Liberalization of FDI in Retail Services: a Fast Death Instrument for India?

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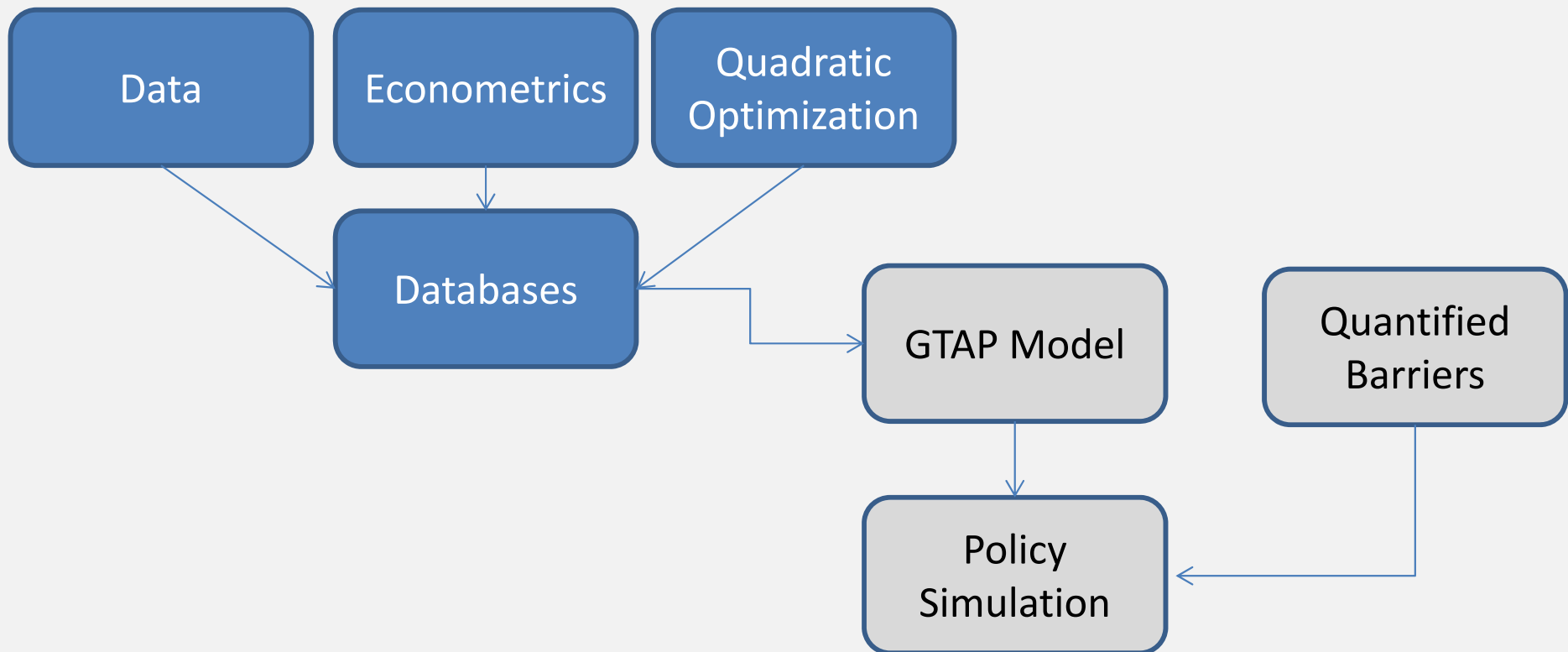
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Context: FDI Project Map

- Database Construction
- Model
- Policy Simulation

BACKGROUND

FDI Policy in India

- The 1991 economic reforms first liberalized 35 key high-priority, highly protected public sectors in manufacturing

- Department of Industrial Policy and Promotion, Ministry of Commerce
  - Consolidated Foreign Direct Investment Policy
  - Foreign Investment Promotion Board
  - Foreign Investment Implementation Authority

- FDI is prohibited in: retail (except single brand), lottery, casinos, chit funds (savings funds), real estate, tobacco, atomic energy and railway transport

FDI in Distribution Services in India

- Historical evolution of barriers
  - Cash & Carry Wholesale Trading: allow 100% foreign ownership since 1997
  - Single brand retailing (IKEA, NIKE, APPLE)
    - 49% foreign ownership since 2006, later fully liberalized in 2011 subject to conditions (30% local sourcing beyond 51%)
  - Multi-brand retailing (Wal-Mart, Carrefour, Tesco)
    - Revoke 2011 decision to liberalize as a result of intense social pressure

Retail Services Liberalization in India

The distribution sector in numbers ($billions)

	Output		Exports		Value Added		Consumption	
	value	% in total	value	% in total	value	% in total	Value	% in total
USA	2895	12%	17	1.2%	1693	13%	1592	16%
China	450	5%	22	1.8%	219	7%	153	13%
India	227	10%	3	1.1%	161	14%	100	14%
East Asia	1438	12%	77	4.8%	830	15%	725	22%
ASEAN	309	11%	18	2.1%	171	14%	120	18%
Aus & NZ	253	13%	7	3.3%	109	13%	135	27%
EU27	2580	8%	130	2.2%	1118	7%	1780	20%
ROW	2071	10%	38	1.1%	1310	13%	1017	16%
World	10224	9%	311	2%	5610	11%	5622	18%

Source: GTAP v8

FDI in retailing: pros and cons

Pros

- Productivity spillovers
  - domestic distribution services
  - upstream and downstream sectors
- Farmers:
  - sell directly to organized retailers
- Consumers:
  - price and quality improvements
  - access to a wider range of varieties

Cons

- Threaten the existence of small retailers in India
- Employment effect:
  - Each Wal-Mart worker displaces 1.4 retail workers (Chari and Raghavan, 2012)
  - Pushing down wages

MODELING FRAMEWORK

Motivation

- Develop an integrated framework that makes use of:
  - Increased data availability on the foreign direct investment and activities of foreign affiliates
  - Existing techniques in measuring barriers to FDI
- Allow us to quantify the impact of:
  - Barriers to investment
  - Barriers to services trade
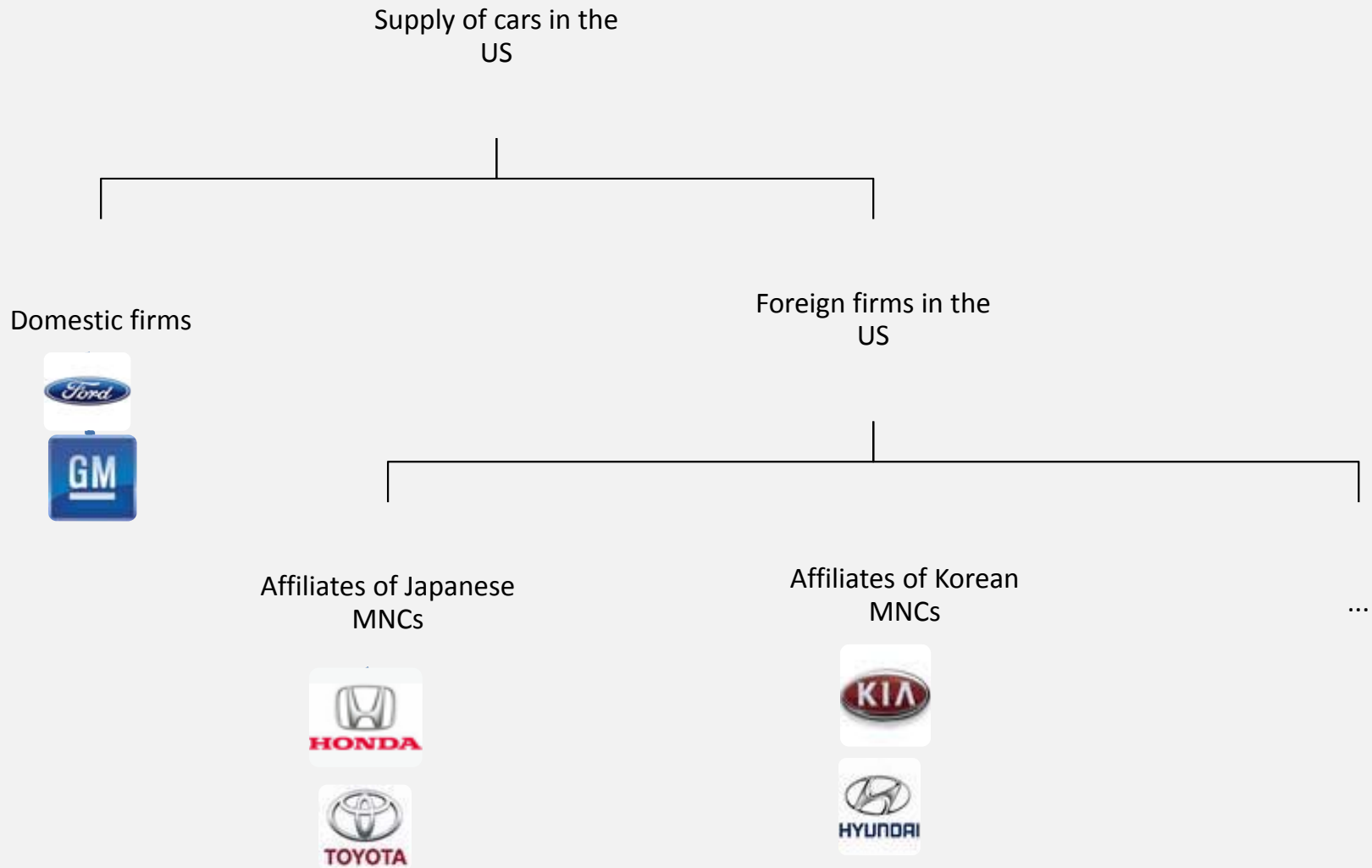 - Broader policy measures impacting the activities of foreign affiliates

GTAP+FDI+MNCs

- Existing Petri (1997), *FTAP* (Hanslow et al., 2000), the *Michigan model* (Brown and Stern, 2001), *MIRAGE* (Bchir et al., 2002) and *WorldScan* (Lejour et al., 2008)

- Extend the standard, comparative static version of the GTAP model to incorporate
  - Foreign direct investment
  - Firms differentiated by location and ownership
    - Heterogeneous production technology

The structure of output
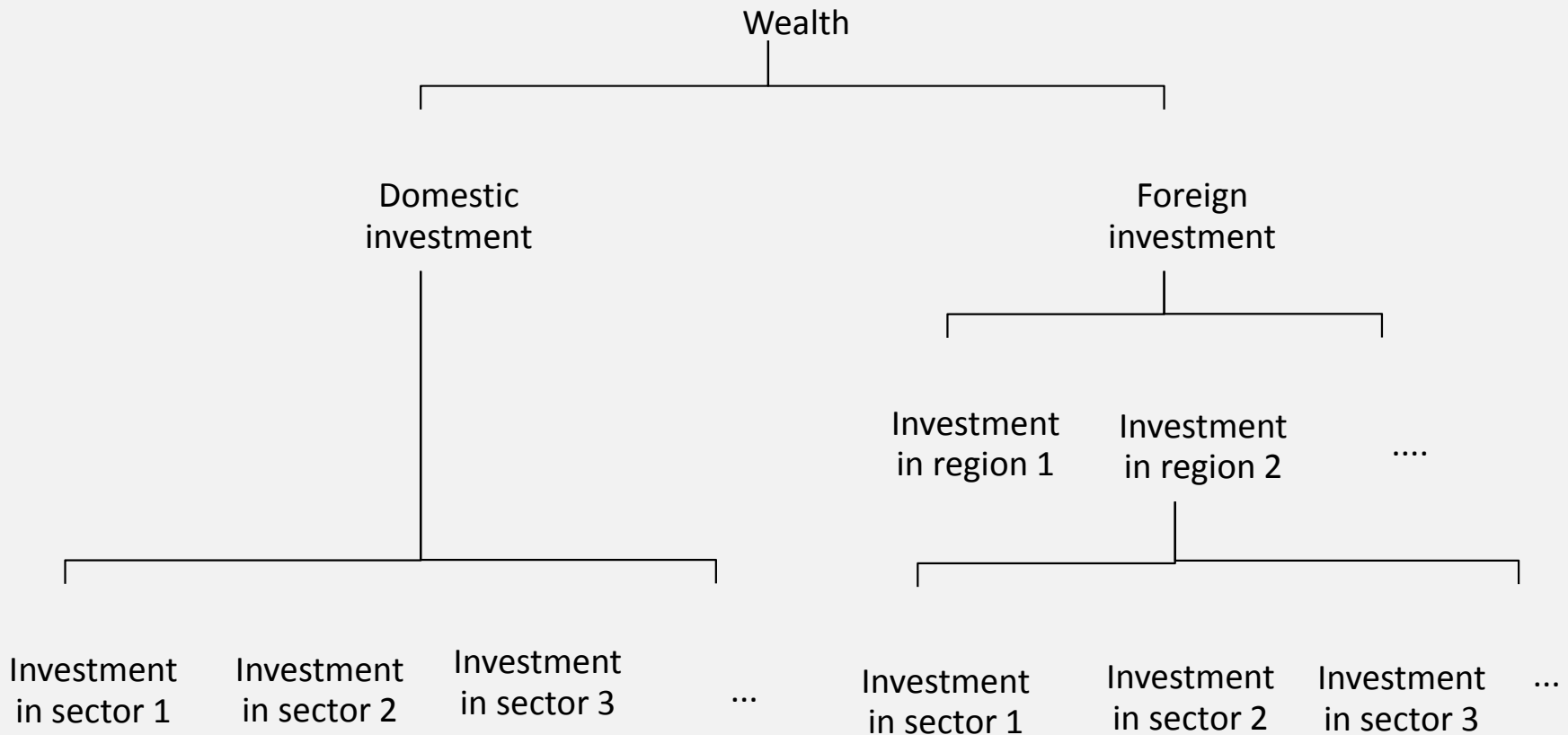# with foreign commercial presence

Standard GTAP model

FDI extension

Supply of cars in the US

Domestic firms

Foreign firms in the US

Affiliates of Japanese MNCs

Affiliates of Korean MNCs

...

The structure of investor preferences

Wealth

Domestic investment

Foreign investment

Investment in region 1

Investment in region 2

....

Investment in sector 1

Investment in sector 2

Investment in sector 3

...

Investment in sector 1

Investment in sector 2

Investment in sector 3

...

DATA SOURCES

Data sources

- Create an extended GTAP database that accounts for FDI and foreign affiliates
    - FDI stocks (bilateral and sector specific) based on Gouel et al (2012)
    - Activities of foreign affiliates based on Fukui and Lakatos (2012)
        - Sales (bilateral and sector specific)
        - Value added (bilateral and sector specific)
    - Share of domestic ownership: OECD
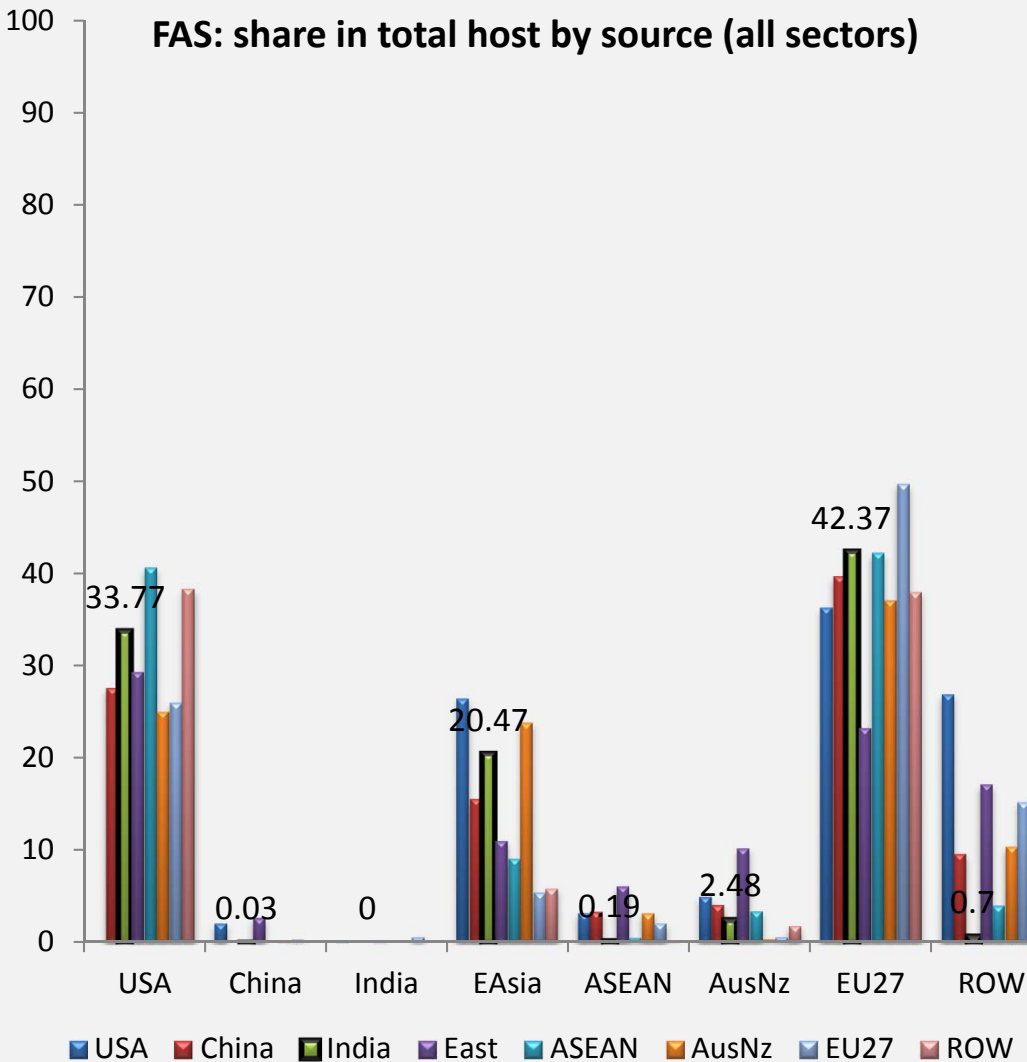
FDI vs Foreign Affiliate Sales

- FDI often used as a proxy for FAS
- FDI is a biased predictor (Beugelsdijk et al., 2010)
  - Systematic variation by country and by sector
    - underestimation of foreign affiliate activity in countries with well-developed financial markets
    - FDI in countries that are tax havens generate no actual productive activity
    - Sectors that are capital intensive (mining) should see an overestimation of foreign affiliate sales
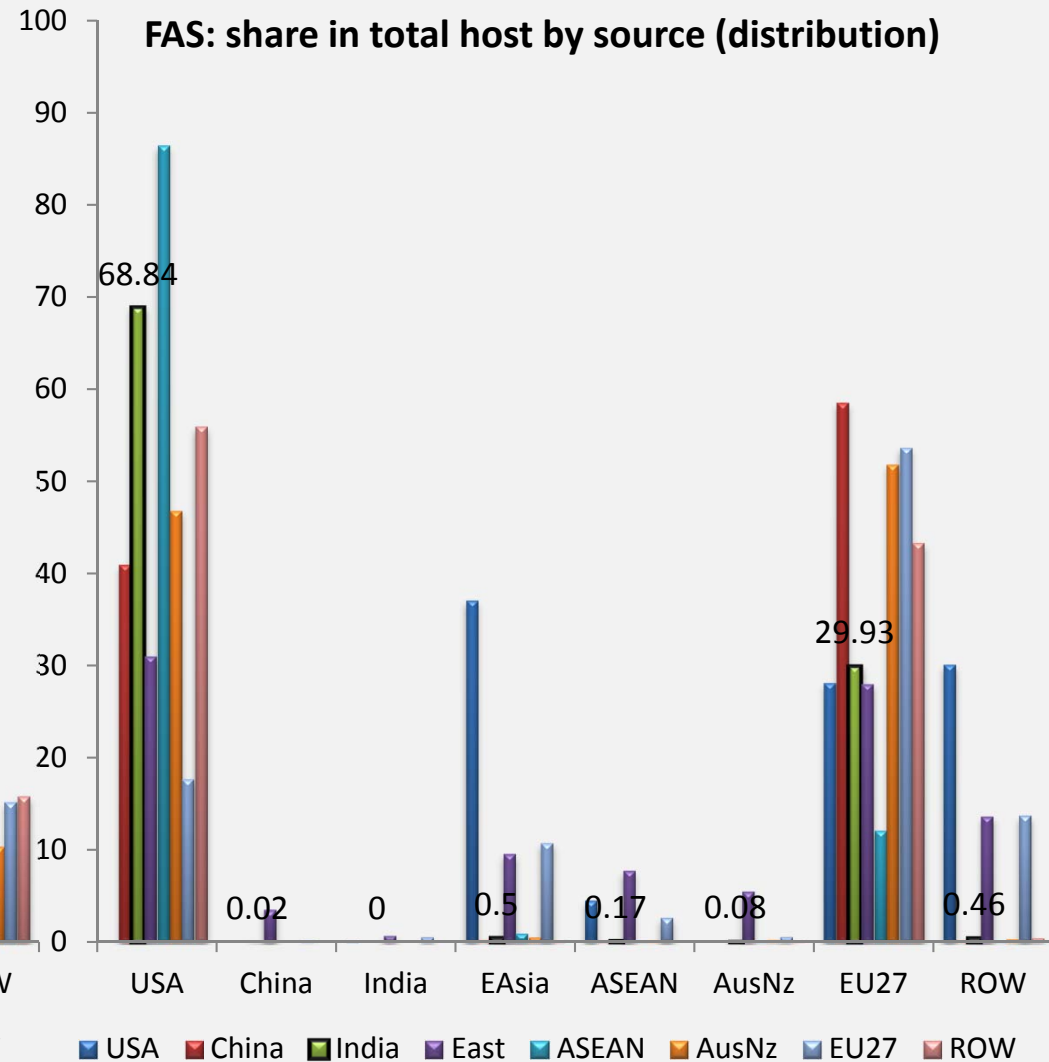
FDI vs FAS: Cross-country bias

FDI vs FAS: cross-sectoral bias
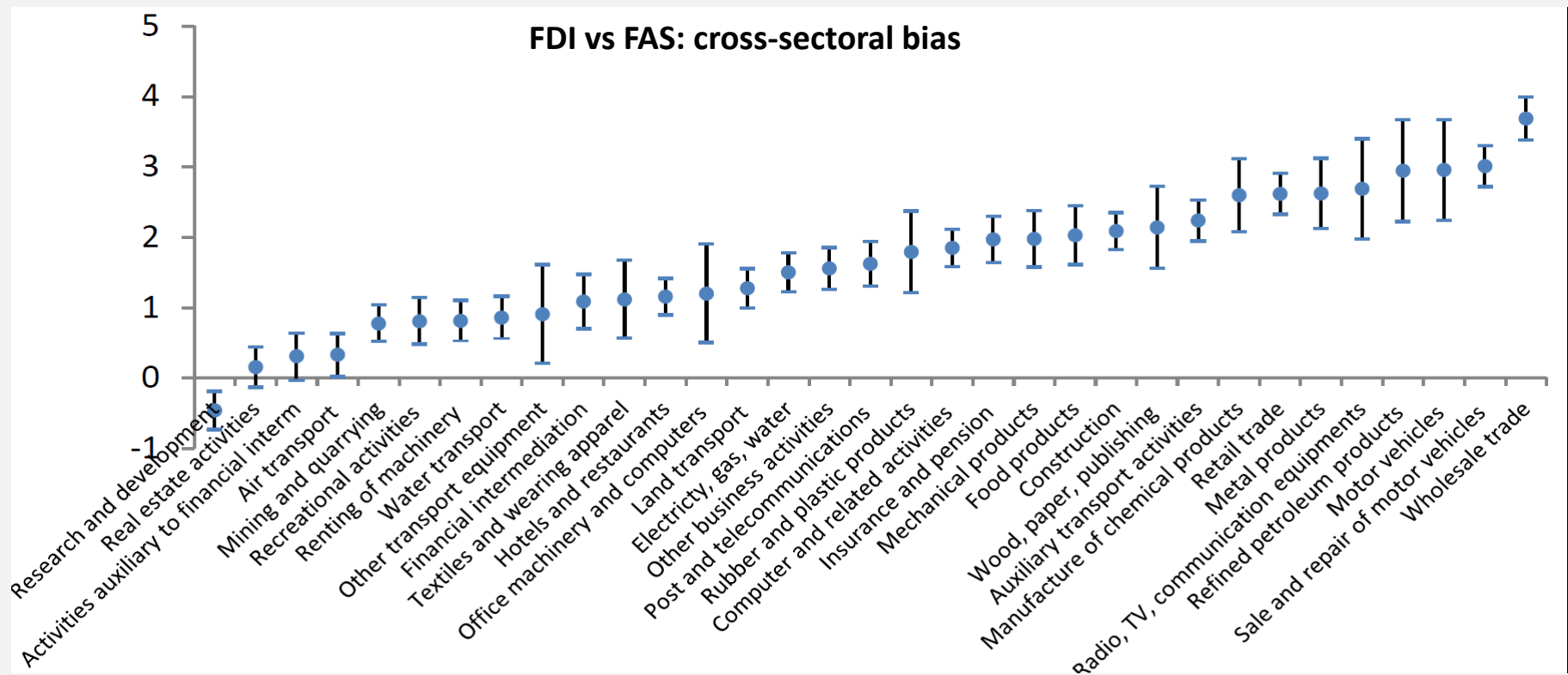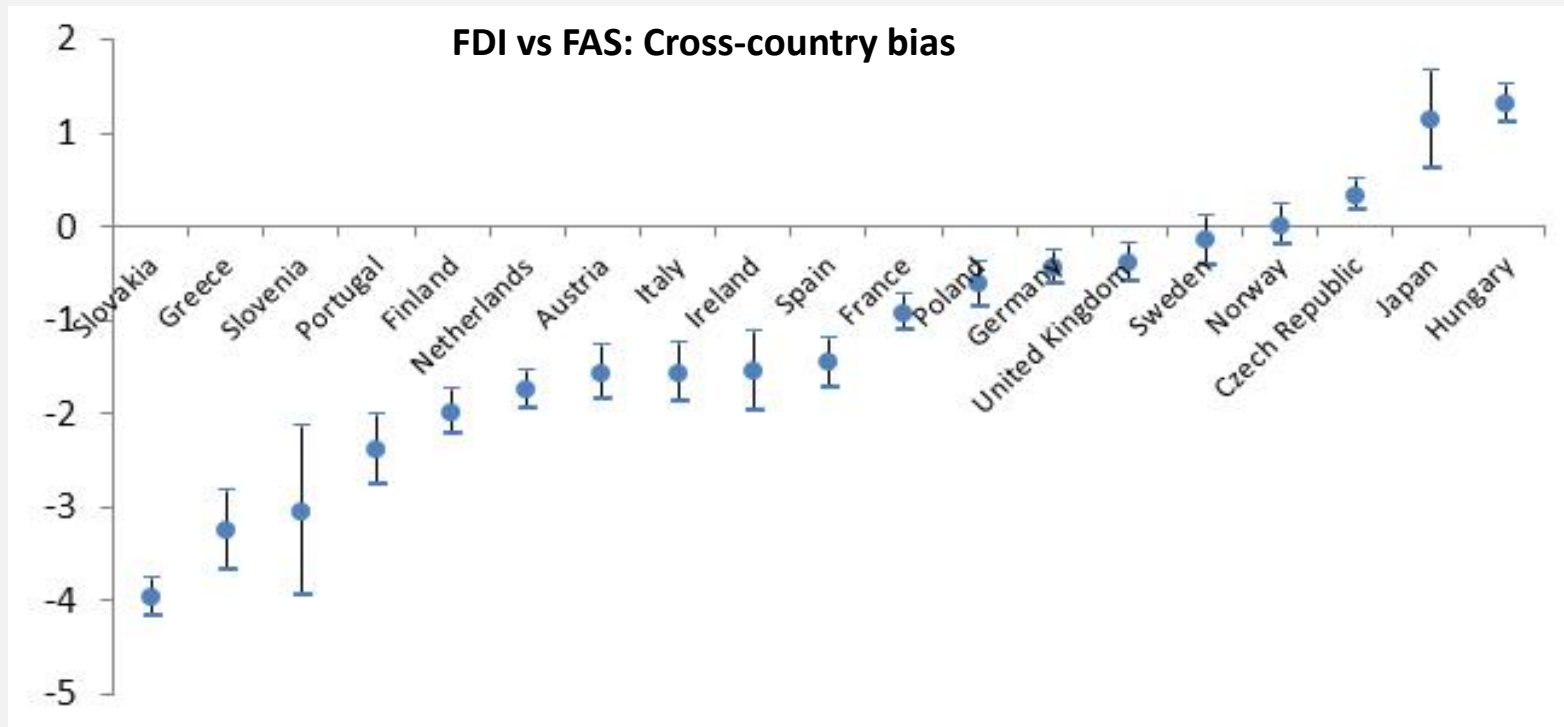
The composition of FAS

FAS: share in total host by source (all sectors)

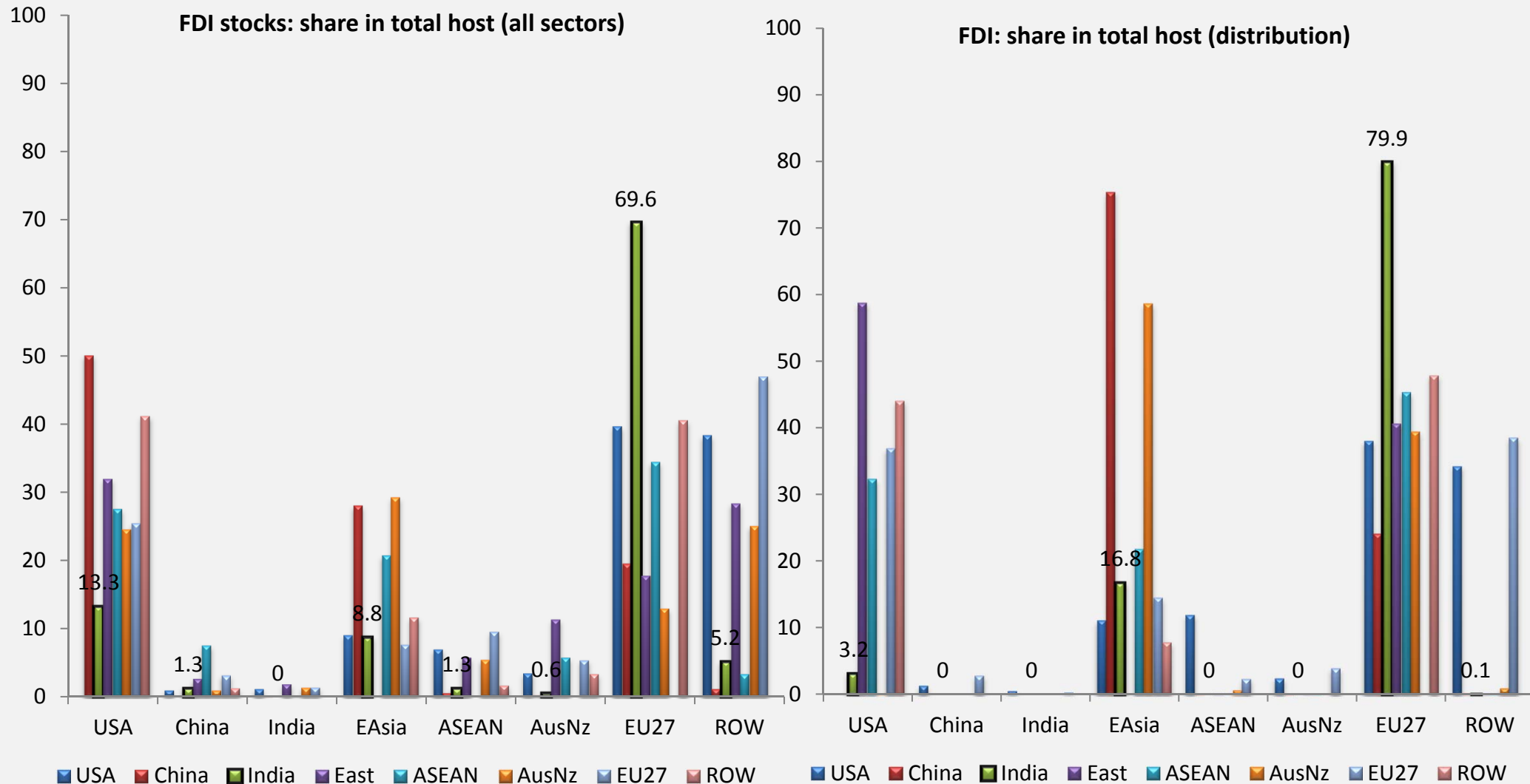FAS: share in total host by source (distribution)

The composition of FDI stocks

FDI stocks: share in total host (all sectors)

FDI: share in total host (distribution)

Foreign affiliate's value added L/VA

		Source countries							
		USA	EU27	China	India	East Asia	ASEAN	Aus & Nz	RoW
Host countries	**USA**		0.609	0.575	0.575	0.558	0.568	0.535	0.568
	EU27	0.275		0.452	0.543	0.538	0.611	0.54	0.613
	China	0.369	0.469		0.417	0.469	0.43	0.475	0.435
	India	0.423	0.394	0.357		0.394	0.355	0.4	0.36
	East Asia	0.385	0.658	0.621	0.606		0.619	0.664	0.624
	ASEAN	0.316	0.461	0.423	0.408	0.46		0.466	0.426
	Aus & Nz	0.209	0.69	0.652	0.637	0.689	0.65		0.655
	RoW	0.409	0.487	0.449	0.435	0.486	0.448	0.492	

Shares of ownership

Share of ownership in distribution (%)		
	Domestic	**Foreign**
USA	0.76	0.24
China	0.94	0.06
India	0.97	0.03
East	0.84	0.16
ASEAN	0.93	0.07
AusNz	0.90	0.10
EU27	0.92	0.08
ROW	0.88	0.12

Source: OECD Statistics on Measuring Globalization and authors' calculations

MEASURING BARRIERS TO DISTRIBUTION SERVICES

Nature of barriers

- Distribution services rely heavily on establishing foreign commercial presence
- UNCTAD (1996)
  - Barriers to entry and establishment
    - Closing certain sectors to FDI, minimum capital requirements, restrictions on forms of entry
  - Barriers to ownership and control
    - Restrictions on foreign ownership, compulsory joint ventures, restrictions on licensing foreign technology
  - Barriers to the ongoing operations of MNCs
    - Restrictions on employment of foreign personnel, on imports of capital goods, rules of origin

Econometric specification

- Regression follows Bergstrand and Egger (2007), and Carr et al. (2007), with extension to industry data
- FAS and FDI stocks from Eurostat database
- FDI restrictiveness index from Koyama and Golub, 2006

$$\text{FAS}_{irst} = \alpha_0 + \beta_1 \ln(\text{GDP}_{st}) + \beta_2 \ln(\text{GDPROW}_{rst}) + \beta_3 \ln(\text{production}_{irt})$$
$$+ \beta_4 \ln(\text{GDP/capita}_{rt}) + \beta_5 \ln(\text{GDP/capita}_{st}) + \beta_6 \text{distance}$$
$$+ \beta_6 \ln(\text{common language}_{rst}) + \beta_6 \ln(\text{trade openness}_{rst})$$
$$+ \beta_7 \ln(\text{investment barriers}_{rst}) + \beta_8 \ln\left[(S/U)_{rst}/(S/U)_{rst}\right] + \sum_t \gamma_t + \varepsilon_{irst}$$
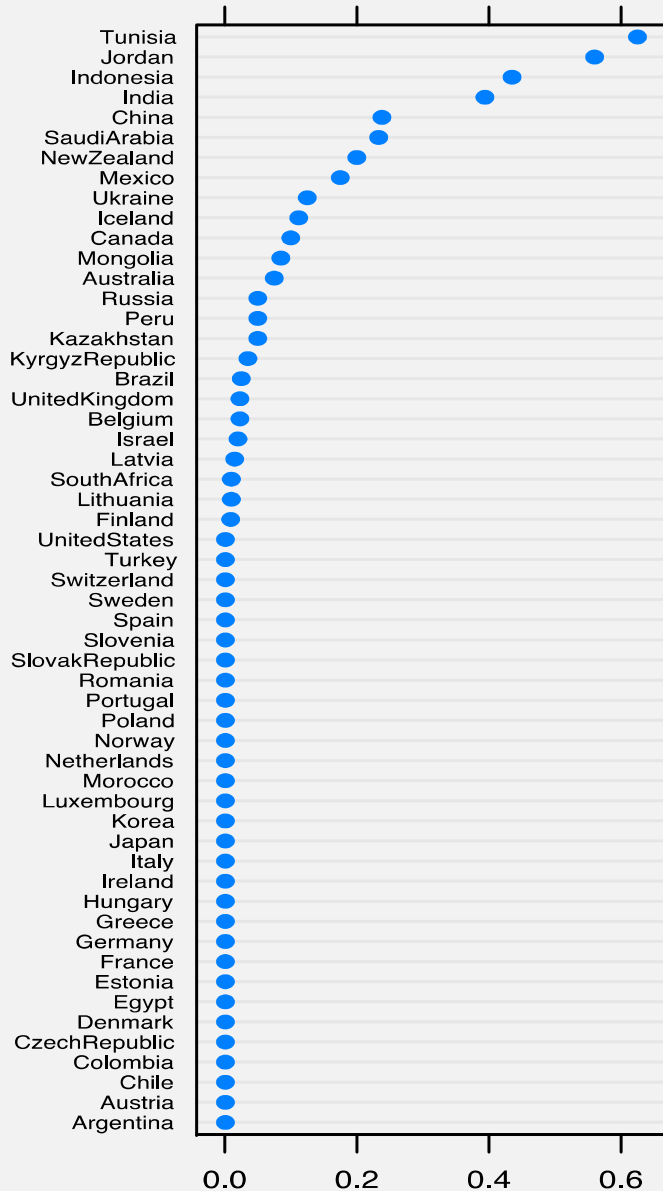
$$\text{FDI}_{irst} = \alpha_0 + \beta_1 \ln(\text{GDP}_{st}) + \beta_2 \ln(\text{GDPROW}_{rst}) + \beta_3 \ln(\text{production}_{irt})$$
$$+ \beta_4 \ln(\text{GDP/capita}_{rt}) + \beta_5 \ln(\text{GDP/capita}_{st}) + \beta_6 \text{distance}$$
$$+ \beta_6 \ln(\text{common language}_{rst}) + \beta_6 \ln(\text{trade openness}_{rst})$$
$$+ \beta_7 \ln(\text{investment barriers}_{rst}) + \beta_8 \ln\left[(S/U)_{rst}/(S/U)_{rst}\right] + \sum_t \gamma_t + \varepsilon_{irst}$$

- r=host; s=source; i=industry; t=time

Restrictiveness index in distribution services

OECD (Kalinova et al., 2010)

Implied quantity change of reducing barriers to zero
(elasticity = 0.55 sales and 1.44 FDI)

	Index	% Sales	% FDI
USA	0	0	0
EU27	0.013	0.71%	1.88%
China	0.238	13.09%	34.38%
India	0.394	21.67%	56.91%
East Asia	0.087	4.79%	12.57%
ASEAN	0.158	8.68%	22.82%
Aus & Nz	0.099	5.43%	14.30%
ROW	0.075	4.15%	10.83%

SIMULATIONS

Simulations

- Unilateral liberalization of barriers to barriers to foreign commercial presence in India
  - S1a: removal of 75% of barriers to FDI and foreign affiliates in distribution services in India
  - S1b: S1a + 3.8% productivity spillovers to the domestic distribution industry in India
  - <u>S1c: S1b + 3.8% exogenous productivity spillovers to upstream (agriculture) supplying industries in India</u>
- Multilateral liberalization of distribution services trade under GATS mode 3

RESULTS

Output in India

	USA	China	India	East Asia	ASEAN	Aus & Nz	EU27	ROW	Total
Source country									
Agriculture	9.0	13.6	3.8	9.6	9.3	9.0	10.1	9.0	4.0
Mining	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Manufacturing	-0.1	0.0	1.5	-0.1	0.0	0.0	-0.1	-0.1	1.4
Distribution	355.2	54.3	2.2	190.3	63.2	529.5	201.3	55.4	10.9
Transport	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
Other serv	-0.1	-0.1	0.1	-0.1	-0.1	-0.1	0.0	-0.1	0.1

Source: authors' simulations (% change)

Investment in India

|	Foreign investment	Domestic investment
Agriculture	2.18	-0.15
Mining	-0.03	-0.04
Manufacturing	-0.08	0.27
Distribution	13.46	-0.19
Transport	-0.07	0.12
Other services	-0.06	0.06

Source: authors' simulations (% change)

Trade

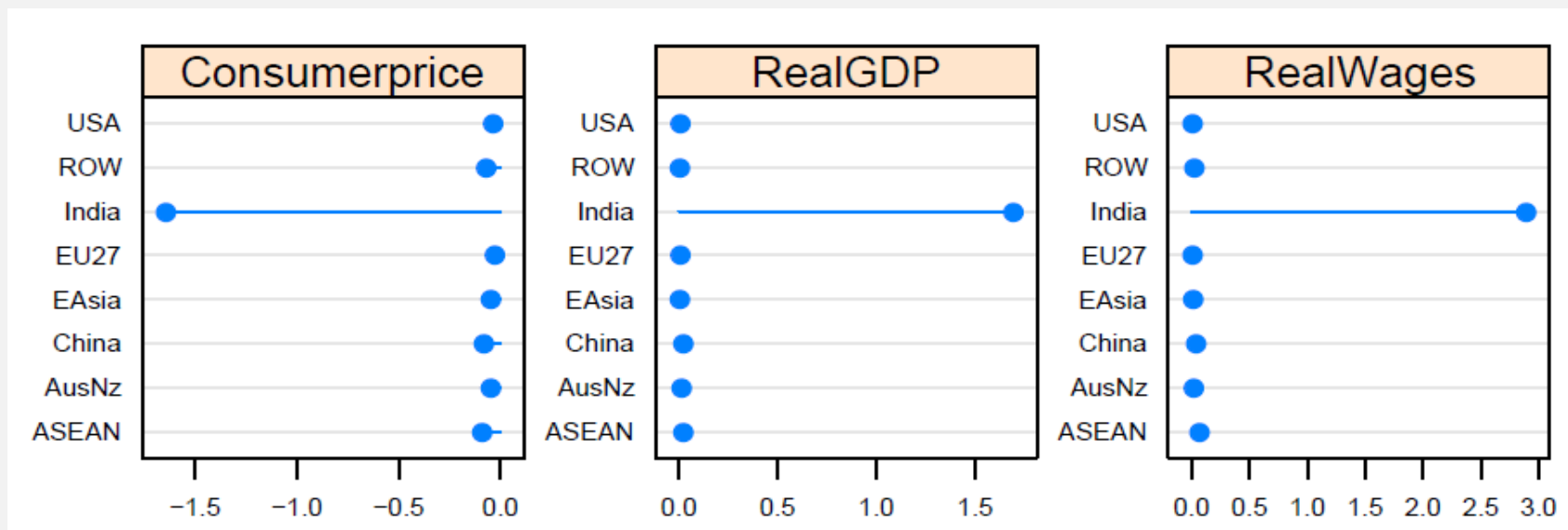|	Imports	Exports
USA	0.06	-0.10
China	0.01	0.08
India	-0.94	2.87
EAsia	0.02	-0.04
ASEAN	0.00	0.05
AusNz	-0.02	-0.03
EU27	0.04	-0.09
ROW	0.00	0.02

Source: authors' simulations (% change)

Macro Indicators

S1a – removal of barriers only
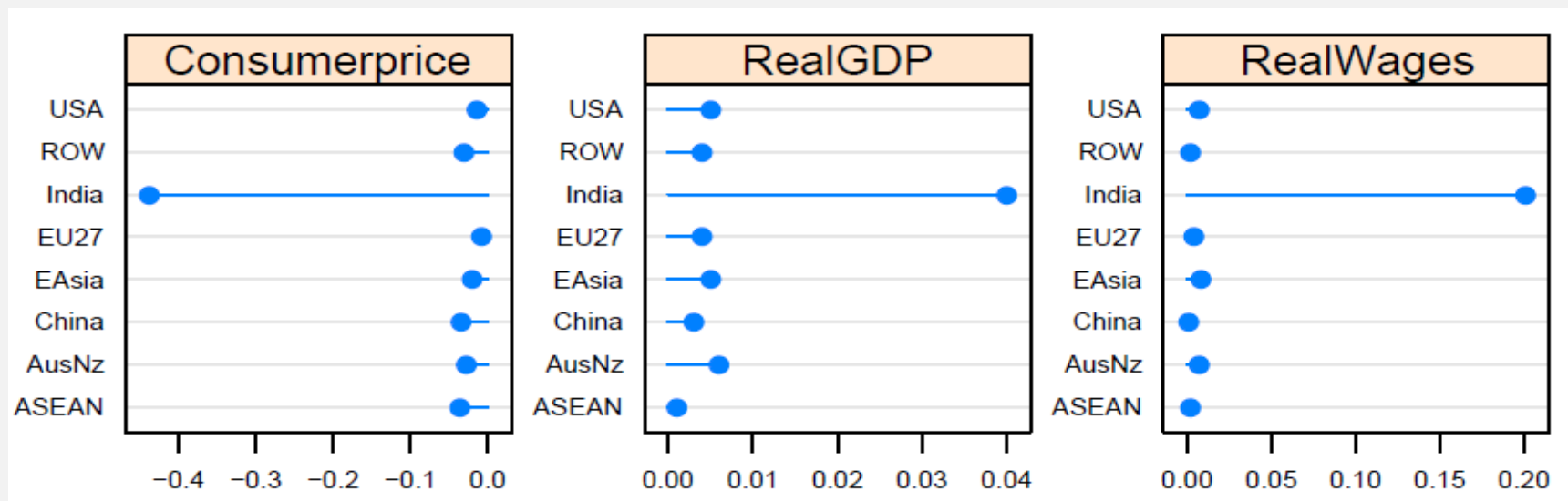
S1c – removal of barriers + productivity spillovers

Conclusion

- GTAP+FDI+MNCs – a powerful framework for considering the impact of a wide range policy instruments

- Future work: gather/incorporate additional data on the activities of foreign affiliates
  - Exports and imports (intra-firm trade literature)
  - Royalty payments
  - Growth on the extensive margin

- Liberalization of FDI in retail in India: a Fast Death Instrument?