# A Granular Approach to the Effects of Bilateral Investment Treaties and Regional Trade Investment Agreements on Foreign Direct Investment

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# Introduction

-FDI and IIAs: overview

## Attracting FDI

Most countries are eager to attract foreign direct investment (FDI) to

- 1. Generate new job opportunities.
- Increase capital accumulation.
- Raise total factor productivity.

Bilateral investment treaties (BITs) and Regional trade investment agreements (RTIAs) are international investment agreements (IIAs) designed to:

- 1. Facilitate,
- Protect.
- 3. Promote FDI.

Introduction

-FDI and IIAs: overview

#### **Bilateral investment treaties**



Source: UNCTAD.

-FDI and IIAs: overview

#### Regional trade investment agreements



Source: DESTA.

### Rationale

BITs and RTIAs can be understood as dual-function devices:

- 1. A means of making **substantive promises** to treat foreign investors well e.g. national treatment or transfer of payments.
- 2. A means of making these **promises credible** e.g. investor-state dispute mechanism (ISDM).

An ISDM is an **extraordinary provision**: it grants a private party the autonomous right to bring an action in an international tribunal (e.g. WB ICSID) against a sovereign country with respect to an investment dispute.

By according substantive and procedural rights to foreign investors, BITs and RTIAs should increase a country's international attractiveness. Introduction

-FDI and IIAs: overview

#### **Empirical evidence**

Taken together, these analyses suggest that it is **difficult to establish firmly the effect** of BITs on FDI flows (Sachs and Sauvant, 2009).

The results of the meta-analysis stand in stark contrast to the descriptive results just presented. In a nutshell, the positive impact of IIAs on FDI suggested by theoretical reasoning is not confirmed empirically. These results suggest that the effect of IIAs on FDI are of no practical relevance [...] (Chaisse and Bellak, 2015).

Their findings suggest that so-called "new age" provisions in RTAs are associated with greater FDI flows among member countries, even though **the evidence is ambiguous** (Berger et al., 2013). Coarseness of existing research

FDI data:

- 1. Balance of Payments financial flows; often multilateral.
- 2. No distinction between different entry modes/ destination sectors.

IIAs data:

- 1. Binary indicator; no distinction between different provisions.
- 2. Omit potentially relevant treaties, e.g. double taxation treaties (DTTs) or standard RTAs.

Control variables: push and pull factors are imperfectly controlled for.

Introduction

Our contribution: granularity

### A granular approach

Heterogeneous FDI:

- 1. **Real, bilateral, sector-specific data** on new FDI projects during the period 2003-2010 for an extensive number of dyads.
- 2. **Distinction** between (i) greenfield and M&A FDI; (ii) FDI in natural resources, manufacturing, and services.

Heterogeneous IIAs:

- 1. **BITs and RTIAs are unbundled** in five different categories of investment provisions.
- 2. RTAs, DTTs, currency union, or joint membership of GATT/WTO are taken into account.

*Heterogeneous push and pull factors*: country-specific factors are **fully controlled for**.

Introduction

Key findings: homogeneous effects of specific provisions

# Key findings

BITs and RTIAs can promote FDI if they **include specific provisions**:

- BITs: investor-state dispute mechanism.
- RTIAs: anti-discrimination provision.
- Other clauses do not seem to matter.

The **effects of these provisions are very general**, with no statistically significant difference across:

- 1. Dyadic directions (North-South, South-South...) or country characteristics.
- 2. Entry modes or destination sectors.

A'pro-FDI' BIT or RTIA can be expected to increase the number of FDI projects by 35% and 58% respectively.

L Data and empirical approach

# Data and empirical approach



#### International investment agreements

Chaisse and Bellak (2015) have coded the most important provisions included in BITs and RTIAs. 5 broad 'BITSel' categories:

- ENTRY: average of (i) entry rules (admission vs. establishment);
  (ii) non-economic standards (yes vs. no); iii) free transfer of investment-related funds (no vs. yes).
- TREAT: average of i) national treatment (no vs. yes); ii) most favoured nation (no vs. yes).
- SCOPE: average of i) definition of investment (narrow vs. broad); ii) umbrella clause (no vs. yes); iii) temporal scope of application (short vs. long).
- PROTEC: i) fair and equitable treatment (no vs. yes); ii) direct and indirect expropriation coverd (no vs. yes).
- ► *ISDM*: investor-state dispute mechanism (no vs. yes).

L Data and empirical approach

Data

#### **BIT** provisions



Source: Chaisse and Bellak (2015).

L Data and empirical approach

Data

#### **RTIA** provisions



Source: Chaisse and Bellak (2015).



LData

#### We also take into account DTTs



Source: UNCTAD.



### **New FDI Projects**

- Greenfield; *fDi Markets* database (Financial Times).
- M&A: *Zephyr* database (Bureau Van Djik).

Both databases include source country, destination country, year of the transaction, and the recipient sector.

Vs. BOP FDI:

- ++ Cover all countries and sectors during period 2003-2010.
- ++ Cover two entry modes.
- ++ Less distorted by round-tripping and trans-shipping phenomena.
- ++ Focus on 'real' and 'new' FDI.
  - value of investment is frequently missing. Hence we are looking at the **extensive margin** of FDI (number of projects).

Data and empirical approach

Empirical approach

### Empirical approach

We estimate variants of the following exponential model:

 $FDI0410_{ij} = exp(\delta_1 \overline{BIT}_{ij} + \delta_2 \overline{RTIA}_{ij} + \overline{CONT}_{ij}\beta + \theta FDI03_{ij} + \alpha_i + \alpha_j)\epsilon_{ij}$ 

- FDI<sub>ij</sub> is the cumulated number of FDI projects of firms headquartered in source country *i* in destination country *j* over the period 2004-2010.
- BIT<sub>ij</sub> [RTIA] indicates the existence, for at least two years, of an enforced BIT [RTIA] or of various BIT [RTIA]-related investment provisions.
- ▶ **\*** indicates that **values have been averaged** over the period 2003-2010.

L Data and empirical approach

Empirical approach

#### Rationale for this 'cross-sectional' approach

We include a large number of control variables. However, why not take advantage of the times-series dimension and **include**  $\alpha_{ij}$ ?

- 1. *Signal*: FDI projects are discrete, occasional, and asynchronous. Yearly variation in FDI can be extremely noisy.
- Information: we would discard the information provided by those dyads which never experience FDI and also by those which have signed a treaty before 2004.
- Dynamics: The effects of BITs and RTIAs are likely to take time to occur rather than reaching their full magnitude on the first year of their existence.
- 4. *Ingenuity*: There are other ways to control for the potential endogeneity of BITs/RTIAs.

Data and empirical approach

Empirical approach

# Dealing with partial coverage of BITSel index

The BITSel database does not cover the full universe of BITs and RTIAs.

To ensure that our 'control group' does not in fact include BITs/RTIAs which are not present/coded in the BITSel database, we omit from our sample:

- 1. First, all non-coded country-pairs for which a BIT is reported by UNCTAD.
- 2. Then, all non-coded country-pairs for which a RTA is reported by the WTO.

In our initial sample, about **7%** of the (about 24500) country-pairs have a BIT. In the second sample, about **4% and 2%** of the (about 22500) country-pairs have a BIT or a RTIA.

L Results

# **Results**

Results

Unbundling BITs

### **Unbundling BITs**

#### Cumulated number of FDI projects

BIT	ENTRY	TREAT	SCOPE	PROTEC	ISDM
 (1)	(2)	(3)	(4)	(5)	(6)
<b>0.264</b> *** (0.064)	<b>0.402</b> *** (0.106)	<b>0.196</b> *** (0.071)	<b>0.276</b> *** (0.072)	<b>0.275***</b> (0.063)	<b>0.302</b> *** (0.063)

\*\*\* *p*-value<0.01 \*\* *p*-value<0.05 \* *p*-value<0.10. Cluster-robust standard errors in parentheses. Country fixed effects, the dyadic control variables described in section 2, DTT and RTA, are included in all columns.

# Unbundling FDI: Direction of the dyad

	Cumulated number of FDI projects								
	BIT	PROTEC	ISDM						
	(1)	(2)	(4)	(5)	(6)				
	<b>0.302</b> ** (0.148)	<b>0.586</b> ** (0.241)	<b>0.369</b> ** (0.161)	<b>0.369***</b> (0.143)	<b>0.351</b> ** (0.143)	<b>0.477</b> *** (0.134)			
X NS X SS	-0.072 (0.169) 0.034 (0.157)	-0.280 (0.274) 0.041 (0.266)	-0.217 (0.182) -0.231 (0.176)	-0.142 (0.169) 0.008 (0.168)	-0.104 (0.164) -0.066 (0.154)	-0.241 (0.156) -0.082 (0.154)			



### Unbundling FDI: Greenfield vs. M&A

#### Cumulated number of FDI projects Greenfield or M&A

	BIT	ENTRY	TREAT	SCOPE	PROTEC	ISDM
	(1)	(2)	(3)	(4)	(5)	(6)
	<b>0.257</b> ***	<b>0.386</b> ***	<b>0.154</b> **	<b>0.259</b> ***	<b>0.268</b> ***	<b>0.300</b> ***
	(0.066)	(0.107)	(0.072)	(0.073)	(0.066)	(0.064)
X M&A	-0.014	-0.002	0.067	-0.015	-0.021	-0.089
	(0.073)	(0.119)	(0.080)	(0.084)	(0.074)	(0.082)

# Unbundling FDI, by destination sector

	Cumulated number of FDI projects Man., Serv., NatRes.								
	BIT	ENTRY	TREAT	SCOPE	PROTEC	ISDM			
	(1)	(2)	(3)	(4)	(5)	(6)			
	<b>0.212</b> *** (0.069)	<b>0.309</b> *** (0.112)	<b>0.144</b> * (0.074)	<b>0.241</b> *** (0.077)	<b>0.219</b> *** (0.068)	<b>0.242</b> *** (0.068)			
X SERV X NR	0.095 (0.082) -0.024 (0.150)	0.163 (0.138) 0.078 (0.226)	0.081 (0.092) 0.253* (0.152)	0.047 (0.091) 0.051 (0.178)	0.098 (0.084) -0.024 (0.152)	0.107 (0.085) -0.007 (0.147)			

Addressing potential endogeneity

# Addressing potential endogeneity

	Cumulated number						
	(1)	(2)	(3)	(4)			
Enforced BIT		<b>0.253</b> *** (0.065)	<b>0.223</b> *** (0.065)	<b>0.147**</b> (0.060)			
Ratified BIT	0.162**						
Rat./not enf. BIT	(0.067)	-0.105 (0.147)					
WB 'rev.' trade costs				-1.276*** (0.106)			

Addressing potential endogeneity

*DID approach*: the effect of BITs should be larger for GF FDI in sectors involving an **initially large fixed investment**:

$$GF_{ijst} = exp(\beta_1[BIT_{ijt} \times MEDSIZE_s] + \alpha_s + \alpha_{ijt})\epsilon_{ijst}$$

We expect  $\beta_1 > 0$  if BITs truly matter.

	Sector s yearly GF number					
	(1)	(2)	(3)			
	<b>0.260</b> *** (0.050)	<b>0.246</b> *** (0.088)	<b>0.242</b> *** (0.090)			
$ \begin{split} MEDSIZE_s \ X \ GOV_j \\ MEDSIZE_s \ X \ OPFDI_j \end{split} $		-0.162*** (0.033)	-0.144*** (0.045) -0.002 (0.003)			

Most important BIT provisions

### The most important BIT provisions

	Cumulated number of FDI projects						
	(1)	(2)	(3)	(4)	(5)	(6)	
ISDM	<b>0.282</b> * (0.153)	<b>0.287</b> ** (0.145)	<b>0.297</b> ** (0.123)	<b>0.308***</b> (0.076)	<b>0.327</b> ** (0.128)	<b>0.265*</b> (0.145)	
BIT		0.016					
ENTRY	-0.019	(0.145)	0.009				
TREAT	(0.216) -0.024		(0.202)	-0.012			
SCOPE	(0.082) -0.129			(0.083)	-0.035		
PROTEC	-0.129 (0.192) 0.159 (0.199)				(0.143)	0.042 (0.144)	

L-Taking into account RTIAs

# Taking into account RTIAs

	Cumulated number of FDI projects								
	RTIA ENTRY TREAT SCOPE PROTEC ISDM (1) (2) (3) (4) (5) (6)								
	<b>0.012</b>	<b>0.425</b> **	<b>0.460</b> ***	<b>0.339</b> **	<b>0.254</b> **	<b>0.138</b>			
	(0.136)	(0.186)	(0.165)	(0.171)	(0.112)	(0.171)			
BIT	0.216***	0.252***	0.247***	0.215***	0.203***	0.220***			
	(0.076)	(0.077)	(0.074)	(0.076)	(0.076)	(0.076)			
DTT	0.183**	0.192***	0.173**	0.188***	0.192***	0.186***			
	(0.073)	(0.072)	(0.073)	(0.072)	(0.071)	(0.072)			

L-Taking into account RTIAs

## The most important RTIA provisions

	Cumulated number of FDI projects							
	(1)	(2)	(3)	(4)	(5)	(6)		
TREAT	0.679**	0.460***	0.390*	0.436***	0.349	0.722**		
RTIA	(0.301)	(0.165) 0.007	(0.213)	(0.163)	(0.220)	(0.281)		
ENTRY	0.033	(0.134)	0.119					
SCOPE	0.259		(0.235)	0.287*				
PROTEC	(0.242)			(0.169)	0.119			
ISDM	(0.213) -0.432 (0.273)				(0.148)	-0.294 (0.256)		
BIT	<b>0.240</b> *** (0.077)	<b>0.247</b> *** (0.074)	<b>0.253</b> *** (0.076)	<b>0.244</b> *** (0.074)	<b>0.234</b> *** (0.074)	<b>0.252</b> *** (0.073)		

Conclusion

# Conclusion

### Conclusion

#### Specific provisions in BITs and RTIAs have general effects:

- BITs: investor-state dispute mechanism.
- RTIAs: anti-discrimination provision.

Anti-discrimination in RTIAs may matter because they are possibly more comprehensive or because they take place along measures supporting the liberalisation of intra-regional trade.

A'pro-FDI' BIT or RTIA can be expected to increase the number of FDI projects by 35% and 58% respectively. Effects can be complementary.

DTTs also appear to have a positive effect on FDI.