

**Discussion on
Labor Earning, Misallocation, and the
Returns to Education in Mexico
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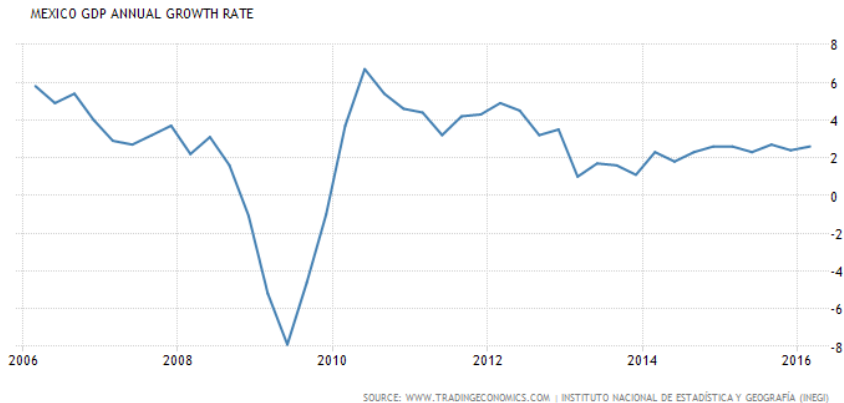
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- Motivation
- The Key Facts and Results
- A Sketch of the Theoretical Mechanism
 - Capital Allocation and Misallocation
 - Labor Markets for high and low human capital
 - The effects of Misallocation and Labor Supply shocks on the wage gap
- Are the facts really puzzling?

Motivation and Questions

- A paper full of data and great introduction on Mexican labor market.
 - Facts and results somewhat intriguing and worth thinking about
- 1 Structural problems in a growing developing countries can prevent skilled labor from benefiting from sustained growth?
 - 2 What would be the wage premium if some structural problem (capital misallocation) were to be removed?

Figure: Sustained growth before and after the great recession



Key Facts and Results

- Share of good jobs (labor and social insurance) constant over the last twenty years.
 - Earnings of high skilled workers have declined in nominal and real terms, as share of educated population grow constantly.
- ① Effects due to misallocation of resources toward firms with low productivity and low human capital intensity
 - ② Earnings of educated workers fall by 30 percent due to resource misallocation
 - ③ By removing misallocation, returns to education would improve (constant wage premium as opposed to a declined one)

A sketch of some theoretical ideas

- Labor is in fixed supply and exogenously heterogeneous:
 $\bar{L} = h + l$, where h is human capital and l is basic labor
- Two sector economy: good sectors is high productivity and employs human capital (h)

$$y_g = A_g k_g^\alpha h^{1-\alpha} \quad (1)$$

- The bad sector is low productivity and employs low human capital

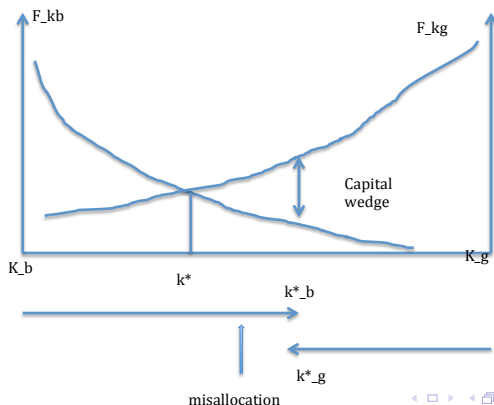
$$y_b = A_b k_b^\alpha l^{1-\alpha} \quad (2)$$

- Good sector is high productivity so that $A_g > A_b$
- Capital in fixed supply moves across two sectors:

$$\bar{K} = K_g + K_b$$

Capital Misallocation and the Capital Wedge (ϕ)

- Efficient allocation $A_l \left(\frac{k_l^*}{l} \right)^{\alpha-1} = A_g \left(\frac{k_g^*}{g} \right)^{\alpha-1}$
- Misallocation $A_l \left(\frac{k_l}{l} \right)^{\alpha-1} + \phi = A_g \left(\frac{k_g}{g} \right)^{\alpha-1}$



The Effects of Capital Misallocation

- There is an excess capital allocated to the bad sector
- **Marginal** product in the good sector is higher than the marginal product in the bad sector by a capital wedge ϕ
- This is consistent with the measure of total revenue productivity $TFPR$ used in the paper to measure capital misallocation. But.....
- Comment: is it true that in the absence of any distortion $TFPR$ would be the same across sectors? Not sure, since $TFPR$ related to **average** productivity and average can be different even in a frictionless allocation as long as $A_g > A_b$

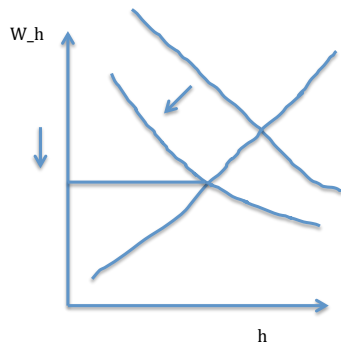
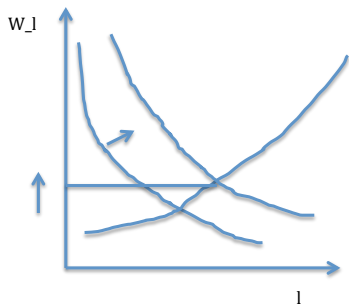
Capital Misallocation and the labor market

- Labor supply upward sloping in both sectors
- Wage equal to marginal product in each sector

$$w_l = A_b \left(\frac{k_b}{l} \right)^{1-\alpha} ; \quad w_h = A_g \left(\frac{k_g}{h} \right)^{1-\alpha} ;$$

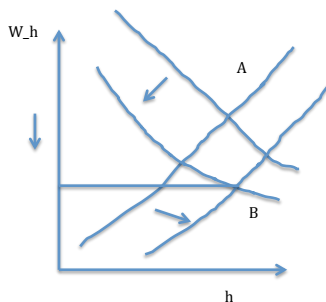
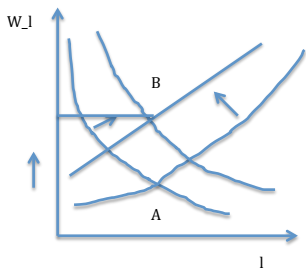
- The effects of Capital misallocation in the labor market
 - 1 increase in wage for low human capital and decrease in wage for high human capital
 - 2 compression of the wage gap
 - 3 employment of low human capital in bad sector rises

Capital Misallocation reduces wage premium



Increase in Supply of Skilled workers amplify the effect

- Increase in labor supply of human capital shifts labor supply of h to the right and further compress w_h
- As labor is in fixed supply, labor supply of unskilled shifts to the right



Is this what is going on?

- A basic 2x2 model with two sectors (good and bad) and two inputs (h and l) can rationalize the effects on the skill wage
 - ① capital misallocation toward the bad sector
 - ② shift toward high human capital for exogenous increase in h
- In reality, human capital investment is endogenous and one may wonder why bothering investing in h . Maybe expectation that capital misallocation will go?

- Interesting paper. Mexico certainly a labor market worth studying: informality, growth, wage gaps
- Nice data.
- Need for a quantitative framework