

# Foreign Direct Investment and Income Inequality in Latin America: Experiences and policy implications

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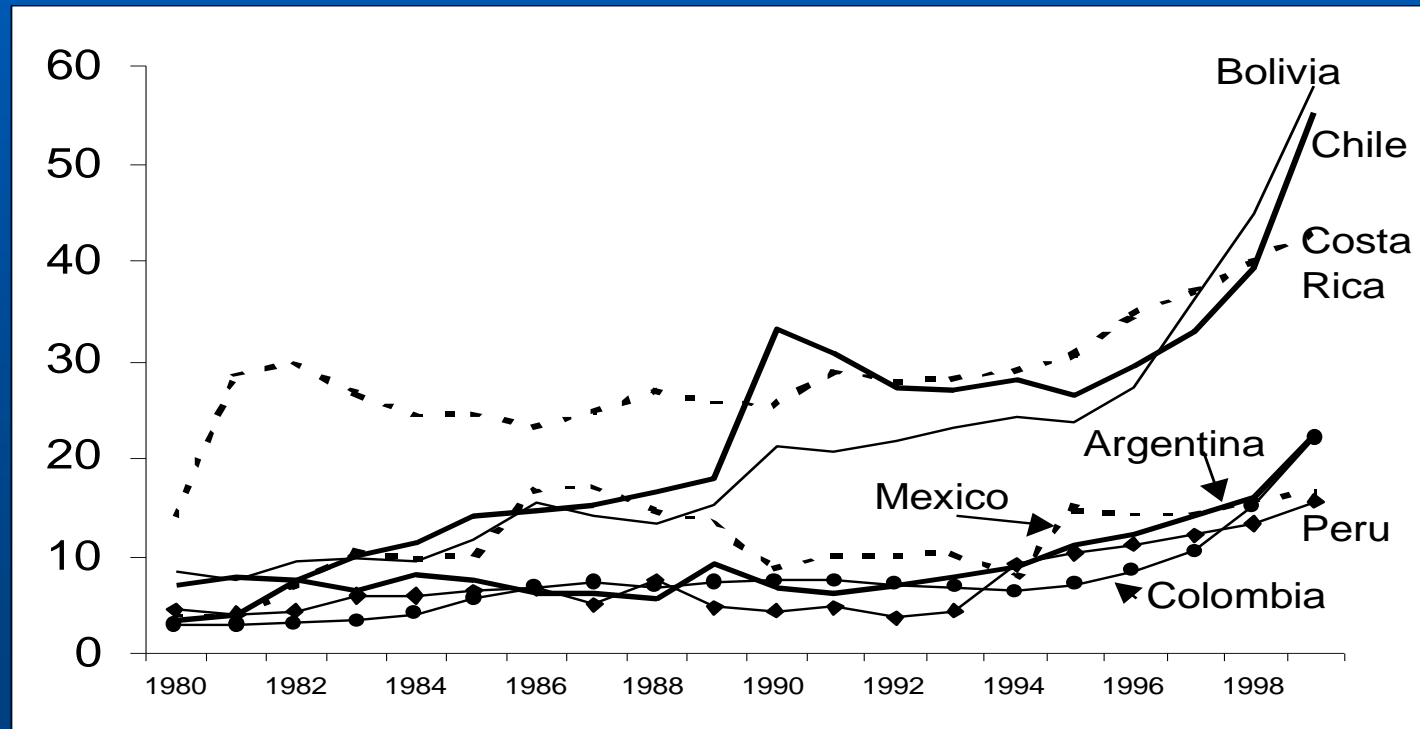
# Motivation

- **The past two decades have seen FDI liberalisation across the LA continent**
- **There appear to be successful and less successful cases of FDI in Latin America. Not all countries and not all people within societies tend to benefit equally. Inequality is persistently high.**
- **Examine impact of FDI on income inequality and assess what policies may affect the distributional impact.**

# FDI in Latin America

## *Economic importance*

FDI stock as per cent of GDP



# FDI in Latin America

## *Sectoral distribution*

**Table 7**      **Sector distribution of FDI**

	Sector distribution of FDI (stocks or accumulated flows over nearest period)		
	Primary: Agriculture, Mining, and Petroleum	Manufacturing	Services and others
Argentina (1992-1994)	14	35	51
Bolivia (1992-1997)	60	12	28
Brazil (stock in 1995 + flows in 1996 and 1997)	2	30	68
Chile (1974-2001)	35	13	52
Colombia (1994-2000)	9	23	69
Paraguay (1995-200)	5	25	70
Peru (1993-1999)	17	13	70

**Source:** see appendix A

# Income inequality: persistently high

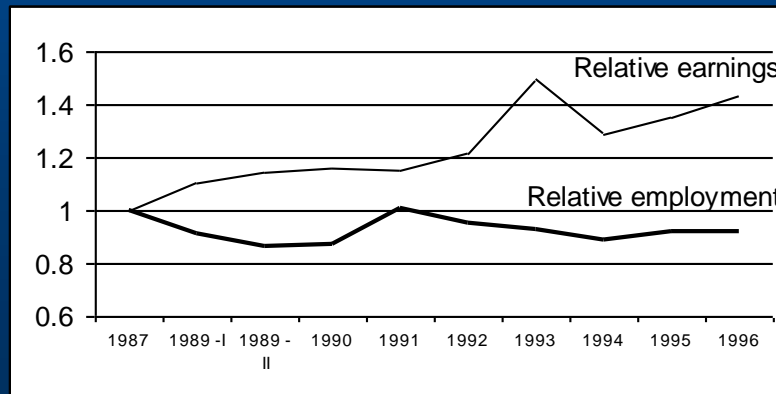
## Wage inequality: rising for many

### Gini coefficients

	1960s	1970s	1980s	1990s
Latin America	53.2	49.1	49.7	49.3
Sub-Saharan Africa	49.9	48.2	43.5	46.9
East Asia and Pacific	37.4	39.9	38.7	38.1
Middle East and North Africa	41.4	41.9	40.5	38
OECD and high-income countries	35	34.8	33.2	33.7
South Asia	36.2	33.9	35	31.9
Eastern Europe	25.1	24.6	25	28.9

Sources: *Deiniger and Squire (1996)*

### Relative earnings and employment of educated workers (Bolivia)



# FDI and Wage Inequality (theory)

- **Traditional trade theory would suggest that FDI in developing countries is better for the poor than the rich. However, FDI could benefit skilled workers more than less-skilled workers (how does FDI affects the labour market):**
  - ➔ **skill-specific technical change (e.g. foreign firms spread use of IT technologies)**
  - ➔ **skill-specific bargaining (engineering skills and a language are key skills for an investor)**
  - ➔ **composition effect (in skill intensive sectors, or sectors with few employment linkages)**
  - ➔ **training and education (favouring the skilled)**

# FDI and Development

*(experience at macro level)*

- FDI is associated with faster average growth, and with faster exports
- FDI is not associated with reduced inequality, but may increase inequality (Feenstra and Hanson, for Mexican manufacturing)

# FDI and Development

## *wages at micro level (LA)*

- Foreign firms pay higher wages, also when controlling for size, location, sector, etc.
- But the wage premium is higher for skilled than for less-skilled workers

**Table 6: Micro-evidence on foreign ownership in Latin American manufacturing**

Study	Country, year and number of observations	Dependent variable	Controls	Results
Aitken and Harrison (1999), table 2 column 2	Venezuela, 10,257 manufacturing plants, 1976-1989	Log output in plant	Plant inputs, sector dummies, regional controls, share of foreign ownership in sector and region	Foreign firms have 15.4% higher productivity and is significant.
Aitken, Harrison and Lipsey (1996), table 1	Mexico (1990) and Venezuela (1987), 10000+ and 4700+ manufacturing establishments	Log wage of skilled and unskilled wages in plant	Capital stock, royalty payments, output price, region price, industry and region dummies	Foreign firms pay 28.7 per more in Venezuela, and 21.5% in Mexico (skilled workers), and 22.0 in Venezuela and 3.3% in Mexico (unskilled workers).
Blomstrom et al. (2000)	Uruguay (1988), 159 manufacturing plants	Value added per employee	Capital-labour ratio, capacity utilisation, technology payments, share of management personnel, size of firm.	A one percentage increase in the share of foreign ownership in the sector raises labour productivity in local firms by 10% on average. However, spillovers apply only to plants with productivity levels similar to foreign firms.

# FDI and Development:

## *training at micro level (LA)*

- The percentage of foreign firms that provide training is greater than domestic firms: 20% in Trinidad and Tobago, 20% in Haiti, 30% in El Salvador, 30% in Venezuela, 15% in Costa Rica and 10% in Argentina. Probably due to use of more advanced technology (and size)
- But most of the training budget appears to go to managers and professionals
- And skilled workers tend to benefit most:

Country	Skilled workers	Unskilled workers
Colombia (1992, 500 firms)	38.6*	-26.3
Indonesia (1992, 300 firms )	143.1*	-55.0
Malaysia (1994, 2200 firms)	25.2*	-4.1
Mexico (1992, 5072 firms)	20.4*	-13.2

\* significant. Source: *Tan and Batra (1995, Table 12)*

# FDI and Wage Inequality:

## *New evidence for Latin America*

- Model wage inequality through relative wage curve depending on relative employment, technological progress (Katz and Murphy, 1992), unionisation, trade and FDI

$$\ln\left(\frac{w_{Sit}}{w_{Uit}}\right) = \alpha_i + \beta \ln\left(\frac{S_{it}}{U_{it}}\right) + \gamma_1 t + \gamma_{2i} fdis_{it} + \gamma_{3i} trade_{it} + \varepsilon_{it}$$

- Data:

National annual data sources (household surveys), four countries for 80s and 90s; 2) ECLAC and IADB statistical data, 10 countries and 4 observations in 90s

- Results; FDI does not reduce wage inequality (minor exception in Colombia), but may have increased inequality in Chile and Bolivia (and possibly Venezuela and Costa Rica) where FDI has been mainly **natural resource or skill seeking**

# The role of FDI policies: rationale

- Information failure in the international investment process
  - *FDI attraction policy*
- Market failures in the market for skills and technology
  - *FDI upgrading policy*
- Potential spillover effects of FDI for local firms (e.g. information failure)
  - *FDI linkage promotion policy*

# Policies affecting the impact of FDI:

- ***Government policies (address market failures):***
  - **affecting TNCs directly**: providing incentives to engage in upgrading, e.g. training (weak in LA), or in outsourcing and creating jobs locally.
  - **creating an environment to benefit from FDI**: good quality education and infrastructure, capacity building for private sector development (invisible in Bolivia), regulatory framework.
  - **attracting right type of FDI**: trade and FDI policies
- ***Business policies*** in the area of pay, training, industrial relations and supply chain.

**Table 12: Enrolment rates as % of population**

	Enrolment ratio 1 <sup>st</sup> level <sup>1</sup>		Enrolment ratio 2 <sup>nd</sup> level <sup>1</sup>		Tertiary enrolments		Technical tertiary enrolments (natural science, maths, computing, engineering)	
	1980	1995	1980	1995	1995	Percentage point changes 1980-95	1995	Percentage point changes 1980-95
Developing Countries	88	91	34	44	0.82	0.46	0.16	0.08
Sub-Saharan Africa	74	78	17	23	0.28	0.21	0.04	0.03
MENA	88	92	42	59	1.26	0.70	0.22	0.11
Latin America	102	103	45	53	1.64	0.34	0.30	0.05
Argentina	106	113	56	77	3.08		0.47	
Bolivia	84	95	36	37	1.48		0.34	
Brazil	99	112	34	45	1.08		0.18	
Chile	109	99	53	69	2.58		0.73	
Colombia	128	114	44	67	1.80		0.51	
Costa Rica	105	107	48	50	2.58		0.35	
Honduras	93	111	30	32	0.96		0.20	
Mexico	115	111	46	58	1.56		0.44	
Panama	106	106	61	66	2.92		0.59	
Paraguay	104	109	26	38	0.88		0.11	
Peru	114	123	59	70	3.21		0.46	
Trinidad & Tobago	97	96	68	72	0.64		0.14	
Uruguay	106	111	60	82	2.14		0.29	
Venezuela	109	94	41	35	2.52		0.29	
Asia 4 Tigers	106	100	72	82	4.00	2.39	1.34	0.68
Hong Kong	106	96	64	75	1.59		0.49	
Korea	110	101	76	101	4.96		1.65	
Singapore	108	104	58	62	2.52		0.47	
Asia 4 new Tigers	103	102	43	60	1.61	0.65	0.28	0.12
Philippines	113	116	65	79	2.70		0.33	
Thailand	99	87	29	55	2.10		0.19	
China	112	120	46	96	0.60	0.48	0.13	0.08

Source: Lall (2001, tables 5.1 -5A4) <sup>1</sup> as % of relevant age group

- Many drop-outs, weak secondary, and weak technical tertiary education (but see e.g. Colombia); compare case of Thailand
- Bad quality education (effect of education?);

# Development and business case: *areas to improve distributional and developmental impact of FDI*

- **Appropriate and good quality education and training for low-skilled workers**
- **Supplier development and linkage promotion: design of appropriate institutions and incentives**
- **Efficient regulatory framework (trade facilitation etc.)**
- **Partnerships between government, business and civil society focusing on core competencies of each of the partners (WSSD, Johannesburg)**
- ➔ **scale up provision of infrastructure (same applies to *health*); transparency, security and (local) reputation**

# Policy in practice:

## *Inti Raymi in Bolivia*

- Strong correlation mining and GDP in Oruro, but mining industry in some LA countries is associated with less direct employment than value added would suggest (e.g. US FDI) and share of value added to compensation is low. Tax rates are sometimes low (e.g. in Bolivia). IR \$8.2mn in wages, \$18 mn in local goods, \$4 mn in taxes. (mining res for 0.5% of gov revenue, gas&oil about 25%)
- Inti Raymi Foundation (\$16 mn since 1991) supports livelihoods of local communities, suggesting that business initiatives can help to improve distributional impact – but there is ongoing debate how business can best contribute to poverty reduction

Programs	Share (%)
Social Investment	24.8
Education	10.4
Health	4.5
Agriculture	9.9
Productive Investment	53.3
Loans	3.0
Microenterprise	22.8
Others	27.5
Development & Research	12.9
Management	9.4

# Policy in practice:

## *Automobile investors in Brazil*

- **Direct employment effects, but few spillovers**
- **Fiscal grants (US\$ 100.000s per job, at sub-national level) may not have been effective because FDI was market seeking, so incentives need to be regulated at least at national level. Fiscal spending could have benefited poorer workers instead.**

# Policy in practice:

## *International Water in Bolivia*

- Privatisation gone wrong (case at ICSID)
- Increases in water bills, incl. for the poor: likely to have increased *real* income inequality (such effects not normally included in wage models; similar to product choice)
- Need for effective regulation before FDI is attracted

# Policy in practice:

## *Intel plant in Costa Rica*

- **Why? Qualified labour force; political stability and coordinated effort by CINDE**
- **Positive economic effects (net exports, employment, wages, linkages) despite zero tax rate**
- **Benefits skilled workers more than less skilled workers, but supply response supported by both Intel and government: appropriate education policy. There is also a linkage support programme (100 suppliers).**

# Conclusions

- Experience: FDI has not reduced but may have increased wage inequality, particularly in Bolivia, Chile and possibly Venezuela and Costa Rica (end 90s); this may require a policy response.
- Public policy implications: linkage promotion programmes; appropriate and good quality education (supply side measure with public goods aspects, but there is a demand); regulatory framework.
- Business policies: Business can also help (training & education of lower skilled workers, social investment, etc.)

# Conclusions

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