FDI: Causes and Consiquences

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FDI Paradox

More than 60% FDI inflow to Developed Countries
FDI Stock 2006 – 66%, 2016 – 63%

Technology Transfer
88% of Royalty Payments Among Developed Countries

Less Developed Countries get less FDI and Technology

Table 1: FDI stock by region (in million US $)

	1990	2000	2007	2010	2015	2016
FDI inward stock						
World	1941252	5786700	15210560	19140603	24983214	26728256
Developed economies	1412605 (72.8)	3987624 (68.9)	10458610 (68.8)	12501589 (65.32)	16007398 (64.07)	16917253 (63.29)
Developing economies	528638 (27.2)	1738255 (30.0)	4246739 (27.9)	5951203 (31.1)	8374428 (33.52)	9077653 (33.96)
China	20691 (1.1)	193348 (3.3)	327087 (2.2)	578818 (3.2)	1220903 (4.89)	1354404 (5.06)
Hong Kong China	201653 (10.4)	455469 (7.9)		1097620 (5.7)	1572606 (6.29)	1590808 (5.95)
India	1657 (0.1)	17517 (0.3)	76226 (0.5)	197939 (1.03)	282273 (1.13)	318502 (1.19)

Table 2: FDI Flows by region (in million US $)

Note: percentage share of the FDI inward and outward flow to the world total is given in the parenthesis

	2005	2006	2007	2010	2015	2016
FDI inflow						
World	958697	1411018	1833324	1243671	1762415	1746423
Developed economies	611283 (63.8)	940861 (66.7)	1247635 (68.1)	601906 (48.39)	962496 (54.62)	1032373 (59.11)
Developing economies	316444 (33.0)	412990 (29.3)	499747 (27.3)	573568 (46.1)	764670 (43.40)	646030 (36.99)
Asia	210026 (21.9)	272890 (19.3)	319333 (17.4)	357846 (28.8)	540722 (30.69)	442665 (25.35)
China	72406 (7.6)	72715 (5.2)	83521 (4.6)	106736 (8.6)	135610 (7.70)	133700 (7.66)
Hong Kong				72319 (5.81)	174892 (9.93)	108126 (6.19)
India	7606 (0.8)	19662 (1.4)	22950 (1.3)	24640 (2.0)	44208 (2.51)	44486 (2.55)
FDI outflow						
World	880808	1323150	1996514	1323337	1474242	1452463
Developed economies	748885 (85.0)	1087186 (82.2)	1692141 (84.8)	935190 (70.7)	1065192 (72.25)	1043884 (71.87)
Developing economies	117579 (13.3)	212258 (16.0)	253145 (12.7)	327564 (24.8)	377938 (25.64)	383429 (26.40)
Asia	79412 (9.0)	141105 (10.7)	194663 (9.8)	244585 (18.5)	331825 (22.51)	363058 (25.00)
China	12261 (1.4)	21160 (1.6)	22469 (1.1)	68000 (5.1)	127560 (8.65)	183100 (12.61)
Hong Kong				88025 (6.66)	55143 (3.74)	62460 (4.30)
India	2978 (0.3)	12842 (1.0)	13649 (0.7)	14626 (1.1)	7501 (0.51)	5120 (0.35)

FDI LOCATION ADVANTAGES

MARKET SEEKING

Size, Income and Growth Rate
Membership of Regional Union

EFFICIENCY SEEKING

Cost: Labour and Skill
(In empirical studies cheap labour has not emerged significant)
Infrastructure: Transport, Telecommunications, Electricity, Port facilities
Customs, Legal Dispute Settlements, Rule of Law

OTHER LOCATION ADVANTAGES

Technological Status
Brand Name and Goodwill of Local Firms
Openness of the Economy (This has also not emerged important)
Trade Macro Policies of the Government
IPR (In studies this variable is also unimportant)

Country/Variables	India	China	Malaysia	Thailand	Singapore
Ease of Doing Business Rank	130 (100)	78 (78)	23 (24)	46 (26)	2)2)
Starting Business	155(156)	127 (93)	112 (111)	78 (36)	6 (6)
Construction Permits	185 (181)	177 (172)	13 (11)	42 (43)	10 (16)
Getting Electricity	26 (29)	97 (98)	8 (8)	37 (13)	10 (12)
Registring Property	138 (154)	42 (41)	40 (42)	68 (68)	19 (19)
Getting Credit	44 (29)	62 (68)	20 (20)	82 (42)	20 (29)
Protecting Minority Investors	13 (4)	123 (119)	3 (4)	27 (16)	1 (4)
Paying Taxes	172 (119)	131 (130)	61 (73)	109 (67)	8 (7)
Trading across Borders	143 (146)	96 (97)	60 (61)	56 (57)	41 (42)
Enforcing Contracts	172 (164)	5 (5)	42 (44)	51 (34)	2 (2)
Resolving Insolvency	136 (103)	53 (56)	46 (46)	23 (26)	29 (27)

Development of Indian Manufacturing Sector: Two sets of constraints.

Physical and Government Infrastructure – They are related and reinforce each other.

Physical Infrastructure

Insufficient investment in Roads, Ports, Electricity and Railways.

Long hours of load shedding, power holidays and closure of manufacturing units.

Large enterprises – captive power plants – not cost effective

SMEs – Cannot afford them – Main victims

Bad governance and corruption has made things worse.

Small percentage of allocated sum goes for infrastructure

Governance Issues

Tax and fiscal concessions not sufficient to attract investment

Tackling Corruption is more important

Corruption is like a tax that pushes up costs – except that the money goes to corrupt individuals instead of to government.

Given the level of corruption, tax concessions and reduction in interest rates may not be sufficient to attract investment.

Bad governance affects both the quantity and quality of investment.

Studies relating corruption and FDI

Wei, Shang-jin (2000). “How taxing is corruption on international investors?”, *The Review of Economics and Statistics*, 82(1), 1-11.

Equations	1	2	3	4	5
Tax rate	-2.39**	-2.57**	-2.61	-3.51**	-3.66**
Corruption	-0.18**	-0.18**	-0.16**	-0.11**	-0.10**
Tax credit		0.75	0.71	0.83	0.84
Pol.Stabi			0.13**	0.20**	0.17**
logGDP	0.39**	0.39**	0.32**	0.02	0.04
LogPOP	0.20**	0.20**	0.26**	0.56**	0.63**
LogDIST	-0.30**	-0.29**	-0.29**	0.28**	0.27**
LANG-TIE	0.33**	0.33**	0.27*	0.31*	0.33**
OECD					0.50**
Log wage				0.35**	0.42**
OECD*Lwage					-0.19*

Suppose β_1 and β_2 are coefficient estimates for tax rate and corruption, respectively. Given the specification, a $100/\beta_1$ percentage point change in tax rate and a $1/\beta_2$ change in the rating of corruption would produce the same amount of change in the stock of FDI. Therefore, a one-step increase in the corruption measure is equivalent to $100\beta_2/\beta_1$ percentage points increase in the tax rate. Using the estimates in column 2, a one-step increase in the corruption level is equivalent to a rise in the tax rate by 7.53 percentage points, other things equal. An increase in corruption level from that of Singapore to that of Mexico has the same negative effect on inward foreign investment as raising the tax rate by over fifty percentage points.[13]

Cuervo-Cazurra, Alvaro (2006). "Who cares about corruption?", *Journal of International Business Studies*, 37(6), 807-822.

- Corruption results not only in a reduction in FDI but also in a change in the composition of country of origin of FDI.
- Two cases: (1) FDI from countries that have signed the OECD convention of combating bribery of foreign public officials in international business transactions and (2) FDI from countries with high levels of corruption.
- Relationship between corruption and FDI in modified by the country of origin of FDI.
- Corruption in the host country results in relatively less FDI from countries that have signed the OECD convention, but in relatively more FDI from countries with high levels of corruption.

Tobit model

OECD x HCC		-0.323**
HCHC x HCC		0.460**
HCC	-0.345***	-0.170
Ln GDP	0.480***	0.473***
Population	0.008***	0.008***
Ln Distance	-0.833***	-0.756***
Landlocked	-0.039	-0.112
Island	-0.479*	-0.515**
CB	0.709**	0.543*
CL	0.542**	0.602**
CC	-0.197	-0.281
ECL	0.714**	0.676**
RFDI	-0.218*	-0.244*
RTrade	0.027	0.030
Log Likelihood	-1881.763	-1776.249

Till Recently Most FDI Inflows into India were in manufacturing

2005 Manufacturing share 41%, 2008: 20%
Manufacturing share 2000 – 2017: 26%;

Real estate and construction and other servicers dominate

Investments from Tax heavens dominate

Investments from OECD countries have come down
2000 to 2017 31%; Mauritius 34%; 2017 – 37%

Huge increase in FDI in non financial services

Nadia Doytch, Merih Uctum "Does the worldwide shift of FDI from manufacturing to services accelerate economic growth? A GMM estimation study", ***Journal of International Money and Finance*** 30 (2011) 410–427

However, nonfinancial service FDI drains resources and hurts manufacturing industry

We conclude that a shift from manufacturing to service FDI is likely to lead to deindustrialization in certain regions and types of economies if this shift is spearheaded by nonfinancial FDI.

Consequences: Spillovers

- Developing countries have been inviting FDI mainly to benefit from technology and productivity spillovers.
- Spillovers are not automatic.
- Not all local firms would benefit from spillovers – some could become victims.

Lessons From Literature

- Whether an enterprise benefits from spillover or not depends on the technology and productivity gap between the local firm and the MNE.
- Firms that have large technology gaps may not be able to benefit from FDI spillovers and could even become victims.
- However, if they invest resources to change the manufacturing configuration and modernise their unit, in the long-run they could gain substantially.
- Enterprises that invest in R&D and having a good technological base benefit from the presence of MNEs.

Lessons - 2

- Firms with high R&D spending also benefit from import of technology through royalty and technical fee payments.
- During the initial stages of liberalisation spillovers are likely to be modest and would increase over the years.
- Spillovers also depend on corporate governance and ownership structure.
- Technology and productivity spillovers are more in the case of FDI from developed countries.

Lessons - 3

- With regard to the local firms, there is evidence in the case of China that government owned firms received very little spillovers compared to other private Chinese firms.

- In the short-run spillovers could be modes and even negative, in the long-run spillovers could be substantial and beneficial.
- Emergence of Asia as the manufacturing hub.
- Loss of competitiveness of MNEs from developed countries
- Emergence of OFDI from China and India

Table 1

Determinants of VAL (White Heteroskedasticity-Consistent Estimates)

Ind. Variables	1993	1994	1995	1996	1997	1998	1999	2000
MS	-0.010	0.002	0.007	0.001	-0.002	-0.003	0.009	-0.002
t	-0.748	0.158	0.385	0.049	-0.207	-0.342	1.382	-0.179
MSF	**-0.026***	0.038	0.024	-0.027	-0.040	-0.001	0.030	0.018
	-3.30	1.025	0.449	-0.690	-1.118	-0.025	1.249	1.116
VALF	**0.654***	**0.981***	**1.073***	**1.248***	**1.391***	**1.557***	**1.548***	**1.349***
	7.612	**6.079**	**5.073**	**5.266**	**4.899**	**7.314**	**5.844**	**5.969**
GAP	**3.325***	**2.992***	**3.201***	**3.455***	**3.246***	**2.952***	**3.201***	**3.644***
	16.393	**13.232**	**15.655**	**16.401**	**21.427**	**16.617**	**13.461**	**18.089**
COR	0.006	0.007	-0.029	-0.026	-0.038	**-0.082***	-0.044	**-0.041***
	0.862	1.216	-1.293	-1.777	-1.252	**-3.109**	-1.746	**-2.961**
AD	-6.895	**-14.77+**	-4.061	-0.432	-10.14	-2.569	-1.512	-2.262
	-0.960	**-2.323**	-0.605	-0.105	-1.395	-0.596	-0.493	-0.994
EXPORT	0.012	0.037	0.010	0.011	0.183	0.025	0.253	0.396
	0.227	1.084	0.058	0.061	0.629	0.136	0.996	1.079
IMPTECH	1.823	**-22.26+**	**-20.88***	-3.222	-1.852	0.352	5.446	-2.519
	0.509	**-2.250**	**-2.996**	-0.626	-0.195	0.061	0.782	-0.559
IMPCAP	0.043	0.480	0.337	-0.478	**-1.596***	**-0.997***	**-1.589***	**-0.745***
	0.110	0.912	0.944	-0.562	**-2.822**	**-2.551**	**-3.034**	**-2.547**
CONST	**-2.147***	**-3.564***	**-3.816+**	**-4.199***	**-3.759***	**-4.406***	**-5.262***	**-4.914***
	-4.119	**-2.842**	**-2.408**	**-3.246**	**-4.007**	**-4.774**	**-4.939**	**-5.974**
D_AUTOAN	**1.302***	-0.099	0.119	0.795	1.027	-0.167	-1.103	-0.673
	8.721	-0.121	0.099	0.924	1.213	-0.199	-1.162	-1.230
D_COMVEH	**1.206***	-0.048	0.050	-0.047	-0.240	-1.126	-0.818	-0.437
	3.495	-0.103	0.066	-0.079	-0.403	-0.492	-1.658	-1.089
D_MCYCLE	**2.506***	-1.236	-1.096	1.437	2.232	-1.126	-3.538	-2.626
	6.829	-0.602	-0.363	0.609	1.004	-0.492	-1.597	-1.614
D_CAR	**-6.002***	**-14.00***	**-19.31***	**-31.83***	**-24.11***	**-21.48***	**-19.92***	**-17.66***
	-5.468	**-3.524**	**2.793**	**-4.006**	**-3.886**	**-4.419**	**-3.958**	**-4.258**
D_CHEM	**2.152***	**1.336***	**1.735+**	0.458	0.417	-1.362	-1.029	-0.281
	7.192	**2.821**	**2.100**	0.414	0.334	-1.272	-0.959	-0.374
D_DOMEAPPLS	**1.905***	1.928	**-2.509***	-0.714	0.131	**-2.553***	-0.719	0.079
	4.665	1.551	**-2.790**	-1.134	0.222	**-2.552**	-0.645	0.131
D_DRYCELLS	-0.637	**-3.805***	**-3.906+**	-2.893	**-2.826+**	**-4.400***	**-3.970***	**-3.008***
	-1.085	**-2.769**	**-2.015**	-1.771	**-2.399**	**-3.633**	**-2.683**	**-2.969**
D_ELECTRIC	**-1.979***	**0.809***	**-0.964***	-0.147	-0.432	-0.562	-0.711	-0.514
	-4,025	**-2.794**	**-3.087**	-1.151	-1.401	-1.810	-1.768	-1.609

Estimating the level and rate effects of intraindustry and interindustry spillovers, dependent variable: ltfp

Variables	(1) Full sample	(2) Full sample	(3) Domestic sample	(4) Domestic sample
FDI_firm	NS			
FDI_firm (lagged)		NS		
FDI_sector	– **		– ***	
FDI_sector (lagged)		NS		NS
Time * FDI_sector	**		NS	
Time * FDI_sector (lagged)		NS		NS
FDI_downstream_sector	– **		NS	
FDI_downstream_sector (lagged)		– **		– ***
Time * FDI_downstream_sector	***		**	
Time * FDI_downstream_sector (lagged)		NS		**
FDI_upstream_sector	NS		NS	
FDI_upstream_sector (lagged)		NS		– **
Time * FDI_upstream_sector	NS		NS	
Time * FDI_upstream_sector (lagged)		*		NS
Time	***	*	***	***
HI	NS	NS	– **	NS
Firm dummy	Yes	Yes	Yes	Yes
Obs.	50,667	30,225	39,140	23,555
Adj-R^2	0.914	0.932	0.914	0.932

Figures in parentheses are standard errors corrected for heteroskedasticity.
Lagged indicates the independent variable is lagged by 1 year.

Current data for India and China show:

Several Indian and Chinese firms are on the frontier in many industries.

In such cases spillovers would be from Indian firms to the developed countries MNEs

Asia has emerged as the manufacturing hub

US and Europe have lost their manufacturing advantages

Future studies should concentrate on this emerging trend

Outward FDI from China and India

China: 13% of world OFDI

Randall Morck, Bernard Yeung and Minyuan Zhao, "Perspectives on China's outward foreign direct investment", *Journal of International Business Studies* (2008) 39, 337–350

Xiaoxi Zhang, Kevin Daly, "The determinants of China's outward foreign direct investment", *Emerging Markets Review* 12 (2011) 389–398

Weilei (Stone) Shi, Sunny Li Sun, Daying Yan and Zhu Zhu, (2017), "Institutional fragility and outward foreign direct investment from China", *Journal of International Business Studies* 48, 452–476

China Accounted for 13 per cent of the world OFDI flows

However, till recently more than 85% went to Hong Kong and Cayman Islands

From these places some investment went to African countries in mining and mineral sectors.

State owned enterprises main players

Mainly went for mining, trade and real estate.

India: 0.35% of world OFDI, It was 1% in 2010

Sumon Kumar Bhaumik, Nigel Driffield and Sarmistha Pal (2010), "Does ownership structure of emerging-market firms affect their outward FDI? The case of the Indian automotive and pharmaceutical sectors", ***Journal of International Business Studies*** **41, 437–450**

Pradhan, Jaya Prakash and Singh, Neelam, "Group A_liation and Location of Indian Firms' Foreign Acquisitions", MPRA Munich Personal RePEc Archive, July 2010

Ronny Thomas and K. Narayanan, "Determinants of outward foreign direct investment: a study of Indian manufacturing firms", ***Transnational Corporations*** **– Volume 24, Number 1, 2017**

More than 85% went to Developed Countries.

Share of South East Asia was about 8 %

Manufacturing dominated.

Most productive and R&D intensive firms went abroad

OFDI Promoted Indian exports