

Discussion of “International
Diversification, Reallocation, and
the Labour Share” by
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Research question

- Implications of international risk sharing on the labour share
- Very interesting and new question
- Theory and empirics

Main results (firm level)

- When the price of risk declines,
 - Labour share within a firm increases (within-firm effect)
 - Riskier firms with lower labour share expand (reallocation effect)

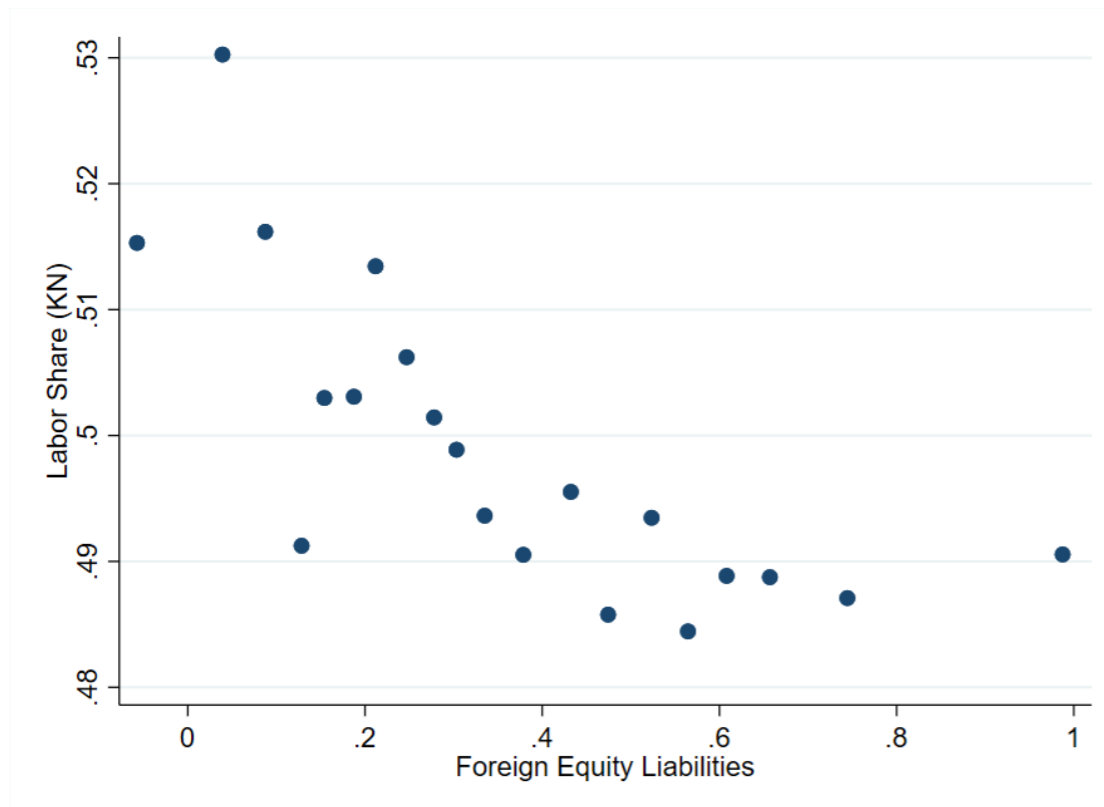
Main results

(international risk sharing)

- International risk sharing decreases price of risk
 - Labour share within a firm increases (within-firm effect)
 - Riskier firms with lower labour share expand (reallocation effect)
 - When the degree of risk sharing is not too large, aggregate labour share declines (reallocation effect > within effect)

Data supports theory

(a) Karabarbounis and Neiman (2014)



(b) OECD

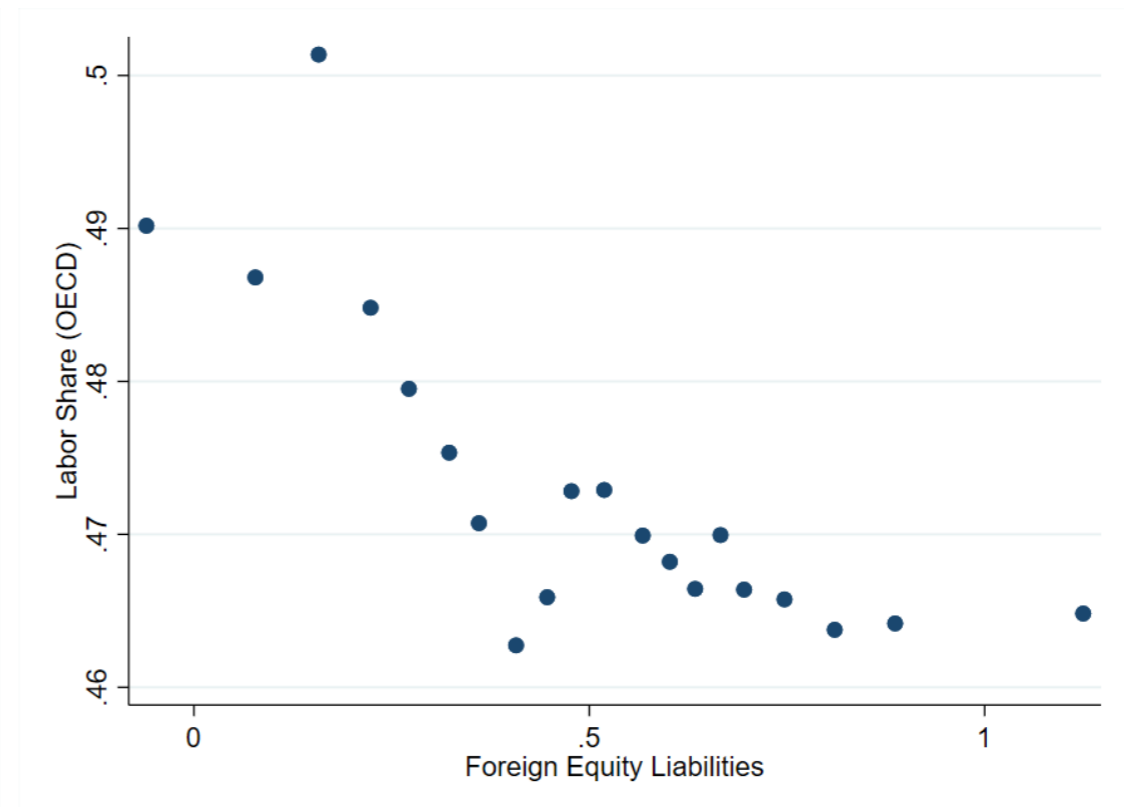


Figure 3: Labor Share vs Equity of Foreign Investors

- Rigorous empirical analysis in the paper

Decision of firms owned by risk averse agents

$$\max_{L_i, K_i} \mathbb{E} [\Lambda (A_i K_i^{\alpha_1} L_i^{\alpha_2} - W L_i - P_k K_i)]$$

SDF

- SDF: value profit in bad states (low A_i) by more, in good states (high A_i) by less
- Demand for labour and capital determined before A_i realises.
- Factor prices are not contingent on A_i

FOC for labour and capital

$$\alpha_2 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right] E[A_i] K_i^{\alpha_1} L_i^{\alpha_2 - 1} = W$$

risk correction

$$\alpha_1 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right] E[A_i] K_i^{\alpha_1 - 1} L_i^{\alpha_2} = P_K$$

Labour share

$$\frac{WL_i}{EY_i} = \alpha_2 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right]$$

- When covariance is negative, labour share smaller than α_2

Implication

$$\alpha_2 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right] E[A_i] K_i^{\alpha_1} L_i^{\alpha_2 - 1} = W$$

$$\alpha_1 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right] E[A_i] K_i^{\alpha_1 - 1} L_i^{\alpha_2} = P_K$$

- When covariance is negative, both labour and capital input shrink
- When price of risk declines, production expands

Implication

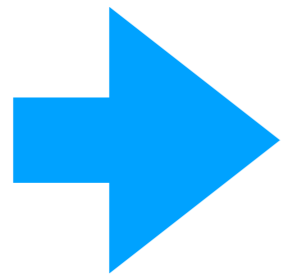
$$\frac{P_K K_i}{E Y_i} = \alpha_1 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right]$$

- Compensation of capital also decreases
- But capital share $\left(\frac{\text{operating surplus}}{\text{value added}} \right)$ increases
- Operating surplus = (income from property (rent+interest)) + (income from entrepreneurship (profit))

Implications

$$\alpha_2 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right] E[A_i] K_i^{\alpha_1} L_i^{\alpha_2 - 1} = W$$

$$\alpha_1 \left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right] E[A_i] K_i^{\alpha_1 - 1} L_i^{\alpha_2} = P_K$$



$$\frac{W L_i}{P_K K_i} = \frac{\alpha_2}{\alpha_1}$$

- Capital-labour ratio unaffected by risk

Can be useful to distinguish from other theories of labour share

- Labour share declines not because firms substitute labour for capital
 - $(WL)/(P_K K)$ unaffected
- Not firm size, but risk matters

International risk sharing and labour share

- Theory: increase in risk sharing...
 - reduces labour share if the degree of risk sharing is low
 - increases labour share if the degree of risk sharing is high
- Data: monotone relationship between labour share and the degree of risk sharing? Is it possible to test the non-linear relationship?

Implication for pricing

- Real marginal cost s

$$s \propto \frac{W^{\alpha_2} P_K^{\alpha_1}}{\left[1 + \text{cov} \left(\frac{\Lambda}{E[\Lambda]}, \frac{A_i}{E[A_i]} \right) \right] E[A_i]}$$

- International risk sharing could reduce real marginal cost and hence put downward pressure on inflation
- Measured markup vs actual markup (under monopolistic competition)