The Effect of State Owned Enterprises’ Wage System on China’s Economic Transition

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Introduction
Stylized Facts:
- Though in 2003, reform of SOEs was nearly completed and average wage of SOEs exceeded that in non-SOEs, its labor share was still steadily decreasing.
- Nearly all the SOEs gradually used “predetermined total wage system”
- Every SOE’s total wage was given by SASAC in the last year.

Method
- Dynamic General Equilibrium Model
  with two sectors and three kind of firms
 griculture Sector: \[
  \max_{\tilde{A}_e, \tilde{A}_L} \left\{ \tilde{A}_e \rho \omega_{\tilde{A}_e \tilde{A}_L} - \tilde{A}_L \rho \omega_{\tilde{A}_L \tilde{A}_e} \right\}
  \]
  Industry Sector:
  - SOEs \[
  \max_{i, \tilde{A}_e, \tilde{A}_L} \left\{ \rho \tilde{A}_e (\tilde{A}_L)^{\rho} \left[ (\tilde{c}_i + \sigma) \tilde{A}_L - \tilde{A}_e \right] \right\}
  \]
  - Non-SOEs \[
  \max_{i, \tilde{A}_e, \tilde{A}_L} \left\{ \rho \tilde{A}_e (\tilde{A}_L)^{\rho} \left[ (\tilde{c}_i + \sigma) \tilde{A}_L - \tilde{A}_e \right] \right\}
  \]
  Households:
  \[
  \gamma \ln(c_w) + (1 - \gamma) \ln(c_r - \widetilde{c}_w)
  \]
  Market Clearing Condition:
  - Agriculture Good
  - Industrial Good
  - Labor in Farm
  - Labor in Non-SOEs
  - Capital
  Aggregate Law of Motion: \( \tilde{A}_{eg}, \tilde{A}_{lg}, \tilde{N}_i, \)

Calibration
matching empirical moments during 2003-2007

The exogenous parameters:
- perfect competition: group = 2, \( \gamma = 0.5 \)
- population growth rate: \( v = 0.03 \)
- TFP growth rate: \( 0.038 \)

Results (uncompleted)

Dynamics of the Economy (uncompleted)

Proposition
- Higher K/AL ratio and wage in SOEs in equilibrium:
  \[
  \frac{K_r}{A_L} = \left( 1 + \mu \right)^{-1} \left( \sigma / \alpha \right)^{\frac{1}{\gamma}} \frac{K_r}{A_L} = \left( \sigma / \alpha \right)^{\frac{1}{\gamma}}
  \]
  \[
  \frac{K_r}{A_L} = \left( 1 - \alpha \right) \frac{K_r}{A_L} \Rightarrow \frac{K_r}{A_L} = \left( 1 - \alpha \right) \frac{K_r}{A_L}
  \]
- Decreasing employment share of SOEs:

Conclusions
Higher capital-labor ratio provides the wage premium in SOEs.

Higher wage in SOEs should be considered as the result of labor market segment, but not the signal of labor demand and supply.

China’s economic transformation is also the process of labor reallocation, especially the flow from agriculture firms to non-SOEs.