LATINDIA

THE FUTURE OF COOPERATION BETWEEN INDIA AND LATIN AMERICA

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LATINDIA

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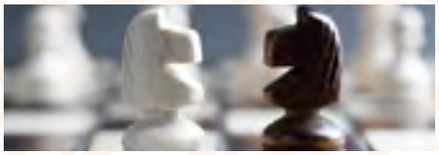
INDEX

EXPORTING TO GROW



SOUTH-SOUTH INTEGRATION

INTELLIGENT DIVERSIFICATION

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Shared Challenges

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In a globalized world that up against multiple challenges to achieving sustained, equitable growth, regions with similar needs must join forces and work together. Improving the quality of our infrastructure, expanding our energy-producing capacity, modernizing our productive and education systems to meet the demands of an increasingly dynamic labor market are just some of the challenges that India and Latin America and the Caribbean have in common.

We have a lot to learn from one another. In India, for example, photovoltaic panels are being used on train rooftops to power on-board lights and digital signs. This innovation has brought down diesel consumption by 1000 liters per train and is also cutting down on carbon emissions from transportation, one of the main sources of environmental pollution. There are clear technological and practical complementarities between India and certain countries in Latin America with experience and know-how in the transportation sector. Chile, for example, has increased its renewable energy output from 20 megawatts to over 3000 megawatts in just nine years. Isn't it time we thought about more clean-energy-based shared integration projects?

Another key sector is infrastructure, an area which has long been overdue attention in Latin America. In the last four years, India has doubled its investment in road and rail infrastructure. It has largely achieved this through public–private partnerships that accelerate the financing and construction of roads and railways that are used by hundreds of millions of people each day. Several countries in Latin America have initiated similar joint public–private partnerships to strengthen their transportation infrastructure. Greater exchanges in this field will undoubtedly bring major benefits for both regions.

Some of the things that Latin America and India have in common include support for entrepreneurialism, start-ups, software design, creative industries, and the digital economy, which the value and skill of our human resources are a key component of. There are challenges here, too: developing countries like ours are also more vulnerable to cyberattacks from those who see them as a test zone for online crime. Isn't it time we started working together to improve cyber security and prevent online fraud and scams?

This report, LATINDIA, is a step toward promoting the exchange of homegrown ideas and solutions to our shared problems so that geographic distances are no longer an obstacle to integration. We at the IDB are convinced that forging paths to South-South collaboration is both necessary and possible based on coordinated actions on the part of the diplomatic sphere, the private sector, and civil society.

LATINDIA 10 KEY FACTS

EXPORTING TO GROW

30%
the annual growth rate of the Indian software industry since 1991

12.2%
of global exports of telecommunications services are from India

150+
Indian companies have operations in Latin America

SMART DIVERSIFICATION

88%
of Indian citizens suffer from protein deficiencies and need to improve their diets

45%
of Indian business activity in LAC is in the pharmaceutical sector

70%
of Indian exports to South America are manufactures

SOUTH-SOUTH INTEGRATION

40%
of Latin Americans have a good or very good opinion of India

15%
of outbound foreign direct investment from India goes to Latin America

450
MERCOSUR products enjoy tariff preferences when entering the Indian market

India's tariffs for agricultural products are **5** times higher than China's

Emerging Opportunities

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Latin America and India have never been so close. Some 40% of Latin Americans have a good or very good opinion of India. In countries with closer trade ties, such as Mexico or Chile, as much as 75% of the population see India in a positive light.[1]

In a world where the threat of protectionism is once again looming, India and Latin America share a desire for international integration, an attractive domestic market, and a dynamic middle class. Once again, we are up against the challenge of consolidating South–South integration and building support for a complementary relationship that has emerged spontaneously, often through isolated success stories and on the initiative of entrepreneurs.

The mutual benefits that the two parties stand to gain from greater cooperation are increasingly evident. Latin America needs to diversify its exports and continue on the path that it set out on when it began pursuing closer relations with China, which became the destination market for 16% of Latin America's exports and helped mitigate the impact of the last financial crisis, the epicenters of which were the United States and Europe. As well as more diverse destination markets, these changes are leading to a greater diversification of products and services, and India represents enormous opportunities in this sense due to its astonishing prospects for growth.

The country's 1.3 billion inhabitants represent a singularly large market, which includes 350 million internet users who buy goods and services online. The Indian economy is expected to grow by 7.8% on average over the next five years and will soon account for 25% of the world's university graduates.

In recent years, trade-related diplomacy between the two regions has grown although it still falls short in comparison with India–Africa relations and some Latin American countries' ties with China or Europe. Unexpected synergies have appeared in the vehicle industry, the agricultural sector, and the digital economy, and over 150 Indian companies are now operating in Latin America.

In 2016, trade between the two regions reached almost US$30 billion—no mean feat, although it is still seven times lower than the US$200 billion that trade with China represents. Latin America's current volumes of trade with India are comparable to the levels between China and India just over 10 years ago. This is just an example of India's potential in the medium term if this trade relationship grows in a similar fashion.

India is also up against the challenge of diversifying its presence in Latin America, where 45% of its companies operate in just two sectors: telecommunications services and pharmaceuticals. The concentration of Latin American exports is even greater: just four products account for 85% of the region's sales and in some countries, such as Argentina, a single product (soy oil) represents 90% of exports.

Around 70% of Indian consumers are from low- and middle-income sectors. At the same time, 88% of the country's inhabitants have protein deficiencies which will necessarily translate into higher demands for food as their per capita incomes and purchasing power grow. This increased demand is a unique opportunity for countries in Latin America that specialize in food production. However, to avoid repeating the mistakes of the past, Latin America must seek to prevent the primarization of trade by adding value to its primary products. The seasonal complementarity between the two region's crop cycles is another positive factor worth bearing in mind.

There is every reason to be optimistic. India began opening up to trade in the 1990s, when its average tariff levels were higher than 80%, and despite significant reductions, they are still above the average for Asia. The area where there is most room for improvement is agricultural products—India's tariffs on many such products are still five times higher than China's.

At present, India has just two trade agreements with Latin America: the

Latin America needs to diversify its export products and destination markets

India has granted tariff preferences for 3,000 Chilean products and 450 MERCOSUR products

Industry 4.0 is a key part of the integration process as it reduces the costs that come with geographic distance

partial scope agreement (PSA) with Chile that was reached in 2006 and the preferential trade agreement (PTA) it signed with MERCOSUR in 2004. As a result of these agreements, India has granted tariff preferences to 3,000 Chilean products and 450 MERCOSUR products. Negotiations are underway for an agreement with Peru. Signing other regional agreements that take these circumstances into account and move toward strengthening trade and technology transfer would represent a significant step forward. Negotiations with India (which are discussed in this report by the Latin American negotiators who played a part in such processes), be they bilateral, regional, or through BRICS, are one area where there is much to be gained in terms of South–South cooperation.

Some extraordinary business outcomes have resulted from joint ventures between firms from the two regions, which have helped one another to understand the idiosyncrasies of their markets and local legal contexts. Examples of these success stories include Globant, OLX, the AJE Group, TCS, Bajaj, Dreyfus, and Aditya Birla, all of which are the subject of case studies in this publication.

Today, India is seen by Latin Americans as a unique place where ancient culture merges with a cutting-edge economy. The country's software industry has grown by an annual average of 30% since 1991 and support for the creative industries has made Bollywood into the largest film-producing center in Asia. Latin America is playing a part in this process, too: Mexican cinema chain Cinépolis currently has 350 screens in over 30 Indian cities.

The same sort of collaboration is needed at the multilateral level to bring knowledge of Latin America to bear on the work of organizations like Eximbank in identifying and assessing investment projects, which managing director David Rasquinha describes in this report. A parallel but complementary course of action would seek to negotiate new trade and investment agreements that reduce tariff and nontariff barriers to trade, as is suggested by Chandrajit Banerjee, director-general of the Confederation of Indian Industry.

Industry 4.0 is an ally in the process of deepening integration. Disruptive technologies reduce distances and the gaps in knowledge and capital stock that have characterized emerging economies since the first industrial revolution. For this reason, the publication also analyzes possible routes toward implementing joint innovations in the vehicle industry and energy sector.

Through the contributions of more than 30 experts from both regions, this publication puts forward concrete proposals for Latin America and India to work on together to move forward on the path to prosperity and progress.

[1] INTAL/Latinobarómetro survey of 20,500 people from 18 countries in the region. Available at www.iadb.org/intal

EXPORTING TO GROW

DESIGNING A ROAD MAP TO INCREASE INTEGRATION BETWEEN INDIA AND LATIN AMERICA

Toward a Common Trade Agenda

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To other countries I may go as a tourist, but to India I come as a pilgrim.

Martin Luther King

THIS ARTICLE LOOKS AT THE CURRENT STATE OF THE RELATIONSHIP BETWEEN LATIN AMERICA AND INDIA IN TERMS OF TRADE, INVESTMENT, AND DIPLOMATIC COOPERATION. THE AUTHORS PUT FORWARD A SERIES OF CRITERIA FOR PROGRESS ON TRADE SCHEMES THAT WILL BENEFIT BOTH PARTIES. THE KEYS TO DESIGNING A ROAD MAP THAT WILL BOLSTER TRADE AND ECONOMIC DEVELOPMENT.

The first decade of the 21st century will surely be remembered as Latin America and the Caribbean's (LAC) Asia decade. An unprecedented trade boom driven by Chinese demand, followed by a flurry of diplomatic initiatives and cooperation agreements transformed the region's pattern of global engagement in a mere matter of years. More recently, however, the main drivers of the burgeoning LAC-Asia relationship—super-charged Chinese growth and sky-high commodities prices—have lost steam. The present moment thus calls for proactive steps to inject the LAC-Asia relationship with new momentum based on a strategic vision for the future—rather than simply riding the coattails of an epic commodities boom. The current geopolitical context, in which the traditional protagonists of economic integration are less enthusiastic about that project, provides further rationale for policymakers in LAC to focus on deepening integration with Asia.

One pillar of such a strategy should be to increase trade and investment with a broader range of Asian partners—chief among them, India. Why India? For starters, India, like China, is a one-billion-plus–person economy that faces major natural resource constraints. India thus represents another potentially enormous market for the mineral, energy, and agricultural products that LAC exports in abundance. In addition, India has already overtaken China as the world's fastest-growing major economy and is projected to expand at an average annual rate of 7.9% between 2018 and 2022 (compared to 5.9% in the case of China).[1] A third reason to focus on the economic relationship with India is that it remains in a nascent stage despite its clear potential.

In 2010 the Inter-American Development Bank's Integration and Trade Sector published a report, *India: Latin America's Next Big Thing?*, which underscored the possibilities of the LAC–India relationship. On the one hand, the report argued, strong resource complementarity—as in the case of all the region's Asian trade partners—provided the fundamentals for a robust trade relationship. In addition, India presented distinct dynamics from China due to the former's global leadership as a services exporter, especially in information technologies (IT), and its comparatively under-developed manufacturing sector. Without discounting competitive pressures on LAC IT firms,

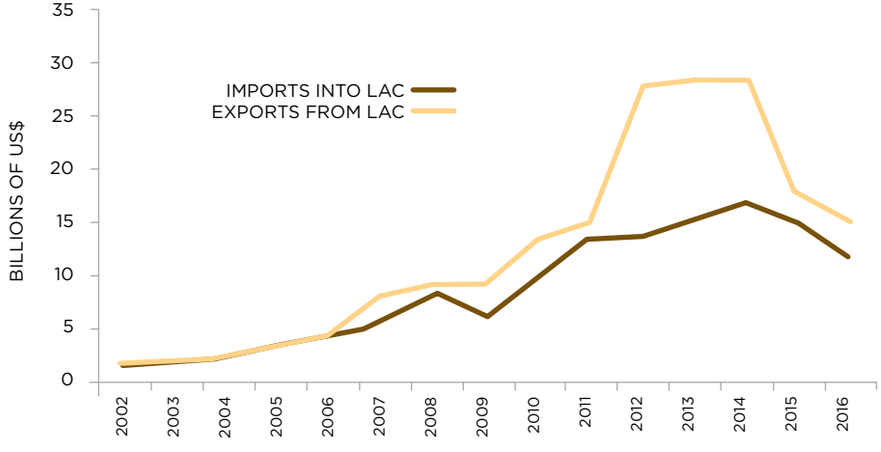
85%

OF LAC'S EXPORTS TO INDIA ARE ACCOUNTED FOR BY FOUR PRODUCTS

this feature of India's economy offered important complementarities, such as Indian investment in these areas to take advantage of LAC's English-speaking population and geographic proximity to the large US market. However, the main takeaway of the report was that the volume of trade (and, to a lesser extent, investment) between the economies fell well short of what the fundamentals suggested was possible. The main culprit for this "missing trade" was high trade costs, arising not only from traditional tariffs but also from an array of nontariff barriers and high transport costs between the distant economies.

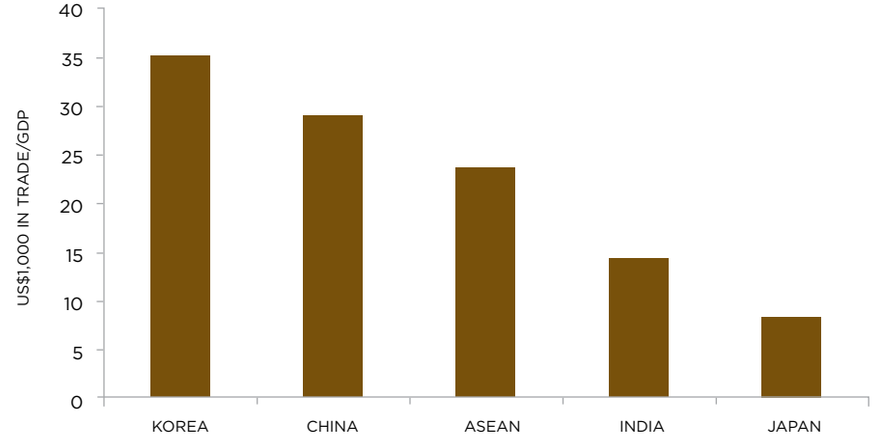
Examining the LAC–India relationship from the perspective of 2017, many of the same conclusions still hold. First, the magnitude of bilateral trade has yet to even come close to its potential. This is especially true in comparison to the booming exchange between LAC and China but also when viewed against lower-profile Asian trading partners such as Korea or the ASEAN countries. Nor has the past decade witnessed a discernible takeoff in Indian investment in LAC as some expected in the mid-2000s. Moreover, high tariffs (often prohibitively so), especially on LAC agricultural exports to India, continue to be an important explanation for lackluster trade flows between LAC and India. Other factors which were largely unforeseen in the mid-2000s include the sharp downturns several LAC economies experienced in recent years and depressed global commodity prices, which have undermined several major trade and investment deals

FIGURE 1
TRADE BETWEEN LAC AND INDIA, 2002–2016



Source: IMF Direction of Trade Statistics.

FIGURE 2
TOTAL TRADE WITH LAC AS A SHARE OF GDP (SELECTED ASIAN COUNTRIES, 2015)



Note: GDP measured in 2010 US dollars.
Source: IMF Direction of Trade Statistics and World Bank World Development Indicators.

with India. While these trends have led to a slowdown in LAC-Asia trade across the board, trade with India has experienced an especially sharp contraction since 2014.

On the other hand, it would be wrong to suggest no progress has been made. After all, LAC–India trade grew by an annual average rate of 25% between 2007 and 2014, reaching an all-time high of US$45 billion that year. Indian firms ranging from the global IT leader Infosys, pharmaceuticals giant Glenmark, energy firm ONGC, and luxury car maker Jaguar (owned by Tata Motors Group) have invested in major projects in the region in the past decade. Translating these successes into a sustained deepening of economic integration, however, requires finally tackling the barriers—from traditional trade policies to infrastructure and connectivity issues and simple lack of awareness—that have held back the relationship to date. In this regard, Chile, which recently negotiated a major expansion of its previously limited preferential trade agreement with India, provides an example to follow.

We believe the time is right for governments across the region to take proactive, pragmatic steps to unlock the potential of the LAC–India relationship. Doing so will put both economies on a stronger footing for traversing the current period of global geopolitical uncertainty and the changing architecture of Asia-LAC integration. This is the spirit motivating this special-edition INTAL publication, which features contributions from policymakers and academics throughout India and LAC. The articles highlight the great potential of this largely waiting-to-be-discovered economic relationship while also underscoring steps that need to be taken by governments and firms.

7.8%

INDIA'S PROJECTED ANNUAL GROWTH OVER THE NEXT FIVE YEARS

THE TRADE SITUATION

The evolution of trade between LAC and India over the past decade and a half has mostly tracked the region's trade with Asia in general. Beginning in 2003, trade flows began a period of fast growth driven by strong resource complementarity and booming commodity prices. Since 2012, however, trade growth has stagnated—and, in recent years, contracted—amid depressed prices for LAC's commodity exports and an economic slump in several of the region's large economies. As figure 1 shows, LAC's exports to India actually outpaced its imports over this period, in contrast to the considerable trade deficits the region has accumulated with China, Japan, and Korea. Unlike these other Asian economies, India has yet to emerge as a global manufacturing powerhouse with the ability to export highly competitive products to LAC.[2] However, with its massive reserve of labor, India has all the potential to become the next low-cost manufacturing hub, an objective the current government has targeted with its new "Made in India" program. In addition, most of the region's accumulated trade surplus with India is due to a spike in oil exports beginning in 2012 (when oil exports doubled from US$10 to US$20 billion), which has since subsided.

There are other differences in the region's experience with India and with the rest of Asia. First and most notably, LAC trade with India has been on a smaller scale than that with other major Asian economies and especially with China. In 2016, bilateral trade stood at US$27 billion in 2016 (albeit down from an all-time high of US$45 billion in 2014)—a far cry from the US$242 billion the region traded with China that year. Even after adjusting for the relative size of the economies (China's was 2.45 times larger than India's on a PPP basis in 2016), the gap remains considerable (see figure 2). India–LAC trade also lags behind trade with Korea and ASEAN (although not Japan) relative to the Asian economies' overall GDP.

In addition, LAC–India trade has experienced a sharper contraction during the recent global trade slowdown than trade with other Asian economies, losing 40% of its value since 2014 (see figure 3). This sharp drop is the direct consequence of the high dependence of LAC–India trade on a small number of commodities—above all petroleum. Even more so than in the case of China or Japan, LAC's exports to India have been dominated by a handful of commodities that are subject to often-volatile international prices and the fate of a few megadeals. While LAC's top four export products alone accounted for 85% of the region's total exports to India between 2012 and 2016, the corresponding figure is "only" 60% in the case of China and 41% in the case of Japan (see table 1).

As a result, total LAC–India trade flows have been sensitive to one-off sales by the giant firms that dominate the natural resource sectors of most LAC countries.[3] This volatility is also reflected in the short-lived spike in the region's trade balance with India between 2012 and 2014 (see figure 1). The reliance of LAC exports to India on petroleum also points to the comparatively low levels of mineral and metal exports, which played a large role in the region's exports to China and Japan. If India's domestic manufacturing push gains traction, of course, greater demand for LAC mineral exports may be expected to follow.

5%

THE EXPECTED GROWTH IN AGRICULTURAL EXPORTS

By contrast, LAC's imports from India are more diversified, as evidenced by the fact that the top four products (defined at HS 6-digit level) account for only 31% of the total, whereas the region's four largest exports to India make up a full 85% of the total. LAC's largest imports from India, as table 2 indicates, are a combination of petroleum products, vehicles and their parts, and pharmaceuticals.

The experience of extreme product concentration and volatility points to the imperative to diversify the region's exports, a familiar theme in discussions of LAC-Asia relations. The logical place to start would be to expand the range of, and add greater value to, natural

TABLE 1
LAC EXPORTS TO INDIA (2012-2016)

PRODUCT (HS 2002 A 6 DIGITS)	SHARE	ACCUMULATED SHARE
Petroleum	64.8%	64.8%
Copper ores and concentrates	9.7%	74.5%
Soya bean oil (crude)	7.4%	81.9%
Gold (other unwrought forms)	3%	84.9%
Cane sugar	2%	86.9%
Other wood	0.8%	87.7%
Parts and accessories of data processing machines	0.3%	88%
Iodine	0.3%	88.3%
Calcium phosphates	0.4%	88.7%
Natural gas	0.2%	88.9%

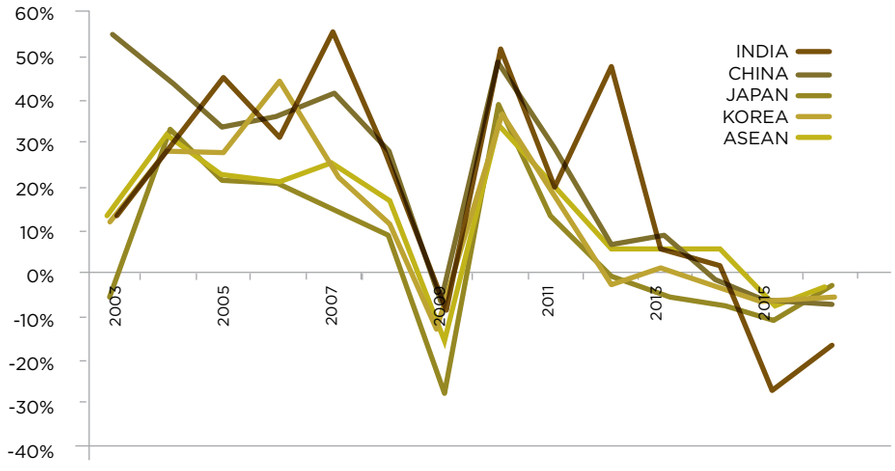
Source: UN Comtrade.

TABLE 2
LAC IMPORTS FROM INDIA (2012-2016)

PRODUCTS (SA 2002 A 6 DÍGITOS)	SHARE	ACCUMULATED SHARE
Other petroleum oils	18.9%	18.9%
Motor vehicles with cylinder capacity between 1000cc and 1500cc	4.3%	23.2%
Motor vehicles with cylinder capacity between 1500cc and 3000cc	4.3%	27.5%
Motorcycles with cylinder capacity between 50cc and 250cc	3.6%	31.1%
Light petroleum oils and preparations	3.2%	34.2%
Other medicaments	3%	37.2%
Polyester yarn	2.1%	39.3%
Other motor vehicle parts and accessories	1.7%	41%
Motor vehicles with cylinder capacity less than 1000cc	1.6%	42.7%

Source: UN Comtrade.

FIGURE 3
ANNUAL GROWTH IN LAC TRADE WITH MAJOR ASIAN ECONOMIES



Source: Own calculations based on IMF Direction of Trade Statistics.

resource-based exports, given LAC's marked comparative advantages in this area and the obvious complementarities with resource-scarce India. The region's exporters should aim, for example, to move into agricultural, mineral, and metal products that incorporate additional levels of processing (and thus fetch higher margins) rather than parting with natural resources at the bottom of the value chain.

Focusing on these areas makes all the more sense when one considers India's future demand for natural resource-based products. The combination of projected annual growth of 7.8% on average between 2017 and 2022 and acute resource constraints suggests that India will have to ramp up imports of energy, mineral, and agricultural products to meet domestic demand. The country's primary energy deficit more than doubled between 2000 and 2012 and is expected to double again in the next 15 years according to projections from BP. An analysis by the IDB (2012) concluded that India will see similarly steep rises in demand for copper and soy as its level of wealth continues to grow. LAC is well positioned to meet a considerable portion of this demand. The same IDB study estimated the income elasticity of LAC agricultural exports to India to be 0.6, meaning that every 1% increase in India's GDP would result in 0.6% growth of LAC's agricultural exports to India.[4] Taking the IMF's growth projections cited above, we would expect the region's agricultural exports to expand by 5.0% on average through 2022, reaching US$5.8 billion in that year.

This scenario assumes no further policy liberalization in the intervening years. The gains could be much greater if governments finally take steps to address stubbornly high trade costs. First, India continues to impose high tariffs, in particular on agricultural goods. As table 3 shows, the average tariffs facing LAC exports of farm products, while varying considerably across countries, reach prohibitive levels in some cases.

According to the most recent review of India's trade policy by the World Trade Organization (WTO), the average tariff for agricultural products was 36.4% in fiscal year 2014–2015, a rate that is considerably higher than in China (14.8%). Around two-thirds of agricultural products face tariffs of 30% or higher in India, with especially high rates applied to coffee, beverages and spirit, and cereals (all products where LAC boasts comparative advantages). By contrast, only 4% of nonagricultural goods face tariff rates in the double digits. Nor is the trend over time necessarily encouraging. Despite recent reforms to loosen restrictions on FDI, lift some price controls, and end state trading for certain farm products, the average tariff for agricultural products actually increased from 33.2% in 2010–2011 according to the WTO (2015).

In addition, mechanisms such as tariff-rate quotas—which apply a higher tariff rate on imports beyond a certain quantity, or quota—are used on agricultural products such as maize, sunflower seed oil, natural rubber, and milk. Another complicating factor is that tariffs can be adjusted by the government, resulting in effective rates that are often higher than the statutory rates published at the beginning of each year, creating uncertainty for firms. India also applies non-ad valorem tariff rates on 700 products, or 6.1% of tariff lines (considerably more than China's 0.5%). The result is a highly complex tariff structure that raises costs and uncertainty for potential exporters. Finally, sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBTs) present additional barriers to exports. The WTO reported no significant changes to these regulations between 2011 and 2015.

On the other hand, tariff escalation—whereby tariff rates increase with a product's level of processing—does not seem to be a major issue for LAC exports to India, in contrast to other Asian markets such as China and Japan. In fact, India has maintained an "inverted" tariff structure in which duties on raw materials and primary products have tended to be higher than more processed goods in certain sectors, although the government is taking steps to change this feature of India's trade policy (see WTO, 2015).

On the LAC side, Indian exporters still face high tariffs in several sectors and countries in the region, in particular for manufacturing products in the MERCOSUR countries (see table 4). In addition, the policy framework for foreign investment in certain sectors, including local content requirements and discriminatory tax policies, complicated the business environment for investors beginning in the mid-2000s (see discussion below), although the current administrations in Argentina and Brazil are adopting a more open approach to trade and FDI.

Clearly, formal integration agreements between LAC and India have failed to make a major dent in the

4%

OF NON-AGRICULTURAL GOODS FACE TARIFF RATES IN THE DOUBLE DIGITS

25,000+

LATIN AMERICANS WORK IN INDIAN IT FIRMS

barriers facing LAC exports. India has preferential trade agreements (PTAs) with Chile (signed in 2006) and MERCOSUR (2004). However, these agreements were (initially at least) quite shallow, leaving the majority of tariff barriers in place. In the case of the India–MERCOSUR PTA, only 3.2% of tariff lines enjoy preferential access. While the agreement with Chile was also quite limited in its original form, with only 2% of tariff lines enjoying preferential access (that is, lower rates than the corresponding most-favored-nation rate) and no fully liberalized tariff lines, the two sides signed a major extension of the deal in 2016. Under the new terms, the number of products covered will increase from under 500 to 2,800, including key Chilean agricultural and food exports such as fresh cherries, avocados, grapes, kiwis, preserved fruits, and juices (see box). The new negotiations also addressed TBT and SPS.

Other LAC countries are trying to follow Chile's example. In early 2016, Peruvian officials announced the start of negotiations toward signing an FTA with India, which would include tariffs, SPS, TBTs, investment, and the movement of people. Colombia and India have also expressed interest in an FTA, part of the latter's engagement in the Pacific Alliance, although no date for negotiations has been set.

Beyond the traditional trade policy agenda, high transport costs represent another major barrier for firms doing business between LAC and India, a consequence of the considerable distance between the economies, the poor condition of physical infrastructure in much of LAC and India, and, on the LAC side, the high weight-to-value ratio of its main exports. For many countries in the region, ad valorem freight rates are equal to or even greater than tariffs for imports from India.

It is worth stressing that the trade data discussed in this section does not capture trade in services, which is an important facet of the relationship given India's global leadership in IT and computer services.[5] India accounted for 3.3% of total world services exports in 2015 and 12.2% of all exports of telecommunications, information, and computer services. The country boasts several leading global firms in this sector such as Infosys, Tata Consulting, Sasken, and Genpact, and these "high-end services" (including all business services) accounted for 68% of India's total services exports in 2015.

The potential complementarities in this area, where LAC offers a strategic platform for services exports due to its geographic and cultural proximity to the United States, are considerable. The strong and growing presence in the region of several Indian IT giants attests to its importance to the overall LAC–India relationship (see discussion below). As of 2015, the region accounted for only 1.8% of world exports of telecommunications, computer and information services, and this sector contributed only 5% of LAC's total services exports. These figures suggest

THE EXPANDED PREFERENTIAL TRADE AGREEMENT BETWEEN INDIA AND CHILE

In September 2016, Chilean and Indian negotiators signed an agreement for a major expansion of the countries' 2006 partial trade agreement (PTA) after more than five years of negotiations. This new iteration of the deal increases the number of Chilean exports to India granted preferential tariffs from 178 to 1111 and in the case of India's exports, from 296 to 2099. The margin of tariff preferences (MoP)—which compares the preferential rates under a trade agreement to most-favored nation (MFN) tariffs—for the Chilean products range between 10 to 100%, although only ten of those get duty-free treatment. Over half of the products (630) have an 80% MoP, and a further 380 have MoPs of 40% or 50%, with the rest at 25% or less. The products covered are concentrated in pharmaceuticals, wood and paper, oilseeds, and fish, with preferences between 20% and 80%.

The MoPs granted by Chile for Indian products are generally higher, with 626 products enjoying duty-free access and a further 832 with 80% MoP. The rest of the products covered receive preferences of 30%–60%. The largest number of preferences (over 500 products overall with 80%-100% preferences) are in chemicals, machinery and equipment, electrical and electronic apparatus, and the auto sector.

The rules of origin have been modernized as well, adopting specific rules for the products covered, based mostly on tariff-shift criteria, supplemented by regional value content options in many cases.

Source: Chile, General Directorate of International Economic Relations (DIRECON).

TABLE 3
AVERAGE TARIFFS ON LAC EXPORTS TO INDIA

SECTOR	ARGENTINA	BRAZIL	COLOMBIA	MEXICO
Agriculture	27.11	36.75	51.84	37.28
Minerals and metals	2.65	1.8	3.77	4.42
Manufactures	7.37	4.94	6.78	6.12

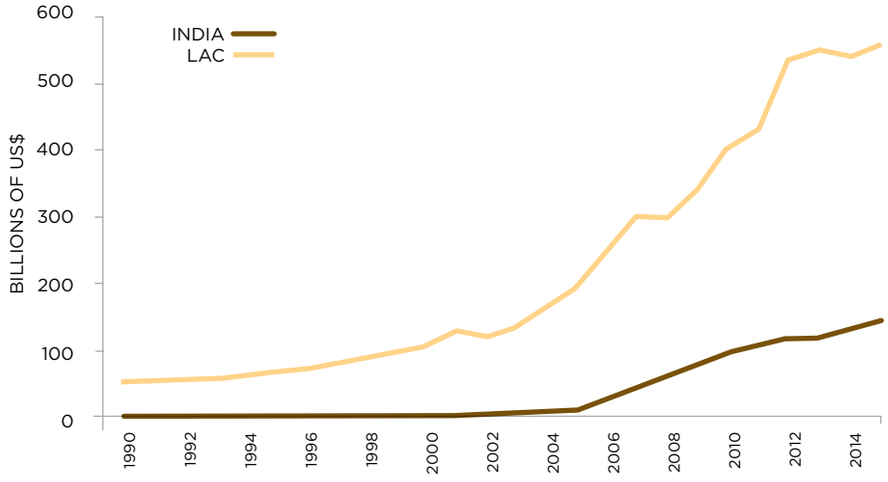
Notes: Averages are weighted using exports to the world; tariff data from 2013
Sources: Authors' calculations based on UNComtrade and TRAINS (UNCTAD) data

TABLE 4
AVERAGE TARIFFS ON INDIAN EXPORTS, SELECTED LAC COUNTRIES

SECTOR	ARGENTINA	BRAZIL	COLOMBIA	MEXICO
Agriculture	10.4	10.7	29	14.4
Minerals and metals	5.9	4.4	2.2	0.8
Manufactures	16	16.8	8.1	8.3

Notes: Averages are weighted using exports to the world; tariff data from 2013
Source: Authors' calculations based on UNComtrade and TRAINS (UNCTAD) data

FIGURE 4
TOTAL STOCK OF OUTWARD FDI FROM LAC AND INDIA



Source: UNCTAD Foreign direct investment statistics.

that there is potential for the region to expand its share of global exports. Attracting more investment on the part of leading Indian firms could contribute to this goal. The services component of the LAC–India relationship is expected to grow in importance as technological change leads to ever-greater synergies between services and manufacturing. From this perspective, investment from India's leading IT firms could help boost the competitiveness of LAC manufacturing sectors moving forward.

THE ROLE OF INVESTMENTS

Both India and LAC have taken on a greater role as exporters of capital in recent years. In the case of LAC, this trend began in the late 1990s and accelerated in the 2000s, while in India, fast growth in outward FDI is a more recent phenomenon that only took off after the 2008–2009 global financial crisis (see figure 4). When the IDB (Mesquita Moreira, 2010) published a report on the state of LAC–India relations, the leap in global FDI flows had yet to become a significant bilateral investment flow. Between 2002 and 2006, only 3.9% of India's outward investment went to LAC. From the perspective of the region's major economies, moreover, Indian FDI was even more marginal, representing only 0.05% of Brazil's total inflows between 2002 and April 2009 and 0.02% of Mexico's between 1999 and September 2008.

To what extent has this scenario changed in recent years? The available evidence suggests not much. According to estimates from India's Ministry of External Affairs, the total stock of Indian FDI in LAC stood at US$20 billion in 2016—a figure that would represent around 1% of the total FDI in the region.

US$350 MILLION

THE AMOUNT JAGUAR IS TO INVEST IN BRAZIL

Looking at official statistics from the Reserve Bank of India (RBI), a similar story emerges. Starting in 2008 through the first quarter of 2017, Indian firms invested US$3.1 billion in LAC, or 1.2% of the total. However, a full 77% of these flows had Panama as their immediate destination. The likelihood that much of this investment was rerouted to other countries complicates the analysis of India's investment in the region.

The exclusion of Panama and other well-known tax havens from the sample likely underestimates India's total investment in LAC but should still provide a reasonable indication of sector and country trends. Figure 5 suggests that the majority of Indian investment in the region has been in manufacturing (58%), with business and financial services accounting for the next-largest share (25%). This breakdown corresponds with other analyses of India's outward FDI, which emphasize that Indian firms have mostly followed market-seeking rather than resource-seeking strategies—that is, they have targeted promising domestic consumer markets rather than trying to secure access to natural resource stocks.

On a country basis, Brazil and Chile alone account for nearly two-thirds of Indian investment in the region over the past decade (see figure 6). Again, these figures need to be taken with several grains of salt given that a considerable amount of investment is likely routed through third countries. Still, they suggest that the uptick in India's outward investment beginning in the mid-2000s has not resulted in a corresponding increase in investment in LAC. Accumulated inflows in the region totaled US$454 million between 2002 and 2006, according to data from the RIS database. If we exclude likely tax havens, the total between 2008 and the first quarter of 2017 reached only US$536 million.

All the same, these aggregate numbers should not lead us to conclude that FDI from India has not played an important role in the region. In fact, Indian firms are leading players in several key sectors. In pharmaceuticals, for example, Dr. Reddy's is a market leader in several LAC countries, Torrent has over 40% of its global presence in Brazil and Mexico alone, and Glenmark recently opened an oncology research center in Buenos Aires. In addition, India's leading IT firms—Tata Consulting, Infosys, Aegis, Genpact, and Sasken, among others—all have important LAC operations and together they employ upwards of 25,000 workers in the region.

In manufacturing, Jaguar, owned by India's sprawling Tata Group, has continued to bet on the Brazilian market despite the country's deep economic recession, recently announcing a US$350 million investment in a new plant in the state of Rio de Janeiro. Hero MotoCorp, the largest global producer of motorcycles and scooters, opened a production facility in Colombia in 2015 with an investment of US$70 million. Of course, Indian firms have not ignored the region's rich natural resources, participating in joint ventures in mining projects throughout South America and in the energy sector in countries such as Brazil, Colombia, and Venezuela. With India's resource demands set to accelerate in the coming years, such investments are likely to be increasingly central to firm strategies.

Still, it is hard to escape the conclusion that Indian investment has only scratched the surface of its potential. Despite a sharp overall uptick since the global financial crisis, India's FDI in the region has fallen short of China's, where outward FDI to LAC finally took off starting around 2010 (after a period of lackluster growth). China's accumulated FDI in the region reached US$8.8 billion between 2010 and 2015 (the last year for which there are official statistics available), in contrast with just US$386 million from India.

The official statistics available from major LAC economies largely reinforce this view. In the case of Brazil, for example, the total stock of FDI from India as of 2014 (the most recent available year) stood at US$1.5 billion (distributed among 46 Indian firms), of which 46% was in manufacturing and 44% in extractive sectors. By contrast, Chinese firms had invested US$12.2 billion by 2014, although the distribution of Chinese FDI has been heavily weighted toward extractive industries (76% of the total) as opposed to manufacturing (5%).

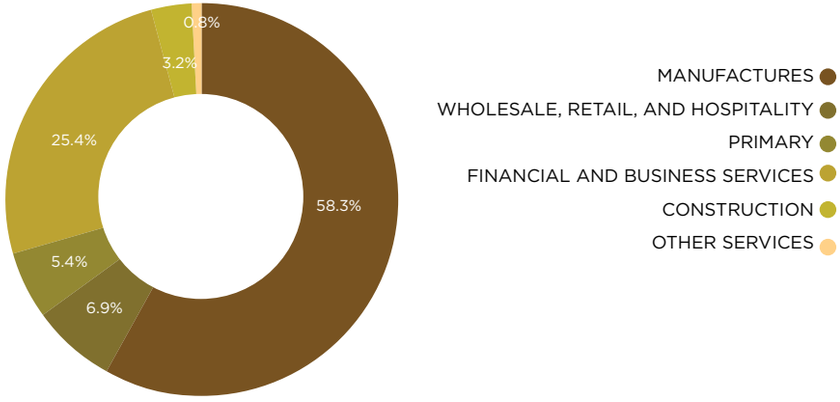
The case of Mexico is similar. Overall, FDI from Indian firms reached US$65 million in accumulated inflows between 2007 and 2016—well short of the US$390 million from Chinese investors. However, a full 76% of Indian FDI has been in manufacturing compared with 28% in the case of China. These figures underscore the potential for investment flows to help diversify the LAC–India relationship—if governments and firms work to overcome the most pressing barriers. In addition, Indian investment is driven by the private sector. Outside of a couple large energy and mining firms, the state-owned enterprises that are the main drivers of Chinese FDI in the region are not a major factor in the case of India, limiting concerns over investors responding to political rather than market incentives in their operations in the region.

At the same time, LAC investments in India have also been minimal. Official statistics from India's Ministry of Commerce put the total accumulated inflows from LAC countries between April 2000 and March 2017 at US$410 million, representing 0.12% of India's total inward FDI during this period. As table 5 shows, Chile and Mexico have accounted for the bulk of the region's investment in India. Despite the small aggregate figures, several major LAC multinationals have enjoyed success in the Indian market. The Brazilian bus maker Marcopolo entered into a joint venture with Tata Motors Group in 2008 and recently began producing luxury buses for intercity routes. This joint venture currently has two production facilities in India. The Mexican cinema chain, Cinepolis, became the first international cinema operator in India and currently is present in more than 30 Indian cities, and KidZania, another Mexican firm, operates amusement parks for children in Mumbai and Delhi. These examples show that the returns for enterprising firms of investing in India can be considerable.

One reason cited in the 2010 report for the small volume of bilateral investments between LAC and India is that both were developing, relatively capital-scarce economies that are still net importers of capital. This remains the case today. However, this does not mean that governments and firms are helpless to boost FDI. Especially in recent years, challenging economic and policy climates in certain countries seem to have presented an obstacle to cross-border investments, as evidenced by several high-profile investments that ran into trouble. The Indian firm Renuka invested around US$500 million in Brazil, at one point ranking among the top ten sugar and ethanol producers in Brazil, only to be forced into bankruptcy amid that country's economic crisis and policy decisions that hurt the viability of ethanol fuel. Another such example arose in Bolivia, where a US$2 billion-plus investment by Jindal Steel and Power in 2007 was terminated five years later amid a legal dispute with its Bolivian partner, a state-owned mining firm.

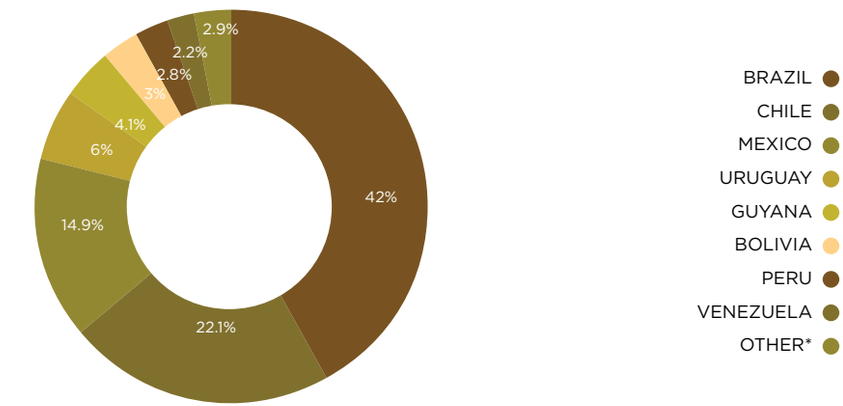
On the Indian side, FDI policies have tended to be restrictive in certain sectors such as agriculture and services

FIGURE 5
SECTOR DISTRIBUTION OF INDIAN FDI IN LAC (2008–2017 Q1)



Note: Does not include financial centers.
Source: Reserve Bank of India Monthly Data Releases

FIGURE 6
COUNTRY DISTRIBUTION OF INDIAN FDI IN LAC



Note: Does not include financial centers.
Source: Reserve Bank of India Monthly Data Releases

1,000

GOODS ARE INCLUDED IN THE TAX REFORM TO HARMONIZE LOCAL TARIFFS

such as telecommunications, retail, and banking in particular, although it is worth pointing out that India maintains a more open FDI regime than does China based on the OECD's FDI Restrictiveness Index.[6] In addition, an often-burdensome regulatory regime creates headaches for all firms regardless of their ownership. However, the current administration of Prime Minister Narendra Modi has implemented a series of liberalizing reforms in recent years, including the loosening of FDI restrictions for pharmaceuticals, petroleum refining, and certain agricultural sectors. In addition, a major tax overhaul that harmonizes rates on over one thousand goods and services among India's 29 states—set to take effect in the second half of 2017—has been hailed as a "tax revolution" that will greatly ease doing business, including for foreign investors (Marlow, 2017).

The policy environment in LAC also appears more propitious for deeper integration. The current governments in Argentina and Brazil have embraced trade and investment liberalization in an effort to jumpstart struggling economies. In the case of the latter, a new energy sector reform will open more options for foreign investors in the country's large off-shore oil fields—a clear area of interest for energy-scarce India. At the same time, getting the policies right is only half of the equation. Firms must also be willing to take risks and venture into unfamiliar markets. Given the dynamics discussed in the beginning of this article, LAC firms can ill afford to sit on the sidelines as India begins what is projected to be a period of rapid growth.

COOPERATION AND DIPLOMACY

Reflecting the potential economic importance of the relationship, governments in LAC and India have ramped up cooperation and diplomatic initiatives in the past decade. Perhaps the most visible of these has been the BRICS grouping, which arose during the late 2000s among the leaders of Brazil, Russia, India, China, and (later) South Africa through a series of high-level summits. The original aims of this bloc were to enhance the influence of developing countries in global affairs, although the ability of these diverse countries to arrive at common positions on major global issues has proven limited. Still, one tangible outcome of the BRICS project, with potential implications for LAC–India relations, is the New Development Bank (formerly knowns as the BRICS Bank), which began operations in 2015 and intends to expand membership and lending beyond the five BRICS countries during 2017.

In a similar spirit, Brazil, India, and South Africa launched the IBSA Forum in 2003, with the goal of increasing South-South Cooperation on a range of policy areas including trade, education, social development, and cultural exchange. IBSA developed a solid institutional framework including thematic working groups in 16 policy areas and created the IBSA Fund to carry out development projects throughout Asia and LAC, although the institution has seemingly been overshadowed in recent years by the BRICS and the financial resources mobilized through the New Development Bank.

On the other hand, the emergence of new cooperation initiatives involving India and LAC has not necessarily translated into major progress on the concrete obstacles to deeper integration, as the discussion above illustrates. The key trade and investment barriers identified in 2008—high tariffs, exacerbated by the use of nontariff barriers such as tariff-rate quotas and TBTs, as well as high transport costs—continue to be major issues today.

One reason for this lack of progress is that formal trade agreements between India and LAC countries have barely progressed over the past decade. The two agreements that existed during this period, PTAs with Chile and MERCOSUR, were so limited in terms of product coverage and depth of liberalization as to barely give these trading partners any material preference in the Indian market. The recent renegotiation of the India–Chile PTA will change that scenario in the case of Chile, but the effects of this deal have yet to be seen.

There are tentative signs that other countries will look to follow Chile's lead and engage with India on a bilateral basis. As discussed above, India and Peru have set summer 2017 as the date to begin negotiations on a bilateral FTA, and a Colombia-India deal has been floated for a couple years. However, governments across the region should be far more proactive in promoting deeper trade and investment links with India—especially in the current political environment. There are two main reasons for this urgency. First, as alluded to throughout this article, governments in major LAC economies such as Argentina and Brazil have taken a more open stance toward trade integration and foreign investment after a decade of more protectionist policies, creating the opportunity for greater alignment with LAC economies such as Chile, Mexico, and Peru, which have long embraced global integration. At the same time, the Modi administration in India has demonstrated a willingness to take on bold reforms such as the aforementioned subnational tax harmonization. This conjuncture of pragmatic, reform-minded leadership in much of LAC and India should not be squandered.

Secondly, recent geopolitical trends add to the strategic imperative of LAC–India integration. The protectionist turn in the United States and parts of Europe has created a scenario where the major developing countries in Asia and LAC are positioned to become the new drivers of global trade integration. This new reality was on display during last November's APEC summit in Peru, where LAC countries including Chile, Mexico, and Peru discussed the possibility of joining the Regional Comprehensive Economic Partnership (RCEP), a trade deal involving 16 Asian economies including India. It was also visible during the March 2017 meeting in Chile of remaining TPP parties, who were joined by Chinese, Korean, and Colombian officials to consider options for Asia-LAC integration after the US withdrawal from the TPP. In addition, leaders of major LAC economies such as Argen-

TABLE 5
LAC FDI INFLOWS TO INDIA (APRIL 2000–MARCH 2017)

COUNTRY	ACCUMULATED FDI INFLOW (MILLIONS OF US$)	SHARE OF INDIA'S TOTAL (%)
Chile	150.54	0.05
Mexico	118.52	0.04
Brazil	24.82	0.01
Argentina	10.19	<0.01
Uruguay	5.33	<0.01

Source: Ministry of Commerce of India.

30

THE NUMBER OF CITIES IN INDIA WHERE MEXICAN MOVIE THEATER CHAIN CINÉPOLIS OPERATES

tina, Brazil, and Mexico have all highlighted the importance of deeper ties to Asia in the current environment.

This renewed momentum behind LAC-Asia integration represents an important opportunity for the region, but it also presents risks. One of these is that the menu of options under consideration—an expanded RCEP or revamped TPP—would likely encompass only a small subset of LAC countries. India, meanwhile, potentially risks being sidelined by a China-led integration project. Another concern is that any agreement with extensive geographic coverage in Asia and LAC would end up so diluted as to fail to address the very real policy barriers between LAC and India. The RCEP negotiations, for example, have run up against the protectionist instincts of some participants.

Faced with this scenario, LAC governments should devise and pursue targeted, proactive strategies to address the most pressing barriers to trade and investment with India. Even if comprehensive and deep interregional deals prove elusive, governments can make progress by addressing more obscure yet important issues such as TBTs and focusing narrowly on the high tariff rates in specific products where the region has major export potential in the Indian market.

However, trade deals are not the only avenue for policymakers to advance integration with India. Policies to lower transport costs—including agreements to liberalize transportation services and upgrade ports and other physical infrastructure within LAC—represent an indispensable complement to the traditional trade policy agenda. Finally, overcoming the lack of familiarity between these economies through better information provision and cultural and educational exchanges can play an important role in reducing the perceived distance between LAC and India. Beyond the actions of governments, firms themselves must take a more ambitious and proactive approach to an economy that is poised to take up the mantle as the driver of global growth in the decades to come. The rest of this volume serves to underscore this point and suggest paths forward for this promising yet unrealized economic partnership.

NOTES

[1]Based on the IMF's World Economic Outlook projections.
[2]On the other hand, India has long been home to a globally-competitive services sector. As discussed below, services exports to LAC are not captured in these figures, which only encompass exports of goods.
[3]One prominent example is Venezuela's state-owned oil company, PDVSA, which had to drastically cut back oil shipments to India after 2014 in order to meet obligations under existing oil-for-loans agreements with China and Russia. The reductions in Venezuela's oil shipments to India explain a significant portion in the sharp decline in total bilateral trade since 2014. See Ulmer, Parraga and Verma (2017).
[4]These estimates are based on data for 2000–2009; see IDB (2012).
[5]In 2016, India received a ranking of 0.21 compared with 0.33 in the case of China on the index from 0 to 1 with higher scores representing more policy restrictions on FDI.

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Megaregional Agreements and New Industrial Policies

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Brookings India*

It is India that gave us the ingenious method of expressing all numbers by means of ten symbols. A profound and important idea which appears so simple to us now that we ignore its true merit.

Pierre-Simon Laplace

INDIA AND LATIN AMERICA SHARE SIMILAR OBJECTIVES IN RELATION TO INCREASING COMPETITIVENESS AND TRADE FACILITATION. TO MEET THESE OBJECTIVES, AND TO AUGMENT THE POTENTIAL FOR GROWTH OF TRADE AMONG INDIA AND LATIN AMERICAN ECONOMIES, THESE COUNTRIES CAN BENEFIT FROM INSIGHTS GAINED FROM THE NEW INDUSTRIAL POLICY EXPERIENCE OVER THE PAST TWO DECADES, AND BY USING THE FRAMEWORK AND MECHANISMS PROVIDED BY THE TRANS-PACIFIC PARTNERSHIP AGREEMENT. THE NEED TO IMPROVE GOVERNANCE AND STRENGTHEN REGIONAL COLLABORATION TO CREATE SHARED SUCCESS STORIES AND EFFECTIVE REGULATORY REGIMES.

The existing trade relationship between India and Latin America is quite small. From India's perspective,[1] in 2016-2017, its exports to Latin America accounted for about 2.6%, and its import share was about 4.5%. With very minor exceptions, the trade share of India's large trade partners in Latin America is also small. Even this limited trade share is concentrated in two ways for India. One, a small number of countries account for a large share of India's trade. Two, within these countries, a few products from Latin America account for most of the trade with India.

Thus, 63% of India's merchandise exports in 2016–2017 were to only Brazil, Colombia, Peru, and Chile. Exports to Brazil alone are one-third of India's merchandise exports to Latin America. These four countries accounted for 41% of India's merchandise imports from Latin America. The largest share of imports (32%) were from Venezuela, of which 99% were mineral fuels, oils, and products. In fact, petroleum oils and crude account for a large share of imports from Brazil and Colombia as well. If gold and gold content are added to these products, then two-thirds of India's imports from Brazil, and over 80% to 90% of India's imports from Chile, Colombia, and Peru are accounted for by just these product categories.[2] In contrast, Indian exports to these economies are more diversified (see Atlas of Economic Complexity, 2017). Except in certain cases, in general, most products exported from India have small individual shares in India's exports.

This, however, does not mean that the potential growth for trade between India and countries in Latin America is low. With focused efforts, and efficiency and linkage-enhancing steps, these countries can considerably increase their economic interaction, including trade. This requires working together to recognize that India and these countries have several common objectives, that they are focusing on policies that enhance domestic efficiency, and that their growth trajectories (particularly those of India, Brazil, and Mexico) show the possibility of very large market opportunities within the next decade. Furthermore, these market opportunities could be enhanced through investment which could tap both the local and regional markets. Evolving technological changes also erode the distances between nations, as national boundaries and distances become less relevant for trade.

These developments point to the possibility and significance of eight factors that could enhance trade and improve efficiency. One, that the basket of traded goods is potentially far more diverse than the pattern we see today, and this diversification will increasingly include services, investment and technology-related products and policies in the future. Two, that with increasing interaction due to global value chains, investment and technologies, internal policies (so-called

99%

OF VENEZUELA'S EXPORTS TO INDIA ARE FUELS

behind-the-border policies) become key determinants of economic interaction between nations. Three, that in such an evolving scenario, the role of regulatory regimes is paramount. The erosion of national boundaries and jurisdiction due to new technologies means there is a need to develop mechanisms for collaboration/cooperation between different countries' regulatory regimes. Four, it is interesting that such mechanisms have been an important focus of the more recent megaregional and new trade agreements, such as the Trans-Pacific Partnership (TPP) and the Pacific Alliance (PA), as well as the more informal groups such as the Asia-Pacific Economic Cooperation Forum (APEC), which aim to develop similar collaborative and efficiency-enhancing initiatives. Five, these collaborative efforts are significant for yet another reason. The evolution of technology is creating conditions which are changing the fundamental framework of operations and regulatory practices. It is important for regulators to meet, discuss and learn from each other's experiences and success cases, to deal with a moving target which keeps changing these operating conditions. Six, a number of the policy initiatives which are the part of the new industrial policy are systemic efficiency-enhancing steps that are increasingly becoming a focus in the new trade agreements. As a recent review of new industrial policies concluded: "This revived industrial policy is less about market restrictions, focusing more on the facilitation of R&D, technological innovation, productivity gaps, and competitiveness, as well as system-building and coordination-enhancing policies that promote interlinked actions with a horizontal impact."[3] Seven, a consideration of the provisions of some of the ongoing trade agreements such as the TPP and PA suggests a major overlap between a number of topics in these agreements and the focus of a significant part of industrial policy initiatives aimed at augmenting trade opportunities as well as diversification. Eight, the group of countries we focus on in this paper includes both those which are keener to open markets through trade negotiations and those which are more conservative in their approach. Any trade agreement with wide-ranging coverage, such as the TPP's, has to manage widely varying considerations through the introduction of flexibilities, adjustment mechanisms, or different kinds of safeguard provisions.[4] There are innovative examples of such flexibilities within the TPP, for instance in the agriculture and automobile sectors and in market access conditions. They include both inordinately long transition periods for reducing tariffs, as well as safeguards that may be used to protect domestic industry from imports or to remove the concessions granted if the partner country does not open up its market as expected. Another flexibility may be, akin to APEC, beginning any agreement through soft law, such as guidelines or a list of principles. These may begin as voluntary systems but over time could become accepted in a more formal, legal sense as per the agreed terms and conditions. This points out the need and possibility of seeking innovative ways to do so, rather than continue with some pre-existing notion of an existing set of options.

Section 2 of the paper discusses the basis for a large potential increase in market opportunity within India and trade with Latin America. Section 3 discusses the overlap of a number of important objectives of India and Latin American economies. Section 4 shows the possibility of a greater diversification of exports from these countries. Section 5 talks about the overlap of these initiatives in relation to key lessons from the recent experience with industrial policy. Section 6 draws upon a new megaregional agreement which was negotiated in the recent past (the TPP), and the kind of framework it provides for making progress in achieving the objectives emphasized by India and the Latin American countries covered in this paper. These lessons, of course, also apply in general for other countries of Latin America or those in other parts of the world. Section 7 provides the conclusions.

In the discussion below, we examine in particular the possibilities for India in its largest export markets in Latin America (Brazil, Chile, Colombia, and Peru)[5]. Three of these economies are part of the ongoing negotiations to create an open free trade area in Latin America, under the PA, which is made up of Chile, Colombia, Mexico, and Peru. Given the importance of a new trade agreement like the PA, we have expanded our focus group of Latin American countries to include Mexico as well. It is interesting that Mexico is also on its way to being part of the top ten economies in terms of middle-class consumption in 2030, as is shown in the next section. It is also noteworthy in this context that India is a PA observer state.[6]

TRADE OPPORTUNITIES

One indicator of the high potential for market increase in economic transactions is the consumer demand of the middle-class in the countries concerned, as well as the positive growth projections into the future. Estimates of growth up to 2025 suggest India to be the country with highest growth prospects.[7] A more comprehensive estimate of the potential annual growth rate of a large list of countries is available for the period 2014 to 2024.[8] For this ten-year period, the annual growth rates for this ten-year period were estimated as follows: India, 6.98%; Mexico, 4.37%; Brazil, 3.34%; Colombia, 3.02%; Peru, 2.8%; and Chile, 1.89%. Thus, we see a significant growth momentum in most of these economies, the highest in the world being India.

This high growth rate of India is also reflected in the likely growth of middle-class consumption levels (see table 1). By 2020, middle-class consumption in India is forecast to be the third-largest in the world. By 2030, it is expected to be second-highest, reaching a level over twice that of the United States. Brazil is also, and would remain, in the top ten countries in terms of middle-class consumption. Given that the increase for India would be far larger, it would be a very attractive trade destination for Latin American countries.

Another possibility of tapping additional markets is through foreign direct investment (FDI). Investment from India in Latin America would, for example, make it easier to function in terms of both the Latin American and North American markets. The same applies to Latin American investment in India with respect to accessing the larger, regional markets as well as the Indian market. It is interesting to note that for the period 2017 to 2019, multilateral enterprises have ranked India, Brazil, and Mexico among their top 15 prospective host economies for FDI.[9]

SIMILAR OBJECTIVES

The Indian Government has launched a number of flagship programs to achieve its high priority objectives. These in-

clude, for instance, Make in India, Digital India, Start-up India, Skill India, Zero Defect Zero Effect, and Smart Cities.[10] The thrust of these schemes is to improve the conditions of doing business, enhance domestic efficiency and establish good governance systems, build capacities for absorbing new technologies, equip the population and governance systems to use digital methods to reduce the time and cost of operations, create conditions that will improve employment and income prospects for youth (particularly small and medium enterprises or SMEs), build the conditions to increase innovative capacities and their practical application, and reduce adverse environmental effects while improving the quality of products.

The objectives that are emphasized by the negotiations in the PA, for example, suggest that the focus of Latin American economies is similar to that of India. For example, the PA's Cali Declaration (30 June 2017), includes emphasis on a green growth strategy and notes the achievement during the previous year of initiatives such as the interoperability of a single window for foreign trade, the electronic exchange of phytosanitary certificates; the standardization of electronic certificates of origin; the methodology for reducing dispatch times for goods; implementation of the action plan toward mutual recognition of authorized economic operators; the launching of a regional digital agenda and road map for improving competitiveness through information and communication technologies; promoting the digital economy as a source of growth and economic development; the creation of the Network of Innovation Agencies; the adoption of operation protocols for the business accelerator network and the investor network; the creation of the PA Investment Facilitation Initiative; and schemes to help diversify the supply of aquaculture and fishery products.

Likewise, the April 7, 2017, road map for MERCOSUR–PA relations announced in Buenos Aires includes areas such as regional value chains, trade facilitation, customs cooperation, trade promotion and SMEs, improving trade facilitation in services, and addressing nontariff measures. Thus, Latin American economies also emphasize good governance, ease of doing business, the digital economy, SMEs, building value chains, innovation, and building capacity for new technologies, product quality, product diversification, and support for SMEs.

This shows us an overlap between the objectives of India and Latin American economies. In this situation, we need to examine the efforts required to support an expansion of diversified trade through domestic and international initiatives that will help achieve these objectives.

POTENTIAL DIVERSIFICATION OF TRADE

Global trade between Latin American countries and India is more diversified than their trade with each other.[11] This shows the possibility of achieving more diversified bilateral trade. If we further consider the combined impact of services, global value chain (GVC) linkages and FDI within the framework, the potential for diversification multiplies. GVCs, FDI, and technological changes allow producers to shift activities across borders to increase competitiveness by segregating their activities to reap the benefits of economies of scale and specialization. Some interesting examples of such efforts by Latin American economies are shown for instance by Hernandez et. al (2014).[12] International trade plays a very important role in this context.

It is interesting that in the bilateral trade between India and these countries, there are a number of products which are exclusive, that is, India only imports these products from these countries, and does not export these products to them.[13] Likewise, there are also exclusive products in India's bilateral exports to these countries. This list of products suggests that: (a) there is a whole range of products traded between these economies, and not only bulk ones, implying that the constraint imposed by distance is not as binding as may be otherwise assumed; [14](b) there is a possibility of developing greater trade through participation in value chains involving these products, covering goods and services; (c) the list of these products shows a basis for diversifying into new products, including those of particular interest to each economy; (d) there is a possibility of learning from success stories in each of these economies and building on domestic capacity to enhance production and trade capabilities.

However, these efforts toward diversifying trade and enhancing trade opportunities will require specific efforts and policies oriented toward relevant objectives. In that regard, we can glean a number of lessons from the experience of the new industrial policy and the framework emerging in megaregional or new trade agreements.

POLICY LESSONS

Industrial policy is a systematic and structured effort to improve a nation's opportunities[15]. The range of policies is large because there is growing overlap between different economic activities and policies, especially trade, investment, and goods and services. Moreover, these policies involve multiple government departments that need to collaborate as part of a common effort. In effect, industrial policy needs to "focus on interventions that help build systems, create networks, develop new institutions, and align evolving strategic priorities" (Warwick, 2013). Hence, the strategy for industrial policy would have to recognize that industrial policy is not a collection of policies but a "process."

However, developing economies are not equipped to carry out the whole range of policies that industrial nations implement. Therefore, they have to determine priorities and identify the criteria which will help them achieve their objectives most effectively. This prioritization has to be decided based on the emphasis given by each nation and it will differ across countries.

Insights from the more recent industrial policy experiences (as opposed to earlier ones, which focused more prominently on import substitution), provide some guidance on the kind of initiatives that need to be considered (see Singh, 2016): (1) improve domestic coordinating efforts among government agencies, businesses, and other stakeholders; (2) establish mechanisms for sharing better and relevant information, including with other countries, if required; (3) important policies are those that emphasize building global competitiveness, and recognize the critical role of trade policy, improved logistics, trade facilitation, the ability to meet global standards, and the ease of doing business; (4) identify issues to be addressed cooperatively by nations and the private sector; (5) develop tools to facilitate the possibility of monitoring the progress achieved, the difficulties that limit progress, and evolve methods for addressing these to guide policy; (6) implement industrial policies in a time-limited manner together with sunset clauses, with the possibility of changing the policy after a few years of experience

with it; and (7) initiate regional or international cooperative schemes taking these aspects into account.

Other significant insights include: the composition of the relevant industrial policies changes as economies grow; lead firms linked to GVCs have a crucial role and this must be reflected in policy; the pivotal role of new technologies implies that the type of infrastructure to be emphasized includes that required for new and emerging technologies and skills, rather than physical infrastructure like road, ports, and storage facilities; often implementation of industrial policy requires substantial investments implying a significant role for financial instruments and multiple sources of financing; empirical and practical experience have validated the relatively larger reach and impact of system-building and coordination-enhancing policies, or so-called "soft" policies, promoting a number of interlinked activities with a horizontal impact (Harrison and Rodríguez-Clare, 2009).[16]

Since industrial policy has large coverage and scope, each nation should consider all mechanisms available, especially regulatory frameworks developed on the basis of agreement between several nations. In this context, it is worthwhile noting that the scope of trade policy has gone beyond the border to include policies within countries that are part of the efforts to reduce costs, improve efficiency, and establish domestic systems of good governance to better achieve the objectives mentioned in the section above. As a detailed study on China's future development path noted, "while providing fewer 'tangible' goods and services directly, the government will need to provide more intangible public goods and services, like systems, rules, and policies, that increase production efficiency, promote competition, facilitate specialization, enhance the efficiency of resource allocation, and reduce risks and uncertainties" (World Bank, 2013).[17]

The implementation of industrial policy could become easier and more efficient if we were able to learn from the experience of other countries and use the available "off-the-shelf" mechanisms and principles for good governance and coordination to build domestic systems based on a regulatory framework agreed by a number of countries. Recent megaregional trade agreements that include both developed and developing economies, such as the TPP, would be particularly relevant in this regard. The next section draws some lessons that may be useful for expanding trade opportunities for India and Latin America.

WHAT WE CAN LEARN FROM MEGAREGIONAL AGREEMENTS

Among the countries considered in this paper, Chile, Mexico, and Peru are members of the TPP. In other words, these countries are already prepared to base their actions on the TPP text. Other countries have to examine and consider whether and how the TPP text could be useful for enhancing trade opportunities for them. This text provides a template for domestic policy reform toward good governance and collaborative initiatives (for example, to promote regulatory coherence).[18] The provisions in TPP cover different regulatory objectives, as is illustrated in table 2 below.

All the categories in table 2 potentially lead to augmenting market opportunities, though the difficulties associated with individual areas differ. Of these categories, providing greater market access would be particularly difficult for some of the countries, including India. The way forward would require the possibility of agreeing on flexibilities that may allow markets to open up subject to a longer transition period or with complementary safeguard actions under specified conditions. The TPP and the WTO provide several examples of these flexibilities, and others could be determined by identifying the precise concerns to be addressed through such flexibilities.

Another possibility could be to agree on an initial long list of products for market opening negotiations, but the actual negotiations would begin only with a small subset of that list while specifying conditions that may allow for a larger coverage of the product list at a later date.

For e-commerce and IPR, some of the countries are likely to find the provisions difficult to accept. It thus might be useful to identify those provisions where agreement is possible and begin a process with those areas.[19] For other provisions, there may be a subsequent negotiation including examining transition periods and other flexibilities.

Sometimes, the existing flexibility provision within the TPP may be able to address the concern, if it is broadly interpreted in context. One example relates to the provision in relation to e-commerce that prevents governments from insisting on computing facilities being located within its territory.[20] The exception provided under TPP Article 14.13.3 may be examined in the case of countries which feel uneasy with this restraint, and its wording could be understood in ways that give confidence that it will address relevant concerns.[21]

An interesting feature of table 2 is that most aspects could be considered soft law (that is, guidelines), similar to those of the APEC process. Once again, while a beginning may be made in this manner, more legally binding agreements could replace such efforts in time. The TPP provides a model to be considered because it is a megaregional agreement between

4.4%

THE ESTIMATED ANNUAL GROWTH RATE FOR MEXICO IN THE COMING YEARS

developed and developing economies, with an agreed and already available framework and mechanisms to achieve the various aspects of the regulatory framework mentioned in table 2 above.

The framework of TPP is significant in that most of it relates to inside-the-border regulatory policies, with a focus on precisely those activities which pertain to the main thrust of industrial policy, that is, establishing systems to achieve governments' key objectives. The TPP includes mechanisms for improving good governance and regulatory systems, logistics, operations of enterprise and industry, and the possibility of domestic production more easily becoming part of global supply chains.

In addition, TPP provisions may facilitate the task of governments to equip the economy so as to better absorb and efficiently operate new technologies, and establish the domestic regulatory regime needed to address new and emerging concerns. If such preparations are not in place, efficiencies and competitiveness would be eroded over time, and connecting to global markets will become increasingly difficult. Having the relevant mechanisms and systems in place enables nations to improve their potential opportunities in global markets through efficient and competitive operations. They also help improve the ease of doing business and enhance the economic impact of investment. The relevant provisions of the TPP in this regard are, for example, chapters 5, 7, 8, 14, 16, 24, and 25.

In any consideration of such initia-

tives, a very useful repository could be those systems which are established through a commonly agreed approach by several countries. The TPP provides a portfolio of such systems, many of which are not too difficult to adopt or to phase in, especially those relating to regulatory cooperation, facilitation of trade internally and at the border, and those establishing the framework of good governance.[22] As shown earlier, such TPP mechanisms would contribute to the more efficient implementation of industrial policies.

An interesting feature of these provisions is that, as shown in some detail by Singh (2017), they could be used for internal domestic reform, for regional cooperation or trade agreements, or for multilateral agreements. The framework for consultation and collaboration, for example, can be used for internal coordination or to learn from each other's experience in a regional agreement with various countries.[23] Likewise, a platform for discussing mutual concerns and operational constraints could become a major institutional method of building mutual trust internally as well as across nations.

Trust can also be built if steps are taken to collaboratively create win-win situations. One such possibility is to establish skill enhancement practices and provide support to local stakeholders wherever business is expanding within another nation's market. For instance, a prominent Indian software company has established an "Academic Interface Program in Latin America" to develop skills through processes which begin in close connection with over 30 institutions in eight countries in the region, has trained graduates in seven countries, and then went on to provide mentoring, employment, and technical training within the company.[24] It is important to increasingly make these activities complementary to doing business. If we can evolve a model comprising such initiatives and make that part of the coherence- and cooperation-related provisions of the TPP, that would fundamentally change the conventional adversarial interaction in trade negotiations and convert it into more of a partnership. That is the kind of initiative which could begin between India and the countries of Latin America, drawing upon the new industrial policy and chapters of the TPP chapters, in order to choose "off-the-shelf" policy frameworks and mechanisms and combine them with trust-building steps, including flexibilities and mutual capacity-enhancing initiatives.

TABLE 1
MIDDLE-CLASS CONSUMPTION, TOP TEN COUNTRIES, 2015, 2020, 2030 (PPP, CONSTANT 2011 TRILLIONS OF US$, AND GLOBAL SHARE)

TOP TEN COUNTRIES	2015	TOP TEN COUNTRIES	Global Share (%)	2020	Global Share (%)	TOP TEN COUNTRIES	2030	Global Share (%)
US	4.7	13	China	6.8	16	China	14.3	22
China	4.2	12	US	4.7	11	India	10.7	17
Japan	2.1	6	India	3,7	9	US	4.7	7
India	1.9	5	Japan	2.1	5	Indonesia	2.4	4
Russia	1.5	4	Russia	1.6	4	Japan	2.1	3
Germany	1.5	4	Germany	1.5	4	Russia	1.6	3
Brazil	1.2	3	Indonesia	1.3	3	Germany	1.5	2
United Kingdom	1.1	3	Brazil	1.2	3	Mexico	1.3	2
France	1.1	3	United Kingdom	1.2	3	Brazil	1.3	2
Italy	0.9	3	France	1.1	3	United Kingdom	1.2	2

Source: Kharas (2017, TABLE 4).

TABLE 2
TPP PROVISIONS ON DIFFERENT FEATURES OF THE TRADE REGULATORY SYSTEM

MAIN OBJECTIVE OF THE PROVISION	DIFFICULT TO IMPLEMENT	EASIER	SOFT LAW
Market opening (increased market access for goods and services)	Yes, for some. Examine flexibilities	No	Combination with hard law
E-commerce	Yes, for some. Examine flexibilities	No	Combination with hard law
Intellectual property rights (IPR)	Yes, for some. Examine transition period	No	Combination with hard law
Facilitation and timely response		Yes	Possible
Principles of good governance, including transparency, timeliness, predictability, and review		Yes	Possible
Regulatory coherence		Yes	Possible
Cooperation/collaboration		Yes	Possible
Supporting capacity building, SMEs		Yes	Possible
Sharing information and experience		Yes	Possible
New areas and identifying future concerns		Yes	Possible
A platform to discuss specific concerns and seek solutions		Yes	Yes

Source: Compiled by the author.

TAKING ADVANTAGE OF THE CONTEXT

At present, India and Latin America have a relatively small trade base. However, there is a strong potential for growth and diversification of this trade both through conventional market expansion and income growth, and also through investment, trade in services, and technological developments that will reduce the constraints caused by distance between these nations.

It is noteworthy that India and Latin American countries have similar key objectives, that is, to improve domestic efficiency and competitiveness and to facilitate the operational conditions faced by their producers and traders. To meet these objectives, and to augment the potential for growth of trade between India and Latin American economies, these countries can benefit from the insights gained from the new industrial policy experience over the past two decades and by using the framework and mechanisms provided by the TPP. This will help increase domestic efficiency through good governance and enhance regional collaboration to share success stores and effective regulatory regimes while establishing supportive systems to address each nation's concerns. These initiatives will also build mutual trust and establish predictable, systemic growth that builds on existing opportunities to leverage trade between India and Latin America.

NOTES

*I want to thank Ketan Gupta and Reena Sudan for their very insightful research assistance. The views expressed here are my own.

[1]Data from the Department of Commerce of the Government of India. The financial year of the Government of India is from April to March.

[2]In the case of Mexico, which we also consider in this paper, petroleum oils and crude accounts for just over two thirds of India's imports from Mexico.

[3]See Harsha Vardhana Singh (2016).

[4]In the TPP, GDP per capita ranges from about US$2,100 (Vietnam) to about US$56,300 (Australia).

[5]These countries are also among the largest sources of Indian import from Latin America.

[6]Mexico is also a member of the TPP. Other countries which negotiated the TPP include Australia, Brunei, Canada, Chile, Japan, Malaysia, New Zealand, Peru, Singapore, United States (withdrawn), and Vietnam.

[7]See the growth projections included in the Atlas of Economic Complexity (2017).

[8]See the growth projections based on trade data for 2014 included in the Atlas of Economic Complexity (2017).

[9]See UNCTAD (2017, 9).

[10]For a longer list of such policies, see http://thdc.gov.in/Writereaddata/English/schemePM.pdf. There are many more schemes launched by the government.

[11]See the data for the structure of India's global exports at the Atlas of Economic Complexity (2017).

[12]See, in particular, the diagram on page 32 of the book.

[13]For more details, see Singh et. al (forthcoming).

[14]These countries have significant trade with China, which is also a similar distance away.

[15]This section is based on the comprehensive assessment of the new industrial policy discussed in Singh (2016).

[16]The importance of a wide scope for industrial policies and a shift away from hard policies is also mentioned by Salazar-Xirinachs, Nübler, and Kozul-Wright (2014).

[17]See the reference and context on pages 16–18.

[18]For more detail, see Singh (2017).

[19]For e-commerce, these areas may include the principle of non-discrimination generally applying to e-commerce; avoiding any unnecessary regulatory burdens on electronic transactions; facilitating electronic authentication and electronic signatures; facilitating use of cloud-computing services; protection of personal information; protection of cross-border flows of information (including personal information protection); and cooperation amongst the parties to the TPP on sharing experiences, exchanging information, assisting SMEs to overcome obstacles, encouraging self-regulation within the private sector, and building capabilities to address cybersecurity matters. For details, see Singh (2017).

[20]The provision in question is Article 14.13.2, which states that: "No Party shall require a covered person to use or locate computing facilities in that Party's territory as a condition for conducting business in that territory."

[21]It also says that: "Nothing in this Article shall prevent a party from adopting or maintaining measures inconsistent with paragraph 2 to achieve a legitimate public policy objective, provided that the measure: (a) is not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade; and (b) does not impose restrictions on the use or location of computing facilities greater than are required to achieve the objective."

[22]These include transparency of procedures and regulations, timely decisions, processes to facilitate transactions, review standards, and support to improve institutional capabilities.

[23]An interesting provision in this context is TPP Article 2.9.2, which states: "A Party (the requesting Party) may request ad hoc discussions on any matter arising under this Chapter (including a specific non-tariff measure) that the requesting Party believes may adversely affect its interests in trade in goods, except a matter that could be addressed under a Chapter-specific consultation mechanism established under another Chapter, by delivering a written request to another Party (the requested Party) through its contact point for this Chapter. The request shall be in writing and identify the reasons for the request, including a description of the requesting Party's concerns and an indication of the provisions of this Chapter to which the concerns relate..."

[24]During 2013–2016, the company trained 980 people, had 3,750 volunteers, signed 12 formal agreements with local NGOs, and hired 375 people.

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Chandrajit Banerjee
Director General, Confederation
of Indian Industry

We must **sign more trade agreements** with countries in **Latin America**

THE CONFEDERATION OF INDIAN INDUSTRY (CII) HAS 70 OFFICES, 63 IN INDIA AND 7 ABROAD: AUSTRALIA, CHINA, EGYPT, FRANCE, SINGAPORE, THE UNITED KINGDOM, AND THE UNITED STATES. IT HAS OVER 220 COOPERATION AGREEMENTS WITH ORGANIZATIONS FROM 90 COUNTRIES AND HAS BECOME A TOUCHSTONE FOR THE INTERNATIONAL COMMUNITY WHEN IT SEEKS TO FORGE CLOSER TIES WITH INDIA. IN THIS INTERVIEW, THE CII'S DIRECTOR GENERAL, CHANDRAJIT BANERJEE, ANALYZES THE DYNAMICS OF INDIA'S RELATIONSHIP WITH LATIN AMERICA, THE POSSIBILITIES FOR CREATING SYNERGIES, AND RECENT INVESTMENT SUCCESS STORIES.

What are your main goals at the CII and why do you have a department for Latin America?

The CII works to create and sustain an environment that is conducive to the development of India. We are, in a way, a developmental organization, partnering industry, government, and civil society through advisory and consultative processes. We have a vibrant international department at our central office in New Delhi and also maintain 10 overseas offices. The department in Delhi includes numerous regional desks, including one focusing on Latin America and Caribbean (LAC), which has been in operation for more than a decade now. This helps us maintain a strong relationship with important stakeholders, such as LAC diplomatic missions in India, the Indian missions in LAC, and the LAC divisions at India's Ministry of Commerce and Ministry of External Affairs. Most importantly, the LAC desk at CII connects these stakeholders with Indian industry through appropriate platforms and provides an impetus to do more business with LAC.

What steps need to be taken to strengthen investment ties between India and Latin America?

Indian companies have already invested a sizable amount in LAC, primarily in the automotive, pharmaceutical, information technology, and energy sectors. According to India's Ministry of External Affairs, these investments represent US$20 billion. This is significant and would translate to roughly 15% of India's total outward FDI since 2001. I believe this will grow in the coming years, as LAC continues to attract considerable foreign investment. While the economic crises in a few countries may dissuade certain investors, others, such as the Pacific Alliance member countries, are increasingly courting foreign investment. Investment flows from Latin America into India currently stand at roughly US$2 billion, about ten times less than Indian investments in the region. But these are serious investments and nearly all the 30 Latin American companies in India have met with a good measure of success. There is much scope to increase Latin American investment in India, and also promote joint projects in manufacturing, renewable energy, and the automotive sector.

15% OF INDIA'S OUTWARD FDI GOES TO LATIN AMERICA

CHANDRAJIT BANERJEE HAS BEEN AT THE CONFEDERATION OF INDIAN INDUSTRY FOR 26 YEARS AND IS ONE OF THE DRIVING FORCES BEHIND ITS GEOGRAPHIC EXPANSION. HE HAS BEEN DIRECTOR GENERAL SINCE 2008. HE HAS AN UNDERGRADUATE DEGREE IN ECONOMICS AND A POSTGRADUATE IN THE ECONOMICS OF PLANNING FROM THE UNIVERSITY OF CALCUTTA. HE HAS BEEN AN ADVISER TO DIFFERENT GOVERNMENT DEPARTMENTS AND IS A MEMBER OF THE WORLD ECONOMIC FORUM.

Do international organizations have a role to play in promoting investment in both regions?

Yes, especially developmental financing agencies like the Inter-American Development Bank (IDB) and the Development Bank of Latin America (CAF), can play a role in promoting cross-border investments between India and Latin America. Such agencies can provide development and gap financing to small and medium-sized investors. One of the major obstacles to investment is the lack of knowledge of each other's markets. Organizations like the United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC) and think-tanks can bridge this vast knowledge gap and boost investor confidence.

What kind of trade agreements could help to promote South-South trade and investment?

At present, India enjoys a Preferential Trade Agreement (PTA) with Chile and with the Mercosur. Indian industry has welcomed both of these agreements. However, PTAs are much narrower in scope than Free Trade Agreements (FTAs), which Latin American countries champion on a global scale. China, the US, the European Union, Japan, South Korea, and many other countries have FTAs with numerous Latin American countries. In this context, Indian exporters face stiff competition in Latin America from other free trade partners that enjoy zero duty on many products. It is thus in Indian industry's interests to push for India to sign more FTAs with LAC.

> INDIA AND LATIN AMERICA ARE BOTH IMPORTANT PARTS OF THE GLOBAL VALUE CHAIN IN THE AUTOMOBILE SECTOR

How could e-commerce and digital transformation in general help in this task?

There is much scope for India and Latin America to collaborate through technology-related ventures. Latin American companies can participate in the Indian government's Digital India program. About 35 Indian technology companies are already operating in LAC and are an increasing source of employment in the region. Indian e-commerce companies have seen tremendous growth and some like Zomato and Redbus have already invested in Latin America.

Is it possible for synergies to be built in industrial sectors?

There is a lot of scope for increasing cooperation in the manufacturing and industrial sectors. This is already happening in a significant way in the automobile sector. Indian automobile and autoparts companies have invested in nearly 20 manufacturing plants in the LAC region. These include companies like Samvardhan Motherson Group, Hero Motocorp, and JK Tyres. Similarly, Latin American companies like Brazil's Marcopolo and Mexico's Nemak and Metalsa have been investing in India and working on joint projects with Indian companies like Tata Motors and Mahindra & Mahindra. This cross-border cooperation owes also to the fact that India and Latin America are both important parts of the global value chain in the automobile sector. Similar joint projects can also be formed in mining, energy, and electronics.

Could you give us a successful example of India–LAC cooperation?

India cooperates in many ways with LAC, but mostly through bilateral means rather than regional mechanisms. There are numerous successful examples of bilateral cooperation but one NOTEble example of India–LAC cooperation is in the pharmaceutical space, whereby Indian companies entered the Latin American market and helped bring down the price of public healthcare in the region. This was first facilitated by Brazil, which invited Indian pharmaceutical companies to the country in the late 1990s, when Brazil planned to open up their generic drugs industry to foreign players. Soon after, numerous Indian pharmaceutical companies also set up shop in other Latin American countries, like Brazil, Mexico, and Argentina. India now exports finished pharmaceutical products to nearly every LAC country. Not only has this brought down the cost of public healthcare, it has also stimulated local markets to become more globally competitive.

> COOPERATION IN THE PHARMACEUTICAL INDUSTRY HAS BEEN HIGHLY SUCCESSFUL

Collaborative Diplomacy

Deepak Bhojwani
LATINDIA Consultancy

India did not enter me through my mind but through my senses.

Octavio Paz

INDIAN DIPLOMACY HAS BEEN PROMINENT THIS CENTURY, LEVERAGING AN ECONOMY THAT HAS SHED INHIBITIONS AND GROWN IMPRESSIVELY. LATIN AMERICA HOWEVER REMAINS DISTANT GEOGRAPHICALLY AND CONCEPTUALLY AND RELATIONS HAVE BEEN BASED ON BILATERAL PRIORITIES. A REPRIORITIZATION OF THE RELATIONSHIP IS ESSENTIAL AND SHOULD BE COMPLEMENTED BY MORE DISCERNING AND ENERGETIC DIPLOMACY.

Octavio Paz, the Mexican Nobel laureate and ambassador to India in the 1960s, said: "India did not enter me through my mind but through my senses" (1995).[1] It appears Latin America and India have a "sense" of each other but their minds are still to be made up.

When India became a nation-state in 1947, the countries of Latin America had been independent for over a century. Latin American societies were formed by descendants of European, and in some cases African, origin with relatively scarce indigenous presence. Indian society was almost entirely South Asian, partly molded by British education. Latin America was oriented toward Europe and the US. India was nonaligned. These civilizational differences created a polite distance, despite abiding mutual admiration for aspects of each other's culture.

India has expanded its global diplomatic and economic footprint this century, but Latin America remains over the horizon in more ways than one. Geographic distance is the supposed reason. This does not, however, deter China, whose trade with the region is six times that of India, nor does it prevent Indians from traveling to the US, whose east and west coasts are as far from India as São Paulo and Mexico, respectively. Direct air and shipping links are considered uneconomical. Both sides see each other as exotic tourism destinations but have not achieved critical travel mass.

Political and diplomatic relations were established soon after 1947, given the absence of disputes and a shared colonial legacy. Early political exchanges identified some common ground but had little political impact. India today hosts 20 Latin American and Caribbean embassies and maintains 14 in that region. It participates in the G20, alongside Brazil, Mexico, and Argentina. Forums for bilateral dialogue, contact with the Community of Latin American States (CELAC)[2] and subregional forums provide the matrix for engagement.

The economic complementarity between the two is evident. Indian companies import large quantities of hydrocarbons from Venezuela, Mexico, Colombia, and Brazil; edible oils and sugar from Brazil and Argentina; copper and precious metals from Chile and Peru; wood from Ecuador, etc. In turn, India exports diesel, textiles, and manufactured products. This century, trade has accelerated by 30% annually and hit US$46 billion in 2013–2014.[3] It then slowed with the fall in prices of commodities, especially crude oil, India's principal import.

The main drivers of the relationship have been official patronage and private enterprise. The former has entailed the promotion of a strategic partnership with Brazil; a privileged partnership with Mexico; trade negotiations with MERCOSUR, Chile, and Peru; observer status in the Pacific Alliance; investments in energy, mainly hydrocarbons; and a variety

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COUNTRIES IN LAC HAVE EMBASSIES IN INDIA

of agreements for collaboration in agriculture, science and technology, commerce, etc. Private companies have exploited economic complementarity to invest and trade in energy, commodities, manufactures, and technology to mutual benefit, in most cases.

Indian companies recognize Latin America as an important market for automobiles, chemicals, pharmaceuticals, and engineering goods. Over two dozen Indian IT companies have service and development centers there.

ISSUES AND IMPEDIMENTS

Both sides have still to identify the ingredients that will propel exchanges and enhance the substance of a relationship that is a long way from achieving its true potential. Though the task would seem more complicated for India, which has to deal with over 20 countries, India's complex political economy also perplexes many Latin Americans. Given the lack of cohesion and relatively shallow levels of Latin American integration—compared to ASEAN or the European Union—India does business bilaterally and occasionally engages in dialogue at the regional level.

Political vicissitudes and fluctuating ideological currents have impacted attempts to build durable friendships. A lack of application, insufficient diplomatic attention, linguistic unfamiliarity, the absence of a diaspora, and generally lower stakes than with other international partners, have conspired to keep both sides somewhat in the dark about aspects of their political environment that would be important to building the relationship. The rapprochement with Brazil during Lula da Silva's presidency (2003–2010) has given way to more routine, less ambitious exchanges in recent years. This led to the neglect, and near demise, of the India-Brazil-South Africa (IBSA) forum, which was created in 2003. The consolidation of democracy and centrist politics helped focus both sides on the essential aspects of their relations.

An important element that affects the substance of the relationship is economic health. The Indian economy has survived the most recent global downturn and continues growing at over 7%, and the outlook remains optimistic (World Bank, 2017). Latin America has not been so lucky. The IMF (2017) forecasts growth to expand by 1.1% in 2017 and 2% in 2018, following stagnation in 2015 and 1% contraction in 2016. Over the medium term, growth is expected to remain subdued at 2.6%. Some of India's principal economic partners are struggling: Brazil will grow at only 0.2%; Chile and Mexico at 1.7%; while Peru, Colombia, and Argentina will do a little better. India is focused on imports and investments in raw or semiprocessed materials. Lower growth may prompt Latin American governments to open their economies and offer more incentives. This may also affect India's exports.

High rates of growth have increased Indian demand for energy, food, minerals, and other materials. As Indian industry expands, it is looking more closely at markets covering 600 million middle-income customers in Latin America. Governments and businesses in Latin America recognize the potential India holds as a destination market for their resources and as a source of investment. They also glimpse opportunities for adding value by leveraging India's strengths, not just in the IT sector, but also in renewable energy, automotive industry, pharmaceuticals, and other areas.

Indian investment in Latin American hydrocarbons, pharma, automobiles, agroprocessing, engineering, textiles, chemicals, and electronics is estimated around US$20 billion,[4] which means it has a stake in Latin American prosperity. Latin American business has a much smaller footprint in India. While the Indian market is obviously attractive, and the present government emphasizes domestic manufacture by foreign investors, many factors—some genuine, others imaginary—still inhibit Latin American businesses from operating in India. The present government, through its Make in India program, has removed several hurdles to business, but still needs to improve its ranking in the World Bank's Ease of Doing Business Index, where it currently occupies 130th place.

In 2015-2016, Latin America accounted for less than 3% of India's exports and just over 5% of India's imports worldwide. The composition of trade makes it vulnerable to global economic and technological trends. According to India's Directorate General of Foreign Trade, hydrocarbon imports from Latin America declined from US$24.5 billion in 2013-2014 to US$19.99 billion in 2014-2015, and to just under US$10 billion in 2015-2016 and 2016-2017. A similar, though less acute, problem exists in the case of copper from Chile. Given the precarious situation faced by their exports to India, Latin American governments are focusing on better terms of trade.[5] The more dynamic regimes are negotiating a lowering of trade and nontariff barriers and investment incentives, but there is little talk of major initiatives such as institutional financing or infrastructure projects.

The Inter-American Development Bank published a report entitled 'India: Latin America's Next Big Thing?' (Mesquita Moreira, 2010) that noted India's potential to mirror the economic performance of China, and the massive opportunity for more trade and cooperation, but the question mark at the end of the title was perhaps deliberate, an indication of the challenge ahead. The study emphasized that, in order to boost trade, both India and Latin America must lower tariffs and trade barriers.

India's average tariff on Latin American agricultural goods was 65%, more than five times China's average tariff of 12.5%. Even though Latin American tariffs on Indian goods were lower—-9.8% on manufactures—they were well above the OECD range of 4% to 6%. A 10%

LEARNING FROM EXPERIENCE

The most spectacular failure among India–LAC collaboration projects was the Bolivian Mutún iron ore and steel project undertaken by Indian steel giant Jindal in 2006, with projected investment of over US$2 billion. This project was terminated by the Bolivian government in 2012, alleging a lack of timely investment by Jindal. The aftermath of this unfortunate turn of affairs lingers on (Business Standard, 2013). Other high-profile failures include Essar Steel's project in Trinidad; Reliance Industries' hydrocarbon ventures in Peru and Colombia; and ONGC's oil venture in Cuba. A volatile Brazilian market forced Shree Renuka Sugars (US$600 billion investment) and Hindalco to offload one plant each to reduce debt in 2016. These examples should serve as lessons for the future.

reduction in average tariffs on Indian products could increase exports of Indian goods by 36% to Chile and Argentina.

Physical connectivity, a vital element for the future growth of trade, was the other obstacle identified, specifically the high cost of transportation. India, unlike China, has no direct shipping services to this region. The dispersed nature of Latin American population centers and markets makes transportation costs from India more relevant for Indian exports vis-à-vis Latin American exports to India, which consist largely of bulk commodity shipments. As is described in Bhojwani (2015, 133), Indian companies shipping to Brazil cannot automatically access all other countries and markets in the region due to problems of infrastructure and connectivity. The economics of the shipping industry led some attempts in the 1980s being discontinued (Bhojwani, 2015, 130). Unfortunately, no institutional attempt has been made to ensure the viability of direct shipping connections, or even warehousing facilities, by either side.

The complementary nature of the economies of India and Latin America would make for a mutually beneficial relationship, but neglect can turn into indifference. Edible oil or sugar importers from Brazil and Argentina, just like crude oil or copper importers, are left to their own devices. Little attempt is made to identify and leverage synergies or opportunities. Collaborative opportunities in pipelines, land leases, port and railway capacity, refineries, warehousing, and so on in Latin America are considered a bridge too far for the Indian business establishment, which has not ventured to promote investments in complementary sectors to ensure supplies and add value.

Unlike other players in Latin America—US, Europe, China, Japan, Korea—India has still to consider participation in Latin American financial institutions like the Inter-American Development Bank, the Andean Development Corporation, the Central American Bank for Economic Integration, and so on. This keeps it out of the forums it needs to participate in projects in the region. Scattered Indian lines of credit have borne fruit in the form of a few projects, dwarfed by more ambitious ventures financed and executed by other players. Bilateral banking connections are nonexistent. A solitary, nonretail branch of the State Bank of India exists in São Paulo. The Exim Bank of India, responsible for administering fledgling lines of credit, based in Washington DC is even more distant functionally.[6] Conversely, Latin American banks have apparently not even looked at India.

Indo–Latin American business initiatives have made a mark through ventures such as the Birla Group (Hindalco) acquisitions in Brazilian aluminum industry; the Brazilian firm Gerdau's acquisition of a steel plant (Kalyani) in India; the joint venture between Brazilian vehicle manufacturer Marcopolo and Tata Motors to make bus chassis in India; the more than 350 cinema screens acquired and run by Mexico's Cinépolis chain in India; assembly lines operated by vehicle companies Mahindra and Hero in South America; UPL's presence in the Latin American agrochemical market; extensive operations by Indian pharma companies all over Latin America; and the overarching investments of billions of dollars by India's state companies in hydrocarbon exploration in Brazil, Colombia, and Venezuela.

However, a lack of sufficient institutional presence and market intelligence may be the reason behind some setbacks.

A more serendipitous relationship thrives in the IT sector. Over two dozen Indian companies have set up development and service centers, including business process outsourcing, all over Latin America. The "nearshoring" model relies on Indian software and expertise, Latin American human resources, and the advantage of working in American time zones. With just a few hundred technicians from back home, major Indian software companies employ, train, and empower tens of thousands of Latin American workers, leverage their language capabilities for the North American, European, and local markets, and avoid the need for long-term visas for more Indian employees.

India's recent economic prowess owes much to its intrepid diaspora, especially in the developed world, but also in Asia and Africa. The English-speaking diaspora in the eastern Caribbean carries little influence in Latin America, which hosts small communities of Indian origin, mostly in trade or services. There are almost no settled industrialists or businesspeople of Indian origin in the region with the heft to act as nuclei in Latin America for their erstwhile compatriots or to catalyze investment from there into India, a model that has created vibrant linkages with other countries. The modest economic conditions of those Indians who have settled in Latin America do not generate the levels of remittances or tourism to warrant the attention bestowed on communities of Indian origin elsewhere. All the same, this may be the only region where professionals outnumber other types of immigrants from India.

Lack of fluency in Spanish and Portuguese is a major disadvantage for Indian companies, whose growth is consequently often dependent on their local collaborators. Unfamiliarity with India's ethos is another burden for Latin American companies wishing to operate in India. This calls for an approach that inculcates a deeper appreciation of the historical, social, and linguistic context in which business is to be established and conducted. Students of Spanish in India are growing in number, but consciousness of Latin American culture and conditions is missing. Business acumen can overcome some handicaps but cannot establish an effective corporate presence or lobbies to protect business interests without a commitment that goes beyond the bottom line.

65%

THE AVERAGE TARIFF ON LATIN AMERICAN AGRICULTURAL GOODS

THE WAY FORWARD

The hiatus between the content and the potential of the relationship, when comparing Latin America's relations with China, or even South Korea, calls into question the commitment on both sides. In this century of frenetic diplomacy, a lack of vision, or even comprehension, leads to mental blocks that impede interaction.

India and Latin America need to better understand each other's political reality, endowments, capabilities, and priorities, beyond the experience of transitory diplomats. Both sides need to define their priorities after realistically assessing their capabilities and the prospects for engagement. This calls for a thorough strategy. Latin America acts through multiple layers of regional and subregional organizations, so arguably India needs to take the lead in identifying and activating the main actors and forums.

The articulation of a strategy should start with a hard look at the status of the current relationship. This should be disaggregated to the subregional level, and where necessary, country-specific issues should be identified. The lack of institutional memory on both sides calls for the verification of vital facts and up-to-date statistics. Then comes the articulation of goals, a program, and structure

for regional-level dialogue. This should include elements of the India-CELAC joint statement of 2012, following the first Meeting of Foreign Ministers.[7] The statement identified political, economic, technological, and other areas of current and potential collaboration. In most cases, the commitments remain on paper. Even the minimal pledge to hold annual foreign ministerial meetings has not been fulfilled.

The prime driving force is political will. Almost all the recent Indian prime ministerial visits to Latin America have been in connection with multilateral events. Both sides need to pay more attention to each other. The need to raise Latin America's profile in Indian diplomacy is paramount. This has happened with Southeast Asia and Africa. Summit meetings have been organized, trade and other agreements signed, and considerable official funds invested in infrastructure and other projects to upgrade those relationships. India's trade with 54 countries in Africa—around US$70 billion—is comparable to its trade with 34 countries in Latin America and the Caribbean, in volume and composition. Yet its attention to Africa is much greater in comparison.[8]

Political initiatives need to be supported by economic and social interaction. The consolidation of the juridical matrix through agreements for investment protection, avoidance of double taxation, extradition, immigration, lines of credit, elimination of regulatory hurdles, and so on, are as important as the forums that institutionalize dialogue between governments and other stakeholders.

An analysis of the synergies on offer will help engender counterparts on both sides which will serve as a lobby for common interests. Examples are agricultural and scientific research institutes. Areas of strength and complementarity need to be studied in depth. Latin American prowess in agriculture, renewable energy, and social engineering can be reciprocated by India's advances in software, outer space, and biotechnology.

India's Department of Commerce has had a Focus Latin America & Caribbean (Focus LAC) program in place since 1997, which has been extended periodically, most recently until 2019. The program basically provides finance and assistance for Indian exporters to Latin America. It has recently begun to negotiate free—or preferential—trade agreements with key Latin American countries: these include the expansion of the existing PTAs with Chile and MERCOSUR and the start of negotiations toward similar agreements with Peru, Ecuador, and Colombia.[9] This engagement needs to be intensified.

China's policy papers of 2008 and 2016[10] on its relations with Latin America outline in some detail the specific methodology of engagement with Latin American governments of different political leanings. These deals have given China an important foothold in vital aspects of their political economy (Wilson, 2015). However, the Chinese prescription may not apply to India.

The Indian establishment cannot match China's achievements in the foreseeable future and must concentrate on incremental accretion. Even this calls for a significant increase in focus. Outlining the areas and forums of engagement, postulating priorities and interlocutors on both sides, creating a shared collective memory, and following up on deadlines for projects are all essential if India wants to achieve success in Latin America. Brand awareness of Indian products in Latin America is very low compared to the European, US, Chinese, Japanese, or Korean industries. A quantum leap to change this would presuppose official and institutional intervention, determination, and stamina.

India would have to calibrate its campaign taking into account the new realities of a more dynamic Latin America today. Subregional integration has made headway, as seen from the success and appeal of the Pacific Alliance and the prospective rejuvenation of MERCOSUR. Rapprochement between the two blocs could smoothen India's approach to the region by creating a common forum for dialogue and negotiation. The Indian establishment will have to be more proactive to integrate into Latin American supply chains.

Traditionally cautious, sometimes lethargic, diplomacy has to give way to a more robust attempt to communicate commitment to governments and stakeholders willing and able to partner ambitious programs. India's belated outreach to APEC and other forums, in which key Latin Americans are increasingly active, will be essential to this campaign.

Nascent cooperation in strategic sectors and industries calls for more attention. India is involved with Brazil bilaterally through the purchase of aircraft, civilian and military; in maritime exercises through IBSA; and in situations of international conflict in BRICS. Indian helicopters, armored vehicles, and nonlethal equipment have been sold to some Latin American countries. There is scope for more cooperation in outer space, nuclear energy, maintenance of defense hardware, and cooperation on terrorism. Despite agreements in some of these sectors, cooperation has been minimal and must be spurred on by governments.

China extends its soft power in the region through Confucius Institutes, strong academic linkages, and language programs. The spread of its film industry threatens to overshadow the popular image India's Bollywood enjoys but has failed to commercialize. The Indian establishment would do well to strengthen aspects of the relationship that distinguish India from China. These would include India's civilizational strengths, democratic governance, which demands transparency and accountability, and multilateral issues where Latin America identifies more closely with India than with China.

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AFRICAN COUNTRIES WOULD BE NEEDED TO EQUAL TRADE WITH LAC

Although India enjoys a very positive image as a civilization that spawned yoga, classical dance and music, and other expressions of soft power, academic interaction has been limited. This lacuna has historic and linguistic roots. Attempts to remedy it have been halfhearted. India's Technical and Economic Cooperation Programme (ITEC)[11] offers a few hundred technical scholarships every year to Latin Americans. Despite very attractive terms—all expenses paid—to undertake courses lasting from a few weeks to a few months in prestigious Indian institutions, the scholarships are underutilized and little feedback is received by the Indian establishment. Fully paid cultural scholarships on both sides are difficult to come by.

Cultural approximation is essential if populations on both sides are to gain a more authentic appreciation of each other's realities. It will also help create the necessary workforce as economic and commercial relations grow, not to mention tourism. Eventually, linkages between academic institutions, think tanks, media, and other stakeholders will provide the intellectual matrix required by policymakers. To achieve this, think tanks and universities will need to sharpen their focus and receive official assistance where necessary.

Above all, the Indian government, by default the prime mover, must show more sensitivity to the situation in Latin America. Bilateral exchanges must be synchronized to ensure disruptive events such as political upheavals, currency devaluations, and market distortions can

5

TIMES HIGHER THAN CHINA: INDIAN TARIFFS FOR AGRICULTURAL PRODUCTS

be weathered. Communication and dialogue will be needed to achieve this.

AN INSTITUTIONAL TASK

India's international role has been redefined this century. The nonalignment of the 20th century and the New International Economic Order have given way to a more pragmatic, realistic vision and mission. Though erstwhile allies like Russia remain important, new alliances have been forged and adversarial scenarios have been identified. With little history in common, relations have largely been shaped by bilateral synergies.

There has been some degree of collaborative diplomacy on issues such as climate change, international trading rules, the struggle against terrorism, and organized crime. Strategic sectors like defense, armaments, outer space, and so on have witnessed peripheral exchanges but nothing amounting to even a cogent definition of specific common interests. India's quest for a permanent seat on the UN Security Council is supported by Brazil but is opposed by Argentina, Colombia, and Mexico, among others, for reasons that have little to do with India's claim.

Growing linkages through economic and cultural exchanges, tourism, the lowering of linguistic barriers, and mutual appreciation of the civilizational richness of the other are elevating consciousness on both sides beyond the realm of the exotic. The advent of an Indo–Latin American community is not inconceivable but it presupposes extensive official and institutional diligence. When this happens, India and Latin America will be firmly on the road to a partnership that will require no external momentum.

NOTES

[1]Latindia, the neologism used as the title for this publication, is also the name of the author's firm and is copyrighted in India. He has kindly given his permission for it to be used in this book.
[2]Ministry of External Affairs of Indian (2017).
[3]Trade figures and commodity details from India's Directorate General of Foreign Trade, www.dgft.gov.in. India's financial year runs from April 1 to March 31.
[4]Report of the 6th India-Latin America & Caribbean Conclave, Confederation of Indian Industry, October 2015, www.cii.in.
[5]Chile's expanded PTA with India, effective May 2017, should give its semi-processed copper products a better edge. Likewise, Argentinian soya oil is gaining ground in India's massive edible oil market (Jadhav, 2015).
[6]For more on this issue see pages 147–149 in Chapter 6 of Bhojwani (2015).
[7]Ministry of External Affairs, Government of India, www.mea.gov.in.
[8]For more on this issue see page 208 in Chapter 9 of Bhojwani (2015).
[9]www.commerce.gov.in.
[10]For full texts of China's policy papers, see Embassy of the People's Republic of China in India (2008) and Xinhua (2016).
[11]www.itec.mea.gov.in.

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2017 | INTEGRATION AND TRADE MONITOR

BEYOND THE RECOVERY

COMPETING FOR MARKET SHARE IN THE DIGITAL ERA

Coordinated by
Paolo Giordano

Integration and Trade Sector

IDB

Banking Reform and Global Integration

Suman Bery[1]
Bruegel

So India's problem turns out to be the world's problem.

Salman Rushdie

THIS ESSAY FOCUSES ON RECENT REFORMS IN INDIA'S MONETARY SECTOR, WITH FOUR LATIN AMERICAN ECONOMIES (ARGENTINA, BRAZIL, CHILE, AND MEXICO) PROVIDING A BASIS FOR COMPARISON. PARTICULAR ATTENTION IS PAID TO POLICY DEVELOPMENTS IN INDIAN FINANCE THAT HAVE A CROSS-BORDER IMPACT.[1] IT OBSERVES HOW DIRECT FINANCIAL FLOWS BETWEEN EMERGING MARKETS TEND TO BE MUCH LESS SIGNIFICANT THAN TRADE AND DIRECT INVESTMENT FLOWS.

The aftermath of the near-collapse that was the financial crisis in the US and Europe continues to test monetary and financial orthodoxy in metropolitan countries. Fierce debates rage on the wisdom, effectiveness, sustainability, and distributional fairness of the policies adopted prior to the crisis and in response to it. This intellectual disarray has in turn affected the fragile professional consensus on the appropriate path of financial and monetary reform in emerging markets.

In India, 2007 marked the start of a review of India's financial sector commissioned under the government of Prime Minister Dr. Manmohan Singh. The review was published two years later (Government of India, 2009)[2] and was led by Dr. Raghuram Rajan, at the time at the University of Chicago and later, in 2013–2016, governor of India's central bank, the Reserve Bank of India (RBI).[3] While initially the review received little attention, the analysis and recommendations in it were revived once the worst of the global crisis had passed.

The paper starts with a comparison of the Indian economy with its selected Latin American peers (apart from Chile, the other three Latin American countries are members of the G20, as is India), as well as locating the Indian financial system in an international context. This is followed by a summary overview of Indian financial sector institutions and the shifting political context for the financial sector over the past five decades.

The discussion then moves to the last decade and examines two major monetary developments under India's current prime minister Narendra Modi (2014–present): a major reform of the monetary policy regime; and obligatory surrender of large-denomination currency held with the public, in India referred to as "demonetization." Following Indian precedent, the paper concentrates on the banking sector and on public debt, with only passing reference to developments in corporate bond, equity, and insurance markets.[4]

The central theme of the paper is the still extensive (though gradually diminishing) role of the government in Indian money and banking. Two dimensions of this dominance are highlighted: government majority ownership of a large chunk of the commercial banking system (still 70% of banking system assets); and pre-emption of a significant

TABLE 1
INDIA AND FOUR LATIN AMERICAN ECONOMIES: SIZE OF ECONOMY (2015)

COUNTRY	GDP PER CAPITA, PPP (CONSTANT INTERNATIONAL 2011 US$)	NOMINAL GDP (BILLIONS OF CURRENT US$)
Chile	22,197	241
Argentina	19,102	585
Mexico	16,490	1,144
Brazil	14,533	1,804
India	5,733	2,089

Source: World Bank: World Development Indicators database, accessed in June 2017.

portion of banking system assets for investment in government debt, nominally for prudential reasons but in reality to support public debt management.[5] At the same time the Indian authorities remain opposed to issuing sovereign debt offshore, and impose strict (though widening) limitations on foreign ownership of domestic sovereign debt. While the net effect of these opposing forces on the government's funding costs is unclear, they together ensure that government debt remains something of a "walled garden," potentially impeding closer integration between Indian and global money markets, and also removing one source of discipline on the public finances. The paper ends by contrasting the Indian experience with that of its selected Latin American peers and drawing a few conclusions on how its financial sector might evolve over the coming decade.

INDIA AND LATIN AMERICA

India is poorer, more populous, and much less urbanized than its Latin American comparators. Despite India's robust growth over the last 25 years, its real per capita income remains roughly half that of the next poorest G20 members (Indonesia, South Africa, and China); about 40% of that of Brazil and Mexico; and about a quarter that of Argentina and Chile. India's increasing global economic significance is, therefore, a reflection primarily of its large population and its demographic profile, which promises a growing labor force for some time to come. China's sizable global financial impact suggests that the absolute size of the economy and of the financial system measured at market exchange rates is an equally relevant indicator. At market exchange rates, the Indian economy in 2017 is estimated to be slightly larger than that of Brazil, and about 60% as large as that of our four Latin American comparators put together (table 1). Figures 1 and 2 indicate that India is closest to Chile in both its investment rate and in the ability to finance such investment from domestic sources, as reflected in the current account deficit.

Data from the Bank for International Settlements (BIS) (not available for China) suggest that at the end of 2016, Indian-licensed banks had aggregate liabilities of around US$2 trillion (table 2). This makes Indian-licensed banks roughly the same size as Korean-licensed banks, or about 40% that of the banking systems of the UK, France, and Germany, all of which are in the US$6–7 trillion range.

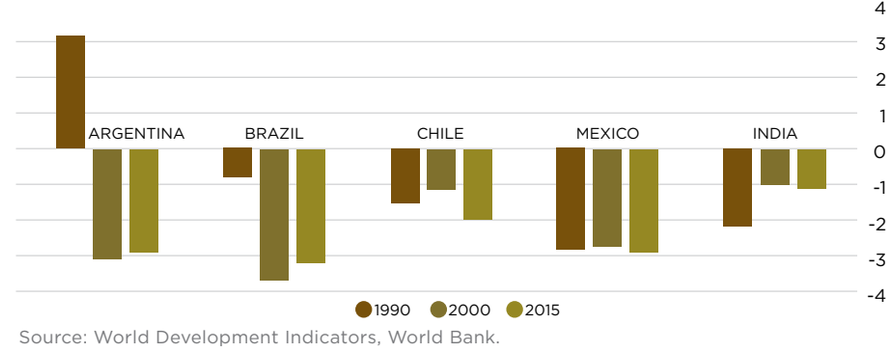
AN INSTITUTIONAL OVERVIEW OF FINANCE

As noted, formal financial intermediation in India has traditionally been dominated by deposit-taking commercial banks (Mohan and Ray, 2017).[6] While these come in many varieties, the usual focus is on 53 scheduled commercial banks which operate with a national license and are regulated and supervised by the RBI. The largest domestic banks were progressively nationalized in three waves between 1955 and 1980 and following Indian practice will be referred to as public-sector banks. There are 27 in total. Similar state ownership was imposed on life and general insurance, on old-age pensions, and on mutual funds as part of a larger "lurch to the left" under Prime Minister Indira Gandhi (1966–1977; 1980–1984).

Government ownership may conceivably have ensured financial stability by providing an unlimited deposit guarantee[7] to depositors in these banks (this vulnerability will be analyzed in more detail later). The political compulsion of successive governments to maintain majority control, coupled with sustained and rising fiscal pressures have meant that these banks are increasingly capital-constrained.[8] Their weak profitability further impedes their capacity to generate capital from retained earnings. As the ideological winds have shifted, recent governments have experimented cautiously with allowing carefully screened domestic "promoters" (sponsors) to establish greenfield commercial banks. These newer "private-sector banks" are professionally managed with broad-based shareholding between domestic and foreign investors. An important driver for such promoters (in several cases legacy domestic finance companies) has been to capture stable, relatively low-cost retail deposits, thereby escaping the high cost of wholesale term funding, whether domestic or foreign.

While the experience has been uneven, the leaders among these newly licensed scheduled banks have performed well in terms of profitability, technology, and market capitalization, though they have not yet achieved national scale. On the asset side, these "new" private-sector banks[9] have used their access to relatively low-cost retail

FIGURE 1
CURRENT ACCOUNT POSITION, INDIA AND LATIN AMERICAN COMPARATORS
(SELECTED YEARS, 1990–2015, % OF GDP AT CURRENT PRICES)



Source: World Development Indicators, World Bank.

deposits for funding a high-return consumer credit portfolio. Riskier, large-scale project financing and an extensive rural branch presence have remained the preserve of public-sector banks; indeed, this role has increased with the restructuring of the erstwhile domestic finance companies. While banks dominate the corporate funding landscape and are the major players in both public debt and foreign exchange markets, equity markets and insurance have both matured in both scale and regulation.

GOALS OF THE RECENT INDIAN BANKING REFORM

India's shift in its development model in the early 1990s involved a greater role for markets and for the private sector, and a more favorable view of the benefits of global integration (Ahluwalia, 2002; Garnaut, 2004). In the intervening 25 years, there has been a steady but cautious movement to bring about a corresponding realignment in finance. Latin American experiences in the 1980s were influential in shaping Indian thinking, for both good and ill; an early discussion is to be found in Faruqi (1994). Over the same period, the global financial system experienced radical deregulation, the explosive growth of finance (sometimes called hyper-financialization), recurrent regional balance sheet crises, a deep recession, and a decade of unprecedented peace-time balance sheet expansion by the world's three largest central banks. In India's neighborhood, the so-called East Asian crisis of 1998 was an important and sobering precursor.

Indian policymakers have understandably been intent on insulating the domestic economy and the financial system from these global excesses, while at the same time encouraging adjustment to external changes and uncertainties. In this they have largely succeeded, although an anemic and unstable global economy is partly responsible for rising problems of bank asset quality over the past five years. India's own growth acceleration between 2004 and 2008 benefited from the global boom that preceded the financial bust, in part because of access by India's private sector to a wider variety of international financial actors and instruments.

We turn next to the core of the paper and discuss India's recent, overdue adoption of a flexible inflation targeting regime to guide and communicate its monetary stance, and the near-concurrent imposition of a brusque, forced currency exchange on the Indian population. While of intrinsic interest, these developments also help to illuminate the fiscal compulsions that shape the policy choices of the monetary authorities, and, by extension, the likely pace and timing of deeper global financial integration of a fairly large and rapidly growing emerging market banking system.

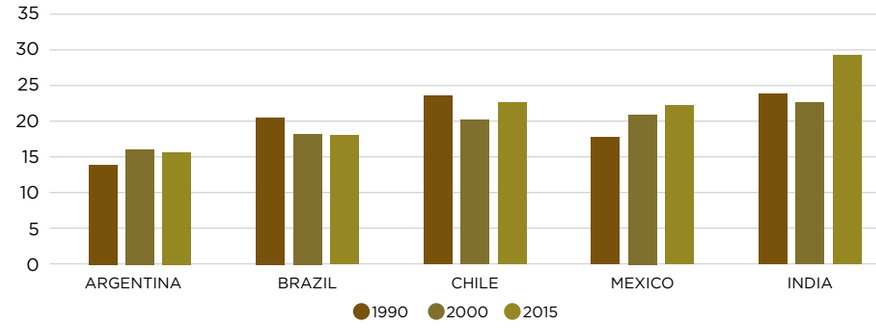
MONETARY INTEGRATION

Over the last 30 years, the financial systems of advanced countries have become deeply integrated. Such integration typically involves the home central bank setting a short-term policy rate, leaving deep, well-regulated national and global markets to establish a debt yield curve, both spot and forward. Price discovery across instruments and countries is further aided by floating, market-determined exchange rates and an open capital account. Official intervention in exchange markets is relatively rare and tends to be frowned upon.[10]

Financial globalization of the larger emerging markets in principle relies on the same mechanisms, but with bespoke adjustments that reflect institutional specifics of each country. Writing as co-author in a recent academic contribution, the current RBI governor observes, "the realities of emerging economies are often at odds with the circumstances of developed economies that provide the backdrop for the intellectual underpinning of modern central banking" (Lahiri and Patel, 2016).

Indian officials, academics, and the press tend also to be skeptical about the objectivity and neutrality of global markets and more inclined to worry about "herd behavior," collusion, and the dangers of speculative attacks (Reserve Bank of India, 1997). The globalization of Indian finance has accordingly largely taken place in the shadows rather than in broad daylight.

FIGURE 2
INVESTMENT RATIO, INDIA AND LATIN AMERICAN COMPARATORS
(SELECTED YEARS, 1990–2015, % OF GDP AT CURRENT PRICES)



Note: "Investment" is gross fixed capital formation at current prices. Source: World Development Indicators, World Bank

MANAGING INFLATION

Following an extended period in which RBI officials argued strongly that inflation targeting was unsuited to Indian realities, India has undertaken a complete volte-face under the current government. By September 2016 it had completed the process of adopting and implementing inflation targeting as its chosen framework for monetary management. India departs from the "classic" model of inflation targeting in several respects, but one we note here is that its central bank does not enjoy statutory independence from the Ministry of Finance.[11] Reserve Bank governors are appointed by the prime minister and are accountable to Parliament through the finance minister.[12] While the autonomy of governors has increasingly been respected, there are no fixed terms of appointment: the total time in the role by each the last four governors was three years, five years, five years, and five and a half years respectively, often following the extension of an initial shorter period.

The adoption of a formal inflation targeting regime was driven by three factors. The first and most important was a sustained inflation surge in the

first years of the present decade. As Lahiri and Patel (2016) have pointed out, "in recent years India has emerged as an outlier compared to its own past… inflation as measured by consumers' cost of living has averaged 9% over the last six years. Even the much narrower wholesale price index inflation has, for an extended length of time since 2009, been well above the RBI's erstwhile 'comfort level' of 5%. India's performance along this metric stands in contrast to other comparable emerging economies which appear to have managed better the challenges associated with keeping inflation under check."

A second cause was the parliamentary election of May 2014. This represented a triumph for the Bharatiya Janata Party (BJP) which won a rare absolute majority in the lower house. It was also a personal victory for the present prime minister, Mr. Narendra Modi. He led the campaign as the chief minister (governor) of a medium-sized, reasonably affluent state (Gujarat) without any experience of politics at the federal level. Mr. Modi was no doubt conscious of the political cost of inflation paid by the outgoing government of Dr. Manmohan Singh.

Modi inherited (and chose to retain) RBI governor Dr. Raghuram Rajan, who had been appointed to the position less than a year earlier by Dr. Singh. Almost immediately upon his appointment Rajan commissioned a major review of the monetary policy framework, led by one of the RBI's deputy governors Dr. Urjit Patel. The Patel committee reported in January 2014, five months before the parliamentary election, and made a detailed case for a shift to an Indian variant of inflation targeting (Reserve Bank of India, 2014). Governor Rajan's appointment, his determination to re-examine RBI orthodoxy, and his ability to persuade the new government to agree to the new template based on the committee's report were together the third critical factor.

Within a year of taking office, the new government amended the Reserve Bank of India Act to provide the legal basis for a monetary policy committee (MPC), and by September 2016 the composition of the MPC and the formal inflation target had been "notified" with the force of law (Government of India, 2016). By that time Governor Rajan's term had ended and he had returned to academia. To replace him, the prime minister selected Deputy Governor Patel who currently carries the responsibility for making the new inflation targeting framework a success.

TABLE 2
TOTAL BANKING ASSETS, 3RD QUARTER 2016
(selected reporting BIS members, in trillions of US dollars)

	TOTAL BANKING ASSETS
All reporting countries	148,520
Australia	2,814
Brazil	ND
Canada	3,706
Switzerland	2,452
Germany	ND
France	7,016
United Kingdom	6,942
India	1,960
Italy	3,569
Japan	ND
South Korea	1,909
Mexico	NI
United States	14,220

Source: Compiled by the author based on data from the Bank for International Settlements, Consolidated Banking Statistics, Table B1.

The legislation establishing the MPC has been important, among other reasons for clarifying the RBI's mandate in the sphere of macroeconomic stabilization. This is now, formally, "for maintaining price stability, while keeping in mind the objective of growth." (Government of India, 2016). This so-called "dual mandate" marks an important evolution in thinking about the central bank's role and the assignment of policy instruments in Indian macroeconomic management. Within this dual mandate the MPC is directly accountable for meeting a quantified target for inflation, currently 4% (year-on-year) with a tolerance level of 2% on either side for the period ending March 2021.[13] The instrument entrusted to the MPC to achieve these goals is the benchmark policy rate (repo rate). The statute requires at least four meetings of the MPC in a year (current practice is six), and the RBI has followed international practice in publishing not just the overall decision of the committee but the voting of each of the six members as well as the publication of minutes (with the usual lag).

THE MONETARY-FISCAL POLICY MIX

Since our purpose is to assess integration between local and global money markets, the discussion needs to be taken a little deeper. In advanced economies, interest rate discovery by both local and offshore players is centered on government debt markets, which establish a benchmark rate that is in principle free of credit risk.[14] Thereafter independent heterogenous domestic and offshore profit-maximizing market institutions (including commercial banks) form their own views on the trade-off between current yield, market risk, and credit risk.[15]

4%

THE YEAR-ON-YEAR INFLATION TARGET THAT THE MONETARY POLICY COMMITTEE HAS SET

The Indian setting differs substantially from this model. Here we focus on a specific, large, and enduring regulatory obligation on banks to hold significant minimum quantities of public debt via a requirement called the statutory liquidity ratio (SLR).[16] Mohan and Ray (2017) provide a complete chronology of changes in the SLR (and a parallel pre-emption, the cash reserve ratio) since 1991.[17] Such portfolio obligations are also imposed on insurers and pension funds, though as table 3 shows, the banking system (commercial banks and the RBI between them) owns half the outstanding stock of what are termed "Government of India dated securities"[18] (Ministry of Finance, 2016). Government dated securities and Treasury Bills, issued through auctions, together comprise "marketable debt" of the Government of India. On the assumption that the banks own the preponderance of the stock of Treasury Bills on any given date, the overall share of the banking system in "marketable

internal debt" is almost certainly even higher. While presented as a prudential measure (and reinforced as such by Basel capital rules on credit risk weights) these portfolio obligations also reflect the long shadow forward of India's dirigiste economic philosophy of the 1970s and 1980s. Through these portfolio obligations, the central government ensures that there is a captive market for its debt, though the issue of when and whether this is a binding constraint is of fundamental analytic importance. (Lahiri and Patel, 2016). India has come a long way in the forty-odd years since that era, and reduction of the SLR has been a cherished goal for monetary policy officials but has remained stubbornly high.

The reasons for this persistence and its consequences for the conduct of monetary policy are well-described by Lahiri and Patel (2016), who continue the discussion initiated by Buiter and Patel (2006) a decade earlier. Both papers observe that India has run chronic fiscal deficits at both the central (Union) government level and increasingly at the general government level. (This is despite the existence of fiscal responsibility legislation at the level of both the Union and of individual states for more than a decade.)[19] Following an agreement with the Ministry of Finance in the 1990s (reminiscent of the Treasury-Fed accord in the US in 1951), the central bank no longer directly participates in the primary issue of government debt (this is handled on its behalf by a small group of designated primary dealers) but has perforce to conduct monetary policy in the presence of this large pre-emption on the asset side of the banks' balance sheet.[20]

Lahiri and Patel stress the unpredictable and potentially perverse consequences (for the banks themselves, for their depositors, and for their borrowers) of this large pre-emption on the asset side. They cite Sargent's (1986) "game of chicken" between the fiscal and monetary authorities that takes place in an environment of outright "fiscal dominance" (i.e., immediate monetization of the debt by the central bank). The version of this "game of chicken" being played in India at present is between an empowered MPC with a statutory obligation to meet an inflation target and a government sector (both central and state) with an Augustinian view of fiscal continence.[21] The fledgling MPC has not so far formally expressed a view on how exactly fiscal deficits (levels or trends) influence inflationary expectations in the absence of direct and uncontrolled monetization. The MPC's caution in the face of sharply declining headline inflation has attracted significant criticism in the media, and also from senior voices in the Ministry of Finance, the latter in a somewhat less guarded way than usual.

It is worth making two additional points on the issue of the fiscal-monetary-debt mix before concluding this section. These have to do with the impact of the macro policy mix on the real exchange rate, and the risks of a so-called sovereign debt "doom loop."[22] These are aspects of macro policy that are well understood (through bitter experience) in Latin America. While they are certainly commented on in Indian academic writing, they do not yet figure prominently in policy commentary.[23]

The core insight from real exchange rate analysis is that in response to a positive domestic aggregate demand shock (arising from fiscal policy, but also from improvements in the terms of trade, for example), other things being equal, a small open economy[24] at full employment will move from its earlier equilibrium to a new equilibrium in which the production of nontradables

TABLE 3
OWNERSHIP PATTERN OF GOVERNMENT OF INDIA DATED SECURITIES (IN PERCENTAGES)

	2009	2010	2011	2012	2013	2014	2015	2016
Commercial banks	46.9	47.3	47.0	46.1	43.9	44.5	43.3	41.8
Insurance companies	23.2	22.2	22.2	21.1	18.6	19.5	20.9	22.2
RBI	9.7	11.8	12.8	14.4	17	16.1	13.5	13.5
Others	20.2	18.8	17.9	18.4	20.6	20	22.4	22. 5
Total	100	100	100	100	100	100	100	100

Source: Ministry of Finance of India (2016).

is more favored over tradables.[25] This real adjustment is facilitated through the financial markets. The characteristic Indian policy mix, of relatively loose fiscal policy and relatively tight money, is likely to result in an appreciated real exchange rate, high real interest rates, and weak performance of the tradables sector.[26]

Real exchange rate analysis helps us understand the impact of the fiscal stance on the "flow" equilibrium in the economy. By contrast, the "doom loop" describes the instability that can arise from stocks of sovereign debt held by domestic banks.[27] The contrasting cases of Japan and that of Eurozone banks in some countries of the periphery (Greece, Spain Portugal, Cyprus, Ireland, but also on occasion Italy) show that this is a complex matter. Japan has long been famous for its high ratio of net government debt to GDP as well as its use of fiscal policy to stimulate the economy.[28] In the case of India, Kletzer (2005) has argued that the combined effect of capital controls (discussed below) and "financial repression" (as represented by binding portfolio controls on commercial bank assets) help the government sector in its debt operations. They do so not only by reducing the cost of debt but also by permitting a lengthening of tenure and thereby mitigating roll-over risk.

MANAGING THE RUPEE

In addition to central bank independence and credible fiscal restraint, the third canon of classical inflation targeting is a flexible exchange rate. This derives from the need for the monetary regime to display and communicate a credible focus on controlling inflation, without being distracted by intervention (whether sterilized or unsterilized) to target a particular nominal or real effective exchange rate.

Changing the exchange rate regime (and formal acceptance of current account convertibility) were important early steps in India's 1991 reform. Unlike China, India fairly quickly abandoned a tight dollar peg and for more than a decade maintained an official policy of a market-driven exchange rate, though in comparison with its Latin American peers it clearly belongs among countries with pronounced "fear of floating." The central bank has responded to volatility in capital flows by building up a substantial war chest of foreign exchange reserves rather than let the nominal exchange rate act as a

86%

OF THE CURRENCY IN CIRCULATION WAS EXCHANGED FOR NEWLY MINTED BILLS

buffer. Indian policymakers, the media, and much academic discourse remain wedded to the view that "competitiveness" (measured by trade performance) can be durably influenced by a nominal instrument such as the exchange rate, with the rupee-dollar rate a particularly watched indicator. This managed float has been moderately successful, but has depended on capital controls to avoid speculative attack. One consequence has been to shift price discovery of the value of the rupee offshore, to so-called "non-deliverable forward" in locations such as Singapore. The concern of the RBI has traditionally been that domestic foreign exchange markets are shallow and easily manipulated. This may be true, but it is not unconnected with the RBI's own behavior and policies.

In a closely related policy area, the goals and effectiveness of India's capital controls are difficult to assess, but three points can be made. First, in contrast with Latin America, where the concern has been with capital inflows, India has worried more about outflows. Second, while China has been busy establishing a renminbi bloc, India has chosen to retreat from a pre-existing currency area in the Gulf (and, to a lesser degree to its east), driven by its imperial legacy and sustained migration. Finally, we recognize the recent shift in fashion reflected in the endorsement by IMF of limited capital controls. Pressure on the RBI to relax capital controls will, therefore, come from within rather than abroad, if at all.

CURRENCY CONVERSION

No discussion of Indian monetary arrangements would be complete without at least passing reference to the colossal shock inflicted on the system in November 2016. Following a speech by the prime minister on the night of November 8, 2016, on November 9 the RBI notified a decision of its Statutory Board declaring that high-value currency bills equivalent to 86% of the currency in circulation would no longer be accepted as a means of payment and would need to be exchanged for freshly issued notes, with all such exchange to be accomplished within a short time limit.

Space does not permit an extended discussion of the motives, political and economic, behind this decision; interested readers are referred to a detailed post written by the present author some months after the November announcement.[29] The scale and magnitude of the shock are well expressed by former RBI governor Yaga Venugopal Reddy (2017): "Demonetization 2016 was undoubtedly a historic and unprecedented event. There has perhaps been no other policy decision that has affected the lives of a billion people directly and all at once."

Two aspects of the demonetization episode are worth highlighting given the earlier discussion in this paper. First, it was driven at least in part by fiscal compulsions: the desire to attack tax evasion associated with the cash economy. Second, despite its obvious (if largely unknowable) implications for economic activity, there is no evidence that the fledgling MPC was involved in preparations for this massive shock. This is even though both the decision on demonetization and the complexities of its implementation lay entirely within the competence of the RBI.

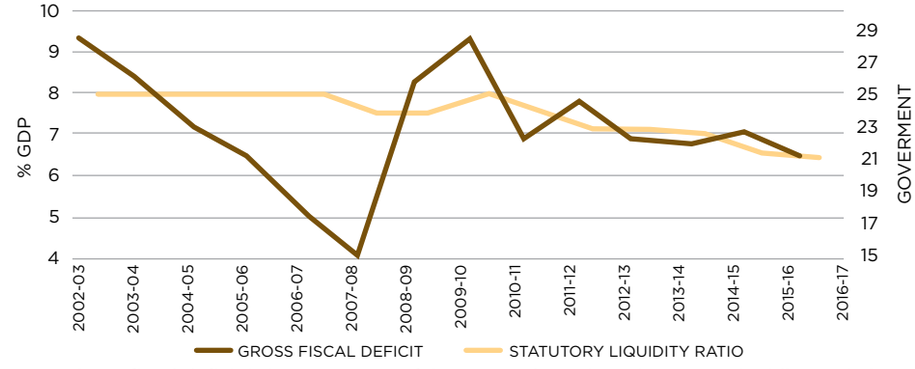
THE BANKING SYSTEM

The discussion above has focused on stabilization policy because it impacts on financial integration and because this has been an active area of policy innovation under the Modi government. It is also an area of long and experience for Latin American governments. To conclude, we briefly touch on two other aspects of Indian banking of considerable current interest: asset quality and financial inclusion.

India's economy had been slowing in the period before the 2014 election, a slowdown which has generated major problems of loan servicing in selected sectors of the economy. These sectors include steel and infrastructure projects with global overcapacity has been a contributing factor in the former. The RBI has been applying tighter classification and disclosure standards on the banks; given the aging process before loans are classified as nonperforming, the ratio of nonperforming loans has been rising and is worse for the public-sector banks as a group than for private sector banks. The RBI has also been tracking portfolio quality through semi-annual financial stability reports. Its report of July 2017 estimates a nonperforming ratio of 9.7% of the commercial bank loan book, with stress tests suggesting that the nonperforming loan ratio could rise to 14% by 2018. These ratios reflect a long history of ineffective work-out and bankruptcy measures, particularly where powerful, over-leveraged private sector borrowers are concerned.[30]

The second set of recent developments has been the attempt to use technology to bring financial services to India's vast numbers without access to formal finance. While other countries (such as Kenya) have perhaps led the way in the application of mobile technology for payments services, India's efforts to supply all its residents with unique biometric identifiers has laid the foundation for verifiable credit histories for the great mass of its population. These technological efforts have been supported by a more liberal regulatory stance by the RBI.

FIGURE 3
GENERAL GOVERNMENT FISCAL DEFICIT AND STATUTORY LIQUIDITY RATIO, FINANCIAL YEARS 2002–2003 TO 2016–2017
(PERCENTAGES OF GDP AT CURRENT PRICES AND OF NET TIME AND DEMAND LIABILITIES)



Note: Gross fiscal deficit is in percentage of GDP at market prices. Statutory Liquidity Ratio is expressed as a percentage of net demand and time liabilities.
Source: Reserve Bank of India Data Warehouse, accessed in June 2017.

MUTUAL LESSONS AND RESONANCES

This paper seeks to see Indian banking through Latin American eyes for two reasons. The first is to help Latin American readers achieve some understanding of the financial system of a major, fast-growing Asian partner. The second is to expand an occasionally parochial Indian discourse to illuminate choices, dilemmas, and risks by drawing from the experience of peer Latin American markets with a long, sometimes bitter experience of volatile inflation and of monetary integration.

Carlos Diaz-Alejandro's (1985) warning on the risks of instability in the course of financial liberalization has implicitly shaped the behavior of Indian technocrats, creating a bias toward the risks of action over the costs of inaction. Behind this conservative instinct lies the view that the appetite for reform (in the public at large, and among politicians) is shallow, and that a major public failure could set back the cause of reform for a decade.[31] It should be noted that similar caution has not been characteristic of India's prime ministers, exemplified by bank nationalization (in 1969 and after) and demonetization (in 2016).

The improvised, discretionary money and banking structure described above has succeeded in saving India from the egregious and spectacular banking crises of many countries, developed and developing, in Asia and in Latin America. Nor has inflation spiraled out of control. It is a tribute to India's technocrats that they understand the politics and economics of their system well enough to keep the system on an even keel through the strongest of winds.

Were this to be the only standard for judging success, India's policy establishment could give itself a pat on the back. Despite this apparent success, three questions cannot be avoided. The first has to do with the opportunity cost of avoided action: what we might call "sins of omission." The second has to do with the consequences and risks of piecemeal liberalization and entry in the presence of a sluggish and stressed public banking sector. The third, an extension of the first, is whether a slow burn of the kind India has experienced on bank asset quality in the last three years is less costly (or dangerous) than having markets enforce transparency and consolidation in a more brutal and rapid way.

9.7%

THE ESTIMATED DEFAULT RATE ON THE LOAN PORTFOLIO

Answering these questions satisfactorily lies beyond the scope of this paper. What is clear is that strong political leadership and salesmanship will be needed to break out of the present anemic equilibrium. Unless a crisis forces the Modi government's hand, this is increasingly unlikely in the remaining life of the current parliament (until 2019). A more reasonable hope is that adequate political preparation occurs in the remaining life of this government to allow its successor to grasp the many nettles involved early in its term.

These nettles currently flourish in three fields (or rather, three minefields): the ownership structure of the public-sector banks; recognition, allocation and funding of losses; and what Vijay Joshi (2017) in his recent book has called "deep fiscal adjustment." To its credit, the Modi government has taken the first steps toward a more modern monetary constitution for India: the focus on fiscal consolidation, a review of fiscal responsibility legislation, the appointment of the MPC, and the widening of access to the Indian domestic bond market by foreign investors. Underlying all of these is a deeper project which at its heart is political, not technocratic: to conduct a larger dialogue on the role and purposes of the state in the "new" India and to set limits to the discretion of politicians (and the courts) in the interests of predictability. The lesson from Latin America is that this is a very long journey, even for much wealthier countries than India. Yet the aspiration to reach developed country status requires, indeed demands, no less.

NOTES

[1] Suman Bery is currently nonresident fellow at Bruegel, an economic policy think tank in Brussels. He has at various times been special consultant to the governor of the Reserve Bank of India (1992-1994), a member of the Technical Advisory Committee on Monetary Policy, and a shareholder director on the board of the State Bank of India. He has also served as a member of the prime minister's Economic Advisory Council. While at the World Bank, he worked on the economies of Latin America for over a decade. All views expressed here are personal. The author would like to thank James Hanson and Kenneth Kletzer for early guidance on the paper and Enrico Nano and Geetu Makhija for their research and editorial support. Any remaining errors are the sole responsibility of the author.

[2] India and Mexico are also two of the largest absolute recipients of inward remittances in the developing world. As such, cross-border finance connected with such transfers could well also feature in this survey but are not discussed here.

[3] India has an established tradition of reports by expert committees. These reports are initially submitted to the government entity which frames the terms of reference and provides the secretariat and budget. It is the government's prerogative to release the report for public discussion, usually after tabling it in parliament. Earlier landmark reports in the sector had focused on monetary policy, the banking sector and on capital account convertibility (Mohan and Ray, 2017).

[4] The author was a signatory to this report.

[5] For a recent, comprehensive review of the Indian financial landscape, see Mohan and Ray (2017).

[6] Following the tradition of the Bank of England, the Reserve Bank of India remains the debt manager for the central (Union) government and for all state governments, although the Ministry of Finance has taken steps to establish a Middle Office in anticipation of establishing a full-fledged Public Debt Office in due course.

[7] This section summarizes the discussion in Mohan and Ray (2017).

[8] As is well understood by analysts covering Latin America, deposits in government-backed banks represent a particularly strong contingent liability for the Treasury, assuming that the bank resolution process for private banks would actually impose losses on depositors above the credit insurance limit. This limit per depositor in India is currently around US$1,500 (INR100,000). To our knowledge this "bail-in" doctrine has not been tested in practice. The deposit insurance fund (financed by contributions) has so far been tapped only to assist depositors in small cooperative banks, without any loss of value to them.

[9] Proposals to reduce government ownership have been routinely floated (under seven different prime ministers of all political persuasions) since India's "big-bang" liberalization a quarter century ago. For an early discussion of some politically feasible alternatives see Bery (1994). An authoritative committee chaired by a former RBI governor (the so-called Narasimham-II report of 1998) recommended dilution of government equity to 33% but no government since has found it expedient to act on this recommendation (Ministry of Finance of India, 1998).

[10] As differentiated from legacy privately-owned scheduled commercial banks which were too small to attract nationalization in the earlier period and have now become attractive take-over targets in their own right. Old and new private banks together number 26.

[11] While some may consider this an idealized description of arrangements in the "golden (or brass) age" before the financial crisis, it remains a broadly correct characterization of the state of play even today.

[12] The extent to which the fiscal prerequisites of classical inflation targeting are in place is discussed below.

[13] Reserve Bank Governors can be summoned to provide testimony to parliamentary committees on specific issues as has recently been the case in respect of the central bank's role in demonetization.

[14] Headline consumer prices have been chosen as the target indicator. This reflects a judgment that stripping out food and fuel costs would reduce the credibility of the MPC's efforts in influencing inflation expectations (Reserve Bank of India, 2014).

[15] As the Euro crisis has helped clarify, to be considered "risk-free" markets need to be persuaded that the government in question has recourse to a central bank willing to provide unquestioned liquidity to the sovereign in the currency of denomination of the debt.

[16] Again, this perhaps describes a "golden age" before quantitative easing, more than the post-2008 advanced economy reality.

[17] While the securities themselves lie on the asset side of the balance sheet, the required holding is calibrated against the "net demand and time liabilities" of each bank. A more complete description of the assessment base is available from Mohan and Ray (2017).

[18] The CRR represents minimum cash reserves held by each bank in its account at the RBI. It is reasonable to assume that these liabilities were in turn used to sterilize the acquisition of government debt by the RBI, particularly in an earlier era of outright fiscal dominance.

[19] In addition to "dated securities" the government issues Treasury Bills. We have not been able to locate equiva-

lent data on the holding pattern of such bills (where the yield is embedded in the original issue discount). Recent data from the Ministry of Finance (2016) indicates that the outstanding stock of such bills equals roughly 10% of the stock of dated securities.

[20]Lahiri and Patel (2016) specifically cite the blow-out in public finances that took place toward the end of the first term of Dr. Manmohan Singh as prime minister. This was on the eve of the May 2009 parliamentary election (in which his party, the Indian National Congress, successfully formed a coalition that governed till 2014.) The general government deficit more than doubled, from 4% in FY2008 to 9.3% in FY2010. As figure 3 demonstrates, both the previous government and the current one has been engaged in fiscal consolidation in the eight following years, but this has been complicated by a slowing economy.

[21]As noted above, the central bank continues to hold and acquire government securities, in the course of its intervention operations in the money and foreign exchange markets.

[22]"Give me chastity and continence but not yet." The central government has commissioned a review of the current fiscal governance of the country and is gradually increasing (to great academic protest) the limit on local currency sovereign debt that foreign portfolio investors are permitted to hold.

[23]The latter refers to a situation where banks holding sizable quantities of sovereign debt are impacted by fears of sovereign insolvency, even as the sovereign's own creditworthiness is impacted by fears of uncontrolled debt issue to rescue national banks.

[24]For an application of real exchange rate analysis in the Swan-Salter tradition to India, see Lal, Bery, and Pant (2003).

[25]Defined in this context as an economy where the domestic price of tradable goods is determined by international prices, transport margins and the nominal exchange rate.

[26]The underlying mechanism is similar to that which drives the "Dutch disease" in resource-exporting economies.

[27]Given India's success in service exports it is obvious that tradables production is not restricted to agriculture and manufacturing. That said, India's chronically weak manufacturing performance has been a continuous source of concern for government policymakers over several decades. This weakness is rarely attributed to the fiscal stance.

[28] Dr. Viral Acharya, recently appointed Reserve Bank Deputy Governor, has made significant recent contributions to the literature on bank-sovereign "doom loops," particularly in the European context.

[29] In contrast with, say, the United States, this debt is largely held domestically, and as far as we are aware, voluntarily (i.e., without formal portfolio requirements imposed on banks and other financial institutions). This largely domestic ownership is seen as a force for stability, and indeed has permitted the government to borrow at extremely low rates, even before the Bank of Japan resorted to its program of extraordinary monetization in 2013.

[30] Bery (2017).

[31]A detailed analysis of the so-called "twin balance-sheet problem" of stressed banks and stressed borrowers is provided in the Economic Survey 2016-17 (Ministry of Finance of India, 2017). This is prepared by a team led by the Chief Economic Advisor to the Government of India, currently Dr. Arvind Subramanian.

[32] As expressed by an experienced senior Indian economic official, India has a strong consensus for weak reform.

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Development Strategy

The Domestic Market and International Integration

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India is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend, and the great-grandmother of tradition.

Mark Twain

STRENGTHENED BY AN ONGOING POLICY OF ECONOMIC REFORM, INDIA IS ASPIRING TO OUTPERFORM ON ITS STRUCTURAL POVERTY AND GENERAL WELFARE TARGETS. THE BASES FOR THESE CHANGES ARE ITS GROWING DOMESTIC MARKET, ITS BUSINESS SECTOR, AND THE MULTINATIONAL FIRMS THAT ARE THE DRIVING FORCE BEHIND THE COUNTRY'S DYNAMIC INTERNATIONAL INTEGRATION. THIS ARTICLE EXAMINES THE MAIN FACTORS SHAPING INDIA'S TIES WITH LATIN AMERICA AND THE CARIBBEAN.

India is the seventh-largest country on earth and has the second-largest population. Today, it is going through a period in its history that is utterly different from the threshold years when it was guided by the spiritual and political "founding fathers" of the modern, postindependence nation, Mahatma Gandhi and Jawaharlal Nehru. Without forgetting its past or the political traditions of democracy, religious tolerance, and secular government, and after a profound process of self-criticism on the part of its ruling class, India has taken on the task of modifying the foundations of power within its borders, which were balancing unsteadily on backwardness and poverty. It now seeks to capture the benefits of the current international détente as it launches itself toward the long-overdue and much-hoped-for goal of development.

Conscious of the difficulties ahead and the fragility of their country's situation, from the beginning of the 1990s, India's leaders began to implement a new strategy that sought to modify its economic structure in response to pressing calls from the millions of poor and destitute, who were demanding substantial changes to their living conditions. From then on, measures on economic openness, investment in education, and the development of technology-intensive sectors have topped the public agenda of one Indian government after another. The intellectual, business, and innovation capacities that the country already had were put to work to improve the daily lives of Indian citizens and became the driving force behind changes whose main aim was to solve India's greatest historical problem: overcoming poverty.

Within this domestic context, looking beyond the country's borders has been vital to reorienting India's overall economic integration strategy with a view to revitalizing its backward productive system, liberalizing the economy, creating employment, strengthening its multinationals, and extending benefits to small and medium-sized companies. The gradual opening up to trade led India to set targets to actively create linkages with East Asia and China as tensions within the region began to ease, normalize relations with the United States, and project India's interest toward markets in the Middle East and Africa. Over the last two decades, India's external economic strategy has borne fruit in the form of a massive leap in exports.DIA'S GDP PER CAPITA (IN US$)

SOURCE: PROCHILE (2015).

Latin America and the Caribbean (LAC) have not been absent from

these redefined economic priorities. India's focus on Latin America has revolved around specific factors that include natural assets, investment opportunities, platforms for deploying the network economy, and the presence of Indian communities in Central America. As part of its established planning process, the Indian government has set out a specific program, Focus LAC, with goals and targets for our region. As a consequence, India–LAC ties have been deepened as cooperation networks have begun to be forged in specific geographic areas, namely Mexico, the Caribbean, Brazil, Chile, Peru, and Argentina.

During the second stage, once these initial investment operations had been consolidated through firm commitments from Indian companies, the Indian government saw an opportunity to expand its presence within the MERCOSUR, one in which its software and information and communications technology (ICT) industries could play a particularly important part. A close accord between the members of the BRICS group (Brazil, Russia, India, China, and South Africa) drove the negotiation of a partial scope agreement between India and the MERCOSUR, which has been in force since 2009.

During the current stage, which is marked by a greater emphasis on India's external sector on the part of Prime Minister Modi's government, there have been some shifts in the format, targets, goals, and instruments through which India is framing its relations with LAC in general and South America in particular. This article attempts to outline the core aspects of India's strategy in the region and to indicate which areas might help expand these economic relations in the near future.

CAPACITIES AND MUTUAL BENEFITS

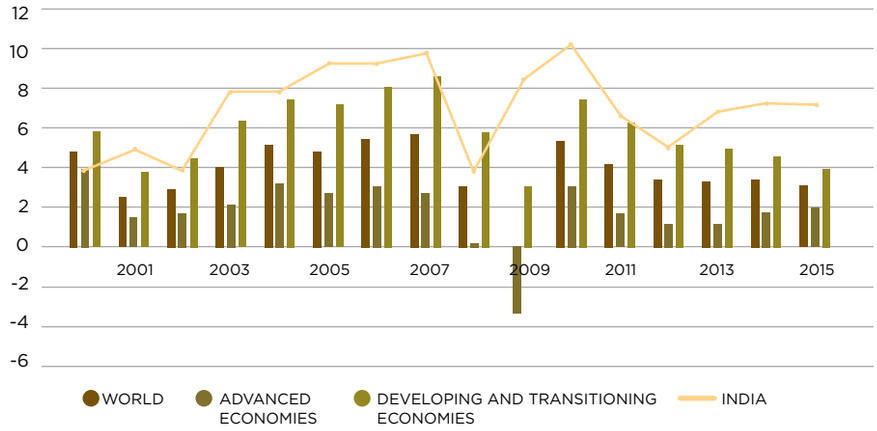
The role of the state in the economy, the importance of private capital, the significance of the agricultural sector, and the political decision to focus on the poor have all defined the overall profile of the Indian economy during this process of opening up and modernization. A quarter of a century ago, India dismantled its Soviet-inspired model to move toward a pro-market economy through policies of openness and liberalization that continued in place despite power passing back and forth between government coalitions led by the Bharatiya Janata Party (BJP) and the Indian National Congress party (see Srinivasan, 2004).

India's endogenous capacities and skilled human resources have been the basis for a slow but persistent technological revolution. The country is well known for its technoscientific capacities and its progress on innovation strategies have been applied to improve the quality of life for millions of Indians. India is a renowned global power in the fields of biotechnology, pharmaceuticals, ICTs, and the aerospace industry.

In line with the Make in India strategy that Prime Minister Modi's government is promoting and with the aim of improving digitization indexes and access to the internet, the central government has set out to strengthen domestic manufacturing and assembly capacities, improve the distribution of machinery, reduce technological dependence by attracting foreign direct investment (FDI), and encourage foreign firms to set up production in India.[2] Other measures seek to support these innovation and technological development strategies through the opening up of special economic zones.

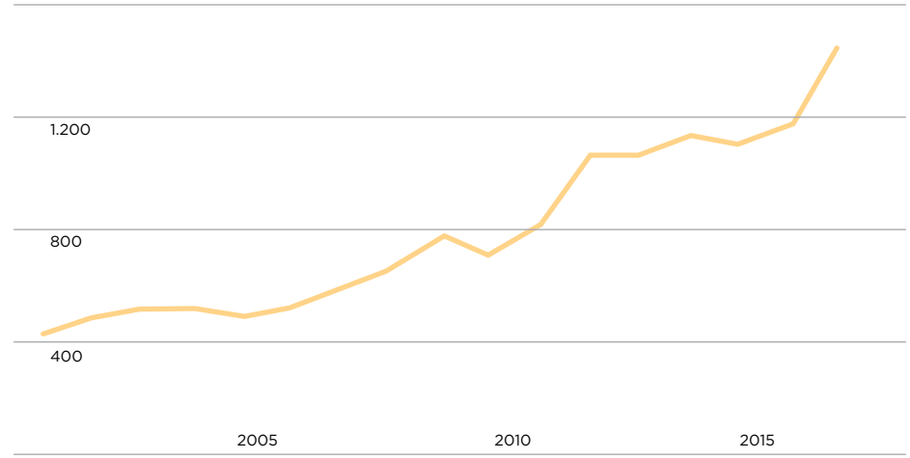
New technologies are seen as the drivers of the new economy, generating public goods that have improved the lives of India's poorest inhabitants (230 million people, according to the

FIGURE 1
EVOLUTION OF THE GDP OF SELECTED ECONOMIES, 2000–2015, ANNUAL RATE OF CHANGE (%)



Source: ECLAC (2016).

FIGURE 2
ANNUAL EVOLUTION OF INDIA'S GDP PER CAPITA (IN US$)



Source: ProChile (2015).

MAP 1
MAIN SOFTWARE TECHNOLOGY PARKS IN INDIA

Source: Ministry of Science and Technology of India (2015).

World Bank, or 21% of the country's population in 2016). Likewise, in the government's plans, the technological revolution must go hand-in-hand with a revolution in education, with a particular focus on improving indicators on access to online content among secondary-school students in urban areas, and, more importantly, those in rural areas.[3] Despite its limited infrastructure, India has a solid nucleus of universities, technology centers, and business schools that are capable of guaranteeing higher education for human resources in fields of knowledge that require high levels of training. Another important factor is that by 2030, India will be one of the youngest nations in the world. By that point, it will have nearly 140 million people of university age and one in every four of the world's graduates will be a product of Indian the higher education system. A third variable to consider is the country's industrial power, which is led by business dynasties that are major stakeholders in the rapid process of productive conversion. The basis for India's economic power is its large industrial conglomerates, most of which are multinationals that are focused on sectors such as energy (India imports 40% of the petroleum that it consumes), petrochemicals, steel, vehicle production, mining, pharmaceuticals, and IT. The Indian pharmaceutical industry is one of the largest in the world, is among the most technologically advanced of the developing countries that specialize in this field, and is the global leader in the production of generic drugs. Its powerful industrial and service sector revolves around "family firms" whose founders were educated at European and US universities, such as Birla, Ambani, Mittal, and Tata.[4] These founders have been succeeded by second and third generations of Indian businesspeople and engineers who were educated both in India and at Silicon Valley.

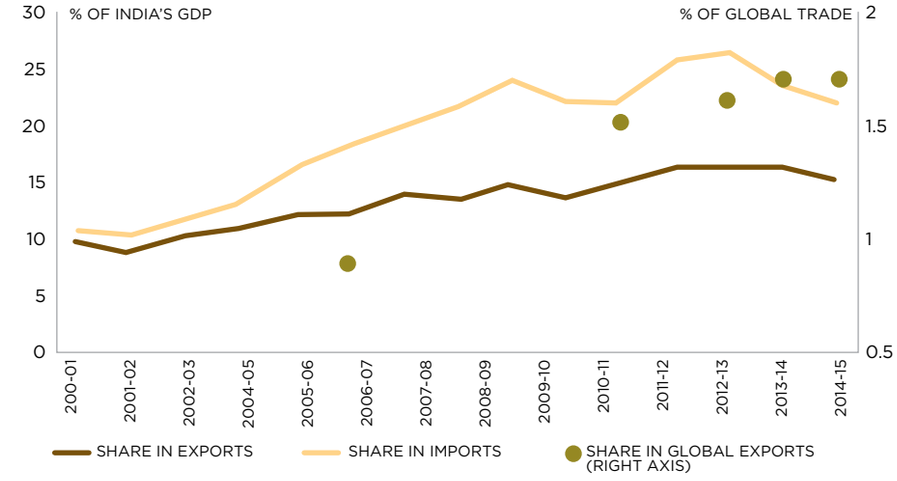
The economic agents and stakeholders in India are testimony to the vitality of an economy that is based on both cooperative and individual ventures and industrial integration and in which micro, small, and medium-sized enterprises (MSMEs) play an important part. These are major generators of employment and have helped grow the industrial GDP and exports, which has garnered them recognition and praise from different governments. According to the Ministry of Micro, Small, and Medium-Sized Enterprises of India (2017), the country has 51 million MSMEs which contribute 37.5% of its GDP, generate 37% of its manufacturing output, and employ 114 million people (4% of the working-age population). MSMEs from rural areas (55% of the total) are mostly individually owned companies, which is proof of an economic democracy that is being built from the bottom up.

At the end of the 1990s, India's ruling class took note of the variables shaping the context of the time and pressed ahead with long-overdue political and economic changes with a great sense of urgency. The new contract between the political apparatus and society enabled the implementation of a reform program that aimed to fight India's two greatest problems: poverty and an out-of-date educational system. As a result, its GDP has grown consistently since the start of these reforms (figures 1 and 2). This increase was 6.9% in 2013; 7.4% in 2014; 7.6% in 2015; 6.8% in 2016; and is projected to be 7.2% in 2017.

According to International Monetary Fund projections, if the Indian economy keeps up this pace, it will be among the five largest economies on earth by 2050 due to its growing service exports, manufacturing capacity, and openness to foreign capital. Similar projections from The Economist Intelligence Unit (2017) place India among the the world's main economies in 2050 in terms of GDP at market prices (from largest to smallest: China, the United States, India, Indonesia, Japan, Germany, Brazil, Mexico, the United Kingdom, and France).

Knowledge of English and other language advantages and low salaries partly explain India's success in attracting FDI from European and US firms to the service sector, which has helped increase market openness. The socio-productive structure of the country supported this strategy

FIGURE 3
SHARE OF INDIA'S FOREIGN TRADE IN GLOBAL TRANSACTIONS, %



Source: Deloitte University Press based on data from the WTO and the Ministry of Trade of India (2015).

TABLE 1
BILATERAL TRADE BETWEEN INDIA AND LATIN AMERICA (IN BILLIONS OF US$)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EXPORTS FROM INDIA TO LAC	3.88	4.49	7.02	5.09	9.26	13.15	14.77	14.30	15.46	10.93
IMPORTS INTO INDIA INDIA FROM LAC	5.12	5.93	10.48	8.40	13.56	16.76	27.67	33.31	33.57	21.66
TOTAL TRADE	9.00	10.42	17.48	13.49	22.82	29.91	42.44	47.61	49.03	32.59

Source: ITC Trade Map

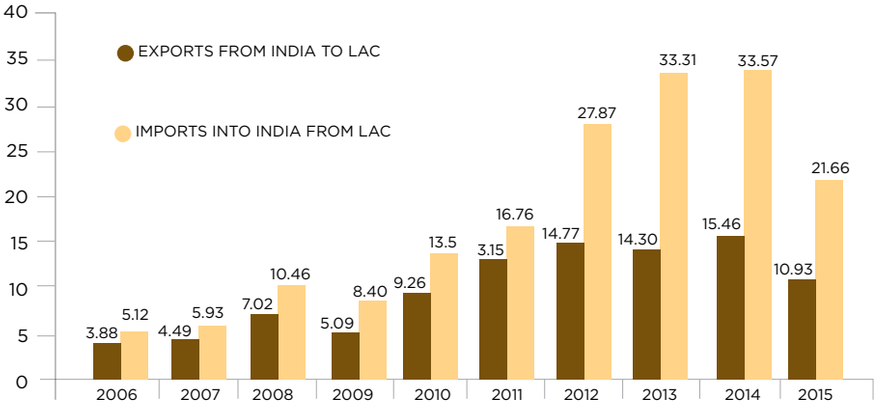
through the opening of technology parks and the creation of clusters to generate scale, increase competitiveness, and encourage IT exports from hubs such as Bangalore, India's answer to Silicon Valley (see map 1).

India is the world's sixth-largest exporter of business services, accounting for a share of 3.3% of the global total, while it imports 2.9% of this.

New Delhi established a multipronged export strategy to support its new goal of market openness. By opting for multilateralism and economic regionalism, it consolidated a broader strategy with clearly defined priorities and applied the "neighbors first" approach to reach cooperation and integration agreements in Western Asia. The first step India took in this direction was forging ties with economies in Southeast Asia that are part of the Association of Southeast Asian Nations (ASEAN). The announcement of its Look East Policy marked a new direction in India's regional reintegration strategy and added a concrete, action-oriented dimension to its foreign policy, one that aimed to link the domestic economy with an integration area like Southeast Asia. At the same time, India began exploring options for taking part in regional value chains through growing interdependence with economies such as China, Japan, Cambodia, Laos, Myanmar, Korea, and Vietnam.

At the same time, India relaunched its relations with subregional and regional cooperation and integration

FIGURE 4
BILATERAL TRADE BETWEEN INDIA AND LAC (BILLIONS OF US$)



Source: ITC Trade Map

agreements such as the South Asian Integration for Regional Cooperation, which was formed to create a free trade area that has been in force since 2006 (SAFTA). India's foreign trade strategy also revived agreements such as the Asia-Pacific Trade Agreement (APTA), usually referred to as the "Bangkok Agreement," which was signed in 1975. Although India has expressed its interest in joining the Asia-Pacific Economic Cooperation Forum (APEC), the moratorium on new members has delayed this possibility. India forms part of the Regional Comprehensive Economic Partnership (RCEP) promoted by China[5] and is also a member of the Commonwealth.

At the interregional level, with the aim of improving market access, India has developed an active policy for negotiating trade agreements with countries and regional associations (Geiger and Rao, 2010). According to the Asian Development Bank, as of 2015, India was party to 28 free trade agreements with economies including Canada, Egypt, New Zealand, Sri Lanka, the European Union, and Thailand. In South America, it has negotiated a preferential trade agreement with the MERCOSUR economies and a preferential economic agreement with Chile. India's involvement in interregional forums such as BRICS and IBSA (India, Brazil, and South Africa) has fed back into this multipronged strategy. India is also a member of the G20.

In relation to LAC, two factors are key to understanding the close relationship between India's development strategy, its success in combating poverty, and its global integration. The first of these is the importance of food security.[6] India has one of the lowest food security indexes (50.9) of all the lower-middle-income economies in Asia, below countries like China (64.2) and Singapore (which ranks top, with88.2). India thus perceives LAC as a major supplier of commodities and foodstuffs for its large population, which is becoming increasingly younger, has growing income levels, and a powerful urban middle class. Second, LAC's role as a provider of energy resources is also attracting interest from India. In this sense, it should be remembered that, according to Indian government predictions, the country's dependence on oil imports will increase from 70% in 2016 to 90% in 2040.

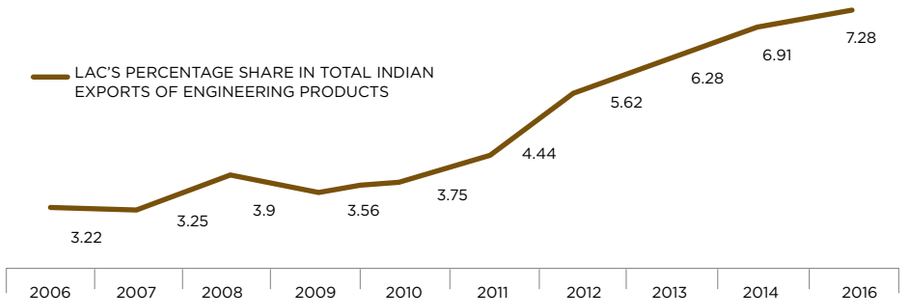
50

EMBRAER PLANES WERE BOUGHT BY AIR COSTA IN 2014

The importance of Latin American markets for new operations on the part of India's powerful multinationals in sectors such as services, steel, and ICTs have encouraged the country to set out specific plans to promote trade and investment in LAC. The precedent for this is the Focus LAC plan, through which trade between India and Latin America grew consistently, a dip in 2015 notwithstanding (see figure 4 and table 1).

In synergy with this, India has managed to join the network of Latin American institutions. In 2004, it signed a framework cooperation agreement with the Central American Integration System (SICA) (ECLAC, 2012). It has made regular contact with the Community of Latin American and Caribbean States since 2012 and was accepted as an observer member of the Pacific Alliance in February 2014. All the same, no country in South

FIGURE 5
LAC'S SHARE IN INDIAN EXPORTS OF ENGINEERING PRODUCTS



Source: ITC Trade Map

America has signed an FTA with India to date.[6]However, the current government, led by Prime Minister Modi, has reasserted the importance of LAC as a contributor to India's development strategy.

During the current stage, the complementarity between the two regions would favor the expansion of linkages (see Rosales and Kuwuyama, 2007). India would bring a long list of technologies to the negotiating table in the fields of agriculture, biotechnology, ICTs, and software, while land-rich, food-producing South American countries could be sources of mining, energy, and food products, and they also have experience that India could benefit from in relation to storage, irrigation, energy efficiency, and sustainable agricultural practices.

Hydrocarbons, chemical products, pharmaceutical products, vehicles, and textiles are India's main exports to LAC. Crude oil is India's largest import from the region, mostly from Venezuela, followed by Mexico, Colombia, and Brazil. Next on the import list are minerals (copper from Chile) and vegetable oils (soy and sunflower oil, mostly from Argentina).

350

MILLION PEOPLE ARE ONLINE IN INDIA

Indicators point to growth in bilateral FDI flows. Business partnerships, joint ventures, and mergers and acquisitions between Indian and Latin American firms are some of the outcomes of business between pharmaceutical, mining, chemical, and steel companies which are producing generic drugs, potassium, and steel, for example, in Argentina, Brazil, Bolivia, and Chile. There have also been investments in the energy sector, ICT, vehicle production, cosmetics, sugar manufacturing, autoparts, and plastics. Likewise, ties are beginning to form between the two parties' entertainment industries, which is potentially interesting given the strength of the cultural industries in both India (Bollywood) and LAC.

The increase in Latin American investment in India is testimony to the growing knowledge of the Indian market among multilatinas and smaller-scale Latin American companies.[7] Other factors also play a part in this growing closeness, such as a digital economy based on offshoring and a shared language and sense of identification among young entrepreneurs who are promoting exchanges between like-minded people keen to grow their businesses, particularly through e-commerce.

LOOKING TO THE FUTURE

Prime Minister Modi has reasserted the "option for Latin America" as a strategic partner for India, and the government is consequently promoting the implementation of a "broad agenda" that revolves around three core areas. First, greater India–LAC Corporation in sectors such as telemedicine, tele-education, and e-governance, in addition to sharing knowledge on ICTs. Second, via support for trade complementation through financial support provided by, for example, the BRICS New Development Bank, boosted by partnerships with financial agents that are associated with Indian institutions, such as BBVA and Banco Santander, who tend to act as intermediaries in Indian firms' investment operations and mergers and acquisitions in Latin America. The concessionary credit lines to Latin American countries provided by Exim Bank since 2003 are evidence of the existence of such expectations in India and represent US$145 million up to March 2016.[8]Third, India hopes to position itself as a technological partner in the aerospace industry by providing expertise on weather forecasting services, resource mapping, and disaster management. One notable example of such technological alliances is Hyderabad-based Air Costa's purchase of 50 Embraer aircraft in 2014 for a value of US$2.95 million.

25%

OF THE WORLD'S UNIVERSITY GRADUATES IN 2030 WILL BE FROM INDIA

Since Modi took office as prime minister, his remarks have defined LAC as somewhere that would allow India to diversify the risks in its external sector in the face of growing protectionism (ECLAC, 2016). In this sense, the collapse of the Trans-Pacific Partnership following the United States' withdrawal from the agreement has been looked on positively by India as it included tough clauses on patent protection that went beyond WTO standards and would have affected business with LAC.

As a consequence, India's ongoing reform strategy, its search for alternative trade partners, the receptiveness of LAC economies, the series of interregional agreements seeking to improve South-South cooperation (double taxation, investment protection), mutual willingness to negotiate preferential trade agreements (partial scope agreements or FTAs), and expectations around extending market opportunities for Indian exporters of goods and services are all factors that would seem to herald the deepening of ties between India and LAC in both the medium and long term.

Another core area where greater interactions are likely is in the Indian MSMEs segment, which contains technology and services firms that are encouraging technological upgrading strategies in Latin America and demanding a better-skilled local labor force in the LAC operation through ICT platforms, the development of lo-

TABLE 2
DEMAND FOR NATURAL GAS BY USE AND APPLICATION

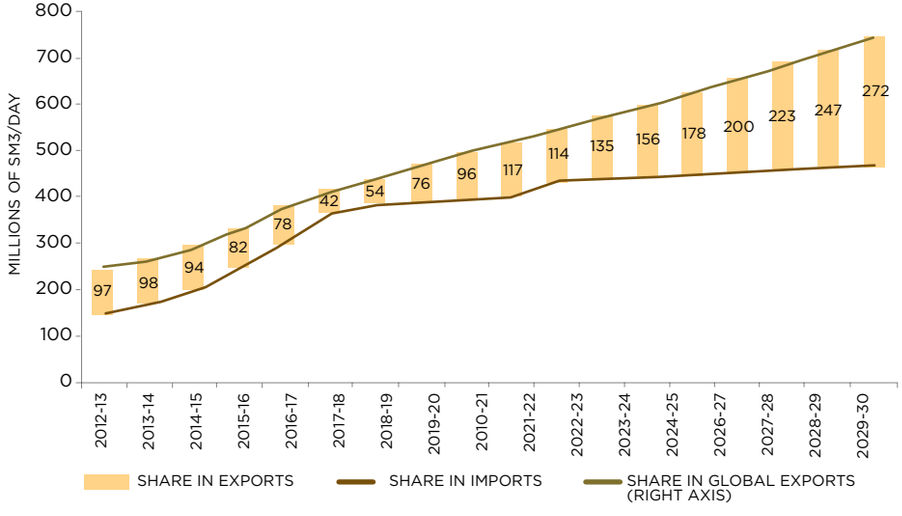
MILLIONS OF SM3/DAY	2012-13	2012-13	2012-13	2012-13	2012-13
ENERGY	86.50	158.88	238.88	308.88	353.88
FERTILIZER	59.86	96.85	107.85	110.05	110.05
URBAN GAS	15.30	22.32	46.25	67.96	85.61
INDUSTRIAL	20	27	37	52.06	63.91
PETROCHEMICALS/REFINERIES/DOMESTIC CONSUMPTION	54	65.01	81.99	103.41	118.85
STEEL/SPONGE IRON	7	8	10	12.19	13.73
REALISTIC TOTAL DEMAND	**242.66**	**378.06**	**516.97**	**654.55**	**746.03**

Source: Compiled by the author

cal systems, service provision to private firms or governments, and the development of new products and services for both local markets and other countries as part of outsourcing operations.

In the World Energy Outlook 2015 publication, the International Energy Agency (2016) predicted that India would be the third-largest global importer of crude oil (behind the United States and China) by 2025. India's demand for primary energy will double by 2030, driven mainly by electricity generation.[9] Nearly 96% of the population will have access to electricity in 2030 (as compared to 62% in 2005), coal will continue to be a major source of power (28% of the total), and imports of it are expected to increase to seven times the current levels. Gas production will increase between

FIGURE 6
ESTIMATIONS ON THE SUPPLY AND DEMAND PROFILE FOR NATURAL GAS



Source: ITC Trade Map

TABLE 3
MIX OF INDIA'S PRIMARY ENERGY SOURCES

SOURCE	2010	2025
COAL	53%	50%
OIL	30%	25%
GAS	11%	20%
HYDRO	5%	2%
NUCLEAR	1%	3%
	100%	100%

Source: Compiled by the author

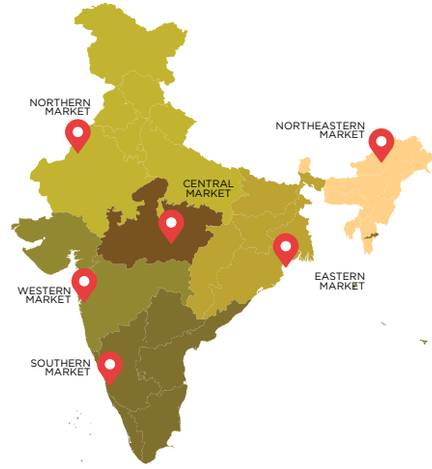
2020 and 2030 and then will slope off, as a result of this high demand, so imports of liquefied natural gas will increase (table 2). This new scenario will require energy infrastructure investments of an estimated US$1.25 trillion by 2030.

India's natural gas market can be divided into six geographical regions (map 2). Despite the expected increase in production and domestic availability of gas through nonconventional sources such as shale gas and hydrates, India's gas imports will certainly increase (PNGRB, 2016) (see figure 6 and table 3). Given the likelihood of growing demand for energy from India toward 2050, LAC will continue to be a major supplier.

The region is also ripe for the expansion of business by Indian firms. The more advanced Latin American economies (Argentina, Chile, Brazil, Colombia, Peru, and Mexico) generally have the necessary technological capacities, telecommunication systems, and internet penetration indicators to make e-commerce operations viable, even though these remain underdeveloped in LAC (see EEPC, 2016). India's 12th Five-Year Plan (2012–2017) anticipates increasing digitization levels within the domestic SME sector: with 1.03 billion telephone subscribers and 350 million internet users, India develops platforms which are suitable for both local and third-country markets in terms of scale, cost, and quality.

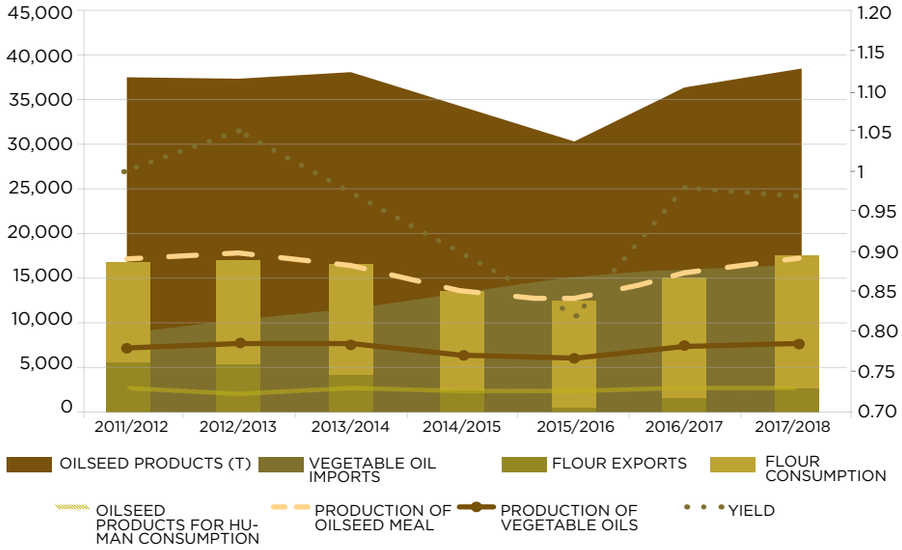
Agrotechnological cooperation includes purchases of foodstuffs and technology transfers in relation to sustainable agriculture, seeds, agricultural machinery, and purchases of land. For example, in 2010, one of the largest sugar refiners in India, Shree Renuka Sugars, bought 130,000 hectares of sugarcane land in Brazil, and other Indian companies have purchased or rented land in Brazil, Colombia, Uruguay, and Paraguay to produce food and biofuels. India estimates that it will be able to make use of more than 100 million hectares of crops in MERCOSUR countries to feed its large and increasingly demanding population and to sell to food pro-

MAP 2
INDIAN REGIONAL MARKETS



Source: Compiled by the author

FIGURE 7
EVOLUTION OF AGRIFOOD INDICATORS (IN THOUSAND METRIC TONS)



Note: the right axis measures crop yields (tons/hectare).
Source: data from FAS/USDA.

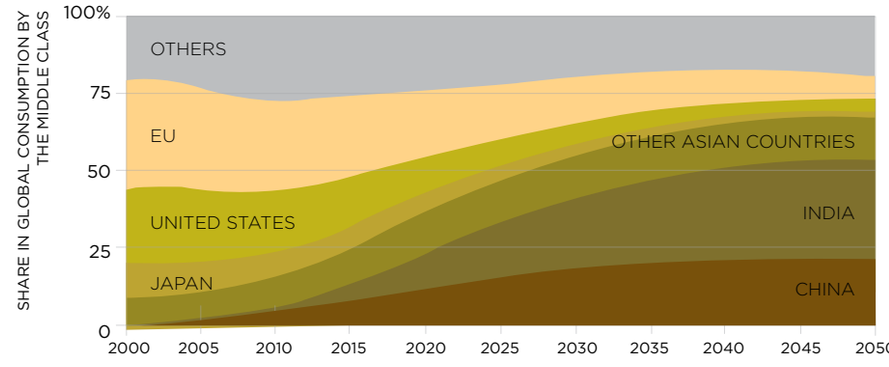
cessing companies. For Indian business owners, LAC offers excellent opportunities for agricultural subcontracting that would allow it to export products to markets in Asia and the Middle East.[10] The outlook for LAC agricultural exports to India is also encouraging. Indian purchasers include not just the state itself but also, and more importantly, private traders that use these inputs in the food industry. It is important to remember that India's agricultural sector is still extremely protected and there are barriers to the entry of genetically modified organisms, including soy.

The evolution of the Indian agriculture market will depend increasingly on the typical consumption patterns of the country's growing middle class, who it is estimated will outnumber the entire US population by 2025 (figure 8).

The projections on increases in agrifood imports are due to factors like the expected increases in India's working-age and middle-aged population. The former is estimated to grow 31% between 2010 and 2030 and thus will be the more demanding of the two. As a result, South American food-producing economies such as Brazil, Argentina, Paraguay, and Uruguay will find new export niches.

For the current Indian government, one area of particular interest for expanding relations with LAC is making headway on negotiations toward preferential trade agreements. India has two major precedents in this

FIGURE 8
PROJECTIONS FOR THE INDIAN MIDDLE CLASS



Source: Kharas (2010).

sense: the negotiation of a first partial scope agreement with Chile in 2006 and another with the MERCOSUR in 2009. During his visit to Brazil in 2014, Prime Minister Modi met with 12 South American leaders for precisely this reason. This was the starting point for negotiations toward the new expanded preferential trade agreement between Chile and India, which was signed in 2016 and entered into force in May 2017.[11] The Indian government has also expressed interest in negotiating FTAs with Colombia (following the ratification of its FTAs with the United States and South Korea), Mexico, and Peru. India and Peru agreed to start their first negotiation rounds in 2017. Negotiations with Mexico, however, may be delayed until the lengthy renegotiations of the North American Free Trade AGREEMENT (NAFTA) have finished.

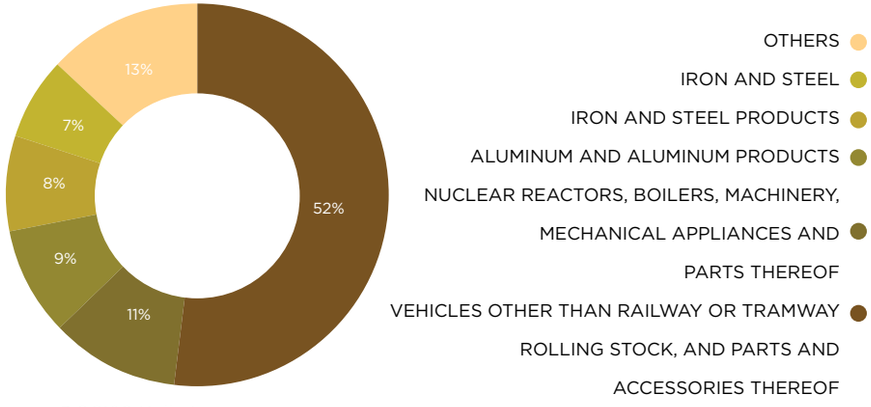
Over the last decade, there have

TABLE 4
TRADE BETWEEN INDIA AND THE PACIFIC ALLIANCE AND MERCOSUR (MILLIONS OF US$)

COUNTRY	EXPORTS 2015-16	IMPORTS 2015-16	TOTAL 2015-16	EXPORTS 2014-15	IMPORTS 2014-15	TOTAL 2014-2015
MERCOSUR						
BRAZIL	2,650	4,040	6,690	5,964	5,401	11,365
ARGENTINA	535	2,472	3,007	460	1,992	2,452
VENEZUELA	131	5,702	5,833	258	11,978	12,236
PARAGUAY	98	112	210	107	88	195
URUGUAY	153	18	191	208	20	228
PACIFIC ALLIANCE						
MEXICO	2,865	2,283	5,148	2,862	3,393	6,255
COLOMBIA	888	808	1,696	1,105	2,135	3,240
PERU	703	820	1,523	820	590	1,410
CHILE	679	1,961	2,640	566	3,081	3,647

Source: Directorate General of Foreign Trade of India (2017).

FIGURE 9
MAIN ENGINEERING PRODUCTS THAT INDIA EXPORTS TO LAC (2015)



Source: DGCI&S Kolkata.

been ongoing delays around reaching a broader partial scope agreement between India and MERCOSUR or starting negotiations toward an FTA. However, the probable recovery of intra-MERCOSUR disciplines for extra-zone negotiations and the formalization of pending free trade agreements (such as with the EU) may accelerate this process. Regardless, at the bilateral level, the two parties have made progress on agreements on chapters such as the standardization of phytosanitary procedures and the regulation of pharmaceutical products, in addition to the bilateral investment protection and promotion agreements (BIPAs) that India has signed with Argentina and Uruguay.

Likewise, Indian investors' interest in MERCOSUR economies has not waned, as is evidenced by projects such as those of Suzlon Energy (the installation and implementation of 350MW of wind power), the Indian mobile phone company Micromax, Mahindra (assembly of Scorpio vehicles), all in Brazil, and Tata Motors' plant to produce Jaguar Land Rover SUVs in Rio de Janeiro. In Argentina, Mumbai-based United Phosphorus Ltd.'s purchase of two agrochemical companies and one seed company (Advanta) have consolidated its local operations. Uruguay remains the sales platform of choice for Tata Consultancy Services.

LAND OF OPPORTUNITIES

India is an active partner for LAC and is showing more and more interest in increasing trade and exchanges of investment, financing, and science and technology with the region. The first stage of reforms in India has led to the exploration of some early opportunities in LAC economies. Today, with a new government in place in India, LAC is attracting greater interest in both the public and private sectors. India is a strategic partner for LAC and will be even more important in the future, given its prospects for growth and development.

ANNEX
LIST OF INDIAN COMPANIES WITH OPERATIONS IN LATIN AMERICA (SELECTED COUNTRIES)

BRAZIL
IT SERVICES
M/S. TATA CONSULTANCY SERVICES
HCL TECHNOLOGIES BRAZIL SÁO PAULO
WIPRO DO BRASIL TECNOLOGIA LTDA
APTECH
INFOSYS TECHNOLOGIA DO BRASIL LTDA
TECH MAHINDRA
KPIT INFOSYSTEM BRASIL SERVICOS DE TECNOLOGIA E PARTICIPARES LTDA
PHARMACEUTICALS
ZYDUS NIKKHO BRAZIL LTDA
GLENMARK FARMACEUTICA BRAZIL LTDA
TORRENT DO BRAZIL LTDA
M/S. DR. REDDY'S LABORATORIES LTD
M/S. LUPIN FARMACEUTICA DO BRASIL LTDA
M/S. AUROBINDO PHARMA IND. FARMACEUTICA LTDA
M/S. RANBAXY FARMACEUTICA LTDA
M/S UNICHEM PHARMACEUTICALS DO BRASIL LTDA
M/S FARMAVISION NATCOFARMA DO BRASIL
ACCORD FARMACEUTICA LTDA
ACG DO BRASIL SA
BIOCON LTD DO BRASIL
ENERGY AND ELECTRICITY SECTOR
ONGC VIDESH
IBV BRASIL PETROLEO LTDA (BPCL)
M/S SUZLON ENERGIA EOLICA DO BRASIL LTDA
SAE TOWERS KEC INTERNATIONAL
KARAMTARA ENGINEERING LTD
VIJAI ELETRICA DO BRASIL LTDA
CG (CROMPTON GREAVES)
POWER SYSTEMS BRAZIL LTDA
HAVELLS SYLVANIA LIGHTING LTDA BRAZIL
ENGINEERING/AUTO SECTOR/ETC.
ELGI COMPRESSORES DO BRASIL LTDA
BRY-AIR BRASIL LTDA
WIPRO DO BRASIL INDUSTRIAL SA
CIAO ZICOM SECURITY SYSTEMS SA
APOLLO TYRES DO BRAZIL LTDA
PRICOL DO BRASIL COMPONENTES AUTOMOTIVOS LTDA
M/S. PIDILITE/PULVITEC DO BRASIL UBD COM. COLAS E ADHESIVES LTDA
TCI GLOBAL (GLOBAL LOGISTICS)
MINING AND NATURAL RESOURCES
GSHL-BRASIL MINERACAO SA (SUBSIDIARIA DE M/S. ISPAT LTD)
ZAMIN RESOURCES SERVICOS GEOLOGICOS LTDA (OWNED BY LONDON-BASED NRI ARCELOR MITTAL)*
ADITYA BIRLA GROUP
YARNS AND FIBERS
M/S ADITYA BIRLA YARN & FIBRES
M/S. RELIANCE DO BRASIL
AGRICULTURAL SECTOR/FERTILIZERS/PESTICIDES
M/S. OLAM INDUSTRIES (SINGAPORE-BASED FIRM WITH MAINLY INDIAN MANAGEMENT)
M/S RENUKA SUGARS IN BRAZIL
M/S. CORAMANDAL BRASIL LTDA
UNITED PHOSPHORUS DO BRASIL LTDA
M/S SABERO (PART OF THE CORROMANDEL GROUP)
NAQ GLOBAL COMPANIES
UTTAM SUCROTECH INTERNATIONAL LATIN AMERICA
EXCEL BRAZIL AGRONEGOCIOUS LTD
TRADING COMPANIES
TATA INTERNATIONAL TRADING BRASIL LTDA
MR. MAHESH CHANDIRAMANI
MR. JAGDISH DOSHI
MR. KARTIK KADAKIA

COLOMBIA
ONGC VIDESH (OVL)
SOPHOS BANKING SOLUTIONS
INFOSYS
TECH MAHINDRA
IPCA
CIPLA
AUROBINDO PHARMA
DR REDDY'S LABS
UNITED PHOSPOROUS LTD
HERO MOTORS
TVS
BAJAJ
SHARADA CHEMICALS
MAHINDRA
SONALIKA
CAPLIN POINT
GENPACT
ESSEL PROPACK
NIRLIFE PHARMA
PRAJ
ROYAL ENFLELD
SUTHERLAND
SUZUKI MARUTI
TVS
THERMAX
WIPRO
HINDUJAS GLOBAL SOLUTIONS

ARGENTINA
IT SECTOR
TCS ARGENTINA SA
COGNIZANT
CELLENT SERVICIOS MOVILES
ACTION LINE (AEGIS ESSAR GROUP)
CRISIL / IREVNA
ADVANCED TECHNOLOGY SOLUTIONS (ATS) MOBILE SOLUTIONS, A MAHINDRA COMVIVA COMPANY
YBRANT LATAM – DIGITAL MEDIA MARKETING
SÍNTESIS QUÍMICA (PUNJAB CHEMICALS)
UNITED PHOSPHORUS LTD
ADVANTA SEMILLAS (OWNED BY UNITED POSPHOROUS)
GLENMARK
ISSUE GROUP (GODREJ ARGENTINA)
HAVELLS SYLVANIA ARGENTINA

MÉXICO
PHARMACEUTICALS
ACCORD FARMA
CLARIS LIFESCIENCES DE MEXICO S.A. DE C.V.
DR. REDDY'S LABORATORIES
MICRO PHARMACEUTICALS
MICROMEX
SOLARA FARMACEUTICA-ASPEN LABS
SUN PHARMA DE MEXICO, S.A. DE C.V.
TORRENT LABORATORIES (TORRENT PHARMA)
GLENMARK PHARMACEUTICALS MEXICO S.A. DE C.V.
HETERO DRUGS
AXIX CLINICALS (AUROBINDO)
ZYDUS
LUPIN
UQUIFA
EMCURE
NIRMA
CALIDRUX
MACLEODS PHARMA
IT SECTOR
TCS
WIPRO
HEXAWARE TECHNOLOGIES
INFOSYS
NIIT
PATNI COMPUTER SYSTEMS/ PCS COMPUTER SYSTEMS MEXICO, SA
UST GLOBAL
TECH MAHINDRA
SVAM INTERNATIONAL
HCL
OTHER
UNITED PHOSPHORUS DE MEXICO S.A. DE C.V.
VIJAI ELECTRICALS S.A. DE C.V.
HAVELLS
INDORAMA VENTURES POLYMERS MEXICO S. DE R.L. DE C.V.
RSB TRANSMISSIONS MEXICO
VARROC
SYMPHONY
U FLEX (FLEX AMERICAS)
SMR AUTOMOTIVE VISION BAJAJ
IRK INTERNATIONAL ACERLAN

PERU
PHARMACEUTICALS
TIL HEALTHCARE PLETHICO LABORATORIES (MYLAN)
CADILA PHARMA LTD SUCURSAL PERU
GLENMARK PHARMACEUTICALS PERU SA
HIGH GLANCE
ACCORD HEALTHCHARE S.A.C.
SEVEN PHARMA S.A.C.
THE HIMALAYA DRUG COMPANY S.A.C.
GRUPO ESKE
SUN PHARMA
ZENNIT FARMA S.A.C. (IPCA LABORATORIES LTD.)
MINING
UPKAR MINING PVT. LTD
CORE MINERALS (PERU) SA
KARTIKAY PERUVIAN MINING COMPANY
GRUPO MELROSE
NAZCA RESOURCES
ABHIJEET GROUP
IFFCO
ZUARI AGROCHEMICALS
OTHER
TATA CONSULTANCY SERVICES TCS
VOLTA IMPEX PVT. LTD
TRAVEL GROUP PERU
ASHOK LEYLAND
POLARIS SOFTWARE LAB. CHILE LTD.
AEGIS PERU WORTEC SA
SHARDA PERU SAC (AGROCHEMICALS)
SBM BEVERAGES
VRINDA SOFTWARE TECHNOLOGIES S.A.C.

NOTES

[1]The author would like to thank Virginia Papini, a trainee researcher from CEAPI, for her help with this article.

[2]Dell is the largest personal computer retailer in India.

[3]Aakash ("sky," in Sanskrit) is a 7-inch touchscreen tablet computer that runs on the Android 2.2 operating system. It has Wi-Fi, can be used as an e-book reader, and has a 366-Mhz processor, two USB ports, and 256 MB of RAM.

[4]Lakshmi Mittal is one of the richest people in the world, as is computing magnate Mukesh Ambani.

[5]The RCEP includes the 10 ASEAN economies and China, Japan, New Zealand, Australia, India, and South Korea.

[6]To alleviate this situation, India spends an estimated US$20 billion each year on food subsidies, a program it has maintained despite pressure from the United States and food-producing countries at the World Trade Organization.

[7]India's difficulty in increasing the openness of its agricultural market or accepting the imposition of external intellectual property standards on competitive Indian firms are just some of the obstacles that stand between the parties in question.

[8]Around 100 Indian companies have invested nearly US$12 billion in Latin America in sectors such as energy, IT, pharmaceutical products, sugar, agrochemicals, electrical products, mining, metals, vehicles, autoparts, cosmetics, and plastics. As of 2014, 20 Latin American firms have invested nearly US$1 billion in India in steel, autoparts, and electric engines and some joint companies are also operating in the bus manufacturing sector, such as the partnership between Tata and Marco Polo.

[9]Nicaragua (US$67 million in 2012–2015), Honduras (US$56 million), Cuba (US$12 million), and Panama (US$10 million) are among the main recipients.

[10]Oil imports are slated to reach 6 million barrels per day in 2030.

[11]In 2015, the Walbrook investment group, led by the Indian-Malaysian businessman Pakiri Arumugam, bought around 600,000 hectares of land in Argentina.

[12]Chile offered India concessions on 1798 tariff lines with a margin of preference of between 30% and 100%, while India has offered Chile concessions on 1031 tariff lines at the 8-digit level with a margin of preference that ranges between 10% and 100%.

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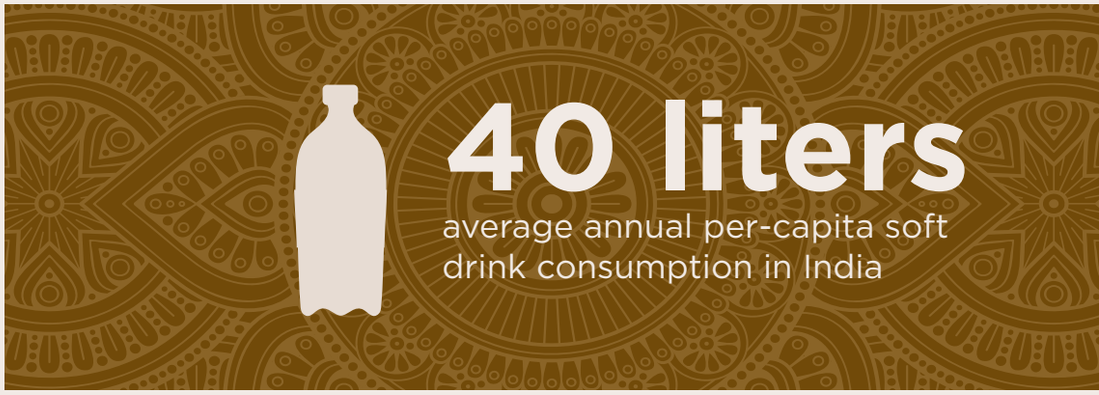
CASE STUDY

Millennial Consumers



Nearly 100 million Asians consume Big Cola, a soft drink made by the AJE Group, which is originally from Peru. These Asian consumers are mostly from India, but also from Indonesia, Thailand, and Vietnam. In this interview, Jorge López-Doriga, head of communications for the company, explains the importance of competing on price to win over markets and describes AJE's innovative advertising strategy, which targets millennials.

CAN YOU DESCRIBE THE AJE GROUP'S BUSINESS IN INDIA?

We started doing business in India in 2010, when we set up a bottling plant in Gujarat to serve the Mumbai area. In 2017, we opened another production plant in Bhutan to supply the north of India. We have three brands there: BIG, ORO, and Agua Cielo. India is a very complex, atomized market so success there implies continual networking and a big investment of time. Our entry into other Asian countries, such as Thailand and Indonesia, has been faster, but we know that in India it will take us longer to really consolidate business. Even so, we think that our launch in the north of the country has been a big success and our brands are being well received there.

70%
OF INDIA'S POPULATION ARE YOUNG PEOPLE FROM LOW- AND MEDIUM-INCOME SECTORS

HOW HAVE YOU MANAGED TO INCREASE YOUR MARKET SHARE?

What makes India interesting is its enormous potential. Per capita consumption of bottled drinks is very low in Asia in comparison to Europe or the Americas. The average is 40 liters per capita, as compared to 296 in North America or 239 in Europe. If we break this down into categories, consumption levels are even lower for juices and sports drinks. The figures for India are lower still, which shows its enormous potential for growth. AJE has two specific strategies there. The first entails offering India consumers a top-quality product at an affordable price and distributing this through traditional channels, where they already do their shopping. Accessible prices are essential for young consumers from classes C, D, and E, which make up approximately 70% of the population of India. Like Peru and the other countries in Latin America where we have a presence, in India, traditional channels have a larger market share than modern ones. We have a lot of know-how around distribution through these channels, which has allowed us to operate more comfortably in India. During our first few years there, we also sponsored the England soccer team and we were the official drink of the England Football Association in India. This really raised our profile. The traditional advertising strategy for companies in India is to sponsor cricket or get endorsements from Bollywood stars. But we found that the sport that Indian millennials are wild about is soccer. They associate cricket with their parents. So connecting Big Cola with the England soccer team helped us enter the market as an innovative product. It also helped set us apart from the cluster of adverts that revolve around cricket and Bollywood stars, raising our profile, and winning over young Indian consumers.

HOW HAVE YOU BROKEN THROUGH CULTURAL BARRIERS TO POSITION YOURSELVES ON THE ASIAN MARKET?

As we have an international presence, what consumers are looking for in our brand is precisely this international connection, which makes our communications strategy much easier. Our target audience are millennials, who are specifically looking for brands that break with tradition. We also hired a local team to manage operations in India. We now work with over 250 collaborators, some directly, others indirectly. All the same, this is a challenge that should be viewed as a medium- and long-term vision.

100 MILLION ASIAN CONSUMERS DRINK BIG COLA, A PERUVIAN SOFT DRINK

WHAT ADVICE WOULD YOU GIVE TO OTHER COMPANIES THAT WANT TO FOLLOW THE PATH THAT YOU HAVE TAKEN?

Finding local partners who understand the country, its regulations, and idiosyncrasies is key. Each state has its own rules, laws, and tax system, and it's important to take that into account, too. India is a country that is growing and changing in an extraordinary fashion. I first went to India in the 1990s and it is truly incredible how the country has changed since then. India's future is really promising: it has the largest domestic market in the world in population terms and it is becoming a true global powerhouse.

What Do Exports Depend On?

A Comparative Analysis

Ram Upendra Das
Tuhinsubhra Giri
Ankita Garg
Centre for Regional Trade*

Ignorance is always afraid of change.

Jawaharlal Nehru

IMPORT-FACILITATING INFRASTRUCTURE, COMMON LANGUAGE, GEOGRAPHICAL DISTANCE, AND THE ECONOMIC SIZE OF THE REGION, ARE AMONG THE IMPORTANT DETERMINANTS OF INDIA'S EXPORTS TO OTHER RCEP COUNTRIES. DO THE SAME VARIABLES ALSO AFFECT LATIN AMERICA AND THE CARIBBEAN? THIS ARTICLE CONTAINS A COMPARATIVE ANALYSIS AND PUTS FORWARD SOME POLICY SUGGESTIONS.

India's engagement in bilateral and regional trade agreements was highly influenced by its changing perspective on foreign policy when it adopted its 'Look East Policy' in 1991. This policy intended to integrate the Indian Economy with South-East Asia. To this end, India entered into bilateral and regional trade negotiations around South Asia and South-East Asia, mainly with high-growth economies. India is negotiating a number of agreements, one of them being the Regional Comprehensive Economic Partnership (RCEP). The 16 member countries of RCEP include each of the ten ASEAN member states and Australia, China, India, Japan, the Republic of Korea, and New Zealand. On the other hand, India has not yet integrated with the Latin American countries in a robust manner.

In examining the direction and future potential for India's relations with Latin America and the Caribbean (LAC), our hypothesis is that a lack of focus, priority, and impetus has been the main stumbling block to closer ties. While some prominence has been given to ties with Brazil, other countries in the region—Argentina, Chile, Peru, and Colombia among them—have not been accorded a similar level of priority, with Caribbean and Central American countries largely on the periphery. Furthermore, it is argued that India has not sought to project itself effectively in the region and has adopted a somewhat passive approach towards building bilateral and regional ties and economic engagement has largely been left to private enterprise. There clearly exists a huge information gap between the two regions which ill-serves the cause of enhancing trade relations. The reason lies in the reality that there has been no articulated policy in India or LAC as to the ideal direction that bilateral trade relations should go in. Due to the low volume of trade between India and LAC, freight charges increase quite substantially, which is aggravated by asymmetric trade: containers often come back empty, increasing the cost of container movement on routes between India and LAC.

This article seeks to investigate the conceptual and empirical gap in relation to the determinants of trade between LAC and India. It empirically compares the determinants of India's exports to LAC with India's exports to other RCEP countries, highlighting the trade prospects India and LAC hold for each other.

TRADE ENGAGEMENT

Some recent developments have meant that India's engagement with LAC has gained momentum. For instance, India signed an agreement on the expansion of its preferential trade agreement (PTA) with Chile in September 2016. The expanded PTA will have far greater trade coverage in comparison to the agreement signed earlier in March 2006 as both sides have offered tariff concessions on a number of lines. India is also aggressively engaged in the expansion of its PTA with

4.6%

LAC'S SHARE IN INDIA'S TRADE BASKET

MERCOSUR (Ministry of Commerce and Industry of India, 2016).

In recent years, trade between India and LAC has been growing (as shown in table 1). Although the share of LAC in India's total global trade has been quite low over the years as compared to India's trade with other RCEP countries, there is untapped potential in LAC which India can harness. LAC's share in India's trade basket has risen to over 4.6 percent in 2016 from 1.7 percent in 2000. The other RCEP countries' share in India's trade basket has risen to more than one-quarter of its total global trade in 2016 from approximately 17% in 2000.

Table 2 presents data on selected export partners of India in 2016. It shows that in 2016, India exported more to Mexico (US$3.38 billion) than to neighboring countries such as Thailand (US$2.96 billion), Myanmar (US$1.14 billion), and the Philippines (US$1.47 billion) and to traditional trade partners such as Canada (US$1.97 billion).

India has surpassed China in exports of pharmaceuticals to LAC. In 2016, India's exports of these were US$651 million, in comparison to China's US$404 million. In the last five years, India has been exporting more pharmaceuticals to Latin America than China. The major items India imported from Latin America in 2016-2017 were: crude oil (US$9.5 billion), vegetable oil (US$2.9 billion), and gold and precious stones (US$1.7 billion) (Vishwanathan, 2017).

This paper explores the determinants of recent bilateral trade flows between India and LAC, on the one hand, and India and other RCEP countries, on the other. Specifically, an augmented gravity model of international trade is empirically tested to investigate factors behind the volume and direction of trade between India and LAC and India and other RCEP countries.

The third section presents a brief literature survey about how gravity equations are useful for analyzing international trade flows. The gravity model has become a popular instrument in empirical foreign trade analysis. The fourth section presents the approach taken for the empirical analysis of determinants of India's exports to LAC countries and other RCEP countries. It describes the methodology used and includes a list of data sources and an explanation of the estimation technique. The fifth section tabulates and explains the estimation results, and the final section presents the general conclusions.

TABLE 1
SHARE OF SUBREGIONS IN INDIA'S TOTAL GLOBAL TRADE (PERCENTAGES)

REGION	2000	2005	2010	2016
Exports				
All RCEP countries (excluding India)	14.5	22.3	23	17.6
Latin America and the Caribbean	2.1	2.8	4.2	3.9
Rest of the World	83.5	74.9	72.8	78.4
Imports				
All RCEP countries (excluding India)	18.8	24.1	29.1	36.4
Latin America and the Caribbean	1.5	1.7	3.9	5.1
Rest of the World	79.7	74.2	67	58.5
Total Trade				
All RCEP countries (excluding India)	16.9	23.4	26.7	28.5
Latin America and the Caribbean	1.7	2.1	4	4.6
Rest of the World	81.4	74.5	69.3	66.9

Source: Based on data from WITS, World Bank.

25%

OF TOTAL IMPORTS COME FROM RCEP MEMBERS

BRIEF LITERATURE REVIEW

There is plenty of academic literature on the specifications and evolution of the gravity model to estimate international trade flows and on the use of this model in estimating these. In their literature survey, Ekanayake, Mukherjee, and Veeramacheneni (2010) acknowledge the wide use of the gravity model in the 1960s and 1970s along with the criticism it received because it lacked a strong theoretical foundation. The authors also mention economists' renewed interest in studying the interconnectedness of geography and economics and thus the revival in the popularity of the gravity model to estimate the impact of policies on trade flows.

Various studies have used gravity models to study the determinants of India's trade flows. Tripathi and Leitão (2013) examine the factors that determine India's trade flows with its major trading partners by defining diverse set of countries, namely, China, United Arab Emirates, United States, Saudi Arabia, Switzerland, Singapore, Germany, Hong Kong, Indonesia, Iraq,

Japan, Belgium, Kuwait, South Korea, Nigeria, Australia, United Kingdom, Iran, South Africa, and Qatar. With the help of a Tobit model, random effects, and a GMM-system estimator, the authors show that besides the economic size of the countries, political globalization and cultural proximity positively affect bilateral trade flows. The results obtained confirmed the expectations of the gravity model

Srinivasan and Archana (2011) evaluate the determinants of India's export flows by studying firms' decision to export. The authors use OLS, fixed effects, random effects, and a Tobit model to illustrate that a firm's decision to export, population size, and per capita income all positively impact exports while there is a negative relationship with tariffs and geographical distance. Exchange rate, common language, and regional trade agreements have also been used as explanatory variables.

Literature also exists on the use of gravity models to estimate trade creation and diversion effects. Ekanayake et al. (2010) used an augmented gravity model to estimate the trade creation and diversion effects of RTAs in Asian countries which are members of regional trade agreements (RTAs) implemented by regional groupings, namely ASEAN, the Bangkok Agreement, ECO, and SAARC. The authors used dummies for sharing a contiguous border, colonial linkages between the importer and exporter countries, a common language, bilateral and regional trade agreements, and regional groupings. The study not only concludes that there have been trade creation effects as a result of RTAs in Asia but also claims that the trade-enhancing effect of multilateral trade agreements is greater than that of bilateral trade agreements.

Recent literature, such as Shidore (2013) and Badri-Maharaj (2017), has ac-

TABLE 2
SELECTED EXPORT PARTNERS OF INDIA IN 2016

COUNTRY	India's Exports (Millions of US$) in 2016	Share of Global Exports of India in 2016 (%)
United States	41,993	16.1
United Arab Emirates	30,042	11.5
Hong Kong, China	13,210	5.1
China	8,916	3.4
United Kingdom	8,565	3.3
Singapore	7,355	2.8
Germany	7,178	2.8
Vietnam	5,958	2.3
Malaysia	4,189	1.6
Japan	3,827	1.5
South Korea	3,465	1.3
Mexico	3,375	1.3
Indonesia	3,132	1.2
Thailand	2,962	1.1
Brazil	2,300	0.9
Canada	1,970	0.8
Philippines	1,474	0.6
Myanmar	1,141	0.4
Rest of the World	109,275	42.0
World	260,327	100.0

Source: Based on data from WITS, World Bank

knowledged various economic as well as strategic aspects of India's integration with LAC. Lederman, Olarreaga, and Soloaga (2007) and Avendaño, Havro, and Santiso (2008) analyze the opportunities and challenges faced by LAC vis-à-vis the growth of China and India. Few studies have performed econometric examinations of trade flows between India and LAC. Lederman et al. (2007) use a gravity model to assess the threats and opportunities facing LAC due to the growth of China and India in world trade during the five-year period from 2000 to 2004. The paper concludes that the opportunities that LAC exporters were presented with outweighed the threats posed to them.

This paper adds to the existing scarce literature by econometrically examining bilateral trade flows between India and LAC countries in comparison to trade flows between India and other RCEP countries.

A GRAVITY MODEL

We set out to study the trade determinants of two regions: trade between India and LAC countries, on the one hand, and trade between India and RCEP countries, on the other. We divided the period under study into four time points: 1990, 2000, 2010, and 2016.

We estimated an augmented gravity model to analyze the trade flows of India with the trade partners in question. The model is "augmented" in that several conditioning variables that account for other factors that may affect trade have been included in addition to income and distance. Tinbergen (1962) and Pöyhönen (1963) were the first authors to apply the gravity equation to analyze international trade flows.

The basic gravity model proposed by Tinbergen (1962) is given by the equation:

$$EX_{ij}=C\left(\frac{GDP_i \cdot GDP_j}{D_{ij}}\right) \quad (1)$$

Where EXij is bilateral exports of country i (reporter) to country j (partner), economic mass is proxied by each country's respective GDP, and the distance (denoted by Dij), between countries is taken as an indication of the level of trade impediment. The higher the respective GDP size, the greater the possibility of bilateral trade taking place; however, this factor is inversely related to the bilateral physical distance. Furthermore, this process is impeded by trade costs (e.g., tariffs, lack of trade facilitating infrastructure, etc.)

We have augmented the basic gravity model by including various relevant independent variables that are expected to explain the factors behind India's export performance with LAC countries and other RCEP countries for four time periods: 1990, 2000, 2010, and 2016.

The independent variables include: the bilateral exchange rate between India and the partner country (either in LAC or RCEP countries); a GDP deflator for the reporter country (India); and the partner country's import-facilitating infrastructure, for which three variables are used: the cost of placing merchandise in the importing country, the documents required, and the time it takes the partner country to import. Two dummy variables were also included: one to capture the presence of a regional trade agreement between India and the partner country (which takes the value 1 if there exists a regional/bilateral trade agreement between bilateral pairs and 0 otherwise); and another to capture the existence of a common language between the reporter and partner countries. The above-mentioned variables, in addition to independent variables of the basic gravity model (GDP of India, GDP of the importing country, and the physical distance between India and importing country) are taken as independent variables to explain the determinants of bilateral exports from India to LAC countries and other RCEP countries separately for the time points in question (1990, 2000, 2010, 2016). Some variables are by definition time-invariant in a gravity-type model specification.

The augmented gravity model was used to assess the effect of trade facilitation and trade cost elements on bilateral exports between India and LAC countries and other RCEP countries. The specification of the equation for the model is as follows:

$$EX_{ijt}=f(GDP_{it}, GDP_{jt}, D_{ij}, ER_{ijt}, GDPDEF_{it}, CIM_{jt}, DIM_{jt}, TIM_{jt}, RTA_{ijt}, COM_{LANGij}) \quad (2)$$

(Note i: India (reporter country), j: partner country, t= time point (1990, 2000, 2010, 2016))

Where EXijt are exports from India to country j in time period t; GDPit is the GDP of India in time period t; GDPjt is the GDP of country j in time period t; Dij is the physical distance between country i (India) and country j; ERijt is the bilateral exchange rate between country i (India) and country j in time period t; GDPDEFit is the GDP deflator of country i (India) in time period t; CIMjtis the cost of per container in country j in time period t; DIMjtare the number of documents required in country j in time period t; TIMjt are the number of days required for importing in country j in time period t; RTAijt is the dummy variable for RTAs between country i and j in time period t; COMLANGij is the dummy variable for a common language between country i and j.

METHODOLOGY

This model was used to analyze the determinants of India's exports to LAC countries and other RCEP countries at the four different periods in question: 1990, 2000, 2010, and 2016. The data on India's exports, which is our dependent

variable, was taken from the World Bank's World Integrated Trade Solution (WITS). For the independent variables of the model, the data on reporter and partner countries' GDP and the reporter country's GDP deflator were taken from World Bank's World Development Indicators 2016.

The bilateral exchange rate data was taken from UNCTAD for the respective years. The CEPII database provided the statistics for variables such as distance and common language. The dummy variable for RTAs was constructed using data from UNESCAP. The data on import-facilitating infrastructure for partner countries was taken from the World Bank's Ease of Doing Business database.

ESTIMATION TECHNIQUE

In the model used in the study, the log of exports from India to each of the LAC countries is described as a function of the log of all the independent variables listed above. The same model is also taken for exports from India to each of the other RCEP countries.

$$\log(EX_{ijt})=\alpha_{ijt}+\beta_1 log(GDP_{it})+\beta_2 log(GDP_{jt})+\beta_3 log(D_{ij})+\beta_4 log(ER_{ijt})+\beta_5 log(GDPDEF_{it})+\beta_8 log(CIM_{jt})+\beta_9 log(DIM_{jt})+\beta_{10} log(TIM_{jt})+\beta_{11} RTA_{ijt}+\beta_{12} COM_{LANGij}+\mu_{ijt} \quad (3)$$

Where i (India) is the reporter country; j is the partner country; and t is the time point (1990, 2000, 2010, 2016).

We arranged the data in panel form for the four time points, using bilateral country pairs as panel identifiers (the first country in the pair represents India, the exporter, and the second country is the importer). We then ran an augmented gravity model to determine the factors behind India's exports to LAC countries and RCEP countries.

Our panel was balanced for LAC countries and unbalanced for RCEP countries. A country dummy is not included because it would create a multicollinearity problem. In an early attempt to account for heteroskedasticity as well as for temporal and spatial dependence in the residuals of time-series cross-section models, Parks (1967) proposed a feasible generalized least squares (FGLS) algorithm which was popularized by Kmenta (1986). However, this method is infeasible if the panel's time dimension T is smaller than its cross-sectional dimension N.

In order to mitigate the problems of the Parks-Kmenta method, Beck and Katz (1995) suggest relying on OLS coefficient estimates with panel-corrected standard errors, which is the method used in this article. The panel-corrected standard error (PCSE) regression method has been used to minimize the standard error and gaps in the data. PCSE regression is the most robust estimation for this data set for this extended time period. The estimation results are presented and briefly discussed in the next section.

RESULTS AND DISCUSSION

Table 3 below summarizes the empirical results obtained from estimating equation (3) based on OLS coefficient estimates with PCSEs for India's exports to LAC and RCEP countries.

From Table 3, we can clearly say that when the log of exports from India is regressed on the log of the independent variables specified in equation (2), both for LAC countries and other RCEP countries, the GDP coefficients of the reporter country (in this case, India) and partner countries (both LAC and RCEP countries) are positive and significant at the 1% level. The growth in the GDPs of India and its partner countries will help to increase total trade value, in line with our expectations.

Geographical distance is statistically significant and estimated to impair exports from India to other RCEP countries. In the case of LAC countries, as geographical distance increases, exports from India are impaired but the effect is not significant. We know that distance does not always play a significant role in determining trade. In 2016-2017, the United States was India's largest export partner (table 2), even though the geographical distance between the two countries is large.

In the case of partner countries' import-facilitating infrastructure, the cost and time taken to import to RCEP countries reduce India's exports to these countries and this effect is statistically significant, in line with our expectations. The signs of import-facilitating infrastructure in LAC countries are as expected. As discussed, the existing trade volume between India and LAC countries is quite low as compared to RCEP countries. Given this, if the cost, time taken, and documents required by India in exporting to LAC countries increase, there will be a negative impact on exports. However, documents required was the only statistically significant variable. On the other hand, the effect of documents required on RCEP countries was positive and statistically significant. This may be due to the fact that RCEP countries account for a major share of India's exports. Another explanatory factor may be that the economies of scale within the region mean that the number of documents required helps facilitate trade rather than impede it. Also, the number of documents required actually does not capture the processing time for those documents, which will be different for RCEP and LAC countries.

The bilateral exchange rate between India and partner countries is considered as an independent variable. International trade usually takes place in hard currencies that are globally traded and that serve as a reliable, stable store of value, such as the US dollar. The effect of the bilateral exchange rate on India's exports to LAC countries and RCEP countries is negative and statistically significant. The sign of India's GDP deflator's effect on exports to LAC and other RCEP countries is negative. It is statistically significant in case of LAC and insignificant in case of RCEP countries. Higher inflation may have a negative effect on exports as it increases input costs. The availability of cheaper import products affects indigenous producers and exporters. This effect may be insignificant for RCEP countries since India has entered into FTAs with some of these countries.

The dummy variable for common language has a positive and statistically significant effect on India's exports to both LAC and RCEP countries. Another dummy variable, the existence of RTAs, has a positive sign in the case of RCEP countries but is not statistically significant. This is due to the fact that RTAs and FTAs are a very recent phenomenon and India does not have an FTA with all the countries in the region. Also, India currently does not have an FTA with countries such as China, which is among India's major export partners in RCEP countries. In the case of LAC countries, the RTA dummy has a negative sign and is not statistically significant since India mostly does not have RTAs with the region. Various studies have shown that RTAs have the potential to increase a country's exports volumes substantially.

POLICY RECOMMENDATIONS

The objective of this paper was to analyze the determinants of India's ex-

ports to LAC countries, on the one hand, and India's exports to RCEP countries, on the other. With this aim, we applied an augmented gravity model to annual exports from India to LAC and other RCEP countries for four time points between 1990 and 2016.

Our results, in a way, confirm the fact that India has not sought to project itself effectively in LAC and has adopted a passive approach towards building bilateral and regional ties. Geographical distance has not played a statistically significant role in explaining the low volumes of trade between India and LAC over the years. In 2016–2017, the US was India's largest export partner even though the distance between the two countries is huge. Unlike with LAC countries, India has enjoyed economies of scale with the US as the latter is the hub of global economic activity. On the other hand, in case of other RCEP countries, proximity to India was found to be a statistically significant factor in determining India's increasing exports there. Likewise, India has recently taken various steps to build bilateral as well as regional ties with RCEP countries.

For these reasons, India should take steps to explore new opportunities to improve trade prospects with LAC. The two should contemplate signing bilateral FTAs or negotiating and signing RTAs to improve these regional ties. In order to address the existing information gap between India and LAC, a policy needs to be articulated to guide the future direction of bilateral relations.

Throughout 2015, India's total exports in US dollars were significantly lower than in the corresponding months of the preceding year. It must be recognized that the global economic situation has been difficult for some time. The financial crisis that surfaced in the US in late 2008 led to a sharp contraction in world trade that was much greater than the fall in global output. The aftermath of this, the Great Recession, persists even now. India thus needs to diversify its exports partners to regions such as LAC in order to ensure sustainability of its overall trade. To address the existing asymmetric trade between India and LAC and the issue of empty container accumulation, which leads to high freight costs for trade, India could take advantage of some of the US-bound shipping lines and enhance trade prospects between the US, India, and LAC.

Therefore, to improve trade relations with LAC, governments should seek serious trade policy changes. FTAs could prove to be one of the most important tools for strengthening trade between LAC and India. They would help to make India more competitive in LAC markets and may rectify the scale effect problem while also helping to overcome the negative effect of the distance factor in the gravity model. Consequently, in addition to recommending comprehensive economic partnership agreements between India and LAC, including trade in goods, trade in services, and investment, we believe that both sides must work to improve air and maritime connectivity. An FTA would help break the vicious circle of low volumes of trade which further increases shipping and other transportation costs. Through an FTA, high volumes of potential trade could become a negotiating tool vis-à-vis shipping lines, freight forwarders, and air-cargo handlers.

TABLE 3
AUGMENTED GRAVITY MODEL REGRESSION RESULTS

INDEPENDENT VARIABLES	LAC	RCEP countries (except India)
$logGDP_{it}$	1.033***	0.721***
	(0.089)	(0.128)
$logGDP_{jt}$	0.752***	0.990***
	(0.042)	(0.049)
$logD_{ij}$	-0.320	-1.713***
	(0.582)	(0.214)
$logER_{ijt}$	-0.063***	-0.079**
	(0.013)	(0.035)
$logGDPDEF_{it}$	-0.192***	-0.063
	(-0.012)	(0.041)
$logCIM_{jt}$	-0.140	-1.644***
	(0.221)	(0.293)
$logDIM_{jt}$	-0.365*	1.565***
	(0.220)	(0.292)
$logTIM_{jt}$	-0.319	-0.850***
	(0.297)	(0.245)
RTA_{ijt}	-0.011	0.119
	(0.100)	(0.234)
COM_{LANGij}	0.393**	1.012***
	(0.182)	(0.202)
Constant	-29.978***	-8.021***
	(5.522)	(2.467)
R squared	91.9%	92.9%
Number of observations	65	38

Note: 1) Dependent variable: EX_{ijt} stands for exports from India to country j at time point t
2) PCSE in parentheses
3) ***, **, *: statistically significant at 1%, 5%, and 10%, respectively
Source: Based on data from WITS, World Bank

NOTES
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SOUTH-SOUTH INTEGRATION

RECENT ECONOMIC REFORMS HAVE LED TO A GROWTH IN TRADE AND LAID THE FOUNDATIONS FOR GREATER SOUTH-SOUTH EXCHANGES OF GOODS AND SERVICES

Global Value Chains and Business Environment

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Indian hotels are doing well globally because Indians understand hospitality.

Zubin Mehta

THIS PAPER ANALYSES THE UNEXPLORED TOPIC OF INDIA–LATIN AMERICA GLOBAL VALUE CHAIN (GVC) TRADE AND ITS LINKS WITH NATIONAL BUSINESS ENVIRONMENTS AND TRADE DIPLOMACY. IT FINDS EVIDENCE OF GROWING INDIA–LATIN AMERICA GVC TRADE AND PROJECTS A POSITIVE OUTLOOK IN AN EVOLVING NEW NORMAL WITHIN THE WORLD ECONOMY. IMPLEMENTING STRUCTURAL REFORMS, DEEPENING FREE TRADE AGREEMENTS BEYOND GOODS TRADE, AND INCREASING PRIVATE-SECTOR ENGAGEMENT COULD STRENGTHEN EXISTING TIES.

India has actively built economic ties with major powers and neighbors over several decades with varying degrees of success. Yet Latin America was conspicuously absent due to vast geographical distance, a lack of cultural and linguistic linkages, few diaspora connections and the region's relative unimportance in Indian trade diplomacy (Tharoor, 2012; Desai, 2015). However, this is gradually changing with increased trade between India and Latin America (Moreira, 2010; ECLAC, 2011; ADB, ADBI and IDB, 2012). ECLAC (2012). Up to now, specialization and trade has largely involved Indian final goods manufactures and information technology (IT) services in exchange for Latin American commodities. What is unclear is whether interregional trade has deepened into parts and components trade or global value chain (GVC) trade, which is vital for a sustainable economic partnership between the two.

This paper examines patterns of India–Latin America GVC trade and its links with national business environments and trade diplomacy. Using the so-called gross trade approach (see Constantinescu, Mattoo, and Ruta, 2015), it charts patterns of India–Latin American GVC trade by intermediate goods sectors and trading partners since 2000. This exercise reveals the impact of the global financial crisis on this trade and projects its value through to 2025. It then compares national business environments across countries (see Lall, 1990; Dabla-Norris et al., 2013) to identify barriers to India–Latin America GVC trade. Finally, it assesses efforts at trade diplomacy and free trade agreements (FTAs).

TRADE AND VALUE CHAINS

GVC trade can be described as production networks, production fragmentation, or global value chains, all of which essentially mean the same basic concept with subtle differences. The point is that this type of trade entails a

45%

OF INDIAN IMPORTS FROM LATIN AMERICA COME FROM THE PACIFIC ALLIANCE

sophisticated form of industrial organization which is different from a textbook idea of a single large vertically integrated factory in any one country.

GVC trade involves different production stages, such as design, assembly, and marketing, across different countries, linked by a complex web of trade in intermediate inputs and final goods (Jones and Kierzkowski, 1990). A lead company, usually a multinational corporation, coordinates the different stages of production and trade. For example, the Toyota Prius, a hybrid electric mid-size hatchback car for the US market, was designed in Japan and is largely assembled there, but some parts and components are made in Southeast Asia and China. Parts and components trade occurs between Japan and its Asian suppliers while Japan exports the Prius to the US.

GVC trade is part of the globalization of trade and investment in the late 20th century. As Baldwin and Lopez-Gonzales (2015) observe: "Internationalization of production has given rise to complex cross-border flows of goods, know-how, investment, services and people—call it supply-chain trade for short… Among economists, however, it is typically viewed as trade in goods that happens to be concentrated in parts and components."

Early signs of GVC activity were visible around the 1970s in the clothing and electronics industries. It has since penetrated many industries including other consumer goods, food processing, motor vehicles, aircraft, and machinery. The role of services in GVC trade (e.g., engineering services, IT services, and professional services) is increasingly important but has been underestimated due to serious data problems.

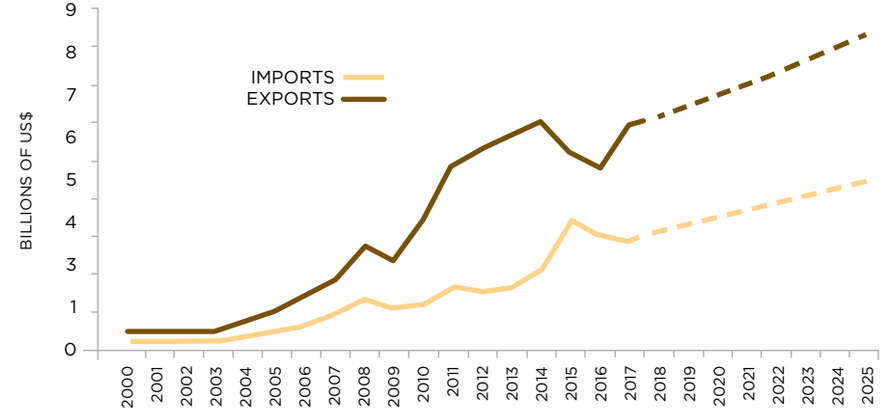
The mainstay of empirical work on GVC trade by international economists has involved identifying these flows of intermediate goods, particularly trade in parts and components, using national trade data from the UN Comtrade Database (see, for example, Constantinescu et al. 2015). The advantage of this so-called gross trade approach affords comprehensive, consistent, and up-to-date time series coverage of parts and components trade for nearly all countries in the world. More recently, with the development of similar harmonized international input–output tables for some countries, another approach has been developed, which seeks to measure trade in terms of value added (for example, WTO and IDE-JETRO 2011). Using this methodology, growth in the measured degree of imported input dependence between two points in time is interpreted as an indicator of GVC trade. However, the problem is that input–output tables are either lacking or out of date for Latin American economies.

Accordingly, this paper applies the gross trade approach to examine trade in intermediate goods between India and Latin America in connection with GVCs. There is no one method for decomposing international trade data into parts and components and final assembled goods. An approximate way is to list specific items in which GVC imports are significantly concentrated and to use the total value of these items as an indicator of a country's trade in connection with GVCs. Based on Constantinescu et al. (2015), three import categories were selected: (1) parts and accessories of capital goods except for transportation equipment; (2) parts and accessories of transportation equipment; and (3) industrial supplies not elsewhere specified (processed). These authors report the total value of parts and components imports expressed as a ratio of total manufactured exports, which will be referred to here as the value chain index.

In interpreting the data, it is worth bearing in mind that the world economy seems to be recovering. It grew at 3.1% in 2016 and is forecast to grow at 3.5% in 2017 and 3.6% in 2018 (IMF, 2017). The main reason for the recovery is that successive shocks including the global financial crisis of 2007-2009 and the commodity price falls of 2014-2015 are abating. Most economies are now recovering. India remains one of the world's fastest-growing economies while Latin America is projected to transit from negative to positive growth. One might therefore reasonably expect GVC trade (including that between India and Latin America) to expand.

Research using the gross trade approach shows that although India and Latin America had different historical involvements, their shares in this type of trade have risen since the financial crisis. It is true that the historical role of each has been different. India is a latecomer and its share of world value chain exports rose from 0.45% to 0.84% between 2001-2004 and 2009-2013 (Wignaraja, 2016). Latin America was an earlier entrant and has a much larger share, which also rose from 5.14% to 5.56% between the two subperiods. Mexico dominates the region with a share in these flows that

FIGURE 1
INDIA'S GVC TRADE WITH LATIN AMERICA (IN BILLIONS OF US$)



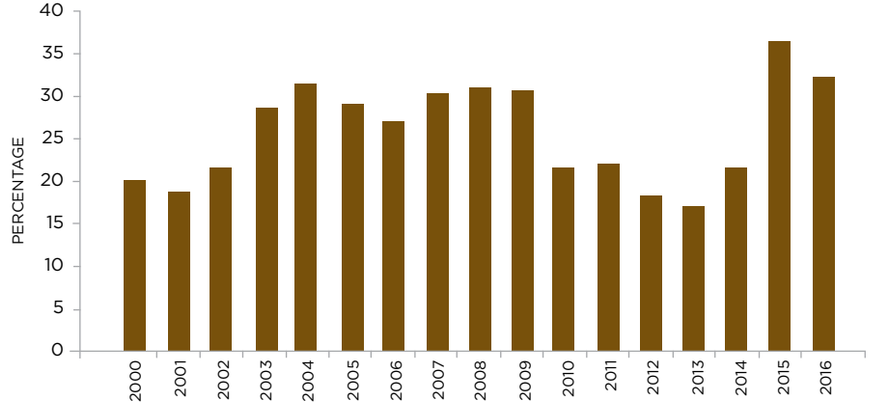
Notes: Projections for 2017-2025 were estimated using the Hodrick-Prescott filter in Eviews.
Source: Comtrade

increased from 3.82% to 4.10%. Meanwhile, Brazil's share fell from 0.45% to 0.35%, Argentina's rose from 0.09% to 0.22%, and Chile's stagnated at 0.01%. The share for the rest of Latin America increased from 0.77% to 0.88%.

Figure 1 shows the annual value of India's total GVC imports and exports to Latin America (in current US$) from 2000 to 2016 with a projection to 2025. During 2000-2016, India's GVC imports from Latin America grew at 20.4% per year while its GVC exports to Latin America grew at 15.7%. In 2016, the value of India's GVC imports from Latin America was US$3.1 billion (up from a minuscule US$157 million in 2000) while the value of its GVC exports to Latin America was US$4.8 billion (up from US$467 million in 2000). Accordingly, the value of India–Latin America GVC trade reached nearly US$8 billion in 2016 (or equivalent to 28.1% of total India–Latin America trade).

India–Latin America GVC trade is conservatively projected to increase to US$12.8 billion in 2025 (see figure 1). This projection includes India's GVC imports from Latin America, which are worth US$4.5 billion, and its GVC exports of US$8.3 billion.[1] Many risks surround a long-term projection for India–Latin America GVC trade and the positive outlook is likely to be tilted to the downside. There are also several risks around an evolving new normal world economy and shifts in the global balance of economic power. Some of these include the imposition of trade-restricting measures, macroeconomic policy uncertainty, sudden falls in growth and demand in India and Latin America, and disruptive technological changes (for example, artificial intelligence and robotization). If these risks are not effectively managed, the expansion of India–Latin America GVC trade may be pegged back.

FIGURE 2
VALUE CHAIN INDEX FOR INDIA–LATIN AMERICA GVC TRADE (IN PERCENTAGES)



Note: The value chain index is based on Indian imports of parts and components from Latin America as a share of its manufacture exports to the region. The goods included as parts and components are defined in figure 1. Intermediate goods are defined as the sum of categories 5, 6, 7, and 8 (excluding 68) from the SITC.
Source: Comtrade.

The financial crisis had a limited impact on India–Latin America GVC trade. The emergence of this type of trade was visible before the financial crisis. Such trade increased from US$0.62 billion to US$2.2 billion between 2000 and 2006. It doubled during the crisis to US$4.1 billion 2008 and doubled again after the crisis to US$8.2 billion in 2014, before peaking at US$8.7 billion in 2015 and falling in 2016.

Applying the proxy suggested by Constantinescu et al. (2015), the authors of the gross trade approach to measuring GVC trade confirm the rapid expansion of this between India and Latin America despite a brief fall after the crisis. The results of the chain index estimation are interesting. The ratio of GVC trade increased in the years before the crisis—from 20.1% to 29.3% between 2000-2002 and 2004-2006—and was high during the crisis, reaching 30.7% in 2007-2009. It then fell in the immediate aftermath of the crisis to 19.8% in 2010-2013 but soon recovered to previous levels of 30.0% in 2014-2016. Interestingly, this ratio peaked at 36.4% in 2015 and fell to 32.3% in 2016.

India–Latin America GVC trade is characterized by commodity concentration. Figure 3 shows the shares of the three main categories for this type of trade between India and Latin America for 2000-2002 and 2014-2016. The bulk of such trade occurs in industrial supplies, and the pattern has been stable over the period. The share of industrial supplies in India's GVC imports from Latin America rose significantly from 73.7% to 87.4% between 2000-2002 and 2014-2016 while the sector's share in India's GVC exports to Latin America rose from 76.5% to 78.4%. Meanwhile, transportation equipment fell significantly in India's GVC imports from Latin America, from 16.4% to 4.3%, while its GVC exports went from 17.0% to 14.0%. There is limited interregional trade in capital goods, whose import share fell from 9.9% to 8.3% while its export share rose from 6.4% to 7.6%.

International e-commerce is highly concentrated in a handful of Latin American countries: Table 1 shows the shares of Latin American economies in GVC trade with India for 2000-2002 and 2014-2016. The rise of the Pacific Alliance and the decline of Mercosur is visible in this data.[2] The share of the Pacific Alliance in India's imports rose significantly from 29.0% to 45.2% between 2000-2002 and 2014-2016, respectively, and its share of India's exports rose from 39.8% to 48.6%. In contrast, Mercosur's share of India's imports fell from 69.9% to 37.4% and its share of India's exports fell from 46.9% to 39.1%. CARICOM and the rest of Latin America experienced a rise in their shares of India's imports and a decline in their shares of India's exports.[3]

Seven Latin American economies dominate GVC trade with India. In spite of a large fall in its share of India's GVC imports, Brazil remains India's largest GVC trade partner (with 29.4% of GVC imports and 29.7% GVC exports). Mexico is second and has seen a rise in its share of India's GVC exports over the same period. In 2014-2016, Mexico had 13.2% of India's GVC imports and 26.4% of its GVC exports. Peru and Colombia came next, with notable increases in this type of trade with India. In 2014-2016, Peru accounted for 13.1% of India's GVC imports and 8.8% of its exports while Colombia made up 11.4% and 9.1% of these, respectively. Other important Latin American GVC trader partners with India include Chile, Ar-

gentina and unexpectedly, the Dominican Republic.

THE BUSINESS ENVIRONMENT

Many location-specific and policy factors influence firms in the process of building the manufacturing capabilities needed to participate in GVC trade (Kimura and Obashi, 2016). Numerous government regulations affect trade, logistics, setting up businesses, corporation tax, and resolving disputes. Value-side factors and markets also matter, including trade-related infrastructure, labor productivity, finance, and institutions. Crime and corruption affect firms. Lall (1990) and Dabla-Norris et al. (2013) suggest that cross-country comparisons of national business environments provide valuable policy insights. ADB, ADBI, and IDB (2012) and World Bank (2015) offer preliminary studies of barriers to Asia-Latin America trade. Drawing on this tradition, this article compares various indicators of the business environment in India and Latin America to identify barriers to GVC trade between them. To keep the task manageable, these indicators are examined under four headings: (1) trade and investment regulations, (2) behind-the-border regulations, (3) trade infrastructure and logistics, and (4) labor productivity (see table 2).

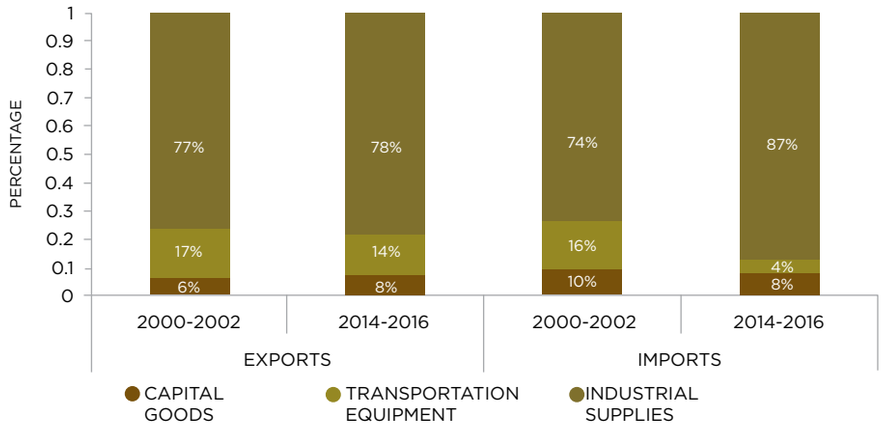
TRADE AND INVESTMENT REGULATIONS

Open trade and investment regimes are the cornerstones for enhancing India–Latin America GVC trade. Low import barriers facilitate trade in parts and components, resource allocation according to comparative advantage, and competition between firms such that they upgrade labor productivity and technological capabilities. As GVC trade is largely driven by multinationals, low barriers to entry encourage interregional capital flows in GVC manufacturing activities, technology transfer, and marketing linkages.

India's import tariffs for manufactures have fallen since the mid-2000s and are on par with the average for Latin America. Between 2006 and 2016, India's average tariffs for manufactures fell from 16.4% to 10.1%, compared to a reduction from 9.3% to 9.0 for Latin America. Three Pacific Alliance economies (Mexico, Peru, and Colombia) experienced large tariff reductions to historically low levels of under 6.0% while Chile maintained low tariffs. In contrast, Mercosur's two largest economies increased their tariffs well above Indian levels: from 12.6% to 14.2% in the case of Argentina and from 12.6% to 14.1% in that of Brazil.

India's foreign direct investment (FDI) regime has improved since the mid-2000s but is less open than some Latin American economies. An FDI regulatory restrictiveness index is available from the OECD for 2006 and 2016. This indicator seeks to gauge the restrictiveness of a country's FDI regulations by considering various restrictions: foreign equity limitations, approval mechanisms, restrictions on employing foreign labor, and operational restrictions (such as restrictions on

FIGURE 3
INDIA'S GVC TRADE WITH LATIN AMERICA BY PRODUCT (IN PERCENTAGES)



Source: Comtrade.

TABLE 1
INDIA'S GVC TRADE WITH LATIN AMERICA ECONOMIES

	India's Total GVC Exports (in millions of US$)		India's Total GVC Imports (in millions of US$)		Share of India's Total GVC Exports (%)		Share of India's Total GVC Imports (%)	
	2000-2002	2014-2016	2000-2002	2014-2016	2000-2002	2014-2016	2000-2002	2014-2016
LATIN AMERICA	1.541,55	16,187.14	529.12	8,580.12	100	100	100	100
BRAZIL	451.81	4,802.37	277.97	2,522.36	29.3	29.7	52.5	29.4
MEXICO	359.96	4,277.96	91.95	1,130.08	23.4	26.4	17.4	13.2
PERU	59.32	1.417,69	31.36	1,127.26	3.8	8.8	5.9	13.1
COLOMBIA	110.99	1,480.42	2.69	982.08	7.2	9.1	0.5	11.4
CHILE	82.58	691.46	27.37	637.61	5.4	4.3	5.2	7.4
ARGENTINA	124.91	939.67	72.93	276.54	8.1	5.8	13.8	3.2
DOMINICAN REP	17.80	229.92	0.52	1,260.55	1.2	1.4	0.1	14.7
VENEZUELA	82.19	153.45	12.57	78.95	5.3	0.9	2.4	0.9
ECUADOR	15.15	386.29	1.72	72.17	1	2.4	0.3	0.8
COSTA RICA	10.97	82.91	1.87	133.53	0.7	0.5	0.4	1.6
GUATEMALA	26.00	360.57	0.09	0.34	1.7	2.2	0	0
BAHAMAS	1.89	1.82	0	2.85	0.1	0	0	0
HONDURAS	33.33	330.21	0.38	2.22	2.2	2	0.1	0
URUGUAY	48.07	219.75	2.49	6.73	3.1	1.4	0.5	0.1
TRINIDAD AND TOBAGO	15.50	144.23	0.05	12.42	1.0	0.9	0	0.1
BOLIVIA	2.21	45.94	2.78	313.42	0.1	0.3	0.5	3.7
PANAMA	41.58	109.67	0.09	1.91	2.7	0.7	0	0
PARAGUAY	13.96	173.02	1.28	7.94	0.9	1.1	0.2	0.1
EL SALVADOR	6.56	107.34	0.08	0.43	0.4	0.7	0	0
NICARAGUA	10.78	69.51	0.02	0.59	0.7	0.4	0	0
HAITI	8.20	61.10	0.04	2.32	0.5	0.4	0	0
JAMAICA	8.31	32.53	0.02	0.67	0.5	0.2	0	0
GUYANA	4.09	30.43	0.16	0.40	0.3	0.2	0	0
SURINAME	2.24	24.11	0.68	6.00	0.1	0.1	0.1	0.1
BARBADOS	2.37	7.55	0	0.16	0.2	0	0	0
BELIZE	0.79	7.23	0.02	0.63	0.1	0	0	0

GSC = Global supply chain; LAC = Latin American and the Caribbean
Source: Author's calculations based on UN Comtrade Database. Accessed April 18, 2017. https://comtrade.un.org/data/.

capital repatriation). A high score on the FDI index indicates greater restrictiveness. However, the FDI index does not fully measure how FDI regulations are implemented and state ownership in key sectors are not captured. Furthermore, India is included but the FDI index only covers Argentina, Brazil, Chile and Mexico for both years and Colombia, Costa Rica and Peru for 2016.

Keeping these qualifications in mind, India's FDI index fell from 0.282 to 0.212 between 2006 and 2016. The average FDI index for the four Latin American economies, which fell from 0.0985 to 0.0955, indicates greater openness to FDI than India. Surprisingly, Mexico—the largest Pacific Alliance economy—is the most restrictive to FDI in Latin America. Mexico's FDI index fell slightly from 0.211 to 0.193. Chile—another key Pacific Alliance economy—saw its FDI index falling from 0.063 to 0.057. The two largest Mercosur economies had a rise in their FDI indices, with Brazil's going from 0.095 to 0.101 and Argentina's from 0.025 to 0.031. Meanwhile, the two smaller Pacific Alliance economies, Colombia and Peru were relatively open to FDI in 2016, as was Costa Rica.

TABLE 2, PANEL A
BUSINESS ENVIRONMENT IN INDIA AND LATIN AMERICAN ECONOMIES

	SIMPLE AVERAGE MFN TARIFFS -MANUFACTURED GOODS (%)[A]		FDI REGULATORY RESTRICTIVENESS INDEX[C]		STARTING A BUSINESS (2017)[C]	
	2006	2016	2006	2016	NO. OF PROCEDURES	TIME (DAYS)
INDIA	16.4	10,1	0.282	0.212	13	26
LATIN AMERICA	9.3	9,0	-	-	8	31.6
BRAZIL	12.6	14.1	0.095	0.101	11	79.5
MEXICO	13.3	5.7	0.211	0.193	8	8.4
PERU	9.7	2.4		0.077	6	26
COLOMBIA	11.8	4.1	-	0.026	6	9
DOMINICAN REP.	7.8	6.4	-	-	7	14.5
ARGENTINA	12.6	14.2	0.025	0.031	14	25
CHILE	6.0	6.0	0.063	0.057	7	5.5
BOLIVIA	8.1	11.5	-	-	14	45
ECUADOR	11.3	10.9	-	-	11	48.5
GUATEMALA	5.0	4.9	-	-	7	19.5
HONDURAS	4.9	5.0	-	-	11	13
PARAGUAY	10.0	9.8	-	-	7	35
URUGUAY	10.7	10.6	-	-	5	6.5
TRINIDAD AND TOBAGO	6.6	9.4	-	-	7	10.5
VENEZUELA	12.7	13.0	-	-	20	230
COSTA RICA	4.9	4.6	-	0.049	9	22.5
PANAMA	6.4	6.0	-	-	5	6
EL SALVADOR	5.0	5.0		-	8	15.5
NICARAGUA	4.9	4.9	-	-	6	13
HAITI	2.4	4.2	-	-	12	97
JAMAICA	5.8	6.7	-	-	2	10
GUYANA	9.6	9.3	-	-	7	18
SURINAME	-	9.2	-	-	14	84.5
BARBADOS	11.0	9.6	-	-	8	21.5
BAHAMAS	31.2	36.1	-	-	8	21.5
BELIZE	9.3	9.3	-	-	9	43

BEHIND-THE-BORDER REGULATIONS

Transparent, predictable and fair behind-the-border regulations help to create an environment with low transaction costs for India–Latin America GVC trade. They facilitate the entry of FDI into GVC manufacturing activities and domestic firms as competitive industrial suppliers. A key indicator of behind-the-border regulations is the number of licenses and permits required to start a business and the time taken (in calendar days), which the World Bank provides for 2016.

TABLE 2, PANEL B
BUSINESS ENVIRONMENT IN INDIA AND LATIN AMERICAN ECONOMIES

	INFRASTRUCTURE QUALITY, 2016-2017 (1-7 WORST TO BEST)[D]		OVERALL LPI SCORE (1=LOW TO 5=HIGH)[B]		LABOR PRODUCTIVITY (GDP PER PERSON EMPLOYED)[E]	
	PORT	AIR TRANSPORT	2007	2017	AS A % OF US VALUE	ANNUAL AVERAGE GROWTH (2013-2015)
INDIA	4.4	4.5	3.07	3.42	13	5,2
LATIN AMERICA	3.9	4.3	2.57	2.68	29	-0.1
BRAZIL	2.9	3.9	2.75	3.09	25	-1.3
MEXICO	4.4	4.6	2.87	3.11	37	0.9
PERU	3.6	4.1	2.77	2.89	23	2.2
COLOMBIA	3.7	4.2	2.5	2.61	23	2.1
DOMINICAN REP.	4.6	4.8	2.38	2.63	29	3.7
ARGENTINA	3.8	4.1	2.98	2.96	42	0.4
CHILE	4.9	4.9	3.25	3.25	46	0.7
BOLIVIA	2.2	3.9	2.31	2.25	12	3.4
ECUADOR	4.7	5.1	2.6	2.78	25	0.2
GUATEMALA	3.7	3.9	2.53	2.48	22	3.3
HONDURAS	4.5	4.1	2.5	2.46	-	-
PARAGUAY	3.1	2.6	2.57	2.56	-	-
URUGUAY	4.8	4.4	-	2.97	38	3.0
TRINIDAD AND TOBAGO	3.8	4.3	-	2.40	60	-1.5
VENEZUELA	2.6	2.7	2.62	2.39	36	-4.7
COSTA RICA	3.2	4.6	2.55	2.65	27	0.6
PANAMA	6.3	6.2	2.89	3.34	-	-
EL SALVADOR	3.5	4.3	2.66	2.71	-	-
NICARAGUA	2.8	3.6	2.21	2.53	-	-
HAITI	-	-	2.21	1.72	-	-
JAMAICA	4.7	5.0	2.25	2.40	18	-0.5
GUYANA	-	-	2.05	2.67	-	-
SURINAME	-	-	-	-	-	-
BARBADOS	4.9	5.3	-	-	31	0.3
BAHAMAS	-	-	-	2.75	-	-
BELIZE	-	-	-	-	-	-

Note: 1 = extremely underdeveloped—among the worst in the world; 7 = extensive and efficient—among the best in the world; weighted average for 2013–2014. The latest tariffs for Barbados, Suriname, and Trinidad and Tobago are from the WTO Tariff Profiles 2015.
Sources: [a] WTO Tariff Profiles 2006 and WTO Tariff Profiles 2016. Accessed April 2017. http://stat.wto.org/TariffProfile/. [b] International LPI Global Ranking. Accessed April 2017. http://lpi.worldbank.org/international/global/. [c] World Bank Doing Business Rankings 2017. http://www.doingbusiness.org. [d] Schwab (2016). [e] The Conference Board Total Economy Database, May 2016, http://www.conference-board.org/data/economydatabase/.

Chile (5.5 days for 7 procedures), Mexico (8.4 days for 8 procedures) and Colombia (9 days for 6 procedures) are stellar examples. Within Latin America, the Pacific Alliance economies are noteworthy for having streamlined business start-up procedures which are better than India's. Chile (5.5 days for 7 procedures), Mexico (8.4 days for 8 procedures) and Colombia (9 days for 6 procedures) are stellar examples. Peru (26 days for 6 procedures), however, lags behind more efficient Pacific Alliance economies, as it takes a similar time to complete fewer start-up procedures there than in India. The Mercosur economies vary considerably in the efficiency of business start-up regulations. Uruguay seems the most efficient (6.5 days for 5 procedures) while in Venezuela it takes as much as 230 days for 20 procedures. Brazil seems to be tilted toward the less business-friendly end of the spectrum, requiring 79.5 days to complete 11 procedures while in Argentina it takes 25 days to undertake 14 procedures.

TRADE INFRASTRUCTURE AND LOGISTICS

GVCs involve the dispersion of manufacturing activities over geographical space connected by trade in parts, components, and services. Efficient and reliable infrastructure and logistics reduce the costs of undertaking GVC manufacturing and trade. However, the vast geographical distance between India and Latin America implies lengthy value chains which are susceptible to many barriers that can obstruct the free movement of goods from one link in the chain to the next. Poor ports and airports, customs delays, and weak logistics systems all imply barrier-related costs can be substantial and contribute to long lead times, high inventory costs, tying up working capital, and canceled orders.

Intercountry comparisons of the quality of trade infrastructure such as ports and airports are difficult due to measurement problems, statistical gaps, and the inherently subjective nature of such evaluations (ADB and ADBI 2009). The World Economic Forum provides one such evaluation for 2016-2017 based on a survey of global business leaders' perceptions and hard data indicators. A value of 7 in the scoring system used shows the best possible situation and 1 the worst. There seems little difference between India (4.5) and Latin America (4.3) in the quality of airports. In terms of the quality of ports, however, India (4.4) fares quite well compared to the average for Latin America (3.9). Within the Pacific Alliance, Chile (4.9) and Mexico (4.4) have better ports than Colombia (3.7) and Peru (3.6). Meanwhile, the quality of ports in Mercosur appears to be a concern for business. Paraguay (4.5) and Argentina (3.8) fare better than Uruguay (3.1), Brazil (2.9) and Venezuela (2.7).

Similar problems beset intercountry comparisons of trade logistics. The World Bank's Logistics Performance Index (LPI), which is based on a worldwide survey of operators, indicates the efficiency with which goods can be moved into and inside a country. The LPI captures customs clearance, the quality of logistics services, and the quality of infrastructure. A value of 5 shows high efficiency and 1 low efficiency. The data suggest although LPI scores have improved between 2007 and 2017, India's trade logistics core (3.42) suggest that it is more efficient than the average for Latin America (2.68). There seems to be a long tail of logistics under-performance in Latin America as even the best performers, Chile and Mexico, are below Indian levels.

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THE AVERAGE NUMBER OF DAYS IT TAKES TO START A BUSINESS IN INDIA

LABOR PRODUCTIVITY

Labor productivity growth and lower unit costs are key determinants of the competitiveness of firms in India–Latin America GVC trade. High labor productivity levels are associated with improvements in price, quality, and delivery, bringing them up to world standards. However, measuring labor productivity is problematic and comparable cross-country data is lacking for developing countries. Fortunately, a crude measure—GDP per person employed (as a percentage of US levels)—is provided by the Canadian Conference Board Total Economy Database for India and key Latin American economies for 2015. Even after a decade or more of catching up, productivity levels in India and Latin America remain considerably lower than in mature economies. In 2015, India's output person was only 11% of the US level while the average for Latin America was 29%. Among Pacific Alliance economies, Chile had the highest output per person, with 46%, while Mexico was next, with 37%. Colombia and Peru came some way behind (both with 23%). With 42%, Argentina topped Mercosur's output per person league while Brazil (25%) and the other members lagged behind.

ROLE OF TRADE DIPLOMACY AND FTAS

After decades of lackluster interest, signs of enhanced trade diplomacy between India and Latin America are emerging. There has been a flurry of visits by the Indian prime minister to Latin America. In July 2014, a month after his election, Prime Minister Modi participated in the BRICS Summit in Brazil. He met with several regional leaders and promised augmented Indian engagement with Latin America. In June 2016, after a thirty-year gap in prime ministerial visits, Mr. Modi visited Mexico to develop bilateral relations in trade, investment, and technology. In 2018, he is scheduled to attend the G-20 Summit in Argentina. Recent Indian efforts reflect growing trade with the US$5 trillion Latin American market, a bid to improve energy security (Brazil, Columbia, Mexico, and Venezuela supply 20% of Indian crude oil imports), and a desire to compete with China's significant economic presence in Latin America. Latin America's aim to boost Indian ties is to lower overdependence on Chinese imports (which are viewed as harmful to local businesses) and the risks of trade protectionism.

Although only two limited FTAs are in effect between India and Latin American economies, attempts are being made to expand their coverage. The preferential trade agreement (PTA) which has been in force between India and Chile since August 2007 provided concessions on a few tariff lines. India's offer list included 178 tariff lines while Chile's contained 296. An expanded PTA was implemented in May 2017 and

3.4

THE LOGISTICS PERFORMANCE INDEX FOR INDIA. LAC'S IS 2.8

improved tariff concessions were provided by both sides to increase the trade in goods in both directions. India's offer list rose to 1,031 tariff lines and Chile's to 1,798. Similarly, the June 2009 India-Mercosur PTA was limited to tariff concessions on 450 items. Talks began in January 2017 toward an expanded PTA with the ambition of providing tariff concessions on 3,000 items.

Recent efforts at trade diplomacy and FTAs are positive moves to foster India–Latin America GVC trade. The expanded India-Chile PTA and an eventual expanded India-Mercosur PTA will improve market access and two-way goods trade in commodities, processed food, engineering products and pharmaceuticals. However, murky nontariff measures (NTMs) and key deep integration issues for upgrading GVC trade (such as investment, trade facilitation, intellectual property, and services) are not tackled by these partial agreements, which only address trade in goods. An important next step is to include NTMs and deep integration issues into India's agreements with Chile and Mercosur. Another is to initiate FTA negotiations with Mexico, which has become India's largest GVC trading partner in Latin America and currently is a member of NAFTA. Furthermore, industry bodies and export promotion agencies should regularly disseminate information on business opportunities and tariff concessions to the private sector.

DEEPENING AGREEMENTS

This article has examined patterns in India–Latin America GVC trade and its links with national business environments and trade diplomacy. It finds evidence of a changing trade pattern between India and Latin America. Historically, the trade pattern was based on Indian manufactures of final goods and IT services in exchange for Latin American commodities. Recently, this trade pattern has begun to deepen toward GVC trade—entailing sophisticated production-sharing over a large geographical area—which could lay the foundations for a sustainable economic partnership between India and Latin America.

The data indicates that India–Latin America GVC trade has grown rapidly from a small base to about US$8 billion in 2016. While a further increase is projected to 2025, risks associated with the new normal in the world economy may tilt the positive outlook to the downside. Furthermore, issues exist in the commodity and country composition of intraregional GVC trade. The bulk of such trade is occurring in industrial supplies and there is limited capital goods trade. Furthermore, a few larger Latin American economies dominate the region's GVC trade with India. The Pacific Alliance is a rising player while Mercosur is on the decline and this difference seems to be linked to former's more open trade and investment regimes.

Analysis of national business environments and trade diplomacy help to identify barriers to India–Latin America GVC trade. Import tariffs have fallen to historically low levels in both locations. FDI restrictions have been reduced but remain problematic in India, Brazil, and Mexico. Business start-up procedures can be streamlined more in India and some Latin American economies. Logistics efficiency is a key problem in several Latin American economies. Labor productivity in India remains below more mature economies and this is also true, to a lesser extent, in Latin America. After a conspicuous absence, trade diplomacy has picked up and there is increased contact between heads of state. This is gradually translating into expanded good trade coverage in the two limited interregional FTAs.

India–Latin America GVC trade is likely to remain a work in progress for some time. Further expansion can be supported by implementing domestic structural reforms aimed at barriers to FDI, business start-up, logistics, and labor productivity. It will also be essential to focus more on trade diplomacy to deepen FTAs and boost private-sector engagement.

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PRODUCTS ENJOY TARIFF CONCESSIONS UNDER INDIA'S AGREEMENT WITH MERCOSUR

NOTES

[1]The projections used the Hodrick-Prescott Filter. This is a data smoothing technique commonly used in macroeconomics to remove short-term fluctuations that are associated with the business cycle, thereby revealing long-run trends. The use of this Filter presumes that deviations from potential trade are relatively short term and tend to be corrected fairly quickly.

[2]The Pacific Alliance consists of Chile, Colombia, Mexico, and Peru. Mercosur's members are Argentina, Brazil, Paraguay, Uruguay and Venezuela.

[3]CARICOM's share in India's GVC imports rose from 0.2% to 0.3% between 2000 and 2016 while its shares in these exports fell from 2.8% to 1.9%. The rest of Latin America's share in India's GVC imports rose from 0.9% to 17.2% while its share these exports fell from 10.5% to 10.4%.

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Discovering India

The Trade Potential of the Other Asian Giant

Ignacio Bartesaghi
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The Vedas are the most rewarding and the most elevating book in the world.

Arthur Schopenhauer

INDIA HAS BEGUN ROLLING OUT A NEW TRADE POLICY WHICH HAS SPARKED GROWING INTEREST FROM LATIN AMERICA. THIS HAS USHERED IN A NEW PHASE IN RELATIONS THAT MAY PROVE TO BE MUTUALLY BENEFICIAL GIVEN CURRENT NATIONAL AND INTERNATIONAL CIRCUMSTANCES. THIS ARTICLE DESCRIBES THE MAIN CHARACTERISTICS OF INDIAN TRADE AND POSSIBLE TIES WITH LATIN AMERICA.

India is one of the oldest civilizations in the world. Its cultural diversity is beyond value and it also has a wealth of available resources, including ample reserves of coal, gold, magnesium, steel, oil, natural gas, and phosphorus, among other things. It is the second-most-populous country in the world, with close to 1.3 billion inhabitants and, together with China, it is driving the growth of the global middle class, which will include half a billion people by 2030 (EY, 2014). Given that India is home to nearly 600 million people under the age of 24, it has enormous development potential (table 1).

With a surface area of 3.3 million square kilometers, it is the seventh-largest country in the world, and has direct shipping routes to Africa, the Middle East, Central Asia, and Southeast Asia via the Indian Ocean. It has a 7000-kilometer coastline and a 14,000-kilometer border with six different countries, some of which it has ongoing border conflicts with.

The complexity of its domestic circumstances and the potential for its conflicts with other countries in the region, especially Pakistan, to develop prompted India to play a relatively inactive role in the international arena following Nehru's involvement in the nonaligned movement.

Recently, however, India is becoming an increasingly global player through its role in BRICS, its entry into the Shanghai Cooperation Organisation (which none other than Pakistan is also a member of), its active role in the WTO's Doha Round (such as its position on agricultural safeguards), the start of negotiations with the EU, and its involvement in the Regional Comprehensive Economic Partnership (RCEP) (LSE, 2012). Likewise, it has been continually increasing its military spending (figure 1), which accounted for nearly 2.5% of its GDP in 2016.

India is a federal republic made up of 29 states and seven territories. A president and a prime minister lead the executive branch of government. It has hundreds of political parties and enormous linguistic diversity: the country has 18 officially recognized languages and hundreds of dialects, a situation which has led to English playing a key role in integrating the country. The complexity of the Indian market needs to be taken very seriously when seeking to do business there. Many companies, even multinationals, make strategic errors in their early years of business with India by not fully appreciating the characteristics of its market (Gil Medrano, 2011; Godement, 2015).

India has been growing at an even faster rate than China. Between 2000

TABLE 1
POPULATION PYRAMID

AGE RANGE	% OF THE TOTAL	POPULATION
0 - 14	27.71	351,031
15 - 24	17.99	227,925
25 - 54	40.91	518,273
55 - 64	7.3	92,503
Over 65	6.09	77,147

Source: World Development Indicators.

and 2019, the growth in China's GDP is slated to reach 8.9% on average, while that of India will be 7.2%. However, as figure 2 and table 3 show, the projections show higher rates of change for India than China (with growth rates that are several times higher than the global average).

This growth has led to a reduction in poverty levels and an increase in per-capita income in India (which remains very low but is on the rise). This has enabled the country to implement infrastructure reforms, social plans to create public-sector employment, food subsidies, housing plans, social aid programs, food support programs, and self-sufficiency and water programs in rural areas, all of which have improved the quality of life for many of the country's inhabitants (OECD, 2017). Likewise, India's urbanization rate is very low (around 30% in 2016) and a large proportion of its population still depends on agriculture, which is a core aspect of the self-sufficiency that underlies the country's development (SELA, 2014). Despite this, in recent years labor-intensive industries have begun to develop, such as in the apparel/textile sector (HKTDC, 2016).

Another feature of the Indian economy is the importance of the service sector, which has been a cornerstone in the internationalization of Indian companies both from this sector and outside it (ECLAC, 2016) (table 4).

NEW SOURCES OF ECONOMIC GROWTH

The growth in India's GDP in recent years has gone hand-in-hand with the reforms that have been implemented since the 1990s and especially in the early years of the 21st century, many of which are related to economic openness and trade (Mesquita Moreira, 2010).

More recently, since Narendra Modi came to power in 2014, and following recent election results, the possibility of fast-tracking some of these reforms has increased. Modi's time in office began with a plan of reforms that was based fundamentally on openness to foreign trade and economic liberalization, notably by making the foreign direct investment (FDI) regime more flexible. The new administration has increased levels of foreign investment and opened up some sectors that were previously reserved for domestic firms, which has attracted more foreign capital (OECD, 2017).

India has passed measures to reduce the red tape involved in foreign trade and has recognized the need to take on the infrastructure deficit caused by shortfalls in the electricity service and the deterioration of ports and airports. Other challenges include the prevalence of informal employment, the precariousness of employment, and environmental problems, all of which are hampering the formalization and internationalization of the economy (OECD, 2017).

The initiatives that Modi has implemented have improved the business climate, as has been confirmed by the improvements in the business community's perceptions of India and international rankings such as those of the World Economic Forum and the World Bank's Logistics Performance Index. All the same, the red tape still involved in foreign trade with India has led to negative evaluations in other rankings, such as the Doing Business indicator (Vaishnav, 2012).

Although India's infrastructure is still lagging behind, the country nevertheless has a dense network of roads, railways, and seaports and it has implemented energy projects using such diverse fuels as gas, coal, solar, nuclear, and wind power. This will position it as a major global player in these fields, where there is enormous potential for collaboration (Bhojwani, 2014; Campos Palarea and Sengupta, 2017; Mesquita Moreira, 2010).

One of the most developed sectors in India is information technology, which is directly related to specific policies it has implemented in recent years and which have led to

TABLE 2
BASIC DATA FOR INDIA AND CHINA

INDICATORS	INDIA	CHINA
GDP (2015, in current US$)	2,089	11,065
Population (in billions)	1,311	1,371
Life expectancy	68.3	75.9
Average GDP growth (2001–2019)	7.2%	8.9%
Industrial growth 2016	7.4%	6%
PPP GDP per capita	6,700	14,600
Global GDP ranking (PPP)	4	1
Inflation (%)	4.9	2

Source: Compiled by the author based on data from the World Bank.

TABLE 3
GROWTH PROJECTIONS (IN PERCENTAGES)

GDP GROWTH IN %			
YEAR	INDIA	CHINA	WORLD
2017	7.6	6.5	2.7
2018	7.8	6.3	2.8
2019	7.8	6.3	2.9

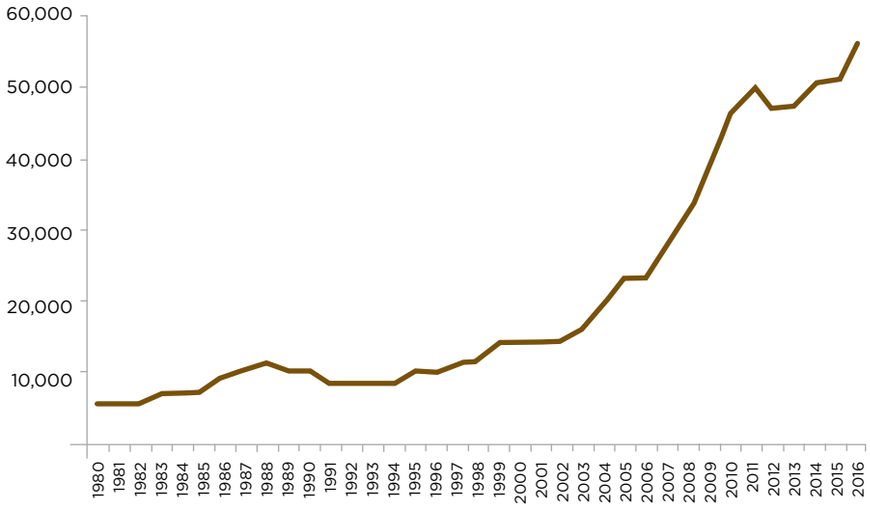
Source: Compiled by the author using data from the World Bank.

TABLE 4
COMPOSITION OF INDIA'S GDP IN 2016 (IN PERCENTAGES)

SECTOR	GDP	LABOR FORCE	VALUE ADDED
AGRICULTURE	17.5	51.1	0.8
INDUSTRY	29.6	22.4	8.2
SERVICES	53	26.6	9.8

Source: Compiled by the author using data from the World Bank.

FIGURE 1
INDIA'S MILITARY EXPENDITURE (IN MILLIONS OF US$)



Source: Compiled by the author based on SIPRI.

its accounting for nearly 50% of the global market (Rosales and Kuwayama, 2007). In fact, there has been an exponential increase in exports of services from nontraditional categories, such as ICTs and other business services, which in 2016 explained nearly 65% of India's total exports of services. In these sectors, India has become one of the world's leading exporters, ranking eighth on the global list in 2016).[1] The growth in this sector is directly related to the country's deregulation policies, which began by allowing foreign investment in sectors such as telecommunications and financial services before then opening them up in banking services and overland transportation, as well as eliminating some service monopolies, such as mobile telephony (Mesquita Moreira, 2010).

Another factor behind the development of the services sector is the number of professionals that graduate from university each year in India. Hundreds of thousands of engineers have been absorbed by the sector and the low cost of labor in India means that this workforce has become one of the cornerstones of the sector's competitiveness. The creation of a network of specialist engineering schools in the country's major cities is a key factor behind these results (The Economist, 2012).

Likewise, the country has promoted its software industry by creating special economic zones for the sector, within which many of the restrictions affecting other productive activities, like foreign trade, were lifted. India's exports of electronic and data services are highly concentrated in the US, the UK, and Europe, while Asia and the rest of the world account for a relatively insignificant share (figure 5). LAC's limited involvement as a destination market for the IT services that India exports could further the trade potential between the two parties, particularly within a South-South cooperation scheme (Finquelievich, 2004).

INDIA'S ROLE IN GLOBAL TRADE

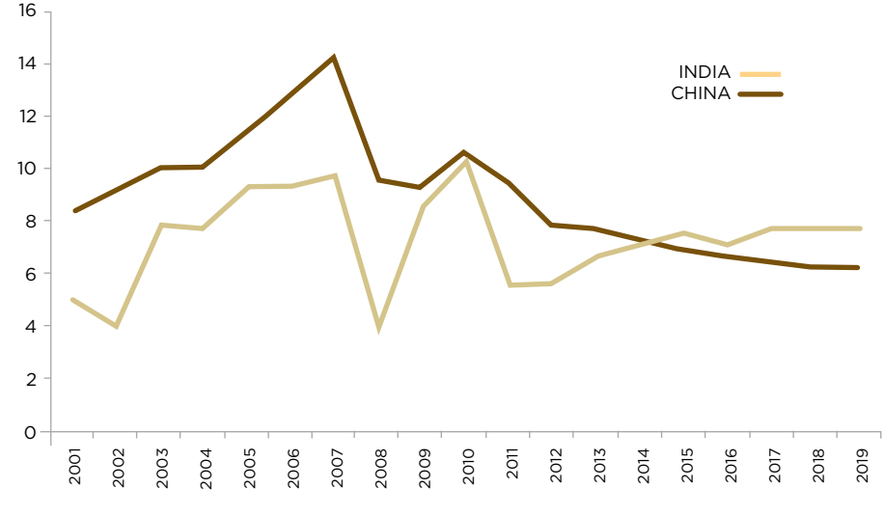
GDP growth rates aside, India's involvement in global trade is still very limited due to the small number of trade agreements it has signed and the number of protectionist measures and restrictions that it places on such relationships.

The reforms that began in the 1990s have enabled a continual increase in India's share in global trade, which accounted for 1.7% of global exports and 2.2% of imports in 2016 (figure 6). The situation is somewhat different for services, which in 2016 reached 3.3% of global exports and 2.8% of imports. These shares are still growing and are expected to continue doing so (figure 7).

As well as specializing in trade in services, India has positioned itself as a manufacturer of goods with higher levels of technology content and is even beginning to compete with China in this sphere, as is evidenced by its trade with LAC.

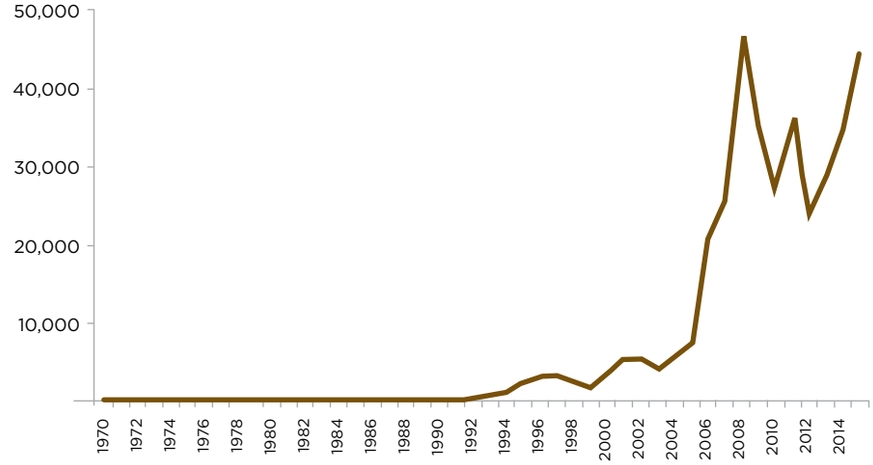
In recent years, the share of vehicles and autoparts, electronic products, and pharmaceuticals in Indian manufacturing has grown in comparison with that of less sophisticated goods, such as footwear and apparel (figure 8). This phenomenon, which is also true of other Asian countries, is confirmed by India's share in these categories within global trade as a whole and the specific destination markets for its products (it has a presence in developed countries such as the EU and the US), which is a sign of its international competitiveness

FIGURE 2
EVOLUTION OF INDIA'S AND CHINA'S GDPS (RATES OF CHANGE, IN PERCENTAGES)



Source: Compiled by the author using data from the World Bank.

FIGURE 3
FDI IN INDIA (IN MILLIONS OF US$)



Source: Compiled by the author based on UNCTADStat.

(figure 5).

Between 2001 and 2016, foreign trade in pharmaceuticals grew at an annualized rate of 18%. India's sales of these products grew exponentially and generated a significant balance in its favor (figure 9). Likewise, each year it exports pharmaceuticals to a growing number of markets, although the US remains the main destination for these, accounting for 40% of total exports in 2016. In 2001, it exported more than US$1 million worth of pharmaceuticals to 105 destination markets, and this increased to 163 markets in 2016.

The growth of the pharmaceutical sector makes an interesting case study as its development was shaped by a combination of public policies and certain structural characteristics that are specific to India, such as its population size. In this case, the flexibilization of the patent regime that was implemented in 1970 affected the role of large multinationals within India and allowed a domestic generic pharmaceuticals industry to develop, which soon became an important sector both within the country and abroad. The pharmaceutical sector had a relatively lax patent regime until 2005, when new regulations increased the protection period from 7 to 20 years, in line with the WTO's international standards.

These new circumstances prompted the reorientation of the sector, which now includes major manufacturers of competitive generic pharmaceuticals with a growing capacity for engaging in research and forming partnerships with large international corporations (there are Indian firms with a presence in over 50 markets) and a large number of smaller companies that continue to specialize in generics. India's growing number of inhabitants and the increase in demand for medicines due to urbanization (McKinsey & Company, 2014), combined with the abundance of skilled labor in absolute terms, have led to the sector being described as highly competitive. However, the industry is facing restrictions due to infrastructure deficits (such as transportation and energy supply) and informal employment levels (Perlitz, 2008).

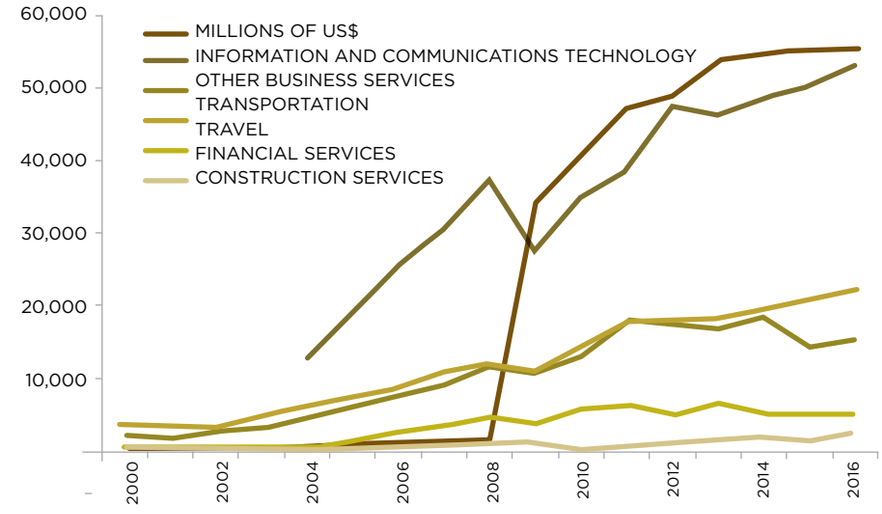
CHARACTERISTICS OF INDIAN TRADE POLICY

Independently of its progressive opening up, India continues to impose high levels of tariff and nontariff protection in some sectors. India's trade policy is unpredictable and changes constantly, which is directly related to the importance that the country places on domestic prices, especially for foods (WTO, 2015). This state of affairs has gone hand-in-hand with a relatively inactive trade policy in terms of signing trade agreements (Kume, Piani, and Miranda, 2015).

India began the process of opening up to trade in 1990, starting with average tariff levels of over 80%, which were higher than those presented by the Asia-Pacific at that time (figure 10). It has progressively lowered these since, but current levels are still twice the regional average for Asia (Nayyar, 2015).

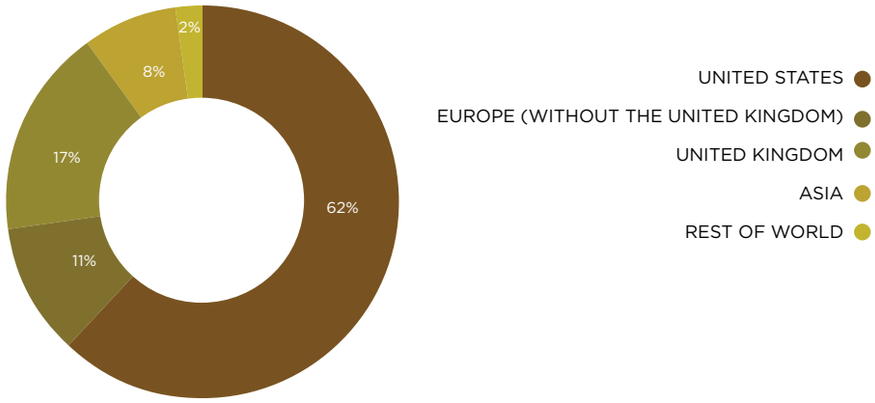
As can be seen in table 6, India's protection of agricultural products is significant in terms of both consolidated levels (maximum commitments at the WTO) and average applied tariffs. This, in combination with the large number of food-sector restrictions at the border, is one of the main challenges to an expansion of relations with Latin America.

FIGURE 4
INDIAN EXPORTS OF SERVICES BY SUBCATEGORY (IN MILLIONS OF US$)



Source: Compiled by the author based on data from Trade Map and the WTO.

FIGURE 5
INDIAN EXPORTS OF IT SERVICES BY DESTINATION MARKET (IN PERCENTAGES)



Source: Compiled by the author based on India's Ministry of Industry and Trade.

At the section level of the Harmonized System, India mainly protects sections 04, 17, 02, and 01 with average tariffs (figure 11) of over 50% in some cases. Sections 01, 02, and 04 are where many LAC countries are most competitive. India's levels of protectionism can also be observed in other variables as well as tariffs, as is shown in the WTO's Trade Policy Review or the databases on trade defense instruments. India has applied a huge number of antidumping measures (a total of 599 between 1995 and 2016), which account for 18% of all such measures. Similarly, during the same period, it and China were the WTO member countries that implemented the largest number of countervailing measures: a total of 39 for India and 69 for China. India was also the country had applied the greatest number of safeguards during this period—a total of 20.

According to the Global Trade Alert database, the measures that are most applied by India, in addition to those mentioned above, are financial measures that affect trade, localization requirements, import taxes, and incentives to export.

Following its last Trade Policy Review of the country, the WTO (2015) stated that India is continuing to make "efforts to liberalize and facilitate trade such as through the introduction of self-assessment in customs procedures and the elimination of state-trading requirements for some agricultural products." It also eliminated price controls on diesel and relaxed FDI restrictions in some sectors.

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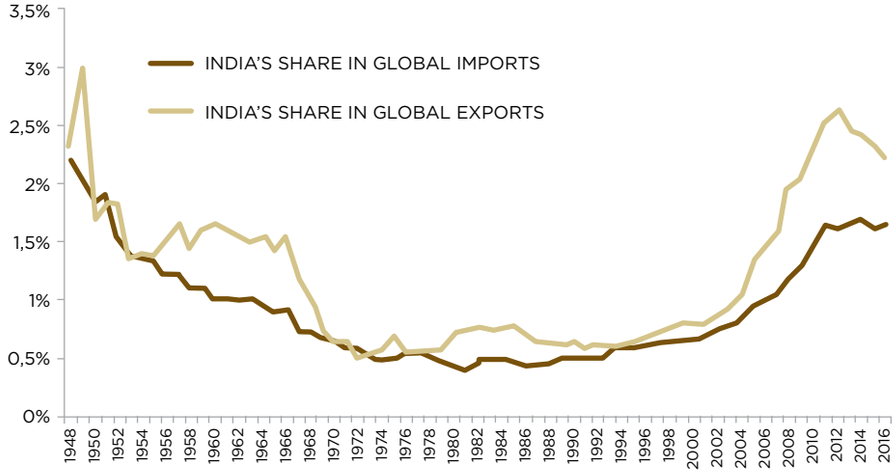
THE NUMBER OF MARKETS TO WHICH INDIA EXPORTS PHARMACEUTICALS

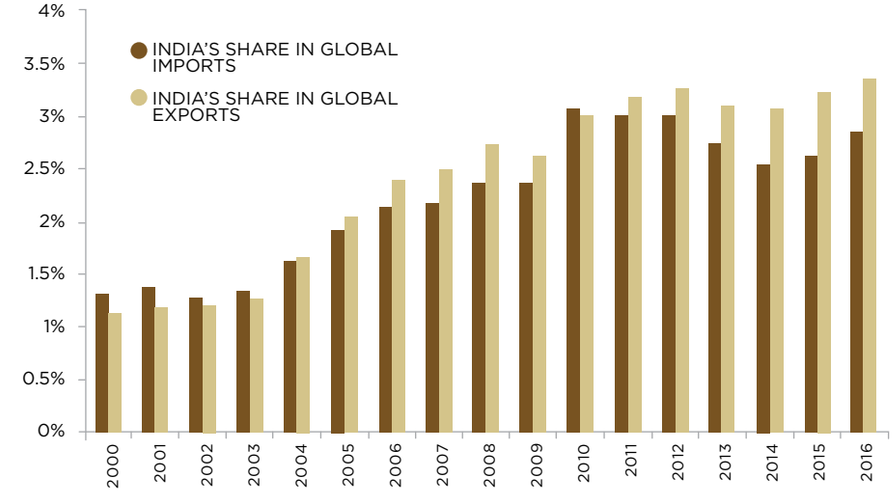
India is involved in a variety of trade instruments that include regional agreements, such as the Asia-Pacific Trade Agreement (APTA), the South Asian Preferential Trade Arrangement (SAPTA), the South Asian Free Trade Area (SAFTA), its agree-

FIGURE 6
INDIA'S SHARE IN GLOBAL TRADE IN GOODS (IN PERCENTAGES)



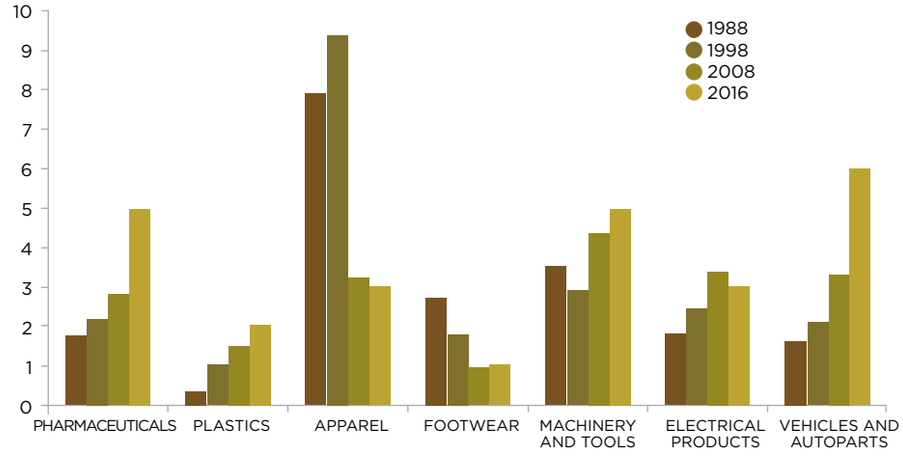
Source: Compiled by the author based on data from UNCTADStat and WTO.

FIGURE 7
INDIA'S SHARE IN GLOBAL TRADE IN SERVICES (IN PERCENTAGES)



Source: Compiled by the author based on data from Trade Map and the WTO.

FIGURE 8
CHANGES IN INDIA'S EXPORT STRUCTURE (IN PERCENTAGES)



Source: Compiled by the author based on WITS.

ment with ASEAN, and a series of bilateral and subregional agreements like the one it has signed with MERCOSUR. It has a special relationship with Africa, with which it has a total of 19 trade agreements, all in relation to goods and of a very limited scope, which were signed between 1968 and 2003.

India began this process by negotiating with Asia, which led to the signing of APTA in 1975, which is the only trade relationship that links it to China. Only in 1993 did it take a step forward by signing SAPTA, which connected it to its closest neighbors. In 2000 it began to sign trade agreements which gradually incorporated the new disciplines of international trade (table 7). All the agreements India has signed are limited in terms of the universe of products and disciplines that they include, although it set the latter point side in the agreements that it signed with ASEAN members.

CURRENT NEGOTIATIONS

European Union–India

Although both parties stand to benefit significantly from this agreement has, negotiations to reach it entailed multiple difficulties, beginning with political issues such as human rights and continuing with trade-related issues and the debate around matters such as labor, environmental, and intellectual property standards and restrictions at the border. The international context has also changed following the launch of new trade agreements such as the Transatlantic Trade and Investment Partnership (TTIP), the Trans-Pacific Partnership (TPP), or the RCEP itself, which affected both parties.

With regard to domestic policy, while the EU has put more effort into closing negotiations, India seems to be more and more determined to build closer ties with China, which among other things will allow it to open up to trade more moderately than the conditions for the Association Agreement with the EU would require (Khandekar, 2012).

TABLE 5
INDIA'S SHARE IN GLOBAL EXPORTS BY SECTOR (IN PERCENTAGES)

	2001	2016
PHARMACEUTICALS	0.9%	2.6%
VEHICLES AND AUTOPARTS	0.2%	1.1%
MACHINERY AND TOOLS	0.2%	0.7%
ELECTRIC PRODUCTS	0.2%	0.4%
PLASTICS	0.4%	1%

Source: Compiled by the author based on data from Trade Map.

US$30 BILLION

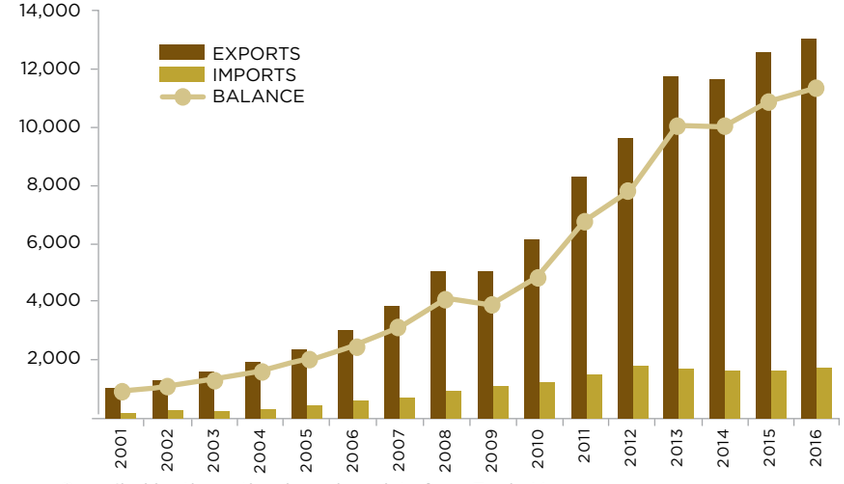
THE VALUE OF TRADE IN GOODS BETWEEN LAC AND INDIA

RELATIONS OBSERVATORY AND THE WTO.

India and the RCEP

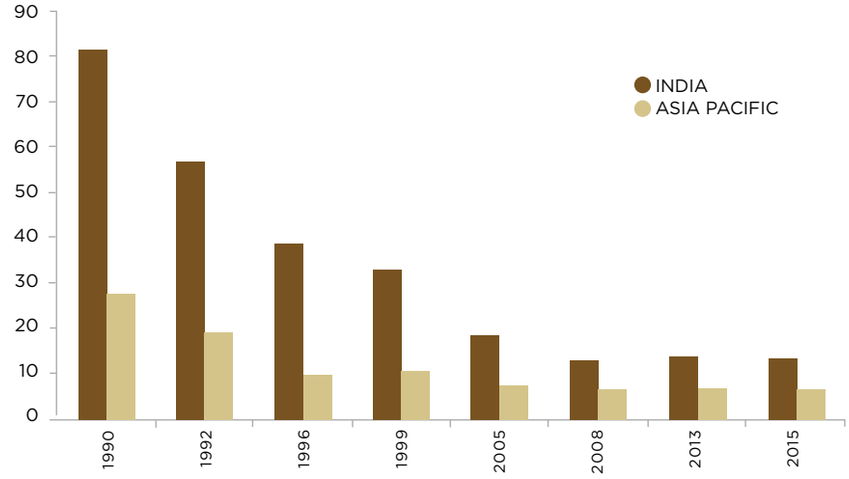
The RCEP is a mega-agreement that brings together the ten members of ASEAN, China, India, the Republic of Korea, Japan, Australia, and New Zealand. These 16 economies account for nearly half the global population, over a quarter of global exports, and around 30% of global GDP (DNII, 2017). Negotiations toward the agreement were launched in 2012 and the

FIGURE 9
INDIA'S FOREIGN TRADE IN PHARMACEUTICALS (IN MILLIONS OF US$)



Source: Compiled by the author based on data from Trade Map.

FIGURE 10
TARIFF LEVELS IN INDIA AND ASIA-PACIFIC (IN PERCENTAGES)



Note: These are most favored nation (MFN) tariffs.
Source: Compiled by the author based on data from Latin America-Asia-Pacific.

countries that are taking part are seeking a comprehensive, modern arrangement that is mutually beneficial and includes all the chapters that are usually negotiated as part of FTAs.

To date, 18 trade rounds have taken place and the aim is to sign the agreement in 2017 or the first half of 2018. The RCEP has become more important since the entry into force of the TPP was put on hold following the withdrawal of the United States.

India's interests in this agreement have to do with deepening its current trade ties and expanding its presence in other Asia-Pacific markets. For India, the service sector is key to this negotiation, especially in ICTs and the outsourcing of business or knowledge processes. Consequently, the most recent negotiations have focused on making headway on the international movement of professionals.

RCEP negotiations are also facing challenges due to the large number of restrictions that still apply to India's foreign trade, its investment regime, and its

TABLE 6
INDIA'S TARIFF STRUCTURE (IN PERCENTAGES)

TARIFF (2015)	PERCENTAGE
AVERAGE CONSOLIDATED TARIFF	48.5
CONSOLIDATED AGRICULTURAL TARIFF	113.5
CONSOLIDATED INDUSTRIAL TARIFF	34.5
AVERAGE MFN TARIFF	13.4
MFN AGRICULTURAL TARIFF	32.7
MFN INDUSTRIAL TARIFF	10.1

Note: MFN = most favored nation
Source: Compiled by the author based on data from the WTO.

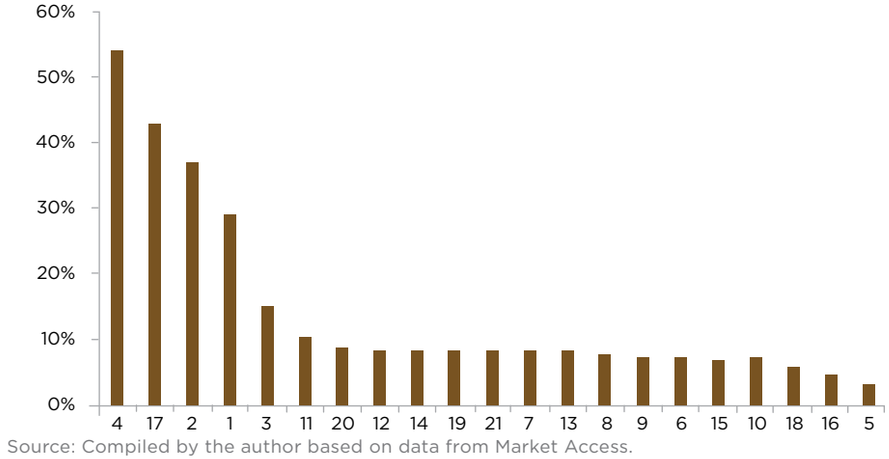
TABLE 7
TRADE AGREEMENTS SIGNED BY INDIA

TRADE AGREEMENTS	YEAR
INDIA - APTA *	1975
INDIA - SAPTA **	1993
INDIA - SRI LANKA	2001
INDIA - AFGHANISTAN	2003
INDIA - THAILAND	2004
INDIA - SINGAPORE	2005
INDIA - BHUTAN	2006
INDIA - SAFTA ***	2006
CHILE - INDIA	2007
INDIA - NEPAL	2009
INDIA - MERCOSUR	2009
REPUBLIC OF KOREA - INDIA	2010
ASEAN - INDIA	2010 (GOODS) AND 2015 (SERVICES)
INDIA - JAPAN	2011
INDIA - MALAYSIA	2011
INDIA - AFRICA ****	1968 TO 2003

*Bangladesh, China, India, Republic of Korea, Lao People's Democratic Republic, Sri Lanka, Nepal, and the Philippines. ** Bangladesh, Bhutan, the Maldives, Nepal, Pakistan, and Sri Lanka. ***Updated SAPTA. ****Limited agreements on a small number of goods with 19 African economies.
Source: Compiled by the author based on data from India's Ministry of Industry and Trade and the WTO.

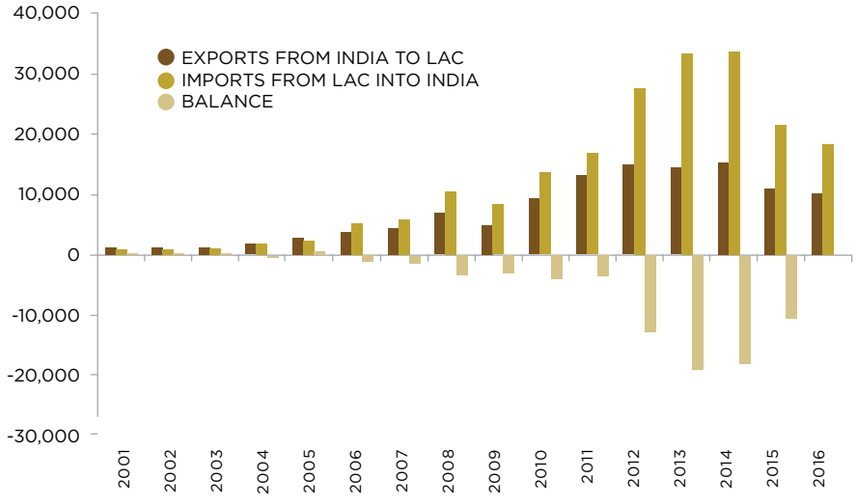
commitments in relation to the environment, labor standards, intellectual property, and the integration of Indian SMEs into the global economy, especially given the high rates of informal employment in the country (Mishra, 2013). Despite such challenges, these negotiations will enable something that seemed impossible not long ago: the signing of a trade agreement between India and China

FIGURE 11
TARIFF LEVELS BY SECTION OF THE HARMONIZED SYSTEM (IN PERCENTAGES)[2]



Source: Compiled by the author based on data from Market Access.

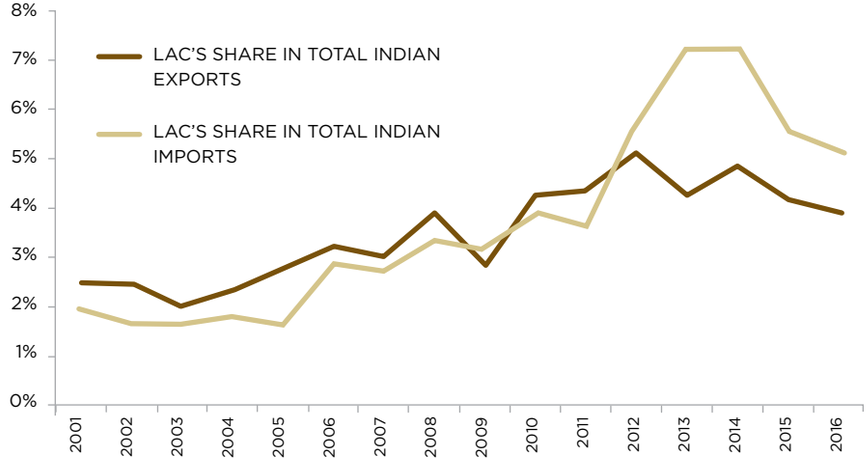
FIGURE 12
BILATERAL TRADE IN GOODS BETWEEN INDIA AND LAC (IN MILLIONS OF US$)



Source: Compiled by the author based on data from Trade Map.

that implies extensive access to goods and services and establishes standards that are important for international trade in other chapters.

FIGURE 13
LAC'S SHARE IN GLOBAL TRADE IN INDIAN GOODS (IN PERCENTAGES)



Source: Compiled by the author based on data from Trade Map.

THE RELATIONSHIP WITH LATIN AMERICA

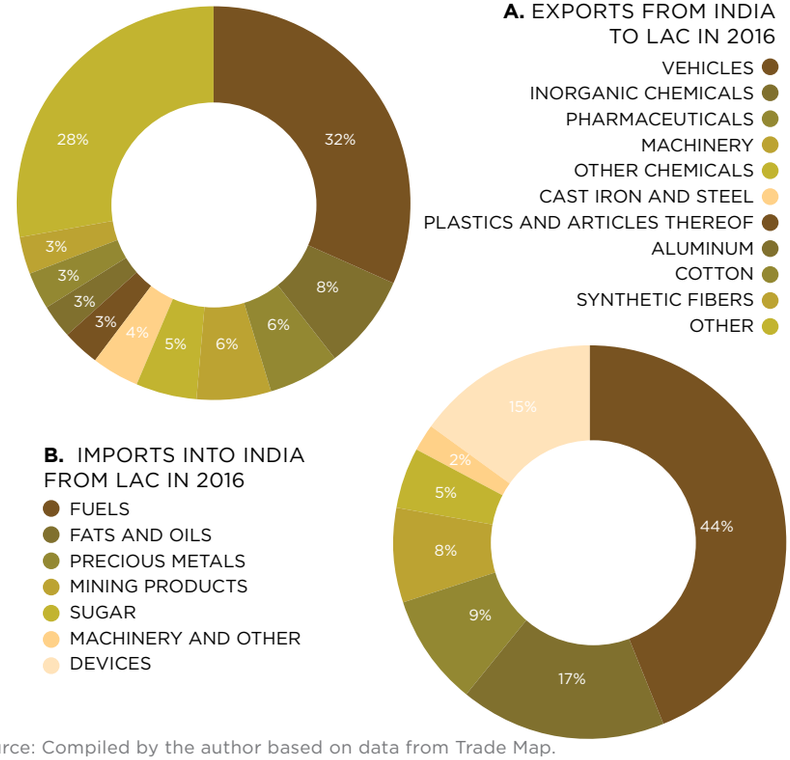
Trade in goods between LAC and India showed significant dynamism between 2001 and 2016, when it reached US$30 billion. In that time, Indian imports from LAC increased to 22%, while exports grew at an annualized rate of 16%. In recent years, there has been a downturn in trade flows, which is related to the drop in oil prices and the poor economic performance of LAC, especially in Mexico and Brazil. The balance of trade in goods is in LAC's favor (figure 12).

Furthermore, LAC is not a significant market for exports of services from India, which fundamentally go to the US and Europe.

With regard to the evolution of LAC's share in India's global trade, this rose from 2001 onward before slowing down in recent years (figure 13). LAC explained 4% of India's total exports to the world in 2016 (as compared to 2.4% in 2001) and 5.1% of its global imports (0.3% in 2001).

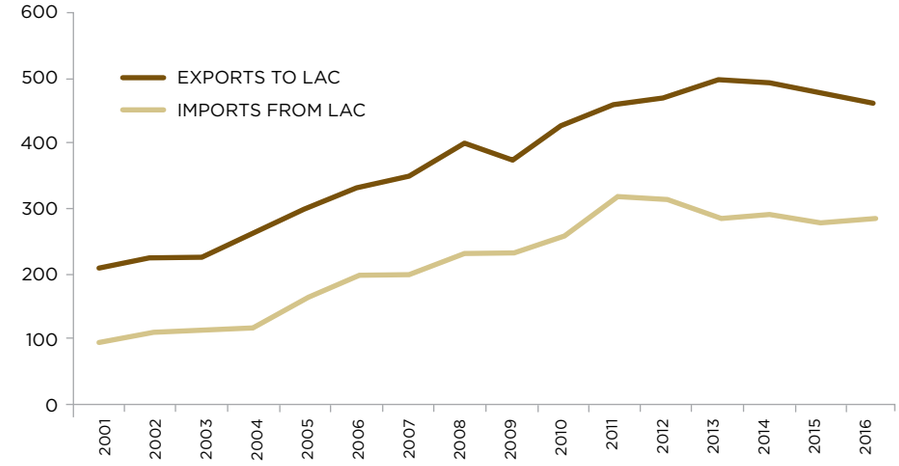
With regard to the pattern of trade between these two parties, India's exports to LAC are more diverse than its imports from the region. All the same,

FIGURE 14
MAIN GOODS TRADED BETWEEN INDIA AND LAC (IN PERCENTAGES)



Source: Compiled by the author based on data from Trade Map.

FIGURE 15
DIVERSIFICATION BY PRODUCT
(NUMBER OF PRODUCTS AT THE HEADING LEVEL IN THE HARMONIZED SYSTEM)



Source: Compiled by the author based on data from Trade Map.

in both cases there are two goods that characterize the trade relationship above all others. On the export side (figure 14, panel A), the most notable product is vehicles, which account for 32% of total exports in 2016 (in comparison with 9% in 2001), while on the import side (panel B), this most product is oil, which went from being something that India did not import from LAC in 2001 to representing 40% of these imports in 2016.

In addition to vehicles, in the period in question, the goods that gained the most ground in Indian exports to LAC were machinery and mechanical devices, alumina and manufactures thereof, diverse products from the chemical industry, plastics, and synthetic fibers. In contrast, the shares of organic chemicals, apparel, pharmaceuticals, cotton, and rubber decreased. In addition to oil, other significant Indian imports from the region were precious metals and sugar. Those that lost market share include animal and vegetable fats and oils, mining products, cotton, machinery and mechanical devices, and vehicles and autoparts.

TABLE 8
INDIA'S RELATIONS WITH LAC BY TRADE BLOC (IN PERCENTAGES)

	TOTAL INDIAN EXPORTS		EXPORTS TO LAC	
	2001	2016	2001	2016
MERCOSUR	0,9%	1,2%	39%	31%
CAN	0,2%	0,6%	9%	16%
CACM	0,1%	0,3%	4%	7%
PACIFIC ALLIANCE	0,9%	2,1%	37%	53%
ALADI	2,1%	3,5%	86%	89%

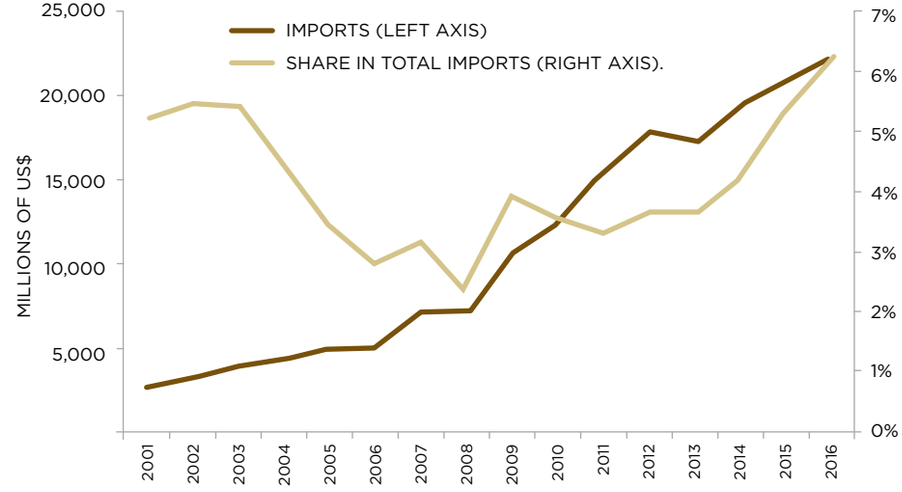
Source: Compiled by the author based on data from Trade Map

At the 4-digit (heading) level of the Harmonized System, the main goods that India exports to LAC—those that reached average values of US$10 million between 2001 and 2016 and explained more than 20% of India's total global exports of the product in question—include passenger cars and other vehicles; synthetic yarns and fibers; scooters, mopeds, and motorbikes; insecticides and rat poison; and aluminum cables. India's main imports from LAC include sugar and soy oil, followed (in order of importance) by fluoride, chlorine, bromine, iodine, copper ores, molybdenum ores, precious metal ores, ferroalloys, raw timber, and intermediate iron or steel products.

With regard to the number of products traded between India and LAC between 2001 and 2016 (Harmonized System headings with exports worth US$500,000 per year), there has been constant growth in the number of products traded although this diversification has been greater for India, which has managed to export a larger number of goods than it imports from LAC. This pattern is similar to that of LAC with the rest of the world, particularly with other Asian economies, such as China, and it is associated with the region's productive characteristics and its limited role in global value chains (Caro Vargas, 2012).

India's imports from LAC are nearly all accounted for by its main trade partners. Indeed, in 2016, five countries explained more than 80% of India's total imports from LAC. The main exporters to India were Venezuela, Brazil, Argentina, Mexico, and

FIGURE 16
EVOLUTION OF FOOD IMPORTS FROM INDIA (IN MILLIONS OF US$ AND PERCENTAGES)



Source: Compiled by the author based on data from Trade Map.

TABLE 9
INDIAN FOOD IMPORTS (IN THOUSANDS OF US$ AND PERCENTAGES)[3]

HS CHAPTER NO.	HS CHAPTER	2001	2016	TOTAL SHARE FOOD 2001	TOTAL SHARE FOOD 2016	MAIN SUPPLIERS IN 2016 (TOP FIVE)	ANNUALIZED RATE OF CHANGE2001-2016
15	Animal or vegetable fats and oils and their cleavage products, prepared edible fats	1,499,245	10,491,259	56.1%	47.6%	Indonesia, Argentina, Malaysia, Ukraine, and Brazil	14%
07	Edible vegetables and certain roots and tubers	577,361	4,026,278	21.6%	18.3%	Canada, Myanmar, Australia, Russia, and Tanzania	14%
08	Edible fruit and nuts, peel of citrus fruit or melons	252,005	2.802,501	9.4%	12.7%	United States, Ivory Coast, Guinea-Bissau, Afghanistan	17%
17	Sugars and sugar confectionery	20,399	1.003,430	0.8%	4.6%	Brazil, Germany, the United States, Netherlands, China	30%
09	Coffee, tea, yerba mate, and spices	74,236	747,444	2.8%	3.4%	Vietnam, Indonesia, Madagascar, Sri Lanka, and Nepal	17%
22	Beverages, spirits, and vinegar	14,767	630,103	0.6%	2.9%	The United Kingdom, the United States, Nepal, Brazil, and France	28%
10	Grains	2,168	492,166	0.1%	2.2%	Ukraine, Australia, France, Argentina, and Russia	44%
23	Residues and waste from the food industries, prepared animal fodder	40,951	482,845	1.5%	2.2%	Ukraine, Sri Lanka, Thailand, China, and Vietnam	18%
12	Oil seeds and oleaginous fruits, miscellaneous grains, seeds, and fruit industrial or medicinal plants	26,451	359,191	1%	1.6%	Sudan, Turkey, Ethiopia, Thailand, and Australia	19%
18	Cocoa and cocoa preparations	10,572	232,338	0.4%	1.1%	Ecuador, Indonesia, Singapore, Ghana, and the Dominican Republic	23%
13	Gums, resins, and other vegetable saps and extracts	27,713	216,973	1%	1%	Afghanistan, Sudan, China, the United States, and Indonesia	15%
21	Miscellaneous edible preparations	61,117	150,279	2.3%	0.7%	The United States, China, Indonesia, Vietnam, and Bulgaria	6%
20	Preparations of vegetables, fruit, nuts, or other parts of plants	10,646	81,572	0.4%	0.4%	China, the United States, Thailand, Spain, and Brazil	15%

Source: Compiled by the author based on data from Trade Map.

Chile. The only two countries to exceed the average growth for LAC as a whole were Venezuela (67% between 2001 and 2016, and Mexico (with an annualized rate of change of 28%).

Indian exports to LAC are also highly concentrated by destination market: five markets explained just over 70% of total exports to the region. These are Mexico, Brazil, Colombia, Peru, and Chile. All these importers grew at a higher rate than the average for Indian exports to LAC as a whole, with the exception of Chile.

With regard to trade blocs, the most important is the Latin American Integration Association (ALADI), as it is the only one included in this analysis that involves both Mexico and Brazil, followed by the Pacific Alliance (table 8).

TABLE 9
INDIAN FOOD IMPORTS (IN THOUSANDS OF US$ AND PERCENTAGES)[3]

HS CHAPTER NO.	HS CHAPTER	2001	2016	TOTAL SHARE FOOD 2001	TOTAL SHARE FOOD 2016	MAIN SUPPLIERS IN 2016 (TOP FIVE)	ANNUALIZED RATE OF CHANGE2001-2016
03	Fish and crustaceans, mollusks, and other aquatic invertebrates	8,769	63,397	0.3%	0.3%	Vietnam, the United States, Bangladesh, and Oman	14%
11	Products of the milling industry, malt, starches, inulin, wheat gluten	5,484	57,191	0.2%	0.3%	China, Australia, United Arab Emirates, Sri Lanka, and France	17%
19	Preparations of cereals, flour, starch or milk, pastrycooks' products	15,791	54,287	0.6%	0.2%	Thailand, Nepal, Singapore, Italy, and Malaysia	9%
04	Dairy produce, birds' eggs, natural honey, edible products of animal origin	6,512	42,591	0.2%	0.2%	France, New Zealand, Uganda, Denmark, and Italy	13%
05	Products of animal origin, not elsewhere specified or included	13,060	39,214	0.5%	0.2%	The United States, China, Singapore, Italy, and Morocco	8%
14	Vegetable plaiting materials, vegetable products not elsewhere specified or included	1,256	33,909	0%	0.2%	China, Vietnam, Nepal, Indonesia, and Singapore	25%
06	Live plants, bulbs, roots, and the like	1,187	20,327	0%	0.1%	Thailand, the Netherlands, China, Italy, and the United Kingdom	21%
01	Live animals	324	9.285	0%	0%	The United Kingdom, the United States, Poland, Brazil, and the Netherlands	25%
16	Preparations of meat, of fish or of crustaceans, mollusks, or other aquatic invertebrates	349	2,747	0%	0%	Sri Lanka, China, Spain, Thailand, and Belgium	15%
02	Meat and edible offal	164	2,495	0%	0%	Belgium, New Zealand, Australia, Germany, and the United Kingdom	20%
	Subtotal for foods	**2,670,527**	**22,041.822**	**100%**	**100%**		**15%**

Source: Compiled by the author based on data from Trade Map.

OPPORTUNITIES IN THE FOOD SECTOR

Statistics and prospective studies on India confirm its potential in the food sector. Together with China, it will have the largest middle class in the world, is becoming increasingly urbanized, and its population's incomes are rising, which will have a direct effect on consumption patterns (Singhi, Jain, and Sanghi, 2017; KPMG, 2016).

Indian domestic production is becoming increasingly formalized and there are greater controls on the trade in food products as the population becomes more demanding regarding the quality of the products it consumes.

India's food exports[2] increased at an annualized rate of 15% between 2001 and 2016, reaching US$22 billion during the latter (whereas in 2001 they stood at US$2.6 billion) and accounting for 6.2% of the country's

TABLE 10
EXPORT POTENTIAL OF MERCOSUR FOOD EXPORTS TO INDIA (IN THOUSANDS OF US$ AND PERCENTAGES)

HEADING	BRIEF DESCRIPTION	INDIAN IMPORTS FROM MERCOSUR IN THOSANDS OF US$		AVERAGE IMPORTED BY INDIA IN THOUSANDS OF US$	CONCENTRATION AS SUPPLIER	POTENTIAL TRADE	
		2001	2016	2001-2016	2016	2001	2016
151211	Sunflower seed or safflower oil, crude	42,160	68,453	38,582	5.2%	3,965	383,143
090411	Pepper of the genus Piper, neither crushed nor ground	-	6,780	1,135	3.7%	11,827	176,392
100590	Maize	162	7,083	4,310	17.4%	402	33,674
090240	Black tea and partially fermented black tea	-	2,582	1,398	7.6%	7,902	31,266
151110	Crude palm oil	710	-	3,548	0%	6,220	29,242
071310	Peas (Pisum sativum)	-	4,354	1,642	0.4%	3,367	26,045
071331	Beans	-	8,182	2,193	1.2%	5	18,438
150710	Crude soya-bean oil, inc. degummed	356,676	3,000,030	1,048,385	99.6%	14,984	12,672
130220	Pectic substances, pectinates, and pectates	128	8,779	2,299	50.1%	790	8,734
200911	Orange juice	716	2,883	1,489	35.5%	814	5,234
170199	Cane or beet sugar	-	-	13,002	0%	6,913	3,435
071339	Beans (vigna spp., Phaseolus spp.)	-	1,207	3,008	2%	1,583	2,248
220710	Undenatured ethyl alcohol of an alcoholic strength by volume of 80% or higher	-	-	1,654	0%	196	1,529

Source: Compiled by the author based on data from Trade Map.

total imports in the sector that year (figure 16).

With regard to the dynamism of some Indian food imports, there was a rate of change of 20% between 2001 and 2016 in some cases, which were largely goods that LAC is highly competitive in at the international level but is still only a limited exporter of, with a few exceptions. The most notable examples are grains (44%), sugar and confectionery (30%), beverages and liquids (28%), vegetable plaiting materials and vegetable products not elsewhere specified (25%), live animals (25%), cocoa and cocoa preparations (23%), live plants and cut flowers, (21%) and meat and edible meat offal (20%).

Table 9 shows the main global suppliers of foods acquired by India. In addition to the USA and some European countries, this group is largely made up of LAC countries.

Few food products represent export patterns of more than one million dollars on average between 2001 and 2016 (only 22 Harmonized System subheadings), which points to the potential that remains in this market (table 10). The trade potential of some products is particularly high,

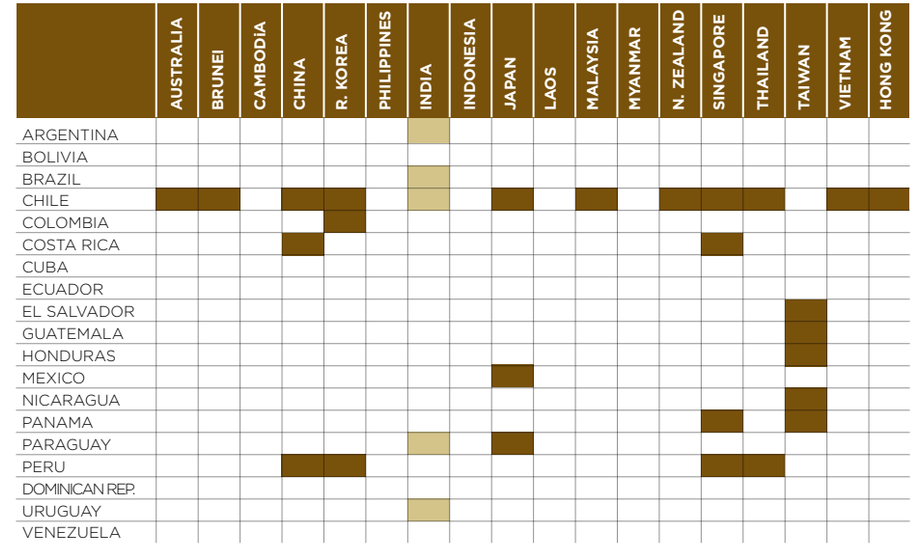
TABLE 11
DIPLOMATIC REPRESENTATIONS

LATIN AMERICAN EMBASSIES IN INDIA	INDIAN EMBASSIES IN LATIN AMERICA
ARGENTINA	**ARGENTINA** (ALSO COVERS PARAGUAY AND URUGUAY)
BOLIVIA	**BRAZIL**
BRAZIL	**CHILE**
CHILE	**COLOMBIA** (ALSO COVERS ECUADOR)
COLOMBIA	**CUBA** (ALSO COVERS DOMINICAN REPUBLIC)
COSTA RICA	**GUATEMALA**
CUBA	**MEXICO**
ECUADOR	**PANAMA** (ALSO COVERS COSTA RICA AND EL SALVADOR)
EL SALVADOR	**PERU** (ALSO COVERS BOLIVIA)
GUATEMALA	**VENEZUELA**
MEXICO	
PANAMA	
PARAGUAY	
PERU	
DOMINICAN REPUBLIC	
URUGUAY	
VENEZUELA	

Source: Compiled by the author based on data from the Latin America-Asia-Pacific Relations Observatory.

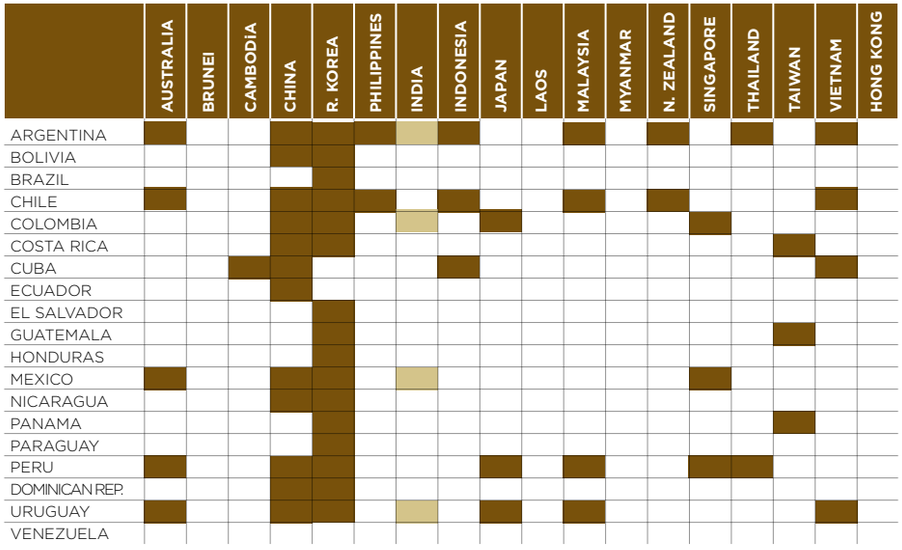
including sunflower oil, pepper, and maize, which currently account for over US$30 million.[3]

TABLE 12
TRADE AGREEMENTS BETWEEN THE ASIA-PACIFIC AND LAC



Source: Compiled by the author based on data from the Latin America-Asia-Pacific Relations Observatory..

TABLE 13
AINVESTMENT AGREEMENTS BETWEEN THE ASIA-PACIFIC AND LAC



Source: Compiled by the author based on data from the Latin America-Asia-Pacific Relations Observatory.

STRATEGIC VISION

India's relationship with LAC is not particularly deep and includes limited spaces for formal dialogue, a factor that should be taken into account when assessing the progress that has been achieved in this relationship in comparison with other Asian economies.

One example of this state of affairs is that India is not an ALADI observer like China, Japan, and the Republic of Korea are. Nor is India a member of the Economic Commission for Latin America and the Caribbean (ECLAC), as Japan and the Republic of Korea are, and nor is it part of the Inter-American Development Bank (IDB). It is not actively involved in

TABLE 14
MAIN SECTORS WHERE INDIAN COMPANIES ARE ACTIVE IN LAC

SECTOR	PORCENTAGE
INFORMATION TECHNOLOGY	29%
PHARMACEUTICAL PRODUCTS	17%
MINERALS AND METALS	13%
AGROINDUSTRY	9.3%
ENERGY	9.3%
OTHER SECTORS	8%
VEHICLE MANUFACTURERS	6.6%
CONSTRUCTION	2.6%
CHEMICALS	2.6%
ELECTRONICS	2.6%

Source: Compiled by the author based on data from the Latin America-Asia-Pacific Relations Observatory.

TABLE 15
SELECTION OF LATIN AMERICAN COMPANIES OPERATING IN INDIA

BRAZIL	MARCOPOLO	Established a joint venture with Tata Motors to manufacture buses in India, with an annual production capacity of 14,000 vehicles.
	PETROBRAS	Has been assigned three offshore areas to explore in partnership with ONGC Videsh Ltd.
	CVRD	Has set up an office in India and is looking for investment opportunities.
	WEG	Has established a subsidiary in India.
	STEFANINI	Has opened information technology design centers in Bangalore and Hyderabad.
	GERDAU	Invested US$71 million in a joint venture with Kalyani Steels Ltd.
	DEDINI	Signed a memorandum of understanding with the Walchand Group to supply machinery for ethanol production in India.
	COFAP	Established a 50-50 partnership with the Endurance Group in India to manufacture shock absorbers.
	PERTO	Is establishing a presence in India and has already sold 825 ATMs to the State Bank of India.
ARGENTINA	IMPASA	Established an office in Gurgaon to look for opportunities in the hydropower sector.
	BIOSIDUS	Has shown interest in establishing a plant in India to produce biotech products.
	TECHINT	Set up operations in Bombay in 2010.
	GALILEO	Supplies technology and machinery to Indian companies. It is seeking opportunities to work with gas companies such as Reliance.
MEXICO	HOMEX	Has established a joint venture with Daksh Builders.
	CINEPOLIS	Will invest US$160 million to build Cinemark complexes in four Indian states, which will make the country its main market outside of Mexico.
CHILE	CSAV	Has offices in several of the largest cities in India.
COLOMBIA	FANALCA	Has been awarded a contract to collect and process garbage in one-third of the city of Chennai and employs 2,600 Indian workers.
CUBA	BIOCON	Established a joint venture to manufacture vaccines in India using Cuban technology.

Source: Compiled by the author based on data from the Latin America-Asia-Pacific Relations Observatory.

LAC's integration processes or other forums, such as the Community of Latin American and Caribbean States (CELAC), where China has carved out a niche for itself regardless of the results this has actually brought.

India's first strategic decisions regarding LAC go back to the late 1990s, when it began to define concrete initiatives to export and import products to and from certain markets through the Latin America Program. These markets were mostly those that later became the country's main trade partners in the region (Cesarín, 2008). There is no doubt that India has been showing increasing interest in some strategic partners in the region, such as Brazil. Evidence for this includes the creation of the India-

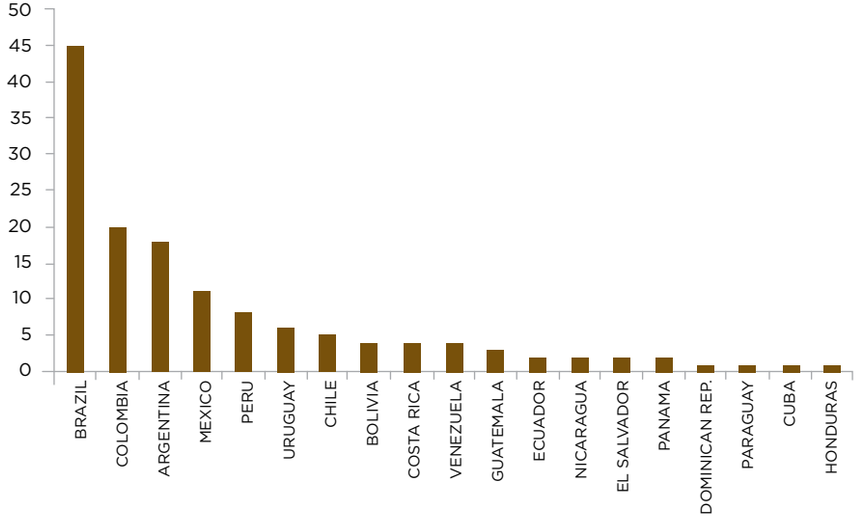
Brazil-South Africa Dialogue Forum in 2003, a space that promoted rapprochement between Brazil and India through the agreement in force with MERCOSUR (Bartesaghi, 2010; CUTS-CITEE, 2005).

Following the creation of the BRICS group and the diplomatic strategy set out by the governments of Lula da Silva and Dilma Rousseff to position Brazil as a global player, India's interests in the region were made evident through diplomatic visits and initiatives. India's latest focal point in LAC is the Pacific Alliance, which it is an observer state of. Given the headway China has made in LAC and the creation of the CELAC–China Group, which includes a specific agenda, India has expressed interest in implementing a similar initiative, although the difficulties within CELAC have prevented any progress being made.

Contact between India and LAC is growing but is still limited in comparison with the region's ties to other Asian countries. There is still a great deal to be done to increase diplomatic relations between the two parties (table 11), especially in terms of Indian representation in LAC.

To date, only MERCOSUR and Chile have agreements with India, which are very limited in their scope and coverage. There is enormous room for India to negotiate deep trade agreements with Latin American countries (table 12) in comparison with those the region already has with other Asian countries, and this is also true of investment agreements (table 13).

TABLE 17
NUMBER OF INDIAN COMPANIES IN LAC (UNITS)



Source: Compiled by the author based on data from the Latin America-Asia-Pacific Relations Observatory.

BUSINESS ASSOCIATIONS

Indian companies have also learned to explore and exploit foreign markets to their own benefit. Today, Indian vehicle, pharmaceutical, textile, chemical, and engineering industries have a wide presence in many countries. Particularly significant is the software industry, which includes several of the most important global players in this sector (Bartesaghi and Bhojwani, 2016). There are more than 150 Indian companies in LAC, the largest numbers of which are in Brazil, followed by Colombia, Argentina, and Mexico (figure 17).

IT and pharmaceutical products are the two most significant sectors, and explain over 45% of Indian companies' activities in LAC (table 14). This pattern is different from that of China's trade with LAC: Chinese companies fundamentally operate in primary sectors and not in services or pharmaceuticals, a difference which may favor relations with India in the medium and long term.

With regard to Latin American companies that operate in India, since the latter opened up its investment regime, a growing number of large Latin American companies have gone into business in different sectors of the Indian market using different types of contract (table 15).

India's different chambers of commerce and industry regularly hold events with LAC, attracting increasing numbers of firms from the region to travel to India to take part in trade forums and business events. The Indian business community recognizes how difficult it is to draw the attention of LAC companies to the Indian market, which they see as distant and protectionist (Confederation of Indian Industry, 2015).

150+

INDIAN COMPANIES ARE OPERATING IN LAC

A LONG-TERM RELATIONSHIP

Independently of the opening-up process that India began in the 1990s, the country has continued to impose barriers on trade and investment. It has not managed to sign any new trade agreements to add to those it already has with the region, most of which are very limited in terms of the tariff universe and chapters they include. These circumstances have altered somewhat since the launch of negotiations with the EU and those toward the RCEP, which is more in keeping with the slow pace of domestic reforms.

Likewise, India has implemented sector-specific reforms that have brought about changes in its productive structure and others relating to goods with medium and high technology content, such as vehicles and autoparts or pharmaceuticals. Even more importantly, it has become a global player in some service subsectors, which are growing at an even greater rate than goods.

Relations with LAC are still in their infancy: diplomatic relations are increasing but are still limited and there are a few trade and investment agreements between the two parties. Although trade has grown steadily since 2001, there has been a downturn since 2014. Likewise, this trade relationship has not led to the signing of any trade and investment agree-

45%

OF INDIAN BUSINESS ACTIVITY IN LAC IS IN THE PHARMACEUTICAL SECTOR

ments.

As is the case in other Asian countries, India exports a wider variety of products to LAC and is even competing more and more with intraregional trade (such as within the MERCOSUR) and with China as a supplier of medium- and high-technology industrial goods. There is enormous potential for Indian imports to be incorporated into Latin American manufacturing and for innovative strategic partnerships, such as in pharmaceuticals.

There is also plenty of room for growth in the food sector, given that many Indian imports are only supplied sporadically by Latin American countries. The evolution of the middle class, growth in income levels, and urbanization, along with India's limited competitiveness in the agricultural sector are all factors that generate opportunities for Latin American companies that could provide healthy food products for an ever more demanding market.

A growing number of Indian companies have established operations in the region, while more and more Latin American companies are entering into partnerships with Indian firms to supply the Indian market, which opens up a huge range of totally unexplored business opportunities. In the coming years, the changes sweeping India look set to accelerate. The challenge ahead for LAC is being ready to define a strategy for connecting with this enormous market, for which it will need to expand the traditional focus of trade and make room for a broader agenda. Appropriate attention needs to be given to the longer-term pieces of the relationship in connection with issues such as cooperation on matters in which LAC should be playing an increasingly high-profile role globally, such as food security, the environment, energy, and services. There is also potential for political cooperation with India, whose position on several matters on the global agenda coincides with that of LAC.

NOTES

[1]There are some limitations in the records on services statistics, so these should be taken as approximations.

[2]1: Live animals, animal products. 2: Vegetable products. 3: Animal or vegetable fats and oils and their cleavage products, prepared edible fats, animal or vegetable waxes. 4: Prepared foodstuffs, beverages, spirits and vinegar, tobacco and manufactured tobacco substitutes. 5: Mineral products. 6: Products of the chemical or allied industries. 7: Plastics and articles thereof, rubber and articles thereof. 8: Raw hides and skins, leather, furskins and articles thereof, saddlery and harness, travel goods, handbags and similar containers, articles of animal gut (other than silkworm gut). 9: Wood and articles of wood, wood charcoal, cork and articles of cork, manufactures of straw, of esparto or of other plaiting materials, basketware and wickerwork. 10: Pulp of wood or of other fibrous cellulosic material, recovered (waste and scrap) paper or paperboard, paper and paperboard and articles thereof. 11: Textiles and textile articles. 12: Footwear, headgear, umbrellas, sun umbrellas, walking sticks, seat-sticks, whips, riding-crops and parts thereof, prepared feathers and articles made therewith, artificial flowers, articles of human hair. 13: Articles of stone, plaster, cement, asbestos, mica or similar materials, ceramic products, glass and glassware. 14: Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad with precious metal, and articles thereof, imitation jewelry, coins. 15: Base metals and articles of base metal. 16: Machinery and mechanical appliances, electrical equipment, parts thereof, sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles. 17: Vehicles, aircraft, vessels and associated transport equipment. 18: Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus, clocks and watches, musical instruments, parts and accessories thereof. 19: Arms and ammunition, parts and accessories thereof. 20: Miscellaneous manufactured articles. 21: Works of art, collectors' pieces and antiques.

[3]Considering chapters 01 to 23 of the Harmonized System.

[4]Considering chapters 01 to 23 of the Harmonized Commodity Description and Coding System.

[5]The calculation for potential trade computes the difference between what MERCOSUR currently exports to the world minus exports to India. It takes into account the MERCOSUR's export potential according to current trade flows and the fact that India's total imports may be greater than potential trade.

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An Asian Century

Latin America vis-à-vis the Rise of China and India

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Cambridge University and Alberto Hurtado University

We owe a lot to the Indians, who taught us how to count, without which no worthwhile scientific discovery could have been made.

Albert Einstein

THIS ARTICLE OFFERS A FRESH PERSPECTIVE ON THE LIKELY ROLE OF INDIA IN LATIN AMERICAN DEVELOPMENT BY USING THE REGION'S EXPERIENCE WITH CHINA AS A GUIDE. IF INDIA'S INDUSTRIALIZATION DRIVE SUCCEEDS, LATIN AMERICA COULD BE FACING ANOTHER BOOM, BUT ALSO ANOTHER COMPETITOR IN LOW- TO MID-TECH MANUFACTURES.

Latin America is facing yet another crossroads. After four decades of fast, expansive growth, China has finally slowed down, entering a "new normal.' Prices in commodity markets have come under strain, raising concerns about the future demand for the region's resources. Meanwhile, attention now is shifting to India, a vast, growing economy that has still to realize its full economic potential. Does the rise of India represent a challenge or an opportunity for Latin America? And what can the experience of China teach us about this?[1]

In this article, we argue that each region's path to development has largely determined their pattern of integration into the world economy and shaped their interactions in terms of trade and investment flows. China's industrialization created a commodity boom for Latin America, but also stiff competition for manufacturing exports into third markets. India so far has had few linkages with Latin America, but it features a growing domestic market and the Make in India campaign could be increasing demand for resources further.

Latin America took advantage of rising commodity prices to increase revenues and pursue social policies. But in the absence of changes in the productive structure, the region's economies are in need of another source of strong external demand. Under an optimistic scenario for India, Latin America could be facing yet another boom. However, policymakers should consider whether this time such a boom could be leveraged to bring sustainable, long-term gains to the region.

We take up these issues further in the rest of this article. The second section describes the development strategies pursued respectively by China, India, and Latin America. The third section discusses what the rise of China has meant for Latin America and how that can inform the trends we see on trade and investment between India and Latin America. We end with some thoughts on the need to leverage the emerging opportunities to pursue a more sustainable growth path.

DIFFERENT PATHS TO GLOBALIZATION CHINA

On the eve of its liberalization and marketization reforms in 1979, China was a populous, closed-off, centrally planned economy that had fallen behind technologically. Following nearly four decades of average annual growth rates of 9%-10%, increasing Foreign Direct Investments (FDI) and trade flows (table 1), China is now a heavyweight in the global economy.

A central pillar of China's development model has been the cautious reforms, evolving gradually and with a great deal of experimentation (Naughton, 1996). A differentiated policy regime has also allowed the country to leverage trade and investment flows to

TABLE 1
CHINA'S ECONOMIC PERFORMANCE: KEY PHASES (1978–2015)

	1978-1992	1993-2005	2006-2015
GDP, annual growth rate	9.6	10	9.5
GDP per capita, annual growth rate	8.1	9	9
Trade, as a % of GDP	20.9	41.4	51
FDI inflows, as a % of GDP	0.9	4.3	3.4
Manufacturing, as a % of GDP	35.8	32.5	31.8
R&D, as a % of GDP	-	0.9	1.7

Source: World Development Indicators.

advance its own structural transformation (Felipe et al., 2013). The macroeconomic framework has been characterized by capital controls, attention to inflation control, and currency stability, while countercyclical fiscal expansions have been employed to combat the impact of financial crises.

In what can be described as a "multiple gear' FDI regime, China gave incentives to foreign investors who either exported the majority of their output or made high-technology transfers via joint ventures (JVs) with chosen state-owned enterprises (SOEs) (see OECD, 2003). The former were happy to use the coastal regions as an export platform, while the latter made concessions lured by China's huge market potential. This strategy led to a dual-track economy, where foreign-led export-oriented assembly operations in light manufactures, such as textiles and simple electronics, co-existed with domestic-market-oriented operations that were more complex in nature, such as semiconductors and automobiles. There were also synergies between the two "tracks.' Some of the large JVs were also able to serve as reliable contract manufacturers, while the mass migration of global value chains (GVCs) to China provided the country with the foreign exchange and revenue needed to support investments in infrastructure, human capital, and in upgrading SOEs.

In the mid-1990s, the policy focus shifted sharply to those SOEs (or exceptional private firms) with the potential to become "national champions" through their JVs with foreign capital and their own resources, often after restructuring into conglomerates. Chosen enterprises were given preferential access to capital and received funding for technological upgrading and R&D (Nolan, 2001). FDI policy was also further refined, by issuing catalogues listing areas of investment that were encouraged or restricted and prohibited. Although FDI was liberalized somewhat after entry into the WTO, JVs remain the mode of entry for perceived strategic sectors.

Since the mid-2000s, the country has entered a new phase, pushing for domestic innovation. The backdrop for this more recent policy turn included factors such as rising wages and other input costs, dampened foreign demand, and the need to secure core technology. By 2008, incentives to foreign investors were phased out and were replaced with incentives related only to high technology or investments in inland regions. National champions were encouraged to invest more in R&D, and more recently in automation and robotics, as seen in the Manufacturing in China 2025 Plan. Part of this strategy has also been to "go global" and engage in mergers and acquisitions (M&As) or greenfield investments (Davies, 2013).

This latest phase has brought some tangible results. Expenditure on R&D as a share of GDP has increased and some global brands have emerged in areas such as telecommunication equipment, consumer electronics and household electrics (Huawei, ZTE, TCL, Haier, and others). Nevertheless, there is concern about the lingering focus on SOEs, as innovative private firms have often been starved of access to capital, while many SOEs remain behind the global technological frontier (Steinfeld, 2004; Nolan, 2014).

Taken as a whole, the above mix of industrialization strategies has created multiple conditions for the integration of China into the world economy. First, China has been the recipient of both export-oriented and domestic-market-oriented FDI in manufacturing, often accompanied by increased imports of parts and components. Second, its massive industrialization boom has necessitated a large amount of primary commodities, food, and energy resources, providing a large market for developing countries. Third, its domestic firms, armed with ample resources, increasingly seek strategic investments abroad. The implications of these for Latin America will be discussed further in the next section.

India

After independence in 1947, India embarked on an import substitution industrialization (ISI) path, characterized by a large bureaucracy (Esho, 2013).

30%

THE ANNUAL GROWTH RATE OF THE INDIAN SOFTWARE INDUSTRY SINCE 1991

While creating a diverse industrial base, the state failed to discipline the private sector into investing in developing its technological capabilities, resulting in lack of competitiveness (Chibber, 2006). Some timid efforts towards deregulation in the 1980s to deal with a balance of payments crisis were followed by a radical break in 1991. The New Economic Policy (NEP), made possible by a shifting attitude in domestic business and an unprecedented crisis caused by the Gulf War (Sengupta, 2008; Kohli, 2006), led to trade and FDI liberalization. Liberalization resulted in high GDP growth rates, as well as sharp increases in trade and FDI flows (table 2).

One of the biggest success stories of India is the pharmaceutical sector, which has turned into the most successful exporting manufacturing industry, providing good-quality products and the lowest global prices. The sector's development can be traced to the ISI period, when MNC operations were restricted and the domestic sector received policy support. Integration into

TABLE 2
INDIA'S ECONOMIC PERFORMANCE: KEY PHASES (1978–2015)

	1960-1980	1981-1990	1991-2007	2008-2015
GDP, annual growth rate	3.5	5.5	6.3	7
GDP per capita, annual growth rate	1.3	3.2	4.4	5.6
Trade, as a % of GDP	10.3	13.5	27.5	50.8
FDI inflows, as a % of GDP	-	0	0.7	2
Manufacturing, share of GDP	14.6	16	15.5	17.1

Source: World Development Indicators.

TABLE 3
LATIN AMERICA'S ECONOMIC PERFORMANCE: KEY PHASES (1960–2015)

	1960-1980	1981-1990	1991-1997	1998-2003	2004-2011	2012-2015
GDP, annual growth rate	5.8	1,5	3.6	1.5	4.3	1.4
GDP per capita, annual growth rate	3.1	-0.5	2	0	3	0.3
Trade, as a % of GDP	24	30	34	39.4	45	44
FDI inflows, as a % of GDP	0.7*	0,7	1.7	3.4	3.1	3.5
Manufacturing, as a % of GDP	26**	26.8	20.1	17.4	16.7	14.4

Notes: *1975–1980; **1965–1980.
Source: World Development Indicators.

global markets helped local firms increase scale and even form their own GVCs. However, concerns remain about the sector's future trajectory: M&As with MNCs have increased and Indian firms are turning their attention to serving high-income markets, in contrast to their focus on low-cost alternatives that have had a big impact on development (Horner, 2014). The sector is also not representative of India's manufacturing sector in general. Value added in high-tech manufacturing grew from 2.9% in 1985 to only 4.7% in 2007, indicating that instances such as pharmaceuticals are isolated pockets of technological capability (Chandrasekhar, 2013).

India has also integrated into the world economy with the growth of the service sector, most notably in IT, but unlike the pharmaceutical sector, this has been largely MNC-led. Texas Instruments was allowed to set up a wholly owned subsidiary in the mid-1980s to undertake low-end information processing. Gradually more MNCs located and some notable Indian firms emerged (Infosys, Wipro). The software industry has seen a 30% annual growth rate since 1991, and employment grew fast (Esho, 2013), but productivity has slowed more recently (Reserve Bank of India, 2014).

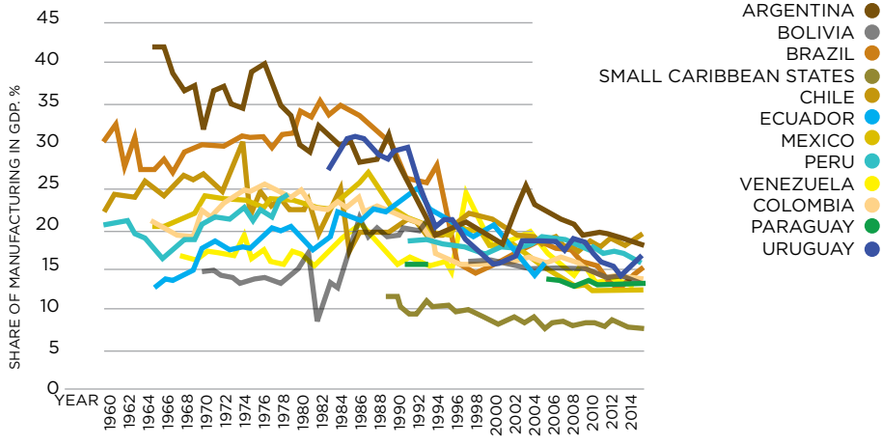
Despite the successes in the exports of pharmaceutical and IT, the locus of development has been the growing domestic market, rather than exports. The balance of payments has remained negative. For example, during the period 2009–2011 the trade balance in services was US$10.8 billion, but the merchandise trade balance was US$–124.7 billion (Ghosh, 2015). The influx of capital has also concentrated in a few services[2] and in construction, with a view to taking advantage of the domestic market. At the same time employment has also grown slowly—the annual growth rate fell from 2.8% in the prereform period to 1% in the 1990s (Dastidar, 2015). The picture that emerges is that of a boom largely powered by credit-based consumption by the middle class and the elites (Ghosh, 2015).

India's integration into global flows of trade and investment, similar to China, is currently characterized by a diverse set of strategies. First, some dynamic manufacturing firms are exporting and engaging in global investments, but in a limited amount of sectors. Second, the country is exporting services, most notably MNC-led ICT services. Third, India's growth provides a large market for commodities—especially for consumption—but also for manufactures. The Make in India Plan recently launched by the government may change this path, increasing similarities with the Chinese trajectory. This would imply increases in demand for commodities and most likely increases in MNC-led manufacturing exports.

Latin America

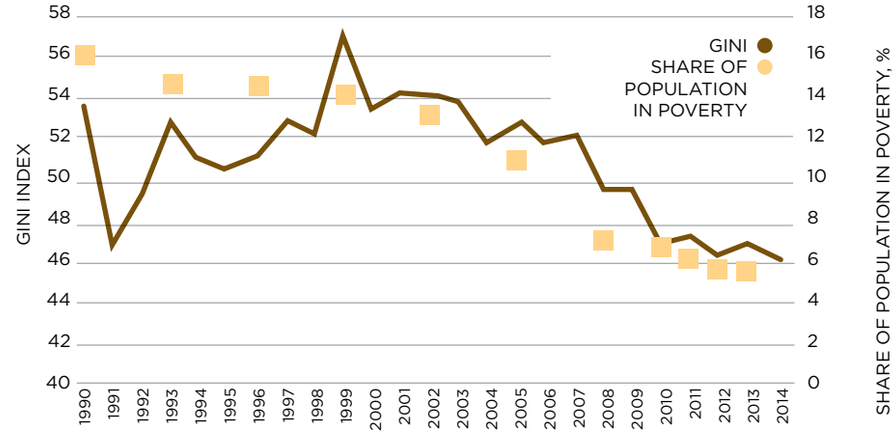
The financial crisis of the 1980s was a critical conjuncture that forced the Latin American region to re-shape its pattern of economic integration. The dismantling of the ISI regime led the region to

FIGURE 1
LATIN AMERICA: SHARE OF MANUFACTURING IN GDP (1960-2015)



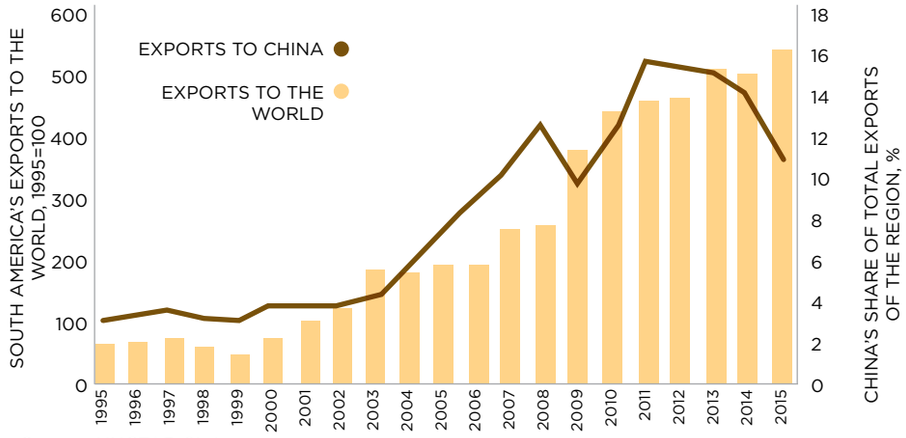
Source: World Development Indicators

FIGURE 2
POVERTY AND INEQUALITY IN LATIN AMERICA (1990-2014)



Source: World Development Indicators.

FIGURE 3
SOUTH AMERICA'S EXPORTS (1995-2015)



Source: UNCTAD Stat.

initiate, under the influence of IMF- and World Bank-led structural reform programs, a series of fiscal austerity measures. The package of reforms, which later became known as "the Washington Consensus,' included the elimination of industrial policies, privatizations, and undertaking deep and rapid trade, financial, and investment liberalization reforms (Frieden, 2006; Bértola and Ocampo, 2012). It is under this liberal strategy of economic integration that the region welcomed the new wave of globalization during the 1990s.

During that decade, the liberal integration of the region into a dynamic world economy was consolidated. This brought an export turn based on countries' static comparative advantages, new access to a dynamic and expanding global financial market, and an increasing boom of FDI to newly available economic sectors, such as privatized firms, natural resources, and domestic-market-oriented service sectors. In sum, a full (or near full) liberal pattern of integration into the world economy was established (see Kohli, 2012).

This new access to foreign demand and capital permitted the region to expand its exports, both in terms of markets and productive capacity. This led to growth recovery and sharp declines in inflation, thereby overcoming the so-called lost decade of the 1980s (see Kingstone, 2011, chapter 3). In fact, the region's GDP growth increased from 1.5% during the 1980s to 3.6% on average during the 1990s (until the Asian crisis), while the share of trade and FDI in GDP also increased considerably (see table 3).

In general, the region employed two different tactics within this general liberal strategy. The Southern Cone (with the relative exception of Brazil) specialized in exporting natural resources to Europe and the US, while their manufactures remained highly dependent on this sector. Central America (including Mexico) instead, integrated into US-led value chains, specializing in the assembly of low-value-added manufactures (particularly in textiles, electronics, and automobile assembly).

Chile is a stark example of the first tactic: since the export turn in the mid-1980s, and especially during the 1990s, the country has consolidated a pattern of integration based on specialization in natural resources, mainly mining (copper), forestry, agriculture, and fruits. Also, Chile has permitted the free inflow of FDI to the economy, which has focused on mining during the 1990s and later on financial and services activities for the internal market (see Agosin, 1999; Solimano, 2012). Mexico, in contrast, has focused on the maquila economy and FDI inflows since the 1980s, integrating into US-led electronic and automobile GVCs, under the idea of "climbing the ladder" from simple assembly operations to complex productive activities (see Cypher and Delgado, 2010).

Firstly, the financial crises of Mexico (1994) Brazil (1999) and Argentina (1995, 2001) and the negative impact of the Asian crisis in 1998 demonstrated the risks that the dynamic of the "manias, panics, and crashes" that are characteristic of financial capital posed for recently open economies (see Palma, 2012). Secondly, while free trade and FDI expanded exports and production, they also accelerated the region's premature de-industrialization (see figure 1 and Castillo and Martins, 2016). These dynamics help explain the slow recovery of the region at that time, with a rate of growth well below the previous ISI period (see table 3).

The impact of the Asian crisis in 1998 put an end to the growth of the 1990s and initiated a half-decade of economic inertia that was only overcome exogenously, by a new commodity boom led by demand from China demand (as will be shown in the next section).

16%

OF TOTAL LAC EXPORTS ARE TO CHINA

FROM DIFFERENT PATHS TO COMMON LINKAGES

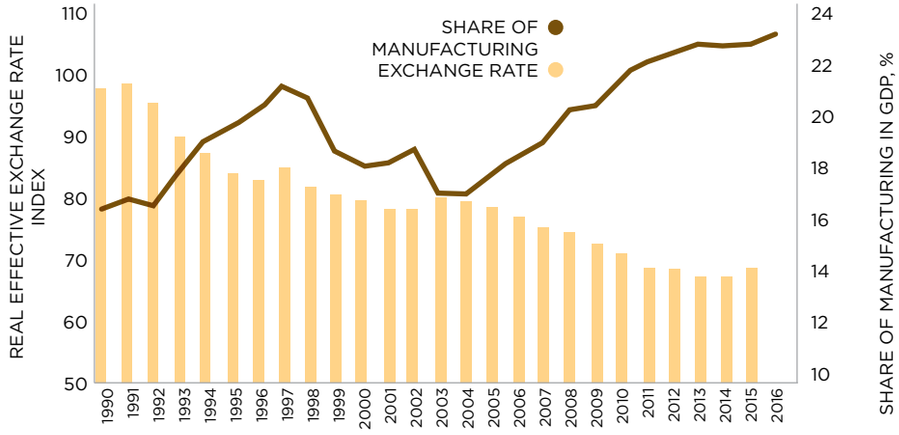
China and Latin America

As was shown in the previous section, Latin America reached the 2000s immersed in a half-lost decade of low growth, financial instability, and social unrest. In fact, within this period new governments began to emerge with an agenda of important social and political transformation beyond the objectives established during the Washington Consensus.

China's entry into WTO and its massive demand for raw materials, energy, and agricultural products meant that Latin America won the "commodity lottery," with copper, oil, and soy seeing their prices increase radically as Chinese demand boomed (Gallagher, 2016). This exogenous Chinese shock was a real blessing for a depressed region: its rate of growth jumped from 1.5% on average in the half-lost decade (1998–2003) to 4.3% during the commodity boom (2004–2011), raised by an expansion of trade, which jumped from 30% to 45% of regional GDP in the same periods (see table 3).

The new governments took advantage of this boom. The positive shock gave them an impressive source of wealth to satisfy urgent social needs that the people in the region were demanding. As a result of a series of social and redistributive policies that were applied during this period, inequality and poverty began to considerably fall from 2003 onward (figure 2). In the next section, we will examine the impact of the boom on the productive structure of the

FIGURE 4
SHARE OF MANUFACTURING IN GDP AND EXCHANGE RATES IN SOUTH AMERICA (1990-2015)



Source: World Development Indicators.

region as well as the role of Chinese investments in reinforcing some of these patterns.

Latin America: premature deindustrialization, reprimarization, and commodity booms

The commodity boom implied an impressive export expansion, specifically for the Southern Cone. As figure 3 shows, China has become a key market for the subregion: if in 2002, China accounted for a 3.6% of its total exports, by 2015 it jumped to 16.1%.

However, this dynamic has impacted on the long-term sustainability of the region's growth regime in two key areas, namely export diversification and internal industry. In the case of exports, China's demand has put pressure on the reprimarization of the region's export basket. In fact, as table 4 shows for the case of South America, the exports of primary products and resource-based manufactures increased their share of total exports from 70.4% in 1995 to 74.7% in 2015, largely explained by the rise of China's demand. The latter accounted for only 8.3% of the demand in those sectors in 1995 but 54.2% of the demand in 2015. Another important factor to consider is the impact of the boom on the exchange rate of the subregion. The rapid appreciation of most of the Southern Cone countries' currencies has created a phenomenon of "Dutch Disease," adding to the pressures towards deindustrialization (see figure 4).

While Chinese demand has led to the reprimarization of South American's export basket, China's productive expansion and export-led growth has impacted the whole region's manufacturing structure, deepening its "premature deindustrialization" (Palma, 2005; Kim and Lee, 2014). China's manufacturing exports to the region and to key developed countries, such as the US and the EU, have been crowding-out Central American manufacturing exports, while exchange rate appreciation has diminished the competitiveness of import-substituting manufactures (see Gallagher and Porzecanski, 2010). As can be seen from the figure 5, the outcome has been a continuing reduction of the share of manufactures in the total GDP of most of South and Central American countries (including Mexico).

Central America and Mexico have integrated into the world economy through the insertion into manufacture GVCs. Thus, contrary to South America, their export basket has been focused on textiles, electronics, and automobile assembly, mainly to the US. However, China's export dynamism to the US has impacted on the subregion's competitiveness of its manufacturing exports. As can be seen in figure 6, while in 2001 Central America and Mexico accounted for 13.1% of total US manufacturing imports and China for only 11.8%, by 2015, China accounted for almost a 33% of total US manufacturing imports, while Central America and Mexico's share stagnated. The turning point is clearly China's entrance into WTO in 2001, which implied its complete integration into global trade.

In the medium-skill and technology-intensive manufactures (which explain more than half of total exports of Central America and Mexico to the US), the subregion's share was the same as China's (15%) in 2000 (data available from UNCTAD Stat). By 2015, the region's had increased to 20% while China's jumped to almost 30%. In that sense, China has been quickly conquering the US market in one of the most important sectors for the subregion.

CHINESE INVESTMENTS: A GLOBAL SEARCH FOR ENERGY

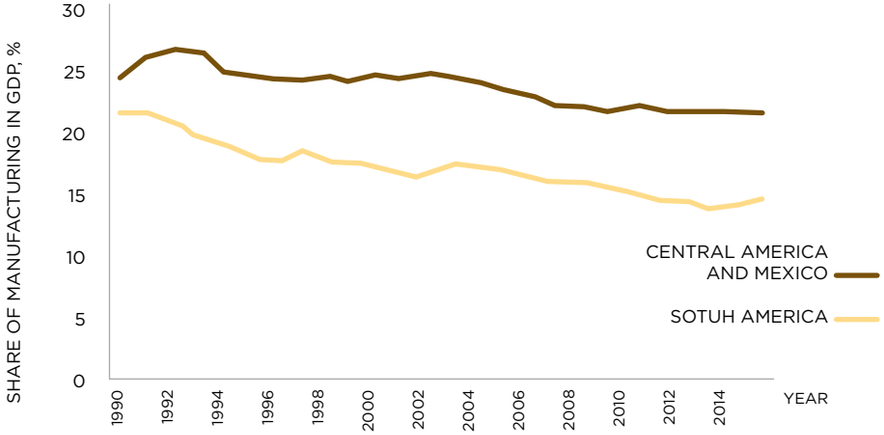
Chinese investments in the region have followed the pattern of "commodity-for-manufacture" trade relations it has with the region. Most of the investments have gone to natural resources, such as the gas and oil industries. Even though the key destination for Chinese investments is, so far, Africa, Latin America is becoming increasingly popular. During the period 2005–2013, China accounted for 57% of total FDI in Ecuador, 12% in Venezuela, 15% in Peru, 11% in Argentina and 7% in Brazil.[3] In the

TABLE 4
SOUTH AMERICA'S EXPORT MATRIX AND CHINA'S SHARE
(Percentages. Share of China in exports of the sector in parenthesis)

SECTOR	1995	2000	2005	2010	2015
Primary products	41.5 (1.8)	43.1 (2.1)	43 (5.7)	45.3 (13.1)	47.6 (16.1)
Resource-based manufactures	28.9 (6.5)	26 (4.8)	27.3 (16.7)	30.3 (33)	27.1 (38.1)
Low technology manufactures	10.3 (2.2)	8.4 (2.2)	7.1 (7.8)	4.7 (6.2)	4.7 (9.9)
Medium-technology manufactures	14.9 (3.4)	14.2 (1.9)	16 (5.8)	13 (7.2)	13.1 (10.6)
High-technology manufactures	0.9 (1.8)	3.4 (1.4)	1.9 (1.7)	1.8 (6.2)	2.1 (7.1)
Unclassified products	2.5 (0)	3.1 (0)	2.9 (0.1)	4 (0)	4.6 (0.1)

Source: UNCTAD Stat.

FIGURE 5
SHARE OF MANUFACTURING IN GDP (1990-2015), SOUTH AND CENTRAL AMERICA

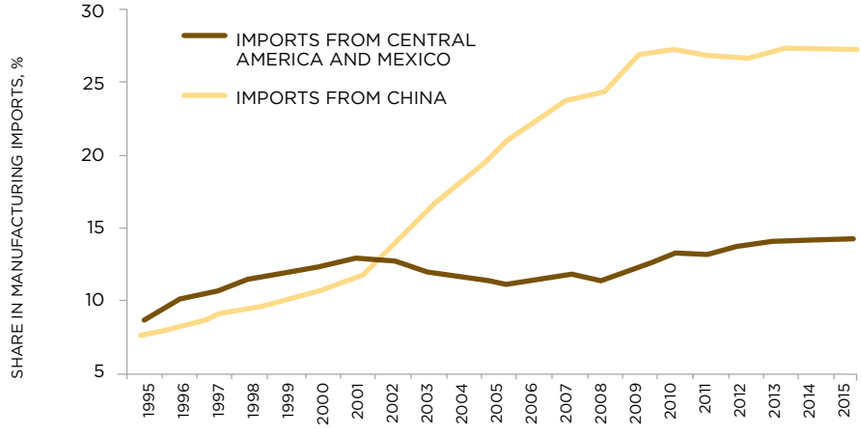


Note: For Central America and Mexico we took the average of the following cases: Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Puerto Rico. For South America, we included the following cases: Argentina, Bolivia, Brazil, Chile, Colombia, Peru, Uruguay, and Venezuela.
Source: World Development Indicators

case of Ecuador, most of the investment has gone to oil and copper extraction, in Venezuela to oil refining and in Argentina and Brazil to soy production and oil refining.

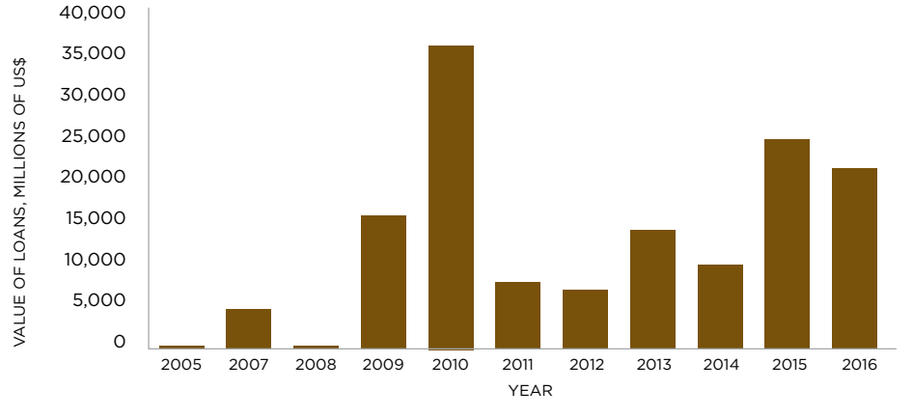
One key element in China's flows to the region is the support given to countries considered "risky" by Western

FIGURE 6
SHARE OF CHINA AND CENTRAL AMERICA & MEXICO IN US MANUFACTURING IMPORTS (1995-2015)



Source: UNCTAD Stat.

FIGURE 7
TOTAL AMOUNT OF CHINESE LOANS TO LATIN AMERICA (2005-2016)



Source: Gallagher and Myers (2016).

powers. After the default of Ecuador to key sources of Western capital in 2008, China has provided the country with 13 loans since 2010, amounting to US$17.4 billion. Argentina has received 15 loans since 2007, which amounted to US$15 billion. The biggest recipient of China's loans is Venezuela, with 17 loans since 2007 (US$62.2 billion).

The loans and investment provided by China have become, since 2005, bigger than the ones given by the World Bank and the Inter-American Development Bank (IDB), reaching a total of US$141.2 billion. Approximately 70% of these loans have gone to energy investments, particularly oil refining (in Venezuela and Ecuador) (see Gallagher and Myers, 2016).

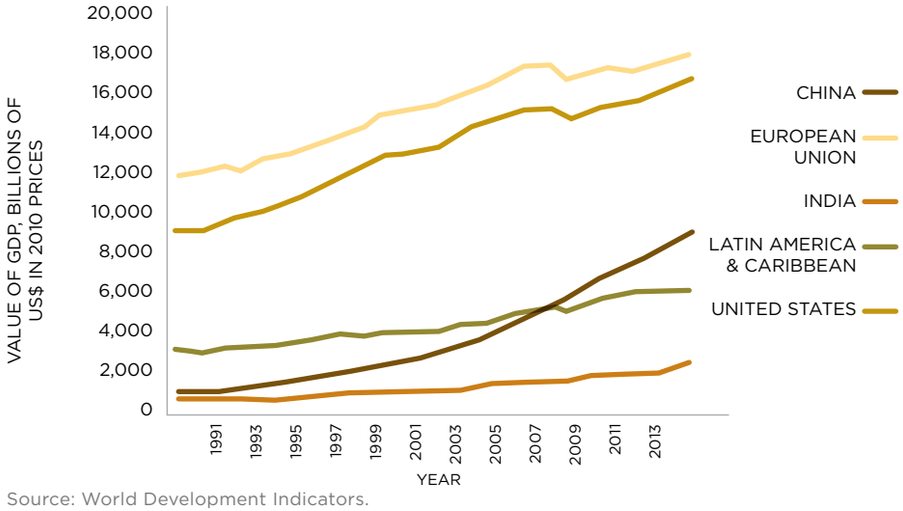
One key aspect of these loans is that, contrary to the ones given by Western financial institutions and organizations, they do not demand any reforms or specific policies. In that sense, the Chinese loans are more "friendly" than Western ones. However, many have certain explicit or implicit clauses related to sustained contracts or alliances between Chinese and national firms in extractive industries. Should Latin American countries consider these demands a threat or an opportunity to exploit areas where the nations did not have enough national capital?

Overall, the governments of the region used many of the resources created by trade and investment with China to solve urgent social needs that they have been facing since the 1980s. This was a legitimate decision, but now it could be the time to put emphasis in developing the productive base in a way that could transform those past social successes in future sustainable social rights.

US$15 BILLION

THE AMOUNT CHINA HAS GRANTED ARGENTINA IN LOANS SINCE 2007

FIGURE 8
GDP IN KEY REGIONS (1990-2015)



Source: World Development Indicators.

INDIA AND LATIN AMERICA: A FATE TO BE REPEATED?

The end of the commodity boom driven by China's massive demand for natural resources has led Latin America to confront a thorny question: is the region entering a "new normal" of low growth and economic stagnation?

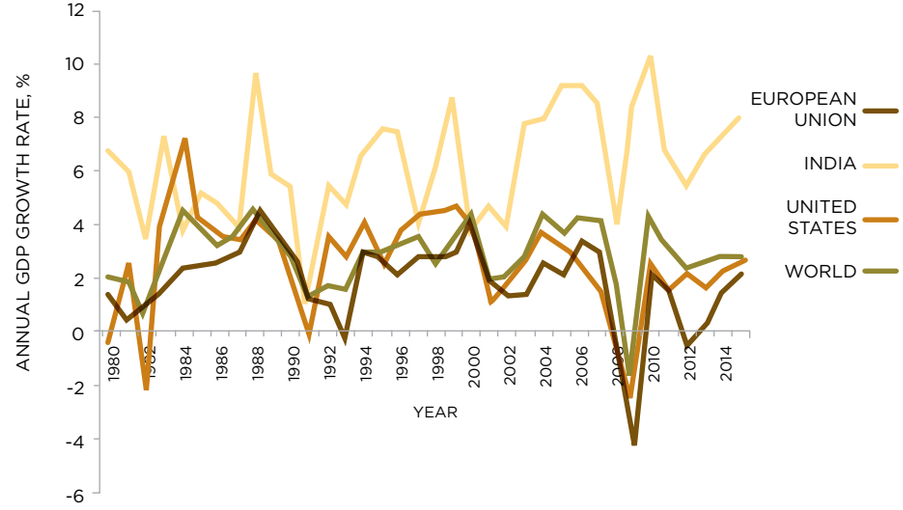
In this context, India's emergence in the global economy could open the door for a new economic boom to the region, taking it out from its current stagnation (Moreira, 2010). Can India be a source for Latin America's export expansion? And if it can, how can the region take advantage of it, in order to consolidate a process of structural transformation?

A first element to consider is that India is still a developing country with a low GDP (lower than Latin America and China) and with a significant part of the population living in poverty (21% living with less than $1.90 at 2011 PPP).

However, India is now the second-most-populous country in the world (after China) and is expected that by 2022 it will become the most populous.[4] At the same time, its economic growth has been well above the world's average, particularly since the 2000s, and its annual rate of growth in the last ten years has been 7.6% on average vis-à-vis the US (1.6%), EU (1.1%), and the world average (2.7%) (see figure 9). Indeed, in a global scenario of low growth, India is one of the most dynamic economies of the world.

One key characteristic of India's growth is its export turn from the 1990s, reaching a trade share in GDP of 50%. India's openness, nevertheless, has focused mainly on Asia. In 2015, almost 50% of its exports went to the region and 57% of its imports came from there (see table 5). In fact, most of India's foreign policy has focused on strengthening ties with her neighbors. India is a founding member of the Asian Infrastructure Investment Bank and a member of the Regional Comprehensive Economic Partnership (RCEP)) (see ECLAC,

FIGURE 9
INDIA'S ECONOMIC GROWTH IN CONTEXT (1980-2015)



Source: World Development Indicators.

2016). This is in sharp contrast with Latin America, the region with which India has the lowest trade flows (only 3.7% of its exports and 5.2% of its imports).

However, even though trade between Latin America and India is still small (resembling the trade between Latin America and China in the first half of the 1990s), there are many signals suggesting that India could potentially become an important trade partner for the region.

The first signal is India's transformation into a growth pole with a massive population and an emerging middle class. According to ECLAC (2016), India's middle class corresponds to 30% of India's population and that is the fastest growing population segment in the country. This opens the door for an impressive consumer market for the region's exports.

A second element is India's trade complementarity with Latin America, in particular with the South Cone. Just as in the case with China, the trade relationship with the region is interindustry in nature: the region exporting raw materials, while India exporting manufactures goods and IT services (see figures 9 and 10). As can be seen in figure 11, 90% of South America's exports to India corresponded to primary products (50%) and resource-based manufactures (40%), while 70% of India's exports to South America corresponded to low- and medium-technology manufactures (figure 10).

However, Latin American exports to India are still highly concentrated in a few products with low value added, such as copper, soy, gold and crude oil (table 6). This replicates, on a lower scale, the trade structure with China, with the opportunities but also the series of challenges that this implies.

Beyond the aggregate data, there is an interesting trend in trade between certain countries in the region and India. For example, in 1995, India ranked 32nd

TABLE 5
INDIA'S TRADE BY REGION (1995-2015)
Percentages. Exports without parenthesis, imports in parenthesis

	1995		2000		2005		2010		2015	
LATIN AMERICA	1	1.7	1.8	2.2	2.5	2.7	3.1	3.6	3.7	5.2
AFRICA	5.2	5.6	5.2	10.5	6.7	4	8.1	8.3	9.7	8.4
ASIA	39.7	40.2	37.3	41.3	47.6	47.6	53.7	58.6	49.3	57.4
UNITED STATES	17.4	10.3	22	8	16.5	8	10.7	5.7	15.2	5.7
EUROPEAN UNION	28.2	32.4	24.2	27.9	22.6	24.6	18.9	13.1	16.9	11.7

Source: UNCTAD Stat.

on the list of trade partners with Chile, which accounted for only 0.7% of total exports to India. However, in 2015 India, was Chile's fifth-most-important trade partner, accounting for 3.5% of the country's exports. The same dynamic can be seen in the case of Argentina, where India went from 28th position (0.7% of total exports) to fifth position (3.5% of total exports). Even though the numbers are still small, the trend is clear: India is slowly increasing its importance as a market for the region's exports.

The third element is the evolution of FDI between the regions. Just with trade, the aggregate data still shows limited flows between the regions. In fact, between 2002 and 2010, only 4% of total India's FDI went to Latin America (see Varma and Nayyar, 2013). However, the evolution of FDI has changed considerably in the last decade. In fact, as can be seen in table 8, while between 1991 and 2002 there were 19 Indian investments in the region, which mainly focused on the IT and pharmaceutical sectors, between 2003 and 2013, total investments not only expanded quantitatively, they also diversified in terms of sectors. There were 121 new investments in new areas beyond services and pharmaceuticals, such as minerals, energy, construction, and agribusiness.

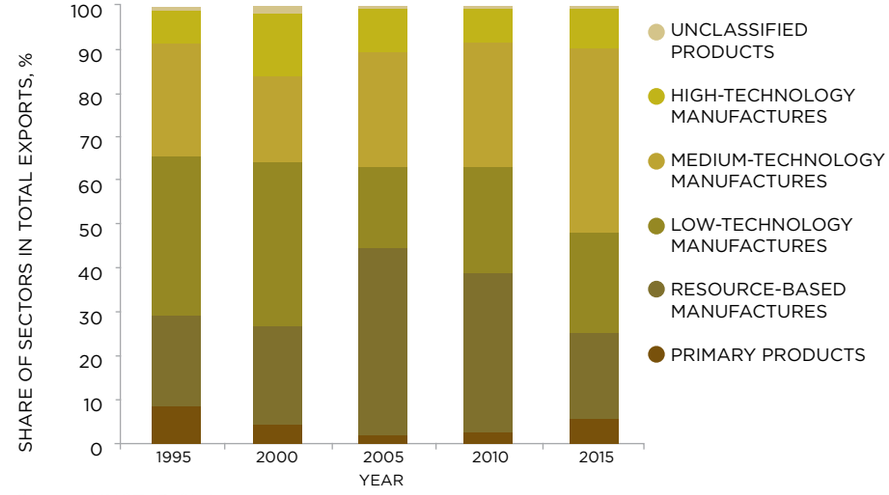
70%

OF INDIA'S EXPORTS TO SOUTH AMERICA ARE TECHNOLOGY MANUFACTURES

The three signals of India's potential role for trade and investment dynamism for Latin America (emergent middle class and economic boom, complementarity in trade, and FDI evolution) should be contrasted with other elements that put limits to this potentiality. Geographical restrictions, cultural differences, and trade rule heterogeneity in Latin America restrict the capacity for increasing flows of goods, services, and investments (see ECLAC, 2016).

However, those impediments should not be considered impossible to overcome. Geographical obstacles are being dismantled by new technologies in the areas of trade and distribution, cultural differences have not been an impediment for China–Latin America trade relations, and there are good signals that the region and India are building certain common rules for trade and FDI: India signed a preferential trade agreement (PTA) with Mercosur in 2009 and with Chile in 2006, which was expanded in 2016.

FIGURE 10
INDIA'S EXPORTS OF GOODS TO LATIN AMERICA (1995-2015)



Source: UNCTAD Stat.

Earlier restrictions are thus not the key factors explaining why trade flows between the two regions are still not strong. One structural dilemma of contemporary India, as shown previously, is how to translate its recent economic dynamism into more, highly qualified jobs. One clear path the government is seriously considering is expanding the labor-intensive manufacture sector and beginning a movement from a service-led export growth regime to a more manufacture-led one (The Economist, 2014). If this path is successful, it would mean a structural change in India's growth regime towards industrialization (such as in contemporary China), implying not only changes in its productive structure but, more important for our purposes, in its pattern of integration.

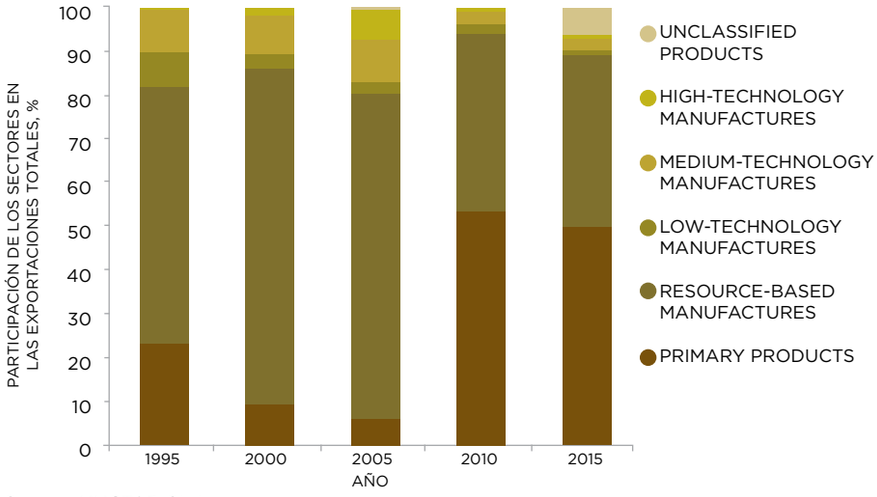
This would imply a new demand for energy, raw materials, and agricultural products in order to sustain its industrialization effort. Of course, this will transform India into a key market for Latin American exports, opening up the possibility of a new boom for the region, with all the advantages, challenges, and threats that these commodity booms have implied for the region in the past.

HANDLING EXOGENOUS SHOCKS

One thing is true: China's demand boom has considerably changed the horizons for Latin American economic growth. It has permitted, for the first time in many decades, a clear reduction in poverty and inequality and has diminished the region's dependency on Western markets. At the same time, Chinese investments have opened the door for many countries to expand and modernize their energy and mineral sectors with capital that would not have been possible by relying on national savings.

However, many problems have emerged with this boom, affecting

FIGURE 11
SOUTH AMERICA'S EXPORTS TO INDIA (1995-2015)



Source: UNCTAD Stat.

particularly the long-term pillars for any sustainable economic growth. Export reprimarization and premature deindustrialization are warning us that the present boom could become a future bust if prices sharply drop. Is this result inherent to the boom? Of course not. The key question is how to leverage positive exogenous shocks, and this depends on domestic policies. These exogenous shocks translate into opportunities or challenges depending on the region's specific pattern of integration (its trade, financial, investment, and capital regimes), which are the result of specific political configurations, present social needs, and past historical legacies.

These issues need to form the backdrop of the region's thinking on the impact of India. The potential impact of a new boom for Latin America will depend largely on the internal decisions of how to handle this exogenous shock. A passive reaction of the region would lead to short-run growth together with a process of deep reprimarization of the export basket for the Southern Cone and a strong premature deindustrialization in the productive structure for the whole region. On the contrary, a more pragmatic reaction, focused on using the gains from the export boom for building new productive capabilities towards the industrialization of natural resources and the building of linkages in these sectors, could permit the region to consolidate a sustainable growth pattern beyond the commodity boom.

The second option, even though it could permit a sustainable pattern of growth in the long run is very difficult to implement, politically speaking in the short run, at least in comparison with the passive alternative. Redistributive coalitions and powerful extractive elites could potentially put pressure to appropriate those surpluses and use them for unproductive ends, challenging the possibility to build a novel industrial plan that could create the material basis for sustainable social policies that are urgently needed.

TABLE 6
LATIN AMERICA'S EXPORTS TO INDIA: TOP PRODUCT FOR EACH COUNTRY PRODUCT, 2015

COUNTRY	TOP EXPORT	SHARE OF TOTAL EXPORTS
ARGENTINA	Soy oil	90.6
BOLIVIA	Nonmonetary gold	97.4
BRAZIL	Crude oil	30.5
CARICOM	Medicines	97.9
CENTRAL AMERICA	Nonconiferous wood. Unworked.	37.2
CHILE	Copper materials.	89.3
COLOMBIA	Crude oil	95.5
ECUADOR	Crude oil	35.6
MEXICO	Crude oil	79.9
PARAGUAY	Soy oil	95.3
PERU	Nonmonetary gold	52.3
URUGUAY	Wool without carding or combing	50.7
VENEZUELA	Plates, sheets, strip and thin sheets of lead	80.6

Source: ECLAC (2016)

TABLE 7
TRADE BETWEEN LATIN AMERICA AND INDIA, AS SHARE OF TOTAL EXPORTS PERCENTAGES

		1995	2000	2005	2010	2015
ARGENTINA	Exports	0.7 (28)	1.7 (13)	1.8 (11)	1.9 (13)	3.5 (5)
	Imports	0.3 (35)	0.6 (24)	0.7 (22)	1 (15)	1.2 (15)
BRAZIL	Exports	0.7 (32)	0.4 (41)	1 (23)	1.7 (17)	1.9 (8)
	Imports	0.3 (41)	0.5 (33)	1.6 (17)	2.3 (10)	2.5 (11)
CHILE	Exports	0.6 (28)	0.7 (24)	1.6 (16)	2.5 (11)	3.2 (6)
	Imports	0.2 (42)	0.4 (33)	0.4 (29)	0.7 (22)	1.1 (19)
MEXICO	Exports	0 (47)	0.1 (38)	0.3 (16)	0.3 (15)	0.5 (15)
	Imports	0.2 (28)	0.2 (29)	0.4 (21)	0.6 (18)	1 (13)

Note: India's trade ranking in parenthesis.
Source: International Trade in Goods, UN Comtrade.

TABLE 8
INDIA'S FDI TO LATIN AMERICA (1991–2013)
(NUMBER OF TRANSACTIONS)

	1991-2002	2003-2013
IT	5	42
Pharmaceuticals	12	14
Metals and minerals	0	9
Energy	0	15
Construction	0	10
Agriculture and business	0	4
Miscellaneous	2	27
Total	19	121

Source: Based on Varma and Nayyar (2013)

NOTES

[1]We would like to thank Bhumika Chauhan and Swati Chintala for their valuable research assistance. We would also like to thank Ilan Strauss for helpful comments and suggestions.

[2]See Table 5.2 in Pal (2015). In 2014, the biggest share (19%) of FDI went to services in such as financial, banking, insurance, non-financial/business, outsourcing, R&D, courier, tech, testing, and analysis services.

[3]See Aisch, Keller and Lai, 2015.

[4]http://www.un.org/es/development/desa/news/population/2015-report.html

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A RISING REPUTATION

The United States is the country that Latin Americans have the most positive opinions about. India is gaining ground in citizens' opinions and is closing in on more traditional Latin American trade partners such as Russia or China.

40%

of Latin Americans have a very good or good opinion of India

75%

of respondents in Mexico look favorably on India and this is true of 58% in Chile, the countries that hold India in highest esteem

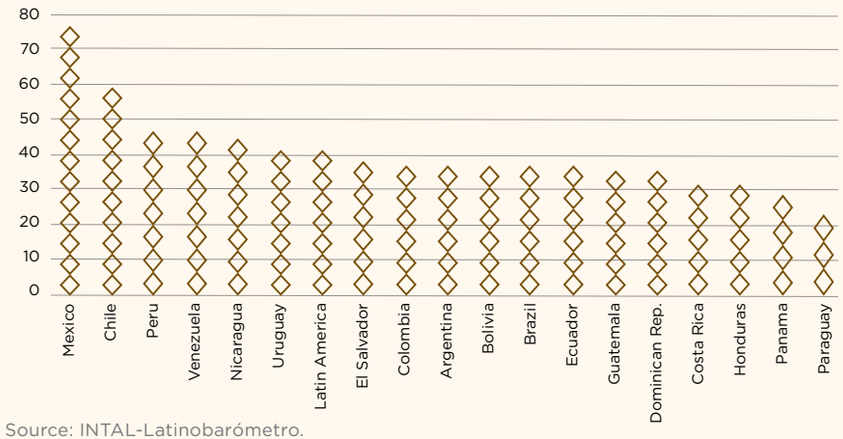
4 P.P.

The increase in positive opinions of China between 2016 and 2017, when 61% of respondents rated the country positively

The countries that Latin Americans value most

Q: I'd like to know what you think of the following countries. Is your opinion of the following countries very good, good, bad, or very bad?

* "Very good" and "good" for India are the only responses shown.



Source: INTAL-Latinobarómetro.

David Rasquinha
Managing Director of Exim Bank India

“India **would like** to become a **nonregional member of the IDB**”

DAVID RASQUINHA JOINED EXIM BANK IN 1985, AND HAS HAD A NOTABLE CAREER THERE SINCE IN THE BANK'S TREASURY, PLANNING, RISK MANAGEMENT, AND FINANCE DEPARTMENTS. HE WAS PART OF THE WORKING GROUP CREATED BY THE CENTRAL BANK OF INDIA TO FINANCE SOFTWARE FIRMS. FROM 1999 TO 2004, HE WAS THE EXIM BANK REPRESENTATIVE IN WASHINGTON.

The Export-Import (Exim) Bank of India specializes in foreign trade operations and is a key player in financing ventures that involve Indian companies doing business in Latin America and the Caribbean. The bank's managing director, David Rasquinha, says that it already has 20 operational credit lines were US$279 million in six Latin American countries and that it hopes to expand its ties with other credit institutions in the region.

How did Exim Bank start and what are its objectives?

The discussions around starting an export/import bank started in the late 1960s through a working group that was set up to implement export credit programs. At the time, the working group recommended that an institution be established to meet the special credit needs of exporters, in close cooperation with the Export Credit Guarantee Corporation Ltd. Over the years, several other committees, commissions, and reports also recommended setting up a bank of this sort. The Exim Bank of India was set up in 1982 with the following objectives: to provide financial assistance to exporters and importers; to function as the principal financial institution for coordinating the working of institutions engaged in financing the export and import of goods and services; and to promote India's international trade.

What sort of financial products do you offer Indian exporters?

Exim India has come a long way, going from taking a product-centric approach that focused on export credits and export capability creation to adopting a more customer-centric approach by offering a comprehensive range of products and services to empower Indian firms at all stages of the business cycle. When the bank was founded, Indian exporters struggled to win projects overseas. It is well known that export project contracts generally imply very large sums and exporters wishing to take them on need to offer competitive credit terms to be able to secure orders from foreign buyers in the face of stiff international competition. Long-term deferred credit thus plays a major role in securing export contracts. Large projects that have substantial credit requirements and entail high investment risks are not viable without support from export credit agencies. Exim Bank thus be-

came the prime mover and promoter of export projects from India through attractive credit packages to give exporters a chance to take advantage of opportunities in foreign markets and guarantee them a large share in such ventures.

What measures that were part of the reforms to the Indian economy contributed to your mission?

The liberalization of the foreign trade sector has been a cornerstone of the reforms to the Indian economy. Just a decade after the inception of Exim Bank, the economy opened up, providing greater opportunities for trade and investment. It was then that the bank felt the need to focus more on those Indian entities who would like to have a global footprint. In this context, the bank's Overseas Investment Finance program started offering an array of facilities for Indian investments and acquisitions abroad: term loans to enable Indian promoter companies to finance their investments in overseas ventures by way of equity, preference shares and loans; direct foreign currency loans for overseas ventures to part-finance their capital expenditure, working capital requirements and downstream investments; and, on a selection basis, Exim Bank also takes on direct equity participation in overseas ventures.

Who are your loans aimed at?

Exim Bank has been extending lines of credit to overseas financial institutions and foreign governments and their agencies to enable them to finance imports of eligible goods and services from India on deferred credit terms. In 2003, as part of the Government of India's initiative under the Indian Development and Economic Assistance Scheme, Exim Bank began extending credit lines to sovereign borrowers at the government's behest. As of late May 2017, Exim Bank had 219 lines of credit in place, covering 63 countries in Africa, Asia, LAC, and the CIS, with credit commitments of around US$16.6 billion available for financing exports from India. As the bank was aware of the advent of globalization and the challenges Indian goods and services faced internationally, it introduced financial programs to support initiatives by Indian entities to acquire trade and product certifications which would be conducive to global trade. The initiative put many Indian companies and their products on an equal footing in the global arena.

> LIBERALIZATION OF THE FOREIGN TRADE SECTOR HAS BEEN A CORNERSTONE OF THE REFORMS TO THE INDIAN ECONOMY

What is the ultimate objective of these resources?

Our main objective is to globalize Indian goods. To this end, the bank initiated its Market Advisory Services program, which seeks to structure export market development initiatives and supply-side upgrading by facilitating product adaptations, business promotion, and participation in trade fairs. It has also made efforts to identify prospective business partners and facilitate the placement of Indian goods on overseas markets. The program has helped Indian small and medium-sized enterprises (SMEs) to penetrate into industrialized country markets like those of North America, the EU, Japan, and Australia. One of the bank's recent programs is the Buyer's Credit under National Export Insurance Account (NEIA) program, through which Exim Bank extends credit to overseas sovereign governments and government-owned entities so that they can import Indian goods and services from India. The program facilitates capacity building in other developing countries through Indian technology and turnkey implementation with deferred credit on a medium- or long-term basis.

Do you have special credit instruments that target SMEs?

Exim Bank has been playing a catalytic role in building Brand India by partnering with SMEs and enhancing their global footprint. Its financing programs for SMEs cater to the requirements of Indian exporter SMEs. They are a source of income at various stages in the export business cycle, covering technology imports, the development, production, and marketing of export products, and export credit at pre- and postshipment stages. Besides providing financial assistance to individual export-oriented SMEs, Exim Bank does the same for special purpose vehicles for a cluster of SMEs. Exim Bank has made significant strides toward contributing to economic development through our Grassroots Initiative and Development (GRID) program. Our aim has been to strengthen the export capabilities of rural enterprises, ensure all-round economic development, and to enhance purchasing power from the bottom of the pyramid.

What financial instruments are most suitable for promoting service exports and e-commerce?

Trade in services takes place through the following four modes, which Exim Bank promotes through different products.

Modes 1 and 4 (cross-border trade and the presence of natural persons): are Exim Bank's flagship program, one that is key in facilitating exports of services from India. The program caters largely toward services involving project implementation for engineering, procurement, and construction contracts abroad. Exim Bank also provides advisory and information services and facilitates the participation of Indian companies in international competitive bidding.

Mode 2 (consumption abroad): the bank supports entities offering services in India (like hotels, hospitals, etc.) through its import finance program. These entities offer their services to visiting foreigners (medical and general tourism) and are a source of foreign exchange earnings. Exim Bank caters to these entities' financing requirements for upgrading their facilities, including through imports from other countries. Another example that falls into this category is support for the Indian film industry, which Exim Bank pioneered. The industry used to depend on informal loans but now it is being catered to through structured facilities.

Mode 3 (Commercial Presence): Indian service entities often establish a commercial presence abroad. These

include educational institutions, hospitals, and hotels, and firms from the ICT sector. Exim Bank has been supporting such ventures abroad through its other flagship initiative, the Overseas Investment Finance program.

> EXIM INDIA HAS FORGED A MAJOR NETWORK OF PARTNERSHIPS AND INSTITUTIONAL LINKAGES IN LAC

How would you describe the trade relationship between Indian companies and LAC?

With the increasing diversification of India's global trade toward other developing countries, LAC has also emerged as an important trading partner for India, both as an export destination and also as a source of imports. The economic and trade linkages between the two are testimony to this growing economic engagement. During the last ten years, India's total trade with LAC has increased from US$10.4 billion in 2007 to US$28.4 billion in 2016. However, there is significant untapped potential, as India accounts for a meager 1.5% of LAC's total trade, which stood at US$1.8 trillion in 2016.

While India's total exports to LAC more than doubled from US$4.5 billion in 2007 to US$10.2 billion in 2016, its total imports from LAC also rose, and at a much faster pace, trebling from US$5.9 billion to US$18.2 billion. India's trade deficit with LAC widened from US$1.4 billion to US$7.9 billion during the same period. LAC's share in India's total exports increased from 3.1% in 2007 to 3.8% in 2016, while India's share in LAC's global imports nearly doubled during the same period, going from 2.7% to 5%.

What factors might strengthen that relationship and contribute to expanding investment flows between India and LAC?

Closer cooperation with LAC holds immense economic potential for India. Trade and investment relations between the two have improved greatly over the years. The two economies are highly complementary and show similar demand patterns from their low- and middle-income populations. LAC's collective GDP is more than US$5 trillion and it has a combined population of more than 600 million inhabitants, nearly half of whom are under the age of 30. The region is a dynamic, growing, and resource-rich part of the world that is witnessing increasing democratization and surging economic growth. This profile is remarkably similar to India's own growth story, although it is a market of 1.2 billion people.

Several regional trade arrangements have been signed to encourage intraregional trade in LAC. This also allows Indian investors to enter a host of different countries within these trade blocs. India also has preferential trade agreements with MERCOSUR and Chile, which should be leveraged to create business opportunities.

There is also a perceived need for both Indian and LAC entities to have more fluid information that would enable them to stay abreast of the unexplored opportunities around them. This could be facilitated through the participation of business entities in various trade forums, interactions between chambers of commerce and industry associations from the two regions, and through individual relationships.

DAVID RASQUINHA JOINED EXIM BANK IN 1985, AND HAS HAD A NOTABLE CAREER THERE SINCE IN THE BANK'S TREASURY, PLANNING, RISK MANAGEMENT, AND FINANCE DEPARTMENTS. HE WAS PART OF THE WORKING GROUP CREATED BY THE CENTRAL BANK OF INDIA TO FINANCE SOFTWARE FIRMS. FROM 1999 TO 2004, HE WAS THE EXIM BANK REPRESENTATIVE IN WASHINGTON.

Given India's growing trade and investment relationships with LAC and Indian companies' increasing ability to showcasing their expertise, India would like to become a nonregional member of the IDB. I am confident this would further the interest of both regions and take business linkages to new heights.

> INDIA SHOULD TAKE ADVANTAGE OF ITS AGREEMENTS WITH MERCOSUR AND CHILE TO GENERATE BUSINESS

How does the agreement that you have with the Brazilian Development Bank (BNDES) work?

Exim India has been consciously forging a network of alliances and institutional linkages to help further economic cooperation with LAC countries. These endeavors are supplemented by the various memoranda of cooperation and memoranda of understanding that the bank has in place with key institutions in LAC including Bancomext, Mexico; BICE, Argentina; CAIC, Trinidad and Tobago; Banco Mercantil and CAF, Venezuela; CABEI, Honduras; and Banco República, Uruguay. Exim India has a special association with the BNDES under the BRICS Interbank Cooperation Mechanism (BICM), as it does with many other BICM bodies. These agreements signify the intention to collaborate with each other without being legal bound to do so. One example was the signing of a bilateral memorandum of understanding between the two institutions in Ufa, Russia, in 2015, on the sidelines of the 7th BRICS Summit.

What is the role of the global network of banks specializing in trade?

Exim Bank, along with other like-minded institutions, has led the establishment of the Global Network of Export/Import Banks and Development Finance Institutions (G-NEXID), which took place in March 2006 in Geneva, under the aegis of UNCTAD. It now includes numerous export-import banks and DFIs among its members. Under the umbrella G-NEXID, Exim India has been working with the Foreign Trade Bank of Latin America, the Development Bank of Latin America (CAF), and Brazil's BNDES. The idea of forming this global network came from our earlier experience of building a similar institutional framework in the Asia region, the Asian Export-Import Bank Forum (AEBF), which is a framework for cooperation among the institutions that make it up. These institutional cooperation frameworks add to our relationships under the umbrella of the Association of Development Financing

Institutions for Asia and the Pacific. Exim India participates in the annual meetings of the Latin American Association of Development Finance Institutions and we would be glad to form part of other similar arrangements with like-minded development financial institutions and export credit agencies in the region.

> DISTANCE AND TRANSPORTATION COSTS ARE THE MAIN STUMBLING BLOCKS TO SOUTH-SOUTH TRADE

What institutional challenges do you think we need to overcome to achieve greater South-South financial integration?

Geographical distances have impeded trade between India and LAC. There are no direct shipping services between the two areas. Goods have to be shipped via Europe or South Africa, which increases freight costs and shipping times. For example, in the case of Brazil, shipping a product from Santos directly to Mumbai would take an estimated 27 days, whereas it takes 33 via Durban and 36 via Singapore. Transportation costs between India and LAC are a significant trade barrier between the regions. Bulk items are difficult to trade over such long distances, and the long transit times limit trade in perishable goods.

Can you describe Exim Bank's exposure in LAC?

LAC countries have always been

> ONE OF OUR MAIN OBJECTIVES IS TO GLOBALIZE INDIAN GOODS

a focus for Exim India and are thus a critical component of the Bank's strategy for promoting and supporting two-way trade and investment. As a partner institution seeking to promote economic development in the LAC region, its commitment to building relationships with the region is reflected in the various activities and programs which Exim India has set in place. We have a representative office in Washington, DC, which plays a central role in facilitating economic cooperation with LAC and is closely involved in several of Exim's initiatives, and acts as an interface with other institutions such as the Inter-American Development Bank. Exim India currently has 20 operative lines of credit which amount to US$279.7 million and reach six LAC countries. Likewise, Exim India supports Indian companies in their endeavor to globalize their operations through overseas joint ventures (JVs) and wholly owned subsidiaries (WOSs). The most notable of these include Cellofarm Ltd. (JV of Strides Arcolabs Ltd.), Vijai Electricals Ltd., Suzlon Energia Eólica do Brasil Ltd. (a specific purpose venture of Strides Arcolab Ltd.), and Natco Pharma Ltd. in Brazil; JSW Steel Ltd. in Chile; PMP Auto Mexico S.A. de C.V., Solara S.A. de C.V. (JV of Strides Arcolab Ltd.), and CFSL Mexico (WOS of Camlin Fine Sciences Ltd.) in Mexico.

6 THINGS YOU DIDN'T KNOW
ABOUT INDIA AND LATIN AMERICA

1

US$ 2.86 BILLION

THE VALUE OF INDIAN EXPORTS TO MEXICO, WHICH ARE EVEN HIGHER THAN THOSE TO NEIGHBORING INDONESIA (US$2.84 BILLION) AND MYANMAR (US$1 BILLION)

2

US$ 255 MILLION

THE VALUE OF INDIA'S EXPORTS TO GUATEMALA, HIGHER THAN TO NEIGHBORING CAMBODIA. THE TWO DESTINATION MARKETS HAVE SIMILAR POPULATION SIZES—15 MILLION INHABITANTS

3

US$ 231 MILLION

THE VALUE OF INDIA'S MOTORBIKE EXPORTS TO COLOMBIA, THE MAIN DESTINATION MARKET FOR THE SECTOR

4

US$ 18.8 BILLION

THE VALUE OF TOTAL EXPORTS FROM LATIN AMERICA AND THE CARIBBEAN TO INDIA, WHICH IS HIGHER THAN TO JAPAN, GERMANY, ITALY, THE UNITED KINGDOM, OR FRANCE

5

3RD

INDIA'S POSITION ON THE LIST OF THE LARGEST DESTINATION MARKETS FOR COPPER EXPORTS FROM THE REGION.
IT IS THE FOURTH-LARGEST EXPORT MARKET FOR GOLD AND MINERALS

6

26.6%

OF LATIN AMERICAN VEGETABLE OIL EXPORTS (US$2.57 BILLION) GO TO INDIA

BRICS and Global Economic Governance

Mariano Turzi
Torcuato Di Tella University

Writing is drawing my mandala and at the same time traveling through it.

Julio Cortázar

THE GROUP OF COUNTRIES MADE UP OF BRAZIL, RUSSIA, INDIA, CHINA, AND SOUTH AFRICA, KNOWN GLOBALLY AS BRICS, IS PLAYING AN INCREASINGLY VOCAL ROLE IN INTERNATIONAL GOVERNANCE. THIS ARTICLE EXAMINES THE MAIN INSTITUTIONAL MECHANISMS AND THE ROLE OF INDIA AND BRAZIL IN NEW INSTITUTIONAL INSTRUMENTS FOR DEVELOPMENT FINANCING.

The world used to be simple. Complicated, undoubtedly, but simple. In the world of global economic governance and development cooperation, there was one main institution: the World Bank Group (WBG). The WBG is made up of five situations, and its mission has evolved from that of the original International Bank for Reconstruction and Development (IBRD), which initially sought to facilitate postwar reconstruction and development and now aims to alleviate poverty throughout the world. Today, the WBG is coordinated with the International Development Association (IDA) and other members of the WBG: the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Center for Settlement of Investment Disputes (ICSID). The WBG has become the leading global standard-setting institution. The form and conditions of its loan instruments are simultaneously responses to economic circumstances and structures for economic governance. Payments are subject to conditions that also function as development criteria.

THE BRICS BANK

There are more than 250 international multilateral development banks that provide financial support and consultancy services for social and economic development in developing countries, such as the Inter-American Development Bank (IDB), the African Development Bank (AfDB), the Asian Development Bank (ADB), the Andean Development Corporation—Development Bank of Latin America (CAF), and the Islamic Development Bank (IsDB). CAF, for example, is in some ways unconventional: it is mainly owned and controlled by borrower countries in Latin America and the Caribbean. It also accepts deposits, obtains loans and credit lines from central banks, commercial banks, and export credit agencies if they are related to CAF-financed projects. The features and scope of these banks have been discussed from time to time in the academic literature (Humphrey, 2015b).

Since the year 2000, the rise of emerging economies in general and BRICS, in particular, as an "executive committee" for these, the importance of this issue has grown substantially. This has been especially true in the two years since the creation of two new multilateral development banks: the New Development Bank (NDB, formerly referred to as the BRICS Development Bank) and the Asian Infrastruc-

ture Investment Bank (AIIB). Both were formed during a shift in power from the advanced countries to emerging economies within the international system. Since 2000, BRICS countries' share in global GDP has grown from 8% to 22%, while that of the G7 has shrunk from 65% to 45%. Together, BRICS accounted for 42% of the global population in 2017, 27% of the world's landmass, and 20% of global GDP. The World Bank (2017) estimated in June 2017 that BRICS countries' real GDP grew by 4.2% in 2016, higher than the global average of 3.4% and nearly twice the 1.7% of high-income countries. The NDB and AIIB are run by emerging economies, with China playing a particularly important role.

The NDB is a shared undertaking between the BRICS countries and seeks to support infrastructure and sustainable development in developing countries. To complement the NDB, safeguard and short-term balance of payment mechanisms were established through the Contingent Reserve Agreement (CRA), which entered into force in July 2015. Together, the two initiatives can provide Brazil, India, and Russia with up to the equivalent of their CRA contributions (US$18 billion) and South Africa with double its contribution (US$10 billion). Some 30% of these sums can be granted without a Stand-by Arrangement with the IMF, while the remaining 70% is tied to IMF quotas.

Credit rating decisions are made by five directors who are appointed by the staff of the central banks of each of the five member countries, who make up the permanent committee. The criteria that the permanent committee use to evaluate credit ratings have not been made public, but the conditions for approval include submitting documents and data, *pari passu* treatment, and

20%

BRICS COUNTRIES' SHARE IN GLOBAL GDP

no unpaid or overdue debts to other BRICS countries and regional or multilateral financial institutions.

Members must also comply with the surveillance and transparency obligations set out in sections 1 and 3 of IMF Article IV and section 5 of Article VIII. The reason for this measure is that the IMF's Article IV reports remain the most reliable regular source of economic and financial information available on the BRICS countries. Despite experiencing severe external financial pressure in 2015 and 2016, the CRA has not been implemented. The circumstances that BRICS members faced ranged from problems associated with economic and financial sanctions, in the case of Russia, and severe recession and political risk, in the case of Brazil. The fact that BRICS countries were throwing down the gauntlet to the IMF and other multilateral institutions representing the status quo became clear during the upward cycle in the global financial economy. The question remains as to whether BRICS have enough of a common cause to deploy the CRA in times of need.

How does the NDB affect the existing global framework for multilateral development financing? The institution's structure and basic regulations, its first investment projects and its interactions with stakeholders in international development can all be taken as early indicators for a preliminary evaluation of the probable impact of these new institutions. The NDB has US$50 billion in initial subscribed capital, 20% of which is paid-in and 80% of which is callable. In early 2016, the BRICS countries paid their first installment of US$750 million (that is, US$150 each). In 2016, the NDB approved seven projects in all member countries in the areas of transportation (including the first loan to an Indian project, to be used to build highways in Madhya Pradesh) and green energy and renewables, for a total of US$1.5 billion.

The NDB is also seeking to become an instrument for reducing dependence on the US dollar. Although the dollar was the currency it used for its initial capitalization and first loans, it is planning to increase the use of local currency in time. China, in particular, is hoping to use the NDB and AIIB to expand and promote the internationalization of the renminbi. In July 2016, the NDB issued its first green bond for a value of US$450 million or 3 billion yuan. Issuances of more bonds in BRICS country currencies are expected in the future. The second annual meeting of the executive members of the NDB was held in New Delhi in early April 2017. During the meeting, the NDB's administration council agreed on a new development strategy for 2017 to 2021 and a procedure for admitting new members, which it was agreed would be published in July 2017. Building on the guidelines from the 8th BRICS Summit, which was held in Goa, India, in October 2016, the group ratified its commitment to a new global financial architecture: "We believe that BRICS institution-building is critical to our shared vision of transforming the global financial architecture to one based on the principles of fairness and equity," the declaration reads[1] (see box).

THE RISK RATING LABYRINTH

With time, the assets of NDB shareholders will tend to grow as banks add the returns on their investments to the reserves. In an area that has already reached saturation point in terms of global financial governance, private capital markets are the major source of loans. Multilateral development banks are backed by many sovereign governments and can request loans easily and cheaply, which enables them to lend under generous conditions and to remain sustainable and even profitable. But ease and cost of access are critically dependent on credit ratings. The main three credit rating agencies—Moody's Investors Service, Standard & Poor's, and Fitch Ratings—evaluate borrowers' solvency in international capital markets. This is a highly concentrated structure as these organizations cover around 90% of the market. Some authors (Humphrey, 2015c) argue that methodologies used may underestimate the financial sturdiness of multilateral development banks.

These agencies may also be particularly unfavorable to those banks that are not largely run by more advanced economies.

If this is the case, multilateral development banks, which are mainly made up of borrower countries that

4.2%

THE REAL GDP GROWTH RATE FOR BRICS COUNTRIES

BRICS COUNTRY RISK RATINGS (2017)

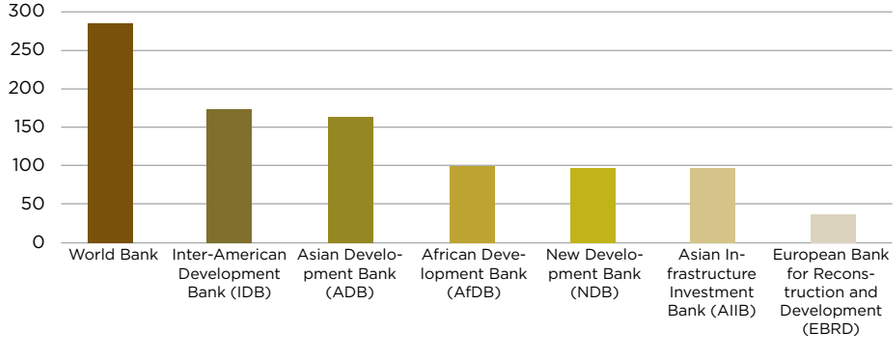
· S&P Global: China (AA-), India (BBB-), Russia and South Africa (BB+), and Brazil (BB).
· Moody's: China (A1), India and South Africa (Baa3), Russia (Ba1), and Brazil

do not fall into the "high-income" or "advanced" categories, would find it hard to obtain AAA ratings from these agencies, regardless of their repayment records. Some authors criticize the issuer-pay model, in which credit rating agencies are paid by entities that have already qualified (debt issuers) and not by the investors who use this information, which clearly creates a conflict of interests. In fact, this became manifest during the 2008–2009 global financial crisis. It is argued that credit rating agencies that had been monitoring mortgage-backed bonds knew before the crash that these schemes were unsustainable and repeatedly warned of their unreliability. However, these assessments did not lead to a tightening of the standards regulating these instruments—billions of dollars of collateralized debt obligations continued to garner positive ratings.

The NDB in particular and the BRICS countries more generally have already pointed out that rating agencies could seriously limit the scale of their operations in the coming years. Among the member countries, only China is rated AA-, while all the other countries are lower down the scale or fall outside investment grade (see box). Consequently, the NDB is up against the challenge of obtaining a high grade that will allow it to borrow low-cost capital on the international financial market. One option, which was put forward in Delhi in 2017, is for the NDB to take urgent steps toward creating its own rating agency. The BRICS nations would thus

FIGURE 1
AUTHORIZED CAPITAL (IN BILLIONS OF US$, 2016)

DEPENDENT VARIABLE: ADJUSTED EMPLOYMENT



Source: Compiled by the author based on data from http://devpolicy.org/.

TABLE 1
GOVERNANCE OF DEVELOPMENT BANKS

	HEADQUARTERS	COMPOSITION OF BOARD OF GOVERNORS		COMPOSITION OF BOARD OF DIRECTORS	
		Nº	COMPOSITION	Nº	COMPOSITION
WORLD BANK	WASHINGTON, DC, USA	188	144 TOTAL BORROWERS IBRD: 67, IDA: 59, BLEND: 18	25	11 BORROWERS, 14 NONBORROWERS
ASIAN DEVELOPMENT BANK (ADB)	MANILA, THE PHILIPPINES	67	40 BORROWERS 27 NONBORROWERS 48 REGIONAL 19 NONREGIONAL	10	5 BORROWERS, 5 NONBORROWERS 7 REGIONAL, 3 NONREGIONAL
INTER-AMERICAN DEVELOPMENT BANK (IDB)	WASHINGTON, DC, USA	48	26 BORROWERS 22 NONBORROWERS 28 REGIONAL 20 NONREGIONAL	14	8 BORROWERS
EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT (EBRD)	LONDON, UNITED KINGDOM	66	35 BORROWERS 31 NONBORROWERS 64 COUNTRIES, EU AND EIB	23	4 BORROWERS
AFRICAN DEVELOPMENT BANK (AFDB)	ABIDJAN, IVORY COAST	80	42 BORROWERS 38 NONBORROWERS 54 REGIONAL 26 NONREGIONAL	20	8 BORROWERS 13 REGIONAL, 7 NONREGIONAL
EUROPEAN INVESTMENT BANK (EIB)	LUXEMBOURG	28	26 BORROWERS REGIONAL ONLY	29	25 COUNTRIES AND THE EC
ISLAMIC DEVELOPMENT BANK (ISDB)	JEDDAH, SAUDI ARABIA	56	48 BORROWERS 8 NONBORROWERS REGIONAL ONLY	18	16 BORROWERS, 2 NON-BORROWERS
ANDEAN DEVELOPMENT CORPORATION-DEVELOPMENT BANK OF LATIN AMERICA (CAF)	CARACAS, VENEZUELA	33	16 BORROWERS 17 NONBORROWERS 19 COUNTRIES 14 PRIVATE BANKS	18	BORROWERS ONLY
ASIAN INFRASTRUCTURE INVESTMENT BANK (AIIB)	BEIJING, CHINA	57	20 REGIONAL 37 NONREGIONAL	12	9 REGIONAL 3 NONREGIONAL
NEW DEVELOPMENT BANK (NDB)	SHANGHAI, CHINA	5	BRAZIL, RUSSIA, INDIA, CHINA, SOUTH AFRICA	10	5 APPOINTED BY THE BOARD OF GOVERNORS

Source: Center for Global Development, 2016.

seek to create a new credit assessment company with a structure of different tariffs. In the meantime, the NDB issued its first bonds in renminbi on China's onshore interbank bond market. A critical part in this process was the NDB's obtaining an AAA rating from two Chinese credit rating agencies: China Chengxin Credit Rating Group and China Lianhe Credit Rating Co. Ltd.

In recent years, the focus has shifted to some of the BRICS' own rating systems. Russia started its own rating agency, the Analytical Credit Rating Agency (ACRA), in 2015, after arguing that its demotion to junk status was politically motivated. In India, the CARE agency, which was started in April 1993,

continues to rate small and medium-sized enterprises. China has four rating agencies: (1) China Chengxin International Credit Rating Co., Ltd. (which is a joint venture with Moody's Investors Service); (2) China Lianhe Credit Rating Co., Ltd. (another joint venture, this time with Fitch Ratings); (3) Dagong Global Credit Rating Co., Ltd.; and (4) Shanghai Brilliance Credit Rating & Investors Service Co., Ltd. (in partnership with S&P). Global Credit Ratings Co. was established in South Africa in 1995 and began to offer country credit ratings in 2017. ARC Ratings, which was launched in November 2013 as a consortium of five domestic credit rating agencies from South Africa, Malaysia, India, Brazil, and Portugal, had not yet issued its first country rating as of February 2017.

BRICS has formed an expert working group to explore the possibility of creating an independent BRICS rating agency based on market-oriented principles. CRISIL Ltd., an S&P company that only rates debt issued within India, is leading the research into the new pricing model to be used by the potential BRICS agency, which will be published before the bloc's next summit in October 2017. The BRICS rating agency would consider an alternative framework (investor-pay) in which investors subscribe to ratings issued by agencies and this subscription revenue becomes the rating agency's main source of income.

This alternative approach would prevent the conflict of interest described above but it also might not work, as the main users of credit rating information are global funds that are currently rated themselves by at least one of the "big three" rating agencies.[2] Consequently, it is unlikely that they would trust the ratings issued by the new BRICS rating agency. This would need to exert enough influence to enable to attract subscriptions from international funds while also remaining sufficiently independent and transparent to inspire confidence in a methodology that has not yet been tested.

INDIA: PROMOTING AN INSTITUTIONALIST BRICS?

In 2016, India took over the presidency of BRICS and hosted the bloc's eighth summit, which took place in Goa in October that year. The main area where the country made headway as president of the bloc was the creation of inclusive, collective solutions by developing institutionalized governance. The Ministry of Foreign Affairs took a five-pronged approach. The first aspect was institution-building, which was described in the final declaration as "critical to our shared vision of transforming the global financial architecture to one based on the principles of fairness and equity." Second, the implementation of existing institutional arrangements as major collective mechanisms for peacefully settling disputes. These would particularly include the application of the results of the G20 summits. Third, an increase in institutionalized cooperation for greater global integration, the path that India is promoting to achieve the 17 United Nations Sustainable Development Goals. Fourth, keeping the focus on innovation, promoting structural reform and development as drivers for medium- and long-term economic growth. Finally, the consolidation of international institution-building that will, as the Goa Declaration states: "foster strong, sustainable, balanced and inclusive growth and will contribute to improved global economic governance and enhance the role of developing countries."

NEW DEVELOPMENT PARADIGMS?

Unlike in trade, where regional blocs could undermine an open global system, and monetary cooperation, where coordinated responses are needed to prevent contagion, in the field of development financing, regional compartmentalization has never implied a threat or regulatory conflict. Indeed, regional development banks' values and development assistance priorities have made them look like "regional copies of the World Bank" (Kampffmeyer, 2000). Most are organized and run similarly to the World Bank and cofinancing between them and the World Bank has been an important part of their loans. In recent decades, regional development banks have gone from being "niche" banks and have capitalized on their knowledge and local networks, the fact that they better represent countries in the regions where they operate, and their greater institutional legitimacy.

However, the establishment of the NDB and the AIIB were a qualitative leap in this regard. The NDB is seeking to be an alternative to the International Monetary Fund and would enable the dedollarization of financial relationships between BRICS countries (Sarkar, 2015). While in recent years the World Bank has concentrated on areas such as poverty reduction, governance, refugees, and climate change, the NDB has prioritized infrastructure in developing countries. This competitive context may have helped rekindle the World Bank's interest in such projects: in 2014, it launched the Global Infrastructure Facility (GIF), with an initial fund of US$100 million to coordinate the infrastructure investment efforts of multilateral development banks, the private sector, and governments. As a credible alternative to development financing, the NDB and AIIB could even help drive the reform of traditional multilateral banks by reducing the concentration of decision-making power, which currently lies in the hands of more advanced countries because they contribute greater amounts of capital. In contrast, the NDB distributes shares and votes equally among its five member countries. The rise of new models of governance is a reminder that maintaining legitimacy in a fast-changing world is increasingly complex and demanding.

REGIONAL DEVELOPMENT BANKS ARE NO LONGER "NICHE" BANKS

BRICS and the NDB are examples of a new international policies that bear interinstitutional authority. They mark the start of greater institutional mediation in international politics. International institutions continue to play an important role in this process, but they are increasingly affected by geopolitical tension between the major powers, which are in turn the result of the way power is rapidly being redistributed

globally. New institutions and groupings have arisen at the regional and interregional levels to translate these shifts in importance into influence and transform prestige into power. Subtly but surely, they are starting to compete with global multilateral institutions. The question for this new stage in globalization and world order (or disorder) is whether these new institutions are models for development cooperation as well as being sources of alternative financing. Does BRICS represent a different global model for economic (and political) governance? If this can be said to be true, what is the relationship between this model and that represented by the Bretton Woods institutions? Are they competing with one another? Are they at odds with one another? It may be too early to provide an answer, but it is certainly not too late to ask the question.

NOTES

[1] The full text of the declaration is available at: http://brics2016.gov.in/.

[2] See OECD (2010).

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The Pacific Route

The Connection with Chile, Colombia, Mexico, and Peru

Camilo Pérez-Restrepo
Asia-Pacific Studies Centre
EAFIT University[1]

Almost everything you do will seem insignificant,
but it is important that you do it.

Mahatma Gandhi

RELATIONS BETWEEN LATIN AMERICA AND THE ASIA-PACIFIC HAVE EXPANDED IN RECENT DECADES WITH THE STRENGTHENING OF DIPLOMATIC TIES, TRADE, FOREIGN INVESTMENT, AND ECONOMIC COOPERATION. AS ONE OF ASIA'S EMERGING ECONOMIES, INDIA IS FULLY IMMERSED IN THIS REGIONAL DYNAMIC AND HAS SEEN ITS BUSINESS NETWORKS GROW IN LATIN AMERICAN MARKETS, PARTICULARLY THE PACIFIC ALLIANCE COUNTRIES.

The BRICS group, through which India has a direct association with Brazil, has enabled India to create ties with Latin America and project itself as an influential partner in the region. However, for different economic and political reasons, India has decided to foster its relations with several Latin American economies in particular, NOTEbly members of the Pacific Alliance (PA).

The PA, which was formed by Chile, Colombia, Mexico, and Peru in 2011, is one of the more dynamic integration initiatives between Latin American economies. It was thought up as a platform for articulating integration efforts with the Asia-Pacific region. This new, coordinated approach has sparked Asia-Pacific economies' interest in the PA, so much so that nine of the 49 PA observer states are from Asia-Pacific, India among them.

The Puerto Varas Declaration, which was signed during the 9th PA Summit in Chile in July 2016, called on member economies to work toward a shared agenda with observer countries. This would include exploring ways to promote trade, foreign direct investment (FDI), and cooperation with Asia-Pacific economies, including India. The main areas for cooperation are education, technology and innovation, SMEs, and trade facilitation. The High-Level Dialogues on integration in the Asia-Pacific that were held in 2017 were a new space for these ideas to be discussed.

ECONOMIC RELATIONS

Trade relations between India and Latin America and the Caribbean (LAC) have experienced a NOTEble upturn, especially from the start of the millennium up to 2014. This was driven not just by the commodity boom but also by the discovery on the part of both sides of the Pacific of the opportunities that trade might bring them. Although recent years have brought a decline in these trade flows, in line with global trends, India remains a strategic partner for Latin America in the Asia-Pacific. In 2016, LAC exports to India totaled

US$16.7 BILLION
THE VALUE OF TOTAL LAC EXPORTS TO INDIA IN 2016

TABLE 1
LAC EXPORTS TO INDIA (2012–2016), IN MILLIONS OF US$

EXPORTACIONES	2012	2013	2014	2015	2016
PACIFIC ALLIANCE	7,634	9,794	8,432	5,019	4,612
MERCOSUR	6,806	4,299	20,026	12,481	10,661
OTHER	221	196	596	1,239	1,433
TOTAL LAC	14,661	14,290	29,053	18,739	16,706

Source: Compiled by the author based on data from INTrade (2017).

US$16.7 billion while imports reached US$12.11 billion. Given LAC economies' trade deficit with the Asia-Pacific, particularly with China, this surplus has benefited them.

There was an upswing in LAC exports to India at the beginning of the 21st century, when they shot up from US$1.58 billion in 2001 to a record high of US$29.05 billion in 2014. However, since 2014, exports to India have contracted by 42%, largely due to the drop in the price of raw materials in the figures reported for 2016.

LAC imports from India have followed a similar trend: they went from US$1.5 billion in 2001 to US$16.34 billion in 2014. Imports increased due to the growth in LAC purchases from Indian manufacturers and the arrival of Indian companies in the region. Like exports, imports have contracted in recent years due to the downturn in consumption in LAC: the region's imports from India fell by 26% in comparison with 2014 (tables 1 and 2).

There are two major trade blocs in LAC: the Southern Common Market (Mercosur) and the PA. Mercosur exports to India have been greater than those of the PA, although these have grown faster over the last decade and contracted slightly less. Despite the state of affairs in recent years, the growth in exports suggests that the two sides have indeed discovered a connection with the potential to grow, in a context in which Latin America is becoming increasingly important as a strategic supplier for India.

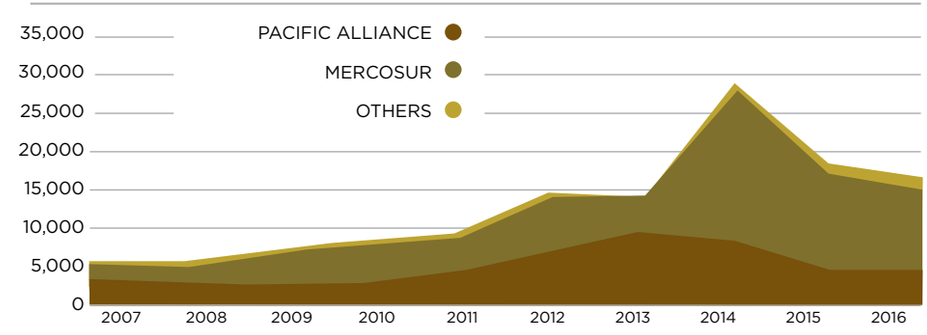
The outlook for imports is similar. However, in this case, the PA is more important as a market for India. Despite current circumstances, PA imports from

TABLE 2
LAC IMPORTS FROM INDIA (2012–2016), IN MILLIONS OF US$

EXPORTS	2012	2013	2014	2015	2016
PACIFIC ALLIANCE	5,528	5,474	6,614	6,920	6,761
MERCOSUR	6,283	7,662	7,853	5,596	3,556
OTROS	1,858	2,006	1,870	2,182	1,793
TOTAL LAC	13,669	15,142	16,338	14,698	12,110

Source: Compiled by the author based on data from INTrade (2017).

FIGURE 1
EVOLUTION OF LAC EXPORTS TO INDIA SINCE 2007 (IN MILLIONS OF US$)



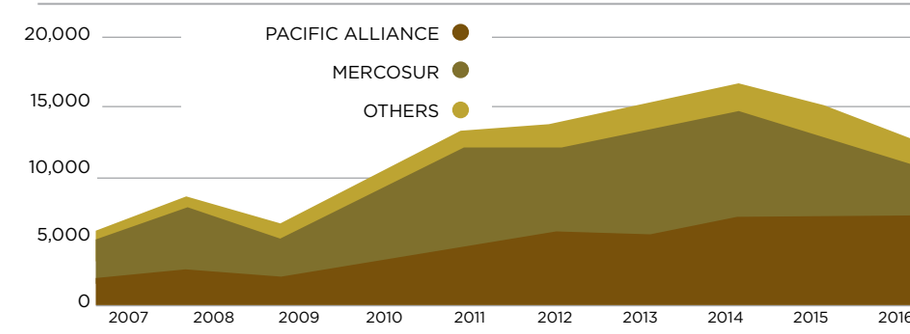
Source: Compiled by the author based on data from INTrade (2017).

India have remained dynamic (figures 1 and 2).

The largest share of exports to India from PA economies in 2016 came from Mexico, which accounted for US$2.06 billion (45% of total PA exports to India that year). The second-most-important trade partner was Chile, while Peru and Colombia played smaller roles. In all cases, the total value of exports fell in comparison with 2012. However, it is worth noting that despite this situation, both Mexico and Peru were able to increase their exports to India in 2016 (table 3 and figure 3).

There are also interesting aspects

FIGURE 2
EVOLUTION OF LAC EXPORTS TO INDIA SINCE 2007 (IN MILLIONS OF US$)



Source: Compiled by the author based on data from INTrade (2017).

TABLE 3
EXPORTS FROM PA MEMBERS TO INDIA (2012–2016), IN MILLIONS OF US$

	2012	2013	2014	2015	2016
PACIFIC ALLIANCE	7,634	9,794	8,432	5,019	4,612
CHILE	2,564	2,245	2,706	2,004	1,401
COLOMBIA	1,363	2,993	2,739	550	226
MEXICO	3,322	3,963	2,666	1,788	2,056
PERU	387	593	321	676	930

Source: Source: Compiled by the author based on data from INTrade (2017).

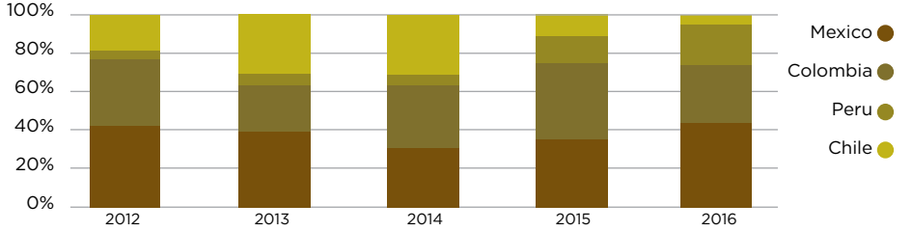
to PA imports from India. The largest market for Indian products in LAC was Mexico, which is partly a reflection of its size. Mexican imports were valued at US$4.29 billion (63% of total PA imports from India) in 2016. The second-most-important destination market for imports from India was Colombia, while Peru and Chile accounted for smaller shares. Mexican imports have also grown the most over the last five years, even in 2015–2016, when there was a downturn in PA imports from India (table 4 and figure 4).

In 2016, India purchased just 0.9% of the PA's exports to the world. The PA member country where India was most significant as an export destination market was Peru, as 2.6% of its exports went to India. This stands in contrast with Mexico, which only sent 0.5% of its exports there (see table 5).

The situation is similar for imports. On the one hand, just 1.3% of PA imports came from India. On the other, as was the case with exports, the PA market that depended most on imports from India was Peru, while least important market was Mexico (table 6).

Given that the PA has a particular commitment to trade with the Asia-Pacific region, it is interesting to look at its exports to India in relation to its exports to the region as a whole.[2] According to

FIGURE 3
DISTRIBUTION OF PA EXPORTS TO INDIA (2012–2016)



Source: Compiled by the author based on data from INTrade (2017).

TABLE 4
PA IMPORTS FROM INDIA (2012–2016), IN MILLIONS OF US$

	2012	2013	2014	2015	2016
PACIFIC ALLIANCE	5,528	5,474	6,614	6,920	6,761
CHILE	711	738	682	720	726
COLOMBIA	1,124	1,144	1,369	1,199	946
MEXICO	2,951	2,868	3,727	4,967	4,286
PERU	742	724	836	935	803

Source: Compiled by the author based on data from INTrade (2017).

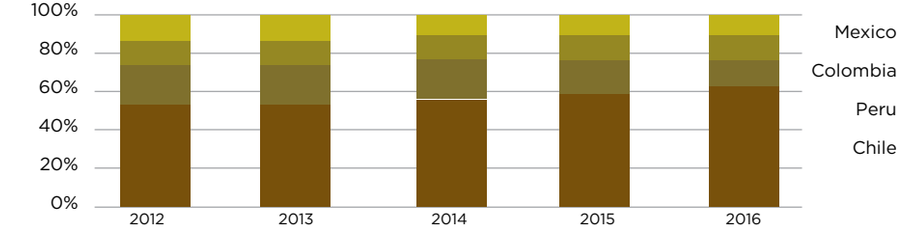
2016 figures, India was the destination market for 7.1% of the PA's exports to the Asia-Pacific and it accounted for a significant share of Mexico's and Colombia's exports to the region. With regard to imports, Colombia is the PA member with the largest share of imports from the Asia-Pacific originating in India, while the other PA countries, particularly Mexico and Chile, have more varied suppliers in the Asia-Pacific.

One important factor in recent affairs is the shift in the balance of trade between India and the PA. Up to 2014, the PA had a surplus, but this changed in 2015–2016, such that the PA had a trade deficit of US$2.15 billion with India in 2016. However, two PA member countries, Chile and Peru, had trade surpluses. This decline in the PA's balance of trade with India is due to two factors: on the one hand, the slowdown in Colombian exports to India, which is explained by the drop in commodity prices, and on the other, the increase in Mexican imports.

Evidence for this argument draws on the fact that, in 2016, raw materials represented 69.2% of PA exports to India, while products with greater value added accounted for a much lower share (figure 5).

In comparison with the rest of the PA economies, Mexico is the member

FIGURE 4
DISTRIBUTION OF PA EXPORTS TO INDIA (2012–2016)



Source: Compiled by the author based on data from INTrade (2017).

TABLE 5
IMPORTANCE OF INDIA AS A DESTINATION MARKET FOR PA EXPORTS TO THE WORLD AND THE ASIA-PACIFIC (2012–2016), PERCENTAGES

	2012	2013	2014	2015	2016
INDIA'S SHARE IN GLOBAL EXPORTS					
PACIFIC ALLIANCE	1.4	1.8	1.5	1	0.9
CHILE	3.3	2.9	3.5	3.2	2.3
COLOMBIA	2.3	5.1	5	1.5	0.7
MEXICO	0.9	1	0.7	0.5	0.5
PERU	0.8	1.4	0.8	2	2.6
INDIA'S SHARE IN EXPORTS TO THE ASIA-PACIFIC					
PACIFIC ALLIANCE	10.1	12.7	11	8	7.1
CHILE	6.7	6.1	7.1	6.4	4.6
COLOMBIA	20.1	32.7	27.6	12.9	8.7
MEXICO	19.1	21.6	15.4	11.2	11.1
PERU	2.9	4.7	2.9	6.1	7

Source: Compiled by the author based on data from INTrade (2017)

country that sells goods with the greatest value added to India, which is unsurprising given the breadth of its export basket. In 2016, 21.9% of Mexican exports to India were capital goods and 2.6% were consumer goods. This situation stands in stark contrast with Chile, the PA country whose exports to India had the least value added, as 89.2% of these were raw materials. The high values of intermediate goods in Colombia require further analysis, as they could point to Colombian producers' participation in some Indian value chains.

In fact, a sector-specific analysis of trade between India and the PA reveals that most LAC exports to India are raw materials. The most significant PA exports to India were fuels, which accounted for 34.8% of the total, followed by mining products. Indeed, mining was the most significant sector in Chilean exports to India; for Mexico and Colombia, it was fuel; and for Peru, it was stone and glass. However, the data suggests that sectors with value added, such as machinery in Mexico, plastics in Colombia, and the chemical industry in Chile and Peru, have potential to position themselves favorably in the Indian market (table 7).

Imports from India, in contrast, are largely made up of products with high value added. Consumer goods represent 39% of the total while capital goods account for 20%. Colombia is the market where capital goods account for the largest share of the total, as they make up 35% of its imports from India. The countries with the highest imports of intermediate goods from India were Colombia and Peru, which may point to the existence of potential value chains that use Indian inputs (figure 6).

The most significant PA imports from India were vehicles, metals, and

TABLE 6
IMPORTANCE OF INDIA AS A SOURCE OF PA IMPORTS FROM THE WORLD AND THE ASIA-PACIFIC (2012–2016), PERCENTAGES

	2012	2013	2014	2015	2016
INDIA'S SHARE IN PA IMPORTS FROM THE WORLD					
PACIFIC ALLIANCE	1	1	1.1	1.3	1.3
CHILE	0.9	0.9	0.9	1.1	1.2
COLOMBIA	1.9	1.9	2.1	2.2	2.1
MEXICO	0.8	0.8	0.9	1	1.1
PERU	1.8	1.7	2	2.5	2.2
INDIA'S SHARE IN IMPORTS FROM THE ASIA-PACIFIC					
PACIFIC ALLIANCE	3.4	3.2	3.6	3.7	3.7
CHILE	3.1	3	2.9	3.2	3.4
COLOMBIA	7.2	7	7.4	7.7	7.1
MEXICO	2.6	2.4	2.9	3	3.2
PERU	5.5	5.1	5.8	6.6	6

Source: Compiled by the author based on data from INTrade (2017)

textiles and apparel. In fact, vehicles were the largest import sector from India for Chile, Colombia, and Mexico, while metals were the most significant imports for Peru (table 8).

Trade flows of parts and components (P&Cs) are often used as an indicator for the existence of global value chains in industries with higher value added. The figures for trade in P&Cs between India and the PA reveal that levels remain low, although they are beginning to grow, especially as regards imports into the PA.

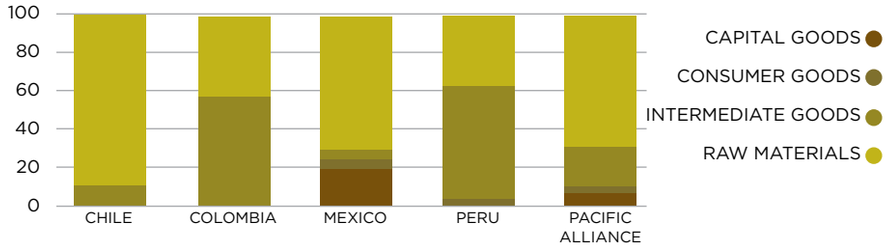
According to 2016 figures, exports of P&Cs from PA economies to India were worth US$119 million, just 2.2% of total exports there. Most exports of P&Cs from the PA to India were electrical machinery, autoparts, and computer parts from Mexico (table 9).

The statistics on imports of P&Cs provide insight into the inclusion of Indian parts in PA manufactures. According to 2016 figures, imports of P&Cs into the PA economies from India were worth US$119 million, 13.9% of the region's total imports from India. Once again, the main player was Mexico, which was the destination market for 73.7% of these products, and exports to Chile also increased slightly. Imports of P&Cs from India have grown by 48% over the last five years, a rate higher than that for total imports. This suggests that more PA companies are gradually starting to use Indian P&Cs in their production processes. Imports of P&Cs were concentrated around products such as autoparts and industrial machinery parts (table 10).

FOREIGN DIRECT INVESTMENT

The increase in FDI flows between

FIGURE 5
LEVELS OF PROCESSING OF PA EXPORTS TO INDIA IN 2016

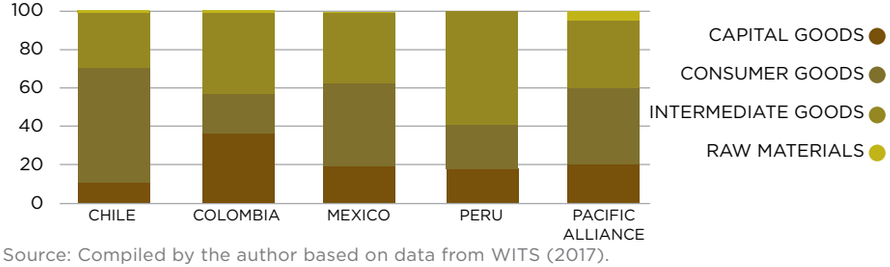


Source: Compiled by the author based on data from WITS (2017).

India and LAC is a factor that has contributed to the growth in overall trade between these two partners. According to data from India's Ministry of External Affairs (2015), the Central Bank of India (2017), and the *Financial Times* (2016) (fDi Markets), Indian FDI in LAC increased to over US$12 billion between 2003 and 2016, with the main destinations being Brazil, Mexico, and some Caribbean countries. The most attractive sectors for Indian FDI were ICTs, mining, metals, agriculture, agrochemicals, and pharmaceuticals. LAC investment in India passed the US$3 billion mark during that same period, most of which came from companies in Brazil, Mexico, and Peru. Most LAC FDI in India is in the automotive and chemical sectors (Ministry of External Affairs of India, 2015).

Indian FDI in PA economies represents just a fraction of the country's investments in LAC as a whole. According to data from fDi Markets and the Central Bank of India, Indian FDI in the PA grew to US$868 million between 2012 and 2016. These levels are still very limited, given that the PA received around US$58.85 billion in FDI in 2016 alone and is even low in comparison with investment from other Asian economies, such as Japan, China, and South Korea, which are the sources of the highest investment flows to the region. The evolution of these investments can be seen in figure 7.

FIGURE 6
LEVELS OF PROCESSING OF PA IMPORTS FROM INDIA IN 2016



Source: Compiled by the author based on data from WITS (2017).

TABLE 7
DISTRIBUTION OF PA EXPORTS TO INDIA IN 2016 BY SECTOR, PERCENTAGES

	CHILE	COLOMBIA	MEXICO	PERU	PACIFIC ALLIANCE
FUELS	2.6	41.9	66.7	3.1	34.8
HIDES AND SKINS	0	0.1	0.1	0.2	0.1
TIMBER	3.4	1.9	0.1	0	1.4
MACHINERY	0.1	0	17.9	0.2	7.6
METAL	4.5	1.2	2	0.9	2.6
MINING PRODUCTS	83.7	0	2.2	35.6	32.8
MISCELLANEOUS	0	0.1	3.6	0	1.5
STONES AND GLASS	0	52.1	1	58.4	14.1
PLASTIC OR RUBBER	0	2.4	0.6	0	0.6
FOOD PRODUCTS	0.2	0.2	0.3	0.2	0.2
CHEMICAL PRODUCTS	2.9	0.1	2.2	0.5	2
PLANT PRODUCTS	2.1	0	0.7	0.5	1
TEXTILES AND APPAREL	0	0	0.1	0.3	0.1
VEHICLES	0.5	0	2.7	0	1.3

Source: Compiled by the author based on data from WITS (2017).

The majority of Indian FDI in the PA went to Mexico, which received around US$587 million (62% of Indian FDI in the bloc), followed by Chile (25%), while Colombia and Peru received only minor shares (figure 8).

The distribution of FDI by industry is also highly revealing. The most attractive sectors were the automotive sector (OEMs)[3], which received US$331 million (35% of Indian FDI in the PA), and autoparts, which totaled US$146 million (15%). Other relevant industries for Indian FDI included other machinery (OEMs), software and ICT services, and the pharmaceutical sector (figure 9).

The levels of FDI from PA countries in India are still low: just US$128.9 million between 2012 and 2016. These investments mostly originated in Mexico and Chile and are largely in autopart manufacturing, the chemical industry, and rubber. Potential FDI relationships between India and the PA are yet to be

TABLE 8
DISTRIBUTION OF PA IMPORTS FROM INDIA IN 2016 BY SECTOR, PERCENTAGES

	CHILE	COLOMBIA	MEXICO	PERU	PACIFIC ALLIANCE
FUELS	0.2	0.2	0	0.2	0.1
HIDES AND SKINS	6.3	0.2	0.2	0.7	1.1
TIMBER	0.3	0.2	0.5	0.3	0.4
MACHINERY	6.3	4.9	7.3	4.6	6.3
METAL	17.4	9.6	16.4	28.9	17.1
MINING PRODUCTS	0	0	0	0	0
MISCELLANEOUS	1.4	1.6	1.1	0.9	1.2
STONES AND GLASS	1	0.9	1.2	0.7	1
PLASTIC OR RUBBER	4.8	4.3	3.6	5.6	4.2
FOOD PRODUCTS	0.8	0.1	0.2	0.4	0.3
CHEMICAL PRODUCTS	13.1	17.4	14.5	11.7	14.5
PLANT PRODUCTS	2.3	0.7	2.2	0.8	1.7
TEXTILES AND APPAREL	22	16.8	10.3	24.5	15.1
VEHICLES	24	43.2	42.5	20.7	37.1

Source: Compiled by the author based on data from WITS (2017).

TABLE 9
EXPORTS OF PARTS AND COMPONENTS FROM PA MEMBERS TO INDIA (2012–2016), IN MILLIONS OF US$

	2012	2013	2014	2015	2016	%
PACIFIC ALLIANCE	131.2	191.0	174.4	203.4	19.0	100
CHILE	0.2	0.2	0.5	0.4	0.3	0.3
COLOMBIA	0.3	0.2	0.1	0.2	1.3	1.1
MEXICO	130.2	180.3	172.6	202.3	116.6	98.0
PERU	0.5	0.4	1.2	0.5	0.8	0.7

Source: Compiled by the author based on data from INTrade (2017).

fully discovered.

BARRIERS TO TRADE

Latin America has experienced a flurry of negotiations around trade agreements over the last couple of decades, a process that has been spearheaded by the PA countries, particularly Chile and Peru. In recent years, trade agreement negotiations have begun to reach beyond LAC and across the Pacific. At present, the PA economies have more than 20 free trade agreements with partners in the Asia-Pacific region. However, these trends have yet to influence India–LAC relations, as to date, India only has agreements with two of its Latin American trade partners: the trade agreement with Chile that has been in force since 2007 and a preferential agreement with the Mercosur that came into force in 2009. This lack of trade liberalization is the result of Indian trade policy, industrial concerns in Latin America, and a lack of awareness of potential opportunities.

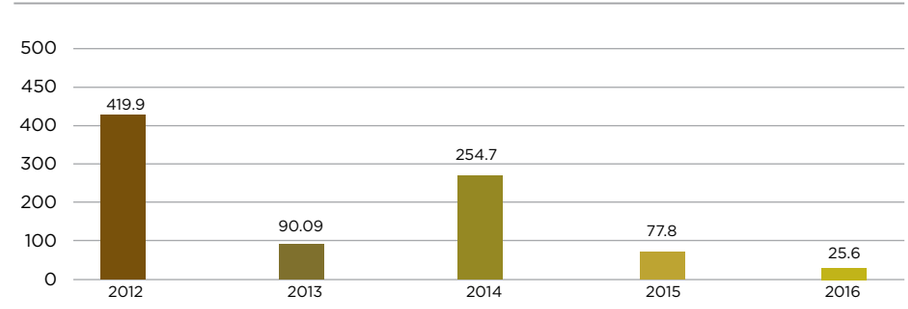
In 2010, India and Chile sought a more ambitious trade agreement. This led to four more years of negotiations, which were concluded in October 2014. The extended trade agreement entered into force in September 2016. Meanwhile, India has suggested negotiating similar preferential agreements

TABLE 10
PA IMPORTS OF PARTS AND COMPONENTS FROM INDIA (2012–2016), IN MILLIONS OF US$

	2012	2013	2014	2015	2016	%
PACIFIC ALLIANCE	635.1	614.1	701.7	904.1	937.8	100
CHILE	33.2	33.1	32.3	82.1	114.4	12.2
COLOMBIA	48.0	58.9	57.2	64.0	65.7	7
MEXICO	518.9	474.4	550.8	706.8	690.8	73.7
PERU	35.0	47.7	61.4	51.2	67.0	7.1

Source: Compiled by the author based on data from INTrade (2017).

FIGURE 7
EVOLUTION OF INDIAN INVESTMENTS IN THE PA (2012–2016), IN MILLIONS OF US$

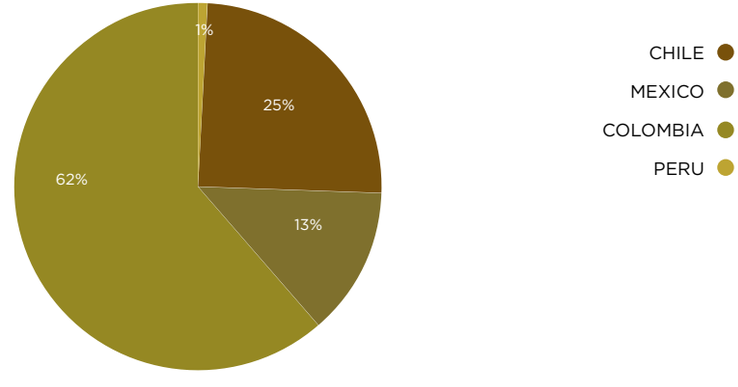


Source: Compiled by the author based on data from the Financial Times and the Central Bank of India (2017).

with other Latin American countries, especially PA members. Of these, Peru is the country that has made the most progress. In January 2017, the start of negotiations was announced and the first round was scheduled for June of the same year. The scope of the existing agreements is described in table 11.

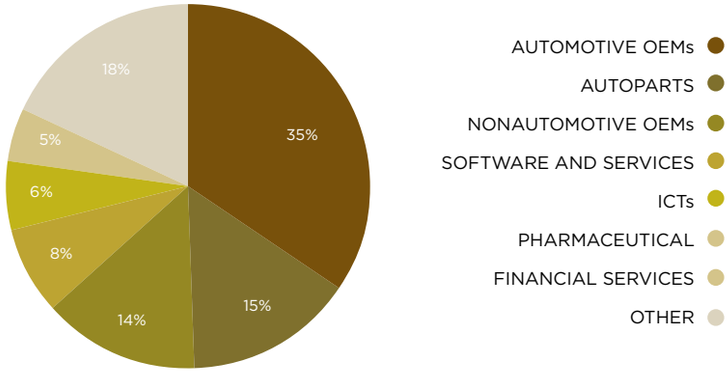
Despite these agreements, tariffs on trade between India and the PA remain high. Based on tariff information (AHS)[4] from the World Bank-WITS, after weighting for trade, Colombia is the PA country whose exports currently face the lowest tariffs when accessing the Indian market, while Chile's face the highest, despite its trade agreement. This is largely due to the fact that most pro-

FIGURE 8
DISTRIBUTION OF INDIAN FDI IN THE PA BY COUNTRY (2012–2016)



Source: Compiled by the author based on data from the Financial Times and the Central Bank of India (2017).

FIGURE 9
DISTRIBUTION OF INDIAN FDI IN THE PA BY SECTOR (2012–2016)



NOTE: OEMs = original equipment manufacturers.
Source: Compiled by the author based on data from the Financial Times and the Central Bank of India (2017).

tected sectors in India are the food industry, the automotive sector, textiles, and apparel. Furthermore, tariffs on raw materials—sectors such as metals, minerals, and fuels—are relatively low.

Looking at the PA as a destination market for Indian products, Peru charges a lower tariff, while Colombia and Mexico protect their own products more against Indian imports. Sector-specific analysis reveals that vehicles are the Indian product that faces the highest tariff barriers when entering PA markets. However, it is worth noting that other value-added products from India such as machinery, electrical equipment, and products from the chemical industry were able to access PA markets at lower tariff rates.

20%

OF PA IMPORTS FROM INDIA ARE CAPITAL GOODS

GREATER TRADE PROMOTION

Relations between Latin America and the Asia-Pacific have grown in recent decades following the expansion of diplomatic ties, trade, FDI, and mutual economic cooperation. Since its creation in 2011, the PA has sought to position itself as a major player in these relationships in order to become a platform through which to articulate its members' efforts to engage in economic integration and trade with the Asia-Pacific.

The Puerto Varas Declaration, which was signed in 2016, has prompted member countries to explore ways to promote trade, FDI, and cooperation with observer members, including India. This state of affairs coincides with the structural reforms promoted by the Modi government and its intention to foster relations with LAC, all of which contributes to creating a context in which both parties are seeking to build bridges with one another.

TABLE 11
SCOPE OF TRADE AGREEMENTS BETWEEN INDIA AND LAC

ISSUE	CHARACTERISTICS
MARKET ACCESS FOR GOODS	INDIA–CHILE THE ORIGINAL TRADE AGREEMENT IN FORCE FROM 2007 ADOPTED A POSITIVE TARIFF ELIMINATION LIST AND A MARGIN OF PREFERENCE OF BETWEEN 10% AND 50%. IN THE REVISED 2016 VERSION, CHILE'S OFFER WAS INCREASED TO 1,031 PRODUCTS WITH A MARGIN OF PREFERENCE OF UP TO 100% (INCLUDING SOME FOOD AND AGRICULTURE PRODUCTS), WHILE INDIA'S OFFER WAS INCREASED TO 1,798 PRODUCTS (MAINLY PHARMACEUTICALS, CHEMICALS, AND MACHINERY). INDIA–MERCOSUR THE ENTRY INTO FORCE OF THIS AGREEMENT IN 2009 OFFERED TARIFF CONCESSIONS FOR 450 MERCOSUR PRODUCTS (MAINLY FOOD PRODUCTS, CHEMICALS, HIDES, AND MACHINERY AND EQUIPMENT) WHEN ACCESSING THE INDIAN MARKET. IT ALSO OFFERS PREFERENTIAL TREATMENT FOR 452 INDIAN PRODUCTS (FOOD PREPARATIONS, MACHINERY, AND ELECTRIC EQUIPMENT) WHEN ACCESSING THE MERCOSUR MARKET.
SERVICES	NOT INCLUDED
FOREIGN INVESTMENT	NO PROVISION (INDIA HAS BILATERAL INVESTMENT TREATIES WITH MEXICO AND COLOMBIA WHICH HAVE BEEN IN FORCE SINCE 2008 AND 2012, RESPECTIVELY).
TRADE FACILITATION	ONLY THE INDIA–CHILE AGREEMENT THAT HAS BEEN IN FORCE SINCE 2009 INCLUDES CLAUSES ON SPS, TBTS, AND CUSTOMS COOPERATION.
COMPETITION POLICY	NOT INCLUDED
INTELLCTUAL PROPERTY	NOT INCLUDED
GOVERMENT PROCUREMENT	NOT INCLUDED

Source: Compiled by the author based on Wignaraja, Ramizo, and Burmeister (2012) and the agreement texts filed at SICE (2016).

Trade promotion requires that we analyze the current situation and future prospects. Today, India is an important market for the PA in the Asia-Pacific region. However, the PA has had a trade deficit with India since 2015 because its exports are mainly raw materials while its imports are manufactured products with high value added. This concentration of exports has left the PA vulnerable to demand shocks in India and the fluctuations in commodity prices on international markets.

Despite the current downturn in PA exports to India, it is hoped that the structural reforms mentioned above will create a series of opportunities for PA economies. India's economic growth may prompt a gradual comeback in demand for mining and energy products, an increase in demand for food products, and may drive FDI from Indian companies in emerging markets.

Furthermore, there are some dynamic sectors in the PA economies that could spearhead the expansion of

trade in value-added products. There are examples of machinery, electronic equipment, and autopart firms in Mexico; plastic and rubber producers in Colombia; and chemical industries in Chile and Peru that are already successfully exporting their products to the Indian market. The increase in imports of P&Cs also suggests that more PA companies, particularly in the automotive sector, are using Indian P&Cs in their production processes and are thus moving toward value chain integration. The challenge now is creating a similar dynamic for exports.

There is a correlation between these value chains and Indian FDI in PA economies. Although Indian FDI in the region remains limited, Indian investors have become stakeholders in the PA in sectors such as the automotive industry, software services, and the pharmaceutical sector. These industries have great potential for generating jobs and exports for their host economies.

The PA economies, particularly Chile and Peru, have sought to negotiate free trade agreements with their Asia-Pacific trade partners. However, this has not been the case with India, with which only Chile has a trade agreement, one that remains limited despite being updated in 2016. Peru is now trying to follow suit and launched negotiations toward a trade agreement with India in 2017. Due to the lack of depth of these mechanisms, sectors such as the food industry, textiles and apparel, and vehicles are still subject to high tariffs, which limits trade flows.

The PA economies should take advantage of these opportunities and diversify their exports to India, particularly by exploiting the potential for value chain integration and continuing to attract Indian FDI in productive sectors. Achieving this would require the region to make significant progress in terms of its competitiveness, infrastructure, and innovation. These are precisely the areas that need to be prioritized in the construction of a more complex cooperation and trade promotion agenda between the PA and India in the coming years.

NOTES

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[2]This article defines the Asia-Pacific as being the 18 largest economies in the region: Australia, Brunei Darussalam, Cambodia, China, Japan, Hong Kong, India, Indonesia, Laos, Malaysia, Myanmar, New Zealand, the Republic of Korea, the Philippines, Singapore, Thailand, Chinese Taipei, and Vietnam.

[3]OEMs = Original Equipment Manufacturers.

[4]The World Bank-WITS uses the concept of the effectively applied tariff, which it defines as the lowest available tariff. If a preferential tariff exists, it will be used as the effectively applied tariff. Otherwise, the MFN applied tariff will be used.

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Regional Trade Opportunities

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We've seen many years of Indian progress, and that is attributable to the energy and genius of the Indian people and the Indian culture.

John Kenneth Galbraith

THIS ARTICLE DESCRIBES THE OPPORTUNITIES THAT ARE OPENING UP FOR THE PACIFIC ALLIANCE COUNTRIES IN A RANGE OF SECTORS IN THE DIFFERENT REGIONS OF INDIA DUE TO A POLICY OF STRENGTHENING TIES WITH THE COUNTRY. FROM THE AERONAUTICS INDUSTRY VIA PHARMACEUTICALS TO THE AUTOMOTIVE SECTOR, THE AUTHOR ANALYZES THE KEY REGIONS IN THE INDIAN ECONOMY AND THEIR POTENTIAL FOR GENERATING COMPLEMENTARITIES WITH THE PA.

The study of territorial and sectoral factors affecting trade can facilitate decision-making and the political acceptance of any conclusions reached. These factors include economic and technological variables, demographic and cultural matters, and the results of the growing inclusion of communities in states and regions.

This focus is particularly relevant in analyses of relations between India and Latin American countries. Although attempts to build knowledge on the part of multilateral institutions, research centers, and investment banks remain limited, they have intensified in the last five years and have moved beyond the traditional approaches which revolve around Latin American natural resources and Indian manufactures. This article is part of this new trend and attempts, based on recent studies, to point out regions, sectors, productive linkages with scalable, high socio-productive potential, through which the aims of economic integration between Latin America and India can be redefined.

The matter at hand is both vast and complex. Fully exploring it would require the creation of multidisciplinary teams in both subcontinents to bridge the gaps in detailed information and theoretical approaches that are currently preventing bottom-up approaches from being implemented on both sides. To this end, following an overview of the meaning and scope of diversity in India that makes it impossible to think of the country as a single market, this study focuses on identifying trade opportunities for the four countries that make up the Pacific Alliance (PA) and the seven Indian states that are most representative in economic and inclusive development terms.

DIFFERENCE-BASED INTEGRATION

Doing business with the second-most-populous nation on earth requires a clear understanding of the fact that there is no single Indian economy and that trade and regional dynamics go beyond the scope of market forces. There are profound differences within India and between it and other nations regardless of the perspective from which one seeks to approach such a study.

22

LANGUAGES ARE OFFICIALLY RECOGNIZED AS BEING IN WIDESPREAD USE IN INDIA

IDENTITY AND NATIONAL UNITY

The Hindustan region is home to a multicultural civilization of peoples with different cultural identities that were first integrated into a single territorial unit after gaining independence in 1947. Only then did these different groups take on the challenge of forming a united nation, fully aware of the need to safeguard the rights, customs, and identities of each community in the laws and configuration of the new state, while still preserving national unity.

India officially recognizes 22 languages as being in widespread use within its territory. The main language spoken in Kolkata is Bengali; in Delhi, Hindi and English; in Mumbai, Marathi; in Chennai, Tamil; in Aligarh, Urdu; and the list goes on for over two dozen other states. India is also home to believers in most of the world's major religions. According to the 2011 census, 79.8% of the population are Hindu, the majority religion in 28 states; 14.2% are Muslim, the second-largest Islamic population in the world, but only the majority religion in two Indian states; 2.3% are Christians, the majority religion in four states; 1.72% are Sikh, the majority religion in one state; and there are also large numbers of Buddhists, Jains, and Zoroastrians. In addition to this religious and philosophical diversity, there is the ancient caste system which, Western prejudices aside, continues to play a role in contemporary India that cannot be ignored.

POLITICAL POWER AND TERRITORIAL STRUCTURE

While in Latin America presidential republics and decentralized governments are the norm, since gaining its independence, India has become one of the best-known federal states on earth, probably because this was the only possible design for managing the broader process of unity in difference.

According to its constitution, India is a unit of 29 states and seven territories, a federal, parliamentary republic with a secular, democratic government. Voter turnout during the most recent general elections (2014) in this, the world's largest democracy, was 514 million people, 66.4% of those eligible to vote. They voted for 15,000 candidates who represent over 500 political groups and parties, most of which are regional movements that control their electorate and hope to play a part in an eventual government coalition (Pinto Saavedra and Caro Vargas, 2016).

Every five years, the country elects the 545 members of the lower house (Lok Sabha) and 245 members of the upper house (Rajya Sabha). Some 233 members of the latter are proportionately elected by regional legislative assemblies, which are directly responsible for 66 thematic areas, including public health, public order, education, the implementation of effective policies, trade development, and agriculture.

India's states are a kaleidoscope of ideological leanings and administrative models. For example, for over 34 years, West Bengal was led by a Communist government, which promoted a protectionist model with limited internationalization, a situation which only changed in 2011. In Gujarat, in the west of the country, the right-wing Hindu BJP party is in power, which up to 2013 was led by Narendra Modi, now India's prime minister. These differences in forms of government are more than just nuances and are instead fundamental factors in any decision to do business with India.

REGIONAL GAPS AND MANAGING COMPETITIVENESS

Narendra Modi's arrival as prime minister in 2013 and his industrialization program to convert India into a global manufacturing center imply the rapid introduction of a new investment attraction strategy known as First Developed India. This has given rise to active policies with significant reach, such as Make in India, which focuses on sectors with global impact, and a scheme for allocating public resources to different regions, known as Cooperative and Competitive Federalism.

This new approach to incentivizing growth, investment attraction, and increased autonomy for the different states has brought noteworthy results in a short period of time. Cooperative federalism refers to the relationship between the national government and the country's 29 states in the areas of legislation, administration, and finance. But cooperativism has always been the basic structure of the Indian constitution, the way Indian society and community is organized, and, in many cases, how large-scale Indian businesses are managed. What is innovative about the new prime minister's model is the concept of "competitive federalism," which focuses the central government's efforts on designing incentives for healthy competition between the 29 states and seven territories in the fields of trade and investment attraction. The states that perform best in assigning the resources they receive will be rewarded with increased annual budgets. The states will be responsible for creating the necessary socioeconomic and infrastructure conditions for attracting greater investment to their territories. The states now have greater responsibility and autonomy in the fields of public policy, planning, and implementation (Rossow, 2016).

One important instrument for guiding that state strategy is the Business Reforms Action Plan (BRAP), which introduces 58 recommendations for reform in ten areas that are fundamental for business facilitation and attracting foreign direct investment (FDI). The

TABLA 1
CATEGORIES OF STATES BY LEVEL OF IMPLEMENTATION OF BUSINESS FACILITATION AND FDI REFORMS

CATEGORY	STATES
LEADERS (90%–100%)	ANDHRA PRADESH, TELANGANA, GUJARAT, CHHATTISGARH, MADHYA PRADESH, HARYANA, JHARKHAND, RAJASTHAN, UTTARAKHAND, MAHARASHTRA, ODISHA, AND PUNJAB
ASPIRATIONAL LEADERS (70%–90%)	KARNATAKA, UTTAR PRADESH, WEST BENGAL, AND BIHAR
REQUIRE ACCELERATION (40%–70%)	HIMACHAL PRADESH, TAMIL NADU, AND DELHI
REQUIRE LEAP (0%–40%)	KERALA, GOA, TRIPURA, DAMAN AND DIU, ASSAM, DADRA AND NAGAR HAVELI, PUDUCHERRY, NAGALAND, MANIPUR, MIZORAM, SIKKIM, ARUNACHAL PRADESH, JAMMU AND KASHMIR, CHANDIGARH, MEGHALAYA, ANDAMAN AND NICOBAR ISLANDS, AND LAKSHADWEEP

Source: Press Information Bureau (2016a).

4.2%

THE REAL GDP GROWTH RATE FOR BRICS COUNTRIES

results of the first BRAP exercise (July 2015–June 2016) show that the national rates of implementation for these recommendations reached 48.93%, greater than the 38% recorded in the previous period. The government has classified states into four categories depending on how far they have implemented these business facilitation reforms (table 1). In 2015, India made a significant leap in attracting greenfield FDI. According to fDi Intelligence (2017), India replaced China as the number one destination for investment capital when inflows reached US$63 billion and the states of Gujarat, Maharashtra, Andhra Pradesh, Karnataka, and Jharkhand were added to the list of the ten most attractive regions in the world to invest in.

Furthermore, with 1.31 billion inhabitants, India is the most populous country on earth. India creates a population equivalent to that of Brazil every 10 years. See from this perspective, within its borders there are states and even cities with populations that are equivalent to entire Latin American nations. In Uttar Pradesh, for example, an area of just 240,928 km^2, there are nearly 200 million people, and a population density of 829 people per square kilometer (Government of Uttar Pradesh, 2017). In other words, in demographic terms, the state is as big as Brazil. However, Uttar Pradesh is also home to 60 million people living in poverty, according to World Bank (2016) data.

The state of Maharashtra, which has a surface area of 308,000 km^2, has a population of 112 million people, 45% of whom live in big cities. In population terms, it is comparable to Mexico. According to the United Nations (2015), 17.7 million people live in its capital, Mumbai, which has a population density of 30,000 per square kilometer (IBT, 2015). Gujarat, one of the smaller states on the subcontinent in terms of both surface area and population, has seen the highest growth and received the largest flows of FDI in Asia. Its population is equivalent to the sum of Argentina's and Ecuador's (see map 1).

CATEGORIZING REGIONS IN INDIA AND LATIN AMERICA

A prospective study by McKinsey & Company (2014) analyzed the economic development of the different regions in India based on multiple parameters that explain economic, social, and structural dimensions (figure 1). This dynamic information allowed states to be classified into four categories: very high performing, such as Goa or Delhi; high performing, such as Gujarat, Haryana, and Punjab; medium performing, such as Andhra Pradesh; and low performing, such as Uttar Pradesh. The methodology reveals the varied growth patterns throughout the economic geography of India and identifies how this may develop toward 2025.

Any examination of economic opportunities between India's states and Latin America that seek to create value added thus implies taking a more specific focus and moving beyond research based on the handling of secondary data and aggregate variables. The analysis in this article is limited to identifying the opportunities between the four PA countries (Chile, Colombia, Mexico, and Peru) and the Indian states of Maharashtra, Tamil Nadu, Gujarat, Haryana, Punjab, Andhra Pradesh, and Karnataka.

THE PACIFIC ALLIANCE

The PA was selected because it is a young group of nations that have achieved major results in terms of innovative economic integration in Latin America. The bloc accounts for 39% of the region's GDP, 53% of trade, and 45% of FDI flows. Some 36% of all Latin Americans, or 227 million people, live in these four economies. The PA needs to diversify its markets and strategic partners and accelerate this process with India, a country it should be paying due attention to from the highest ranks of government.

Albeit with varying levels of intensity, the PA countries have consistently implemented active policies to develop export baskets with greater value added and new contexts for the flow of high-quality investments between India the bloc.

Peru

In the agriculture sector, there has recently been a drive around so-called superfoods or products with high nutritional content. There are new and improved varieties of fruits, including physalis, passionfruit, and grapes. Peru is a major exporter of green and white asparagus and canned artichokes. It also exports chestnuts and quinoa, as well as herbs, root vegetables, and many types of fish. Its more traditional export products, such as coffee, cacao, and broccoli, have also continued to expand.

Food industry inputs like condiments, flavorings, and sauces have been on the rise. Large-scale agricultural inputs such as fertilizers have also appeared on its list of exports. There has also been growth in diverse manufactures, including containers and packaging, construction materials, cosmetics, and timber (PromPerú, 2016a). The incentives for developing nontraditional services, particularly in relation to information technologies (IT), are particularly relevant to the Indian market, as are food industry franchises, videogame development, and engineering services.

Investment flows with India have been growing consistently. Five Indian companies are investing in mining in Peru, providing space for Peruvian industrialists in the mining services subsector that are already providing machinery or other services through investments in New Delhi, Haryana, and Rajasthan. The Peruvian beverages industry has gained a foothold in Maharashtra through a subsidiary of AJE, while Indian firms and economic groups are present in Peru in the form of phosphate mining projects, IT, pharmaceutical products, and cosmetics (Ministry of External Affairs, 2017).

Colombia

After 50 years of armed conflict within its borders, which ended with the signing of the General Agreement to End the Conflict and Build a Stable, Long-Lasting Peace between the government and the FARC, Colombia is now being recognized as one of the most prosperous countries in Latin America and a major destination for investment and doing business. However, it is primarily an urban nation whose rural in-

TABLE 2
TRADE BETWEEN INDIA AND THE PACIFIC ALLIANCE IN PERCENTAGES

EXPORTS FROM INDIA TO THE PA		EXPORTS FROM THE PA TO INDIA	
MOTOR VEHICLES, TRACTORS, CYCLES, AND OTHER LAND VEHICLES AND THEIR PARTS	32.6%	MINERAL FUELS, MINERAL OILS, AND PRODUCTS OF THEIR DISTILLATION	59%
ALUMINIUM AND ARTICLES THEREOF	8.7%	ORES AND ASH	29%
ORGANIC CHEMICALS	6.2%	NUCLEAR REACTORS, BOILERS, MACHINERY, AND MECHANICAL APPLIANCES	2%
COTTON	5.1%	NATURAL OR CULTURED PEARLS, PRECIOUS OR SEMI-PRECIOUS STONES	2%
COPPER AND ARTICLES THEREOF	4.6%	COPPER AND ARTICLES THEREOF	1%
IRON AND STEEL	4.4%	MACHINERY AND MECHANICAL APPLIANCES; ELECTRICAL EQUIPMENT; SOUND RECORDERS	1%
IRON AND STEEL MANUFACTURES	4.3%	SALT, SULPHUR, EARTHS, YESO STONE, PLASTERING MATERIALS, LIME, AND CEMENT	1%
NUCLEAR REACTORS, BOILERS, MACHINERY, AND MECHANICAL APPLIANCES	3.4%	PULP OF WOOD OR OF OTHER FIBROUS CELLULOSIC MATERIAL, RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD	1%
PLASTICS	2.9%	INORGANIC CHEMICALS	1%
PHARMACEUTICAL PRODUCTS	2.6%	IRON AND STEEL	1%
TOP 10	74.8%	TOP 10	98%

Source: Center for Global Development, 2016.

habitants have migrated into the cities, so half of its land is not currently productive and the riches these areas may hold remain unknown. Despite the difficulties and tension that are intrinsic to the process of reconciliation, Colombia has one of the best-designed roadmaps in the world for moving forward with the postconflict process. The backbone of this is a comprehensive agricultural reform that seeks to slash rural poverty by half and legalize 7 million hectares of land over ten years by updating official ownership records to build a secure land market that prevents misappropriation. There is a drive toward a new form of agriculture based on diversification, specialization, and value added, supported by the construction of specific infrastructure to enable these goals (Oficina del Alto Comisionado para la Paz, 2016). According to the Rural Agricultural Planning Unit (UPRA), there are clear possibilities for diversification in high-complexity regions that the country effectively had no access to for decades. Only 54% of the available agricultural land in the Valle del Cauca department is being used appropriately, while the remainder will need to be restructured. Arauca, one of the departments that was most affected by the violence of the last 50 years, is known for its mining potential and 11.17% of its surface area is available for agricultural activity. This figure is as high as 84.9% in Guaviare, while La Guajira, on the border with Venezuela, has only developed 1% of its agricultural capacity. The rapid transformation of Indian agriculture could be a touchstone for PA countries, particularly for Colombia. India has gone from being a country that was frequently devastated by famine to being one of the largest producers and consumers of agricultural goods in the world. Today it is one of the world's largest consumers of vegetable oils, the number one consumer of sugar, a key producer and consumer of cereal crops, and a major player in the dairy and beef industries. It has increased financing for agricultural research and has brought in technologies to improve productivity.

Over the last decade, economic relations between India and Colombia in the agricultural sector have grown somewhat but they have not yet connected sufficiently to play a significant part in the transformation of Colombia's agricultural economy. The most successful example of investment in the sector is United Phosphorus, a well-known model for efficiency in the production of agrochemicals. India has also made headway on agreements for developing cattle vaccines with the Colombian state-owned company VECOL. Partnerships have been established to generate energy from alternative sources such as the bagasse that is left over after processing sugarcane for ethanol production, and large biomass boilers have been built to generate electricity and feed this into the Colombian electricity market. Cooperation between the two governments is promoting research into generating energy from bamboo bagasse, and other private partnerships are working on developing new varieties of coffee, which Indian economic groups have begun to import (Interview with the Colombian Presidential Agency of International Cooperation, 2016). ProColombia has been working on maintaining and increasing Indian access to teak, specialist coffees, and quinoa and convincing Indian consumers that Colombian cacao is of a higher quality (Sachi Duggirala, ProColombia Office in India, 2017).

The conversion and restructuring of rural land, particularly on Colombia's high plains, involves sectors that have potential in the Indian market: palm oil, plant matter used to manufacture perfumes and parasiticides, and cacao oil. However, Colombia is also preparing to grow soy, grains, vegetables, and pulses such as peas and beans. India currently imports US$4 billion of pulses per year, and its main suppliers are Canada, Myanmar, Australia, and Russia. Mexico currently exports US$191 million in pulses globally, but just US$4 million of these go to India. Colombia and the other PA countries could play a larger part in that market (Trade Map, 2016).

Guaranteeing food supplies is a concern for India, while Colombia is focused on recovering its rural areas, so there is a clear overlap between their agricultural sectors. Colombia's Zones of Interest for Rural, Economic, and Social Development (ZIDRES), which were established as part of the peace process, cover 150,000 km^2 of land in the high plains which is available for use by strategic partnerships. These are thus concrete opportunities for Indian businesspeople wishing to develop new markets. Experts like Juan Alfredo Pinto Saavedra (2016) have recommended that the PA countries, particularly Colombia, "emulate Canada's model for producing pulses and grains for the Indian market, which included invitations to farmers from the Punjab to take up residence in

MAP 1
STATES OF INDIA IN CORRELATION TO THE POPULATION OF LATIN AMERICAN COUNTRIES

Source: http://www.geocurrents.info/.

Canada and
a massive expansion of the areas of land being farmed."

The use of Indian digital and satellite technology is another complementary factor in the process of transforming rural Colombia. Examples of this include the modernization and digitization of Colombian land records, the mapping of underground water resources, improvements to georeferencing and land management systems, and to information on the oceans, atmosphere, and environment in general. IT may help construct platforms for trading agricultural goods, eliminating intermediaries and enabling the inclusion of rural populations into the economy. One point of reference for this process in Colombia is the evolution of the cooperative scheme in India, an efficient option for social inclusion which has also provided the perfect context for expanding research and innovation. Amul and IFFCO are two highly significant global examples.

Between 2005 and 2017, around 40 Indian companies from different sectors have arrived in Colombia. In the (two- and three-wheeler) automotive sector, for example, Colombia was the location chosen for first Hero MotorCorp production plant outside of India, following an investment of US$70 million to start production of 78,000 motorcycles and scooters. As in the other PA countries, Indian economic groups are also present in other sectors, including IT, pharmaceuticals, generic products, vehicles, the metal-mechanic industry, and mining.

Mexico

Mexico is the PA economy which has made the most progress on adding value and creating supply chains. It produces over half of the medium- and high-technology manufactures in Latin America. Some 89% of its exports are manufactures, which implies a solid supply network. This has led to the incorporation of hundreds of companies into international supply chains, although in most cases these are limited to supplying basic inputs for assembly. There has been significant growth in the automotive and autoparts industry in various Mexican states in which multinationals have set up vehicle assembly plants that favor the creation of local networks. Another similar example is the aeronautical industry, based in the state of Querétaro, where an academic and research network has been established to further develop the sector. The medical equipment industry; electric appliances and electronics, particularly in the computing, audio, and video subsectors; and the household goods sector have also garnered recognition for their degree of specialization, their relationship with supply networks, and their linkages with global chains (Guerrero, 2016).

It is hoped that trade between India and Mexico will reach US$10 billion in 2018. India's imports from Mexico are currently worth around US$2.72 billion, and consist mainly of crude petroleum oil; electrical goods; medium- and high-tech machinery, such as digital processing units, electrical boxes, telephone parts, and airplane and helicopter parts; organic chemicals; antibiotics; vehicles and vehicle parts, such as engines and chassis; parts for regulatory and control devices; and machinery for energy projects (Ministry of External Affairs, 2017; Trade Map, 2016).

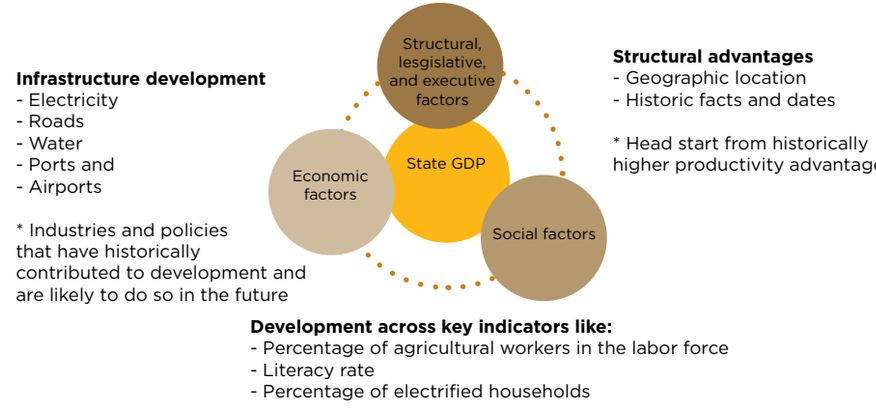
The plastics industry has enormous potential in India along the productive spectrum. The presence of Indian firm Uflex in Mexico is allowing a more significant relationship to grow in terms of value added and production chains.

Following the new US administration's announcement, Mexico is seeking new markets and wishes to expand strategic sectors such as tourism, the generation of alternative energy, and the aerospace sector. Research and creating human capital will be vital to these processes.

Chile

Chile is one of the most competitive economies in Latin America and the world. It is one of the largest producers of copper, silver, and nitrates, but its aspirations in the medium term revolve around developing a global mining and technological services industry (InvestChile, 2016). In other areas, Chile favors investment in renewable energies, such as solar and wind power, in which Indian companies could play a competitive role. In its relationship with India, Chile has mostly focused on maintaining and increasing its exports of copper and

FIGURE 1
THREE KEY DIMENSIONS TO ANALYZING THE EVOLUTION OF INDIAN STATES



Source: McKinsey & Company (2014).

other minerals, and on eliminating barriers to market access for forestry products, fruit, and fish (Caro Vargas, 2014).

Fresh apples, pears, quinces, and grapes all provide opportunities on the Indian market, as Chile exports over US$780 million in these annually, of which just US$30 million go to India, which buys US$265 million worth of these fruits globally. Indian investment in Chile is significant in the medical equipment, software, and mining subsectors. The entry into force of the new partial scope agreement between the two countries should favor deeper integration in these sectors (Trade Map, 2016).

As of 2016, PA exports to Asia reached US$66.4 billion, of which US$4.6 billion went to India. Imports from Asia into the PA reached US$186.8 billion, of which US$6.7 billion were from India (Trade Map, 2016).

According to a report published recently by PA countries, at least 88% of the goods exported to India are still raw materials. This state of affairs may improve if relations between the two countries focus on value added and strategic regions.

WHERE IN INDIA

There are opportunities for the current and potential supply described above in various Indian states. These include, first, those that have been classified by different stakeholders as being average or high performers or optimal locations for investing and doing business. Second, those where there is a possible correlation between their economic profiles and what the PA is offering, considering the characteristics of an emerging middle class with changing consumption patterns and growing purchasing power. Third, those with a history of investment in sectors that favor innovation and value added. Finally, states where economic corridors intersect.

Maharashtra

This state lies along 720 km of coast on the Arabian Sea, which puts it in a strategic position for accessing the markets of the Middle East and Central Asia. It has at least six industrial areas which concentrate most of its productive capacity. It contains Mumbai, India's financial capital, home to its stock market and commodities exchange, an institution that has allowed millions of small-scale agricultural producers to use mobile and satellite technology to access platforms that give them real-time information on the price of their products, eliminating intermediaries and improving harvest and postharvest processes. Mumbai stands to benefit from being on one of the most important economic corridors in Western Asia, the Delhi–Mumbai Industrial Corridor, the construction of which is due for completion in 2040 following an investment of approximately US$100 billion. Mumbai's industries include major players in the textile, IT, and film sectors, and it is also one of the key locations for India's automotive industry. The Nagpur district airport is a multimodal logistics project that connects with roads and railways. The city's dozens of universities and research centers also make it a hub for engineering education. Nashik is home to Hindustan Aeronautics, which has for decades been the driving force behind India's war and aeronautics industries and whose engineers pioneered the development of IT industries that are now operating in Latin America. As well as containing world heritage tourist sites, Aurangabad is home to leading seed and pharmaceutical companies. Solapur has companies that specialize in wind power and certain areas of agriculture (Luchnikava, 2015). The second-largest city in Maharashtra is Pune, which has over 3 million inhabitants, an exceptional climate, and large numbers of universities and training centers. It is also home to investment groups with a firm interest in Latin America, namely Praj, Walchandnagar, and Kirloskar Brothers. These are advanced organizations in industries such as engineering, engine production, electricity generation, and irrigation and have large-scale ventures in PA countries which have achieved significant articulation with local industries. In 2017, fDi Markets reported on at least 37 investment projects on the part of Maharashtra-based firms in PA countries between 2003 and 2017.

88%

OF PACIFIC ALLIANCE EXPORTS TO INDIA ARE RAW MATERIALS

Andhra Pradesh

Before its partition in 2014, this was one of the fastest-growing states in India. It is India's largest exporter of maritime products and the second-largest exporter of pharmaceuticals, accounting for 30% of total exports in this segment. Its 19 special economic zones and the development of pharmaceutical cities, textile parks, and hardware parks enabled it to attract investment worth US$11.57 billion between 2000 and 2016. Over 1,300 IT companies operate in the capital Hyderabad; shipyards and pharmaceutical companies in Visakhapatnam; and agricultural companies in the chili, tobacco, cotton, and rice segments in Vijayawada. Three investment projects in PA countries were reported on by fDi Markets between 2003 and 2017.

Tamil Nadu

Tamil Nadu has coasts on the Indian Ocean and the Bay of Bengal, strategic exit points that allow it to be part of the chain of ports through which 80% of the energy resources exported to China are shipped. Its manufacturing sector is highly varied and it has more factories and industrial workers than any other Indian state. It is the automotive capital of India but is also a major producer of pharmaceutical products, chemicals, plastics, textiles, apparel, and leather. Tamil Nadu has three large ports and 16 special economic zones, which enabled it to attract investments worth nearly US$21.54 billion between 2000 and 2016. Last year, the state announced investments of US$2.11 billion in energy infrastructure products and the cities of Chennai and Coimbatore were selected for inclusion in the national government's smart cities program, as a result of which they were assigned US$61.1 billion in funding. The state aims to increase its vehicle production capacity to reach 5.8 million units by 2020. The Chennai–Bangalore Industrial Corridor, which will involve four Indian states, is being built with support from the government of Japan and the Asian Development Bank (Luchnikava, 2015).

fDi Markets has reported on at least six greenfield investment projects in PA countries that originated in Tamil Nadu between 2003 and 2017.

Karnataka

This is the hub of India's IT industry and is home to the fourth-largest technology cluster in the world. Over 400 global research centers are located in the region. Between 2000 and 2016, it attracted investment in different sectors for a total value of over US$20 billion. Around 60% of India's biotech companies are based in the region and these account for 50% of the country's revenue in this sector. It is also a major player in the automotive industry and is the linchpin for the aerospace industry, as it houses the main headquarters of the Indian Space Research Organisation (ISRO), which was created in 1969 (Luchnikava, 2015). Over the last few decades, the ISRO has implemented strategic space projects that have made it one of the six most important space agencies in the world. One recent example was the launch of the Mars space probe in 2016. The ISRO provides solutions to the growing demand for faster, safer communications technology and is a world leader in satellite launches. However, its greatest contribution to knowledge has been its development of tools that facilitate large-scale social inclusion processes. At least nine investment projects in the PA originated in Karnataka, according to fDi Markets reports for 2003–2016.

Gujarat

The 1,600 kilometers of land along the Arabian Sea make Gujarat's coastline the longest of any Indian state, one that contains 46 ports. It is India's oil capital: the public and private companies based in the region export 3.32 million tonnes of refined oil, some 24% of India's total output. Gujarat has the best commercial and industrial infrastructure in India and is part of the Delhi–Bombay Industrial Corridor. It has 18 domestic airports and one international airport and 106 sector-specific clusters. Between 2000 and 2016, Gujarat attracted investment worth over US$13 billion (Luchnikava, 2015). It is the world's largest diamond treatment and finishing center and construction has begun on a medical industrial park. It is also a leader in the agriculture, pharmaceutical, biotech, shipbuilding, and dairy industries. Some 13 major industrial groups are based in the region. With backing from Japan, the state is building a high-speed passenger train between Ahmedabad and Mumbai and is modernizing 20 train stations this year. It also has the largest number of maritime shipping operations in the country and has recently launched a project to fast-track the construction of a new public-private international port (Luchnikava, 2015). At least two companies from Gujarat have reported investing in PA countries.

Haryana

Haryana surrounds India's capital, New Delhi, on three sides, which has favored its transition from a predominantly agricultural state to one of rapid urban growth. It is one of the largest vehicle manufacturers in India, producing 66% of the country's passenger vehicles, 50% of its tractors, and 60% of its motorcycles and scooters. Between 2000 and 2016, it attracted investment worth US$62 billion. It is set to become a solar energy hub, for which it has forged partnerships with France and has implemented a package of incentives for solar. Haryana has developed smart cities and industrial centers such as Gurgaon, Sonipat, and Manesar and has also built the Kundli–Manesar–Palwal Corridor. It is an excellent example of development and modernization in the agriculture sector, particularly organics. Firms from Delhi have reported at least seven investment projects in the PA, according to data from fDi Markets for 2003–2017.

Punjab

Although its growth rates are average, Punjab, like Haryana, is significant due to its historic strength in the agro-industrial sector. In 2015, it was India's largest producer of nonedible agricultural goods and is also the number one producer of wheat and rice. It grows more than 4 million tonnes of vegetables per year. It has some of the best physical infrastructure for trade and is also a major center for textile and apparel manufacturing. Punjab is a major exporter of human talent, notably managers of agricultural ventures. It is set to be the productive counterpart for the PA countries in the strategic restructuring of Latin America's agricultural supply.

NOTES

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ANNEX

REFERENCE TABLES FOR GROWTH IN THE PA AND INDIAN STATES AND POTENTIAL SUPPLY

TABLE 3
ECONOMIC INDICATORS, PA COUNTRIES

INDICATOR	UNITS	CHILE	COLOMBIA	MEXICO	PERU
GDP	PERCENTAGE CHANGE	1.555	1.96	2.302	3.897
GDP PER CAPITA	US$	13,576	5,792.18	8,554.62	6,198.61
INFLATION	PERCENTAGE CHANGE	2.754	5.747	3.36	3.235
POPULATION	MILLIONS OF PEOPLE	18.196	48.748	122.273	31.481
INNOVATION INDEX	SCALE OF 0 TO 100	38.41	34.16	34.56	32.66
COMPETITIVENESS INDEX	SCALE OF 1 TO 7	4.64	4.3	4.41	4.23

Sources: Compiled by the author based on: International Monetary Fund (macroeconomic indicators); World Bank, July 2015 (innovation index); World Economic Forum, 2016–2017 (competitiveness index).

TABLE 4
ECONOMIC INDICATORS FOR INDIAN STATES

INDICATOR	UNITS	MAHARASHTRA	ANDRA PRADESH	KARNATAKA
GDP GROWTH	PERCENTAGE CHANGE	5.66%	7.21%	7.05%
GDP PER CAPITA	BILLIONS OF US$	2.079	1.483	2.058
POPULATION	MILLIONS OF PEOPLE	112	84	61
INNOVATION INDEX	SCALE OF 0 TO 100	49.32	35.43	40.35
COMPETITIVENESS INDEX	SCALE OF 1 TO 7	2	2	1
FOREIGN DIRECT INVESTMENT (2000–2016)	BILLIONS OF US$	82.62	11.57	20.24

INDICATOR	UNITS	GUJARAT	PUNJAB	HARYANA	TAMIL NADU
GDP GROWTH	PERCENTAGE CHANGE	8.76%	5.32%	7.76%	7.25%
GDP PER CAPITA	US$	1,931	1,776	2,276	2,174
POPULATION	MILLIONS OF PEOPLE	60	27	27.76	67.8
INNOVATION INDEX	SCALE OF 0 TO 100	37.7	33.94	30.05	45.62
COMPETITIVENESS INDEX	SCALE OF 1 TO 7	3	4	5	1
FOREIGN DIRECT INVESTMENT (2000–2016)	BILLIONS OF US$	13.28	1.35	62.15	21.54

Sources: Compiled by the author based on: Central Bank of India and Statistics Times (http://statisticstimes.com/) (macroeconomic indicators); India State Innovation Report (innovation index); Institute for Competitiveness, India 2016 (competitiveness index); Department of Industrial Policy and Promotion (DIPP) (foreign direct investment).

Negotiating with India

Andrés Rebolledo
Minister of Energy,
Chile

Edgar Vásquez
Deputy Minister of Trade,
Peru

Darío Celaya
Diplomat
Argentina

THE MAIN NEGOTIATORS FROM LATIN AMERICA AND THE CARIBBEAN FOR AGREEMENTS WITH INDIA THAT ARE ALREADY IN FORCE OR ARE STILL BEING DISCUSSED SHARE THEIR EXPERIENCE AND THE LESSONS THEY HAVE LEARNED. THE IMPORTANCE OF ONGOING COMMUNICATION WITH THE PRIVATE SECTOR, THE ADVANTAGES AND DISADVANTAGES OF NEGOTIATING AS A UNIT, AND THE CULTURAL BARRIERS THAT NEED TO BE OVERCOME.

The main negotiators from Latin America and the Caribbean for agreements with India that are already in force or are still being discussed share their experience and the lessons they have learned. The importance of ongoing communication with the private sector, the advantages and disadvantages of negotiating as a unit, and the cultural barriers that need to be overcome.

What are trade negotiations with India like? Up to now, the Indian government has entered into negotiations with three countries in Latin America: Chile, through the partial scope agreement (PSA) reached in 2006; MERCOSUR, through a preferential trade agreement (PTA) signed in 2004; and Peru, with which it is currently negotiating a trade agreement, a feasibility study for which was completed in 2016.

The main negotiators for these agreements discuss how the process unfolded and analyze the outcomes so far in terms of the actual or expected dynamics of trade. Chile's minister of energy, Andrés Rebolledo, one of the officials who negotiated the trade agreement between his country and India, describes this process; Edgar Vázquez, Peru's deputy minister of foreign trade, discusses the negotiations with his country; while Darío Celaya, the Argentinian diplomat who led negotiations for the MERCOSUR, shares his experiences.

CAN YOU DESCRIBE THE EXPERIENCE OF NEGOTIATING WITH INDIA?

The PSA has been very positive for both countries. Trade between Chile and India went from US$1.85 billion in 2006 to US$2.17 billion in 2016. India is Chile's eighth-largest trade partner, and exports there grew to US$1.45 billion last year. Imports from India have grown by 13% per year on average. The PSA made Chile India's first trade partner in Latin America and was a landmark in trade between India and the countries in the region. This is particularly relevant to the expansion of the agreement, which came into force last May and which has increased the number of products that have been granted tariff preferences from 474 to nearly 3,000. I should also stress that in recent years India has undergone social changes that open up major opportunities for Chilean products.

Negotiations around a trade agreement between Peru and India are still at an early stage. The first round of negotiations took place between August 8 and 11, 2017, in New Delhi. We made

significant progress during the talks. Both countries were able to express their main interests in these negotiations. Ten working groups met during the round and concrete proposals for agreement texts were discussed at all these sessions. The experience has been satisfactory so far, in the sense that both countries worked constructively on the first round of negotiations. We had a similar experience during the preparatory stage. The work undertaken by both negotiating teams included undertaking a feasibility study and concluding the terms of reference for the negotiation. Relations with the Indian authorities were fluid and well-coordinated throughout this process. Both Peru and India are extremely interested in promoting these negotiations and reaching a mutually beneficial agreement, and this has translated into an efficient process.

The experience was interesting on three counts. First, because it was an extraregional negotiation, which is always complex but enriching, even more so given that it was with an Asian country. Second, it was a fixed preference agreement: even though these feature in the ALADI framework, they are not applicable to third-party countries outside the region, are hard to understand, and their value added is hard to demonstrate. Third, we found that the bloc needed to have clear strategies from the outset, get to know the other party better, and then establish its objectives.

CAN YOU DESCRIBE HOW THE IMPLEMENTATION OF THE AGREEMENT HAS AFFECTED OR WILL AFFECT BILATERAL TRADE FLOWS?

The implementation of the Chile–India agreement is positive for both markets. Today India has a population of nearly 1.3 billion people and it is expected to be the most populous country in the world by 2022. Likewise, the Indian economy grew by 6.8% in 2016 and is projected to do so by 7.2% in 2017. Its levels of consumption are expected to triple by 2025, which undoubtedly represents a major opportunity for Chilean exports. In 2016, exports stood at US$1.45 million. Although 88% of total Chilean exports to India are copper, there has been a threefold increase in sales of noncopper goods and services since the agreement entered into force, representing average annual growth of 13%, from US$51 million in 2006 to US$178 million in 2016. The expansion of the PSA last May will benefit several products that Chile exports such as foods, mining products like copper and molybdenum, and industrial products such as cellulose. The main import sectors from India that will enjoy tariff reductions are vehicles and autoparts, pharmaceuticals, chemical products, plastics, steel, and textiles, for which there will be significant preferences.

13%

THE AVERAGE GROWTH OF IMPORTS FROM INDIA TO CHILE

In 2016, Peru's imports of nontraditional products from India (or products with value added) reached US$239 billion. However, exports from Peru to India of these types of products were worth US$86 million, or just 0.03% of India's imports. This gap reveals that there are major opportunities for Peruvian products to compete with products from other countries in these sectors to satisfy the demands of the Indian market. In this sense, it is hoped that the trade agreement will create conditions that allow Peru to take advantage of the opportunity that India represents, such as a considerable reduction in tariffs and a stable, predictable framework for paratariff measures, such as sanitary and phytosanitary measures. Furthermore, before beginning the negotiations process, both governments carried out a joint feasibility study to calculate the benefits that a trade agreement between the two countries might bring. This study suggests that, depending on the liberalization scenario used, bilateral trade between India and Peru could grow by as much as 22%. Although positive results are expected as an outcome of tariff reductions, this is important to highlight that after signing a trade agreement, commitments in different areas enter into force (including sanitary and phytosanitary measures, technical barriers to trade, and customs procedures), which also have a positive impact on bilateral trade. Likewise, commitments around trade in services may have a positive impact on trade in logistics services, transportation, and other areas that favor trade in merchandise. Finally, we expect the trade agreement to intensify investment flows between the two countries, which could have a positive impact on bilateral trade. We hope that the agreement will attract Indian capital to Peru, where local firms will be able to take advantage of the tariff preferences in the agreement to export to India, or vice versa.

0.03%

OF INDIAN IMPORTS COME FROM PERU

Gaining a foothold in the Indian economy is difficult, but once firms have achieved this, it is highly profitable. Image is important but identifying niches is key—the phytosanitary and sanitary standards and requirements are extremely complex.

IN YOUR OPINION, WHAT ARE THE NEXT STEPS TOWARD EXPANDING THE COVERAGE OF THE AGREEMENT?

The expansion of the PSA between Chile and India is undoubtedly a huge step forward in bilateral relations and we hope that it will soon bring positive results for both countries. The expansion establishes specific rules of origin that are in line with the current state of affairs for trade and production in both countries. They also include chapters on technical barriers to trade and sanitary and phytosanitary measures, which are key aspects given the importance that nontariff barriers are gaining in world trade.

It is too soon to know what the next steps are, as negotiations toward a trade agreement are still in the early stages. However, I can say that the coverage of a trade agreement between Peru and India would be broader than the agreements that India has signed with other countries in the region, such as the agreement with Chile and MERCOSUR, in that it would include commitments on trade in services, the movement of people, and investments,

as well as provisions on trade in goods. As in any market, the main obstacles to exports are tariffs and sanitary and phytosanitary measures. In 2016, India's average tariff was 13.3% and the sector where these were highest was agriculture, where the average tariff was 32.8%, although levels were as high as 150% on some products. During these negotiations, one vital issue was the tariff reduction on products that are part of Peru's export offer. Although high tariffs are the first major barrier, Peruvian companies are also up against nontariff measures, such as sanitary and phytosanitary measures, which products have to comply with to be imported into the country. On this particular point, it is our responsibility to ensure that these measures are justified and are not an unfair barrier to trade. In addition to these, there are other "natural" barriers such as distance and language. Our trade office in New Delhi functions as a bridge between Peruvian exporters and importers and the Indian market, seeking to identify opportunities that will help increase bilateral trade.

To expand the coverage of the agreement, the profiles, expectations, and objectives of MERCOSUR member economies need to be analyzed. It is essential to remember that there are disparities that may work against regional and global strategies.

2004

THE YEAR INDIA'S PIONEERING AGREEMENT WITH MERCOSUR WAS SIGNED

DO YOU THINK IT IS BETTER TO NEGOTIATE BILATERALLY OR AS A BLOC? WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF EACH APPROACH?

Trade negotiations have gone through different stages in history and trade strategies have varied depending on economic cycles and the wider international context. Over the years, we have seen how blocs like ASEAN, the European Union, and, in recent years, the Pacific Alliance have become stronger, which has transformed them into major players in global trade. NAFTA, which was the outcome of more protectionist leanings in the United States, is now being redefined and MERCOSUR has relaunched negotiations toward an agreement with the European Union. Since the 1990s, when Chile decided to attempt to integrate as fully as possible into the global economy, it has been involved in intense, fruitful bilateral negotiations that began with agreements with other countries in Latin America, followed by North America, Europe, and Asia. It has done so without setting aside the multilateral negotiations at the World Trade Organization (WTO), which our country has always been in favor of, as rules and commitments are key for smaller economies like ours that are open to international trade.

I wouldn't say that one way of negotiating is better than the other—there are advantages and disadvantages to both. During bilateral negotiations, precisely because only two players are involved in the process, the outcomes of negotiations may reflect each party's interests to a greater extent. Likewise, bilateral negotiations tend to be more ambitious than plurilateral ones. On the other hand, plurilateral negotiations cover more markets through a single process. Likewise, there are certain mechanisms like accumulation of origin that make plurilateral processes more attractive than bilateral ones. However, in a plurilateral negotiation, as there are multiple parties with multiple interests, reaching consensus entails greater efforts and thus takes longer. One example of this is negotiations toward the TPP, which took over five years, or toward the RCEP, which has been three years in the making and has still not been concluded. As there are advantages to both bilateral and plurilateral processes, it is common for countries to pursue both types of negotiations. Although recent years have brought interesting plurilateral processes (such as the TPP, the Pacific Alliance, or the RCEP), those involved in these processes have continued negotiating toward bilateral agreements, including with partners that are also part of these plurilateral initiatives. In this way, whether or not a bilateral or plurilateral agreement is more advantageous depends on how each country assesses each particular case. Among other factors, such assessments will certainly take into account how ambitious each of the two options is and how long negotiations are expected to take.

It makes more sense to negotiate as a bloc, governed by a working discipline that leads to consensus but that takes different countries' situations into account. Like other major global economies, India's volumes of trade and production are significant and it is more interested in negotiating with our region as a bloc to ensure shared access.

150%

THE LEVEL OF INDIAN TARIFFS FOR SOME PERUVIAN AGRICULTURAL PRODUCTS

DO YOU THINK IT WILL BE POSSIBLE TO INCLUDE OTHER ASIAN COUNTRIES IN THIS PROCESS?

Almost 30 years ago, Chile reached domestic consensus to implement a policy to develop international trade, and this has been developed and enriched by each democratic government to have taken office since. The strategy has been successful in terms of the numbers of agreements reached and the impact these have had on increasing exports. In 1990, Chile's exports were worth $8.73 billion, but they had grown to US$60.6 billion by 2016. Over the last 40 years, Chile's noncopper export supply has grown by a factor of 72.

Peru and India have looked at this negotiation as a bilateral process. In other words, we haven't considered inviting other countries into the initiative. Given that Peru currently does not have a trade agreement with India, our aim is to reach an agreement that will allow us to focus on both countries' interests.

Yes, provided that this enables us to keep moving forward, although agreements with some developed countries could help MERCOSUR improve its image as a WTO-compatible trade partner. These countries include Canada, New Zealand, Australia, and some Asian countries, such as Korea or Vietnam.

WHAT LESSONS FROM OTHER NEGOTIATIONS DO YOU THINK MIGHT BE USEFUL FOR THE PROCESS WITH INDIA?

The situation in each country is different, and Chile has been careful not to try to teach other countries from our experience. All the same, some countries may find aspects of the process useful, just as we drew on other experiences in our negotiations. Of course, we are always open to cooperating in this regard. Some of the key aspects have that characterized India in recent years include the gradual opening up of its economy, high levels of growth, and attractive reforms to stimulate foreign investment. It is rich in human and natural resources and has made significant progress on areas such as technological innovation, which is very important for Latin American countries. Seen this way, it is a very attractive country with which to establish negotiations toward trade and economic cooperation agreements

All the negotiations processes that Peru has been part of have taught has lessons that we have been used to strengthen our negotiating capacity. However, one important lesson is that it is essential to continually update trade agreements. Our experience has taught us that new issues need to be included to ensure agreements cover the different problems that the private sector is facing. One example of this is direct transportation. Trade agreements from the first decade of the 2000s included strict rules on direct transportation—in other words, merchandise only enjoyed tariff preferences if it was transported directly from one party to the other. However, international logistics have evolved and goods are often no longer transported directly, but rather pass through different countries on their way to their final destination. Another example is e-commerce. The way technology develops is constantly revolutionizing the way we do business, so trade agreements need to include provisions on e-commerce that allow operators to take advantage of the opportunities available in the digital world. Another lesson worth mentioning is that it is fundamental to maintain smooth communications with business associations to identify opportunities and barriers in the potential trade partner's market. Knowing the other party inside out is extremely useful, and often, it is the private sector that has the most detailed information available on trade barriers and opportunities in a given country. Consequently, the Ministry of Foreign Trade and Tourism is in constant communication with representatives from the Peruvian private sector to keep them informed about negotiations and gather any information they may have gained from their business experiences.

72

THE FACTOR BY WHICH CHILE´S NONCOPPER EXPORTS HAVE GROWN

This is something that needs to be analyzed on a case-by-case basis, taking our particular regional situations into account. All the same, the emphasis needs to be on ex-post analysis, looking at the facts, as there are definitely differences from one country to another.

How to Avoid the Primarization of Trade

Hari Seshasayee
Confederation of Indian Industry

To keep a lamp burning, we have to keep putting oil in it.

Madre Teresa de Calcuta

A TRADE RELATIONSHIP THAT BEGAN WITH IMPORTS OF PRIMARY PRODUCTS FROM LATIN AMERICA IS MOVING INTO A NEW PHASE, THE POSSIBILITIES OF WHICH RANGE FROM COOPERATION WITH BRAZIL IN THE ENERGY SECTOR, WITH MEXICO IN THE MOTOR VEHICLE SECTOR, AND WITH ARGENTINA IN AGRO-INDUSTRY. THE FUTURE OF INDIA–LAC TRADE RELATIONS.

India-Latin America relations have come a long way in the past two decades. There remains much to be studied, particularly on the potential of India's bilateral relationship with countries in Latin America and the Caribbean (LAC).

First, India and Latin America view each other through the lens of economic diplomacy. Both see each other as a source of economic diversification, and a new partner in sectors like agriculture, energy, healthcare, and technology. India is an important element of Latin America's Asia strategy, which is gaining importance as the European Union (EU) and the United States stagnate and become more inward-looking. For India, Latin America is the last regional frontier for economic and political engagement.

Secondly, the India-Latin America relationship is still being shaped by varying degrees of perception that are often at odds with reality. The image of India in LAC lingers somewhere between one of ancient India, of yoga, spiritualism, and Mahatma Gandhi, to a more modern India of technology giants, automobile manufacturers, and Bollywood cinema. On the other hand, Latin American countries are mostly viewed in India through the lens of Western, English-language media, which paint a pessimistic picture of the region. This obscures recent gains in the region: Mexico has become a global manufacturing hub, Medellin is styling itself the "Silicon Valley of South America," and Peru becoming a global leader in gastronomy. Both India and Latin America need to work hard to bring more realistic and modern perceptions to the fore. In a sense, they must re-discover each other in this 21st century.

The contours of the India-Latin America relationship rest not on a large regional base but on multiple bilateral ones, since LAC has yet to reach a degree of internal integration that parallels the EU or the Association of South East Asian Nations (ASEAN). India has a diplomatic mission accredited to the EU and another to ASEAN, but no single Indian mission is responsible for LAC.

Ultimately, the political and diplomatic relationships hinge on India's diplomatic missions in 14 LAC countries, and the 20 LAC diplomatic missions in India. Some like the Indian Embassy in Brazil, the first in the region, date back to May 1948 (Embassy of India in Brazil, 2017). Others, like the Indian Embassy in Guatemala and the embassies of Bolivia, Paraguay, Guatemala, and El Salvador in New Delhi have been established only in the past decade.

Most Latin American missions in India actively promote cultural ties by organizing film festivals, art exhibitions, and cultural performances. As a result, Indians are familiar with Mexican films, Argentine tango, Brazilian music, and Peruvian cui-

sine. Similarly, the Indian missions in the LAC region promote India's soft power through regular yoga classes, screening of Bollywood films, and through cultural centers attached to the Embassy. Most recently, the Indian Embassy in Lima celebrated the International Day of Yoga in Machu Picchu, the historic Incan citadel. The Indian missions in the region also organize several delegations and fairs that promote Indian businesses.

Muktesh Pardeshi, India's ambassador to Mexico, notes that "the year 2016–2017 was an active and result-oriented year for the mission. Through various trade fairs, exhibitions, business seminars, and buyer-seller meets, more than 500 Indian businessmen got an opportunity to explore the Mexican market. I visited many Indian companies such as TCS, HCL, Dr. Reddy's, Samvardhan Motherson Group, and Spark Minda to understand firsthand the opportunities and challenges for Indian investors in Mexico."

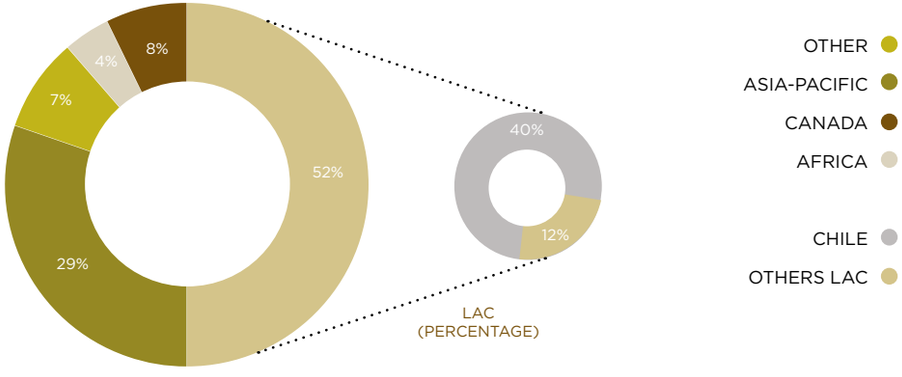
The diplomatic relationship between India and LAC has become much warmer over the past two decades, and there is a palpable increase in political will. But much remains to be done. The economic relationship is another matter altogether; it has seen considerable progress.

THE TRADE RELATIONSHIP

The economic relationship between India and LAC has undergone a serious transformation in the 21st century. Trade has reached a new level: in just one decade, it soared from US$2 billion in 2003 to US$48 billion in 2013. Indian companies have invested US$20 billion in Latin America (Ministry of External Affairs, 2015), and Latin American investment in India stands at US$2 billion. All this was inconceivable just a decade ago. Today, India and Latin America are reaching a new status quo in their economic relationship, turning a new page in South-South relations.

Latin America is gradually changing the framework of India's global trade. India now trades more with Brazil than it does with France, Thailand, Russia, or

FIGURE 1
INDIAN COPPER IMPORTS



Source: Compiled by the author.

TABLE 1
INDIAN GOLD IMPORTS

LAC COUNTRIES	MILLIONS OF US$	THOUSANDS OF KG
PERU	583.96	24.6
DOMINICAN REPUBLIC	510.86	49.5
COLOMBIA	199.45	5.85
BOLIVIA	169.99	4.6
MEXICO	126.9	7.03
BRAZIL	70.13	2.22
TOTAL FROM LAC	1,661.29	93.8
TOTAL FROM THE WORLD	27,378.78	767.31
% FROM LAC	**6.07%**	**12.22%**

Note: Data for financial year 2016–2017.
Source: Ministry of Commerce of India

Sri Lanka;[1] India exports more to Mexico than it does to Australia, Spain, Canada, or Israel[2]; and India imports more from Venezuela than it does from Malaysia, Belgium, Hong Kong, or the United Kingdom[3] (Ministry of Trade and Industry, 2017). These are positive signs, and mark the beginning of a more serious economic relationship.

The commercial relationship is underpinned by six sectors: commodity-based trade focused on energy agriculture and mining, and value-added commerce, such as automobiles, technology, and pharmaceuticals.

A COMMODITY-BASED RELATIONSHIP

LAC is endowed with abundant land and natural resources, with a relatively small population. The countries with the world's largest reserves of petroleum, copper, and silver are in Latin America—Venezuela, Chile, and Peru, respectively. Brazil, the breadbasket of the world, has been the world's largest producer of coffee for 150 years (Neilson and Pritchard, 2009), and is also a top global producer of sugarcane, oranges, corn, cocoa, soybean, milk, chicken, and beef.

India, in contrast, lacks the natural resources found in Latin America and imports large quantities of petroleum, minerals, and agricultural products to sustain its large population and growing economy. More than three-quarters of India's imports from Latin America are primary goods. In this context, India and Latin America complement each other considerably.

LAC is now a significant supplier of three primary products to India: crude petroleum oil, minerals like copper and gold, and soybean oil.

1. Crude petroleum oil: Latin America accounts for 15% to 20% of India's total crude oil imports by quantity. This synergy in petroleum trade is bound to continue for at least another two decades, given India's rising demand to support its rapidly growing economy. But there is another, more nuanced reason: heavy crude. Venezuela, Mexico, and Brazil produce mostly heavy crude. Venezuela holds the largest world's heavy crude reserves at 220.5 billion barrels (EIA, 2015a); 78% of Mexico's crude oil exports are the heavy,

20%

OF INDIA'S PETROLEUM IMPORTS ARE FROM LAC

22-degree API Maya blend (Kalt, 2017); and 91% of Brazil's oil reserves are in offshore fields with heavy grade oil (EIA, 2015b). This is juxtaposed perfectly with India, Asia's largest heavy crude consumer (Viscidi and Espinasa, 2015) and home to the world's largest refineries that can refine any grade of crude oil. India has a refining capacity of 4.6 million barrels per day (b/d), set to reach 6.3 million b/d by 2017, more than the total crude oil export capacity of Latin America. Heavy crude has another advantage: it is priced lower than light crude supplied by West Asian countries like Saudi Arabia and Iraq.

2. Soybean oil: India is by far the world's largest importer of vegetable oils, consistently importing US$10 billion worth of palm, soybean, and sunflower oil annually (ITC, 2017)[4]. Practically all of India's roughly US$2 billion annual soybean oil imports come from Argentina, Brazil, and Paraguay. More importantly, India now accounts for nearly one-third of global soybean oil imports, while South America accounts for 60% of global soybean oil exports (ITC, 2017). This synergy too is likely to remain in place. Indians use copious amounts of vegetable oil, and domestic supply remains insufficient. Agricultural giants like Brazil and Argentina already have massive soybean holdings; Brazil alone has 34.7 million hectares of land, roughly the size of Germany, under soybean cultivation.

3. Minerals such as copper and gold: mining in LAC goes back about 500 years, when the Spanish and Portuguese exploited the region's plentiful deposits of gold and silver. In the 17th and 18th centuries, for example, 61% and 80%, respectively, of the world's gold production came from Latin America (Encyclopaedia Britannica, 2017). Today, mining forms the bedrock of the economies of Peru, Chile, Bolivia, and Brazil. About half of India's copper requirements are met by Latin America, mostly from Chile, the world's largest producer and exporter of copper (see figure 1). Given the practicality of copper, used for construction, transportation equipment, industrial machinery, and electrical products, India's copper imports are bound to continue to match the requirements of its fast-growing economy. More recently, in 2011, India started importing gold from the region. Today, 12% of India's gold imports by quantity come from Latin America (Ministry of Commerce and Industry, 2017).[5]

4. Most of India's exports to Latin America are value-added goods. About 10% or less of India's exports to Latin America is in the form of raw materials like yarn, unwrought aluminum, and active pharmaceutical ingredients (APIs) (ITC, 2017).[6] While APIs are exported to many Latin American countries, most of the yarn is destined for Brazil and much of the aluminum to Mexico.

VALUE-ADDED TRADE

Throughout its economic history, Latin America has pursued a strategy of export-led economic growth. In 1970, about 87% of the region's exports comprised of primary products, and only 12% of manufactured goods (ECLAC, 1991). Now, the scales are tipping: more than half the region's exports are manufactured goods (ECLAC, 2017). This is primarily due to Mexico, the region's largest trader, where manufactured goods account for 83% of exports. This represents a huge turnaround from 1980 when 89% of Mexico's exports were made up of primary goods. Mexico is now a global manufacturing hub, for everything from cars and aircrafts to flat-screen TVs and refrigerators. Nearly 40% of Brazil's exports are also now manufactured goods, and much of the country's manufactured products are meant for domestic consumption and supply.

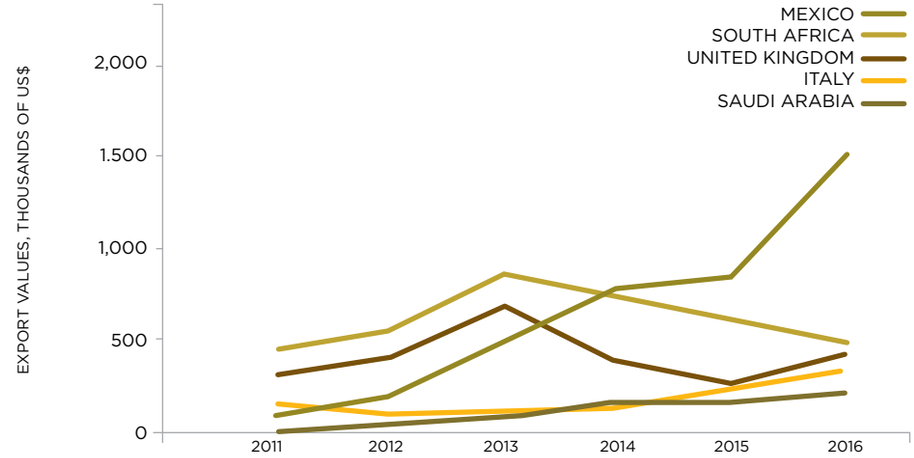
India is a large potential market for LAC's manufactured goods. In theory, it is a win-win situation: India diversifies its manufactured goods imports, and LAC secures a long-term market double the size of the region itself. In practice, it will take time for Latin America to ramp up its manufactured goods exports.

On the other hand, most of India's exports to LAC remain value-added goods. After all, very little of India's total exports are comprised of primary goods.

India's largest export item to LAC is now cars, exported mostly by international automakers like Volkswagen, Ford, Toyota, and General Motors, which have set up shop in India. A much smaller percentage can be attributed to Indian automakers like Mahindra & Mahindra and Tata Motors. About two-thirds of India's car exports to Latin America are destined for Mexico, which is also the largest global destination for India's car exports. In fact, in 2016, India's car exports to Mexico (US$1.5 billion) were more than the next four largest export markets combined (see figure 2).

It's not just cars—LAC is a popular destination for Indian motorcycles too. Colombia has been the largest global export destination for Indian motorcycles since 2011. Bajaj Pulsar and TVS Apache motorbikes are ubiquitous in Colombia and Central America. This has prompted one Indian motorcycle company, Hero MotoCorp, incidentally also the world's largest, to set up their first international

FIGURE 2
LIST OF IMPORTING MARKETS FOR INDIAN EXPORTS OF MOTOR CARS*



Note: *Product = 8703 Motor cars and other motor vehicles principally designed for the transport of persons, including station wagons and racing cars (excluding motor vehicles of heading 8702).

manufacturing plant in Colombia.

The second-largest export group from India is pharmaceutical products. LAC makes up roughly 7% of India's global pharmaceutical exports. Besides of the quantity of exports, India's pharmaceutical products in the region have played an important role in reducing the cost of public healthcare and incentivizing local manufacturers to sell more generic drugs.

Most other Indian exports, be they agrochemicals, machinery, or refined petroleum, are value-added products. This trend is likely to continue. What we should watch out for though, is an increase in value-added exports from Latin America to India. Already, India buys airplanes from Brazil, telephones from Mexico, tankers from Panama, wine from Chile, and grapes from Peru. This list should expand and increase in the coming years.

THE GROWING ROLE OF INVESTMENTS

Indian investment in the LAC region has traditionally been low-key and dates back only about two decades. But it is on the rise and making an impact. A large chunk of the investment is concentrated in five sectors: information technology (IT), pharmaceuticals, agriculture, automobiles, and energy (see table 2).

According to India's Ministry of External Affairs, the total Indian investment in the LAC region amounts to US$20 billion. However, this figure should be taken with a pinch of salt since it includes investments in tax haven territories like the British Virgin Islands. More important are the nature, motives, and scale of Indian investment in the region.

Most Indian companies enter the region through inorganic growth, that is, through mergers and acquisitions. Agri-

34.7 MILLION

HECTARES OF LAND IN BRAZIL ARE BEING USE TO GROW SOYBEANS

business companies like UPL, pharmaceutical companies like Dr. Reddy's, auto parts companies like JK Tyres, consumer product companies like Godrej, and mining companies like Aditya Birla Group all entered Latin America through thoughtful acquisitions. Many of these companies remain low-key, often retaining the names, brands, and employees of the previously acquired company. Few are Greenfield investments, such as Hero MotoCorp's recently opened manufacturing plant in Colombia.

Motives for investment: pharmaceutical companies court Latin America's growing middle-class consumers, IT companies leverage local talent and a large client base, automobile companies seek to benefit from the low cost of manufacturing and integrated value chains, and agrochemical companies provide inputs to large-scale agricultural producers. In the larger context, nearly all Indian investment in the region is by the private sector, whose broad motives are market expansion and diversification. This contrasts with Chinese investment, where public sector companies invest largely to extract resources from the region.

Scale of investment: There are roughly 134 Indian companies in the LAC region, many of which have offices in multiple countries, bringing the total number of subsidiaries to 216 (see table 2).[7] These companies employ more than 50,000 people in the region, and very few employ Indian nationals. IT companies account for half the employment generated by Indian companies in the region. The scale of Indian investment is much lower and cannot be compared with that of China, Japan, or the US. Nonetheless, many place a high priority on the region. UPL, an agrochemicals company, earns more revenue from Brazil alone than it does from India; the Aditya Birla Group, an Indian conglomerate, earns roughly US$2 billion from Latin America; and automobile companies like Hero MotoCorp and JK Tyres chose Latin America as the destination for their first international manufacturing plant.

The largest Indian employer in the region, Tata Consultancy Services (TCS), has a strong footprint in the region, with offices in eight countries employing more than 16,000 people. Vish Iyer, vice president and global head of legal and corporate affairs and a member of the Board of TCS Latin America, notes that TCS is "committed to the region for the long term and we are bringing our global practices in all areas including recruitment, academia interface, cutting-edge technology training, operational excellence, and quality certifications to the region." Iyer adds that Latin America is also attractive from the point of view of the supply of talent.

MULTILATINAS IN INDIA

Latin American investment in India may be lower than the Indian investment in the region, but these companies punch way above their weight. The Latin American companies in India have invested US$2 billion, double the Latin American investment in China. What is truly surprising is that about 100 Latin American companies have invested in China, while only 30 invest in India (Estevadeordal, Mesquita Moreira, and Kahn, 2014). This speaks volumes about the potential for Latin American investment in India, the "other" Asian giant.

Most Latin American companies in India come from two countries: Brazil and Mexico, which have invested roughly US$1 billion and US$800 million respectively.[8] The rest are from Argentina, Peru, and Chile.

The large majority has invested in India to join global or regional value chains. Brazilian steelmaker Gerdau, the largest Latin American investor in India, is a case in point. Gerdau's steel plant in Andhra Pradesh supplies to the automobile manufacturing hubs in Pune and Chennai. Mexican autopart companies Nemak, Tremec, Metalsa, and Katcon follow a similar model and operate in the same Pune-Chennai hubs. Others like Mexico's Mexichem and Ruhrpumpen, Brazil's Perto and WEG, and Peru's Resemin and Vistony are now part of regional value chains that add to India's industrial growth.

Fewer LAC companies, only four in total, entered India to leverage the large

TABLE 2
INDIAN COMPANIES IN LAC, BY SECTOR

	AGRICULTURE	CARS	ENERGY	INFORMATION TECHNOLOGY	MINING	PHARMACEUTICAL PRODUCTS	OTHERS	TOTAL
INDIAN COMPANIES	11	13	9	29	10	28	34	134
TOTAL SUBSIDIARIES	15	17	16	57	13	55	43	216

Source: Compiled by the author data based on interviews with Indian companies based in the LAC region

consumer base. Three are from Mexico: Cinépolis, the only international cinema company in India, KidZania, an edutainment theme park operator, and Great Food & Beverages, a processed foods company. One is from Peru: AJE Group, a soft drink producer. The risks and challenges are much greater for these companies since they must innovate and adapt to the local environment to survive. Some, like Peru's burger chain Bembos, failed to do so and exited the country. The newest entrant is Mexico's Bimbo Group, the world's largest bread maker, which recently acquired Ready Roti India.

An even smaller number, only three companies, are in India to cater to the country's enormous technology services industry. These are Stefanini from Brazil, Softtek from Mexico, and Globant from Argentina. This is unsurprising, given that these IT companies are the largest in their own countries.

We can expect more investment in the future, especially from LAC companies interested in integrating with regional value chains. These investments also bring more people-to-people exchanges and create a better understanding of contemporary India for Latin Americans and vice versa.

FOSTERING ECONOMIC TIES

LAC countries have a penchant for trade agreements. Chile and Mexico have signed more free trade agreements (FTAs) than any other country in the world, and a large majority of Latin American trade is done through FTA partners. India, unfortunately, is absent from this list.

16,000+

PEOPLE ARE EMPLOYED BY TCS IN LAC

This puts Indian exporters at a disadvantage when compared to Chinese, American, or European peers who enjoy FTAs with multiple LAC countries. This works both ways: many LAC exporters are also at a disadvantage, given India's wide-ranging agreements with Korea, Japan, Singapore and other Asian countries.

The India-Chile and India-Mercosur preferential trade agreements (PTAs) are narrower in scope than an FTA. However, there is good news: India and Peru are negotiating a trade agreement that

could be the first comprehensive agreement with any country in the region that includes trade, services, investments, and people-to-people exchanges.

Another mechanism that could boost ties is the effective engagement between India and regional groupings like the Pacific Alliance, UNASUR, and SICA. A strong Indian delegation to the Pacific Alliance Summit, of which India is an observer member, would send a message that India is looking seriously at the region. This could complement India's bilateral engagements with countries in LAC and provide the Indian government and private sector a more holistic view of what LAC can offer as a region.

THE WAY FORWARD

Like any relationship, India and LAC also face certain challenges. The most commonly cited challenges are those of distance, language, and a lack of direct shipping routes. However, these should be considered challenges of the past.

In this era of globalization and technology, distance is no longer a major challenge. For example, India does more business with California, which is further from it than any Latin American country, and China's trade with the region has flourished despite the distance. Indirect shipping routes should not be considered a deterrent either. Goods now frequently pass through transshipment hubs like Singapore, Dubai, Netherlands, Panama, and Belgium.

Perhaps the most cited challenge is that of language. It is also perhaps the most unfounded. International commerce transcends language. Every country in the world does business with others that speak different languages, and India and LAC are no exception. India's trade with Japan and South Korea at US$30 billion is roughly equal to its trade with LAC in 2016, yet business with these countries is often conducted in English, Korean, and Japanese, with or without interpreters that facilitate these exchanges. Language must be understood as part of the learning curve, rather than a limitation.

There are only two real challenges here. The first is of perception: India and LAC must learn to shed their images of the old India and the old LAC and embrace modern, contemporary understandings of each other. The second is a lack of knowledge of the market and the subtleties of each other's cultures. Companies from both sides, for example, must research the local market and adapt to the different realities, rather than follow a one-size-fits-all approach.

OPPORTUNITIES AHEAD

Most India–LAC exchanges have taken place only in the past three decades. Prior to this, both remained at the far edge of each other's foreign policy. The opportunities for India and Latin America thus far outweigh the challenges.

50,000

JOBS ARE PROVIDED BY 216 INDIAN FIRMS AND SUBSIDARIES IN LAC

For LAC, perhaps the biggest opportunity is India's potential as a market for value-added goods and services. The success of AJE Group and Cinépolis are telling examples. India is becoming one of the leading global markets for both companies. It is also a major potential destination for Latin America's value-added agricultural produce, such as avocado, quinoa, asparagus, blueberries, citrus fruits, and the like. Some of these products were only granted phytosanitary approval to enter India in 2016. India could also buy more electrical and industrial products from the LAC region.

Another area of opportunity is renewable energy. About 53% of electricity generation in the LAC region is through renewable sources, more than double the 22% global average (The Economist, 2016). Chile, Mexico, and Brazil have all held open auctions for major solar and wind energy projects. Indian companies should leverage these opportunities. Once they participate in renewable energy projects in LAC, they can bring their expertise back to India and scale up.

Yet another area of collaboration is space research and satellites. The Indian Space Research Organization (ISRO) has agreements with the space agencies of Brazil, Mexico, Peru, and Argentina. ISRO also launched an Argentina nanosatellite in January 2007, and on June 23, 2017, it launched the first 100% Chilean satellite from its Sriharikota rocket launch center in Tamil Nadu, India. There is much scope to deepen this cooperation and do

53%

OF THE ELECTRICITY GENERATED IN LAC COMES FROM RENEWABLE SOURCES

more on satellite monitoring, remote sensing applications, and climate and environmental studies.

EMPOWERING THE INDIAN MIDDLE CLASS

India and LAC have come a long way over the past two decades, and they face an even longer but smoother road ahead. Business will remain on an upward trajectory, given the natural convergence in trade and services. We should also keep an eye on increasing people-to-people ties. This is already evident in student delegations from Peru and Mexico visiting India annually, and the continuous cultural exchanges through films, art, and literature. The upcoming Indo-Argentine coproduction of a film on Gurudev Rabindranath Tagore and his Argentine sojourn is an apt example. A real deepening of diplomatic ties could add significant value to India-Latin America ties. India could consider appointing the equivalent of China's Special Representative on Latin American Affairs, an envoy who could help shape a cohesive strategy for India in Latin America.

The larger context, however, is one of South-South relations. India and Latin America will continue to face similar challenges: combating poverty, increasing financial and social inclusion, improving the quality of governance, and expanding and improving public services like healthcare and education. They will also have at their disposal similar opportunities such as an empowered middle class and the rapid spread of technology. It would be to the benefit of both India and Latin America to begin a conscious dialogue on such themes and find solutions to long-term issues as energy and food security.

NOTES
[1]Data for financial year 2014–2015.
[2]Data for financial year 2016–2017.
[3]Data for financial year 2014–2015.
[4]Data for financial year 2016–2017.
[5]Data for 2016.
[6]Author's research data based on interviews with Indian companies based in LAC.
[7]Data based on information provided by the office of the Aditya Birla Group in Sao Paulo, Brazil.
[8]Data from interviews conducted with the Embassies of Mexico and Brazil in New Delhi, India.

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CASE STUDY

Joint Investment

Indian Multinational Seeks Partners in Latin America and the Caribbean

Aditya Birla Group (ABG) is one of the leading Indian companies with investments in Latin America. This multinational Indian conglomerate was founded in 1857 and plans its operations in 36 countries around the world from its headquarters in Mumbai. With annual revenues of over US$41 billion, the company employs 120,000 people. Its production includes metals, carbon, cement, chemical products, fertilizers, mining products, insulators, textiles, apparel, the retail trade, telecommunications, and financial services.

In this interview, Anurag Srivastava, president of the Aditya Birla Group for Latin America, describes how the company is in an expansion phase in the region and is seeking large-scale, long-term projects for joint investments with local partners.

WHAT SECTORS AND WHAT COUNTRIES IN LATIN AMERICA DOES ABG CURRENTLY OPERATE IN?

We are currently present in more than 36 countries. Our sectors in Latin America are focused on metals (primarily aluminum and copper), textiles, viscose and polyester-based yarn fibers and yarns, and chemicals products, epoxy, alkali products, and carbon black, among others. We also have a trading arm focused on international trade in fertilizers and sulfur, agricultural products, coal, iron ore, and petroleum products.

> WE ARE GETTING READY TO WELCOME IN A CYCLE OF GROWTH

WHY DID ABG DECIDE TO SET UP BUSINESS IN THE REGION? WHAT ARE THE MAIN ADVANTAGES TO DOING SO?

The metals and carbon black lines of business came to ABG as part of its global acquisitions a decade ago. In Latin America, we are primarily focused on the commodity business, while in India, we are involved in many service-related businesses. Latin American countries offer a huge consumer market for commodities and they are also a large base for sourcing raw materials for our international factories. Latin American countries are also blessed with abundant natural resources, which implies interesting collaboration opportunities. Last but not the least, if firms persevere in this market for longer periods, the outcomes can be very profitable.

WHAT IS THE COMPANY'S STRATEGY FOR GROWTH IN LATIN AMERICA?

We are looking for large, long-term projects for collaboration in the commodities area, and shorter-term ones in relation to industrial goods. Our idea is to find local partners to invest with jointly and in a collaborative fashion.

WHAT PERCENTAGE OF ABG'S GLOBAL TURNOVER DOES LATIN AMERICA REPRESENT?

Approximately 6% of the group's global business takes place in Latin American countries.

HOW ARE THE SECTORS IN WHICH ABG OPERATES IN LATIN AMERICA CURRENTLY PERFORMING? WHAT ARE THE MAIN CHALLENGES IT IS FACING?

In the metals and chemical sectors in which we operate, we command a healthy market share. However, the economic slowdown (especially in Brazil) has impacted our revenues. Other markets like Peru, Chile, and to some extent Argentina have helped mitigate some of these challenges. We are focusing on cost-saving and being ready to welcome the good times when they arrive.

> LATIN AMERICA OFFERS AN ENORMOUS CONSUMER MARKET FOR OUR PRODUCTS

WHAT ARE THE NEW INVESTMENTS AND PROJECTS THAT ABG IS DEVELOPING IN THE REGION?

Our investments are focused on improving the efficiency and productivity of the assets that we currently hold, including upgrading our manufacturing using digital technology. We are continuing to invest in human resources, R&D, and sustainability practices because we are optimistic about the future.

HOW COULD THE TRADE RELATIONSHIP BETWEEN INDIA AND LATIN AMERICA BE ENCOURAGED?

This is a very important point and it is where I believe the greatest opportunities for Latin American and Indian companies lie. India is soon going to be the third-largest economy in the world and will have its largest middle-class population. On the other hand, Latin American countries have huge resource advantages. Companies who can connect the two through enterprises in manufacturing and commercial activities, supply chains, and the service sectors will do very well. As a start, I would encourage more Latin American countries to visit India and see the potential first hand. I suggest Indian companies visit Latin America to do likewise.

6% of ABG's business is generated in Latin America

SMART DIVERSIFICATION

OPPORTUNITIES FOR SHARED GROWTH AND COOPERATION BETWEEN INDIA AND LATIN AMERICA ARE INCREASING RAPIDLY IN THE PRIMARY, INDUSTRIAL, AND SERVICE SECTORS.

Synergies in Agricultural Production

Dave Ramaswamy
IndusLatin Ventures[1]

The Indian way of life provides the vision of the natural, real way of life.
We veil ourselves with unnatural masks.

George Bernard Shaw

THOUGH INDIA'S GREEN REVOLUTION WAS SUCCESSFUL IN MAKING THE COUNTRY SELF-SUFFICIENT IN CARBOHYDRATES THROUGH PRODUCTIVITY IMPROVEMENTS IN RICE AND WHEAT, THERE ARE CURRENTLY LARGE DEFICITS IN FATS AND PROTEINS. THESE DIETARY DEFICITS ARE EXPECTED TO WORSEN OVER THE NEXT DECADE. THIS ARTICLE FOCUSES ON THREE OF INDIA'S MOST PRESSING DIETARY NEEDS: PROTEINS FROM HIGH-QUALITY PULSES, DAIRY FATS, AND FRUITS.

India is a country deficient in proteins and fats. India's Green Revolution created surpluses in carbohydrates by improving yields in wheat and rice. Yet per capita production of pulses (lentils, beans), the country's chief supply of protein, has stagnated for over 40 years. According to the World Health Organization (2007), the recommended daily consumption of proteins for a healthy adult male is 0.83 grams per kilogram of body weight, so a man who weighs 80 kilograms should be consuming 66 grams of protein per day. According to the India Pulses and Grains Association (2007), India's average pulse protein consumption is only about 10 grams per day.

In June 2015, the Business Standard reported (IANS, 2015) on findings from the study by Mahajan (2015). Of 1,260 respondents in seven cities, 91% of the vegetarians and 85% of nonvegetarian Indians had protein-deficient diets, regardless of their social class or gender. The sample showed that the protein intake of 88% of the people was less than the ideal consumption amount, pointing to a wide gap in requirements versus each individual's consumption.

India's Public Distribution System (PDS), a food security system for the country's poor, subsidizes only wheat, rice, and sugar among food crops, and sets wholesale purchase prices for these three commodities. The PDS excludes pulses/lentils and edible oils from these subsidies, and without an incentive, farmers have cut back on or stopped producing oilseed crops. Indian agriculture researchers have been unable to increase yields through extension services at the farm level, again attributable to the lack of incentives.

As a consequence of shifting dietary patterns, India faces a growing diabetes epidemic among its poor, who are consuming carbohydrates at the expenses of fats and proteins. They can buy subsidized wheat and rice, for example, for less than US$0.10 per kilogram, while most lentils cost from US$1 to US$1.50 per kilogram. Unlike healthy fats and proteins, the adequate consumption of which brings about feelings of satiety, excessive consumption of refined carbohydrates to compensate for lack of protein drives insulin resistance leading to diseases like cardiovascular disease and type 2 diabetes.

India's population also consumes protein and fats from milk and dairy products like ghee. And with increasing incomes, its urban population is increasing fruit consumption at the expense of grains. With its abundant agricultural lands and long tradition of exporting edible oils, milk products, and fruits, Latin America (LAC) should focus its attention on India.

CURRENT SCENARIO

Pulses

In India, demand for pulses exceeds supply, and about 4 to 6 million tons are imported each year from various countries. There is a large potential opportunity for LAC countries to export more pulses to India. As can be seen in table 1, in 2016–2017, India imported a total of close to US$43 million in pulses—mostly kidney beans, black-eyed peas, and chickpeas—from LAC countries. This is less than 1% of India's total imports of pulses for that timeframe, which was US$4.28 billion.

Almost all of LAC's share in India's pulse imports is nearly equivalent to that of Malawi, which stands at US$39.3 million, and represents only 30% of Mozambique's share. Agro-industrial infrastructure (that is, farm technology, equipment, roads, ports, grain storage, and banking facilities) in LAC—particularly in Mexico, Brazil, and Argentina—is a few decades ahead of Malawi, Mozambique, and Myanmar. So, there is huge potential to increase pulse exports from these countries to India.

TABLE 1
INDIA'S IMPORTS OF PULSES FROM SELECTED COUNTRIES

N.°	COUNTRY	VALUES IN MILLIONS OF US$		
		2015-2016	2016-2017	%GROWTH
1.	ARGENTINA	16.78	19.93	18.79
2.	AUSTRALIA	624.34	921.74	47.63
3.	BOLIVIA	0.19	0.35	80.99
4.	BRAZIL	46.09	17.62	-61.76
5.	CANADA	1,415.65	1,155.88	-18.35
6.	ETHIOPIA	36.66	26.10	-28.81
7.	FRANCE	42.35	81.13	91.56
8.	KENYA	55.51	35.54	-35.98
9.	MADAGASCAR	15.10	17.00	12.56
10	MALAWI	61.84	39.32	-36.42
11	MYANMAR	819.91	809.45	-1.28
12	MEXICO	5.03	4.25	-15.46
13	MOZAMBIQUE	89.42	145.22	62.40
14	PARAGUAY		0.30	
15	SUDAN	19.95	70.40	252.81
16	TANZANIA	141.45	224.27	58.56
17	UKRAINE	32.68	60.17	84.09
18	USA	152.02	182.93	20.33
	INDIA'S TOTAL PULSE IMPORTS	US$ 3,954.76	US$ 4,278.01	8.17

Source: Ministry of Commerce of India

EDIBLE OILS AND DAIRY FATS

Another big import area for India is for edible oils, such as palm oil, soy oil, sunflower oil, and rice bran oil, as the consumption of such edible oils has increased in the country.

India is the largest importer in the world of palm oil, soybean oil, and sunflower oil. The edible oil trade into India is dominated by the four big global agro-industrial trading companies informally referred to as ABCD—Archer Daniels Midland (ADM), Bunge, Cargill, and Louis Dreyfus.

TABLE 2
IINDIA'S EDIBLE OIL IMPORTS FROM ARGENTINA

PRODUCT LABEL	INDIA'S IMPORTS FROM ARGENTINA, VALUES IN THOUSANDS OF US$			INDIA'S IMPORTS FROM WORLD, VALUES IN THOUSANDS OF US$		
	2014	2015	2016	2014	2015	2016
SOYBEAN OIL AND ITS FRACTIONS, WHETHER OR NOT REFINED (EXCLUDING CHEMICALLY MODIFIED)	1,394,282	1,815,059	1,958,793	1,985,134	2,698,314	3,013,221
SUNFLOWER SEED, SAFFLOWER, OR COTTONSEED OIL, AND FRACTIONS THEREOF, WHETHER OR NOT REFINED	766	9,156	62,125	1,533,780	1,313,605	1,316,276

Source: UN COMTRADE statistics.

India now imports 70% of its edible oil consumption, spending US$10 billion to US$12 billion annually.

This constitutes the third-largest expenditure in its import basket, after crude petroleum and gold. Some 85% of consumption is unrefined oil imported from Malaysia and Indonesia, while the remainder is imported from Ukraine, Argentina, and Brazil (see tables 2 and 3). LAC already supplies over US$2 billion of India's edible oils, mostly soy and sunflower oil. Unlike China, India prohibits the imports of genetically modified organisms (GMOs) including oilseeds.

India also has a growing demand for dairy fats and dairy products. Due to religious dietary preferences, Indians are big consumers of dairy-based protein. Because of rising incomes, urbanization, and other demographic shifts, the demand has increased for more value-added dairy products.

Indian cooperatives and private-sector dairies are producing more products to meet this demand, such as milk powder, butter, ghee (clarified butter without the casein and milk proteins that some people react to), yogurt, and ethnic sweets.

There is a potential role for LAC countries to increase their exports of dairy and value-added dairy products to the Indian market.

THE FRUIT MARKET

India is the world's second-biggest grower of fruits, occupying the top production spot in mango, banana, papaya, and guava. Based on its tropical and subtropical climate and long history, India has a competitive advantage in the production of these fruits. However, its domestic production of temperate fruits like apples, pears, peaches, cherries, etc. is not sufficient to meet internal demand. Consequently, these fruits are being imported in increasing quantities including from Argentina and Chile, as shown in tables 4 and 5.

88%

OF INDIAN CITIZENS SUFFER FROM PROTEIN DEFICIENCIES

TABLE 3
INDIA'S EDIBLE OIL IMPORTS FROM BRAZIL

PRODUCT LABEL	INDIA'S IMPORTS FROM BRAZIL VALUES IN THOUSANDS OF US$			INDIA'S IMPORTS FROM WORLD		
	2014	2015	2016	2014	2015	2016
SOYBEAN OIL AND ITS FRACTIONS, WHETHER OR NOT REFINED (EXCLUDING CHEMICALLY MODIFIED)	366,527	551,864	377,719	1,985,134	2,698,314	3,013,221

Source: Un Comtrade.

MAKING UP THE SHORTFALLS

Mittal (2008) estimated that India would face large deficits in pulses and edible oils through 2026, as is shown in table 6. Given that in the fiscal year 2015-2016, India had already imported 15.5 MMT of edible oil (9.8 MMT of palm oil, along with 3.9 MMT soybean oil from Brazil and Argentina), the country is well on track to surpass the 2021 and 2026 projected import estimates (Aradhey, 2016).

India imported nearly 6 million tons of pulses in the last two years valued at over US$4 billion, and this will only increase in the years to come. The country imported over US$300 million in apples, pears, and berries in the last three years. There is an opportunity for LAC to grow its supply to India in these product categories.

INVESTMENT IN AGRICULTURE

Mitigating Climate Change

In a study published in the journal Climatic Change, a team of scientists from Oregon State University, Bard College, and Loma Linda University (Harwatt et al., 2017) calculated what would happen if every American decided to substitute "beans for beef."

They found that this dietary change could achieve somewhere between 46% and 74% of the reductions needed to meet the US 2020 greenhouse gas emission goals. Additionally, the "beans for beef" scenario offers significant climate change mitigation and other environmental benefits, illustrating the high potential of animal-to-plant food shifts.

Unlike Americans, Indians do not need to be persuaded to make this substitution. They already eat this way due to the religiously driven vegetarian dietary preferences of over 85% of the population. Based on 2009 figures from the United Nations Food and Agriculture Organization (FAO), India's per capita meat consumption was 4.4 kg/year compared to world average of 41.9 kg/year (ChartsBin Statistics Collector Team, 2013).

Additionally, leguminous crops like lentils or chickpeas, grown in rotation with crops like corn or wheat, can reduce the need for nitrogen-based fertilizers, a major source of greenhouse gases emissions. According to the FAO, cereals grown after pulses yield 1.5 tons more per hectare, equivalent to adding 100 kilograms of nitrogen fertilizer. Pulses are also "climate-smart," since their root system is tolerant to drought and facilitates soil carbon sequestration.

AGRICULTURE AND NUTRITION

The FAO (2014) calls nutrition-sensitive agriculture "an approach that seeks to maximize agriculture's contribution to nutrition. This strategy stresses the multiple benefits derived from enjoying a variety of foods, recognizing the nutritional value of food for good nutrition, health and productivity, and the social significance of the food and agricultural sector for supporting rural livelihoods." Likewise, the FAO (2015) encourages international financing institutions to fund investments in nutrition-sensitive crops, noting that "investments in agriculture and food systems are essential to improve the availability, accessibility, and consumption of nutritious foods ... and ... efforts should be made to: diversify production and diets; improve processing methods to make healthy foods available longer and convenient to prepare; and ensure that investments are equitable and mindful of the environment."

3

CHILE'S POSITION IN THE GLOBAL RANKING OF FRUIT EXPORTERS

GUIDELINES FOR IMPACT INVESTING

According to the Global Impact Investing Network (2017), impact investments are investments made in companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return. The growing impact investment market provides capital to address social challenges in sectors such as sustainable agriculture and nutrition-sensitive agriculture.

TABLE 4
INDIA'S FRUIT IMPORTS FROM CHILE (THOUSANDS OF US$)

PRODUCT LABEL	CHILE'S EXPORTS TO INDIA			INDIA'S IMPORTS FROM WORLD		
	VALUE IN 2014	VALUE IN 2015	VALUE IN 2016	VALUE IN 2014	VALUE IN 2015	VALUE IN 2016
APPLES, PEARS AND QUINCES, FRESH	37,514	15,309	22.026	249,835	230,639	265,449
FRESH STRAWBERRIES, RASPBERRIES, BLACKBERRIES, BACK, WHITE OR RED CURRANTS, GOOSEBERRIES ETC.	298	1,431	3,280	19,297	30,709	40,826
OTHER NUTS, FRESH OR DRIED, WHETHER OR NOT SHELLED OR PEELED (EXCLUDING COCONUTS, BRAZIL NUTS ETC.)	0	1,526	1,691	897,479	1.066.014	899,137
GRAPES, FRESH OR DRIED.	1,162	1.071	411	53,126	66,162	66,154
APRICOTS, CHERRIES, PEACHES INCL. NECTARINES, PLUMS AND SLOES, FRESH	311	275	395	3,720	3,679	5,228
DRIED APRICOTS, PRUNES, APPLES, PEACHES, PEARS, PAPAWS "PAPAYAS," TAMARINDS AND OTHER EDIBLE FRUIT.	150	100	169	15.416	17.045	10,297

Source: Un Comtrade.

REDUCING LIABILITY RISK

Pulses are all non-GMOs. Therefore, supporting Latin American pulses farmers in their exports to India mitigates regulatory GMO risk, such as that facing Monsanto. Litigation combining more than a thousand lawsuits with serious global implications is now pending in the US federal courts in San Francisco, following findings by the World Health Organization that Monsanto's weedkiller Roundup (glyphosate) is "probably carcinogenic to humans" (International Agency for Research on Cancer, 2015).

POLICY RECOMMENDATIONS

The following is a list of public policy suggestions that are based on the analysis above.

1. Support financial support instruments for farmers in LAC growing specific types of legumes and beans (pulses). Unlike soybeans and corn, which are traded internationally on the Chicago Mercantile Exchange, prices of pulses are not globally transparent. The prices are negotiated directly with buyers in India and can fluctuate according to currency movements and weather events. It would be helpful for organizations such as the Inter-American Development Bank (IDB) to work with India's Export-Import Bank (Exim) to create financial instruments for Latin American growers to cushion the adverse impacts of price movements.

Growing pulses in rotation with crops like wheat and rice supports soil health through nitrogen-fixing, moves away from reliance on soy or corn monocultures, provides income diversification for local farmers, and promotes agronomic practices that address climate change. Impact funds and other financial pools of capital exist to support initiatives for "carbon sequestration." The IDB could work with such funds to help pulse growers in LAC.

2. Fund value-added products based on pulse derivatives In the US and Europe, gluten-free flours made of seeds and grains are gaining popularity, and not just for customers with celiac disease and/or gluten intolerance. This is also the case among well-heeled customers in India and Latin America. All pulses, including lentils and peas, are gluten-free. Lentil flours are highly nutritious, gluten-free alternatives to traditional cooking and baking flours, and they can be blended in recipes that call for wheat flour.

TABLE 5
INDIA'S FRUIT IMPORTS FROM ARGENTINA

	INDIA'S IMPORTS FROM ARGENTINA			INDIA'S IMPORTS FROM WORLD		
	VALUE IN 2014	VALUE IN 2015	VALUE IN 2016	VALUE IN 2014	VALUE IN 2015	VALUE IN 2016
APPLES, PEARS AND QUINCES, FRESH APRICOTS, CHERRIES, PEACHES INCL.	0	170	159	249,835	230,639	265,449
NECTARINES, PLUMS AND SLOES, FRESH	27	133	93	3,720	3,679	5,228
DRIED APRICOTS, PRUNES, APPLES, PEACHES, PEARS, PAPAWS "PAPAYAS," TAMARINDS AND OTHER EDIBLE FRUIT.	80	247	91	15,416	17,045	10,297

Source: UN Comtrade Statistics Units: Units: thousands of US$

TABLE 6
INDIA'S SUPPLY-DEMAND GAP FOR SELECTED FOOD ITEMS
UNIT: MILLIONS OF METRIC TONS (MMT)

FOOD ITEMS	GAP (SUPPLY-DEMAND)		
	2011	2021	2026
RICE	1.26	8.98	9.13
WHEAT	21.21	27.33	32.04
CEREALS	21.19	-2.94	-16.97
PULSES	-8.05	-24.92	-39.31
EDIBLE OILS	-6.66	-17.68	-26.99
SUGAR	-4.31	-39.67	-74.13

Note: 10.2% is the conversion factor of sugarcane to sugar, and 33.9% is the average conversion factor for edible oilseed to edible oil. The demand scenario considered here is based on GDP growth at 9%.
Source: Mittal (2008), Demand-Supply Trends and Projections of Food in India

Lentil proteins are allergen-free alternatives to meat and dairy proteins, as well. They provide new ways to enrich food products using clean label plant protein (free of chemical additives and artificial ingredients). Pulse flours and protein concentrates sourced from chickpea, yellow pea, green pea, and yellow lentils are suitable for a variety of applications, from bakery products to snacks, cereal bars, pasta, and batters. Most pulses in India are used in the production of flour. As snack foods are a fast-growing market in India due to rising incomes, pulse flours will be in higher demand. These value-added products could also be introduced into local and regional markets in LAC. There could be a role for multilateral financial organizations to fund pilot initiatives in this regard for LAC grower cooperatives.

3. Augment fruit-growing initiatives in Chile and Argentina for the Indian market. Fruits from Chile and Argentina already feature prominently on US supermarket shelves, where grocery stores such as Whole Foods publish an Aggregate Nutrient Density Index (ANDI) for various foods. We recommend that Latin American trade associations such as the Chilean Fresh Fruit Exporters Association (ASOEX) work in partnership with Indian importers and organized retailers to market the health benefits of fruits sourced from their countries. International credit organizations could fund these additional marketing costs. Latin America has a competitive advantage for supplying fruits like apples, avocados, and berries to the Indian market, based on its temperate growing climate and growing seasons, which complement northern-hemisphere harvest times.

74%

THE FACTOR BY WHICH GHG EMISSIONS COULD BE REDUCED BY SUBSTITUTING "BEANS FOR MEAT"

4. Support production of ghee and value-added dairy for the premium Indian market. Ghee has superior nutritional and medicinal properties and has been long revered in Indian cuisine. Latin America has some of the world's best open grasslands. Additionally, the Bos indicus cattle breeds native to India are abundantly present in Brazil and Paraguay. These cattle breeds don't contain the adverse inflammatory-response-

causing A1 beta-casein protein that is present in most North American and European breeds (Ul Haq et al., 2014). The Indian population is used to milk products from native breeds. Premium milk fat products based on grass-fed, 100% Indian native cattle breed attributes could be developed/co-branded by Latin American dairy cooperatives in partnership with a major Indian food retail company to cater to the top 20% of Indian income earners. International credit organizations could play a seed funding role in such a venture.

5. Monitor opportunities for financing export of specialty edible oils. It would make no sense for an international credit organization to finance trade facilitation services in mainstream oils like soy, sunflower, and palm, which are dominated by the four big players in the value chain. But in the future, the export of specialty oils like avocado and olive from LAC to India would benefit from assistance to increase in scale.

India and Latin America have natural complementarities when it comes to agriculture cooperation. Latin America also has 26% of the world's freshwater resources. It has a thriving agribusiness sector with capacity to spare. India's domestic production cannot keep pace with its population's growing demands for more and nutritious food—especially plant-based proteins (pulses), edible fats, and fruits. Credit organizations could take on the role of coaches to develop new financial products, so Latin America can score goals to meet India's food needs.

CHILE'S FRUIT SECTOR

From 2002 to 2010, Chile went from sixth to third position in the world ranking of fruit exporters. The markets where the Chilean fruit sector reaches the highest levels of competitiveness are Colombia, Ecuador, Brazil, the United States, and Taiwan.

The determinants of this competitiveness include the proximity to the market, advantages in transportation costs, tariff reductions, varieties, climate, business development, and efficient logistics. Fifteen times more jobs are generated in fruit growing than in mining for every million dollars exported.

The Chilean fruit industry has developed a unique sustainability policy in ChileG.A.P, a certification program for good agricultural practices (GAP) that harmonizes the requirements of all major international markets, including the US, Europe, and China. Any Chilean fruit exporter and grower is able to comply and implement GAP practices in their orchards in a cost-effective manner and meet the requirements of Indian retailers through compliance with a single global certification.

Earlier in 2017, Chile and India signed a phytosanitary agreement that allows the export of Chilean avocados and blueberries to India. This agreement was attained through a public-private partnership with the Agricultural Office of the Embassy of Chile in India working alongside the Association of Fruit Exporters of Chile (ASOEX)

During the 2015–2016 season, Chile exported more than 35,000 tons of fresh fruits to India, which represented an increase of close to 70% compared to 2014-2015, which shows the importance of this market when it comes to fresh fruit exports.

In this sense, there is an opportunity for multilateral organizations and development banks to offer financial products to facilitate export of fruits originating from Chile to India. For Chilean growers, these facilities could include the following:

1. Credit lines for improved plant genetics and post-harvest (packing and cold-storage) infrastructure.
2. Agricultural insurance to stave off crop losses resulting from climate-change events.
3. Marketing funds for positioning their product in the Indian market and striking partnerships with large Indian grocery retailers like Reliance Fresh, Big Bazaar, and Aditya Birla's More.

MARKET ASYMMETRIES

In India, there is no central exchange determining pulse prices like the Chicago Mercantile Exchange does for various agricultural commodities like wheat, rice, and soybean oil. There are about 3.000 mandis or marketplaces operating across India where prices of pulses—like yellow peas, chickpeas, and kidney beans—are set and traded. Some 80% of India's farmers have less than 2 acres of land under cultivation. At the time of harvest, these farmers or their representatives load their harvested crop (100kg or 1 quintal increments) on a tractor-trailer and haul it to a mandi at 9 AM. At that time, a commission agent quotes them a market price—say INR 52 for a kilogram of pigeon peas (arhar)—but does not offer them the price agreed to and keeps the farmer waiting. By 4 PM. they are forced to sell their entire output for cash below the first price that they were quoted in the morning— say INR 47 for a kilogram. The typical Indian farmer does not have sufficient holding capacity for grains and cannot wait for a better price since they have preharvest loans to pay off and household expenses to meet. Annually, India consumes around 23 MMT of pulses and production has stagnated between 17 and 19 MMT. Since India overall is net-deficient in pulses—demand exceeds supply by at least 4 to 6 MMT a year—this amount is imported from various countries. Top sources of imports include Canada, Australia, Myanmar, USA, and some countries in East Africa (Mozambique, Malawi). Occasionally, due to heavy rains or drought in India reducing production of pulses, there are occasional run-up in prices, which can increase by 30% to 100% in a few weeks before crashing. Since pulses are a key protein source for a largely vegetarian country, the government is forced to intervene in an attempt to bring down prices. Since the government is the largest buyer of pulses, impending government intervention in the market causes a hike in contract prices between buyers and sellers. In India, pulse imports are dominated by family-run trading companies located mostly in the port cities of Mumbai, Kolkata, and Chennai. Due to fluctuating prices between the times a pulses contract is negotiated and delivery to the Indian port happens 45 or 90 days later, buyers sometimes renege on their part of the bargain. The seller will then need to find alternate buyers or dispose of this cargo as "a distress sale."

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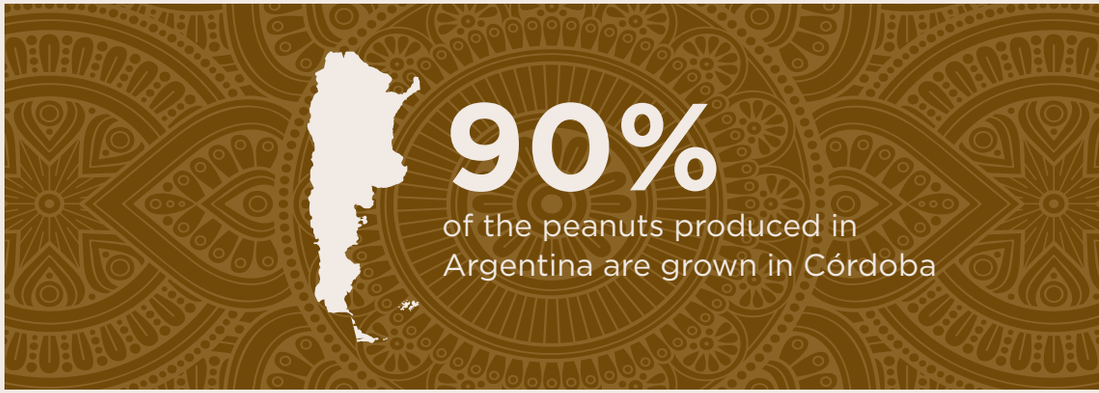
CASE STUDY

Precision Agriculture

Artificial Intelligence and Big Data in Agricultural Production



Few people in the world know the Indian and Latin American agricultural markets as well as Simmarpal Singh, CEO of the Louis Dreyfus Company in India. Before moving to his current role, Singh was head of operations in Argentina for Olam International, another commodities giant. In this interview with I&T, the executive analyzes the possible synergies between the two regions and the reforms needed to attract new investment.[1]

WHAT ARE THE LINKS BETWEEN THE INDIAN AND LATIN AMERICAN AGRICULTURAL SECTORS?

While Indian companies have invested a lot in the Latin American mining, IT, and pharmaceutical sectors, the agricultural sector has not attracted such interest. And rightly so, as the relationship needs to be the other way around. Latin American companies need to get a foothold in India to assess and take advantage of the investment opportunities and become part of the story of growth in consumption in India. Having said that, there are examples of Indian companies like UPL and IFFCO, which have invested in the broader agrochemicals sector in Latin America. Some acquisitions have also taken place in the post-harvest sector in Chile. There is also the case of the Indian sugar company that acquired upstream and processing assets in Brazil. All the same, there are few examples of Latin American companies investing in the Indian agricultural sector, besides exploring the country as a marketing destination.

HOW CAN EMERGING ECONOMIES TAKE ADVANTAGE OF NEW PRODUCTIVE TECHNIQUES IN THE PRIMARY SECTOR?

Exciting digital and robotic technologies like artificial intelligence, big data analytics, cloud computing, imagery analytics, and IoT sensing have led stakeholders to realize that the agriculture value chain provides fertile market opportunities for many technologies that are sufficiently advanced but have not yet found uses in the AgTech space. These changes are ushering in the era of precision agriculture technologies across the globe. Some of the applications that are currently being implemented or envisaged in the very near future are:

1. A combination of robotics, machine vision, and artificial intelligence can help orchard growers to identify the best-quality produce and harvest this using robotic arms to minimize physical damage and preserve this quality.
2. A combination of satellite imagery and IoT can help to monitor large areas where precision irrigation is being used, thereby reducing waste and improving the yield and quality of vineyards, almond plantations, tea plantations, and so on.
3. A combination of visual imagery (via cell phones) and hyperspectral analytics (through other handheld devices) can be configured to undertake rapid noninvasive quality tests on all produce for factors such as sugar, moisture, fat, protein, and carbohydrate content. These instant quality checks allow decisions to be made immediately on or off the field.
4. While many people may have heard of GPS-guided peanut planting and digging, which improved yield by reducing on-farm losses, a combination of machine vision and IoT can help to guide autonomous tractors to undertake various other activities on a precise, selective basis in large fields. The list goes on.

> NEW TECHNOLOGIES ARE SCALE-NEUTRAL AND CAN BE ADAPTED TO PRODUCTIVE UNITS OF DIFFERENT SIZES

WHAT SOLUTIONS CAN THESE TECHNOLOGIES BRING FOR INDIA AND LATIN AMERICA?

Agricultural producers worldwide have been seeing continuous growth in the demand for produce. However, they have also been grappling with issues such as a shortage of skilled labor, the lack of implementation of various agricultural technologies, and changing climate patterns, which are directly or indirectly leading to a slowdown in improvements to yield and productivity.

The need for digital technological solutions is also strengthened by the fact that, more than any other industry, the agriculture sector occupies vast areas of land over extended periods and

many noncontrollable variables impact outcomes. This is coupled with the dire need to manage everything from an ever-dwindling set of human and environmental resources, which requires considerable efforts.

It is still early days, but it does seem that quite a few of these new technologies are scale-neutral and can be customized to smaller-sized units. One example of this is customizing the large peanut harvesting technology used in USA and Argentina for smaller tracts of land in India. Adopting these technological interventions is one way that emerging economies can partly reduce the productivity gap between two regions like Latin America and India.

By using precision agriculture, emerging economies will also be able to optimize every other aspect of their available resources, include human resources, machinery, and soil.

CAN YOU DESCRIBE YOUR EXPERIENCE WITH SOY AND CORN IN ARGENTINA?

Our operations were mainly based around Córdoba, which contains more than 90% of Argentina's peanut acreage. To retain leases on good farms for multiple years, we also started growing soy and corn on those farms as a part of a sustainable peanuts-soy-corn-peanuts rotation. However, as Córdoba is not the core soy-growing region in Argentina, leases are much lower there than in the core area in Buenos Aires province and the potential yields are much lower. This basically implies that the risk-return equation for soy is not really exciting for lease-based farming. After operating in this way for four to five years, we made the conscious decision not to take on such multiple-year

> AUTHORITIES SHOULD LOOK INTO WAYS OF INCREASING CROSS-COMPENSATION OF TAXES

leases again. All the same, the experience left me impressed by the region's ecosystem and the knowledge that is embedded there in the domains of sustainable (no-till) crop management, maturity assessment, post-harvest management, and, above all, measurement practices at each stage of the crop. The acquisition of this practical knowledge begins at the university level and is then reinforced consistently by the untiring efforts of the passionate leadership at institutions like the National Institute of Agricultural Technology (INTA) and the Argentine No-Till Farmers Association (AAPRESID).

WHAT MEASURES WOULD BE NECESSARY TO ATTRACT MORE INDIAN INVESTMENT IN LATIN AMERICA?

On average, the regulations are fairly friendly. And it would be unfair to make a sweeping comment for all Latin America. However, one area which clearly needs to be reviewed is the cumbersome tax regulatory framework. Companies currently need to spend a disproportionate amount of their resources on tax-related activities. For small companies or start-ups, the fixed cost of merely carrying out these tax compliance activities is extremely high. It does get easier when overall turnover increases and the organization expands.

> THE INTERNET OF THINGS CAN BE USED TO GUIDE AUTONOMOUS TRACTORS THAT IMPROVE PRODUCTIVITY

Authorities should also look into ways of increasing cross-compensation of taxes so as to reduce the overall working capital burden for companies. Another aspect which needs attention is the rigid labor law framework, which offers very little flexibility within the business environment or for the restructuring that these changes would entail. It would also be necessary to reduce the costs of labor trials.

WHAT ROLE DO SMALL AND FAMILY AGRICULTURAL FARMS PLAY IN BOTH REGIONS?

Small family farms definitely have a role to play in terms of equitable rural development and poverty reduction across both regions. However, they are at a disadvantage when it comes to engaging capital inputs or accessing markets. Moreover, in areas where food companies are pushing for traceable raw material or produce farmed in accordance with any internal or external sustainable agricultural code, small farms may lose out due to the high transaction costs involved in getting those certifications and then complying with the processes year after year. But this is a detailed project that depends on the wider agenda that governments might pursue in their regions.

WHAT KIND OF SYNERGIES DO YOU THINK ARE POSSIBLE BETWEEN INDIAN AND LATIN-AMERICAN FOOD COMPANIES?

There are significant investments by Indian companies in Latin America in the mining, energy, IT, pharmaceutical, manufacturing, and agrochemical sectors. However, food is one area where things have lagged behind. India will be the second-best option, after China, for Latin American exports of oilseeds, pulses, and fruits. While there is a general acceptance of the strategic importance of India, companies from Latin America are not yet able to pursue strategies with both Asian giants at the same time. And that could be due to a lack of management bandwidth, capital, or other resources or may be explained by the sheer complexity that these two regions represent for companies.

WHAT WOULD THE NEXT STEPS BE IN MOVING TOWARD JOINT VENTURES?

Companies could look at forming joint ventures with larger or smaller Indian companies so as to grow on par with them as the growth and consumption in India increase. The Indian companies would bring their contextual knowledge to bear on local complexities while the Latin American companies would provide the products and global expertise.

NOTES

[1] The views expressed in this paper are those of the author alone.

RENGARAJ VISWANATHAN
Former Indian Ambassador to Venezuela,
Argentina, Uruguay, and Paraguay

"South America **can contribute** to **India's food security**"

WITH 12 YEARS' DIPLOMATIC EXPERIENCE AT THE HIGHEST LEVEL IN LATIN AMERICA, RENGARAJ VISWANATHAN IS ONE OF THE INDIAN EXPERTS WHO KNOWS THE REGION BEST. IN THIS EXCLUSIVE INTERVIEW, HE ARGUES THAT THE RELATIONSHIP BETWEEN THE TWO REGIONS NEEDS TO MOVE INTO A NEW PHASE THAT WILL OVERCOME GEOGRAPHIC AND CULTURAL DISTANCES. HE ALSO RECOMMENDS PROMOTING TRADE DELEGATIONS OF LATIN AMERICAN BUSINESS PEOPLE TO INDIA TO EXPLORE OPPORTUNITIES AND ADOPT MEASURES TO FACILITATE TRADE AND INVESTMENT.

How would you describe the current relationship between India and Latin America?

The 21st century has brought a positive paradigm shift in markets and mindsets, which has given rise to a new India and a new Latin America and promises growth and prosperity. Millions of people have come out of poverty to join the middle class in India and Latin America, increasing the sizes of both markets. Millennials, who form the largest part of the populations on both sides, are aspiring to improve their lives with new confidence and optimism. They use tools such as the internet, social media, and other communication channels to protest against corruption and poor governance and have become new stakeholders, thereby making their democracies stronger. Many entrepreneurs in both India and Latin America have gone global, ambitiously exploring new markets and opportunities. The two regions have started to find each other mutually attractive and are discovering complementarities and synergies in business and in other areas. The days of excuses and apologies about the barriers of distance, language, culture, and expensive freight rates are over. A new paradigm of trade and investment is emerging.

BRAZILIAN-MADE BUSES ARE A COMMON SIGHT ON INDIA'S HIGHWAYS

Could you give us some examples of this new relationship?

India's exports to some Latin American countries outstrip those to many of its neighbors and traditional trade partners. Things are happening that would have been hard to imagine two decades ago. For example, India exports more to distant Guatemala than to nearby Cambodia. There are countless cases that reflect these new ties: Surya Brasil imports henna ingredients from India and exports branded henna products to many countries, including India. The Peruvian firm AJE has set up a plant in India to bottle and market its Big Cola drinks. Cinepolis from Mexico has become the fourth-largest operator of multiplexes in India. A dozen other Latin American companies in sectors such as steel, autoparts, and electrical motors have manufacturing and assembly units in India.

RENGARAJ VISWANATHAN HAS HELD DIFFERENT DIPLOMATIC POSITIONS IN LISBON, TRIPOLI, AND NEW YORK. HE WAS INDIA'S FIRST CONSUL GENERAL IN SÃO PAULO FROM 1996 TO 2000. FROM 2000 TO 2003, HE WAS INDIA'S AMBASSADOR TO VENEZUELA AND FROM SEPTEMBER 2003 TO SEPTEMBER 2007, HE WAS IN CHARGE OF THE LATIN AMERICAN DIVISION AT THE MINISTRY OF EXTERNAL AFFAIRS IN NEW DELHI. FROM OCTOBER 2007 HE WAS INDIA'S AMBASSADOR TO ARGENTINA, URUGUAY, AND PARAGUAY, BASED IN BUENOS AIRES.

There are a few Latin American software companies which provide services to Indian clients. Uruguayan architect Carlos Ott has designed the largest office complex in India for TCS in Chennai. Techint, a renowned Argentinian steel firm, has an outsourcing center in Mumbai to service their engineering projects in West Asia. The Argentine cofounder of the online classified advertisement firm OLX first launched the service in India, where it remains the largest such site. Embraer has sold airplanes to India and is set to increase its share in India's fast-growing aviation sector. Brazilian Marcopolo buses, made as part of a joint venture with Tata Motors, are a common sight on Indian roads. Businesses that would have been considered unviable or unthinkable in the past have become roaring successes.

How can we take best advantage of these growing ties into the future?

Trade has started growing, investment is flowing, and joint ventures and collaborations are flourishing. Now that these have reached a critical mass and a solid foundation has been laid, it is time to reflect and plan to take this economic engagement to the next level and form a long-term win-win partnership. Indians have realized that despite the distance factor, some Latin American countries have become more important for exports than India's neighboring countries and traditional trade partners.

Distance is no longer a deterrent. Fresh fruits from Chile, Peru, and Argentina are available in Indian markets. While India needs to import more crude oil in the future, Latin America has the capacity to meet this demand and is keen to do so. It is important to note that crude oil remains Latin America's top global export (US$115 billion dollars in 2015) and it is also the largest global import item for India (US$105 billion dollars in 2015–2016). The emergence of the new complementarities and synergies between India and Latin America have made the political leaders on both sides pay more attention to each other and broaden their agenda.

> AGRICULTURAL PRODUCTION IS COMPLEMENTARY BECAUSE PRODUCTS ARRIVE WHEN THEY ARE OUT OF SEASON

What needs to be done to strengthen commercial ties between the two regions?

Both sides have taken a number of initiatives to boost commercial ties. Chile signed an expanded preferential trade agreement with India in September 2016, which came into force on May 16, 2017. Likewise, India has started negotiations with Peru to sign a comprehensive trade agreement that will be rather like a free trade agreement. Additional steps still need to be taken, however. India should start negotiations to reach an agreement with Mexico, which has overtaken Brazil as the largest destination for Indian exports to Latin America and the Caribbean. India should extend more concessional lines of credit to the region to facilitate trade and investment. So far, only Honduras and Cuba have received modest amounts of credit. Finally, Latin Americans need to be more aggressive and consistent in exploring India's large and growing market for business opportunities. So far, it is India which has taken more initiatives to promote its exports and investment. The country sends a number of business delegations to the region but very few Latin American delegations come to India.

> THERE ARE OBVIOUS CULTURAL DIFFERENCESBUT THESE ARE NOT SIGNIFICANT

How significant are the cultural differences between India and Latin America when it comes to doing business?

There are obvious cultural differences but these are not significant. In fact, there are more similarities. India's inclusive growth model within a large, diverse democracy that is sometimes chaotic but always vibrant resonates with the aspirations and realities of Latin American countries. The Indian culture and traditions of yoga, meditation, wisdom, and gurus are comfort zones for Latin Americans. Indian companies have a positive image in the region. Latin Americans appreciate how Indian pharma companies have helped lower the cost of medicines and increased the share of affordable generics in their markets. They are inspired by the success stories of Indian IT companies which have helped human resource development by employing over 30,000 young Latin Americans in their operations in the region.

Is it possible to create synergies in the agriculture sector?

While India has achieved self-sufficiency in the case of cereals, it is facing a perpetual and growing shortage of vegetable oil and pulses, imports of which are increasing similarly to those of crude oil. India's imports of vegetable oil have jumped from 0.1 million tons in 1992–1993 to 15.75 million tons in 2015–2016. Consumption will have doubled from 10.1 million tons in 2001–2002 to an estimated 26.8 million tons in 2025. India's domestic production of oilseeds and pulses have stagnated and is not likely to cope with the growing demand. India has been importing soy oil worth over US$2 billion from Argentina and smaller quantities from Brazil and Paraguay. It has also started importing small quantities of pulses from the region. South America could become a large, regular supplier of these two items in the long term, contributing to India's food security. Chile, Peru, and Argentina have started supplying fruits and vegetables (both fresh and dried) to India. These are seen not as competition for domestic production but as complementary-as they come from the southern hemisphere, they arrive during India's off-season.

Technological Cooperation in the Motor Vehicle Sector

Juan José Ramírez Bonilla
El Colegio de México

After the conversations about Indian philosophy, some of the ideas of Quantum Physics that had seemed so crazy suddenly made much more sense.

Werner Heisenberg

THIS ARTICLE ANALYZES LATIN AMERICA'S AND INDIA'S FORMS OF INTEGRATION AND THE TIES BETWEEN THEM AGAINST THE BACKDROP OF THE TRANSFORMATIONS THAT THE MOTOR VEHICLE SECTOR HAS UNDERGONE IN THE 21ST CENTURY.[1] IT ALSO EXAMINES THE POSSIBILITIES FOR COOPERATION IN THIS SECTOR BETWEEN THE TWO REGIONS.

The vehicle manufacturing sector has undergone fundamental changes in the last 20 years. My focus in this article will be on the integration of India and Latin America, particularly India, Mexico, Brazil, and Argentina (IMBA), which is where the core productive and commercial ties between the two parties lie.

I will show that these productive ties are limited in both directions and that these limitations are determined by the policies of manufacturers, which have given rise to two productive hubs: one in Asia, the core of which is China, and another in the Americas, where Mexico is once again playing a major role. Likewise, I will show that commercial ties are found fundamentally in trade in fully assembled cars and motorcycles and that as these are unilateral, they only favor India.

With regard to mutual cooperation, I first highlight the difficulties around cooperating in a sector that is dominated by the strategies of transnational vehicle manufacturers. Second, I examine how the sector has been technologically reorganized in two new directions: the use of new, nonpolluting fuels and the synthesis of information technology and mechanics to design and produce intelligent vehicle components. In this context, I advocate for the creation of cooperation mechanisms in which governments, manufacturers, and institutions that specialize in research and development in these technological fields all play a part.

GLOBAL REORGANIZATION

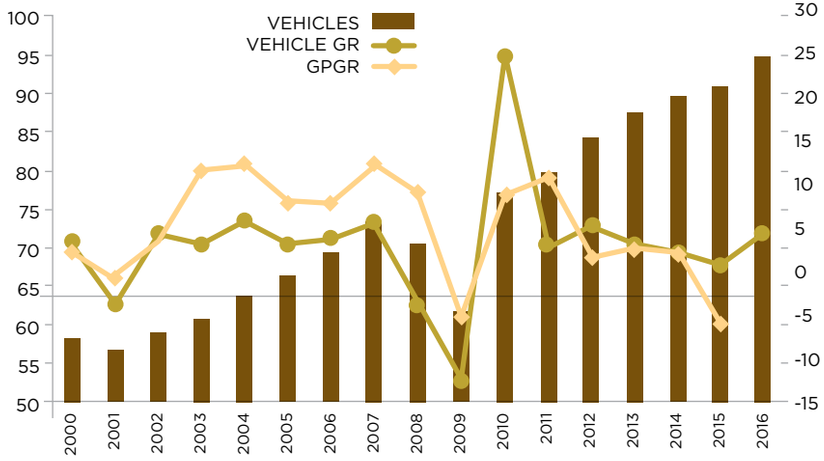
Over the course of the 21st century, the motor vehicle industry has experienced three fundamental structural transformations: the first of these, which I cover in the first section of the article, is connected to the two major crises that affected the developed areas of North America and the European Union—the US recession of 2001 and the combination of the subprime market crisis of 2007 with the global financial crisis of 2008–2009. One outcome of this was the transfer of motor vehicle production from North America and Europe to Asian economies. The second change is analyzed in the second section of the

article and concerns the growth of production into developing countries, notably the accelerated growth of the industry in China as a result of transnational companies offshoring their operations there. The third structural change is the subject of the third section of the article and is related to the offshoring strategies of manufacturers via the networks created by their subsidiaries in the wider Asia-Pacific region. For the purposes of this article, I will use the geographical definitions used by the Association of Southeast Asian Nations (ASEAN): "Pacific Asia" refers to Asian countries with coasts on the Pacific Ocean; "Asia-Pacific" refers to the entire Asian continent and entire Pacific basin; finally, given that the object of this study is India and Latin America, I will also use the terms "Asia–Americas" and "Asia–Latin America."

Figure 1 shows the close cause-and-effect relationship between motor vehicle production and gross global production. Of course, this is not a one-directional relationship but rather a circular one. Bearing this circularity in mind, the downturn in vehicle output recorded in the United States between 1999 and 2000 can be understood as being closely related to the 2001 recession within the US economy. This, in turn, had a negative impact on global production growth rates (GPGRs) between 2001 and 2003. The continuous growth in motor vehicle production between 2002 and 2007 contributed to the recovery in GPGRs from 2004 to 2007.

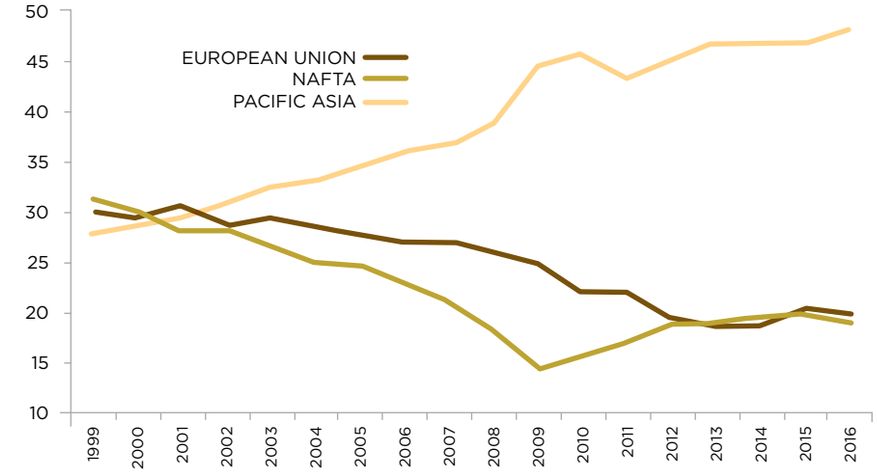
In 2007, this circular causal relationship reemerged: the subprime mortgage crisis in the United States sparked the global financial crisis, the effects of which were fully felt in

FIGURE 1
GLOBAL PRODUCTION AND VEHICLE PRODUCTION INDICATORS, 2000–2016



Note: GR = growth rate; GPGR = gross global production growth rate; vehicle numbers in millions.
Source: Compiled by the author with data from United Nations Statistical Division, National Accounts Main Aggregates Data Base, and the International Organization of Motor Vehicle Manufacturers, Production Statistics.

FIGURE 2
SHARE IN GLOBAL MOTOR VEHICLE PRODUCTION, 1999–2016



Source: Compiled by author with data from the International Organization of Motor Vehicle Manufacturers, Production Statistics.

the United States in 2008 and in Europe in 2009, as the GPGR curves for 2007 to 2010 show. The contraction in global demand caused a drastic downturn in motor vehicle production in 2007–2008 and 2008–2009. The recovery of the motor vehicle sector from 2010 onward contributed to that of the global economy as a whole—although this economic revival has not yet been fully consolidated, it has been largely sustained by the motor vehicle industry.

Specific variations aside, the global vehicle supply has gone from 56 million to 95 million between 2001 and 2016. This continual growth, however, was the outcome of drastic changes in the structure of global vehicle supply. These changes have been expressed in two ways: the first of these is geographic and involves two phases (see figure 2). The first phase entailed a continual decline in production in member countries of the North American Free Trade Agreement (NAFTA)[2] and the European Union (EU)[3], combined with a rapid increase in production in Pacific Asian economies, which lasted from 1999 to 2008, for NAFTA, and from 2001 to 2013, for the EU.

In 1999, the main three regional productive complexes accounted for 89.19% of global production. The first restructuring of the sector brought dramatic changes:

From 1999 onward, North America's share began to contract. In 2001, this stood at 28.06%, ranking it third among these productive complexes, but in 2009 it reached a historic low of 14.18%, still in third place, but far behind the other two regions.

Between 1999 and 2001, the European Union's share remained close to

11.4%

INDIA AND LATIN AMERICA'S COMBINED SHARE IN GLOBAL VEHICLE PRODUCTION

30% of global production and it briefly occupied first place in 2001. From that year on, it also began to decline continually until it reached an all-time low of 18.56% in 2013.

In 1999–2010, Pacific Asia's share went from 27.76% to 45.75%, and it became the main productive region in 2002. The only critical moment was 2010–2011, as a consequence of the delayed impact of the global financial crisis and also, undoubtedly, of the second restructuring of the sector.

The second phase in the geographic restructuring of global motor vehicle production began in 2009, when production began to pick up again in North America. This process was reinforced by the recovery of the sector in Europe from 2013 onwards. Pacific Asia's share in global production continued to increase despite the setbacks caused by the global financial crisis in 2010–2011 and the sluggishness of developing economies in 2014–2015.

THE SHIFT IN PRODUCTION

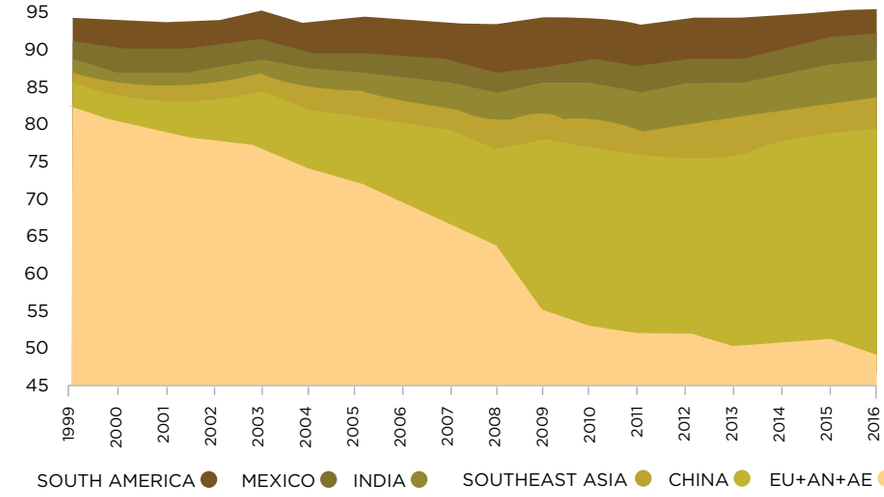
The second aspect of the restructuring of the motor vehicle industry is related to the shift in production from developed areas to developing economies. There are two clear phases in this process: the first went from 1999 to 2008 and is marked by a growth in production in the developing economies in wider Asia–Latin America.

Figure 3 reveals the most significant change during this phase: China's rapid growth as a vehicle-producing hub. At the end of the 20th century, China, Mexico, and South America accounted for similar shares of global motor vehicle production: together, the five developing areas included in figure 3 accounted for 11.69% of global output.

However, by 2008, these five developing areas were contributing 38.67% of global production. What changed was China taking off as a production center, with a constantly expanding production capacity that soon accounted for 13.25% of motor vehicles. The other developing areas also gained ground, most notably South America, which ranked second in this group, with 5.71% of global production. Mexico, India, and Southeast Asia had more modest shares—3.11%, 3.28%, and 3.71%, respectively.

The second phase in the shift in production toward developing countries went from 2008 to 2016 and the key aspect is that, during that last year, the share in global production accounted for by the developed areas in Europe, North America, and Pacific Asia dropped below 50% (49.61%) for the first time. In contrast, the developing areas of the Asia-Pacific accounted for 45.01%, of which China represented 29.61%, followed by India (4.73%), Southeast Asia (4.04%), Mexico (3.79%), and South America (2.85%). In these new circumstances, other regions of the world such as the Commonwealth of Independent States, the Near East and the Middle East, and Oceania, only represented a meager 5.37% of global production.

FIGURE 3
SHARE OF DEVELOPING ASIA-PACIFIC ECONOMIES IN GLOBAL VEHICLE PRODUCTION



NOTE: EU+NA+EA = European Union + North America (the United States and Canada) + East Asia (Japan, Korea, and Taiwan).
Source: Compiled by the author with data from the International Organization of Motor Vehicle Manufacturers, Production Statistics.

In the second half of the second decade of the 21st-century, vehicle production has become concentrated in the Asia–Americas region, with a growing share accounted for by developing economies. Latin American countries and India together accounted for 11.37% of the global total in 2016.

NETWORKS OF MANUFACTURERS IN THE ASIA-PACIFIC

The structural changes analyzed in the previous section were linked to manufacturers' strategies. These strategies were marked by the following factors: the geographic expansion of these companies, as expressed by the growing numbers of them in many countries in the Asia-Pacific and the increase in subsidiary numbers, and by the upsurge in manufacturers in developing Asian countries, most notably China and, to a lesser degree, India.

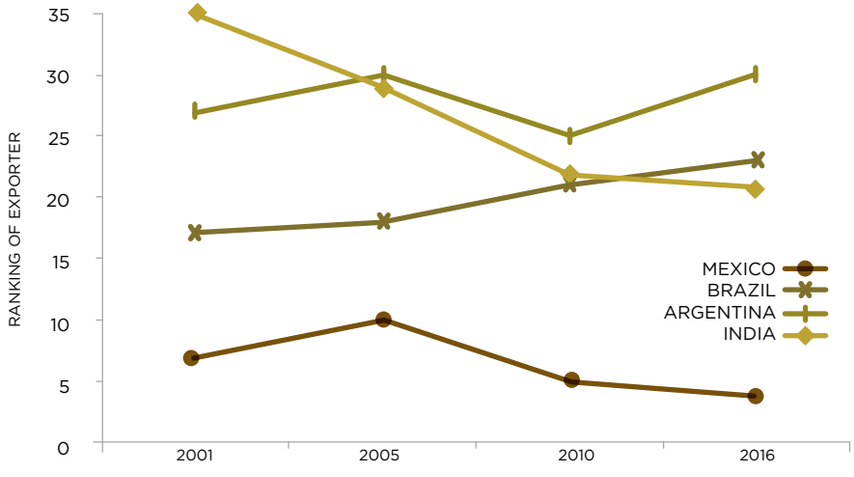
Production statistics for each manufacturing firm allow this geographic expansion process to be tracked in detail. The first indicator is the rapid growth in the number of companies that are members of the International Organization of Motor Vehicle Manufacturers (OICA)[4]: 15, 33, 47, and 50 in 2000, 2005, 2010, and 2015, respectively. This increase was associated with the huge growth in the number of subsidiaries established in developing countries in the Asia-Pacific: 71, 93, 127, and 91[5] in the above years (table 1).

However, this expansion also went through two different stages: the first went from 2000 to 2005 and was marked by the presence of firms from the United States, Europe, and East Asia in the Asia–Latin America region.

In 2000, of the 15 OICA members, 3 Japanese firms had a network of 11 subsidiaries in 8 Asian countries. Likewise, 11 US, European, and Japanese firms had transpacific networks: 31 subsidiaries in 9 Asian countries and 29 in 8 in Latin America; in Asia, the country with the largest number of these was China (8 subsidiaries) followed by Thailand (7), Indonesia (6), and India (5). In Latin America, the main countries were Argentina (8 subsidiaries), Brazil (7), and Mexico (5). The geographic integration of the sector in the Asia-Pacific thus largely rested on these 11 companies.

In 2005, there was a drastic change in these figures: the number of OICA member companies increased to 33, 18 of which were involved in the Asia-Pacific. Of these 18, only 1 US and 2 European firms had a presence in Latin America through 5 subsidiary companies; 2 Japanese companies expanded production in Asia through 8 subsidiaries; and 13 US, European, and East Asian firms with a presence in the Asia-Pacific focused on establishing themselves in Asia, to the detriment of Latin America. This predilection for Asia was manifested in the 55 subsidiaries (24 more than in 2000) present in 9 Asian countries, notably China (13 subsidiaries), Indonesia, Malaysia, and India (9 each), Thailand (8), and the Philippines (6). In contrast, the presence of these firms in Latin America took the form of 30 subsidiaries (just one more than in 2000) in 7 Latin American countries, notably Brazil and Mexico (with 11 each) and Argentina (9). Vehicle manufacturers had left Uruguay by that point.

FIGURE 4
RANKINGS FOR THE IMBA GROUP AS EXPORTERS OF VEHICLES AND AUTOPARTS, 2001–2016



Note: sector 87: motor vehicles except trains and trams.
Source: Compiled by the author, with data from the International Trade Centre's Trade Map.

The second stage spanned 2010 to 2015, during which these companies and their subsidiaries continued to expand, although less markedly than during the previous five years. One novelty was the rise of manufacturers from developing Asian countries. In this new context, the number of OICA members increased to 47, with a presence of 129 subsidiaries in Asia–Latin America. As a result, in 2010 there were:

3 OICA members with no presence in the Asia-Pacific.

30 firms that continued producing in Asia through 38 subsidiaries. Of these, 23 Chinese firms were registered with OICA, of which 21 were focused entirely on domestic production in China and 2 had internationalized their production to a certain extent through 5 subsidiaries located exclusively in Pacific Asia. 1 Taiwanese, 1 Malaysian, and 2 Indian firms also produced vehicles for the domestic market; and BMW, Hyundai, and Suzuki were operating 7 subsidiaries.

2 US and 1 German firm had a presence in Mexico and Brazil, with 2 subsidiaries in each country, and 1 in Venezuela.

13 US, European, and East Asian firms had production networks in Asia–Latin America, with 54 subsidiaries in Asia and 32 in Latin America.

In 2010, companies continued to choose Asia over Latin America, as is shown by the presence of 92 and 37 manufacturer subsidiaries in 9 countries in Asia and only 6 in Latin America; by that point, vehicle makers had also left Chile altogether.

By 2015, the number of OICA member companies had barely grown—this figure stood at 50 companies, just three more than in 2010. The growth in the number of Chinese firms had also stagnated at 21, the same number as in 2010. Likewise, the number of subsidiaries dropped to 91, although this figure was lower than it should have been because four Japanese firms did not provide details on their operations abroad. All the same, the number of subsidiaries was much lower than had been recorded five years earlier. Consequently, in 2015:

US$16 BILLION

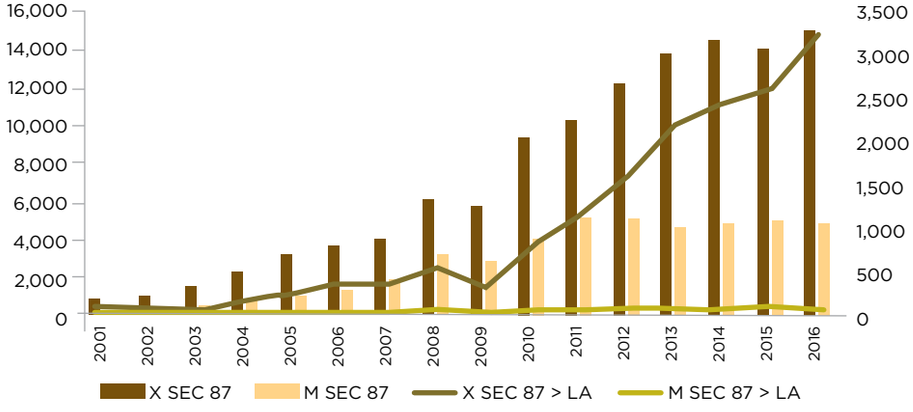
THE VALUE OF SCOOTER EXPORTS FROM INDIA TO LATIN AMERICA

33 manufacturers were operating within Asia. Of these, 20 were Chinese and were producing exclusively for the domestic market; 4 were Indian, 2 were Iranian, and 1 was Malaysian, all producing for the domestic market; and 5 (2 Japanese, 1 German, 1 Chinese, and 1 Korean) were operating transnationally to a greater or lesser extent through 7 subsidiaries.

2 US firms had 4 subsidiaries in Mexico and Brazil.

9 US, European, and Japanese firms continued with the process of sectoral integration at the Asia-Pacific level. These were operating 26 subsidiaries in 9 Asian countries, notably in China (9), India (6), and Thailand (3). In Latin America, they were operating 25 subsidiaries in just 5 countries: Brazil and Argentina (7 each), Mexico (7), Venezuela (4), and Colombia (1). This time, Ecuador was no longer on the strategic horizon of motor vehicle manufacturers.

FIGURE 5
INDIA: BALANCE OF TRADE (OVERALL AND WITH LATIN AMERICA) IN THE MOTOR VEHICLE AND AUTOPARTS SECTOR (IN MILLIONS OF US$)



Note: X= exports; M = imports; Sector 87: motor vehicles except trains and trams. LA: Latin America.
Source: Compiled by the author, with data from the International Trade Centre's Trade Map.

SECTOR-SPECIFIC LINKAGES.

Despite the recent emergence of four Indian companies in the motor vehicle industry, transnational manufacturing companies' networks are the determining factor for the ties between India and Latin America. Table 1 shows that these firms' role in developing these relationships is notable—in 2015, six firms maintained ties between Indian and Latin American subsidiaries. Of these firms:

Ford, General Motors, and Toyota had networks that covered India, Mexico, Argentina, Brazil, Venezuela.

Volkswagen, Renault, and Fiat had networks that included India and three Latin American countries: Mexico, Argentina, and Brazil (the IMBA countries), for Volkswagen; Argentina, Brazil, and Colombia, for Renault; and Mexico, Brazil, and Venezuela, for Fiat.

One feature of the localization dynamic for vehicle manufacturers is the speed at which they move between different countries. Consequently, we need to wait to see how the political and economic crisis in Venezuela will impact on vehicle manufacturing networks. In the meantime, it could be said that Mexico, Brazil, and Argentina (in that order) are currently the hard core of vehicle manufacturing in Latin America and thus determine the ties between the region and India.

These location-related dynamics explain the changes in the IMBA group in the rankings of the main vehicle and autoparts exporter countries.[6] Figure 4 shows two trends in this regard and four different paths between 2001 and 2016.

The trend toward a better position in the ranking. This situation applies to India and Mexico, although their paths have been different: India has risen continually, from 35th position to 21st, going from 0.16% to 1.11% of global vehicle and autopart exports. Mexico moved down from 7th to 10th place between 2001 and 2005, before moving up again to 4th place, with a share of 6.55% of global exports from the sector.

The trend toward a lower position in the ranking. This applied to both Brazil and Argentina although they followed different paths: Brazil went from 17th to 23rd place even though its share in global vehicle exports only varies marginally, going from 0.80% to 0.82%. Argentina also moved down the ranking, going from 27th to 30th place, but its path was more of a zigzag, with a marginal variation in the country's share of global exports, which went from 0.36% to 0.37%.

India could thus be said to exemplify the structural changes that have affected the vehicle and autoparts sector so far in the 21st-century: as an Asian country, it benefited from manufacturing firms' preference for establishing operations in Asia and it is a developing country that has generated four vehicle manufacturing companies for the domestic market. Argentina and Brazil felt the negative consequences of the structural changes. After 2005, Mexico was able to avoid these negative effects due to its integration with North America

TABLE 1
INDIA: MAIN EXPORT ITEMS FOR THE MOTOR VEHICLE SECTOR, IN GENERAL AND TO LATIN AMERICA

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
A. X SEC 87*	872	1,039	1,513	2,248	3,205	3,655	4,078	6,089	5,717	9,286	10,281	12,200	13,800	14,482	14,082	14,988
B. X SEC 87 > LA AS A % OF (A)	10.56	9.42	5.09	7.89	8.58	9.81	9.00	8.66	5.75	8.55	11.29	12.97	15.73	16.75	18.39	21.37
C. 1+3+5*	477	646	1,018	1,592	2,225	2,619	2,895	4,292	4,655	7,190	7,612	9,072	11,117	11,611	11,062	11,996
D. 2+4+6 AS A % OF (C)	12.10	10.66	5.09	9.62	11.09	12.49	11.41	9.90	6.07	9.77	13.35	15.17	17.69	19.55	22.12	25.42
1. X SUBSEC 8703*	89	151	419	736	954	1,048	1,283	2,220	2,941	4,511	3,625	4,238	5,556	5,769	5,393	6,368
2. X SUBSEC 8703 > LA AS A % OF 1	5.29	2.26	2.60	11.10	13.01	15.44	14.50	11.20	4.08	8.94	11.64	14.55	18.31	23.85	26.88	34.94
3. X SUBSEC 8711*	81	142	159	240	249	318	255	481	546	756	1,231	1,318	1,648	1,841	1,784	1,606
4. X SUBSEC 8711 > LA AS A % OF 3	22.41	20.24	12.73	17.79	28.47	28.49	21.10	17.95	15.45	21.27	28.50	32.16	31.13	25.31	30.33	26.27
5. X SUBSEC 8708*	307	353	440	616	1,022	1,253	1,357	1,592	1,168	1,924	2,757	3,515	3,913	4,001	3,886	4,021
6. X SUBSEC 8708 > LA AS A % OF 5	11.35	10.41	4.70	4.66	5.07	5.97	6.67	5.65	6.70	7.19	8.83	9.54	11.15	10.71	11.73	9.99
7. D AS A % OF B	62.68	70.37	67.34	86.31	89.68	91.25	90.05	80.53	85.87	88.42	87.56	86.93	90.59	93.61	94.48	95.20

Notes: *Millions of dollars Sector 87: motor vehicles except trains and trams. Subsector 8703: Motor cars and other motor vehicles principally designed for the transport of persons, incl. station wagons and racing cars. Subsector 8711: Motorcycles, including mopeds, and cycles fitted with an auxiliary motor, with or without side-cars; and side-cars. Subsector 8708: Parts and accessories for tractors, motor vehicles for the transport of ten or more persons, motor cars and other motor vehicles principally designed for the transport of persons, motor vehicles for the transport of goods and special purpose motor vehicles. X Sec 87 = sector 87 exports. X Sec 87 > LA = sector 87 exports to Latin America. X Subsec 8703 = subsector 8703 exports. X Subsec 8703 > LA = subsector 8703 exports to Latin America.
Source: Compiled by the author, with data from the International Trade Centre's Trade Map.

and the reorganization of Latin American vehicle manufacturing networks, which chose to operate in Mexico.

In any case, the balance of trade in the sector between India and Latin America is a sharp reflection of the structural surplus of the motor vehicle industry. Generally speaking, India's exports in the vehicle sector grew sharply between 2001 and 2016, going from US$872 million to US$14.99 billion. The contractions of 2008–2009 and 2014–2015 are directly linked to the global financial crisis and the unsteady recovery following it. Furthermore, imported vehicles and autoparts grew from US$251 million to US$4.76 billion. After 2011, the absolute value of imports effectively stagnated, which points to the possibility that domestic and transnational firms located in India have generated local production capacity for inputs that they previously imported from other parts of the world. Of course, the role of domestic firms in import substitution is a significant one.

The balance of trade for the sector with Latin America clearly expresses the surplus in India's favor: as can be seen in figure 5, exports grew slowly but constantly between 2001 and 2008, however, from 2009 onward, they grew faster than total exports from the sector, going from US$329 million to US$3.2 billion. In contrast, between 2001 and 2016, the values of imports of Latin American origin fluctuated between US$8 million (2006) and US$84 million (2015).

SECTOR-SPECIFIC EXPORTS

Changes in the social structure at the global level have influenced the evolution of vehicle sector exports from India to Latin America, the key aspects of which are shown in table 1. These are as follows.

First, Latin America as a whole is a major market for vehicle sector exports from India: in 2001, it absorbed 10.5% of the value of these; in 2016, this share had risen to 21.4%. However, this was the outcome of cyclical changes, as between 2001 and 2009 these values dropped from 10.6% to 5.7%, which points to a concentration of Indian exports in Asia. Likewise, from 2009 to 2016, this share grew to 21.4%, which is explained by Latin America's growing share in exports.

Second, exports to Latin America are concentrated in three subsectors: 8703 (passenger vehicles), 8711 (motorcycles and scooters), and 8708 (parts and accessories for all vehicle types). Between 2001 and 2016, 95.20% (2016) of India's vehicle sector exports (see line 7 of table 1). Table 1 shows the share of exports to Latin America from these three subsectors over total exports from the same subsectors and reveals that the share of sector 87 exports to LA is much higher than that of total sector 87 exports.

Third, the bulk of Indian exports are finished vehicles and scooters. The main sector is made up of subsector 8703 exports (passenger vehicles), which, generally speaking, increased from US$89 million to US$6.37 billion between 2001 and 2016. Exports to Latin America grew continually, starting with a modest 5.29% in 2001 and finishing with a robust 34.94% in 2016.

Subsector 8711 (scooters) is the third largest Indian subsector 87 export item: the values of these exports went from US$81 billion to US$1.6 billion. However, scooters are the second-largest export item to Latin America, with shares that varied between 12.73% (2003) and 32.16% (2012). As a consequence, given the low per-unit prices in question, Indian scooter exports have played a part in increasing Asia's role in trade in the motor vehicle sector, which has increased k in recent years due to the rapid growth in the number of scooters on the streets of Latin American cities.

70%

THE GROWTH IN THE GLOBAL SUPPLY OF MOTOR VEHICLES FROM 2011 TO 2016

Fourth, subsector 8708 (parts and accessories for all types of vehicles) is the second largest in sector 87. However, it ranks third on the list of total exports from the subsector to Latin America: this share fluctuated between 4.66% (2004) and 11.73% (2015).

For the Indian motor vehicle sector, Latin America is primarily a market for finished products where intermediate consumption is less significant. In other words, productive chains have yet to fully develop due to the strategies of manufacturers, which tend to build their productive hubs in Asia (China, above all) and Latin America (Mexico).

SECTOR-SPECIFIC IMPORTS

As I mentioned above, India's sector 87 imports (motor vehicles and autoparts) are marked by Latin America's limited role in them: between 2001 and 2016, this oscillated between US$8 million (2006) and US$84 million (2015). One relatively interesting aspect was the cyclical nature of

TABLE 2
INDIA: MAIN IMPORT ITEMS FOR THE MOTOR VEHICLE SECTOR, IN GENERAL AND TO LATIN AMERICA

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
A. M SEC 87*	251	366	493	750	995	1,273	1,903	3,263	2,753	3,952	5,049	4,977	4,585	4,808	4,949	4,763
B. M SEC 87 < LA*	20	23	16	13	11	8	21	61	46	69	48	69	62	75	84	72
(B) AS A % OF (A)	8.09	6.16	3.33	1.78	1.14	0.63	1.11	1.86	1.68	1.74	0.95	1.38	1.35	1.56	1.69	1.51
C. M SUBSEC 8708*	203	257	362	608	761	937	1,338	2,328	2,126	2,845	3,352	3,600	3,479	3,653	3,795	3,668
(C) AS A % OF (A)	80.76	70.21	73.45	80.99	76.51	73.62	70.31	71.35	77.22	71.99	66.39	72.33	75.88	75.98	76.69	77.03
D. M SUBSEC 8708	20	23	16	13	10	8	20	55	42	53	28	45	52	57	62	68
< LA*	0	1	2	0	1	0	1	24	22	40	16	27	26	31	40	51
< MEXICO*	19	21	14	12	9	6	15	30	20	13	10	17	26	25	22	17
< BRAZIL*																
(D) AS A % OF (B)	98.40	99.74	96.32	97.57	91.45	94.51	93.91	90.42	89.64	77.71	57.76	66.24	84.23	76.15	74.20	94.26

Notes: *Millions of dollars Sector 87: motor vehicles except trains and trams. Subsector 8708: Parts and accessories for tractors, motor vehicles for the transport of ten or more persons, motor cars and other motor vehicles principally designed for the transport of persons, motor vehicles for the transport of goods and special purpose motor vehicles. M Sec 87 = sector 87 imports. M Sec 87 < LA = sector 87 imports from Latin America. M Subsec 8708 = subsector 8708 imports. M Subsec 8708 < LA = subsector 8708 imports from Latin America.
Source: Compiled by the author, with data from the International Trade Centre's Trade Map.

45%+

PACIFIC ASIA'S SHARE IN THE MOTOR VEHICLE INDUSTRY

Latin America's share: between 2001 and 2006, this contracted from 8.1% to 0.6%; subsequently, after some ups and downs, it settled at 1.5% (2016). Latin America's meager share in India's imports correlates with a larger one on the part of Asian countries, which are one outcome of the changes experienced by the motor vehicle sector during the 21st century.

In any case, one particularly relevant aspect is the importance of subsector 8708 (parts and accessories for all vehicle types). First, because it accounts for shares that range from 70.2% (2002) to 80.9% (2004), which points to the sector's strong dependence on these goods in relation to total imports. However, earlier in this section, I drew attention to the stagnation in the overall value of sector 87 imports from 2011 onward. Table 2 corroborates that this leveling out was due to sector 8708 imports and reinforces the hypothesis that I sketched out earlier: within sector 87, India has been able to generate sufficient capacities to be able substitute a growing proportion of its industrial input imports, and this capacity largely appears to be linked to domestic vehicle manufacturers.

Second, subsector 8708 is also relevant because it accounted for 57.7% (2011) and 99.7% (2002) of the value of sector 87 imports from Latin America. However, the trend points to cycle that has completed following a constant drop from 2001 to 2011 and a continual increase from 2011 to 2016. This cycle corresponds to the "Asianization" of vehicle production, in the first place, and then to the restructuring that favored relocating production to the Americas, both of which were promoted by manufacturers.

One final aspect that needs to be highlighted is how Brazil and Mexico have alternated as the leading autoparts suppliers for the Indian economy. Between 2001 and 2007, Brazil was the main supplier of components and it maintained this share between 2007 to 2016, although with some fluctuations. However, it was gradually overtaken by Mexico, such that by 2016, Mexico had become the main components supplier, with Brazil in second place.

The meager share of imports of Latin American origin in the structure of sector 87 imports into India reveals the need to promote intermediate consumption in the sector. This would strengthen cooperation and ties between India and Latin America in the motor vehicle industry. As I pointed out above, the localization policies of transnational manufacturing companies are what determine the situation in which, on the one hand, vehicle manufacturing takes place in the almost total absence of communicating vessels between India and Latin America and, on the other, trade in finished products operates solely from India to Latin America but not vice versa.

TECHNOLOGICAL TRANSITION

I have shown how structural changes in the motor vehicle industry at the global level have reduced Brazil's and Argentina's production capacities and thus their exports. In contrast, these changes have benefited Mexico's and India's positions as producers and exporters of motor vehicles and vehicle components. One plausible explanation for this positive effect is import substitution in both countries. In other words, in both Mexico and India, local companies have been able to produce a growing proportion of the components that they previously imported from other locations. All the same, these two experiences are radically different: in India, import substitution has resulted from the rise of domestic manufacturers and new investments from transnational vehicle companies, while in Mexico the process is linked to new flows of direct investment from manufacturers and suppliers in these companies' countries of origin.

A detailed study of import substitution in India and Mexico could be useful for Argentina and, above all, Brazil. Up to 2008, the value of Brazilian vehicle sector exports was higher than that of imports, which points to a relative capacity for producing some of the inputs used locally. From 2009, however, local production capacities decreased: for every dollar it exported, Brazil imported more than a dollar, peaking at a ratio of US$1 to US$1.99 in 2014. In this sense, India and Mexico may provide valuable lessons for the Brazilian economy to move beyond a situation in which it transfers more than its export earnings to its input suppliers. If this process continues, it may ultimately lead to the deindustrialization of the sector.

In any case, in the current context, cooperation between stakeholders in India and Latin America is not easy. All the same, we should bear in mind that the motor vehicle industry is in the midst of a technological transition and that this will create the conditions for specific cooperation-related actions that will enable these countries to participate actively in these changes.

In effect, as I have shown, motor vehicle production and trade are currently dominated by large transnational companies. The structural transformations analyzed in the first part of the article are the outcome of these companies' policies. India's and Latin America's domestic economies have suffered as a result of these changes, be it passively or actively.

The approach in Latin America seems to have largely been laissez-faire and both the positive effects for Mexico and the negative ones for Brazil and Argentina are unrelated to initiatives or strategies on the part of local stakeholders.

In India, local agents have been more proactive: since the 1990s, the government has implemented policies that have favored foreign investment in the sector and have encouraged domestic firms. These policies include reducing the minimum capital required from new investors, reducing taxes on small cars and low emission and multi-utility cars, and limiting the taxes on exports, including contemplating a 100% tax deduction on export profits (Economy Watch, 2010). At present, government efforts are focusing on the use of alternative fuels to reduce emissions by favoring the manufacture of electric and hybrid vehicles and the compulsory use of a mix of ethanol and gasoline (India Brand Equity Foundation, 2017).

For Latin American authorities, dialogue with their Indian counterparts on these matters would be help-

ful in tackling some of the problems that are afflicting both the industry and cities in the region. This dialogue could open up new horizons for international cooperation that would allow both Indian and Latin American stakeholders to play an active role in the technological transition that is currently sweeping the motor vehicle industry.

Two areas of international cooperation look particularly promising. The first of these is developing technologies for using new energy sources, as electric cars appear to only be a transitional solution in the quest for new fuels, given that their batteries only allow limited autonomy and themselves pose new pollution issues. This points to the need for new, nonpolluting energy sources, which Nissan and higher education institutions in Japan and Mexico are collaborating on with a view to developing hydrogen-based technologies. However, fully developing these initiatives will require the deliberate involvement of government authorities, which could help to create a research and development cluster in which Nissan and Japanese, Mexican, and Indian institutions all play a part, with the support of their respective governments.

The second cooperation area is the design and production of intelligent components for the vehicle manufacturing industry. This implies a combination of information technology and mechanics. India's reputation in the first of these fields is unquestionable and engineering schools in both India and Latin America have demonstrated their ability to develop mechatronic programs. As a consequence, there is potential for a government-prompted partnership between vehicle manufacturers and higher education institutions in India and Latin America to develop specific smart components.

In sum, the motor vehicle sector seems to have reached the end of a phase marked by a form of globalization that is fragmented into productive hubs, a strong role for manufacturing companies, and the use of fossil fuels. The new phase will imply the full globalization of production, the use of new energy sources, and the inclusion of intelligent components. International cooperation is a tool that would allow developing countries to participate actively in the technological transition that is currently sweeping the motor vehicle industry.

NOTES

[1]In Latin America, the terms "automotive industry" or "vehicle industry" are used to refer to the manufacturing sector that specializes in the production of motor vehicles and the components needed for these. I prefer to use the term "motor vehicle industry" as a generic term that covers tractors, cars, larger passenger vehicles, freight vehicles, and motorcycles, as is used in the International Trade Centre's Trade Map, http://www.trademap.org/.

[2]NAFTA includes the United States, Canada, and Mexico.

[3]These figures are for the 28-member EU that lasted from 1999 to 2016.

[4]http://www.oica.net/.

[5]In 2015, the figure of 91 subsidiaries is undervalued in comparison with the previous years as the Japanese firms Fuji, Isuzu, Mazda, and Mitsubishi all accounted for production outside Japan using the sole category "overseas."

[6]To analyze trade in vehicles and autoparts, I have used the database of the International Trade Centre, Trade Map, http://www.trademap.org/ but have simplified the nomenclatures it employs.

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CASE STUDY

Software Design

The Argentinian software development company Globant is deploying an acquisitions strategy to expand into new areas and incorporate new technologies and skills. Two years ago, this process took it to India, the global market leader for service outsourcing, where it bought Clarice Technologies.

Globant was founded in 2003 and now has an annual turnover of US$403 million. It employs 5,600 people who work in 12 countries for clients such as Google, LinkedIn, JWT, Electronic Arts, and Coca-Cola. Martín Umaran, cofounder and Chief Operating Officer, explains the aims and main outcomes of purchasing this Indian company.

IN 2015, GLOBANT BOUGHT AN INDIAN FIRM, CLARICE TECHNOLOGIES. WHAT WAS THE AIM OF THAT OPERATION?

Our aspiration has always been to be a global company, and now that we have a presence in 12 countries, I'd say we have achieved that aim. But given the current global context, it would be a mistake not to operate in India, which is the global powerhouse in outsourcing. As we take on bigger clients, we need to provide more varied offerings. Geography is an important factor. So we decided to build a presence there, but instead of looking for a traditional outsourcing company to acquire, we looked for one that was rather like Globant. That's why we chose Clarice Technologies, which focuses on designing solutions and user experience (UX). It's based in the city of Pune, which has excellent universities. We feel really comfortable there, even though it's a culture that we're not used to working in. What India has to offer is an inexhaustible supply of engineering talent and professionals.

WHICH OF THE COMPANY'S PROJECTS WILL INDIA PLAY A PART IN?

It's not about a specific project. Sometimes it's the clients themselves who define the kind of localization or geographic make-up they want for their projects. Having a base in India has enabled us to diversify. We can compete with companies like IBM or Accenture, who have an incredible global presence.

HOW DID YOU GO ABOUT LOOKING FOR A COMPANY TO BUY?

First we went to India to get to know the country a bit, then we sent a team to find out more. We set about looking for companies that might meet our requirements and an investment bank introduced us to some candidates. We ended up choosing Clarice Technologies. The purchasing process was extremely complicated and very cumbersome, legally speaking, as there are a lot of regulations and restrictions in India.

WHAT HAS THE ACQUISITION BROUGHT TO THE TABLE?

It has brought expertise in UX and software design while also making more people available to work on our projects. The company has a good team of designers and programmers that work similarly to how we work at Globant. When we buy a company, our plan is to integrate fully in as short a time as possible. We built new offices in India which are really similar to the ones we have everywhere else in the world and we've sent a lot of people to work there: for example, there are 12 Argentinians working at our office in India and there are also people from India working here now.

CAN YOU TELL US ABOUT THE MAIN OUTCOMES?

It's been a really positive experience. Within two years, the staff at the Indian office grew by just over 60% and we've built up a great team there. The types of professionals that we recruit in India are mainly software engineers and designers. We also have a major software product design team at our Indian office.

WHAT IS INDIA'S ROLE IN THE GLOBAL SOFTWARE SERVICES MARKET?

India has a reputation as a major supplier of outsourcing services rather than as a product developer. It has occupied a leading role in the market since 2000. What makes India different is that it supplies a huge volume of top-notch professionals at a very low cost. Some of the world's leading software professionals come from India, such as the president of Microsoft. But India's role is changing: today, people aren't just thinking about how to spend less on back office but on how to digitalize their companies.

60%
THE INCREASE IN THE NUMBER OF GLOBANT'S INDIAN EMPLOYEES IN JUST TWO YEARS

HOW MUCH OF A PRESENCE DO INDIAN SOFTWARE COMPANIES HAVE IN THE LATIN AMERICAN MARKET?

Latin American companies can compete with India, but not in volume terms. Indeed, we are already competing: sometimes we win and sometimes we lose, of course. In the immense world of information technology, some things make more sense to do from India and others don't. Cultural factors are important in software products, and you need to have certain things in common with clients to develop solutions for them.

The Digital Transformation

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All birds find shelter during a rain. But the eagle avoids rain by flying above the clouds.

A. P. J. Abdul Kalam

THE DIGITIZATION OF THE ECONOMY HAS BECOME ONE OF THE PILLARS OF INDIA'S DEVELOPMENT, ITS PRODUCTIVITY INCREASES, AND POVERTY REDUCTION. THIS TREND IS EXPECTED TO CONTINUE IN THE COMING YEARS UNTIL IT LEADS THE GLOBAL RANKING IN SEVERAL SEGMENTS CONNECTED TO E-COMMERCE, DUE TO ITS SHEER NUMBER OF INTERNET USERS AND ONLINE BUYERS AND GROWING CONSUMER SPENDING.

Combining its continental market size with comparatively meager penetration, its proportionally minuscule and yet numerically overwhelming quantity of e-shoppers with relatively negligible per-capita online spends, India provides a unique frontier for e-commerce-too large to ignore and yet with its own challenges to navigate. Let us start by looking at some statistics on e-commerce in India in recent years to get the right perspective on this situation.[1]

In 2013, the US, UK, and China together accounted for 57% of the world's total B2C e-commerce, with China's share being US$328.4 billion. In contrast, India accounted for US$10.7 billion, slightly over 3% of that of China's, but ranks fifth in the Asia-Pacific. Barely 16% of India's total population was online in 2013, and of these, only 14% were purchasing online. In contrast, the equivalent share in China was 50%; in Russia and Brazil, about 30%–35%; in Japan, 69%; in Australia, 57%; and in South Korea, 70%, the latter three being close to the most mature markets (EY, 2015). India is thus still at a nascent stage of e-commerce compared to other countries, but its huge size already makes it a noticeable e-commerce player. Among the BRIC countries, in 2014, India had retail e-commerce transactions worth US$5.2 billion, which not only pales in comparison to China's US$426 billion but is less than a third of Brazil's US$16.3 billion or Russia's US$17.5 billion. However, if one focuses instead on the internet user base, India's 243 million users in 2014[2] was second only to China's 649 million, more than twice that of Brazil's 108 million and almost thrice that of Russia's 84 million. In terms of online shoppers, India, Brazil, and Russia all had comparable numbers (35, 33, and 30 million respectively) between a twelfth and tenth of China's 361 million. Internet users in India are young—about 75% are in the 15–34 age group, which are more prone to online purchasing (EY, 2015). The growth projections are staggering: the online shopper community is projected to rise from 39 million in 2015 to 140 million in 2018 and 220 million by 2020—a compound annual growth rate in excess of 40% (EY, 2015). A study carried out by the Confederation of Indian Industry and Deloitte (CII, 2016) estimates the size of the total Indian e-commerce space to have grown from less than US$3 billion in 2013 to over US$16 billion by 2015 and projects it to cross

the US$100 billion mark by 2020, which implies that it will increase by a factor of six in five years.

Clearly, India is where the growth story of global e-commerce is expected to unfold in the years to come. Three figures are likely to register strong growth: the number of internet users, the number of online shoppers, and spending per shopper. What will determine the fortunes of several key players, both national and global, is exactly how strongly this growth will be and in what segments within the broad categories that e-commerce is divided into.

In what follows, we shall look at the most visible and oft-discussed e-commerce segment, the B2C e-retailing business, followed by a snapshot of online finance, a particularly dynamic space in India. The fourth section will focus on the online infrastructure determinants of India's e-commerce and the role of government. The article will end with a look at some of the connections between India and Latin America in the space of e-commerce.

ELECTRONIC MEGAMARKETS

In a few short years, online shopping has made its mark in India, transforming urban lifestyles. This is, of course, the most visible part of e-commerce, often confused with the entire sector. Increasingly in most of the country's cities, working couples order their groceries online through sites like BigBasket.com, order in food using restaurant aggregators like Zomato and Swiggy, not to speak of instinctively choosing between Uber and its domestic competitor, Ola, when calling a cab. After conceding the Chinese market to local rival Didi, Uber is believed to be fighting hard to ensure it wins the Indian roads. As of now, the real winner is the Indian passenger, as both companies ferry people around at unsustainably low rates.

6

THE FACTOR BY WHICH INDIAN E-COMMERCE WILL INCREASE OVER THE NEXT FIVE YEARS

Online megamarts are jostling for patronage as well. One of the largest e-commerce players, home-grown e-retailer Flipkart, gobbled up major competitor Myntra in 2014 and is revising its bid for the last sizeable domestic rival, Snapdeal, to muscle up for its final battle with global giant Amazon. This is a battle where the stakes are high, running into billions of dollars of investment for either party. As in the taxi world, domestic versus the global competition here would leave only one survivor in a winner-take-all marketplace.

Other segments are heating up as well. Travel seems to have been one of the first to become heavily digitized. Makemytrip, Yatra, Cleartrip, and Goibibo dominate the sector, although Makemytrip is the clear leader. For months, OLX and Quickr fought a mind-numbing advertising campaign over all media channels to win the secondhand goods marketplace before, presumably, running out of venture capital funding to burn.

Online health services delivery has brought about new service models, which includes care for the elderly and postoperative care, both of which are provided by Portea. The rental and real estate markets are increasingly being dominated by sites like 99acres and Magicbricks. Matchmaking sites like Shaadi and IndianMatrimony have long riva-

TO PAY CASHLESSLY IN INDIA, JUST PAYTM

For at least one company, however, no tidings could have been sweeter than demonetization. Set up in 2010, Alibaba-backed PayTM dealt with mobile-to-mobile payment systems. As cash disappeared from the economy, the company became virtually synonymous with cashless payments and its value soared. Within hours of the announcement, PayTM recorded a 435% increase in traffic, a 200% growth in app downloads, and a 250% rise in overall transactions and transaction value. Others like distant rival Mobikwik, experienced a relatively sedate jump of 40% in app downloads in the days after the announcement. The government of India itself has come up with a payment platform, Bharat Interface for Money (BHIM), connected to over 30 private- and public-sector banks, with 12.5 million users by February 2017. With funding of US$1.5 billion, again from Japan's SoftBank, PayTM's valuation reached US$8 billion and it also got a license from the Reserve Bank of India to open a "payments bank," which planned to start operations in August 2017. All the same, many believe the real growth in this sector is yet to come. The Indian e-wallet industry that was estimated to be slightly over INR1.5 billion in 2015–2016, is expected by some to shoot up to INR300 billion by the end of 2021–2022.

The sector clearly has the government's blessing. Among the slew of acronyms coined by the Modi government, the one that is perhaps doing the rounds the most is JAM: Jan Dhan (a reference to the national mission for financial inclusion), Aadhaar (India's universal biometric ID system), mobile. In other words, bringing financial inclusion through mobile technology and the ID system. Digitization is a major policy destination and e-wallets are its chosen vehicle.

But it is unclear whether the rush to digital would persist without the strong arm of the government diktat. Debit and credit card usage rates in India are among the world's lowest. Post demonetization, the share of digital payments has already receded to near pre-demonetization levels. Between April and October 2016, the value of point-of-sale transactions grew steadily from US$5.7 billion to US$8 billion before demonetization took it to a peak of US$13.7 billion, but by February 2017 it was already back to US$9.2 billion.

The e-wallet space, the alternative to credit and debit cards, is getting overcrowded as most major banks now have their own wallets, and telecom-companies-cum-payment banks like Bharti Softbank have entered the space with their messaging system Hike. Clearly, the space is going to see fierce competition and unprecedented innovation. Something that is yet unclear, as in much of Indian e-commerce, is whether the segment will also see profits, which are nowhere in sight as of now. All the same, this lack of profitability does not seem to deter players or investors.

led the traditional personal columns in newspapers as the favored listing venue.

This phenomenon does not just affect millennials armed with their ever-present smartphones—even the generation currently in its thirties is becoming increasingly comfortable ordering products and services online, using their smartphones from home, work, and anywhere in between. The result is a lifestyle that is visibly different from that of a decade ago.

While all these changes are undeniable, it would be a mistake to assume them to be universal and maybe premature to label them as permanent. Seven metropolitan cities account for 70% of all e-retail sales and almost two-thirds of the revenue come from one product category: electronics (Kalaari Capital, 2017). Apparel and accessories account for another quarter. Everything else fits in the remaining 10% space. As of now, the market still confined to young, affluent, and urban consumers: the aspirational segment. The story is very different for villages and small towns, and for the vast majority of average Indians. The breakdown in India's Tier I cities, which account for a cumulative of 20% of total retail sales, is 8%, 19%, and 73% for e-retail, organized, and unorganized sales, respectively. The picture is very different in the remainder of India, which accounts for 80% of retail sales, where the respective shares are 1%, 5%, and 94%. E-retailing, therefore, accounts for less than 2% of total retail revenue in the country (Kalaari Capital, 2017).

Even in the organized sector, online shopping is far from replacing brick-and-mortar stores. For instance, the retail czar of India, Futures Group CEO Kishore Biyani, who owns the Big Bazaar retail chains among others, is betting on developing more giant physical stores like Central in Bengaluru, rather than focusing on the online channel. It is clear that online retailing is here to stay, but industry experts believe that there is a limit to its potential market share. Gross merchandise value (GMV), the favored metric of online retailers, has exhibited sluggish growth, while brick-and-mortar stores have done brisk business.

10%

THE SHARE OF EMPLOYMENT IN INDIA THAT IS IN THE FORMAL SECTOR

But the real rub is elsewhere. The cost of online customer acquisition in India remains unacceptably high for most players and leading players like Flipkart and Snapdeal have no profitability projections on the visible horizon. According to some calculations, the cumulative burn in Indian e-retail has been to the tune of US$10 billion, with a customer base of roughly 50 million customers, implying a customer acquisition expense of about US$200 per person. This is clearly not sustainable, though the costs have shown some decline more recently. A comparison between Flipkart and the recently listed Indian brick-and-mortar retail chain DMart, the size and recent growth of which are comparable to Flipkart's, helps put things in perspective. DMart enjoys a gross margin in excess of 15% as compared to Flipkart's, which is less than 6%. And as a proportion of sales, Flipkart incurs over 5 times the overhead costs of DMart. While it is likely that the disparity will improve over time, it is still unclear whether the explosion in e-retailing is a sustainable shift or a bubble that will burst after the first flush of global venture capital funding to settle down to a distant second to traditional retail outlets. But if the latter, the day of reckoning is still afar—Flipkart's market valuation dwarfs that of DMart by a whopping 65%.

E-FINANCE

A somewhat less discussed but perhaps equally palpable shift that has happened over the last several years and has accelerated in the past few months is the digitization of transactions. Banks—particularly the new private banks—have led the way in providing digital services to their account-holders. Online cash transfers over the National Electronic Fund Transfer (NEFT) network have gradually gained popularity over time. Nevertheless, India remains a cash-heavy economy: 95% of transactions are settled in cash which has been often blamed as a reason for India's significant black-market economy.

On November 8, 2017, in a televised address that came as a surprise the nation, the prime minister Narendra Modi unleashed a demonetization of high-value notes in India ostensibly to fight the black-market economy. The trouble was that the new substitute currency was neither ready at hand, nor were the ATMs designed to distribute them. As a result, with 86% of the value of India's cash sucked out of the market overnight, the nation faced an acute shortage of money. What followed for the next two or three months was pure mayhem, but the share of digital, cashless transactions shot up, pretty much out of compulsion (see box). The implication was not particularly pleasant for the poorer sectors of society since the demonetization exercise tilted the scales, particularly in urban areas, in favor of the formal sector and against the informal sectors that provided the majority of jobs—in India only about 10% of jobs are in the formal sector.

B2B E-COMMERCE

While B2C and social media sites and financial innovations attract much of the media attention about e-commerce in India, the real action may well be happening behind the scenes in the B2B space. India started late in this area and yet the segment—which mostly consists of marketplaces connecting businesses—is estimated to be multiple times the B2C segment and, by some projections, as large as INR 4.5 trillion in 2020.

Major players here are both domestic and global, with Bangalore-centered AmazonBusiness.in being the most prominent name. Another player, SME aggregator Power2SME, has succeeded in connecting the infamously scattered SME players in the country in several categories, including abrasives, adhesives, safety, power tools, plumbing, hand tools, power transmission, security, machining, office supplies, motors and pumps, medical supplies, electrical supplies and devices, and hardware. The interesting angle here is that by buying in bulk rather than placing small order sizes with individual SMEs, Power2SME manages to score all the bargains that a typical SME loses out on and helps pass on the deals to its member companies. IndustryBuying.com, Bizongo.in, Tolexo.com, and JustByLive.com are other major names in this arguably still nascent segment, in which manufacturing is barely digitized. Recently, Indian industry

435%

THE INCREASE IN PAYTM TRAFFIC FOLLOWING DEMONETIZATION

doyen Moglix, which is backed by investment from Ratan Tata and headed by an ex-Google employee, made headlines by attracting funding from the IFC and transforming the value chain for the country's manufacturing industry. Finally, we should not ignore large e-auction sites like Coaljunction, through which the government now allocates rights to public resources like coal mines.

The three segments discussed above, B2C, finance, and B2B are certainly not the only business models in the Indian e-commerce space. A swathe of other business models, more often than not Indian versions of Western or Chinese companies, are trying their viability out in the space. An example is cashback and coupon site CashKaro.com, an Indian version of Ebates, which boasts 1.5 million customers and over 10,000 transactions per day. Similarly, Delhivery is building a business around providing logistics services in the National Capital Region. In other words, e-commerce is no longer a specific segment or a business model, it is an entire economy in itself that is slowly but inevitably encompassing all sectors.

CHALLENGES AHEAD

In many ways, the e-commerce world in India could not have wished for a more supportive policy regime than the current Modi administration. After years of gradual reforms and the prevalence of the informal sector, the current government is not only stressing Digital India as one of its key initiatives but is also carrying out multiple steps to formalize the economy, be it through experimental demonetization or the accelerated introduction of a goods and services tax (GST). All these steps are immensely helpful for e-commerce ventures in various segments. Added to this are the pro-start-up initiatives like Start-Up India, which provides a supportive environment and various incentives for start-ups, most of which tend to be in the tech and e-commerce space.

However, other challenges lie ahead on the path of expanding and deepening e-commerce in India. Some of these may be addressed, at least partially, by the Digital India initiatives, but unless they are removed or significantly reduced, e-commerce will remain an activity for just a sliver of the Indian population. The drivers of the e-commerce ecosystem include the following six elements: internet user demographics; internet penetration; mobile penetration and data speeds; payment modes; logistics for end-to-end order fulfillment; and the regulatory environment.

Let us take a look at the situation in India vis-à-vis other BRIC nations for each of these parameters.

• Internet user demographics: this factor has a strong role to play in terms of online consumer behavior. Compared to China, Brazil, and Russia, India's population is significantly younger (75% of people are below 35 as opposed to 55%–60% in the other countries). Other things being equal, this implies relatively lower purchasing power among India's average internet users. Another challenge is the relative male dominance within internet user demographics in India (over 60% as opposed to 45%–52% in the other nations). Women tend to spend more online and also share their online experiences with other women. The effect of word-of-mouth is reduced if the proportion of women users is lower. As in other countries, the median internet user in India lives in a city, but at 63%, India's urban tilt is less than that of other BRIC nations (60%–81%) and is expected to even out by 2018.

• Internet penetration: with an internet user population probably second only to China, India is undoubtedly a massive potential online market. However, with an internet penetration rate of below 20% as compared to 46%–59% in other BRIC nations, it is still a nascent market. Even bigger challenges are data speed and affordability. At the end of 2014, India's average broadband speed was 2 Mbps, well below Brazil's (3 Mbps) and China's (3.4 Mbps), not to speak of Russia's (9 Mbps). Less than 8% of users have speeds over 4 Mbps and barely over 1% over 10 Mbps. Data connection is costly too. Fixed broadband prices in India (equivalent to 3.66% of gross national income) were steeper than those of other BRIC nations (0.54%–3.54%).

• Mobile penetration and data speed: at close to a billion users, India has more mobile users than Brazil and Russia combined, and at close to three and a half hours, its daily internet use is a close second to Brazil's. However, there are only 0.6 billion m-commerce users in India at 0.6 billion—about 50% of Brazil's, 20% of Russia's, and about 0.4% of China's. One reason for these low rates could be low mobile data

THE BATTLE ROYALE FOR THE INDIAN E-RETAIL SPACE

At first glance it looks like a heroic struggle, a David-and-Goliath encounter between a start-up from a young, developing country and the global giant of the e-commerce space. Despite the ups and downs of its relatively short life, Flipkart has emerged as the leader of the pack of e-retailers in India, the lone survivor as well as the absorber of other competitors, except for Snapdeal, the number two, which is apparently waiting only an improved bid to dissolve itself into Flipkart. In the other corner, with dogged determination, stands the brand that has pretty much defined e-commerce worldwide: Amazon, which is currently branding itself as "India's own shop."

But a closer look questions such nationalistic tones. Flipkart's ability to withstand or challenge Amazon is only as strong as the funding that is committed to it. Its main backer happens to be Japan's SoftBank, which, along with China's Alibaba, has emerged as one of the key backers for e-retail in India. The Indian e-retail space is the battleground where global players seek dominance, either directly, or through their local proxies.

A similar battle is being waged on the roads of India as well, where the global giant Uber is fighting it out with Bengaluru-based Ola, one of India's few unicorns. Both are incurring unsustainable customer acquisition costs. Once again, the key funder is Japan's SoftBank and China's Didi Chuxing, which has recently put an end to Uber's Chinese ambitions.

10,000

TRANSACTIONS PER DAY TAKE PLACE THROUGH CASHKARO.COM

speeds. At 1.9 Mbps, India's data speeds are close to Chile's but lower than Sri Lanka's (3 Mbps) not to mention China's (5 Mbps) and those of other countries. The Indian numbers are misleading, however. For instance, 50% of India's smartphone sales today are in the affordable (under US$100) category, which can typically support about 8 GB with only about 1.2 GB left for third-party apps, making it difficult for B2C sellers to reach users.

• Payment modes: this is another serious hurdle. Demonetization and digitization notwithstanding, India mainly carries out transactions in cash and has a banking coverage far lower than other BRIC nations (53% as opposed to 67%–79%), and its credit card penetration rate is the lowest among BRIC countries (4% vis-à-vis 16%-32%). For B2C sales, cash-on-delivery is the most favored option. In Russia, too, cash is the most common form of payment, but credit and debit cards are beginning rival it. In Brazil, credit cards are used by 73% of shoppers while payment on delivery is used by barely 4%. In China, the majority of online shoppers (85%) prefer to use third-party payment provider to process online payments.

• Logistics for end-to-end order fulfilment: delivery remains relatively costly in India, often accounting for 10% of transaction value—a big deterrent for online buyers. Fragmented logistics and poor physical infrastructure, particularly outside major cities, explain most of this. It is estimated that in India an item is handled by 20 people before it reaches the customer, as opposed to 3-4 people in most other countries. Warehousing and automation are important steps in reducing delivery costs and can only come with greater volumes. Returns are another major issue. Product return rates in India are between 5%–25%, depending on the kind of product, and sellers are struggling to make the process smooth. In China, new rules allow for seven-day unconditional returns but return charges are customers' responsibility. Third-party logistics providers, the mainstay of e-retailers like Alibaba, are yet to establish themselves as a separate category in India but are beginning to emerge.

• Regulatory framework: India is yet to come up with specific e-commerce legislation. In contrast, China used a five-year period (2011–2015) to regulate the market and is on the path to a broader e-commerce law. Brazil passed e-commerce regulations in 2013 and Russia has had specific e-commerce import laws since 2014. Given its unique needs and characteristics, e-commerce-specific regulation and legislation will be of considerable importance in catapulting the sector forward.

LOOKING AHEAD

Most things about e-commerce defy conventions. This applies to the Indian situation as much as anywhere else. A huge potential marketplace beckons start-ups and funders alike, pushing valuations sky high. Parallels with brick-and-mortar firms throw up new puzzles. In a report from RBSA (2015), consultants pointed out that with a valuation in the INR 600–650 billion range, the market leader Flipkart, with losses at 233% of revenue, was on a par with the 50-year-old engineering giant BHEL, with five-year cumulative profits of INR 275 billion. Valued at INR 150 billion, loss-making Ola rivals JSW Energy with its turnover of INR290 billion, with increasing EBITDA margins. Another example is Snapdeal: valued at INR 110 billion, Snapdeal has a brick-and-mortar peer in Amara Raja Batteries, with sales of over INR 34 billion. Are the underlying growth expectations that fuel these valuations realistic and achievable or should we be expecting a rerun of the 2000 tech bubble in India in the years to come?

As elsewhere, valuations of e-commerce firms in India appear to run more on top-line calculations (or measures that correlate with these) rather than anything to do with profitability. As a result, valuations change frequently (most players are still private). For instance, Flipkart's implied valuation has ricocheted between US$5 and 15 billion depending upon its funding deals.

Integration and rationalization are inevitable actions in an evolving space like this. The current excitement is around who will be able to snap up Snapdeal and at what price. It has just spurned an offer from arch-rival Flipkart and has found a white knight in Infibeam, India's only listed e-commerce company, but Flipkart is working on a revised offer. Funders like Softbank and Alibaba have major say in such decisions, though the major players now have diversified funding sources. While the firms are Indian, the capital at play is inherently global, and it seems to be amazingly patient.

20

THE AVERAGE NUMBER OF PEOPLE WHO HANDLE A PRODUCT BEFORE IT REACHES THE CONSUMER

At the risk of stating the obvious, the Indian e-commerce space resembles the early stages of a rumbling storm about to unleash itself on a vast landscape. The exact shape of things when the dust settles, if it ever does, is impossible to say. It is a disruptive innovation transforming one of the largest world markets, altering the ways of life as well as the livelihoods of close to a fifth of humanity, in a manner that is somewhat predictable based on prior storms elsewhere but with enough country-specific nuances to make predictions go awry. Businesses that can ride it out are likely to make it big in global terms, but the ride will surely be not an easy one. It is, however, one that no enterprise worth its strategy planners can afford to ignore.

NOTES

[1]The author is professor and executive vice dean at the Jindal Global Business School, O.P. Jindal Global University, Sonipat, India.

[2] There is some variance in the estimation here across sources. This figure is from Fontevecchia (2014).

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Industry 4.0

When Geographical Distances No Longer Matter

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Two Indian companies that have gained market share in Argentina are examples of the success that can come from pursuing the development of industry 4.0 in business. This phenomenon is on the rise: Indian companies need to expand and access new markets that will contribute to their country becoming the second-largest economy in the world by 2050. Latin America is a strategic partner that offers a huge number of opportunities for generating synergies.

Despite the challenges of the language gap and other cultural differences, several Indian companies have set up operations in Argentina, representing an investment of approximately US$1 billion. Two success stories worth analyzing are TCS and Bajaj. Since 2005, TCS has served Latin American companies in different areas, including technology, finance, banking, and the airline industry. The company's president in Argentina, Alberto Luis Arana, said that the services it offers have gradually expanded to include advanced IT solutions and business process outsourcing (BPO).

TCS uses the same methodology as in India, where it has Tata CMMi 5 certification, the highest quality standard in Indian industry. The fees for this certification are very competitive, which means it can be locally operated even though it is supervised from India. The key is all about long-term vision.

In this sense, TCS has two main lines of business, one of which focuses on systems development and maintenance and quality assurance, while the second is based on next-generation services, mobility, social networks, and infrastructure. Consequently, companies improve their incomes, optimize processes, costs, and supply chains, and improve client relations. The number of companies investing in new systems of this type is expected to increase.

2050

THE YEAR WHEN INDIA WILL BECOME THE SECOND-LARGEST ECONOMY IN THE WORLD

POST-SALES

SERVICES ARE THE SECRET OF ROUSER MOTORCYCLES' SUCCESS

The second success story is Corven, which has been a strategic partner for Bajaj Auto in Argentina since 2013. Through its Rouser brand, a business model for motorcycles, it has gained a firm footing in the market based on sustainable but exponential growth. Developing a top-notch post-sales service and ensuring the availability of spare parts and/or innovative, high-tech products has made the firm a profitable local pacesetter.

Leandro Iraola, CEO of Corven Motors, says the key to market entry in Argentina lay not just in offering an excellent product that uses first-rate technology at a competitive price, but also in seeking the right local partner to facilitate market entry and ensure the large-scale distribution of the product to every corner of this immense country.

There are growing numbers of firms that are prepared to test the waters in such different markets. Indian firms' readiness to adapt and their global reach means that these are playing an increasingly important role in global trade. Their skills in the software industry and incredible industrial potential has made India the ideal partner for shared undertakings in areas linked to industry 4.0.

Given the exponential changes that the industry is experiencing due to the expansion of the digital economy and all the tools that this Fourth Industrial Revolution has brought, the president of TCS and the CEO of Corven Motors agree on the huge opportunities offered by the Internet of Things (IoT), analytics, predictive models, machine learning, deep learning, FinTech, or blockchain. Industry 4.0 will help bridge the enormous physical differences between Latin American countries and India.

E-commerce

The Convergence of Regulatory Frameworks

Sanjay Kumar Mangla and Jill Atieno Juma
CUTS International

We live in an interdependent world. An isolated India is not in our interest.
Narendra Modi

IT IS HOPED THAT E-COMMERCE WILL CONTRIBUTE TO INCREASING PARTICIPATION IN INTERNATIONAL VALUE CHAINS AND BRINGING DOWN TRANSACTION COSTS. LATIN AMERICA HAS BEEN RANKED SECOND AFTER THE ASIA-PACIFIC AMONG THE FASTEST-GROWING REGIONS FOR E-COMMERCE. INDIA HAS ALSO WITNESSED EXPONENTIAL GROWTH THE SECTOR. THIS PAPER ANALYZES HOW E-COMMERCE COULD CONSOLIDATE INTEGRATION BETWEEN THE TWO REGIONS

The global digital economy has experienced impressive developments in the past two decades, thus generating new and greater prospects for cross-border trade and investment. This has transformed the way goods and services are produced, delivered, and consumed both domestically and internationally. The World Trade Organization (WTO) Work Program on E-commerce establishes that "E-commerce is understood to mean the production, distribution, marketing, sale, or delivery of goods and services by electronic means."

The paradigm shift has attracted attention within the multilateral trading regime (the WTO), primarily from developing countries, which consider the inclusion of e-commerce to be an important catalyst for trade liberalization and ultimately socio-economic development. At the 10th WTO Ministerial Conference, held in Nairobi in 2015, developing countries reiterated the need to maintain the moratorium on customs duties while at the same time progressively continuing with the work program agenda, which includes receiving members' proposals on how to formally entrench e-commerce in the multilateral trading regime. Developing countries emphasized building e-commerce as part of an agenda to not only improve the efficacy of cross-border trade and services but to enable more developing countries to trade seamlessly without the stringent requirements that often limit market entry for their goods. This was accentuated further during the G-20 Summit in 2016, where a proposal was floated for the establishment of a global e-commerce platform (E-World Trade Platform). According to the many proposals and working papers presented at the WTO, e-commerce, if well regulated, can have positive effects on developing economies, as it is perceived to be a contributory factor to the goals of sustainable economic growth and enhanced public welfare through greater social cohesion. E-commerce has long been a priority for major economies such as the United States of America (USA), which included it in the now-defunct Trans-Pacific Partnership (TPP), which also addressed details like data protection and intellectual property rights. It is, therefore, imperative for India and other developing countries to stay ahead of e-commerce, which, if well explored, might be the simplest way to the country attaining its socio-economic development targets within a short period of time.

According to UNCTAD, global e-commerce turnover reached US$22.1 trillion in 2016 (US$19.9 trillion in B2B and US$2.2 trillion in B2C), up 6% from the previous year. The acceleration and greater market access that e-commerce entails mean that it will dominate the

6%

THE GROWTH RATE FOR GLOBAL E-COMMERCE IN 2017

next generation of cross-border trade. The availability of new technologies such as high-speed internet connections, tablets, smartphones, and various other devices have been driving forces behind the increase in cross-border e-commerce.

"In 2014, cross-border online sales from the B2C segment totaled US$328 billion at the global level, the equivalent of 1.4% of global exports of goods and services and 16.9% of global B2C e-commerce. These transactions involved 309 million consumers, that is, 27.1% of the people who make online purchases acquire goods or services from abroad. It is estimated that in 2020 more than 1 billion people will make cross-border purchases online. international e-commerce is highly concentrated in a handful of countries: 47% of those who made international online purchases in 2013 bought goods or services in the United States, 38% in the United Kingdom, 31% in China and Hong Kong, followed by Canada (17%), Australia (16%), and Germany (13%)," (E-Commerce Foundation, 2015).

Table 1 shows the region-wise e-commerce turnover in major parts of the world. The table reveals that Asia-Pacific has the highest e-commerce turnover from 2013 to 2015. Although Latin America (LAC) has a relatively low volume of e-commerce as compared to other regions, it registered the second-highest growth rate in 2015 as compared to 2014. LAC is thus among the highest-ranking emerging markets for e-commerce along with India and the Asia-Pacific region.

Information communication technology (ICT) products and services are essential, integrated aspects of e-commerce. India is the largest supplier of ICT products and services to LAC. Firms like Tata Consulting Services have established a global delivery center in Uruguay. Indian ICT companies in LAC employ about 35,000 local workers. From a policy perspective, e-commerce could be the easiest (although not the simplest) catalyst for cross-border trade between India and LAC. In this context, this article describes the development of e-commerce in India and LAC, with a specific focus on three LAC countries, namely Argentina, Brazil, and Chile. The key focus areas of the paper are the status of the e-commerce sector in both the regions; to review different policies, institutions, and strategies governing e-commerce in the two regions; and the challenges and opportunities for wider and deeper cooperation in e-commerce between them.

TABLE 1
GLOBAL E-COMMERCE TURNOVER BY REGION (BILLIONS OF US$)

REGION	2012	2013	2014	2015
WORLD	1,255.5	1,552	1,895.3	2,272.7
ASIA-PACIFIC	392.6	567.3	822.8	1056.8
NORTH AMERICA	411.7	482.3	572.5	644
EUROPA	411.1	452.4	446	505.1
LATIN AMERICA	27.3	33.2	25.8	33
MENA	11.1	14.7	21.7	25.8

Source: Ecommerce Foundation (2014 and 2016).

TRENDS, EXPERIENCES, AND PATTERNS

India and LAC enjoy strong political ties that stretch back to the time when both were European colonies. In addition, both regions have faced similar developmental challenges during their postindependence period. Both LAC and India adopted socialist policies in their initial phase of development, which were modified by liberalizing reforms after they experienced acute economic crises (Desai, 2015). During the initial phase of independence, India–LAC relations were not particularly intense due to the geographical distance between the two regions and competing domestic and international priorities. However, India's current political regime has ushered in a new era of more robust international connections, which seeks to reprioritize foreign relations with LAC. In light of this, trade between the two regions has not only grown significantly but has also gone on to encompass almost every sector. LAC is a key contributor to India's energy and security sector: India imports about 20% of its crude oil from Brazil, Colombia, Mexico, and Venezuela. In addition, India's private sector has been a key investor in LAC.

Relations between the two regions were formalized in 1997 under the auspices of the Focus LAC program, whose main emphasis was on sensitizing trade promotion organizations such as export promotion councils, chambers of commerce and industry, and EXIM Bank. Other initiatives included granting various incentives to Indian exporters; concentrating on the Latin American region; and aiming at major product groups for enhancing India's exports to Latin America. The program has currently been extended to 2019, and now seeks to increase the share of hi-tech and high-value-added defense exports to LAC countries. The ties have expanded beyond trade and investment to cooperation in areas such as knowledge sharing as well as other multilateral arrangements like G-20, BRICS (Brazil, Russia, India, China, and South Africa), and the IBSA (India, Brazil, and South Africa) forum. Likewise, India has a preferential trade agreement (PTA) with MERCOSUR and was granted observer status by the Pacific Alliance (PA). Given the foregoing arrangements, there is a myriad of opportunities in trade, investment, and other areas which India and LAC both can potentially convert into substantial results. E-commerce is one such area.

VALUE-ADDED TRADE

There is no data available in the public domain on cross-border e-commerce between India and LAC. Further, India has not negotiated any cross-border e-commerce agreements whereas a few countries in LAC, such as Chile, Colombia, and Peru, have provisions on e-commerce in their agreements with many other countries. However, there is significant trade in ICT products and services between India and LAC, as is shown in table 2, which could prove an excellent source of support for boosting cross-border e-commerce between the two regions. The table reveals that Brazil is India's largest partner in LAC for trade in ICT products and services. Indian exports of ICTs to LAC increased significantly during 2011-2013 while its imports of these did likewise in 2010-2014.

42%

OF PRIVATE INVESTMENTS IN BRAZIL COME FROM SMES

GOVERNMENT SUPPORT IN INDIA

"Being driven by a young demographic profile, increasing internet penetration, and relatively better economic performance, India's e-commerce revenue is expected to jump from US$30 billion in 2016 to US$120 billion in 2020, growing at an annual rate of 51%, the highest in the world. While in terms of base, India may be lower than China and other giants like Japan, the Indian rate of growth is way ahead of others. Against India's annual expansion of 51%, China's e-commerce is growing at 18%, Japan at 11%, and South Korea at 10%," (ASSOCHAM, 2016).

India's Science, Technology, and Innovation Policy (2013) has been a vital force behind its growing e-commerce sector. This policy has created an enabling environment for innovations such as digital payments, hyper-local logistics, analytics-driven customer engagement, and digital advertisement. The policy has also brought forth a number of promising government initiatives such as Digital India, Start-Up India, and Make in India, which have made a significant contribution to the growth of e-commerce. Further, the promulgation of Information Technology Act (2008) is an additional milestone, as it recognizes emerging issues such as e-contracts and e-signatures. Section 10A of the IT Act (2008) establishes that "Where in a contract formation the communication of proposals, the acceptance of proposals, the revocation of proposals and acceptances, as the case may be, are expressed in electronic form or by means of electronic record, such contract shall not be deemed unenforceable solely on the ground that such electronic form or means was used for that purpose."

TRAVEL AND CLOTHING IN LAC

The growth of e-commerce in LAC is projected at a compound annual growth rate (CAGR) of about 21%, however, it will vary for different countries. The top three countries for e-commerce in LAC are Brazil, Argentina, and Chile. Total e-commerce billing in these countries is US$14.1 billion, US$6.2 billion, and US$3.07 billion, respectively, in 2016. The most significant products for e-sales in these countries are travel, fashion, electronics, and fast-moving consumer goods (AMI Perspectiva, 2017).

Argentina has a well-established IT industry which employs about a million people. The country currently ranks third in online retail sales in LAC and accounts for about 8.9% of e-commerce sales in the region. Its market share is expected to reach 14.6% by 2019. The overall legal, policy, and institutional framework on e-commerce issues is innovative and well-established. As in Brazil, there is an Argentine Chamber of Electronic Commerce (CACE) which serves as the voice of private-sector investment and regulation in the country. CACE regularly conducts various research and development programs, which have improved the scope of e-commerce penetration in the country. CACE is also raising a strong voice for reducing import barriers to foster cross-border e-commerce.

Brazil is one of the largest ICT markets in LAC and is characterized by the almost even distribution of expenditure within various segments such as software, hardware, and services.

TABLE 2
INDIA-LATIN AMERICA TRADE STATISTICS IN ICT PRODUCTS AND SERVICES (IN CURRENT MILLIONS OF US$)

	INDIA'S EXPORTS TO LAC								INDIA'S IMPORTS FROM LAC							
COUNTRY/YEAR	2000	2005	2010	2011	2012	2013	2014	2015	2000	2005	2010	2011	2012	2013	2014	2015
Argentina	0.64	1.45	3.52	5.90	79.04	129.7	8.04	0.63	0.08	0.72	0.15	2.83	1.23	0.08	0.00	0.05
Belize	..	0.01	0.02	..	0.00	0.00	..	0.03	..	..	..	..	..	..	0.02	..
Bolivia	..	0.00	0.00	0.07	2.92	1.37	0.18	0.10	..	0.00	..	..	..	..	..	..
Brazil	4.79	10.87	15.59	24.38	22.30	13.55	9.03	7.54	1.97	4.68	4.47	18.55	11.42	3.05	20.31	39.23
Chile	0.60	0.18	3.29	0.17	0.45	0.35	0.23	0.34	0.02	0.00	1.01	1.00	0.99	0.34	0.94	0.80
Colombia	0.00	0.69	0.88	28.12	4.09	5.39	4.41	4.73	0.02	0.02	0.31	0.30	1.24	..	0.37	0.00
Costa Rica	0.03	0.01	0.83	3.77	0.03	0.06	0.05	0.13	0.00	18.05	74.23	70.85	135.83	163.64	121.23	2.57
Ecuador	0.00	0.03	0.42	1.21	1.09	0.32	0.50	0.18	0.02	0.00	0.00	0.01	0.15	0.02	0.02	0.08
El Salvador	0.02	0.02	0.06	1.25	0.20	0.83	0.62	1.33	..	0.12	..	0.01	..	0.01	0.00	0.02
Islas Malvinas	..	0,01	..	..	..	..	..	..	..	..	0.00	0.05	..	..	..	..
Guatemala	..	0.04	0.29	2.42	0.10	1.12	1.17	0.89	..	..	0.01	0.08	..	..	..	..
Honduras	0.00	0.11	0.61	0.45	0.93	1.37	0.20	0.79	..	0.01	0.44	0.44	0.19	0.00	0.07	0.01
Nicaragua	0.09	..	0.35	0.45	0.07	0.13	0.05	0.02	..	..	0.00	..	..	..	..	..
Panama	0.02	0.11	0.27	3.11	0.22	0.40	0.43	0.25	..	0.36	..	0.05	0.05	0.00	0.00	0.01
Paraguay	..	0.02	0.79	1.28	0.48	0.75	0.19	0.18	..	..	..	..	0.00	..	0.00	..
Peru	0.04	1.57	4.74	2.72	1.85	0.31	0.23	0.37	0.64	..	0.02	0.59	0.02	0.02	0.00	0.00
Suriname	0.07	0.30	0.94	0.00	0.00	0.04	0.02	0.01	..	..	0.01	..	..	0.02	0.00	..
Uruguay	0.09	0.38	1.64	2.05	0,.27	0.08	0.18	0.04	0.03	..	0.00	0.02	0.03	..	..	0.02
Venezuela	0.07	0.07	0.53	3.18	0.45	0.03	0.00	0.60	0.00	..	..	0.01	0.15	0.15	0.02	0.00
Latin America	6.46	15.88	34.77	80.54	114.50	155.8	25.54	18.16	2.79	23.96	80.66	94.79	151.30	167.30	143.0	42.79

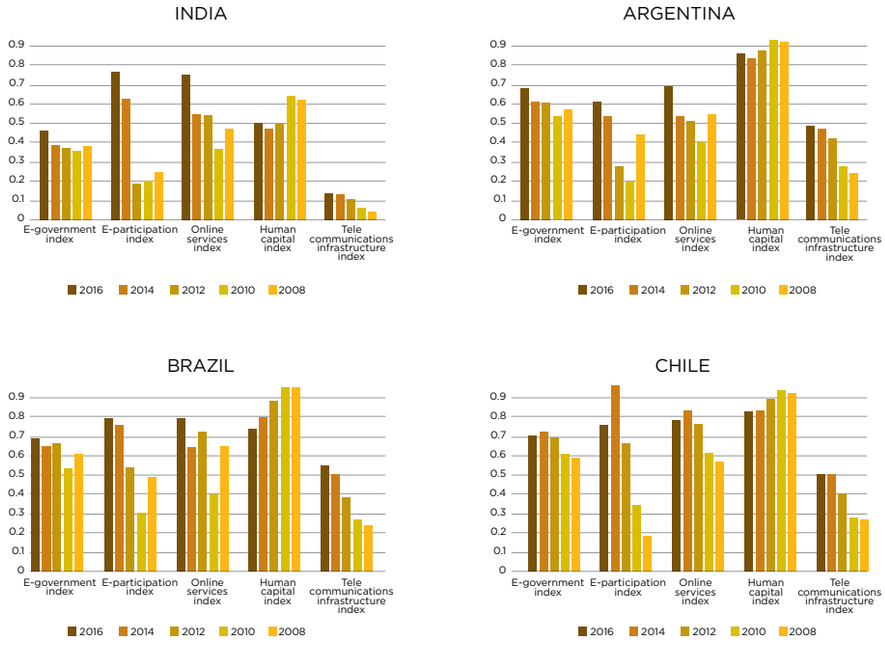
Source: UNCTAD Database.

It has further embraced e-commerce in virtually all sectors of the economy. The country has a well-structured legal and policy system in place which addresses various facets of e-commerce such as Estrategia,[1] a law against cybercrime, regulations for online payments, consumer protection laws, the Brazilian Chamber of E-commerce, and a consumer website, Procon.[2]

The major factors contributing to the growth of e-commerce in Brazil are: the active participation of small and micro-enterprises (SMEs), which account for 42% of private investment in e-commerce; increased expenditure on IT-enabled banking services, which account for about 20% of the national budget estimates on IT; and increased demand for clothing by consumers, which accounts for 18% of total e-transactions.

E-commerce sector in Chile has witnessed significant growth in the recent past. There are many factors contributing to this growth, such as an advanced education system that produces highly skilled graduates in programming and analytics, and heavy public-sector investment in the IT and business process outsourcing (BPO) sectors, which are Chile's digital backbone. The sector indexes for e-government[3] and e-participation[4] in India, Argentina, Brazil, and Chile are given in figure 1. The key features of the index are listed in table 3.

FIGURE 1
E-SECTOR INDEX IN INDIA AND SELECTED LAC COUNTRIES



Source: UN E-Government Knowledge Database

BOOSTING INTEGRATION

LAC has a more structured and dynamic system for regulating e-commerce than India, but India is keen on making this sector more vibrant and increasing its contribution to GDP in the future.

Despite political goodwill, both regions face similar challenges for developing the e-commerce sector, such as rural penetrability, taxation, standardization, cybersecurity, data protection, the entrenchment of SMEs, competition regulation, consumer protection, and welfare and minimal incentives. The point of departure between India and LAC is the gap in regulation and institutions, although India has a more liberalized e-commerce sector where 100% foreign direct investment (FDI) is allowed in online retail of goods and services[5] (Asthana, 2016).

The biggest challenge for cross-border e-commerce between India and LAC is that India has not negotiated e-commerce issues with any country or region. The major challenges to deepening e-commerce between the two regions are listed below:

- Difficulties in determining and collecting customs duties.
- Absence of a proper regulatory framework for governing cross-border e-commerce.
- High rate of cyber risk, fraud, and security, and payment-related risks. High failure rates in online payments and low penetration of debit and credit cards.
- Difficulty in tax and regulatory compliance and ambiguity on applicable tax rates.
- Content restriction on national security and other public policy grounds, which greatly affect business in the field of information services, such as the media and entertainment sectors.

- Change in product prices from one country/region to the next.
- Complexities in the returns and exchanges system, logistics, and reverse logistics.
- In India, internet penetration is largely limited to social media and buyers are more reluctant to pay in advance for online purchases.
- High customer acquisition costs.
- Poor knowledge and awareness among buyers/consumers.
- Legal limitations to sales.
- Uncertainties around the length of time in transit and lack of transparency in the delivery process.

Despite the above-mentioned challenges, both regions have recognized the e-commerce sector as an important tool for their future development and therefore have initiated the adopting and implementation of policies and regulations to govern this without diluting the significance of the multilateral rules of trade. Both the regions must regulate e-commerce and ensure that it is conducted within the legal ambits of the General Agreement on Tariffs and Trade (GATT). Since both the regions have identified e-commerce as one of the key drivers for their socio-economic development, the following opportunities may be explored for deeper integration:

- Developing a bilateral regulatory framework to address issues related to cybersecurity and data protection in cross-border transactions.
- Developing bilateral guidelines on the mutual recognition of standards and the harmonization of customs procedures.
- Borrowing from LAC's experience, India could explore setting up a Chamber of E-commerce to amplify the voice of the private sector and further enhance digital penetration in rural areas by offering a platform for global exposure, hence accelerating the integration of regional value chains into global ones.
- Negotiating an India–LAC Digital Single Market Strategy (DSMS) to open up digital opportunities for businesses, especially SMEs, and enhancing the economic competitiveness of both regions.
- Working together to set up a well-coordinated smart infrastructure ecosystem to ensure that a thriving market for smart products and services is created. Pursuing collaboration is likely to create huge business opportunities for enterprises in a wide range of sectors above and beyond technology. This collaboration should also target local engineering colleges and universities in both regions to foster research and development in the area of smart technologies. The rationale behind this is to persistently maintain innovative policies and strategies in this area.
- Developing a comprehensive rural e-commerce strategy that would not only address the economic complexities that rural transformation entails but would also provide a roadmap for addressing structural adjustments for market transactions by creating simplified processes for information-sharing and/or establishing digital infrastructure prerequisite to reduce imperfections.

Exploring the possibilities of devel-

INSTITUTIONS AND REGULATIONS

India

- Draft Rules for the Security of Prepaid Instruments under the Provisions of the IT Act of 2000.
- IT Act of 2008.
- Cyber Regulation Advisory Committee.
- National Cybersecurity Policy.
- Digital India.
- Start-up India.
- Make in India.

Argentina

- Data Protection Act.
- Law 11723, Legal Regime for Intellectual Property.
- Law 25326 on the Protection of Personal Data, which includes information fraud.

Brazil

- Law against cybercrime.
- Regulations for online payments.
- Consumer protection laws.
- Procon (Brazilian Consumer Protection and Defense Foundation).

Chile

- Law No. 19799, which regulates electronic documents and digital signatures, published in 2002.
- Law No. 19913, which punishes cyber laundering.
- Special police and prosecutors for investigating cybercrimes.
- Specialised multi-stakeholder unit on economic crime, money laundering, and organised crime.

oping e-taxation strategies that will seek to minimize or address several general challenges that most countries are grappling with, such as jurisdiction of application, verification of the place of consumption/origin, data retention, audit compliance requirements, and determining the correct tax treatment for bundled products, bad debt, and tax credits.

- Considering the introduction of a joint e-commerce program to provide training on issues related to the information society and e-commerce in particular, similar to what MERCOSUR has already implemented. The idea is to build up new skills and knowledge while simultaneously reducing the imbalances between India and LAC.

- Enhancing information-sharing and capacity-building on intelligence and cybersecurity issues around data protection and illicit goods and services.

DEEPENING BILATERAL TIES

The common nexus in both India and LAC is the desire to improve the performance of their respective e-commerce sectors. The key to deepening integration in e-commerce between the two regions is collaboration on matters of policy and regulation. It is evident that both regions have reached milestones in developing this sector, in keeping with their domestic market requirements, but it will be important to develop cross-border e-commerce further in the future. Both regions have made efforts to build up the necessary policies and legal and institutional structures. However, there is significant scope for improvement in India, given that it has just one standalone piece of legislation for governing e-com-

KEY FEATURES OF E-COMMERCE

India

Unprecedented growth of e-participation index due to the revolution in service delivery and the new system to digitalize regulatory processes through a single window.

The e-government index has gradually increased due to flagship programs like Digital India.

Telecommunications infrastructure has experienced slow growth due to low levels of digital literacy, especially in rural areas.

Argentina

Gradual rise in e-government index and e-participation index, despite the fall in the human capital index in 2012.

High human capital index as its IT industry is a leading employer and hence has a strong labor force.

Improvement of online service index can be attributed to the State Modernization Plan, which has promoted the development of smart cities. Stagnated growth of online service index, which is due to existing import barriers in cross-border e-commerce.

Brazil

Online service index has experienced steady growth which may be due to incentives to improve these services.

Although Brazil has the largest telecommunication sector in LAC, trends suggests more attention needs to be given to these and that the underperformance of the sector is pegged to the country's economic downturn.

Increase in e-participation index is attributed to government initiatives like e-democracia (e-democracy) and e-cidadania (e-citizenship).

Human capital is experiencing a decline, which is mainly due to a decreasing GDP and growing unemployment rate.

Chile

Relatively steady rise in e-government, which is attributed to good institutional coordination, transparency, and ease of access

Freedom of Access to Public Information Law (2008), which allowed citizens to scrutinize public agencies on various issues, thus enhancing e-participation.

Stable growth of its e-government index may be directly attributed to the Chilean government becoming part of the Open Government Partnership (OGP) and further enacting its Public Management Law (2010).

merce, in contrast to multiple such devices among its counterparts.

The major challenges for this integration process are (1) achieving greater penetration through better telecommunications infrastructure, especially in remote/rural areas, and (2) reducing cross-border barriers by enhancing cybersecurity and advocating for mutual recognition and harmonization of key regulations, such as standards, intellectual property rights, and tax regulations. While deepening bilateral ties is an ideal way, domestic reforms are germane provided that national socioeconomic objectives are not lost in the quest for liberalization through regionalism. In addition, both regions should focus on reducing barriers to trade so as to enhance online cross-border trade of goods and services.

Suffice to say that there is scope for further improvement in both regions to increase their economic competitiveness and prepare for the future of global e-commerce. Indeed, as the tide of e-commerce begins to rise, the key question is whether India and LAC will be able to design ways to stay afloat or even ahead of these changes. Robust collaboration on e-commerce between the two regions may usher in a more concrete debate on e-commerce at the multilateral level.

NOTES

[1]A binding document within the broader framework of the Government of Brazil's general strategic planning process.

[2]The Brazilian Consumer Protection and Defense Foundation, which works with affiliates for each of the country's states to regulate commercial practices and consumer rights, including issues with payment processing, return policies, information transparency, or any other matter that may arise.

[3]According to the UN E-Government Knowledge Database, the E-Government Development Index (EGDI) is a composite measure of three important dimensions of e-government, namely: provision of online services, telecommunication connectivity, and human capacity. This index shows developed e-government is in UN member states and reflects the use of information technologies to promote access and inclusion.

[4]The e-participation index (EPI) is derived as a supplementary index to the UN E-Government Survey. It extends the scope of this survey by focusing on the use of online services to facilitate the provision of information by governments to citizens ("e-information-sharing," enabling participation by providing citizens with public information and access to information, on demand or otherwise), interaction with stakeholders ("e-consultation," engaging citizens in contributions to and deliberation on public policies and services), and engagement in decision-making processes ("e-decision-making," empowering citizens through the codesign of policy options and the coproduction of service components and delivery modalities).

[5]The Indian government allowed 100% FDI in e-commerce for companies following marketplace models rather than inventory-based models. Marketplace models are platforms that enable a large, fragmented base of buyers and sellers to set prices and engage in transactions with one another in an environment that is efficient, transparent, and trusted. They function as open marketplaces where buyers and sellers can meet. In inventory-based models, the company owning the website holds the inventory of the goods it sells and has the power to determine product prices.

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GAUGING THE TEMPERATURE OF PUBLIC OPINION

India still has a lot of catching up to do in terms of how it is viewed by Latin Americans. Just 2% of the region's citizens said that they were in favor of making closer relations with India a priority.

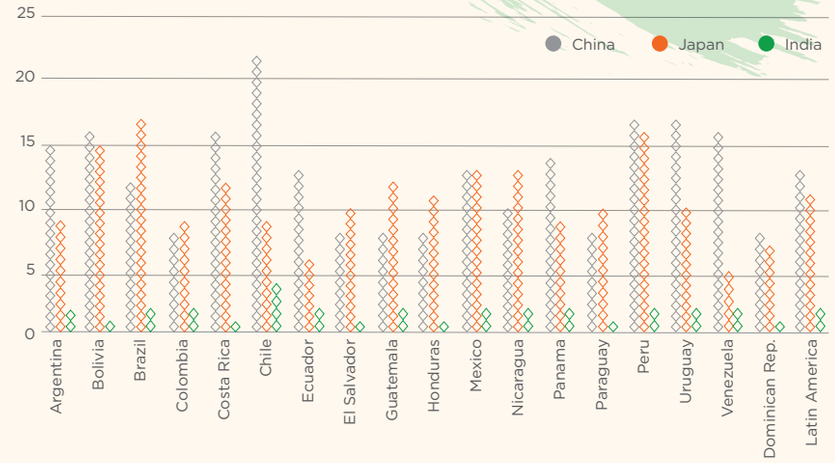
34%
of respondents think that their country should prioritize relations with the United States

13%
think the priority should be China, while 11% chose Japan

2%
think that India should be the focal point for international relations

Integration Preference

Q: What country or bloc would you like (your country) to strengthen trade ties or international relations with?



Source: INTAL-Latinobarómetro.

CASE STUDY

Connecting Desire

A Business Model on the Rise

With over 60 million transactions per month, OLX is the market leader in the e-commerce segment in India. Argentinian entrepreneur Alec Oxenford, who cofounded the online classifieds company, shares his experience regarding building a company in India, the role of local partners, and the advantages of the Indian economy in relation to skilled human resources and the close ties between universities and the labor market.

WHAT IS OLX'S MAIN STRENGTH?

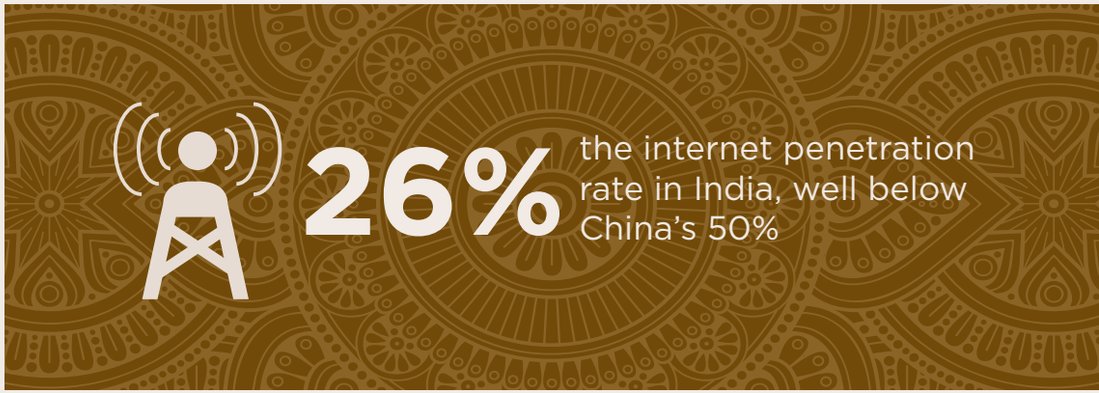
OLX is now the largest online classifieds platform in the world, with a presence in over 40 countries, including Argentina, Brazil, Russia, India, South Africa, and the Middle East. Here are some facts and figures that reflect our size: we publish 60 million ads each month, 18 million sellers use the site each month, we publish 52 million car ads each year, and 10 billion products are bought and sold via OLX each month.

HOW WOULD YOU DESCRIBE YOUR EXPERIENCE OF DOING BUSINESS IN INDIA?

OLX's experience India has been extremely positive. It is an enormous country with a unique culture but it is also making a great effort to make life easy for foreign investors. It is easy to operate in English in India and the country is democratic, predictable, and has strong institutions. The outcomes that OLX has achieved there have been really good, too. According to some estimations, over two-thirds of the online C2C (customer-to-customer) transactions that take place in India today are through OLX. And the expectations for market growth are enormous. The Indian market could grow tenfold to reach the size of those in other countries where online activity is more developed, such as China or Russia. India already has a massive domestic market that is keen to consume technology products, and there is plenty of room for growth: India has more than 330 million internet users; 320 million Indians will access the internet through a mobile device this year; and the internet penetration rate in India is 26%—although in comparison this stands at 50% for China and 59% for Brazil.

60 MILLION

THE NUMBER OF CLASSIFIED ADS THAT OLX PUBLISHES EACH MONTH



WHAT SUGGESTIONS WOULD YOU MAKE TO OTHER ENTREPRENEURS WHO ARE SEEKING TO GAIN A FOOTHOLD IN THE INDIAN MARKET?

Don't be afraid. The Indian subcontinent is huge and there are plenty of opportunities awaiting new entrepreneurs. OLX's experience there has been incredibly rewarding. Our Indian customers are enthusiastic internet users, especially through their cellphones. One particular feature of the Indian market is the rate at which it adopts new technologies. Another suggestion would be to think about a joint venture with a local partner. OLX launched in India in partnership with Amarjit Batra, an enormous talent who had also worked at PayPal and eBay. India is a country that is the size of a continent and sometimes a local partner can help you understand that context faster.

40

THE NUMBER OF COUNTRIES WHERE OLX CURRENTLY OPERATES

HOW FAR CAN NEW TECHNOLOGIES CONTRIBUTE TO PROMOTING TRADE BETWEEN LATIN AMERICA AND INDIA?

New technologies are the perfect channel for establishing ties with India. India understands the significance of the software industry and has organized itself very effectively to build on this. The university sector is meritocratic, competitive, and in sync with labor markets. I don't think that it will be difficult for Latin American entrepreneurs to explore opportunities in India.

WHAT TYPE OF PUBLIC–PRIVATE PARTNERSHIPS ARE NEEDED TO BUILD CLOSER TIES BETWEEN THE TWO REGIONS?

We didn't receive support from or form partnerships with the local or national government in India, but for many projects, this would undoubtedly be helpful, especially during the start-up phase.

WHAT LESSONS CAN LATIN AMERICA LEARN FROM INDIA'S DEVELOPMENT IN THE SOFTWARE AND E-COMMERCE SECTORS?

Above all, the importance of integrating the education sector with the labor market. There is a fluid dialogue between universities and the world of enterprise in India, and the strategic design of degree programs and the contents of each subject are defined in terms of how they apply to the labor market.

Microfinance and Social Inclusion

A Mutual Learning Process

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It is a true privilege to have endured a difficult life.

Indira Gandhi

THIS ARTICLE COMPARES THE MICROFINANCE SECTORS IN INDIA AND LATIN AMERICA BASED ON A SURVEY OF THE LITERATURE AS WELL AS QUANTITATIVE DATA ANALYSES USING PANEL DATA FOR MICROFINANCE INSTITUTIONS (MFIS). IT CONCLUDES THAT INSTITUTIONAL QUALITY AND GOOD REGULATION IS IMPORTANT TO IMPROVING SUSTAINABILITY, AND THAT MICROCREDIT HAS CONTRIBUTED TO REDUCING POVERTY AND INEQUALITY.

The main objective of this study is to compare the microfinance sectors in India and Latin America with a focus on deriving lessons for both. The study is based on a survey of recent literature and quantitative analyses of Microfinance Information Exchange (MIX) data on microfinance institutions (MFIs) in India and 26 Latin American countries.

While microfinance was shown to have a poverty-reducing role in India, particularly if the credit is given for productive purposes (Imai, Arun, and Annim, 2010),[1] the sector in India now faces various challenges. First, as the microfinance industry shows signs of overheating, the indebtedness of MFI borrowers worsens (Sharma, 2017). That is, the microfinance industry has not yet fully learned the lessons of the Andhra Pradesh microfinance crisis of 2010, where overindebtedness of poor borrowers became a serious social problem, leading to suicide cases, due to the absence of the stringent regulation (Mader, 2013). Second, there is scope for developing the infrastructure which supports the microfinance industry and the policy and regulatory or legal framework (CMFIFMR, 2006; Srinivasan, 2009). Third, while the poverty rate is much higher in India than in Latin American countries,[2] the evidence suggests that microcredit programs have not reached the poorest of the poor in India (Imai et al., 2010; Puhazhendhi, 2013). That is, microfinance may have an effect of increasing inequality, as suggested by Mukhopadhyay (2016) who has shown using the data collected by Banerjee et al. (2015) in Andhra Pradesh that access to microcredit exacerbates consumption inequality, which will be re-examined by the present study. Fourth, there still remains the issue of the financial sustainability of self-help groups and MFIs. As argued by Weiss and Montgomery (2005), most of the studies on microfinance in both Asia and Latin America tend to focus on either the poverty impact/outreach or cost-effectiveness, but not both at the same time. Our study attempts to fill this gap.

The nature of microfinance in Latin America—given the diversity in the region—is considerably different from India or South Asia, reflecting the stage of financial, economic, and social

development. In other words, many of the Latin American countries have achieved higher GDP per capita with lower poverty rates. In contrast to South Asian MFIs, MFIs in Latin America focus more on the development of the microenterprise sector rather than poverty reduction and more on urban areas rather than rural areas (Weiss and Montgomery, 2005). However, Rivera-Garcia and Imai (2017) suggest that, once shocks related to crimes are taken into account, a significant share of people were vulnerable to poverty in Mexico. India's experience of using microfinance as a tool for poverty reduction may be useful for some Latin American countries. Christen (2012) argues that, while MFIs in Latin America have grown to develop various modalities of credit for individuals with the support of institutional infrastructure, compared with South Asian countries, microsaving and microinsurance schemes have not been fully developed—indeed, Latin America has some of the lowest penetration rates for savings deposits in the world. In this area, Latin American countries may be able to learn from India. All the same, this does not necessarily imply that microsavings or microinsurance have been well developed in India (Banerjee, Duflo, and Hornbeck, 2014).

Building upon MIX data, this study asks: (1) what are the major differences in the microfinance sectors in India and Latin America in recent years in terms of trends for key statistics and the social and economic roles of microfinance; (2) what are the key factors behind achieving financial sustainability for MFIs, while reducing poverty in both India and Latin America?; and (3) what are the key challenges faced by microfinance industries in India and Latin America and what sort of lessons can each of the two places learn from each other?

21.2%

THE POVERTY RATE
IN INDIA IN 2011

The rest of the article is organized as follows. The next section compares microfinance sectors in India and Latin America based on a survey of the literature and the analysis of MIX data. This is followed by Section 3, where we present econometric models to analyze the effect of institutional quality on MFI's financial sustainability, poverty and inequality at the macro level, and on outreach of MFIs. Section 4 presents and discusses the econometric results. The final section offers concluding remarks with policy implications.

MICROCREDIT

It is worth providing a brief historical perspective by comparing microfinance sectors in India and in Latin American countries. In India, microfinance programs have been developed mainly in rural areas since the late 1980s and the early 1990s to address the problems of state credit programs, and have taken two different forms (Shah, Rao, and Shankar, 2007) based on two microfinance models: (1) the self-help group (SHG) model, a village-based financial intermediary committee for encouraging savings and credit and training on the principles of self-help; and (2) the MFI model following the Grameen Bank model developed in Bangladesh (Mahajan and Navin, 2013). As poverty alleviation in rural areas is the country's primary concern, poverty reduction had been set as a primary policy goal from the beginning. However, there have been lots of tensions between achieving the poverty alleviation goal or outreach to the poorest population and the financial sustainability goal when MFIs became increasingly commercialized and focused more on profits to keep the business going.

Too much focus on the financial sustainability of MFIs to the detriment of the outreach or poverty alleviation roles led to the Andhra Pradesh crisis in 2010. As a background for the crisis, Mahajan and Navin (2013) pointed out fundamental problems in Indian SHGs and MFIs. SHGs suffered from the high cost of organizing groups as they required a lot of subsidies from international donors or state governments, which led to increasing cornering of credit by the better-off members, corruption, and reduction in repayment rates in expectation of loan waivers (Mahajan and Navin, 2013). While the MFIs based in Andhra Pradesh grew rapidly, they also involved high costs, which are inherent to the Grameen Bank model. This was based on a year-long loan repayable in 50 equal weekly installments and needed human resources and training and monitoring (Mahajan and Navin, 2013). However, because management of MFIs cared only about the growth of loan portfolios, there was a tendency to ignore other aspects.

Since then, it has been suggested that the government should focus on tightening the regulations of the microfinance sector (e.g., interest rate caps; monitoring of portfolios), capacity-building and improving corporate governance of MFIs, establishing a better system of credit-monitoring (e.g., through establishing and opening up credit bureaus), and ensuring infrastructure to support MFIs in remote areas in particular. Achieving social and financial goals at the same time is considered essential to the new Indian microfinance model, which is known as Microfinance 3.0 (Adler and Waldschmidt, 2013). In relation to implementing better regulations and improving corporate governance, there is scope for Indian MFIs and state and central governments to learn from the experience of Latin American MFIs or governments.

Another important issue is the product and program designs for the sector. Traditional microfinance programs in India are tailored so that their poverty-reducing effects can be maximized, without compromising on financial sustainability. For instance, Field et al. (2013) showed through a field experiment in India that the repayment requirements of the classic microfinance contract, whereby borrowers repay immediately, inhibits investment in high-return but illiquid business opportunities because the two-month grace period increased short-run business investment and long-run profits, but also default rates. Feigenberg et al. (2014) argued based on field experiments that the number of microfinance group meetings improves the social capital, which is important when the group includes new clients.

MFIs developed differently in Latin American countries, with more of a focus on the urban informal sector and unemployment problems. Com-

pared with Indian MFIs, the notion of commercial profitability was embraced early in the development of Latin American MFIs and microfinance has been used as a major tool for the development of microenterprises (Weiss and Montgomery, 2005). The financial performance of MFIs in Latin American is much stronger, which is linked with the commercialization of microfinance in the region. MFIs in Latin America were sustainable as early as the late 1980s and the region has outpaced all other regions in the number of ratings obtained by its MFIs, primarily to satisfy requirements of equity investors and loan funds (Christen, 2012). Consistent with Christen (2012), our investigation of the MIX data suggests that the return on (real) gross portfolio is significantly larger for Latin American MFIs (29.9%) than for Indian MFIs (13.1%) on average in 1995–2013, which is statistically significant at 1% level (table 1). The return on assets for the former was 0.4%, while for the latter it was -1.9% during the same period (table 1).

Table 1 further compares key performance indicators for Latin American and Indian MFIs. For instance, the capital-asset ratio is significantly larger for Latin American MFIs than Indian MFIs, while the debt-to-equity ratio shows the opposite pattern. On the other hand, the indicators of the unit cost of MFIs (e.g., operating expenses/loan portfolio, borrowers per staff member, cost per loan) are significantly larger for Latin American MFIs.

29.9%

THE AVERAGE RETURN ON LAC'S GROSS PORTFOLIO BETWEEN 1995 AND 2013

With regard to outreach indicators, the average number of active borrowers is significantly higher and the average loan balance per borrower is lower, though not statistically significant, for Indian MFIs than for Latin American MFIs. This suggests that MFI loans were more likely to reach a wider range of the population in India. The average number of depositors per MFI is, however, larger for Latin American MFIs than Indian ones. While the percentage of female board members of Latin American MFIs is larger than Indian MFIs, the percentage of female borrowers is significantly larger in India than in Latin America. So, by and large, the outreach indicators of Indian MFIs are much better than those of Latin American MFIs.

Christen (2012) argues that MFIs in Latin American countries lag behind in the areas of deposit mobilizations, microsavings, and microinsurance. Also, microfinance did not necessarily serve as a poverty-alleviating tool in Latin American countries. Given that a section of poor people remains in most Latin American countries, there is scope for them to learn from India in terms of designing microfinance programs better tailored to the poorer population.

The literature broadly suggests that regulations and macro-level institutional qualities will affect the performance of MFIs. For instance, using the MIX data on 373 MFIs over 1996–2007, Ahlin et al. (2011) found that the country's macro performance and institutional quality influences the performance of MFIs. Ahlin et al.'s (2011) findings predicted the Andhra Pradesh crisis, one of the main causes of which was the absence of stringent regulations and management for the microfinance sector (see, for example, Roodman, 2013). Keeping this background in mind, the present study will use the MIX data and test how the country's regulation standards or institutional quality affected the financial sustainability as well as the outreach of MFIs and poverty in India and Latin America.

THE EMPIRICAL MODEL

In this section, drawing upon the MIX data on MFIs, we will address two research questions: (1) whether the macro-institutional quality influen-

TABLE 1
COMPARISON OF KEY PERFORMANCE INDICATORS FOR MFIS IN LATIN AMERICA AND INDIA (1995–2013)

	LATIN AMERICA			INDIA			
VARIABLE	N	Mean	SD	N	Mean	Sd	t-test
Performance Indicators							
Real Yield on gross portfolio	2,911	0.299	0.2	673	0.131	0.09	21.55**
Return on assets	3,340	0.004	0.2	825	-0.019	0.28	2.36**
Capital asset ratio	4,020	0.35	0.28	1,044	0.23	0.59	9.44***
Debt-to-equity ratio	3,791	5.29	105	991	43.13	694.14	-3.22***
Cost/Efficiency Indicators							
Operating expense/ loan portfolio	3,351	0.33	0.65	824	0.19	0.57	5.67**
Administrative expense to assets	2,871	0.1	0.18	671	0.05	0.05	7.13***
Cost per loan	2,527	248.41	363.2	558	18.64	20.68	14.94***
Borrowers per staff member	3,792	129.26	277.49	991	252.02	240.95	-12.73***
Portfolio at risk 30 days	3,503	0.07	0.09	875	0.07	0.31	0
Write-off ratio	3,200	0.03	0.05	765	0.01	0.07	9.13***
Outreach and other Indicators							
Average loan balance per borrower	3,878	2,155.82	40,832.71	1,028	264.24	3,663.84	1.48
Average deposit balance per depositor	1,197	13,406.03	169,000	173	49.58	111.11	1.04
Number of active borrowers	3,911	37,010.03	126,000	1,040	182,000	584,000	-14.32***
Number of depositors	3,143	40,881.21	249,000	840	24,753.02	101,000	1.83*
Percentage of female board members	872	0.32	0.25	286	0.25	0.24	4.15***
Percentage of female borrowers	3193	0.62	0.21	918	0.94	0.17	-42.35***

Note: *** statistically significant at 1% level. ** significant at 5% level. * significant at 10% level.
Source: Author's calculation based on MIX data. Values are expressed in 2017 US dollars adjusted for purchasing power parity (PPP).

ces the financial sustainability of Indian and Latin American MFIs; and (2) whether there is any negative relationship between financial sustainability and poverty or inequality reduction or outreach.

The present study uses panel data on MFIs in India and 26 Latin American countries for the period of 1995–2013. The panel is unbalanced and covers 751 MFIs with 5,182 observations (for 6.6 years on average).[3] India has 205 MFIs with 1,079 observations, while Latin America has 546 MFIs with 4,103 observations. The MFI panel data will be matched with the country panel data constructed by the World Bank's World Development Indicators (WDI) for 2017 as well as the World Governance Indicators (WGI) for 2017. WDIs cover the country's macro indicators (e.g., GDP per capita) as well as poverty and the Gini coefficient, while the WGIs are the basis for the macrodata on institutional qualities, such as rule of law or regulatory quality.

We will estimate the following empirical models: (1) model 1, to study the determinants for the financial sustainability of MFIs (fixed effects [FE] model or instrumental variables [IV] model); (2) model 2, to estimate the effect of the financial sustainability of MFIs in India and Latin America on poverty or inequality (FE/IV model); and (3) model 3, to estimate the effect of the financial sustainability of MFIs on their outreach measures (FE model). To estimate these models, a dummy variable for Latin American countries (taking the value of 1 if LA countries or 0 otherwise) and its interactions with selective explanatory variables were used to compare the responses of Indian and Latin American MFIs.

Model 1: Effects of Institutional Quality on Financial Sustainability of MFIs for India and Latin America (FE/IV Model)

The following model is estimated using either the FE or FE/IV model where the institutional quality is instrumented:

$$FS_{ijt}=\beta_0+\beta_1 Institution_{jt}+\beta_2 Institution_{jt}*D_j^{LA}+\beta_3 logGLP_{ijt}+\beta_4 logGLP_{ijt}*D_j^{LA}+\beta_5 logGDPpc_{jt}+\beta_6 logGDPpc_{jt}*D_j^{LA}+\beta_7 logDomestic\_Credit_{jt}+\beta_8 logDomestic\_Credit_{jt}*D_j^{LA}+\tau_t+\gamma_{ij}+e_{ijt} \quad (1)$$

where subscripts, *i, j*, y *t* stand for MFIs, countries, and years, respectively. To define the financial sustainability of MFIs (FS_{ijt}) as a dependent variable, we used four different proxies: (1) return on assets; (2) debt-to-equity ratio; (3) operating expenses/assets; and (4) portfolio at risk. The main explanatory variable is $Institution_{jt}$, the macro-level institutional quality, that is, (1) rule of law, (2) political stability, (3) regulatory quality, and (4) control of corruption. These variables are constructed using the World Bank's WGI data set $Institution_{jt}$, is interacted with D_j^{AL} , a dummy variable that takes the value of 1 if the MFI is located in Latin American countries, and 0 if it is in India. This variable captures how the effect of institution is different in Latin America and India. Other explanatory variables include: : log of gross loan portfolio of MFI; interacted with ; ; log of GDP per capita; interacted with D_j^{LA} ; log of the country's domestic credit; and $logDomestic\_Credit_{jt}$ interacted with j_j^{τ}. Time effects are captured by year dummy variables (tγ) and, given that the unit of the panel is at the level of MFIs, unobservable MFI fixed effect is expressed as $_{ij}$.[4] The error term (e_{ijt}) is assumed to be independent and identically distributed. The standard errors are clustered at the country level. As an extension, in equation (1) we have instrumented institutional quality using the European settler mortality rate variable, following Acemoglu, Johnson, and Robinson (2001), given the possibility that the institutional framework might be endogenous.[5]This is necessary because of the possible reverse causality on the efficiency of MFIs on macro-institutional quality. For instance, if the risk of MFIs' portfolio is high, the government may want to impose more stringent regulations on them.

Model 2: Effects of Financial Sustainability of MFIs on Poverty or Inequality (FE/IV Model)

1st stage:

$$FS_{ijt}=\beta_0+\beta_1 Institution_{jt}+\beta_2 Institution_{jt}*D_j^{LA}+\beta_3 logGLP_{ijt}+\beta_4 logGLP_{jt}*D_j^{LA}+\beta_5 logGPpc_{it}+\beta_6 logGDPpc_{jt}*D_j^{LA}+\beta_7 logDomestic\_Credit_{jt}+\beta_8 logDomestic\_Credit_{jt}*D_j^{LA}+\tau_t+\gamma_{ij}+e_{ijt} \quad (1)'$$

2nd stage:

$$Poverty_{jt}=\gamma_0+\gamma_1\widehat{FS}_{ijt}+\gamma_2 Institution_{jt}+\gamma_3 Institution_{jt}*D_j^{LA}+\gamma_4 logGDPpc_{jt}+\gamma_5 logGDPpc_{jt}*D_j^{LA}+\gamma_6 logDomestic\_Credit_{jt}+\varphi_t+\omega_t+\varepsilon_{ijt} \quad (2)$$

When we estimate the effect of financial sustainability (FS_{ijt} over $Poverty_{jt}$), the former may be endogenous due to reverse causality; that is, MFIs would find it more difficult to maintain financial sustainability in a country with more poor people, as the risk of default tends to be greater. This model uses a two-stage estimation to address the endogeneity associated with financial sustainability. We use the international poverty headcount ratio, either based on the US$1.90 or US$3.10 per day poverty line. We have also used the Gini coefficient to examine the effect of the financial sustainability on the country's inequality. The variables at MFI levels, $logGLP_{ijt}$ and $logGLP_{ijt}*D_j^{LA}$, influence the financial sustainability of MFIs, but not macro-level poverty, and are deemed appropriate instruments. Unobservable effects at MFI levels and year effects are included in both equations. These two equations are estimated using the FE/IV model, where standard errors are clustered at country levels. We are interested in the sign and statistical significance of γ_1, the coefficient of FS_{ijt}, which represents the effect of financial sustainability on poverty.

Model 3: Effects of Financial Sustainability on Outreach of MFIs (FE Model)

Model 2 above cannot be used to estimate the effect of financial sustainability on outreach for each MFI because or any other MFI level variables will affect both financial sustainability and outreach at the same time. To see how financial sustainability measures are associated with outreach measures, we estimated the FE model where four measures of financial sustainability are used as explanatory variables to estimate the outreach measures (). We use (1) average loan balance per borrower and (2) percentage of female borrowers as proxies of . If the former is smaller (or the latter is larger), MFIs are assumed to have a higher outreach covering poorer people or women and the programs will meet the original

goal of reducing poverty..[6]

$$Outreach_{jt} = \delta_0 + FS_{ijt}\,\delta_1 + \delta_2 Institution_{jt} + \delta_3 Institution_{jt} * D_j^{LA} + \delta_4 logGDPpc_{jt} + \delta_5 logGDPpc_{jt} * D_j^{LA} + \delta_6 logDomestic\_Credit_{jt} + \varphi'_t + \omega'_{ij} + \varepsilon'_{ijt} \quad (3)$$

Here (FS_{ijt}) stands for the vector of financial sustainability, covering all four measures. Once again, time and MFI FEs are controlled for and standard errors are clustered at country levels.

RESULTS

We will report and discuss econometric results based on the models presented in the previous section. It should be noted that we have pooled the data for MFIs from both Latin America and India and the effects of belonging to Latin America (or India) are inferred by the sizes, signs, and statistical significance of dummy variables in Latin America and their in-

TABLE 2
EFFECTS OF INSTITUTIONS ON THE FINANCIAL SUSTAINABILITY OF MFIS

DEPENDENT VARIABLES	RETURN ON ASSETS				DEBT-TO-EQUITY RATIO			
EXPLANATORY VARIABLES	Case 1: FE	Case 2: FE	Case 3: FE	Case 4: FE	Case 5: FE	Case 6: FE	Case 7: FE	Case 8: FE
Rule of law	-0.00390 (0.0404)				26,57 (19,08)			
Political stability		0,0280* (0,0138)				196,6*** (12,02)		
Regulatory quality			-0,0625** (0,0268)				195,2*** (24,36)	
Control of corruption	-0.00576 (0.0480)			0,0504 (0,0402)				-268,9*** (29,67)
Rule of law*LA					-52,71* (28,93)			
Political stability*LA		-0,0465** (0,0213)				-176,6*** (20,31)		
Regulatory quality*LA			0,0519 (0,0423)				-191,5*** (36,26)	
Control of corruption*LA				-0,0530 (0,0417)				269,7*** (26,04)
logGLP	0.0211*** (0.0010)	0.0211*** (0.0012)	0.0218*** (0.00125)	0.0201*** (0.0009)	12.78*** (0.178)	12.29*** (0.269)	11.85*** (0.378)	13.85*** (0.308)
logGDPPC	-0.244*** (0.0505)	-0.272*** (0.0519)	-0.244*** (0.0513)	-0.230*** (0.0571)	-59.47*** (18.68)	-181.5*** (22.66)	-93.20*** (16.76)	-113.3*** (18.59)
Logdomesticcredit	0.309*** (0.0780)	0.365*** (0.0676)	0.279*** (0.0752)	0.325*** (0.0725)	-518.9*** (54.07)	-269.4*** (37.13)	-429.9*** (28.09)	-630.3*** (53.69)
logGLP_LA	0.00477 (0.00739)	0.00525 (0.00755)	0.00387 (0.00732)	0.00589 (0.00722)	-17.48*** (4.114)	-17.10*** (4.102)	-16.23*** (3.931)	-19.09*** (4.162)
logGDPPC_LA	0.149** (0.0622)	0.181*** (0.0563)	0.155** (0.0637)	0.132** (0.0577)	105.2*** (37.49)	218.7*** (26.86)	120.7*** (27.06)	138.0*** (32.25)
logdomesticcredit_LA	-0.273*** (0.0705)	-0.332*** (0.0596)	-0.242*** (0.0643)	-0.290*** (0.0662)	526.6*** (59.81)	275.5*** (43.98)	433.0*** (34.84)	639.5*** (57.09)
Constant	0.209 (0.585)	0.178 (0.539)	0.182 (0.578)	0.214 (0.572)	77.71 (234.2)	148.2 (206.0)	240.0** (111.6)	336.4** (153.2)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MFI fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SE clustered at country levels	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,165	4,165	4,165	4,165	4,778	4,778	4,778	4,778
R-squared	0.033	0.034	0.033	0.033	0.008	0.009	0.009	0.009
Number of MFIs	703	703	703	703	729	729	729	729

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Source: Compiled by the author.

TABLE 2
PANEL B

DEPENDENT VARIABLES	RETURN ON ASSETS				DEBT-TO-EQUITY RATIO			
VARIABLES EXPLICATIVAS	Case 9: FE	Case 10: FE	Case 11: FE	Case 12: FE	Case 13: FE	Case 14: FE	Case 15: FE	Case 16: FE
Rule of law	-0.576** (0.213)				-0.330*** (0.0254)			
Political stability		0.271*** (0.0537)				-0.107*** (0.0129)		
Regulatory quality			-0.806*** (0.188)				0.199*** (0.036)	
Control of corruption				0.107 (0.124)				-250*** (0.025)
Rule of law*LA	-0.683* (0.373)				0.377*** (0.0399)			
Political stability*LA		-0.196 (0.151)				0.0798*** (0.0153)		
Regulatory quality*LA			0.869*** (0.260)				-0.16*** (0.052)	
Control of corruption*LA				-0.171* (0.0969)				0.220*** (0.0285)
logGLP	-0.0980*** (0.00848)	-0.0927*** (0.00623)	-0.0968*** (0.00773)	-0.0867*** (0.00623)	-0.0328*** (0.00049)	-0.0354*** (0.00094)	-0.0389*** (0.00169)	-0.0332*** (0.000574)
logGDPPC	0.347 (0.237)	0.243 (0.262)	0.333 (0.221)	0.277 (0.233)	0.291*** (0.0486)	0.320*** (0.0566)	0.235*** (0.0542)	0.215*** (0.0497)
Logdomesticcredit	-0.418*** (0.147)	-0.688*** (0.232)	-0.592** (0.241)	-1.026*** (0.315)	-0.00499 (0.0779)	0.213*** (0.0697)	0.495*** (0.0833)	0.262*** (0.0734)
logGLP_LA	-0.136 (0.102)	-0.144 (0.104)	-0.137 (0.104)	-0.150 (0.105)	0.0255*** (0.00913)	0.0289*** (0.00891)	0.0329*** (0.00898)	0.0264*** (0.00885)
logGDPPC_LA	0.204 (0.203)	0.234 (0.208)	0.177 (0.189)	0.211 (0.167)	-0.395*** (0.0346)	-0.390*** (0.0373)	-0.342*** (0.0322)	-0.304*** (0.0295)
logdomesticcredit_LA	0.591* (0.346)	0.862** (0.413)	0.764 (0.453)	1.193** (0.533)	-0.0326 (0.0604)	-0.250*** (0.0501)	-0.540*** (0.0624)	-0.295*** (0.0538)
Constant	-1.282 (2.754)	-0.318 (2.366)	-0.601 (2.575)	-0.224 (2.523)	0.672 (0.523)	0.199 (0.532)	0.433 (0.588)	0.375 (0.548)
Year fixed effects	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
MFI fixed effects	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
SE clustered at country levels	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
Observations	4,175	4,175	4,175	4,175	4,378	4,378	4,378	4,378
R-squared	0.072	0.072	0.073	0.071	0.048	0.045	0.046	0.046
Number of MFIs	702	702	702	702	731	731	731	731

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Source: Compiled by the author.

teractions. The results for model 1 are presented in table 2 and the appendix. First, in Latin American countries, better rule of law tends to significantly reduce the debt-to-equity ratio as the coefficient estimate for the interaction of the rule of law and the Latin American dummy is larger than that of rule of law itself (case 5 in table 2). If the country has better rule of law, the operating expense ratio generally tends to be higher, but its effect is significant and negative if we restrict our sample to Latin America (case 9). That is, the effect of the better rule of law is more prominent in Latin America than in India when it comes to reducing the relative operating expenses of MFIs. Also, better rule of law reduces portfolio at risk, but this is mainly for India (case 13). The coefficient estimate of the rule of law and the Latin America dummy is positive and significant and marginally larger than that of the rule of law. If we instrument $Institution_{jt}$ by the European settler's mortality rate without using Latin American dummies to reduce the number of endogenous variables, we find that rule of law increases the debt-to-equity ratio (case 5) and reduces portfolio at risk (case 13). Overall, rule of law is important in both India and Latin America, but its role is mainly associated with a reduction of the portfolio at risk in India and a reduction of debt and expenses in Latin America.

Political stability significantly increases MFIs' return on assets with its effect larger in India than in Latin America (case 2 of table 2). However, it also significantly increases the debt-to-equity ratio as well as operating expenses with the effects being larger for India. Political stability, on the other hand, reduces the portfolio at risk, with the effect being larger for India. It can be concluded that the role of political stability in improving the financial sustainability of MFIs is much more clearly observed in India than in Latin America. IV results in the appendix are broadly consistent with the results in table 2.

More stringent regulations tend to reduce return on assets (case 3 of table 2), increases debt-to-equity ratio mainly for India (with the effect significantly smaller for Latin America as in case 7), increases operating expense ratio; mainly for India (with the effect negative for Latin America, case 11), and increases portfolio at risk, mainly for India (with the effect smaller for Latin America, case 15). Here the effect of regulations is more clearly observed for India. On the other hand, control of corruption significantly reduces debt-to-equity ratio, mainly for India (case 8), increases operating expense ratio for Latin America (case 12), and reduces portfolio at risk, mainly for India (case 16). The IV results in the appendix for control of corruption are broadly consistent. It can be concluded that the role of institutional qualities is more pronounced in India than in Latin American countries.

Regarding the results of other explanatory variables, the overall financial development of proxied by the logarithm of domestic credit significantly increases return on assets and reduces debt-to-equity ratio as well as operating expense ratio particularly in India. On the other hand, the effect of domestic credit on reducing portfolio at risk is observed only for Latin America. The results suggest that overall financial development is crucial to improving the financial sustainability of MFIs, particularly in India.

In table 3 we have applied the FE/IV model to estimate the effect of the financial sustainability of MFIs on poverty or inequality. Here we focus on two measures of FS_{ijt}: return on assets and operating expenses over loan portfolio. FS_{ijt} is instrumented by log GLP and its interaction with the Latin American

TABLE 3
EFFECTS OF FINANCIAL SUSTAINABILITY ON POVERTY OR INEQUALITY

DEPENDENT VARIABLES	Case 1 Poverty US$ 1.90	Case 2 Poverty US$ 3.10	Case 3 Gini	Case 4 Poverty US$ 1.90	Case 5 Poverty US$ 3.10	Case 6 Gini
2nd stage: Explanatory Variables						
Return on Assets	-5.988**	-13.22***	-9.910*			
	(2.926)	(5.024)	(5.187)			
Operating expenses/loan portfolio				0.923*	2.200**	0.978**
				(0.517)	(1.002)	(0.471)
Rule	61.39***	77.09***	4.383***	58.01***	69.54***	4.553***
	(2.236)	(3.780)	(0.441)	(1.832)	(2.638)	(0.418)
rule_LA	-58.30***	-73.61***		-54.68***	-65.57***	
	(2.403)	(4.006)		(2.093)	(3.054)	
Log GDPPC	-13.29***	-1.659	-14.05***	-14.21***	-3.769**	-13.29***
	(1.296)	(2.115)	(1.335)	(1.288)	(1.885)	(1.150)
Log GDPPC_LA	-3.099***	-28.09***		-2.076**	-25.75***	
	(1.092)	(1.786)		(1.027)	(1.506)	
Log domesticcredit	-0.226	0.414	1.789***	-0.616	-0.480	1.350***
	(0.477)	(0.765)	(0.506)	(0.486)	(0.781)	(0.465)
Observations	2,658	2,658	2,494	2,669	2,669	2,505
R-squared	0.779	0.752	0.560	0.792	0.777	0.654
Year fixed effects	YES	YES	YES	YES	YES	YES
MFI fixed effects	YES	YES	YES	YES	YES	YES
SE clustered at country levels	YES	YES	YES	YES	YES	YES
Number of MFIs	478	478	406	481	481	409
1st stage:						
DEPENDENT VARIABLES EXPLANATORY VARIABLES	Return on Assets	Return on Assets	Return on Assets	Operating expenses/ loan portfolio	Operating expenses/ loan portfolio	Operating expenses/ loan portfolio
Log GLP	0.0582***	0.0582***	0.024	0.0582***	0.0582***	0.024
	(0.0151)	(0.0151)	(0.012)	(0.0151)	(0.0151)	(0.012)
Log GLP_LA	-0.0342*	-0.0342*	-	-0.0342*	-0.0342*	-
	(0.0194)	(0.0194)		(0.0194)	(0.0194)	
Rule	-0.1484	-0.1484	0.019	-0.1484	-0.1484	0.019
	(0.2030)	(0.2030)	(0.024)	(0.2030)	(0.2030)	(0.024)
rule_LA	0.1677	0.1677	-	0.1677	0.1677	-
	(0.210)	(0.210)		(0.210)	(0.210)	
Log GDPPC	-0.5134***	-0.5134***	-0.179	-0.5134***	-0.5134***	-0.179
	(0.167)	(0.167)	(0.074)	(0.167)	(0.167)	(0.074)
Log GDPPC_LA	0.3347**	0.3347**	-	0.3347**	0.3347**	-
	(0.162)	(0.162)		(0.162)	(0.162)	
Log domestic credit	0.0016	0.0016	0.002	0.0016	0.0016	0.002
	(0.0305)	(0.0305)	(0.030)	(0.0305)	(0.0305)	(0.030)
Year fixed effects	YES	YES	YES	YES	YES	YES
MFI fixed effects	YES	YES	YES	YES	YES	YES
SE clustered at country levels	YES	YES	YES	YES	YES	YES
F test for excluded instruments						
F(2,2157)	9.35	9.35	4	9.35	9.35	4
Prob>F	0.0001	0.0001	0.0457	0.0001	0.0001	0.0457

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Source: Compiled by the author.

dummy variable. We have found that an increase in return on assets significantly reduces poverty regardless of the choice of poverty threshold and inequality. On the other hand, the reduction in operating expenses as a share of loan portfolio leads to a reduction in both poverty and inequality. These results suggest that greater financial sustainability of MFIs will reduce poverty and inequality. It is noteworthy that the interaction between the Latin America dummy variable and was not statistically significant and thus not included in the model. That is, the poverty- and inequality-reducing roles of MFIs through the improvement of financial sustainability are observed for both India and Latin America.

We have applied the FE/IV model to estimate the effect of financial sustainability (FS_{ijt}) of MFIs on outreach measures with and without control variables. Generally speaking, we expect a trade-off between FS_{ijt} and outreach measures. The expected signs for the coefficient estimates for four different financial sustainability measures are shown in the first and fourth columns of table 4. We have found a few cases where the results are consistent with the trade-off between the two. First, if the MFI's debt is high in comparison with its equity (suggesting a lower level of financial sustainability), the percentage of female borrowers tends to be high (case 4). Second, if the ratio of operating expenses to loan portfolio or portfolio at risk (30 days) is high, average loan balance per borrower tends to be low (case 1). So, unlike the macro-level evidence in table 3 suggesting that better financial sustainability reduces poverty, the micro-level evidence implies that an improvement in financial sustainability may be possible at the expense of the outreach of microfinance programs.

CONCLUSION AND POLICY IMPLICATIONS

This article has compared the microfinance sectors in India and Latin America based on a survey of the literature as well as quantitative data analyses using panel data from microfinance institutions (MFIs). Conclusions and possible policy implications are summarized as follows. First, we have found that in India, better macro-institutional quality—such as rule of law, political stability, regulation quality, and control of corruption—is more important in improving the financial sustainability of MFIs. In this study, financial sustainability is proxied by return on assets, debt-to-equity ratio, operating expense ratio, and portfolio at risk. For instance, better rule of law, political stability, and control of corruption tend to reduce the portfolio at risk. This is consistent with recent studies that analyzed the causes of the Andhra Pradesh microfinance crisis, which argue that more stringent regulations of the microfinance sector and better corporate governance are crucial for the prevention of crises.

Second, our analyses suggest that the improvement in the financial sustainability of MFIs will reduce poverty and inequality at the country level in both India and Latin America, while there is some trade-off between the financial sustainability and outreach of each MFI. While it is generally necessary to pay attention to outreach measures, it might be more important to improve the financial sustainability of MFIs in order to reduce overall poverty and inequality at the macro level.[6] While we have suggested based on the survey of the literature that Latin America could learn how MFIs can tailor microfinance products better to target poor people, this may not be successful without improving financial sustainability. India should learn lessons from successful experiences entailing a more commercial approach and MFI regulations in Latin American countries. In other words, the main direction of learning should be from Latin America to India. However, there is scope for Latin American countries to learn some lessons from India in the areas of microsavings and microinsurance.

The results suggest that overall financial development is crucial to improving the financial sustainability of MFIs, particularly in India. This implies that for the development of the microfinance sector, overall financial development, including establishing better financial infrastructure, will play an important role. Another important factor,

TABLE 4
EFFECTS OF FINANCIAL SUSTAINABILITY ON OUTREACH MEASURES

VARIABLES DEPENDENT	Expected sign if a trade-off exists (cases 1 & 2)	Average loan balance per borrower (case 1)	Average loan balance per borrower (case 2)	Percentage of female borrowers (case 3 & 4)	Percentage of female borrowers (case 3)	Percentage of female borrowers (case 4)
Return on Assets	Positive	-106.1	-185.6	Negative	0.0178	0.0209
		(175.7)	(172.5)		(0.0332)	(0.0342)
Debt-to-Equity Ratio	Negative	0.0352***	0.00263	Positive	6.52e-07	2.57e-06***
		(0.0111)	(0.00301)		(5.80e-07)	(3.99e-07)
		-51.04**	-17.55		0.00125	0.00130
Operating expenses/loan portfolio	Negative	(23.97)	(21.51)	Positive	(0.00326)	(0.00363)
		-140.9**	28.82		-0.0146	-0.0244
			(71.57)		(0.0166)	(0.0184)
Portfolio at risk 30 days	Negative	(56.93)	1.045*	Positive		-0.119**
			(509.8)			(0.0463)
Rule			-1,583**			0.162***
			(716.0)			(0.0439)
rule_LA			692.9			0.00761
			(1,105)			(0.0321)
Log GDPPC			1,845**			0.0198
			(812.7)			(0.0556)
Log GDPPC_LA			184.7			0.151***
			(1,539)			(0.0474)
Log domestic credit			110.9			-0.158**
			(1,895)			(0.0572)
Log domestic credit_LA			18.94			-0.00514***
			(24.44)			(0.00180)
Log GLP			335.7***			-0.00141
			(63.49)			(0.00640)
Log GLP_LA			-263.5			
			(300,0)			
Year_1996		458.5	-21,513**		-0.0868*	-0.0293
		(302.6)	(8,514)		(0.0423)	(0.0335)
Constant		1.084***			0.785***	0.590
		(361.3)			(0.0493)	(0.368)
Year FEs		YES	YES		YES	YES
MFI FEs		YES	YES		YES	YES
SE clustered at country levels		YES	YES		YES	YES
Observations		3,856	3,856		3,516	3,516
R-squared		0.077	0.108		0.024	0.043
Number of MFIs		676	676		654	654

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Source: Compiled by the author.

especially in India, is designing better microfinance products and programs (e.g., with more flexible payment schedules; more group meetings) to achieve the goals of both financial sustainability and poverty reduction.

NOTES

[1]Recent studies based on randomized control trials (RCTs) show mixed results. Banerjee et al. (2015) applied RCTs at district levels to a group lending microcredit program in Hyderabad and found that consumption, health or women's empowerment did not significantly increase, while investment and profits improved as a result of the program participation. Field, Martinez, and Pande (2015) showed based on RCTs in Ahmedabad in Gujarat that access to microfinance increased the rates of female labor force participation and women's share of household income, though it had negligible impact on total household income.

[2]In 2011, the poverty rate, based on US$1.90 a day (2011 PPP), was 21.2% in India and 6.0% in Latin American countries (World Development Indicators, 2017).

[3]This will be reduced to 703 to 729 MFIs with 4165–4788 observations depending on the specification.

[4]We have also estimated random effects model. The choice of fixed effects model is guided by the Hausman specification test.

[5]Due to space restrictions, the preliminary equation used to estimate is not shown. The results are shown in the appendix.

[6]Because the measures of financial sustainability are not instrumented, the results will have to be interpreted with caution.

[7]If we replace financial sustainability measures with outreach measures in Model 2 (in Table 3), the latter is not statistically insignificant in the poverty equation.

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APPENDIX TABLE
IV ESTIMATION

VARIABLES	RETURN ON ASSETS				DEBT-TO-EQUITY RATIO			
	Case 1: IV	Case 2: IV	Case 3: IV	Case 4: IV	Case 5: IV	Case 6: IV	Case 7: IV	Case 8: IV
Rule of law	-0.0736				996.1**			
	(0.0936)				(388.3)			
Political stability		-0.0279				337.3***		
		(0.0354)				(124.9)		
Regulatory quality			-0.0495				709.8***	
			(0.0628)				(272.2)	
Corruption				-0.0663				758.2***
				(0.0843)				(287.2)
Log GLP	0.0196***	0.0203***	0.0189***	0.0217***	12.67**	7.842	17.43**	-1.266
	(0.00256)	(0.00240)	(0.00297)	(0.00299)	(6.152)	(5.351)	(7.011)	(6.108)
Log GDPPC	-0.158***	-0.135***	-0.136***	-0.160***	67.44	-267.0***	-193.8***	-24.35
	(0.0301)	(0.0248)	(0.0243)	(0.0311)	(110.8)	(74.92)	(67.04)	(82.64)
Log domestic credit	0.0396***	0.0335***	0.0453**	0.0315**	-79.94	0.157	-159.8**	26.45
	(0.0147)	(0.0125)	(0.0194)	(0.0128)	(48.76)	(38.30)	(70.01)	(41.28)
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
MFI fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
SE clustered at country levels	YES	YES	YES	YES	YES	YES	YES	YES
Observations	4,077	4,077	4,077	4,077	4,707	4,707	4,707	4,707
R-squared	0.016	0.022	0.019	0.017	-0.130	-0.019	-0.093	-0.067
Number of MFIs	626	626	626	626	675	675	675	675

VARIABLES	OPERATING EXPENSE RATIO				PORTFOLIO AT RISK			
	Case 9: IV	Case 10: IV	Case 11: IV	Case 12: IV	Case 13: IV	Case 14: IV	Case 15: IV	Case 16: IV
Rule of law	-0.140***	-0.145***	-0.137***	-0.152***	-0.0335***	-0.0177***	-0.0459***	0.00520
	(0.014)	(0.012)	(0.016)	(0.015)	(0.0066)	(0.0038)	(0.0079)	(0.0054)
Political stability	0.342				-1.215***			
	(0.427)				(0.272)			
Regulatory quality		0.128				-0.368***		
		(0.159)				(0.0615)		
Corruption			0.229				-0.790***	
			(0.285)				(0.160)	
Log GLP				0.303				-0.818***
				(0.377)				(0.150)
Log GDPPC	0.554***	0.456***	0.451***	0.574***	0.00146	0.358***	0.363***	0.0173
	(0.132)	(0.117)	(0.120)	(0.147)	(0.0689)	(0.0423)	(0.0520)	(0.0543)
Log domestic credit	0.102	0.133**	0.0768	0.143**	0.0939***	-0.00546	0.189***	-0.0594***
	(0.0686)	(0.0569)	(0.0896)	(0.0585)	(0.0342)	(0.0192)	(0.0461)	(0.0230)
Year fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
MFI fixed effects	YES	YES	YES	YES	YES	YES	YES	YES
SE clustered at country levels	YES	YES	YES	YES	YES	YES	YES	YES
Observations	4,089	4,089	4,089	4,089	4,274	4,274	4,274	4,274
R-squared	0.043	0.051	0.046	0.049	-0.972	-0.102	-0.622	-0.319
Number of MFIs	627	627	627	627	639	639	639	639

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Source: Compiled by the author.

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