

Alicia Inés Caballero

Abstract: This paper discusses Argentina's inward foreign direct investment (IFDI) flows and its policy context. Argentina recorded a substantial increase in IFDI in the 1990s, when Argentina was one of the main destinations for FDI inflows among emerging markets. Affiliates of multinational enterprises (MNEs) had then major presence in the Argentine economy. After the country's economic crisis that began in 1999 and the subsequent devaluation of the Argentine peso in 2002, there has been an increasing but fluctuating trend in IFDI flows, affected by changing policies. The global crisis of 2008-2009 caused a 50 percent drop in IFDI flows, followed by a partial recovery in 2010. The variety of resources available – crops, livestock, minerals – constitute an attraction for FDI in Argentina, which could be enhanced with a better investment climate.

Keywords: Argentina, IFDI, investment policy, and development

1. Introduction

After the peso devaluation at the beginning of 2002, FDI flows to Argentina declined sharply during 2002-2003. Inflows have recovered since 2004, fueled by exchange rate improvements, the upsurge in commodity prices and internal market dynamics. However, in relative terms, Argentina has lost attractiveness for FDI, both at the global and regional levels: the country's share in world FDI inflows fell from nearly 1.5% in the 1990s to less than 0.4% between 2002 and 2010. The ratio of the country's FDI inflows to GDP increased from 1.3% in 1993 to its historical maximum of 8.6% in 1999, dropped to an annual average of 2% during the crisis of 2000-2002, and rose again from 2003, to reach 8% in 2008. In 2009, as a result of a decline in IFDI inflows due to the world economic and financial crisis, the ratio fell by half and declined further in 2010 to 1.8%, a ratio comparable to that of Brazil (2.4%) and of Mexico (1.7%), but much lower than that of Chile (8%) and of Peru (4.8%).

2. Development analysis

2.1. Country-level developments

Argentina's IFDI stock stood at US\$ 87 billion in 2010, rising by about 10% from its level in 2009 (annex table 1). IFDI flows, which had fallen by nearly 50% in 2009 during the global economic crisis, recovered to reach US\$ 6 billion in 2010 (annex table 2). Considering the decade of 2000-2010 as a whole,

¹ UNCTAD, FDI/TNC database, available at http://www.unctad.org/fdistatistics

FDI flows to Argentina suffered a setback in 2000-2003, following the country's economic crisis and peso devaluation, and recovered from 2004 onwards as their value climbed steadily until 2008 before falling again in 2009 and recovering partially in 2010. Economic growth, improved expectations, increased profits, and the recovery of competitiveness caused by devaluation of the Argentine peso stimulated a new phase in IFDI growth in the country. Taking 2003 as the baseline, IFDI flows grew by an annual average rate of 40% until 2008, when flows fell by nearly 50% in the global crisis year of 2009, but recovered to rise by 54% in 2010, although their value was lower than in 2008.

Argentina ranks sixth in Latin America in terms of FDI inflows in 2010, behind Brazil, Mexico, Chile, Peru, and Colombia (annex table 2). In terms of IFDI stock, however, it stands fourth, after Brazil, Mexico, and Colombia (annex table 1). Regarding the components of IFDI flows to Argentina, in the 2009-2010 period, reinvested earnings were its main component, reaching US\$ 2.9 billion in 2009 and US\$ 2.4 billion in 2010, representing an average annual increase of 500% over reinvested earnings in 2008 – a growth offset by the reduction in other capital contributions. However, the debt component or lending by parent companies to local affiliates also increased again in 2010.²

In terms of industry distribution, in 2010, the manufacturing was the leading recipient of FDI, with 37% of the total IFDI stock in Argentina (annex table 3), including a recovery in the number of announced projects, as compared with 2009. The natural resources sector (33%), as well as services including non-financial services (24%) and financial services (5%) followed in importance. IFDI stock in services as a whole (financial and non-financial), which had been the highest in value and share among the three sectors in 2000, and fell to the lowest position in 2010. There were no significant variations in the participation of this sector as compared with years 2008 and 2009. At the industry-level, the most dynamic recipients of IFDI were petroleum, followed by the chemical, rubber and plastic industries, the automotive industry and, to a lesser extent, metals and metal products, mining (other than petroleum) and quarrying, wholesale and retails, private financial and commercial services (technical assistance and sales offices, among others).³

2.2. Sector-level features

In 2010, the main FDI recipient sectors in Latin America as a whole were natural resources (43% of the total FDI amount) and services (30%), showing a tendency toward increased IFDI in the primary sector. In comparison, in Argentina, during 2010 there has been an increase in medium to high technology investment (45% of total FDI stock), for example medical devices; low technology activities, such as food, textile, wood and paper industries, received a 31% share. In terms of geographical distribution, FDI from developed economies accounted for the largest share (nearly three quarters) of Argentina's IFDI stock in 2010 (annex table 4). Europe remains the largest origin source, accounting for over half of Argentina's IFDI stock, while Spain still leads as the single largest home economy, with its MNEs accounting for nearly a quarter of the Argentine FDI stock in 2010; the United States follows Spain in

2

² Banco Central de la República Argentina, *Las inversiones directas en empresas residentes* (Buenos Aires, December 2010), pp. 47-49.

³ IFDI in agriculture, forestry and fisheries has also performed well, with FDI stock in those activities rising 12-fold during 2000-2010, although it remains smaller than that in mining and quarrying (annex table 3).

⁴ United Nations Economic Commission for Latin America and the Caribbean (ECLAC). "La inversión extranjera directa en América Latina y el Caribe 2010" (Santiago, Chile: ECLAC, May 2011), pp 41-42.

importance as source economy. The share of developing economies – mainly within Latin America – has risen, accounting for a fifth of the total. Among Latin American economies, Brazil followed by Chile, to a lesser extent, Mexico, was the most important sources of FDI. An important development since the early 2000s with respect to the origin of Argentina's IFDI is the emergence of Brazil as a highly relevant home country (annex table 4).

Brazilian companies did not play an important role during the FDI wave in the 1990s (while, for example, Chilean companies played a key role). In recent years, however, Brazilian companies have acquired an important position in several sectors in Argentina (such as meat-packaging plants, beverages and cement). The increasingly active presence of Brazilian MNEs in Argentina since 2001 has occurred mainly through the purchase of existing companies and not through the development of greenfield projects (excepting Mega, a petrochemical company, 34%- owned by Petrobras). Among the purchases of firms made by Brazilian companies in Argentina were Acindar (steel), Pecom (oil), Quilmes (beer), Loma Negra (Cement), and to a lesser extent Swift Armour (meatpacking). These purchases helped place Brazil among the five major home countries of FDI in Argentina in 2010. The interest of Brazilian companies to acquire assets in Argentina was not balanced by a similar entry of Argentine companies into Brazil. During the whole period under consideration, no significant FDI inflows from Argentina were received in Brazil.

Several factors explain the strong growth of the Brazilian FDI in Argentina in recent years.⁵ They included: a favorable economic situation in Argentina coupled with the internationalization policy adopted by many Brazilian firms; the most recent policy adopted by Brazil's BNDES (Banco Nacional de Desenvolvimento Economico e Social), to support that strategy financially; and the firm sense of purpose of Brazilian MNEs to secure a higher production capacity in key sectors for Brazil exports (meat, beverages, etc.).

Broadly, two important sectors of interest to Brazilian MNEs can be distinguished. First, there are several industries engaged in exploitation and exportation of natural resources and their early stages of processing, including those of a mineral origin, e.g. oil (Petrobras), iron or alumina (Vale) and their processing (Votorantim) and the agricultural and livestock sector, especially poultry and porcine meat (Sadia) and citrus (Citrosuco Paulista; Cutrale). Secondly, the engineering and building industries also have an outstanding presence of Brazilian companies (Camargo Corrêa). To a lesser extent, the automotive and auto parts industries (Marcopolo), electro-mechanics (Weg), aerospace industry (Embraer), food and beverages (AmBev), footwear (Calçados Azaléia), and cosmetics (Natura), though not a general trend, constitute particular cases within their respective branches of production.

2.3. The corporate players

Of the top foreign affiliates in Argentina ranked by net income in 2009 (which accounted for more than half the total FDI stock in Argentina), 19 companies were from the oil sector (Repsol YPF being the largest); ten firms were from the chemical industry (Dow Argentina the most prominent player); ten companies were from the automotive industry (including Volkswagen, Peugeot, Ford, Nissan, Toyota,

3

.

⁵ Argentina's Central Bank (BCRA), available at: www.bcra.gov.ar.

and General Motors); eight companies were from the financial services industry; eight companies were from the telecommunications industry (including affiliates of Telefónica, Telecom and Claro); and seven companies were from the mining industry (including Minera Alumbrera Limited).⁶

The top 20 foreign affiliates in 2009 are listed in annex table 5. Although they do not appear among the top 20, foreign affiliates such as Wal-Mart (United States), Carrefour (France) and Falabella (Chile) play an important role in retail services. The top 20 foreign affiliates in 2009 are listed in annex table 5. Although they do not appear among the top 20, foreign affiliates such as Wal-Mart (United States), Carrefour (France) and Falabella (Chile) play an important role in retail services.

Among the most important cross-border mergers and acquisitions (M&As) of Argentine companies in 2010, within natural resources-based industries, special reference should be made to the purchase of Bridas by the Chinese company CNOOC for US\$ 3.1 billion, and the purchase of a minority share of YPF by a US holding company for US\$499 million (annex table 6). In manufacturing, the purchase of the Phoenix Laboratory by GlaxoSmithKline for US\$ 253 million is of particular importance. In 2009, the largest M&A deal was the purchase of the mining Río Tinto's project Potasio Río Colorado, by Vale (Brazil). Among green-field FDI projects announced in 2010, the largest was a project by China National Machinery and Equipment (annex table 7). In 2009, the largest greenfield projects included several in the primary sector, such as those by Canadian mining companies Barrick Gold and Yamana Gold and the Australian companies Troy Resources and Orocobre.

3. The policy scene

The global economic and financial crisis that began in late 2008 had a negative impact on FDI flows to Argentina. The drop in commodity prices at the end of 2008 resulted in lower investment in the exploitation of natural resources. Overall, the international crisis, along with policies that implied a change in domestic rules, as noted above, led to a large drop in FDI inflows in 2009, although flows made a partial recovery in 2010. The dynamics of domestic consumption, which had a strong impact on certain sectors such as the automotive industry, and the constant increase in commodity prices, largely explain the recovery. In spite of the increase in 2010, pre-crisis FDI level, which had, among others, provided a support for the agriculture and livestock sector, was not reached. However, in comparative terms, Argentina did not have a bad performance. In 2010, IFDI flows recovered at different speeds, depending on the region of origin. Flows from developed economies shrank even more that year (-7% over 2009), while flows to developing countries as a whole had a 10% increase (to Argentina in particular, growth exceeded 50%).

Since 2002, policies implemented by Argentina's administration (in a partial return to Peronist principles) have been quite discouraging for investment, although most companies in such industries as food, home electronics, automobiles, and laboratories showed high profit margins. Among others, the nationalization of pension funds (AFJP) and the expropriation of Aerolineas Argentinas and its subsidiary Austral (owned by the Spanish company Marsans), approved by the National Congress, had an adverse impact on the investment mood and partly explain the drop in FDI inflows during 2009.

=

⁶ ProsperAr (National Investment Agency, Argentina), available at: www.prosperar.gov.ar/es/biblioteca-virtual.html.

However, steady GDP growth and high profitability in many economic sectors (automotive, pharmaceutical, household appliances, agriculture, livestock) and increased real salaries keep internal consumption at a high level and explain the rise in FDI flow in 2010, as well as the wide and clear political support (majority of 54%) obtained by the governing party at the elections held in October 2011. The Foreign Investments Act N° 21,382 (approved in 1976 and amended by decree 1853 of 1993) defines the legal framework for foreign investment. It allows foreign investors to remit earnings and repatriate their investments, and it guarantees equal treatment of local and foreign investors. Argentina has also subscribed to many international investment agreements, especially bilateral investment treaties (BITs) and double taxation treaties (DTTs), although no new BITs or DTTs have been signed since 1997.

The Argentine Government has confirmed the full enforcement of legal security and other guarantees for foreign companies in Argentina. However, the distortion in relative prices (particularly public utility rates), restrictions on energy services, export- revenue withholdings, long term financing scarcity, powerful trade union, and the tendency toward an increasing economic shutdown, which have characterized the economy since the early 2000s, are all negative factors for attracting significant IFDI flows.

4. Conclusions

Argentina has a huge potential as a host for IFDI. As a country endowed with abundant natural resources (agricultural, mineral, forests, energy), climate diversity and qualified manpower, Argentina could assume regional leadership in attracting FDI flows by improving investment conditions and gradually eliminating distortions.

Recent FDI developments in Argentina show new dynamics, not only for traditional sectors (agriculture, automotive industry, hotels) but also for new ones (tradable services, mining, renewable energy). This brings new challenges for the design of sustainable policies in areas such as the training of qualified human resources in technical fields, venture capital industries, innovation support, and the design of an infrastructure with a positive impact on competitiveness. Additionally, a clear legal framework for foreign investment, the establishment of a predictable fiscal horizon and capital markets development are key conditions for strengthening the investment environment and competing successfully in attracting sustainable FDI inflows.

Notes: The historical background and the longer-term development of inward FDI in Argentina were analyzed in a previous Columbia FDI Profile (see Beatriz Nofal, Cecilia Nahon and Carolina Fernandez, "Inward FDI in Argentina and its policy context," Columbia FDI Profiles (ISSN 2159-2268), May 2010, available at: www.vcc.columbia.edu.) This article is an update of that Profile and extends the analysis to developments with respect to IFDI in 2010.

5

⁷ Organisation of American States (OAS), « Foreign Trade Information System (Argentina) », available at: http://www.sice.oas.org/ctyindex/ARG/ARGDisciplines_e.asp.

References

Caballero, Alicia, Economía Argentina En Presente y Futuro (Buenos Aires: Editorial EDUCA, 2000).

Caballero, Alicia, Crímenes Institucionales y Pecados Económicos (Buenos Aires: Editorial EDUCA, 2007).

Chudnovsky, Daniel and Andres López, "Inversión extranjera directa y desarrollo: la experiencia del Mercosur," *Revista de la CEPAL*, 92, (Agosto 2007), pp. 7-23.

INDEC. Instituto Nacional de Estadísticas y Censos. www. indec.gov.ar

ProsperAr, Investment Report (Buenos Aires: ProsperAr, 2008).

UNCTAD, Informe Mundial de Inversiones 2008: las Empresas Transnacionales y el

Desafío de las Infraestructuras (New York and Geneva: United Nations, 2008).

Statistical Annex

Annex Table 1. Argentina: Inward FDI stock, 2000-2010 (US\$ Billion)

Economy	2000	2009	2010				
Argentina	68	80	87				
Memorandum: comparator economies							
Brazil	122	401	473				
México	97	280	327				
Chile	46	121	140				
Colombia	11	75	82				
Peru	11	35	42				

Source: UNCTAD 's FDI/ TNC database, available at: www.unctad.org/fstatistics

Annex Table 2. Argentina: Inward FDI flows, 2000-2010 (US\$ Billion)

Economy	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Argentina	10.4	2.2	2.1	1.7	4.1	5.3	5.5	6.5	9.7	4.0	6.2
Memorandi	ım: con	parator	econo	mies							
Brazil	32.8	22.5	16.6	10.1	18.1	15.1	18.8	34.6	45.1	25.6	48.5
Mexico	18.1	27.6	15.1	11.4	16.6	22.4	19.8	29.7	25.9	15.2	17.7
Chile	4.9	4.2	2.6	4.3	7.2	7.0	7.3	12.6	16.8	12.9	15.1
Colombia	2.4	2.5	2.1	1.7	3.1	10.3	6.7	9.0	10.6	7.1	6.8
Peru	0.8	1.1	2.2	1.4	1.6	2.6	3.5	5.5	6.9	5.6	7.3

Source: UNCTAD 's FDI/ TNC database, available at: www.unctad.org/fstatistics

Annex Table 3. Argentina: Sectoral distribution of inward FDI stock, 2000, 2010^a (US\$ Million)

Sector / industry	2000	2010
All sectors / industries	67,769	86,685
Natural resources	17,657	28,889
Agriculture, forestry, and fishing	200	3,136
Mining, quarrying and petroleum	17,457	23,160
Mining and quarrying	769	4,940
Petroleum	16,688	18,220
Other natural resources		2,593

Manufacturing	19,919	32,487
Chemicals, rubber and plastic	5,740	8,476
Food products, beverages and tobacco products	5,805	4,847
Basic metals and fabricated metal products	1,402	4,847
Machinery and equipment	1,280	2,760
Automotive	4,442	5,692
Other manufacturing	1,249	5,865
Services		
Financial services	7,374	4,206
Other services	22,819	21,103
Communications	6,997	5,631
Wholesale and retail trade	2,938	4,074
Electricity, gas and water supply	7,951	2,179
Other services	4,933	9,219

Source: based on data from the National Office for International Statistics, INDEC and Argentina's Central Bank (Banco Central de la República de Argentina), "Las inversiones directas en empresas residentes a fines del 2010" (Buenos Aires, 2010).

 $\textbf{Annex Table 4. Argentina: Geographical distribution of inward FDI stock, 2000 and 2009-2010} {\it a} \ (US\$\ Million)$

Region / economy	2000 ^b	2009	2010
World	67,769	79,871	86,685
Developed economies	55,334	60,050	65,771
Europe	36,873	43,718	47,605
Spain	16,612	22,597	23,242
Netherlands	5,470	6,873	7,328
Germany	2,090	2,586	2,940
Switzerland		2,293	2,900
Luxembourg		2,656	2,704
France	4,971	2,428	2,560
United Kingdom	2,359	1,502	1,494
Italy	2,729	1,318	1,420
Other Europe	2,642	2,524	3,017
North America	17,641	15,543	18,740
United States	15,864	14,012	14,814
Canada ^b	1,777	2,415	2,128
México		1,425	1,797
Other developed countries	460	789	1,224
Australia	110	363	539
Japan	250	426	684
Developing economies	11,501	18,182	20,659
Africa		38	53
Asia and Oceania		469	954
Asia		464	652
China		137	190
Singapore		63	111
Malaysia		76	80
Hong Kong (China)		59	79
Korea, Republic of		44	67
Israel		54	64
Oceania		5	302

 $^{^{\}rm a}$ Data for 2000 cited from INDEC reports. Data for 2010 cited from BCRA reports.

New Zealand		5	302
Latin America and Caribbean	11,501	17,675	19,652
South America	5,113	12,607	14,252
Chile	3,445	4,363	5,509
Brazil		4,319	5,367
Uruguay		2,578	2,750
Venezuela		123	366
Other South America	1,667	274	260
Central America and Caribbean	6,388	5,068	5,401
Cayman Islands		1,156	1,815
Bermuda		1,231	1,679
Panama		622	598
Other Central America and Caribbean		1,561	1,309
Unspecified destination	934	2,764	255

Annex Table 5. Argentina: Principal foreign affiliates, ranked by net sales, 2009

Rank	Name	Industry	Net sales ^a (US\$ million)
1	YPF	Oil and gas operations	9,352
2	Cargill S.A.	Food and beverage	5,150
3	Petrobras Energia	Oil and gas operations	4,069
4	Bunge Argentina S.A.	Food and beverage	2,606
5	Pan American Energy	Oil and gas operations	2,359
6	Grupo Carrefour ARG.	Retail	2,303
7	Volkswagen Argentina	Automotive	2,210
8	Jumbo Retail Argentina	Retail	2,184
9	Esso Petrolera ARG.	Oil	2,136
10	Telefónica S.A.	Telecommunications	2,082
11	Claro Argentina	Telecommunications	2,042
12	Shell C.A.P.S.A.	Oil and gas operations	1,845
13	Peugeot Argentina	Automotive	1,825
14	Ford Argentina	Automotive	1,790
15	Telecom Argentina S.A	Telecommunications	1,769
16	Nidera S.A.	Food and beverage	1,717
17	Toyota Argentina S.A.	Automotive	1,604
18	Minera Alumbrera Limited	Mining	1,542
19	Dow Argentina	Chemical	1,419
20	General Motors	Automotive	1,402

Source: ProsperAr (National Investment Agency, Argentina).

Source: National Office for International Statistics, INDEC, *op.cit.*; BCRA, *op.cit.* a Data for 2000 cited from INDEC reports. Data for 2009 and 2010 cited from BCRA reports.

Data for 2000 are for Canada and Mexico together since they are not available for each individual country. For 2009, this does not apply since individual country data are available.

^a Argentine Peso/USD exchange rate, obtained from International Monetary Fund (http://www.imf.org) as at 12/31/2009, used throughout when deriving net sales values (ARG Peso 3.72: 1US\$).

Annex Table 6. Argentina: Main M&A deals, by inward investing firm, 2008-2010

Year	Acquiring company	Home economy	Target company	Target industry	Announced transaction value (US\$ million)	Shares acquired (%)
2010	CNOOC Ltd	China	Bridas Corp	Oil and gas	3,100	50
2010	Investor Group	United	YPF SA	Oil and gas	499	3.3
2010	GlaxoSmithKline PLC	United Kingdom	Laboratories Phoenix SACyF	Pharmaceutics	253	100
2009	Vale	Brazil	Río Tinto- Potasio Rio Colorado	Mineral	850	100
2009	Alternative Investment Corporation	United States	El Tejar	Agriculture	150	17
2009	Votorantim LE	Brazil	Cementos Avellaneda	Cement	202	50
2008	Marfrig Group	Brazil	Mirab S. A.	Food and beverage	36	100
2008	Baldwin Enterprises	United States	Cresud	Agriculture	45	9
2008	Lupatech Axxon	Brazil	Aspro	Oil and gas	49	100
2008	Alicorp	Peru	The Value Brands Argentina	Chemicals	66	100
2008	Cargill INC.	United States	Friar S.A.	Food and Beverage	70	100
2008	Embotelladora Arca	Mexico	Yege Argentina	Food and beverage	80	100
2008	Fundo de Investimento em Participacoes (PCP)	Brazil	Los Grobo	Agriculture	100	25
2008	PSAI-IPH	Singapore	Exlogan ITL	Transport	100	80
2008	Navios Maritime Holding	Greece	Horamar	Transport	112	64
2008	Embotelladora Arca	Mexico	Grupo Guerrero	Food and Beverage	250	100
2008	Arcelor Mittal Group	Belgium	Acindar	Metal and steel	542	36

Source: The author, based on Thomson ONE Banker, Thomson Reuters; and Argentina's National Investment Development Agency, ProsperAr.

Annex Table 7. Argentina: Main greenfield projects, by inward investing firm, 2008-2010

Year	Investing company	Home economy	Industry	Estimated/ announced investment value (US\$ million)
2010	Huawei	China	Telecommunications	20
2010	Midea	China	Electronic equipment	120
2010	Pony International	China	Textil	20
2010	Energía y Química	China ^a	Agro-chemical	1,000

2010	San He Hopefull Grain & Oil Group	China	Mining	350
2010	Equipment	China	Machinary and equipment	10,000
2009	Troy Resources	Australia	Mining	100
2009		Australia	Mining	100
2009	5	United States	Hotels and restaurants	475
2009	Exploration & Production, INC	United States	Oil and gas	342
2009	WalMart	United States	Retail	280
2009	Telefonica S.A.	Spain	Telecommunications	433
2009	1	Italy	Metal and steel	400
2009	Barrick Gold	Canada	Mining	1,500
2009	Yamana Gold Inc.	Canada	Mining	652
2009	Casino Club S.A.	Argentina- Spain ^b	Media and entertainment	270
2008	Quantum Fund	United States	Agriculture	511
2008	Jumeirah International	United Arab Emirates ^c	Hotels and restaurants	680
2008		United Kingdom	Oil and gas	1,250
2008	Repsol YPF	Spain	Oil and gas	11,700
2008	Telefónica S.A.	Spain	Telecommunications	875
2008	1	Spain	Hotels and restaurants	600
2008	Telecom Italia	Italy	Telecommunications	682
2008	Petroleos Brasileños S.A.	Brazil	Oil and gas	2,400

Source: FDI Intelligence, a service from the Financial Times Ltd., Argentina's Central Bank (BCRA) and CEPAL. ^a Joint venture partner: Roggio S.A. ^b Joint venture partner: CIRSA. ^c Joint venture partner: New Side.

About the Author

Alicia Caballero (alicia_caballero@uca.edu.ar) is a Ph.D. in Economics, Professor of Argentine Economy at the Universidad Católica, Argentina, and researcher on investment promotion policies. She has an intensive 25-year long professional career in the fields of corporate finance, mergers and acquisitions, small and medium-size enterprises development, and venture capital. The author wishes to thank Gerardo Sanchís Muñoz and Guillermo Sabbioni Perez for their helpful comments. The views expressed by the author of this *Profile* do not necessarily reflect the opinions of Columbia University, its partners and supporters.

Contact Information

For further information please contact: Vale Columbia Center on Sustainable International Investment, Ana-Maria Poveda-Garces, ap2817@columbia.edu.