Skill-biased Imports, Human Capital Accumulation and the Allocation of Talents



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Research Question

► How will the supply of skill respond to the rising demand for skill ?



Figure 1: Imported capital goods, demand for skill and supply of skill

Conclusion

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- A city at the 75th percentile experiences a 0.6 percentage points (0.14 standard deviation) larger increase in skilled labor share than a city at the 25th percentile.
- The rise of skilled labor share could be attributed to skill acquisition (23%), and migration across cities (59%: more skilled immigrants; 18%: less skilled emigrants).

The Widening Regional Inequality in China

Second Stage



Figure 2: Share of people with some college education or above



	(1)	(2)	(3)	(4)	(5)	(6)	(5)	
					Decomposition			
N=330	Y=100×∆Growth of people with some college education or above				Human capital accumulatio	Human Immigration Emigration capital ccumulation		
	OLS	IV	IV	IV	IV	IV	IV	
△Capital goods import per capita	15.83***	23.26***	22.58***	10.86***	2.50	6.40***	-1.96**	
	(2.89)	(7.40)	(7.58)	(4.17)	(2.05)	(1.53)	(0.80)	
Textile share			0.73	1.02*	0.50	0.43	-0.09	
			(0.73)	(0.62)	(0.40)	(0.30)	(0.25)	
Electronic share			1.91	1.55	0.26	0.74	-0.54	
			(1.79)	(1.14)	(0.56)	(0.57)	(0.36)	
Share of people with urban hukou				23.28***	14.36***	10.38***	1.46	
				(2.79)	(1.13)	(1.45)	(0.97)	

Figure 5: Main results



Figure 3: Capital goods imports index

Econometric Specification

Data: population census data and trade data (2000 and 2010)
Second Stage

$$y_i = \beta x_i + \delta z_{i,0} + \mu_i$$

where y_i is the changes in college share of city *i* between 2000 and 2010, x_i is the changes in imported capital goods per capita.

Bartik IV

$$iv_{i} = \left[\sum_{j} \frac{x_{i,j,t-1}}{x_{i,t-1}} \left(\frac{x_{j,t}^{-i} - x_{j,t-1}^{-i}}{x_{j,t-1}^{-i}}\right)\right]$$

where y_i is the changes in college share of city *i* between 2000 and 2010, x_i is the changes in imported capital goods per capita.

First Stage



Mechanism

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	S	econd Stag	ge	First Stage				
Dependent Variable	Skill Premium			Imported	Export	Imported	(Non-Capita)	
				Capital	/GDP	Capital	Goods	
				Goods		Goods	Import &	
				Intensity		Intensity	Export)/GDI	
Imported Capital Goods	0.21***	0.21***	0.21***					
Intensity	(0.08)	(0.08)	(0.08)					
Export/GDP	-0.14							
	(0.27)							
(Non-Capital Goods Import		-0.09	0.01					
& Export)/GDP		(0.19)	(0.16)					
FDI/GDP			0.36					
			(0.72)					
Ln(Exchange Rate) _{Kstock}				-1.41***	-0.12	-1.41***	-0.17	
				(0.49)	(0.14)	(0.49)	(0.22)	
Ln(Exchange Rate) _{Export}				0.14	0.49***	0.14	0.69**	
				(0.35)	(0.17)	(0.35)	(0.27)	
Ln(Exchange Rate) _{Non-Kimport}					- *	0.01	-0.03	
						(0.07)	(0.06)	
Under-identification	-	-		6.58**	6.58**	5.43*	5.43*	



Figure 7: Capital goods imports and skill premium

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