

# International Trade, Spillovers and Regional Income Disparity in China

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# Outline

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- Literature and contribution of this paper
  - Stylized facts
  - Methodology: Interregional Input-Output Model
  - Main results
  - Conclusion & discussion
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# Literature

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- Traditional convergence/disparities literature
  - Neoclassical growth theory
    - Regressions on panels of countries/regions (Barro and Sala-i-Martin, 1991, 1992, 2004)
    - Markov transition chains (Quah, 1996)
    - Closed economies or no explicit trade relations (Magrini, 2004)

# Contribution

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- Externalities that may result from spillover effects (Brun *et al.*, 2002):
    - (i) Demand side externalities;
    - (ii) Trade externalities;
    - (iii) Supply side externalities.
  - Adding interregional interdependencies for China
    - Domestication 1997 IRIOT, and updating to 2002
    - Direct/indirect/interregional spillover VA-impact
    - Position in global supply chain  $\Leftrightarrow$  GDP/capita
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# Stylised facts (1/3)

## □ GDP/capita disparities, 31 Chinese Provinces

Year	Mean/Median	St.dev./Mean	Max/Min	$\sigma$
1995	1.29	0.57	7.94	0.20
2000	1.31	0.61	8.93	0.21
2001	1.39	0.64	10.11	0.22
2002	1.51	0.71	10.47	0.23
2003	1.38	0.71	10.40	0.23
2004	1.39	0.71	10.83	0.24
2005	1.41	0.67	9.71	0.23
2006	1.37	0.66	9.35	0.23
2007	1.37	0.64	8.79	0.23
2008	1.29	0.60	7.84	0.22
2009	1.32	0.56	6.20	0.21
2010	1.27	0.52	6.26	0.20

# Stylised facts (2/3)

## □ Chinese provinces and regions



# Stylised facts (3/3)

## □ Area properties, 8 Chinese regions

	NE	NM	NC	EC	SC	CR	NW	SW
RegSpecC %	12.47	24.91	10.66	12.08	11.97	8.53	14.64	12.38
Pop. density	133	864	456	648	361	351	31	77
GDP/capita	10.68	26.67	10.30	17.84	15.33	6.29	6.67	5.20
LQ agric.	0.94	0.22	1.10	0.61	0.75	1.37	1.32	1.56
LQ mining	2.60	0.66	1.38	0.15	0.51	1.16	1.94	0.68
LQ food	0.85	0.48	1.86	0.66	0.66	1.07	0.52	1.56
LQ textiles	0.40	0.42	1.07	2.12	1.26	0.70	0.30	0.21
LQ wood p.	1.19	0.27	0.55	0.73	2.09	1.27	0.27	0.60
LQ electron.	0.49	1.74	0.44	1.62	2.25	0.39	0.30	0.37
LQ services	0.85	1.79	0.85	1.03	1.05	0.89	1.05	0.99

# Methodology (1/2)

gion/17 industries IRIOT adaptation

	mediate t.	Domestic final t.		For. exp.	For. imp.	Total
1	RoC*7	Region 1	RoC*7			
r	$Z^{rC}$	$F^{rr} + M^{fr}$	$F^{rC}$	$e^r$	$-m^r$	$x^r$
	$Z^{CC} + M^C$	$F^{Cr}$	$F^{CC} + M^{fC}$	$e^C$	$-m^C$	$x^C$
	+??	+??	+??	0	0	$m$
	$v^C$	0	0	0	0	$v$
	$x^C$	$f^r$	$f^C$	$e$	$m$	

row-uniform foreign import coeff. per region  
 LAS update of Z/F/M with provincial row and  
 ls plus national IO cell totals as constraints

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