \leq 4s_{et}?$$

- exogenous variables: TFP in both sectors, aggregate employment, hours worked in both sectors, taxes, subsidies, urban cost of living
- endogenous variables: sectoral share of employment and capital, relative capital per worker, capital output ratio, output per capita, relative price of agriculture goods

- Mechanism that determines the sectoral share of labor
 - sectoral TFP: affects the labor demand
 - urban cost of living: affects the effective wage premium

- exogenous variables can account for the changes in endogenous variables reasonably well
- from counterfactual exercises, effects of policies can be evaluated
 - policies are not important (per se)

- Deterministic model
 - Chen, Imrohoroglu and Imrohoroglu (2006)
 - what did people know in 1956?

- sectoral TFP exogenous
 - what if industrial policies affected TFP?
 - "if policies affected postwar rapid growth they should have operated through TFP"
 - doesn't investment in infrastructure increase TFP?
- aggregate TFP endogenous
 - depends on sectoral share (given sectoral TFP)
 - that's why labor mobility barrier causes low growth

- Which is more important in explaining sectoral share of employment?
 - sectoral TFP
 - urban cost of living

- Braun, Ikeda and Joines (2006): persistent decline in labor supply
 - endogenous labor supply
 - utility weight on consumption to leisure depends on the family size
 - shrinking family size decreases utility weight on consumption (and would affect wage premium)

$$u = \phi[\eta_t \log(c_t/\eta_t)] + (1 - \phi) \log(1 - l_t)$$

$$c_t = (c_a - \bar{a})^{\mu_a} c_n^{\mu_n}$$

$$w_{at}h_{at} + (\eta_t - 1)(1 - \tau_{lt})w_{nt}h_{nt} = \eta_t(1 - \tau_{lt} - \phi_t)w_{nt}h_{nt}$$