Research Series on the Chinese Dream and China's Development Path

Yu Chai
Yunxia Yue *Editors*

Sino-Latin American Economic and Trade Relations

Springer

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Drawing on a large body of empirical studies done over the last two decades, the *Research Series on the Chinese Dream and China's Development Path* seeks to provide its readers with in-depth analyses of the past and present, and forecasts for the future course of China's development. Thanks to the adoption of Socialism with Chinese characteristics, and the implementation of comprehensive reform and opening, China has made tremendous achievements in areas such as political reform, economic development, and social construction, and is making great strides towards the realization of the Chinese dream of national rejuvenation. In addition to presenting a detailed account of many of these achievements, the authors also discuss what lessons other countries can learn from China's experience. This series will be an invaluable companion to every researcher who is trying to gain a deeper understanding of the development model, path and experience unique to China.

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Series Preface

Since China's reform and opening began in 1978, the country has come a long way on the path of socialism with Chinese Characteristics, under the leadership of the Communist Party of China. Over thirty years of reform efforts and sustained spectacular economic growth have turned China into the world's second largest economy and wrought many profound changes in the Chinese society. These historically significant developments have been garnering increasing attention from scholars, governments and the general public alike around the world since the 1990s, when the newest wave of China studies began to gather steam. Some of the hottest topics have included the so-called China miracle, Chinese phenomenon, Chinese experience, Chinese path, and the Chinese model. Homegrown researchers have soon followed suit. Already hugely productive, this vibrant field is putting out a large number of books each year, with Social Sciences Academic Press alone having published hundreds of titles on a wide range of subjects.

Because most of these books have been written and published in Chinese, however, readership has been limited outside China—even among many who study China—for whom English is still the lingua franca. This language barrier has been an impediment to efforts by academia, business communities, and policy-makers in other countries to form a thorough understanding of contemporary China, of what is distinct about China's past and present may mean not only for her future but also for the future of the world. The need to remove such an impediment is both real and urgent, and the *Research Series on the Chinese Dream and China's Development Path* is my answer to the call.

This series features some of the most notable achievements from the last 20 years by scholars in China in a variety of research topics related to reform and opening. They include both theoretical explorations and empirical studies, and cover economy, society, politics, law, culture, and ecology, the six areas in which reform and opening policies have had the deepest impact and farthest-reaching consequences for the country. Authors for the series have also tried to articulate their visions of the "Chinese Dream" and how the country can realize it in these fields and beyond.

All of the editors and authors for the *Research Series on the Chinese Dream and China's Development Path* are both longtime students of reform and opening and recognized authorities in their respective academic fields. Their credentials and expertise lend credibility to these books, each of which having been subjected to a rigorous peer review process for inclusion in the series. As part of the Reform and Development Program under the State Administration of Press, Publication, Radio, Film, and Television of the People's Republic of China, the series is published by Springer, a Germany-based academic publisher of international repute and distributed overseas. I am confident that it will help fill a lacuna in studies of China in the era of reform and opening.

Xie Shouguang

Preface

In the past few decades, the Sino-Latin American economic and trade relations, which started spontaneously, have received more and more attention. The relations began in the form of non-governmental economic and trade exchanges. Since the 1970s, the Sino-Latin American economic and trade relations have continued to expand and have deepened comprehensively in the twenty-first century. Economic globalization, China's rapid economic growth, and closer Sino-Latin American ties have laid a solid foundation for Sino-Latin American economic and trade relations.

Recently, Sino-Latin American relations have been on the rise. The two sides decided to set up a comprehensive partnership featuring equity, mutually beneficial results through common development, and a new integrated five-dimensional relationship featuring mutual political trust, economic and trade cooperation for common benefits, cultural exchanges, close coordination in international affairs, and comprehensive cooperation for improved bilateral ties. At the first China-CELAC Forum in Beijing at the beginning of 2015, the Sino-Latin American and Caribbean Cooperation Plan (2015–2019) discussed the key areas for cooperation and specific measures for the following five years. These key areas include: politics and security, trade and investment, financial development, infrastructure development, energy and resources, industrial development, agricultural development, science and technology, and people-to-people interaction. China later proposed the "3×3" model for Sino-Latin American production capacity cooperation to jointly build logistics, electricity, and information channels and to tap into more funding resources through funds, credits, and insurances based on Sino-Latin American cooperation projects with the joint effort of enterprises, societies, and governments. The Sino-Latin American economic and trade cooperation guidelines and system framework discuss strategic orientation and planning, key cooperation areas, and models that have launched and upgraded constantly.

The Institute of Latin America of the Chinese Academy of Social Sciences has placed a big focus on researching the Sino-Latin American economic and trade relations. Based on global circumstances, the stance of China, and the research on Latin America, the Institute has been committed to carry on academic research in this field. The institute will continue to innovate and lead Sino-Latin American

economic and trade relations, thus making the Institute quite influential academically with valuable academic achievements.

The Institute of Latin America of the Chinese Academy of Social Sciences features a patriotic, energetic, and cooperative research team, whose modest, innovative, and united members have not only published academic papers in the nation's most well-renowned journals, but also participated in the nation's strategic and policy planning, contributing great ideas, wisdom, and enthusiasm to Latin American economic research in China.

As the first step in our academic pursuit, this book will present the latest discoveries regarding Sino-Latin American economic and trade relations to the readers. Covering a wide range of topics including the history of Sino-Latin American economic and trade relations, the development of strategies and policies, trade, investment, the financial industry, industrial development, and international competition, the book provides a holistic picture of Sino-Latin American economic and trade relations with a special perspective on Sino-Latin American economic research.

Academic contention is an inevitable path for academic development. Therefore, any comments on the theories and methodology used in this book are welcome in the hope of continued success in the field of Latin American economic research.

Beijing, China

Yu Chai
Yunxia Yue

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After a relatively short gestation period, the *Research Series on the Chinese Dream and China's Development Path* has started to bear fruits. We have, first and foremost, the books' authors and editors to thank for making this possible. And it was the hard work by many people at Social Sciences Academic Press and Springer, the two collaborating publishers, that made it a reality. We are deeply grateful to all of them.

Mr. Xie Shouguang, President of Social Sciences Academic Press (SSAP), is the mastermind behind the project. In addition to defining the key missions to be accomplished by it and setting down the basic parameters for the project's execution, as the work has unfolded, Mr. Xie has provided critical input pertaining to its every aspect and at every step of the way. Thanks to the deft coordination by Ms. Li Yanling, all the constantly moving parts of the project, especially those on the SSAP side, are securely held together, and as well synchronized as is feasible for a project of this scale. Ms. Gao Jing, unfailingly diligent and meticulous, makes sure every aspect of each Chinese manuscript meets the highest standards for both publishers, something of critical importance to all subsequent steps in the publishing process. That high quality if also at times stylistically as well as technically challenging scholarly writing in Chinese has turned into decent, readable English that readers see on these pages is largely thanks to Ms. Liang Fan, who oversees translator recruitment and translation quality control.

Ten other members of the SSAP staff have been intimately involved, primarily in the capacity of in-house editor, in the preparation of the Chinese manuscripts. It is time-consuming work that requires attention to details, and each of them has done this, and is continuing to do this with superb skills. They are, in alphabetical order: Mr. Cai Jihui, Ms. Liu Xiaojun, Mr. Ren Wenwu, Ms. Shi Xiaolin, Ms. Song Yuehua, Mr. Tong Genxing, Ms. Wu Dan, Ms. Yao Dongmei, Ms. Yun Wei, and Ms. Zhou Qiong. In addition, Xie Shouguang and Li Yanling have also taken part in this work.

Ms. Li Yanling is the SSAP in-house editor for the current volume.

Our appreciation is also owed to Ms. Li Yan, Mr. Chai Ning, Ms. Wang Lei, and Ms. Xu Yi from Springer's Beijing Representative Office. Their strong support for the SSAP team in various aspects of the project helped to make the latter's work that much easier than it would have otherwise been.

We thank Mr. Jiashun Fan for translating this book. The translation and draft polish process benefited greatly from the consistent and professional coordination service by Beijing Moze International Culture Development Co. Ltd. We thank everyone involved for their hard work.

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Chapter 1
Sixty Years of Sino-Latin American Relations: Review and Reflection

Bingwen Zheng, Hongbo Sun and Yunxia Yue

1.1 Review on Sino-Latin American Relations

China's relations with Latin America and the Caribbean region (hereafter referred to as "Latin America") date back to ancient times. It is said that in the 5th century AD, Chinese Buddhist monks once sailed eastward across the ocean and visited the region today known as Mexico. As stated in both Chinese and foreign documents, the Maritime Silk Road during the rule of Emperor Wan Li in China's Ming Dynasty enhanced ties between Chinese and Latin American (hereafter referred to as "Sino-Latin American") people.[1] Despite this, Latin America was the last region to establish diplomatic ties with the People's Republic of China (the "New China"). China's ex-premier Zhou Enlai pointed out that Sino-Latin American friendly exchanges should be subject to incremental progressive growth; the two parties should not harbor excessively ambitious expectations.[2] Indeed, the New China's diplomatic relations with Latin America "started from scratch, and developed in line with a policy that advocates incremental and stable progress".[3] In the 1950s and 1960s, China started its communication with non-governmental sectors in Latin America. After numerous difficulties, China and Latin America finally reach two diplomatic peaks in the 1970s and 1980s. Since the very beginning of the 21st century, Sino-Latin American

[1] Luo, Rongqu (1988: 91), *Chinese People's Mysterious Discovery of America: Essays on Historical Connections between China and America*. Chongqing: Chongqing Press.

[2] Huang, Zhiliang (2004: 58), *Rediscovering the Americas: Zhou Enlai and Latin America*. Beijing: World Affairs Press.

[3] Yang, Wanming (2008: 119), *A Study on China's Diplomatic Policy toward Latin American Nations (1990–2006)*. A Doctorate Dissertation submitted to the graduate school of Chinese Academy of Social Sciences.

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relations have been heading toward a "development in leaps". Throughout the past 60 years, Sino-Latin American ties "began from zero, and expanded from specific fields to a wide range of areas, moving from small exchanges to extensive high-level communications".[4] In the process, "incremental and leap-forward development" was a highlighted feature of Sino-Latin American relationships.

1.1.1 Stage One: Non-governmental Exchanges (1949–1969)

For more than two decades after the foundation of the People's Republic of China, Sino-Latin American exchanges only took place in non-governmental sectors. In a polarized global power pattern, the East and the West stood against each other, making it hardly possible for the New China to establish official diplomatic contact with Latin America. The major barriers included "hindrance by the United States, biases against communism on the part of leaders in Latin American nations, as well as interference and sabotage by political forces in Taiwan".[5] The United States turned against the New China, imposing policies for political isolation, economic blockades and military threats. The US "strictly prohibited any Latin-American government from getting in official contact with the New China, and even thwarted and sabotaged legitimate trade between Latin America and China".[6] Overshadowed by the United States' political, economic and military control, Latin American nations generally lacked trust in the New China and chose to maintain their so-called "diplomatic ties" with China's Taiwan region. In the United Nations and other international institutes, Latin American nations were aligned with the United States and opposed the restoration of the lawful rights of the People's Republic of China. Given the multiple barriers in the way of Sino-Latin American relations, Premier Zhou Enlai identified a guideline policy for the New China and Latin American nations, saying that they should "actively develop non-governmental diplomacy, make efforts to establish friendly ties, and develop cultural and economic exchanges, so as to move toward official diplomatic relations. Premier Zhou also pointed out that China should stably move forward in its relations with Latin American nations; in terms of bilateral non-governmental exchanges, actual Latin American conditions must be properly considered, so as to prevent harming or troubling friends in Latin America".[7] The "incremental" development of Sino-Latin American relations started with "non-governmental exchanges", which was actually a strategic detour the New China then

[4] Yang, Wanming (2008: 126), *A Study on China's Diplomatic Policy toward Latin American Nations (1990–2006)*. A Doctorate Dissertation submitted to the graduate school of Chinese Academy of Social Sciences.

[5] Huang, Zhiliang (2007: 2), *Facts in the Establishment of Sino-Latin American Diplomatic Ties*. Shanghai: Shanghai Lexicographical Publishing House.

[6] Huang, Zhiliang (2004: 51), *Rediscovering the Americas: Zhou Enlai and Latin America*. Beijing: World Affairs Press.

[7] Huang, Zhiliang (2004: 52), *Rediscovering the Americas: Zhou Enlai and Latin America*. Beijing: World Affairs Press.

had to make to counter difficulties in establishing official ties with Latin America. China hoped to bring about "official" ties via "non-governmental" contacts while waiting and seeking political breakthroughs in its diplomatic relations with Latin America.

In line with this non-governmental diplomatic policy, China took the initiative to develop non-governmental exchanges with Latin America, organizing diverse events for cultural and economic communication. Incomplete statistics shows that about 1200 people from 19 countries in Latin America visited China between 1950 and 1959[8]; during the same period, China sent 16 artistic, cultural, economic and trade delegations, among others, to Latin America.[9] Such non-governmental exchanges helped Latin American people deepen their understanding of China. Many Latin American nations established non-governmental organizations, such as associations for Chinese culture, associations for friendship with China, representative offices for commerce with China, etc., which bridged Sino-Latin American at the non-governmental level. In this context, Sino-Latin American trade volume increased from tens of millions of US dollars in the 1950s to 2.1 billion US dollars in the 1960s.[10] Non-governmental exchanges, as they increased, gradually witnessed an emerging trend in Latin America that called for "official" Sino-Latin American relations. After Cuba successfully concluded its revolution, it established diplomatic ties with China in September, 1960, making it the first Latin American nation to establish diplomatic relations with the New China. During that period, the Chinese government and people actively supported the people of all Latin American nations in their justified fight for national independence against imperialism and colonialism. Examples include China's support to the Panamanian in taking back sovereignty over the Canal Zone, its support to Latin American nations in defending their rights over a maritime territory equivalent to 200 nautical miles, as well as China's contribution to efforts for the establishment of the Latin-America nuclear-free zone, etc.

1.1.2 Stage Two: Peaks in the Establishment of Diplomatic Ties (1970–1977)

In the 1970s, China reached its first peak in the establishment of diplomatic ties with Latin America. Back in the 1950s, not a single Latin American nation was in a diplomatic relationship with China. Cuba's establishment of diplomatic ties with China in the 1960s could be regarded as an exception resulting from Cuba's successful revolution. This peak in Sino-Latin American diplomatic relationships is a political breakthrough in terms of bilateral "incremental" development, and can

[8]Li, Mingde (ed.) (2001: 464), *Latin America and Sino-Latin American Ties: Today and the Future*. Beijing: Current Affairs Press.

[9]Xu, Shicheng (2006: 238), *Latin American Politics*. Beijing: China Social Sciences Press.

[10]Li, Mingde (ed.) (2001: 500), *Latin America and Sino-Latin American Ties: Today and the Future*. Beijing: Current Affairs Press.

be attributed to a number of factors. From the end of the 1960s to the beginning of the 1970s, the US economy got entangled in "Stagflation", weakening its economic strength and international competitiveness. As a result, a new situation emerged amid the global competition between the US and the USSR, where "the USSR gained the upper hand".[11] At the same time, third world countries became a force that could not be neglected in the global arena, and called for the establishment of a new order in international politics and economy. As human history stepped into the 1970s, the frozen relations between China and the United States began to thaw. In October 1971, the 26th General Assembly of the United Nations restored the legitimate rights of the People's Republic of China in the UN, recognizing that the representatives of the Government of the People's Republic of China were the only lawful representatives of China in the United Nations and making the People's Republic of China (PRC) one of the five permanent members of the Security Council. The PRC gained an unprecedentedly high status in the international community. In 1974, Chairman Mao presented his "Three Worlds" strategy, pointing out: "All in Asia but Japan belong to the third world, i.e. the developing world. Africa as a whole is part of the third world. So is Latin America".[12] Against such backdrop, some Latin American leaders gradually came to realize that Latin America shared common interests with developing nations across Africa and Asia. They began to identify as part of the developing world, and adopted foreign policies that advocated self-reliance and independence, seeking diversity in foreign relations.[13] At the 26th General Assembly of the United Nations, 7 Latin American nations, namely Chile, Peru, Ecuador, Guiana, Mexico, Cuba and the Republic of Trinidad and Tobago, voted for restoring the lawful seats of the People's Republic of China.[14] In an ever-changing world, Premier Zhou Enlai once "forecasted that the establishment of diplomatic ties between Latin America the New China would soon reach new summits".[15]

In the aforesaid international situation, some Latin American nations, considering their own international influence and practical interests, could no longer avoid the issue of establishing diplomatic ties with the People's Republic of China, finally deciding to do so.[16] Between 1970 and 1974, China successively established diplomatic ties with 9 nations including Chile, Peru, Mexico, Argentina, Venezuela and

[11] Xie, Yixian (ed.) (1997: 298–231), *China's Contemporary History of Diplomacy*. Beijing: China Youth Publishing Group.

[12] Mao, Zedong (1994: 600–601), On Distinguishing Three Worlds (written on February 22nd, 1974), in *Anthology of Essays by Mao Zedong on Diplomacy*. Beijing: Central Party Literature Press/World Affairs Press.

[13] Boersner, D. (1990: 267–272), *A Brief History of International Relations in Latin America*, translated by Yin Hengmin. Beijing: Commerical Press.

[14] Sha Ding & Yang Dianqiu et al. (1986: 353), *A Brief History of the Relationship between China and Latin America*. Zhengzhou: Henan People's Press.

[15] Huang, Zhiliang (2004: 193), *Rediscovering the Americas: Zhou Enlai and Latin America*. Beijing: World Affairs Press.

[16] Yang, Wanming (2008: 123), *A Study on China's Diplomatic Policy toward Latin American Nations (1990–2006)*. A Doctorate Dissertation submitted to the graduate school of Chinese Academy of Social Sciences.

Brazil, etc. In the second half of the 1970s, China established diplomatic ties with Suriname and Barbados. By the end of the 1970s, China had diplomatic ties with 12 Latin American nations. After their establishing diplomatic ties with the People's Republic of China, leaders from nations like Mexico and Guiana successively came to visit China to expand trade and economic cooperation. Statistics show that in the 1970s, over 50 bilateral Chinese and Latin American economic and trade delegations were sent.[17] During this period, China concluded economic and trade agreements with nations such as Chile, Peru, Mexico and Argentina, among others. The bilateral trade volume between China and Latin America exceeded 3 billion US dollars in total, and hundreds of commodities were traded.[18] Moreover, China also provided interest-free loans to nations like Guiana, Jamaica, Peru, etc., and provided assistance to textile factories, etc.

1.1.3 Stage Three: Equality, Mutual Benefits, and Common Development (1978–1992)

The year 1978 marks the beginning of China's "reform and opening up" policy. China's foreign policies, including its policy toward Latin America, also underwent changes. China came to pay more attention to its economic cooperation and trade with Latin America on the basis of its consolidated and expanded diplomatic ties with the continent. In line with Deng Xiaoping's strategic judgment that "peace and development are the two themes of our times", China's foreign policy came to focus mainly on two points: first, securing a comparatively long period of international peace, so that socialist economic development within China wouldn't be disturbed; and second, expanding China's foreign economic cooperation and foreign trade. During that period, Latin American countries were struggling to get out debt and successively opened themselves to an export-oriented economy. In October 1985, the Chinese heads of state and government visited Latin America, and China proposed four principles for its relationship with Latin America, namely: "Peace and friendship, mutual support, equality and mutual benefits, and common development".[19] In May 1988, Deng Xiaoping received the president of Argentina, Raúl Ricardo Alfonsín, in China and pointed out that it was China's sincere hope to see the concomitant emergence of the Pacific era, the Atlantic era and the Latin America era, while also stressing the two issues that faced the world, i.e. peace and development.[20] In November of the same year, during his meeting with Julio María Sanguinetti, president of Uruguay,

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[17] Li, Mingde (ed.) (2001: 502), *Latin America and Sino-Latin American Ties: Today and the Future*. Beijing: Current Affairs Press.

[18] Data Source: "Online statistical manual" by UNCTAD.

[19] XieYixian (1997: 442) (Editor), *A History of China's Contemporary Diplomacy*, Beijing: China Youth Press.

[20] CCCPC Party Literature Research Office (2004: 1230–1231) (Ed.), *Annual Records of Deng Xiaoping: 1975–1997 (Second Volume, May 15th, 1988)*. Beijing: CPPCC Party Literature Press.

Deng Xiaoping made it clear that "China's policy was to establish and maintain sound relations with Latin American nations, and make Sino-Latin American relations a model for South-South Cooperation".[21] Guided by Deng Xiaoping's strategy, China's diplomatic ties with Latin America transcended differences in ideology and social systems, and emphasized that nations should "observe the five basic principles of peaceful coexistence", while different parties should follow four principles, i.e. "independence, complete equality, mutual respect, and non-interference in each other's internal affairs", so as to allow for the better development of China and Latin America's friendly cooperation.

With such adjustments in China's policies toward Latin America, both sides witnessed high-level bilateral visits in the 1980s, bringing about the second peak in the establishment of diplomatic ties between China and Latin America. In October 1981, Chinese government heads paid an unprecedented visit to Latin America, and heads of state from Argentina, Brazil and other major Latin American nations successively visited China.[22] Between 1980 and 1988, China successively established diplomatic ties with Colombia, Ecuador, Bolivia, Uruguay, Antigua and Barbuda, Grenada, Nicaragua and Belize.[23] By the end of the 1980s, China established diplomatic ties with 17 Latin American nations (not including the three nations that terminated their diplomacy with China), further consolidating and expanding its diplomatic influence in Latin America.

China's "reform and opening up" brought China and Latin America's economic ties and trade to a new stage. During the 15 years between 1978 and 1992, total trade volume between China and Latin America reached 29 billion US dollars, a number five times the total volume of the 27 years prior to China's "reform and opening up".[24] China signed 17 agreements for cooperative or joint-investment projects with Mexico, Brazil, Chile, Argentina and 5 other nations, covering forestry, fishery, textiles, etc. Moreover, China actively explored scientific and technological cooperation and communication with Brazil, Argentina, Venezuela and other nations in fields such as agriculture, aeronautics, oil prospection, and so on.

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[21] CCCPC Party Literature Research Office (2004: 1257) (Ed.), *Annual Records of Deng Xiaoping: 1975–1997 (Second Volume, November 7th, 1988)*. Beijing: CPPCC Party Literature Press.

[22] Presidents of Argentina, Brazil, Mexico, Ecuador, Nicaragua, Guyana, and other countries, and Prime Ministers of Peru, Barbados, Antigua and Barbuda, Trinidad and Tobago, Belize, etc., visited China. Quoted from Hong Yuyi (1996: 507–508) (editor), *A Sketch of the History of Relations with Latin America*, Beijing: Foreign Language Teaching and Research Press.

[23] On October 1st 1985, Grenada established diplomatic ties with China, and on August 7th 1989 terminated the ties, but later, on January 20th 2005, resumed diplomatic relations with China; Nicaragua, on December 7th 1985, established diplomatic ties with China, and on November 9th 1990 terminated the ties; Belize on February 6th 1987 established diplomatic ties with China, and on October 23rd 1989 terminated the ties. Quoted from Xu Shicheng (2006: 242), *Latin American Politics*, Beijing: China Social Sciences Press.

[24] Source: UNCTAD, "the online Handbook of Statistics".

1.1.4 Stage Four: Establishment of Long-Term Stable Relations (1993–2000)

In the 1990s, China's achieved great success in terms of its "reform and opening-up" and attracted and influenced Latin America. Latin American countries in general attached great importance to relations with China, with more than 30 heads of state and government visiting China and Chinese leaders paying state visits to more Latin American countries more frequently. China and Brazil established a long-term, stable and mutually beneficial strategic partnership in November 1993, which marked a new beginning in Sino-Latin America relations. When he met with Cuban leader Fidel Castro in November 1995, President Jiang Zemin said: "Enhancing unity and cooperation with developing countries including Latin American countries is the foundation of Chinese diplomacy."[25] China and Latin American countries are all developing countries, and President Jiang stressed in his December 1997 speech delivered at the Mexican Senate that "China and Latin American countries should adopt an historical perspective, look into the future and enhance cooperation between both sides, which is not only in the interest of people in China and Latin America, but also plays a significant part in enhancing the comprehensive strength of developing countries in the world economy and promoting their role in international affairs."[26] As China and Latin American countries were playing increasingly important roles in each other's foreign affairs, it was quite urgent for the both sides to establish long-term and stable relations.

China and Latin America achieved great progress in terms of friendly cooperation in all areas in the 1990s. In 1997, China established diplomatic relations with the Bahamas and Saint Lucia. By the end of the 1990s, China had established diplomatic relations with 19 Latin America countries.[27] China engaged in relations with the Rio Group, MERCO and other regional organizations in Latin America via dialogue and consultation mechanisms. China formally joined the Caribbean Development Bank in January 1998. From 1993 to 2000, the total bilateral trade volume reached 58.5 billion dollars, double from that of 1978–1992.[28] Also, Sino-Latin American countries made remarkable progress in terms of investment and economic cooperation. China invested 1 billion US dollars in Latin America, most of which was directed to cooperation projects in areas such as iron ore and oil with Peru and Venezuela.[29] In addition, bilateral scientific cooperation was initially successful; especially the

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[25] *Dialogue between President Jiang Zemin and President Castro (November 30th, 1995)*, People's Daily, first edition, December 1st, 1995.

[26] Jiang Zemin, *Promote Friendship and Cooperation to create a better future—a speech at the Mexican Senate(December 2nd, 1997)*, People's Daily, sixth edition, December 4th, 1997.

[27] Saint Lucia established the diplomatic tie with China on September 1, 1997, and then suspended it on May 5, 2007, Xinhua Net, on May 6, 2007, http://news3.xinhuanet.com/mrdx/2007-05/06/content_6062975.htm.

[28] Sources: UNCTAD, "UNCTAD Handbook of Statistics".

[29] Li Mingde, *Latin America and Sino-Latin American Relations—Today and Tomorrow*, Beijing, Current Affairs Press, 2001, p. 565.

jointly developed CBERS-1 launched by China and Brazil in October 1999, which resulted in social and economic benefits.

1.2 "Leap-Forward Development" of Sino-Latin American Relations in the New Century

In the 21st century, Sino-Latin American relations have developed into the fifth phase, the phase of "leap-forward" development. After 50 years of "incremental" development, in 2001 China and Latin America adopted a new diplomatic pattern featuring "leap-forward" development. The features of incremental development and leap-forward development were clearly exposed and this development pattern, referred to as a "golden baby" by Zhou Enlai, was finally achieved bilaterally.

The critical breakthrough from "incremental" to "leap-forward" development was brought about by the critical strategic development opportunities China and Latin America enjoyed in the early 21st century. After the 9/11 attacks, the George W. Bush administration, troubled by the wars in Afghanistan and Iraq, was too busy with international anti-terrorism campaigns to watch over Latin America. At the same time, China's comprehensive power was greatly enhanced, allowing it to become a major economy in the world. The successful state visit President Hu Jintao paid to Latin America in November 2004 also brought new development opportunities for Sino-Latin American relations. China's trade demands changed Latin American trade conditions and instigated a new round of economic growth in the region from year 2003 to 2008 at an average annual rate of 5%.[30] President Hu Jintao put it: "China is developing, so is Latin America. There are new requirements and conditions for deepening cooperation. China and Latin America are enjoying unprecedented historical opportunities."[31]

At present, the "leap-forward" development of Sino-Latin American relations is progressing faster and more profoundly than ever before, with new multi-layered, wide-ranging and comprehensive bilateral relations involving both government and people. High-level bilateral exchanges become more frequent and cooperation in areas such as economy and trade, science and technology, and culture and education, among others, are continuously deepening. The "leap-forward" development of Sino-Latin American relations is more successful than ever before, especially in terms of mutual political trust, economic and trade cooperation, cooperation channels and new cooperation mechanisms. The "leap-forward" development of Sino-Latin American relations has manifested itself in the following six features.

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[30] Su, Zhenxing (2009: 9), Latin America in 2009: China's New Opportunities in Going Global, as in *2008–2009 Development Report of Latin America and the Caribbeans* edited by Su Zhenxing. Beijing: Social Sciences Academic Press.

[31] Hu Jintao, Join Hands in Creating a Friendly Future for China and Latin America: a Speech Delivered at the National Congress of Brazil on November 12th, 2004, publicized on the first page of *People's Daily* on October 14th, 2004.

First, Sino-Latin American relations reached a new strategic height. While the world is undergoing great changes and adjustments, and the multi-polarization of world seems irreversible, China and Latin America have more and more common interests and play a more important strategic role in each other's foreign affairs. After Brazil, China established strategic partnerships with Venezuela, Mexico, Argentina and Peru between 2001 and 2008. In November 2008, the Chinese government issued the first *China's Policy Paper on Latin America and the Caribbean*, which clearly states that "the Chinese government regards Sino-Latin American relations from the perspective of strategic cooperation, and is committed to establishing and developing a comprehensive partnership featuring equality and mutual benefits".[32] On November 20th of the same year, President Hu emphasized in his speech at the Peruvian Congress that "from the perspective of strategic partnership, China has always valued its friendly relations with Latin America; the integration of common interests enjoys an unprecedented depth, and Sino-Latin American relations stand at an unprecedented high".[33] As emerging markets are developing quickly, international powers experience intense reorganization, which will surely exert a great impact on their distribution pattern. As far as the western hemisphere is concerned, we witness an enhanced regional cohesion among Latin American countries and the diversification of their foreign policies. Mexico prioritizes the development of relations with the US and Canada, while Brazil endeavors to consolidate and enhance its position as a major country in South America. Pushed by economic and trade relations, China has become a significant strategic partner in the diversified foreign policies of Latin American countries. Russia refocuses on Latin America by trying to restore its traditional influence, while India and Iran are making efforts to develop relations with Latin America. By contrast, the influence of the US and the EU on Latin America is decreasing. US-Latin American relations have been fluctuating, especially since the 9/11 attacks, and since President Obama took office entered the "adjustment process". The EU saw its relations with Latin America develop at a slower pace, as it ignored Latin America's interest demands for an enlarged market in the EU. The current complicated international situation could allow China and Latin America to become important strategic partners able to support each other.

Second, Sino-Latin American relations are striving towards a more balanced geopolitical situation. Brazil and Argentina are both major countries in South America, and Mexico keeps tight geopolitical and economic relations with the US. Brazil, Mexico and Argentina have become three pillars for the development of Latin America and emerging political forces promoting the multi-polarization of the international system. Peru, Venezuela, Chile and other middle-sized emerging countries in South America are gaining regional and international influence. The strategic partnerships or comprehensive partnerships that China established with the above countries make

[32] China's Policy toward Latin America and the Caribbeans, www.news.cn, on November 5th, 2008, http://news.xinhuanet.com/newscenter/2008-11/05/content_10308177_1.htm.

[33] Hu Jintao, Jointly Build Cooperative Partnership at All Fronts between China and Latin America in the New Era: A Speech Delivered at the National Congress of Peru on November 20th, 2008, publicized on Page 3 of *People's Daily* on November 22nd, 2008.

China's international geopolitical patterns increasingly balanced in a way that both enhances China's capability to grasp overall Latin American diplomacy and promote its geopolitical flexibility in terms of Sino-Latin American diplomatic relations. China established diplomatic relations with Costa Rica in May 2007, which further enhanced China's influence in Central America. China established consultation mechanisms with Caribbean countries, and issued a Joint Press Communique along with 10 of them after a third consultation held in Beijing in 2006. Both sides have agreed to strengthen economic and trade cooperation, encourage and support bilateral enterprises, so as to increase contact and cooperation within the framework of the China-Caribbean Economic and Trade Cooperation Forum. Caribbean countries play a fundamental role in China's overall diplomacy and are viewed as important diplomatic resources.[34]

Third, both sides endeavor to achieve all-round cooperation. China and Latin America deepened political trust, with 21 Latin American countries having set up diplomatic relations with China. More than 90 speakers and heads of state and government have paid visits to China since 2000, and Chinese leaders visited more than 20 countries in Latin America. The Communist Party of China established new inter-party relations with more than 80 political parties in Latin America and promoted exchanges as well as bilateral cultural communication between government departments, with more than 102 sister provinces, states and cities pairings.[35] China has signed intergovernmental agreements for scientific and technological cooperation with more than 10 Latin American countries, and the three Earth Resources Satellites jointly developed and launched by China and Brazil have been hailed as "the example of South-South Cooperation in terms of high technology".[36] Up to now, 19 Latin American countries have become tourist destinations for Chinese citizens. China signed cultural and educational communication agreements with most of the countries which have established diplomatic relations with China, and established a number of Confucius Institutes in countries like Mexico, Brazil and Chile to promote cultural and people-to-people exchanges. China's Policy Paper concerning Latin America and the Caribbean makes out a vision for future development of Sino-Latin American relations, including four aspects (political, economic and trade, cultural and security cooperation) and more than 30 specific fields, setting a direction for the comprehensive promotion of Sino-Latin American relations.[37]

Fourth, China and Latin America enjoy a diversified economic and trade cooperation. At present, China is the second largest trading partner of Latin America, and Latin America is China's second largest overseas investment destination, with

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[34] Yang, Wanming (2008: 109), *A Study on China's Diplomatic Policy toward Latin American Nations (1990–2006)*. A Doctorate Dissertation submitted to the graduate school of Chinese Academy of Social Sciences.

[35] Su, Zhenxing (2009: 3), Latin America in 2009: China's New Opportunities in Going Global, as in *2008–2009 Development Report of Latin America and the Caribbeans* edited by Su Zhenxing. Beijing: Social Sciences Academic Press.

[36] Hu Jintao's Field Tour to China-Brazil Cooperative Aeronautic and Aviation Project on November 15th, 2004, publized on the first page of *People's Daily on November 16th, 2004.*

[37] See Footnote 32.

Chinese factors being "the important engine driving the development of the Latin American economy".[38] Particularly since 2003, China and Latin America have seen relatively stable, fast and synchronous economic growth, leading to the rapid growth of bilateral trade, investment and economic cooperation, and a steady rise in China's total foreign trade (Fig. 1.1). In 2008, in comparison with 2003, the trade volume between China and Latin America nearly quadrupled, Latin America's investment in China doubled, and China's investment in Latin America nearly quadrupled.[39] China has now signed a Free Trade Agreement (FTA) with Chile and Peru, and an FTA with Costa Rica was expected to be signed by 2009. By signing FTAs with Latin American countries, China has an opportunity to further tap into their economic and trade cooperation potential within systematic frameworks. Financial cooperation is becoming the new highlight of Sino-Latin American economic and trade relations, with traditional concessional loans yielding to various forms of financial cooperation, e.g., resource development, infrastructure construction and currency swap. Moreover, China carried out a variety of economic and technological cooperation and aid projects with Cuba, Guyana, Suriname, Dominic and Ecuador, of which aquaculture, rice cultivation and infrastructure construction constitute the foundations. In general, Sino-Latin American relations display a diversified pattern of "equal emphasis on trade and investment, ongoing transformation of financial cooperation, and economic and technological cooperation via aid projects".

Fifth, bilateral relations mechanisms have been set up. China established and improved consultation and dialogue mechanisms with most of Latin American countries in diplomatic relations with China, covering a number of fields such as politics, economy and trade, and science and education. These bilateral mechanisms not only facilitate the fast development of Sino-Latin American relations, but also serve as tools deepening bilateral ties. For example, in order to strengthen economic and trade cooperation between China and Caribbean countries, China advocated establishing the "China-Caribbean Economic and Trade Cooperation Forum" in 2005. To deepen the partnership with Brazil, China established with Brazil a mechanism for strategic dialogue in April 2007. In August 2009, China and Mexico held a strategic dialogue for the first time. Moreover, new progress was made in developing bilateral relation mechanisms with regional and sub-regional Latin American organizations. Based on the dialogues with the foreign ministers of the Rio Group, China set up a ministerial political consultation mechanism with the Andean Community in 2000. China is also a full member of the Caribbean Development Bank and the Inter-American Development Bank, and an observer of the Organization of American States, the Latin American Parliament, the Economic Commission for Latin America and Caribbean, and the Latin American Integration Association. The relation between Sino-Latin American organizations and comprehensive Sino-Latin Ameri-

[38] Javier Santiso, translated by Wang Peng, *The Visible Hand of China in Latin America*, Beijing, World Affairs Press, 2009, p. 4.

[39] Statistics of import and export from the website of Ministry of Commerce of China: http://www.mofcom.gov.cn/tongjiziliao/tongjiziliao.html.

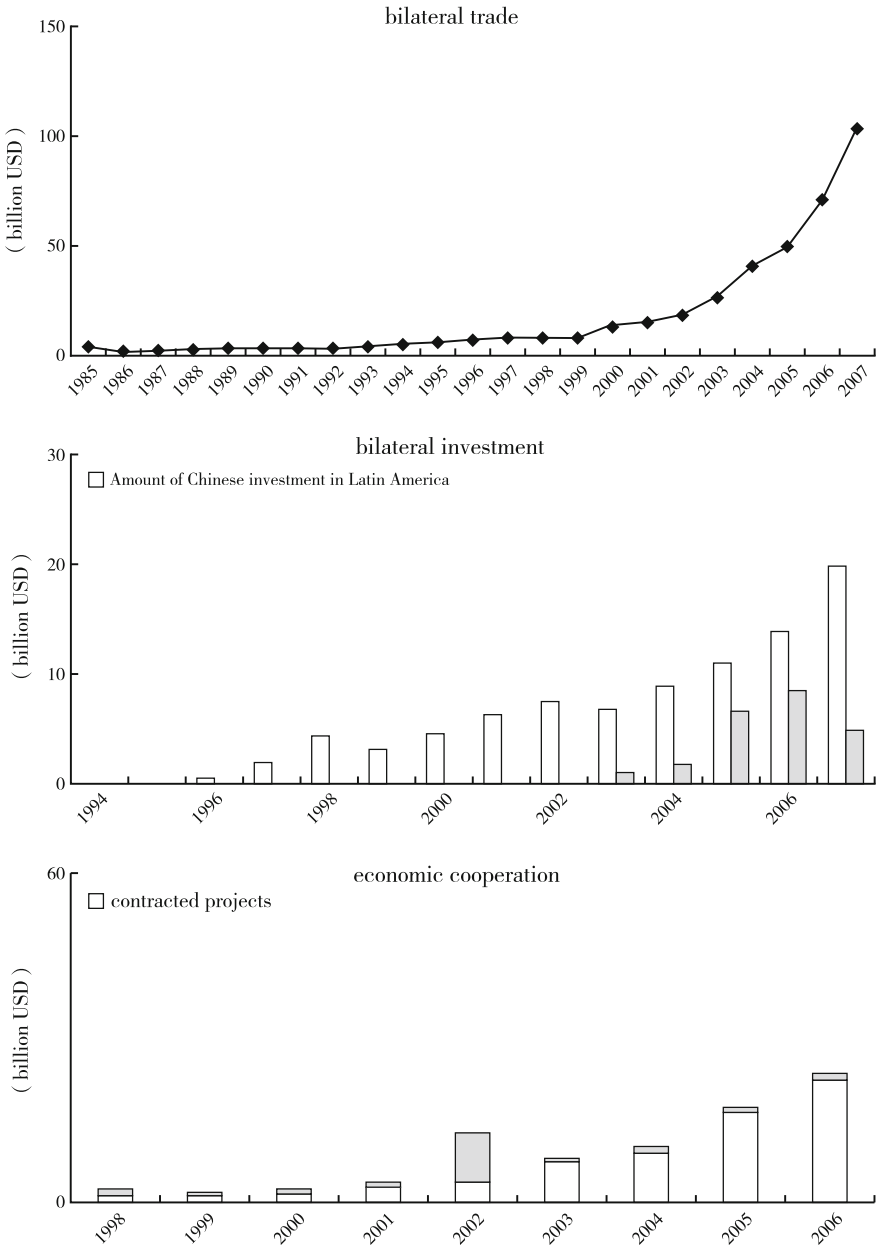

Fig. 1.1 Sino-Latino economic and trade cooperation development. *Data source* National Bureau of Statistics of the PRC, *China Statistical Year Book (1983–2008)*, China Statistics Press

can relations have become stronger, "Latin American organizations have become an important platform for Chinese leaders to state policies related to Latin America".[40]

Sixth, China and Latin America are focusing on the enhancement of international multi-lateral cooperation. Influenced by the current international financial crisis, relations between China and Brazil, Argentina, Mexico and other major countries in Latin America are taking global dimensions, which is conducive to the enhancement of the capability of developing countries to jointly set agendas and negotiate in international multilateral fields. China and Latin America share many consensus, and should coordinate positions to expand cooperation in fields of international multinational cooperation, the reform of the United Nations, the reform of the international financial system, the Doha Round of the World Trade Organization Talks, and the United Nations Climate Change Talks, for example.

In terms of the reform of the United Nations, China could continue to consult and dialogue with Brazil, Mexico, Argentina and other major countries in Latin America, and support the promotion of the representativeness of developing countries, including Latin American countries. The Inter-American Dialogue, a think tank based in the United States, believes that China's international affairs judgments tend to be coincident with those of Latin America, as are their voting behaviors in the United Nations.[41] The BRICs pointed out in a joint statement that Brazil's position in international affairs should be valued, and its aspiration to play a greater role in the United Nations should be understood and supported.[42]

In order to enhance the representativeness of emerging economies and their right to vote, China could conduct active consultation with the above three Latin American countries within the frameworks of the G20, the BRICs and the G8+5, so as to promote the reform of the international financial system centered on the IMF and the World Bank. China published an article titled *Reforming the International Monetary System*, which suggested that the ideal target would be to create an international reserve currency decoupled from sovereign states but able to maintain a stable value,[43] to which Brazil, Argentina, Venezuela and other Latin American Countries made positive responses. Brazilian President Lula expressed clearly that the Chinese proposal to create a new international reserve currency alternative to the dollar is

[40] Yang, Wanming (2008: 112), *A Study on China's Diplomatic Policy toward Latin American Nations (1990–2006)*. A Doctorate Dissertation submitted to the graduate school of Chinese Academy of Social Sciences.

[41] Jorge I. Dominguez, "China's Relations With Latin America: Shared Gains, Asymmetric Hopes", Inter-American Dialogue, Working Paper, June 2006, pp. 12–13.

[42] BRICS Leaders' Joint Declaration at Yekaterinburg Meeting, Russia, by www.news.cn on June 17th, 2009, http://news.xinhuanet.com/world/2009-06/17/content_11553282.htm.

[43] On Reforms of International Currency System, Zhou Xiaochuan, Official Website of People's Bank of the People's Republic of China, on March 23rd, 2009, http://www.pbc.gov.cn/detail_frame.asp?col=4200&id=279&keyword=&isFromDetail=1.

"effective and appropriate", and he also pointed out that the local currency settlement of bilateral trade between Brazil and Argentina is similar to China's proposal.[44]

In order to create a fair, reasonable, open and non-discriminatory international multilateral trade system, China could maintain close cooperation with Latin America within the framework of the WTO. The Doha round of negotiations were at a standstill due to the fact that no consensus was reached on key issues e.g., agriculture subsidiary reductions, non-agricultural product tariff reductions, and service industry openness between developing and developed countries. Since they were launched in 2001, the Doha negotiations have been progressing at a fairly slow pace. China played an active and constructive role in the Doha negotiations. Upholding positions similar to China, Brazil, Argentina and other Latin American countries urged that the outcomes of the negotiations should allow more space for the development of the agriculture of developing countries, so that these could be integrated into global economy and enjoy more development opportunities.

Within the framework of the United Nations Climate Change Talks, China and Latin American countries have been offered policy space to uphold the principle of "common but differentiated responsibilities" aimed at a strengthened cooperation. To protect Chinese and Latin American common interests, both sides should urge developed countries to fulfill their promises of providing technical transfer and financial support to developing countries and helping developing countries in capacity building.

In conclusion, in the "leap-forward" development stage, the respective comparative advantages of China and Latin American countries could be made full use of by expanding cooperation. Both sides should treat each other as important partners in diversifying market choices, so as to allow a broader economic and trade cooperation to extend the cooperation chain and expand cooperation fields. Both China and Latin American countries should strengthen multilateral cooperation in the international arena to protect their common interests. The "leap-forward" development stage has just begun, and economic factors, as important indicators of this "leap-forward" development, will continuously inject impetus to the deepening of the bilateral relations.

1.3 Economic Factors in Sino-Latin American Relations

In the new millennium, Sino-Latin American relations have undertook a "leap-forward development" based on mutual political trust and common values formed during a 50-year incremental development period. The important catalytic factor is both parties' mutual demand for economic growth, which is the inevitable result of their social development. From 2003 to 2008, Latin America enjoyed the most robust

[44]Brazil thinks China's Proposal concerning International Reserve Currency is "Effective and Proper", by www.news.cn on March 27th, 2009, http://news.xinhuanet.com/world/2009-03/27/content_11081349.htm.

post-war economic growth, with accumulative GDP increase of nearly 30%.[45] Meanwhile, the Chinese economy grew at the fastest pace and in the most stable manner during the five years from 2003 to 2007 at an annual rate of 10.6% and with an annual volatility of no more than 1 percentage point. Affected by the 2008 global financial crisis, China's GDP growths lightly slowed down, nonetheless reaching 9%.[46] China's economic growth brought about a huge demand for raw materials, which drove the economic growth of Latin America and the exploitation of its rich resources, created favorable conditions for it to increase trade revenue and improve infrastructure, and helped its economy realize a stable, continuous, and healthy development. At present, economic and trade cooperation has become an effective way for China and Latin America to realize win-win cooperation. Latin America is China's main foreign trade cooperation partner, plays an irreplaceable role in supplying China with industrial raw material and energy, and has become a strategic destination for Chinese companies going global.

1.3.1 China and Latin America Are Mutual Economic and Trade Cooperation Partner

After the "incremental development" period and now in the "leap-forward development" period, both parties have engaged in all-round economic and trade cooperation, covering trade, investment and economic cooperation, and became mutual main foreign economic and trade cooperation partners.

Trade takes up the largest share of China and Latin America economic and trade cooperation. According to the statistics of the Ministry of Commerce, the trade volume between China and Latin America reached 143.4 billion US dollars in 2008, of which China exported 71.5 billion US dollars to Latin America. Of these exports, about 73% are consumer goods and capital goods, 25% are intermediate products, while raw materials account for less than 1%. China's imports from Latin America account for 71.9 billion US dollars, of which 66% are raw materials, 23% are intermediate products, and 11% are capital goods and consumer goods. For the time being, Latin America ranks the fourth largest foreign trade destination for China. The Sino-Latin American trade volume accounts for 5.6% of China's total foreign trade volume, 5% of China's exports and 6.3% of China's imports. China

[45] ECLAC, *Economic Survey of Latin America and the Caribbean 2008–2009*. Chile: Santiago, July 2009, p. 51.

[46] Statistics for the year 2003–2007 is quoted from the central government website: http://www.gov.cn/jrzg/2008-02/19/content_893773.htm; statistics for 2008 is quoted from *the Report on National Economy and Social Development in 2008*: http://www.stats.gov.cn/tjgb/ndtjgb/qgndtjgb/t20090226_402540710.htm.

is Latin America's second largest trade partner. The Sino-Latin American trade volume accounts for 7.4% of Latin America's total foreign trade volume, 4.9% of its exports and 9.8% of its imports.[47]

Direct investment takes up an important part of China and Latin America's economic and trade cooperation. The Ministry of Commerce reported that China's FDI inventory in Latin America was approximately 24.8 billion US dollars in 2008, accounting for 14.6% of China's total FDI; Latin America's cumulative actual investment in China was 112.6 billion US dollars,[48] accounting for 14% of the foreign capital inventory in China. Latin America has become China's second largest FDI destination and source after Asia. Chinese enterprises' business in Latin America includes trade, engineering contracts, production and manufacturing, as well as oil, gas and mineral resources prospection. Latin American enterprises are mostly engaged in the manufacturing and real estate business.[49]

Although economic cooperation only takes up a relatively small proportion of the Sino-Latin American cooperation, progress has been achieved in recent years. The Ministry of Commerce's statistics show that labor contracts and design consulting contracts signed by China in Latin America cumulated 16.8 billion US dollars in 2008, with 12.6 billion US dollars completed, accounting for 4% of China's cumulative completed foreign economic cooperation volume.[50]

1.3.2 China's Economic Benefits in Latin America

1.3.2.1 Latin America Is an Important Supplier of Industrial Raw Materials for China

Latin America is an important exporter of primary and intermediate products in the world, for which China has a huge demand. China's foreign trade dependence in iron ore, copper ore concentrate, bauxite ore, chromium, nickel, potassium, chemical fiber materials and other important raw materials are all over 50%. In the current international demand and supply pattern, Latin America occupies an important position in supplying China with industrial raw materials.[51] At present, on the one hand, Latin America exports dramatically increasing amounts of primary products to China, like plant products (such as soybeans), metals (such as copper, iron, tin, and aluminum) and ores (such as iron ore, copper ore, precious metal ore); on the other hand, it stably satisfies China's demand for intermediate products, like wood

[47] Data for 2008 are based on the website news from Ministry of Commerce; data for 2007 on UNCOMTRADE.

[48] Based on the Ministry of Commerce investment statistics. People in this industry hold disputes these data, thinking round-tripping may exist.

[49] Based on the website, news and statistics of Ministry of Commerce.

[50] See Footnote 49.

[51] Based on DRCNet's foreign trade statistics.

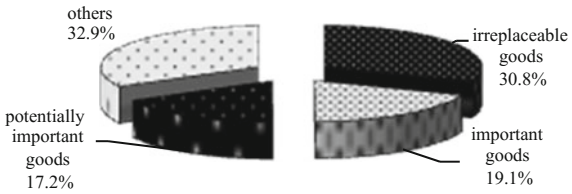

Fig. 1.2 The role of Latin America in China's import of industrial raw materials. *Data source* Calculation based on the UN statistics on trade in goods (UNCOMTRADE)

pulp, chemical materials, textile raw materials, and animal and vegetable oils. The status of Latin America in the global market and in terms of China's exports makes it an irreplaceable supply of industrial raw materials for China (Fig. 1.2).

Firstly, Latin America is an irreplaceable industrial raw materials supplier for China. One third of China's and 2/3 of the world's imports of industrial raw materials are of Latin American provenance, forming a near monopoly. These products include soybean, soybean oil, fishmeal, copper ore and its concentrate, which account for 30.8% of Latin America's exports to China.

Secondly, Latin America is an important region from which China imports industrial raw material, accounting for over 1/3 of China's imports and 1/3–2/3 of the world's exports. These products include animal and vegetable oil, sugar, sylvine, wood pulp, glycerinum, halogen, copper alloy, as well as iron, tin, molybdenum, and precious metals' ore and their concentrate, which account for 19.1% of Latin America's exports to China.

Finally, Latin America is a potential important supplier of certain kind of industrial raw materials for China. At present, Latin America's exports of such kind of products to China account for less than 1/3. However, their share of the global supply accounts for over 1/3, so their share in exports to China is expected to increase. These industrial raw materials include lemon oil, sodium nitrate, unrefined copper, manganese, aluminum, lead, zinc and other metallic mineral ore and slag, accounting for 17.2% of Latin America's export to China.[52]

China's future economic growth will further consolidate Latin America's irreplaceable position. The Sixteenth National Congress of the Communist Party of China clearly stated that by 2020 the size of China's economy will quadruple in comparison with 2000 and total 35 trillion yuan. To realize this goal, China's annual GDP growth rate needs to be maintained at 7.2%. As per the "mechanism of reversal pressure", we can simulate China's main products trade in 2020 and calculate that the net import of oil crops, sugar, plant fiber, energy, ore products, and forest products will obviously increase. Based on historical data, Fig. 1.3 predicts China's imports of main products from Latin America. It can be seen that from 2001 to 2007, Latin American exports of industrial raw materials to China kept increasing. Supposing the constancy of other factors, this kind of product will increase by 8% on average by 2020. The average growth rate of metallic products and wood pulp will be over 6%; the average growth rate of mineral products, plant products and textile raw materials will exceed 7%, and the average growth rate of chemical products and animal and

[52]Based on UNCOMTRADE's data.

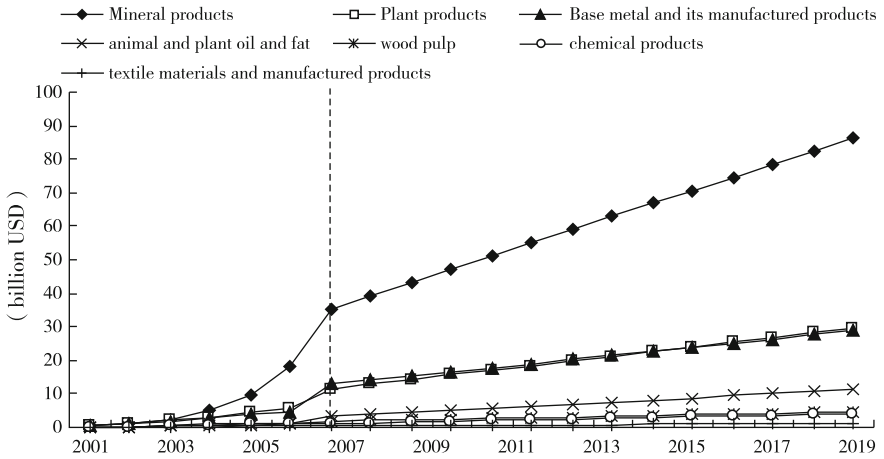

Fig. 1.3 The role of Latin America in China's import of industrial raw materials. *Data source* Statistics before 2008 is quoted from the foreign trade statistics on DRCNET, based on which statistics after 2008 is predicted. *Note* Calculation based the 2005 price level. Prices for other years are adjusted according to Moody's primary products index (http://www.indexmundi.com/commodities/?commodity=commodity-price-index&months=120)

vegetable oil will be around 10%.[53] Actually, China's GDP enjoyed an annual growth of or over 9% from 2003 to 2008. Many economists point out that China will enjoy at least another one rapid growth period. It can be forecasted that China will have larger demand for the aforementioned products even in 2020.[54] It can also be predicted that in the following several decades, China's demand for primary products will be huge and Latin America will continue to occupy quite an important position in China's economy and trade development strategy.

1.3.2.2 Latin America Is China's Realistic Choice for the Diversification of Energy Sources

Petroleum takes up 1/5 of China's energy consumption. It has become the second most consumed form of energy after coal. Since China became a net importer of oil in 1993 and a net importer of crude oil in 1996, it increasingly relied on imported oil. In 2008, China's net oil imports (including crude oil, refined oil products, liquefied

[53]This prediction is based on previous China's import from Latin America. Supposing China's GDP growth rate IS 7.2% in 2020 with no energy-reserving technology progress, and there is no large adjustment in Latin America's export policies. The statistics of mineral products does not include oil.

[54]Li Yining, Lin Yifu, Fan Gang, Hai Wen, Sheng Hong and other economists think China's high economic growth can be maintained; Zeng Peiyan, Hu Angang, WANG Xiaolu, Zhang Zhuoyuan, Chen Dongqi and other economists predict that China's economic growth rate will exceed 7% by 2020.

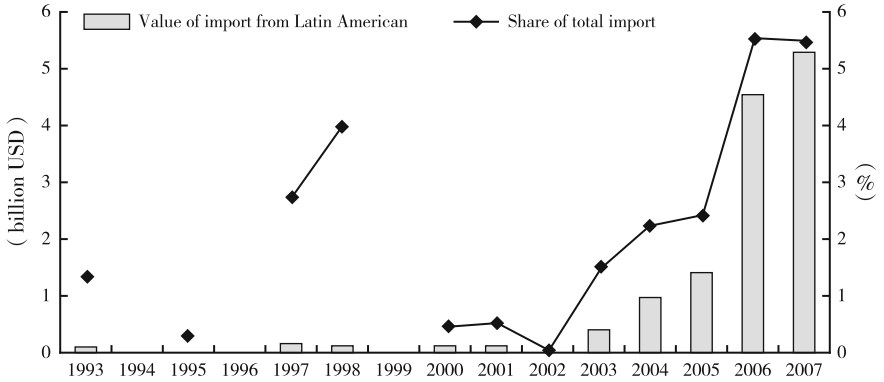

Fig. 1.4 The value and proportion of Latin America's oil export to China. *Data source* Based on the foreign trade statistics on DRCNET and *BP World Energy Statistics (2007–2009)*

petroleum gas and other petroleum products) reached 200.67 million tons, of which crude oil accounted for 178.89 million tons. That year, 51.4% of the petroleum needed in China and 48.5% of the crude oil needed was imported, reaching a record high.[55]

The growing petroleum imports make China's energy problems increasingly prominent. To safeguard and dissolve risks arising from having a single import source, China implemented a strategy to diversify its petroleum imports. Latin America can be a strategic alternative supplier of additional petroleum. UNCOMTRADE's statistics show that Latin America is now a stable supplier of petroleum for China, its petroleum exports to China having dramatically increased from 6 million US dollars' worth to 5.29 billion US dollars' worth in 2007. Its share in China's petroleum imports increased from 0.3 to 5.5% (Fig. 1.4). Venezuela, Brazil, Argentina, Ecuador and other main petroleum suppliers exported in total 16.5 million tons of petroleum to China in 2008.[56]

Latin America's importance in China's strategy to diversify petroleum imports has become increasingly evident over nearly a decade. On the one hand, Latin America is one of the largest exporters of petroleum to China, and its importance continues to grow. As Fig. 1.5 shows, since 2000, Latin America has constantly ranked China's fifth largest petroleum supplier, and its proportions are increasing. By contrast, the Middle East's stably occupies No. 1 and its proportions are also stable. The proportions of Africa and the region of the former Soviet Union are increasing yearly, ranking No. 2 and No. 3 respectively. Proportions for the Asian-Pacific region have greatly dropped, from No. 2 to No. 4. On the other hand, Latin America is the leading region with which China seeks new overseas energy cooperation. Its stable supply is guaranteed by a series of oil-for-loans agreements. Oil-for-loans agreements are a new trade method adopted by China in recent years. It implies an exchange between

[55] Yang Shangming, *China Depends More and More on Imported Oil*, *International Business Daily*, 2009 June 22. 2nd edition.

[56] *BP Statistical Review of World Energy*, June 2009, p. 20.

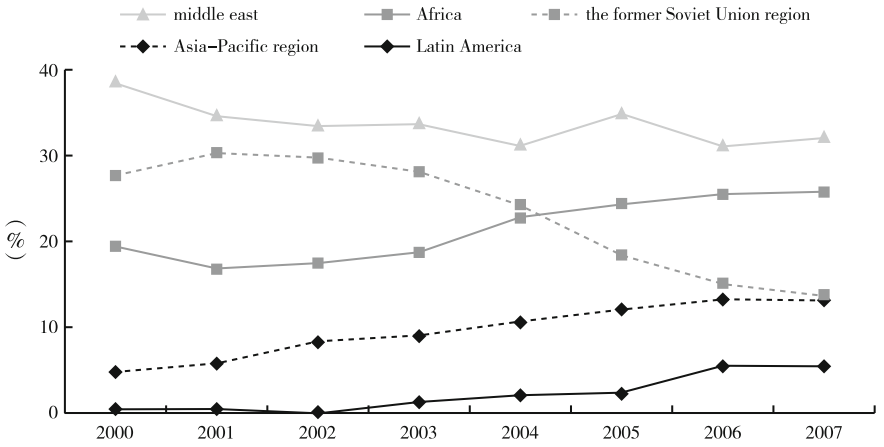

Fig. 1.5 Changes in China's Oil Suppliers. *Data source* Calculation based on statistics from UNCOMTRADE. *Note* Calculation based on the amount of money

loan and oil estates, guaranteeing the supply of oil within a contracted period and allowing China to extricate itself from the chains of single way of land or sea reserves and develop contract reserves. At present, China has signed such agreements with six countries: Russia, Brazil, Venezuela, Ecuador, Angola and Kazakhstan. Contracts with Latin American countries are valued at 19 billion US dollars in total, accounting for 38% of the total value, guaranteeing that China will import 20–30 million tons of crude oil from Latin America every year for the following 2–10 years.[57]

Latin America's petroleum reserves and its position in international trade will also make it play a big role in China's strategy to diversify oil imports. BP's 2009 Statistical Review of World Energy reports that in 2008 Latin America's proven oil reserves were of 29 billion tons, accounting for 10.7% of the world's total proven reserves, second to the Middle East (59.9%), and ranking No. 2. Its oil production was 490 million tons, accounting for 12.5% of the global oil production, ranking No. 3(the Middle East and former Soviet countries account for 31.9 and 15.8% respectively). Its oil exports were 200 million tons in total, accounting for 10% of the world's exports, after the Middle East and former Soviet countries taking up 45.4 and 15.8% respectively. In the same year, Latin America's oil exports to China only accounted for 0.8% of its total oil exports. By contrast, oil exports to China account for 16.7, 14.5, 10.3 and 7.2% respectively in the Asian-Pacific region, Africa, the Middle East and former Soviet countries. It can be seen that Latin America occupies a relatively quite large and absolute space in China's strategy to diversify oil exports.

[57] *China has signed 6 loan-for-oil contracts*, Longzhong Shihua Commerce Net, 2009 July 15th. http://www.oilchem.net/news/1_1_179663.html.China signed loan-for-oil agreement with Russia, Brazil, Venezuela, Ecuador, Angola and Kazakhsta. The agreement prices are 25 billion US dollars, 10 billion US dollars, 8 US billion dollars, 1 billion US dollars, 1 billion US dollars and 5 billion US dollars.

Continuing to increase its share of oil exports is beneficial to China's construction of an active energy security defense system.

1.3.2.3 Latin America Is a Strategic Destination For the Overseas Operations of Chinese Enterprises

Since Latin America has advantages in terms of geography, resources and international economic status, more and more Chinese companies are interested in investing in this region.

Firstly, Latin America is a strategic region for Chinese companies exploring overseas resources. Chinese enterprises have invested in oil field, iron ore, and copper ore, having thus obtained a stable supply of resources. In terms of energy investment, PetroChina and Sinopec have been chosen to develop several oil fields in Ecuador, Peru, and Venezuela via acquisition and international bidding. PetroChina's crude oil production in South America solely totaled up to 10.56 million tons in 2008.[58] In terms of investments in iron ore, Shougang Group bought all the assets of the Peru Iron Ore Company, which annually produces 10 million tons, and gained permanent rights of exploration, exploitation, and operation of the mineral resources in a 670 km^2 mine.[59] In terms of copper investments, China Minmetals Group, Zijin Mining Group, and Chinalco were successively chosen for copper exploitation projects in Chile and Peru. In Peru, the Toromocho copper mine alone, which exploitation rights are now Chinalco's, has metallic resource reserves assessed at 15 million tons, equivalent to 19% of China's total copper reserves. Its annual copper production is 250 thousand tons, equal to 1/3 of China's annual fine copper production.[60]

Secondly, Latin America is one of the main destinations for Chinese enterprises' processing trade abroad. Latin America has three advantages in terms of processing trade: first, Latin America, with a population of over 500 million and a GDP of over 3 trillion US dollars, is a huge market; second, it is adjacent to the U.S. and Canada, possessing a natural advantage for entering these two markets; third, it has huge free trade network. According to WTO statistics, by the end of June 2009, Latin America had been involved in 35 of the global 183 RTAs already in effect. Via RTAs, Latin America's products can penetrate the world's main markets paying low or no taxes. Attracted by the above advantages, a group of Chinese enterprises set up production and processing bases in Latin America to open processing and assembly business. Among these, investors are mainly enterprises with mature technology, advanced management, and good reputations; investment mainly goes to industries like apparel and textiles, appliances, light manufacturing, machinery and APIs, which are suffering from overcapacity; investment is deployed in over 20 Latin American economies. China's production and processing bases in Latin America mostly have gained good economic benefits. Some enterprises also effectively shunned overseas

[58] http://news.xinhuanet.com/fortune/2009-02/27/content_10910997.htm.

[59] http://www.mcc.com.cn/Article/ShowArticle.asp?ArticleID=40222.

[60] http://www.chinamining.com.cn/news/listnews.asp?classid=159&siteid=137333.

trade barriers by reasonably using the country-of-origin rule, expanding overseas markets, and driving the exportation of domestic equipment, technology, raw materials and accessories.

Thirdly, Chinese companies can achieve internationalization in Latin America. By investing and building up factories in Latin America, competitive Chinese enterprises are expanding their business globally, which will expand the market's radiative effect and negate single market's risk. For example, Huawei's branch in Latin America consists of a series of supporting system including sales center, service center, logistics center, and training center. And its 75% turnover comes from abroad. Revenue increase in Latin America helped it weaken the negative impacts of the financial crisis.[61] Chery Automobile built up production base in Uruguay in a joint venture with Argentina's SOCMA Group, after having set up automobile factories in Egypt, Iran, Ukraine, Russia and Indonesia. Sales will expand to Latin America, which ranks No. 4 in global automobile sales revenue. This also laid a good foundation for future brand reputation in the international automobile industrial chain.

1.3.3 Latin America's Economic Interests in China

1.3.3.1 China Is Latin America's "Trade Angel"

China imports large amount of primary products from Latin America, which increases Latin America's trade revenue. The report *China's Visible Hands in Latin America* points out that China is like a "trade angel" for Latin America, as it provides a market for Latin America's primary products. Therefore, China has a positive impact on Latin America's trade, as is directly shown by rocketing exports and indirectly shown by improving trade conditions.[62] It is reasonable to think that Sino-Latin American trade drives the exportation of Latin American primary products in two ways. First, China's economic growth induces a huge demand for primary products which increases Latin American exports. Based on the aforementioned OECD's report, "Latin America's exports to China have a substantial leaping growth in terms of nominal incomes." Mexico, Brazil, Argentina, and Chile's exports to China increased by 1000, 500, 360 and 240% respectively.[63] Second, China's huge demand promotes the price rise of Latin America's primary products. Based on the statistics of the UN Economic Commission for Latin America, from 2000 to 2007, China's new demand contributed to 1/2 of the global increase in the soybean oil demand, 1/3 for beans, 1/2 for refined copper, 3/4 for refined aluminum and zinc, 1/3 for steel products, and 35% for oil. This, to some extent, lifted the prices of related products, and improved trade conditions for Latin America's export partners. Venezuela, Bolivia, Chile, Columbia, Cuba and Peru benefit the most from this. Their exporting prices rose by 14.8, 10.5,

[61] *Huawei 2008*, http://www.huawei.com/cn/corporate_information/huawei2008.do.

[62] Javer Santiso.*China's visible hands in Latin America*, Beijing, World Affairs Press, 2009, p. 3.

[63] See Footnote 62.

13.5, 6.8, 23.8, and 2.7% respectively. Moreover, Latin America's overall export prices increased by 6%.[64] Because of the simultaneous increase in volume and prices, Latin America's export revenue also dramatically increased. From 2000 to 2007, Latin America's export turnover to China increased nine fold. Venezuela, Argentina, Brazil and Chile's exports volume to China increased by 106 times, 6 times, twice and 100% respectively.

While China imports large quantities of primary goods from Latin America, it also provides a market for its manufactured goods. The statistics of the UN Economic Commission for Latin America show that among the products that Uruguay, Panama, Paraguay, Nicaragua, el Salvador, Mexico, Honduras, Costa Rica, Colombia, Guatemala and other countries export to China, over 1/2 are manufactured goods. Most typically, 93% of the products that Costa Rica, Mexico, Honduras and Colombia export to China are high-tech products, such as microcircuits and communication equipment; among the other three countries' exports to China, technology products account for over 50%.[65]

1.3.3.2 China Assists Latin America in Infrastructure Development

Latin America has long been criticized for its backward infrastructures. The World Bank and other international institutions have repeatedly appealed for more investment in this area to alleviate poverty, increase jobs and improve competiveness. Capital shortage and backward technology are the fundamental reasons for its weak infrastructure. However, China directly participates in the development of its infrastructure by contracting engineering projects, and helps to eliminate the above two restraining factors with innovating cooperation methods.

In recent years, China's engineering companies have repeatedly participated in Latin America's infrastructure development projects. For example, CTTIC Guohua contracted Brazil's Candiota project and Venezuela's social housing project; Sinopec contracted Brazil's gas pipe project. Several projects are being carried out according to the "financing+EPC" formula which combines project construction, technology export and capital export with fund support provided by CTTIC Group, Ex-im Bank and other Chinese financial institutions, thus solving capital shortage and backward technology issues in infrastructure development and exerting a beneficial spill-over effect. The Denier-Anaheim railway contract signed by CREC and Venezuela is an example: this program is valued at 7.5 billion US dollars, and financed by Fondo Conjunto Chino-Venezolano (the China Development Bank invests 8 billion US dollars in this fund). CREC is in charge of all design, purchase and construction work. This project is expected to create 1000 jobs directly and 5400 jobs indirectly

[64] *Economic and Trade Relations between Latin America and Asia-Pacific. The Link with China.* Chile: Santiago, October 2008, pp. 27–29.

[65] Data source: ECLAC, *Economic and Trade Relations between Latin America and Asia-Pacific. The Link with China.* Chile: Santiago, October 2008, p. 27.

in Venezuela once it starts. After its completion, it will connect in a network with other railways, upgrading Venezuela's road networks.[66]

1.4 Five Thoughts on "Development Interests" in Sino-Latin American Relations

During the 60 years after the foundation of the People's Republic of China (PRC), the five stages of Sino-Latin American relations featured incremental and leap-forward development, with bilateral economic relations gradually evolving from initial small-scaled trade into the current comprehensive cooperation, covering trade, investment and other economic fields (Fig. 1.6). The development pattern resulting from the diplomatic interaction between China and Latin American not only reflects what the two parties' politics, economy, diplomacy and culture were once like, but also how diplomatic guidelines have changed over time.

At the 2006 Conference on the Central Government's Foreign Affairs Work, then President Hu Jintao pointed out that work needs to be domestically and internationally coordinated with a focus on economic development.[67] In November 2008, in a speech

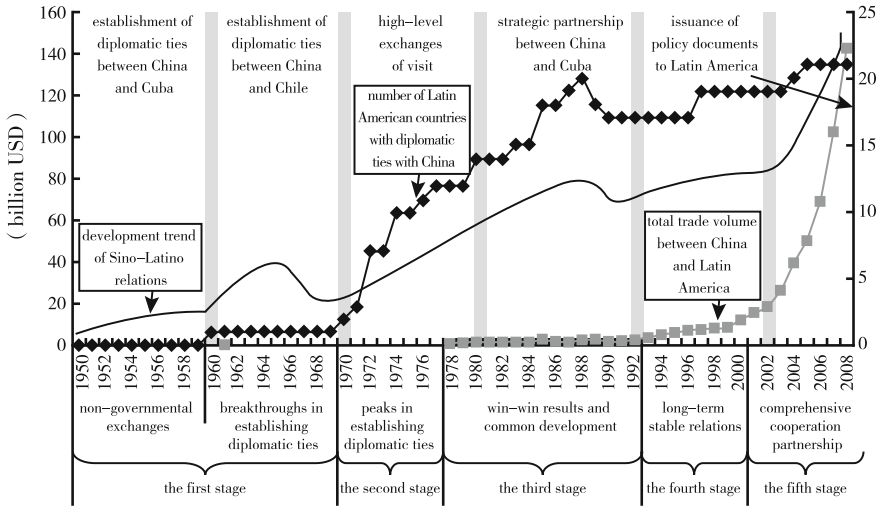

Fig. 1.6 The 60-year-long Sino-Latino relations. *Data source* drawn based on the paper. The total Sino-Latino trade volume is based on the Handbook of Statistics On-line of UNCTAD. *Note* Numbers on the left are Sino-Latino trade volume; numbers on the right are the number of years for bilateral diplomatic ties. The unit for Sino-Latino trade volume is USD 100 M. Statistics on trade volume from 1950–1960 and from 1961–1967 are missing

[66] http://www.crecept.cn/information/informationdetail.jsp?ID=20090804084308099&type=21.

[67] http://news.xinhuanet.com/politics/2006-08/23/content_4999294.htm.

delivered in front of Peru's Congress, President Hu said, "The most urgent task for both China and Latin America is development, a task we can accomplish by providing each other with great opportunities in these extremely important times."[68] In July 2009, President Hu sent a similar message at the Eleventh Ambassadors Conference: "Diplomatic work plays an increasingly important part in governmental work, and we must make more efforts to better consolidate and improve stability during reform and development, so as to safeguard our sovereignty and security and guarantee the interests of development. Currently, diplomatic work is more closely related to national development, therefore we should rely on development, serve development and promote development so as to safeguard development interests as China fully opens up to the world."[69]

President Hu's statements about "development", "development opportunities" and "development interests" are significant. They summarize China-Latin America relations over the past 60 years and offer a vision for a promising future. The incremental and leap-forward development is consistent with Sino-Latin American "development interests", therefore the concept of "development interests" cannot only be perfectly used to summarize Sino-Latin American relations of the past 60 years, but also to predict and lead the future development of Sino-Latin American relations for win-win results. Moreover, President Hu's statements about relying on development, serving development, promoting development and safeguarding our "development interests" when China opens fully to the world have become a fundamental principle guiding Sino-Latin American relations and even China's diplomatic relations with other countries.

The "Taiwan issue" is and will remain an essential "development interest" in Sino-Latin American relations, but as it is complex and cannot be solved in the short run; it has become a matter of conventional interest. At the same time, Sino-Latin American economic interaction and interests are becoming the core factors in their bilateral relations. This shift of core interests is in line with both China's and Latin America's "development interests", and since China-Latin America relations are meant to serve the interests of both parties, a sound relation naturally is the common pursuit of both sides. This delicate shift is required by and is a natural result of the development of both China and Latin America. The change is also a consequence of shifting international patterns. Only by understanding the role of Latin America in China's development and opening-up, guided by the principle of national interests, can the strategic guideline of valuing Latin America, as put forward by President Hu, be properly carried out.[70]

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[68] Hu Jintao: *Jointly Building a Comprehensive Partnership with Latin America in the New Time—a Speech in Peru's Congress* (20 November, 2008), the third edition of *People's Daily*, 22 November, 2008.

[69] *The Eleventh Conference of Ambassadors* held in Beijing, the first edition of *People's Daily*, 21 July, 2009.

[70] Hu Jintao: *Jointly Building a Comprehensive Partnership with Latin America in the New Time—a Speech in Peru's Congress* (20 November, 2008), the third edition of *People's Daily*, 22 November, 2008.

1.4.1 *Economic Development Has Become the Priority for Aligning Sino-Latin American "Development Interests"*

As China's long-term development goals and the international situation keeps changing, so does China's priorities in developing Sino-Latin American relations. For a long period after the foundation of the PRC, political interests were the priority. In more specific terms, China focused on building up political trust and consolidating diplomatic ties with Latin America. During the "reform and opening up" period, and especially when China tried to fully open up to the outside world, economic development became the priority in Sino-Latin American relations, which meant economic interests started to play a bigger role. In the 21st century, China witnessed fast economic development and was more deeply integrated into the global economy; therefore, China is now diplomatically faced with the task of making full use of its domestic as well as the international market at a higher level. At the same time, Latin America plays a more important role in providing resources to China and diversifying China's overseas market, so it's natural that economic development and economic interests have become the priority for aligning Sino-Latin American "development interests".

First, strategic mineral resources remain at the very center of China's "development interests" in Latin America. At the Eleventh Ambassadors Conference, Present Hu said, "A comprehensive analysis of related factors shows that the first 20 years of the 21st century constitute a strategic period for development with new opportunities and challenges." The second period of fast economic development that China will experience in the first 20 years of this century is one such opportunity and challenge, as it will create a huge demand for resources. According to the Chinese Mining Association, among the 45 major mineral resources needed by China by 2020, 19 are in shortage or severe shortage,[71] and 10 out of the 19 are now imported from Latin America. Reserves for 17 out of these 19 minerals rank among the top in Latin America except for chromium and adamas. Generally speaking, Latin America is a better supplier of minerals than Africa and Australia, especially in terms of copper, tin, nickel, bauxite, iron ore, gold and oil reserves(accounting for 52, 30.9, 23.8, 18, 11.5, 11.6 and 10.7% respectively of the world's total reserve).[72] Therefore, Latin America will be an important mineral resources supplier for China. In 2009, after the failure of the Aluminum Corporation of China to acquire the Rio Tinto Group and the merger of the Rio Tinto and BHP Billiton iron ore businesses, Brazil's Vale Corporation became the only choice for China to break the international monopoly in the iron ore business. To summarize, Latin America's role as China's strategic

[71] Oil, iron, manganese, uranium, bauxite, antimony, tin, lead, nickel and gold (10 minerals) will be in shortage; Copper, zinc, chromium, cobalt, platinum group elements, strontium, boron and potassium, diamond (9 minerals) will be in serious shortage.

[72] Data come from USGS, *Mineral Commodity Summaries* (http://minerals.usgs.gov/minerals/pubs/mcs/). The 19 minerals are abundant in Africa except zinc, potassium and boron and in Australia except oil, platinum group elements, boron, antimony and potassium and diamond.

mineral resources provider will remain firm for a long time; moreover, iron ore, a special component of the strategic mineral resources group, has an obvious strategic significance in terms of China's core interests in Latin America.[73]

Second, a "potentially huge market capacity" is the key for the expansion of Sino-Latin American "development interests". China can expand its international market by tapping into Latin America. At the Eleventh Ambassadors Conference, Present Hu said, "We are and will be committed to tiding over the financial crisis, achieving rapid and balanced economic development, improving our people's livelihood and providing stable services in our diplomatic work."[74]Industrial restructuring can only progress in a gradual manner; therefore, China still needs to rely on overseas markets for development by 2020, with bigger external risks. For instance, orders from major markets like America and Europe shrank due to the financial crisis, so many Chinese manufacturers aiming at those markets has to halt production, making it difficult directly or indirectly for about 25 million migrant workers to find jobs in 2009.[75] In order to avoid external risks, China must diversify its export markets, and Latin America, with its huge population and economic aggregates, seems to be a good choice for China.

Third, China's huge economic demand can serve the "development interests" of Latin American countries. For starters, primary products will remain Latin America's major exports for a long time, for which China's huge demand ensures steady trade revenues for Latin America. For example, Brazil saw its export income greatly shrink, with a decrease of 22% in the first five months of 2009 due to the raw material price decline that followed the international financial crisis.[76] However, contrary to the general slowing down tendency, Vale Corporation witnessed a 7.7% increase in its export volume for the first time in six months, amounting to 5.5 billion US dollars,[77] thanks to China's great demand and the high price of iron caused by successive negotiation delays. Second, exporting more manufactured goods will be an important task for Latin America industrial restructuring, for which China will provide a huge market. Currently, many Latin American countries do not have competitive manufactures; in consequence a low proportion of manufactured goods are being exported to China. In fact, mechanical and electrical products and high-tech products have already accounted for over 80% of China's Latin American imports. Therefore, as Latin America's manufacturing industry develops further, manufactured goods with high added-value will find their way into China's huge market. In addition, China can provide capital and technological support for Latin America's

[73] Rio Tinto, BHP Billiton and Vale together have a share of over 70% of global iron ore market. 50% of iron ore in BHP Billiton, 50% in Rio Tinto and 30% in Vale are exported to China.

[74] *The Eleventh Conference of Diplomatic Envoys* held in Beijing, the first edition of *People's Daily*, 21 July, 2009.

[75] Wang Shiling: *Job Security System is to be Improved at a Faster Pace with 25 Million Migrant Workers Do without Job*, in the fifth edition of *21 Century Economy Report*, dated 3 February, 2009.

[76] *Brazilian Government Help Exporting Companies Out*, Xinhua Net, 22 June, 2009. http://news.xinhuanet.com/fortune//2009-06/22/content_11581157.htm.

[77] *China's Demand Helps Boost Brazil's Vale Export Income for the First Six Months*, 29 July, 2009, http://br.mofcom.gov.cn/aarticle/jmxw/200907/20090706425730.html.

mid-and long-term task in infrastructure improvement. China, as the world's sixth largest investor, has sufficient capital. On top of that, China has both expertise and management experience in contracting international projects. In 2008, 51 Chinese companies ranked among the "Global Top 225 Contractors" (only 4 Latin American companies figured on the list) and 8 Chinese companies ranked among the "Global Top 150 International Projects Designers" (no Latin American company figured on the list). Therefore, China is in a good position to meet Latin America's needs in infrastructure improvement, whether through direct investments or as a contractor.[78]

In conclusion, "development interests" are and will remain essential for Sino-Latin American relations, to which end the exploration of new growth opportunities is the priority.

1.4.2 Expanding Investment in Resource-Based Industries Is an Effective Way to Align Sino-Latin American "Development Interests"

First, more direct investment in resource-based industries can ensure China's economic interests in Latin America. At present, China's direct investments in Latin American resource-based industries are relatively lagging behind because, on the one hand, China missed a significant chance to buy companies shares (e.g. iron mine companies) in such industries during the 1990s, a period which featured the privatization of industry in Latin America; on the other hand, China fails to exert influence on the Latin American industries given current relatively inadequate investments. China is not trapped in an awkward situation because it imports great quantities of bulk commodities such as oil, soybeans and iron ore, yet it doesn't have much of a say in their pricing. Take iron ore as an example: from 2003 to 2008, the international negotiated price of iron ore rose by 397.8%, which cost China nearly 700 billion yuan in extra payment or twice of the profit of domestic iron and steel companies during the same period.[79] In the long run, insufficient resource supply will be a major barrier to China's development. Thus, it is urgent for China to invest in Latin American resource-based industries, either by buying shares or via other channels, so as to stabilize price and supply. Since the second half of 2008, influenced by the reduction of overcapacity, a slowing demand and the international financial crisis, the global mineral industry entered a new round of adjustment and some important mineral products such as crude oil, copper and aluminum have undergone falling and fluctuating price. Against this backdrop, China will enjoy new opportunities for merger and acquisition in Latin America. China should take this advantageous opportunity to directly invest more in Latin American resource-based industries like

[78] ENR website: http://enr.construction.com/people/toplists.

[79] *How Japanese Financial Groups Deal with the Negotiation of Iron Ore*, China Youth Online—China Youth Daily, July 24, 2009. http://zqb.cyol.com/content/2009-07/24/content_2771521.htm.

energy resources, mineral products and agriculture, and use local resources to build production bases and sell products via the transfer of domestic resource-intensive industries to Latin America. The above investment strategy in terms of resource-based industries will not only allow China to optimize domestic resource allocation and reduce its dependence on foreign resources, but also tap into more markets as a solution to industrial overcapacity in China.

Second, the expansion of investment in resource-based industries is consistent with Latin America's "development interests". Latin American countries possess abundant resources but to some degree face financial and technological limitations, which hinders the development of said resources. Direct Chinese investments are likely to alleviate these limitations and create job opportunities as well, thus aligning with Latin American economic interests and realizing a win-win cooperation. Take Brazil as an example: the discovery of the new Tupi and Carioca oil fields makes it a potential major oil country, but it is technically difficult and expensive to prospect the two oil fields because they are located deep under sea. As per Swiss Bank Corporation estimates, the development of the two new oil fields calls for an investment of approximately 600 billion US dollars.[80] Undoubtedly, international investors including China are conducive to speeding up the development of Latin American oil fields and shoulder risks in the new technological research, development, and investment. Venezuela also faces similar limitations in terms of oil prospection, such as outdated technology and inadequate refining capacity. Thus, China's petrochemical enterprises can not only provide capital for the expansion of production, but also help increase efficiency in the development and utilization of oil.[81]

1.4.3 Addressing Trade Frictions in a Proper Way Can Facilitate Sino-Latin American "Development Interests"

Trade is the main channel for the alignment of Sino-Latin American economic interests. However, there have been occasional trade conflicts in the past, exerting a negative impact on Sino-Latin American relations. WTO data show that Latin America has taken protective measures mainly against China, and its anti-dumping policies towards China are more severe than those towards other countries, some of which overly strict given the current bilateral trade volume. Since the global financial crisis, countries in Latin America such as Argentina and Brazil have frequently taken remedy measures against China-made products, which are potential causes for additional trade frictions. In the short term, such trade frictions hinder China's exports to Latin America as well as China's economic recovery. In the mid and long run,

[80] *Brazil: The New Major Oil Country*, contained in *The South of China Today*, November 24, 2008, the 18th edition.

[81] *Agreement on Heavy Oil Recovery and Refinement* is signed by CNPC and Venezuela, Xinhua Net, May 13, 2008. http://news.xinhuanet.com/newscenter/2008-05/13/content_8162051.htm.

these frictions will damage both sides' interests as well as the sound development of Sino-Latin American trade.

The root cause of trade frictions is the competition between both sides; the immediate cause is that China overly concentrates on certain trade areas. The data from China's Ministry of Commerce show that over 75% of the frictions take place between China and Brazil, Mexico, Chile, Argentina and Venezuela. Meanwhile, China engages in inter-industry trade with most Latin American countries, while its intra-industry trade is limited to a few Latin American countries such as Costa Rica, Mexico and Honduras.[82] This single and highly concentrated trade model means that part of China's exported goods may compete for markets with similar goods produced locally in Latin America, leading to bilateral trade frictions. Thus, one effective measure to alleviate trade frictions and promote sustainable trade development is to reduce trade concentration. It is possible to diversify our trade ties. For example, China can continue its inter-industry trade with countries like Venezuela and Bolivia where competition is less fierce and more complementarity. In contrast, China can develop intra-industry trade and cooperate with countries like Mexico, Peru and Columbia, where there is more competition, via an appropriate division of labor in the electromechanical, textile and chemical sectors, thus achieving breakthroughs in terms of bilateral trade.[83]

1.4.4 Promotion of Chinese "Soft Power" in Latin America Is an Historical Necessity for the Alignment Of Sino-Latin American "Development Interests"

In the Eleventh Conference for Diplomatic Envoys on July 20 2009, President Hu stressed that we should endeavor to set up a Chinese image that is amicable and more morally appealing, enhance public and cultural diplomacy and conduct various cultural exchange activities, so as to promote the quintessential culture of China.[84] As a kind of soft power, culture serves as a bridge for Sino-Latin American friendly exchanges and cooperation. In view of the past 60 years of history, China's diplomatic relations with countries in Latin America were practically initiated with cultural exchanges, and finally formal diplomatic ties were established through gradual and varied interactions.[85] Recently, increasing Sino-Latin American cultural exchanges have brought continuous cultural visits and other cultural activities as well as person-

[82] Data Resource: online news and statistic data from China's Ministry of Commerce.

[83] This paper estimates Balassa Revealed Comparative Advantage (RCA) with the UNCOMTRADE data, concluding the comparison of competitiveness in comprehensive state power and industry between China and Latin America.

[84] *The Eleventh Conference for Diplomatic Envoys was held in Beijing*, *People's Daily*, July 21, 2009, the first edition.

[85] Xu Shicheng: *The features, historical relations and mutual influence between cultures of China and Latin America*, *Study of Latin America*, 2006(5), p. 53.

nel exchanges. However, mutual understanding still needs to be deepened in view of geographical and cultural factors. As Sino-Latin American economic and trade relations progress, negative arguments such as that of "neocolonialism" or the "China threat theory" may have a negative impact on China's image.

In order to improve Chinese "soft power" in Latin America, China can introduce its traditional culture to Latin America through various channels and learn from Latin America's culture, making China and Latin America "role models in terms of active interaction between different cultures".[86] More and more Confucius Institutes in Latin America serve as a bridge enhancing Chinese cultural influence, promoting people-to-people exchanges and spreading the idea of harmony. Meanwhile, the rapid development of the Chinese economy is attracting the attention of Latin American politicians and scholars who show interest in the "China model". Thus, academic exchanges meant to promote "learning from each other for development" can be conducted between China and Latin America in order to make Latin American intellectuals and elites more deeply and rationally understand China's development. Moreover, China should enhance media communication with Latin America and improve its "power of discourse" in bilateral direct communication. The influence of Western media should be valued and their platforms can also be utilized by China. For example, *The Economist* successively accused China of neocolonialism in 2006, while on March 15 2008, a cover story entitled *The New Colonialists—a 14-page Report on China's Need for Natural Resources* conveyed a different idea, revealing that China's rejuvenation is beneficial to Latin America as China's demand for resources stimulates Latin America's exports while there is no evidence that China's exports expel Latin America from other markets or take the form of neocolonialism.[87] This article had a great response, helping reduce the misunderstanding to some degree. Thus, China should have more of a say in western media and promote Sino-Latin American win-win cooperation via the influence of the western media.

1.4.5 Deep Strategic Mutual Trust Is an Important Condition for the Alignment Of Sino-Latin American "Development Interests"

With complicated and profound changes in global patterns, developing countries aspire for equal participation in international affairs. Faced with the international financial crisis, emerging economies like those of Latin America play an important and irreplaceable role in reshaping the international political and economic scene. President Hu pointed out: "The international financial crisis impacts the present international political and economic system and the international economic management

[86]Hu Jintao: *Work together to create a new prospect for China-Latin America ties—Speech in National Congress of Brazil*, November 12, 2004, *People's Daily*, November 14, 2004, p. 1.

[87]Zheng Bingwen: "The Bankruptcy of the Neocolonialism Argument," *China Securities Journal*, March 31, 2008, A11.

structure, multipolarizing the world."[88] At present, Sino-Latin American relations are getting stronger; in particular, relations with Brazil, Argentina and Mexico have been upgraded from bilateral to international, and strategic interaction on international multilateral topics is gradually enhanced. China and Latin America share common grounds in terms of the latest multilateral topics such as global economic recovery, opposition to trade protection, the reform of the international monetary system and the United Nations climate change negotiations. Based on common interests, China and Latin America can consult and coordinate with each other under the framework of the G20, the BRIC and the G8+5. With increasingly similar interests, from deepening bilateral relations to a bilateral cooperation on global topics, China and Latin America should not only join hands to safeguard the legitimate interests of developing countries, but also to further expand their strategic consensus and deepen mutual trust in order to make the international political and economic patterns more conducive to developing countries.

Bibliography

Boersner D (1990) History of international relations of Latin America (trans: Yin H). Commerce Press, Beijing

Ding S, Yang DQ (1986) History of relations between China and Latin America. Henan People's Press, Zhengzhou

Dominguez J (2006) China's relations with Latin America: shared gains, asymmetric hopes. Inter-American Dialogue, Working Paper, June 2006

ECLAC (2008) Economic and trade relations between Latin America and Asia-Pacific. The link with China. Santiago, Oct 2008

ECLAC (2009) Economic survey of Latin America and the Caribbean 2008–2009. Santiago, July 2009

Hong Y (1996) Outline of history of relations among Latin America. Foreign Language Teaching and Research Press, Beijing

Hu J (2004) Work together to create a new prospect for China-Latin America ties—speech in National Congress of Brazil, November 12, 2004. People's Daily Nov 2004, p 1

Hu J (2008) Jointly build the partnership of comprehensive cooperation between China and Latin America in the New Era—speech in Peru's parliament, November 20, 2008. People's Daily, Nov 2008, p 3

Huang Z (2004) Rediscovery of the New Land: Zhou Enlai and Latin America. Foreign Affairs Press, Beijing

Huang Z (2007) The establishment of the diplomatic relation between China and Latin America. Shanghai Lexicographical Press, Shanghai

Jiang Z (1997) Enhance friendly cooperation to create a better future—speech in Mexican Senate, December 2, 1997. People's Daily Dec 1997, p 6

Li M (2001) Latin America and China-Latin ties—the present and future. Current Affairs Press, Beijing

Luo R (1998) The misery of Latin America discovery by Chinese—Essays of Historical Relations between China and America. Chongqing Press, Chongqing

Santiso J (2009) The visible hand of China in Latin America (trans: Wang P). Foreign Affairs Press, Beijing

[88] See Footnote 84.

Xie Y (1997) China's contemporary diplomatic history. China Youth Press, Beijing
Xu S (2006) Politics of Latin America. China Social Sciences Press, Beijing
Yang W (2008) Studies on China's foreign policy in Latin America (1990–2006). Doctoral dissertation, Graduate School of Chinese Academy of Social Sciences
Zheng B (2008) The bankruptcy of the Neocolonialism Argument. China Securities J A11, Mar 2008
Selected Works of Mao Zedong on Foreign Relations. Central Documentation Press, Foreign Affairs Press, Beijing 1994
Chronicles of Deng Xiaoping (1975–1997), vol. 2 Central Documentation Press, Beijing 2004
China's Policy Paper on Latin America and the Caribbean. Xinhua Online, Nov 2008. http://news.xinhuanet.com/newscenter/2008-11/05/content_10308177_1.htm

Chapter 2
Sino-Latin American Comprehensive Cooperation: Development Logic, Driving Forces, and Prospects

Zhiwei Zhou and Yunxia Yue

The First Ministerial Meeting of the China-CELAC Forum (the China and the Community of Latin American and Caribbean States Forum) was held from January 8th to January 9th, 2015. During its opening ceremony, President Xi Jinping delivered an important speech entitled "Jointly Writing a New Chapter in the Comprehensive Cooperation Partnership between China and Latin America", especially emphasizing that: "The convening of the First Ministerial Meeting of the China-CELAC Forum marks the transition of our comprehensive cooperative vision into reality, sends to the world a strong message about our commitment to deepen cooperation for common development, and has a major and far-reaching impact on South-South cooperation and the prosperity and progress of the world. China will work with Latin American and Caribbean countries to make the first Ministerial Meeting the new starting point of our heightened relations." The meeting adopted three key documents—the "Beijing Declaration of the First Ministerial Meeting of the China-CELAC Forum", the "China-Latin American and Caribbean Countries Cooperation Plan (2015–2019)" (hereafter "Cooperation Plan"), and the "Institutional Arrangements and Operating Rules of China-CELAC Forum". These documents have stipulated the forum's principles, specific approaches and institutional design, ushering into a stage of institutionalized operation for comprehensive Sino-Latin American cooperation, and signifying the start of a new friendly cooperation between China and Latin America.

Comprehensive cooperation marks a major breakthrough in the Sino-Latin American relations. However, this highly effective breakthrough has also provoked confusion and speculation from all sides regarding the driving force behind the cooperation, as well as incited divergent opinions on its future prospects. Therefore, it is necessary to consider the factors that make the cooperation possible and feasible as well as to analyze the potential challenges and possible coping measures. This would allow us

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to arrive at an objective understanding of the cooperation, theoretically providing support for both sides' efforts to further collaboration, flesh out the content of the cooperation, and continuously improve their cooperative relationship.

2.1 Sino-Latin American Cooperation: From "1+33" to "1+1"

The Latin American and Caribbean (LAC) region is an important part of China's diplomatic and South-South cooperation strategies. Since the dawn of the new century, the high proportion of overlapping interests between China and the LAC region has brought forth unprecedented opportunities for huge leaps in bilateral relations, gradually leading to the current comprehensive, wide-ranging, in-depth and pragmatic cooperation. Historically, the majority of Sino-LAC cooperation had taken the form of bilateral relationships between China and individual LAC countries. While some permanent institutions have been formed between China and certain regional organizations in the LAC region, they have not played significant roles. In the new century, as both China and LAC countries are gaining greater national strength and international influence, and as the international system is transforming, both sides have adjusted their respective foreign policies and widened their consensus on development, fostering a more mature Sino-LAC relationship with upgraded cooperation and a prolonged period for strategic opportunities. As strategic demand for and interest in multilateral cooperation grow, a comprehensive cooperation system has become an increasing concern in terms of their policies. It is in this context that the model for Sino-LAC cooperation gradually changes as both sides, in parallel to their continuously improving relationships, feel the need for a holistic, wide-ranging "1+1" system that would enable a more extensive international cooperation in more fields and under better mechanisms. This has become a must for China and the LAC region in this new historical stage.

2.1.1 The Sino-LAC Comprehensive Cooperation Is a Must for China's International Strategy in the New Era

In recent years, China's rapid and peaceful rise has made it the leading force transforming the international landscape and dominating international strategic dynamics. New concepts, ideas, and measures related to foreign relations nurtured since the Eighteenth National Congress of the Communist Party represent new and upgraded diplomatic strategies. Mr. Wang Yi, the Minister for Foreign Affairs, stated on many occasions that China is taking new measures on the diplomatic front, putting forward new ideas and presenting the new image of China, a country which diplomacy in the new era has taken on a more global perspective as well as a more enterprising

and innovative spirit.[1] China is moving forward along the path of "major-country diplomacy with Chinese characteristics". China is now more positive and active on the diplomatic front, adopting new attitudes, concepts and measures, as illustrated in the following aspects. China is more actively involved in international affairs, takes its responsibilities as a big country, and faces up to the global challenges along with other countries; while pursuing its own interest, China takes into consideration the reasonable concerns of other countries and promotes common development, so as to set up new global development partnership that is fairer and more equitable, where China shares opportunities, challenges and responsibilities hand-in-hand with other nations, so as to enhance the common interests of humanity; China provides global public goods with no strings attached. In the past, the major concern in Chinese diplomacy was to serve and promote domestic development by creating sound external conditions. Now China has shifted its focus to being a leader in regional and global development, playing the role as a big country, and transforming the international order as well as the global governance system.[2]

Developing countries are the cornerstone of China's diplomatic strategy, as well as important partners for China in global governance. The past two decades have witnessed China establishing new institutions such as the Forum on China-Africa Cooperation, the China-Arab States Cooperation Forum, the "10+1" and "10+3" frameworks between China and the Association of Southeast Asian Nations (ASEAN), the Asia Cooperation Dialogue (between China and Central Asian states), and the Shanghai Cooperation Organization. The current Chinese government emphasizes a "community of shared future" with other developing countries under a new concept of morality and interests, where China is the "reliable friend" and "honest companion" of developing countries. President Xi stressed that China must gain diplomatic support by giving morality the same or even a greater importance than national interests in its relationship with developing countries.[3] His proposal includes the idea that China should, to the best of its capability, give poor countries assistance, and give developing countries, particularly least developed countries, unconditional support, helping them to realize sustainable and independent development. In the new century, China has given great strategic importance to the LAC region, a region of developing countries, and has come to design overall foreign policies with it in mind. In November 2008, the government issued its first "Paper of China's Policy toward Latin America and the Caribbean", which states that: "The Chinese Government strategically values its relations with Latin America and the Caribbean, and seeks to build and develop a comprehensive and cooperative partnership of equality, mutual benefit and common development with Latin American and Caribbean countries."

[1] Wang Yi, "Exploring the Path of Major-Country Diplomacy With Chinese Characteristics", *International Studies*, 2013(4), p. 2.

[2] Xie Fang, "Chinese Diplomacy To Be More Proactive After 18th National People's Congress", China Social Sciences Today, Nov 21, 2012, p. A01.

[3] "Exploring the Path of Major-Country Diplomacy With Chinese Characteristics: Remarks by Foreign Minister Wang Yi At the Luncheon of the Second World Peace Forum", http://www.fmprc.gov.cn/mfa_eng/wjb_663304/wjbz_663308/2461_663310/t1053908.shtml (retrieved on Jan 26th, 2015).

This was the first time China expressed its intention for comprehensive cooperation with the LAC region. In June 2012, Prime Minister Wen Jiabao suggested the establishment of the China-LAC forum during his speech at the United Nations Economic Commission for Latin America and the Caribbean. In July 2014, President Xi spoke at the first China-LAC Leaders Meeting, where he put forward the proposal to "build a community of shared destiny for common progress", to create a new five-dimensional relationship "of political sincerity and mutual trust, win-win economic cooperation, mutual cultural exchanges, close coordination in international affairs, and synergy between China's cooperation with the region as a whole and its bilateral relations with individual countries in the region." In January 2015, the China-LAC Forum was formally established, and at the same time so was China's comprehensive cooperation with the whole world (particularly the developing world). In line with China's global and comprehensive cooperation system, collaboration with the LAC region is a must.

2.1.2 The Latin American Diplomatic "Pacific Strategy" Prioritizes China

As the global political and economic center shifts toward the Asia-Pacific region in the new "Asian Century", a Pan-Pacific cooperation process has accelerated the coming of a flat world, causing the Asia-Pacific region to increasingly attract the attention of Latin America. In particular, the growing national strength and international influence of China, and the increasingly closer Sino-Latin American trade relations, have made strategic relationship with China a consensus among, if not a priority for Latin American countries. The idea of "Chinese opportunity" and concept of "Pacific awareness" have been important parts of the diplomatic strategies of Latin American nations. On one hand, as the Asia-Pacific region becomes more attractive, Latin America's intention to join the Asian production chain for their own growth has been demonstrated by the formation of the "Pacific Alliance" and the eagerness of Latin American nations in Pan-Pacific Partnership Agreement talks; on the other hand, as China becomes a prioritized target of partnership, "Chinese-threat" talks have been disappearing from Latin American public opinions, where key expressions such as "China as a partner" and "Chinese opportunity" have instead emerged.[4]

To Latin America, China is attractive, not only because of its enormous demand for primary products and raw materials, but also because of its newly gained status as a major source of global capital. Many Latin American nations see China as an important source of financing, which means potential support to Latin American

[4]Zhou Zhiwei, "China-Brazil Relationship, Partners or Competitors: the Brazilian Perspective", *Journal of Latin American Studies*, 2014(2), pp. 17–23.

nations in terms of structural adjustments or emergency low-interest loans.[5] In addition, the strengthening of partnerships with China corresponds to the hope of many Latin American states to diversity diplomacy, increase diplomatic independence, and even "[hedge] against U.S. dominance in the region".[6] Many Latin American countries have been rethinking their Chinese policies. The Chilean government launched a "Chinese policy program" in 2009, and its Foreign Investment Committee (CIE) formed a "Department of Chinese Affairs" in September 2010. In June 2008, several Brazilian ministries jointly issued a "China Agenda",[7] aimed at further unleashing the China-Brazil trade potential in a balanced and sustainable bilateral relationship. Brazilian think tanks have been calling for the government to "form concrete and systematic Chinese policies"[8] with clearer focus and a better understanding of Brazil's interests. In June 2013, prior to President Xi's visit to Mexico, President Enrique Peña Nieto of Mexico published an article expressing the hope that "China and Mexico can form an economic relationship that opens the gate to a new era of economic complementation. As inheritors of great historical treasures and millennium-old civilizations, China and Mexico have the responsibility to unite for their shared future."[9] President Solis of Costa Rica also emphasized to Chinese reporters, "In the past, our traditional diplomatic policy has ignored Asia, viewing the USA and EU as the most important partners. We will make an effort to correct this thinking during my term. The present source of growth is the Pacific region. In some sense, Costa Rica is also a Pacific country. Therefore we see the Pacific region, including China, as the most important focus of our diplomacy."[10] In recent years Chinese diplomacy has been emphasizing new ideas in terms of international development such as "openness and inclusiveness" in cooperation, morality over interests, and the "common destiny" of developed countries, which are in accordance with the shift of Latin American countries toward Orient in their foreign policy. The moral influence of these new Chinese ideas strengthens the resolve and confidence of Latin America for further cooperation with China.

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[5] Agustín Lewit, "Una Nueva Geopolítica: China-América Latina", Centro Estratégico Latinoamericano de Geopolítica, enero 7 de 2015. http://www.celag.org/una-nueva-geopolitica-china-america-latina/ (retrieved on Jan 22, 2015).

[6] Shannon Tiezzi, "China's Push into 'America's Backyard'", *The Diplomat*, February 8th, 2014. See: http://thediplomat.com/2014/02/chinas-push-into-americas-backyard/ (retrieved on Jan 12th, 2015).

[7] Including the Ministry of Development, Industry and Foreign Trade, Ministry of Foreign Affairs, Ministry of Agriculture and Wasteland Cultivation, China-Brazil Business Council (CBBC), and National Confederacy of Industry. URL: http://www.cebc.org.br/pt-br/projetos-e-pesquisas/projetos-realizados/agenda-china/agenda-china-acoes-positivas-para-relacoes (retrieved on Jan 10th, 2015).

[8] Roberto Abdenur, "Quemprecisa da China", CebriTextos, 2011, http://www.cebri.org/midia/documentos/texto06.pdf. (retrieved on Oct 20th, 2014).

[9] Fu Zhigang, "President Enrique Peña Nieto of Mexico Praises the Mexico-Chinese Relationship in Article: Two Ancient Nations Facing a Common Future", *Guangming Daily*, Jun 5, 2013, p. 8.

[10] Luis Guillermo Solis, "Latin America Shifts toward Pacific Possibilities", *Global Times*, January 13, 2015.

During the adjustment of their diplomatic strategies, China and Latin America have agreed to strengthen their comprehensive and pragmatic cooperation, with an aim of building a comprehensive Sino-Latin American cooperation system. The establishment of the China-CELAC Forum enables the system to start operating, and the three agreements from the first Ministerial Meeting have laid out the blueprints for the long-term development of the cooperative relationship. The "Beijing Declaration" represents the general political consensus of both sides on promoting the partnership; the "Cooperation Plan" establishes that both sides will use specific policies and the "1+33" coordination system to promote cooperation in 13 areas: politics and security, trade, investment, finance, infrastructure, energy resources, industries, agriculture, scientific innovation, culture, etc.; the "Institutional Arrangements" establishes the system of interaction and coordination, including the Ministerial Meetings, periodical talks between China and CELAC, and coordinators meetings, providing institutional support for the implementation of both sides' political consensus and cooperative plans. The Forum gave both parties an institution for collective dialogue, creating a new state of cooperation between the two sides, where bilateral cooperation, multilateral cooperation and comprehensive cooperation are interactively incorporated. This is beneficial to the political and economic dialogue of both sides, creating more space for wider and deeper partnerships. In theoretical terms, the design of the cooperation system allows both sides to build on the consensus, to develop the potential of cooperation in all areas, and to conduct a cooperation that's healthier and more balanced for the Chinese Dream and the "Latin American Dream" to grow in harmony.

2.2 Intrinsic Drives and Extrinsic Pressures Of Sino-Latin American Comprehensive Cooperation

Since the first proposal, Sino-Latin American comprehensive cooperation has never been absolutely free from doubts both inside and outside China. Such doubts concern two points: first, the Latin American region has never been a priority in China's strategies, as 12 Latin American countries have never been in any diplomatic relationship with China. Meanwhile, differences are pervasive among Latin American countries, be it in terms of socioeconomic development, system design, culture, or their policies toward China. Still, comprehensive cooperation has been proposed and launched at a rate far beyond the expectations of onlookers. Secondly, with the USA's deployment its "Asia-Pacific re-balancing" strategy, the institutionalization of the comprehensive Sino-Latin American cooperation seems to have had the effect of hedging the USA's return to the region, igniting speculation that this symbolizes China's resistance against the American strategy.

In fact, the development of the Sino-Latin American relationship follows its own patterns, and is influenced by external and internal competitions pressures on many fronts. Its upgrading and transformation is based on consistency in both sides' interests, and is a must for both sides' interdependence, reciprocal help and self-awareness in global governance.

2.2.1 The Comprehensive Sino-Latin American Cooperation Is a Natural Result of the Sino-Latin American Relationship

Since the beginning of the 21st century, the Sino-Latin American relationship has been making great leaps driven by both sides' economic complementarity, the upgrading of China's policy towards Latin America, and China's new "going global" strategies.

In terms of political relationships, China has formed various partnerships with major countries including Brazil, Argentina, Chile, Peru, Venezuela, Mexico, Costa Rica and Ecuador, all enjoying increasing strategic mutual trust. Leaders on both sides have maintained frequent interactions on bilateral and multilateral occasions. In particular, the two visits by President Xi Jinping to Latin America have shown China's intention for tighter cooperation. The shared philosophy for development and the common ideas in terms of international strategies have deepened connections at the top, which in turn has injected powerful momentum into cooperation.

The Sino-Latin American relationship is supported by economic cooperation, this being the most important constituent of their shared interests. Sino-Latin American trade has been expanding along with economic growth. Latin America was the region where China saw fastest trade growth from 2003 to 2012, with an annual volume increase of over 30%. Since 2013, China has been Latin America's second largest trade partner, with bilateral trade volumes reaching USD 264.03 billion at the end of 2014, accounting for 6.13% of China's foreign trade. As part of this fast growth, Latin American exports are staying on the rise. The United Nations Economic Commission for Latin America estimated that from 2000 to 2012, Latin American exports had increased by about USD 620.2 billion in total, whereas exports to China increased by USD 120.5 billion, accounting for 20% of the total increase. In other words, for every USD 100 in increased export, 20 dollars originate from Chinese exports (24 dollars from the USA and 16 from the EU), which means China has been the second largest engine for the growth of Latin America's exports. At the same time, Latin America is also where China's FDI is growing most rapidly, and it has become the second largest destination for investment by Chinese enterprises. From 2003 to 2013, the FDI stock from China to Latin America increased from USD 4.6 billion to USD 86.1 billion (13.03% of total), at an annual increase rate of 35.93%. Presently, China is Latin America's third largest source of investment, with growing productive investments in Brazil, Venezuela, Ecuador, Argentina and Mexico. Economic cooperation is another component of Sino-Latin American cooperation, as it helps to align both sides' shared interests. By the end of 2013, China has delivered contract projects in Latin America amounting to USD 13.3 billion in terms of turnover (9.7% of total), and 19,775 Chinese citizens have been to Latin America for labor cooperation (7.73% of total), making Latin America the third largest foreign project market for China, after Asia and Africa (Fig. 2.1).[11]

[11] CEIC China Economic and Industry Data Database (retrieved on January 26th, 2015).

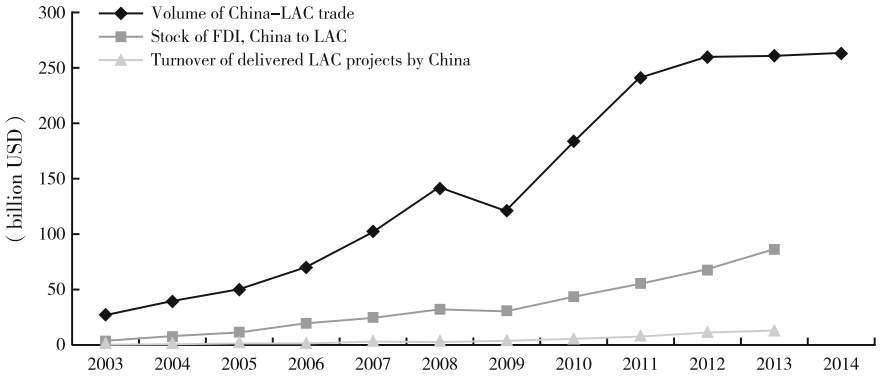

Fig. 2.1 Scale of China-LAC economic cooperation. *Source* CEIC China Economic and Industry Data Database (retrieved on January 26th, 2015)

The cooperative mechanisms between China and Latin American countries or regional organizations have also become more diverse. In addition to the bilateral relationship, China and major Latin American countries have established institutions for strategic dialogue, such as the Brazil-China High Level Coordination and Cooperation Commission (COSBAN), permanent Chinese committees with Mexico and Argentina, the China-Venezuela committee and cooperation fund, the China-Caribbean Trade Cooperation Forum, etc. Recently, China signed Free Trade Agreements with Chile, Peru and Costa Rica, and started feasibility researches on FTA with Columbia. After becoming an observer at the American Development Bank in 1991 and at the Latin American Integration Association in 1993, China also became an observer at the Organization of American States and the LAC Trade Commission in 2000 and 2004 respectively. China has also formed dialogue systems with the Rio Group, Mercosur, and the Andean Group, besides its ministerial discussion mechanisms with major Latin American states, creating a multi-channel coordination network. These all led to China's previous Prime Minister Wen Jiabao's proposal for comprehensive cooperation in June 2012 during his visit to the LAC Trade Commission. Further attempts have been made for the realization of cooperation, such as the non-governmental dialogue systems (including the China-LAC Entrepreneur Summit and Think Tank Forum), the 2013 "China-LAC Young Statesman Forum" and the 2013 "Minister of Agriculture Forum".

The current state of Sino-Latin American relationships and the diversification of cooperation mechanisms have given both sides the necessary foundations for comprehensive cooperation. The comprehensive cooperation mechanism can also add to both sides' diplomatic deployment. It completes China's cooperation with developing regions, provides an integrated solution to the Sino-Latin American cooperation, and helps maximize the efficiency of diplomatic resources. The forum-based mechanism also gives China a possibility for "packaged dialogues" with 33 countries, creates a channel of communication and cooperation for nations not in diplomatic ties with China, and helps China to better react to changes in the Taiwan Strait sit-

uation. For Latin America, the mechanism provides greater flexibility in diplomacy and economic growth, strengthening the CELAC solidarity, and giving impetus to their integration progress.[12] Therefore the mechanism enables both sides to share the results of development.

2.2.2 *Comprehensive Sino-Latin American Cooperation Is Driven by New Trends in South-South Cooperation*

The changing global landscape and emerging economies imply new requirements for the reform of the global governance system. The global financial crisis, caused by the 2007 sub-mortgage crisis in the US, accelerated the transformation of global powers and reshaped economic governance, which actually happened ahead of the transformation of the global security system.

First, under the pressure of the financial and debt crises, the power of "Western countries"[13] has been shrinking due to their economic downturn. Western countries are weaker at macro-economic control and providing international public goods. They are less capable of leading international affairs. Meanwhile, emerging economies have generally maintained their collective rising trend. That is to say, the increase in the developing world's power is concomitant with the decreasing power of Western countries, changing their relative statuses and contributions in the global economy. It is estimated that from 2000 to 2014, 50% of global economic growth was contributed by emerging economies and developing countries, whose total economic size in the world's total increased to 39.3% from 20.4% when denominated in the exchange rate of US dollar, or from 42.87 to 57% if denominated in PPP.[14] At the same time, emerging economies and developing countries have more presence in international economic activities, as their proportion in global trade increased to 43.1% in 2013, compared with 30.3% in 2000, and their ratio in global foreign direct investment went up to 53.6% from 18.8%.[15]

Second, with these changes, the international balance of power has been moving toward greater equality and multi-polarization. The economic rise of newer powers brings deep changes to the balance of power, pushing for the reform of the global governance system. The system, once led by developed nations, faces challenges in terms of legitimacy and efficiency, and has entered a transition period. Despite the transition being incremental, unbalanced and multivalent, the many mechanisms of

[12] See Prensalatina's reportage on the third CELAC leaders' meeting, *CankaoZiliao*, Feb 10, 2015, pp. 32–36.

[13] DNI report World in Transformation: Global Trends in 2025 defines western countries as "Europe, Japan, America, Canada, Australia and New Zealand". The following link for reference (2015.1.20): http://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/2025_Global_Trends_Final_Report.pdf.

[14] Calculated by the author, using data from IMF, World Economic Outlook Database, October 2014.

[15] Calculated by the author, using data from UNCTAD, *Handbook of Statistics on-line.*

global governance (United Nations, International Monetary Fund, World Bank, and World Trade Organization) are all affected by this rearrangement of powers, and deeper reforms concerning delegate numbers, rights to vote and rights of discourse have become new items on their agendas. Two trends can be observed: first, the central role of the G20 group, with the stronger participation of emerging states recognized by developed countries; second, the stronger unity of groups in global governance, with greater interaction and coordination between major stakeholders, which includes that between emerging powers, new powers and developed countries, and developing countries.

The global power shift has made developing countries more willing to participate in deeper collaborations and sped up the pace of South-South cooperation, particularly in terms of the economic cooperation between emerging nations. In the past decade, South-South cooperation has again become a priority in the diplomatic policies of most developing states, and the coverage and content of these collaborations have fundamentally changed. In the new century, as developing countries show more solidarity throughout the world, the traditional cooperative organizations of developing countries, such as the Non-Aligned Movement, Group 77 and Group 15, have recovered their vigor, now playing active roles in affairs such as climate change, food security and regional disputes. Their influence has been stronger on some major topics. Beside traditional mechanisms, the past decade has also seen the birth of new mechanisms, such as BRICS and BASIC, dedicated to further cooperation in development while preserving the interests of developing countries. Both the traditional and new systems have become major forces in global governance, and are the new center of South-South cooperation to be. In this new era, South-South cooperation has transitioned from traditional trade and assistance toward extensive market-based cooperation in trade, finance, investment, industry, and regional integration. Holistically, the economies of developing countries are still on the rise. In this context, South-South cooperation in the new era focuses more on complementary cooperation for win-win results, and on upgrading connectivity between developing countries.[16] Economic development between developing countries under a global economic cycle will facilitate multilateral cooperation during the transformation of the international governance system, terminate long-term monopoly of developed countries on the global economic governance mechanism, and enhance the influence and say of developing countries so as to promote a pluralistic and balanced international economic and political order.

In this process, China and Latin America are more willing and are in a better position to be involved in global governance. A stronger Chinese economy enables China to be more deeply involved in more international affairs and improves China's influence on the global governance decision-making system. On June 28th 2014, President Xi Jinping pointed out at the 60th-Anniversary Meeting for Five Princi-

[16]Wang Yuesheng, Ma Xiangdong, "*Global Economic Double Cycle*", *International Economic Review*, the 2nd edition of 2014, pp. 61–80.

ples of Peaceful Coexistence that "China is a participant, builder, and contributor of the contemporary international system". This underlines China's comprehensive initiative to be a penetrating, active player in the international system, no longer as a beneficiary but as an innovative contributor. In this sense, the relationship between China and the outside world is no longer an issue of "establishing connections" and "contacts", but rather has entered a new period of "guidance" and "reshaping". China's rise is conducive to the new world order as long advocated by developing countries. For China, close association with developing countries is a path of major importance in terms of reaching strategic goals. In the past 10 years, Latin American countries have improved their capacity building and have been more present in terms of international affairs. First, Brazil and Mexico, as representative emerging countries, are likely to play key roles on global economic scene, given their consolidated status in the global economy. Moreover, Brazil, Mexico, and Argentina, as members of the G20 group, will become more influential in global governance. On top of that, Latin American countries are fully aware of the importance of cooperation and self-reliance. They have made long-term efforts for regional integrity. The Community of Latin American and Caribbean States (CELAC), set up in December 2011, is a milestone in terms of Latin America regional integrity. Its principles include sustainable development via the deepening of regional political, economic, social and cultural integrity; improving the dialogue and cooperation in terms of economy and trade, production, society and culture between regional and sub-regional integrity organizations as well as setting common agendas for regional development; coordinating and expressing common stances on major issues concerning CELAC and making sure the "voice of Latin America" is heard. Although CELAC remains at the preliminary stage, it is consistent with the Latin American historical pursuit of national unity and self-improvement. Vigorous and cooperative as it is, CELAC, representative of all the countries in the region, will play a paramount role in external cooperation and global governance.[17]

In general, against the backdrop of the current international relations system, China and Latin America's international statuses are on the rise, which illustrates the shift of global power. The two countries have not only made great contribution to the comprehensive development of developing countries, but also forged unprecedentedly close political and diplomatic ties due to their economic complementarity.[18] As Sino-Latin American relations become more important politically in the world, diplomatic targets, concepts, measures, and resource distribution will also be transformed and adjusted.

Cooperation between China and Latin America is an inevitable trend. As Solis, the president of Costa Rica said: "The old international landscape is fading out;

[17] Wu Baiyi, "*Source of Success in China-LAC Comprehensive Cooperation*", *Renmin Daily*, Jan 11, 2015, p. 003.

[18] Wu Baiyi, *Opportunity in Transformation: Prospect of China-LAC Cooperation from Multiple Perspectives*, Economy and Management Press, Apr 2013.

emerging countries like China are rising and Latin America is playing an active and independent role in the international arena. The ministerial meeting of the China-CELAC forum in Beijing shows that Latin America will play a new role in the world and the international order will be further upgraded."[19]

2.2.3 *Sino-Latin American Cooperation Follows the General Trend of Inter-regional Cooperation*

Since the 1990s, despite slow progress in global multilateral trade talks, regional economic integration has accelerated. The WTO estimates that 604 regional trading arrangements (RTA) had been reported to WTO by Jan 8th 2015, with 398 already in effect, and nearly 90% free trade agreements (FTA) or preferential trade arrangements (PTA).[20] Except for Mongolia, all WTO members have signed RTAs, nearly 10 for each nation, and growing regional trade accounts for over 50% of total international trade.

Unlike traditional models, current regional cooperation has gone beyond geographical borders to be notably inter-regional. WTO statistics show that inter-regional collaboration has become a major part of all countries' global strategy and economic policy, and that nearly every major power has taken part in inter-regional free trade agreements. The signees of inter-regional trade agreements have increased from 65 in 2003 to 155 in 2012. Among RTAs in effect, the proportion of inter-regional agreements has increased from 10 to 38.9%.[21]

Of particular importance is that a large number of new inter-regional agreements are being discussed. Their progress may promote the formation of regional trade units, affect the setting of global trade standards, and decide of the world economic structure. Among all inter-regional agreements, the four most influential are the Trans-Pacific Partnership (TPP), the Transatlantic Trade and Investment Partnership (TTIP), the Regional Comprehensive Economic Partnership (RCEP), and the EU-Japan FTA. They will possibly form large free trade zones that respectively accounting for 38.43, 45, 29.55 and 31.44% of global total gross domestic productivity and take up large proportions in global total trade and the FDI flow (see Table 2.1). These huge FTAs have been intending to adjust and unify global trade and economy. This is particularly so when it comes to the TPP and the TTIP, which identify themselves as high-standard and high-level open free trade zones with agendas covering all aspects of goods and services, including intellectual property protection, labor standards,

[19] Wu Baiyi, "Source of Success in China-LAC Comprehensive Cooperation", *Renmin Daily*, Jan 11, 2015, p. 003.

[20] WTO database, http://www.wto.org/english/tratop_e/region_e/region_e.htm (retrieved on Feb 5th, 2015).

[21] WTO, *World Trade Report 2003*, 14 August 2003, p. 51.

Table 2.1 Potential size of major interregional trade agreements

	No. of participant countries	Population (%)	GDP (%)	Commodity export (%)	Commodity import (%)	FDI inflow (%)	FDI outflow (%)
RCEP	16	48.96	29.55	28.45	28.13	24.35	23.36
TPP	12	11.41	38.43	23.58	27.89	30.05	43.78
TTIP	29	11.77	45.00	39.94	44.48	31.53	46.87
EU-Japan FTA	29	9.08	31.44	35.88	36.68	19.25	32.06

Data source Calculated by the authors, based on data from Rosales, O. and S. Herreros, "Mega-regional trade negotiations: What is at stake for Latin America?" *Inter-America Dialogue Working Paper*, January 2014

environmental standards, small and medium enterprise growth, financial regulation, competition policies, and economic legislation. Once firmly established, such FTAs could shape new world trade rules and standards.

In essence, regional economic cooperation means free trade within and external trade beyond. The same goes for inter-regional cooperation, which makes trade much freer between member states and expands production networks and supply chains, but damages the benefits of economies not part of the cooperation. Such mixed effects have made both China and Latin America active practitioners of inter-regional cooperation. China has not only been actively participating in RCEP talks, but also in other multilateral institutions such as the Asia-European Conference, the China-Africa Cooperation Forum, the East Asia-Latin America Cooperation Forum, the Boao Forum for Asia, and the China-Caribbean Trade Cooperation Forum. China has signed 12 FTAs encompassing 20 countries and regions, including Chile, Peru, Costa Rica, Iceland and Switzerland. China is also discussing with potential partners the possibility of 8 FTAs that would cover 23 countries and regions. Moreover, China is studying the feasibility of another 3 FTAs, which would involve 23 countries in total.[22] Latin America has been actively expanding international cooperation in line with the principle of "open regionalism". The 33 Latin American countries have signed 189 RTAs in total, whereas each Latin American nation has at least signed one RTA.[23] Mexico, Chile and Peru participated in the TPP discussions, and other countries in the region have signed or are in talks with the EU on the matter of FTAs (Fig. 2.2).

[22]China Free Trade Zone Service, at http://fta.mofcom.gov.cn/index.shtml (retrieved on Feb 5th, 2015).

[23]WTO database, http://www.wto.org/english/tratop_e/region_e/region_e.htm (retrieved on Feb 5th, 2015).

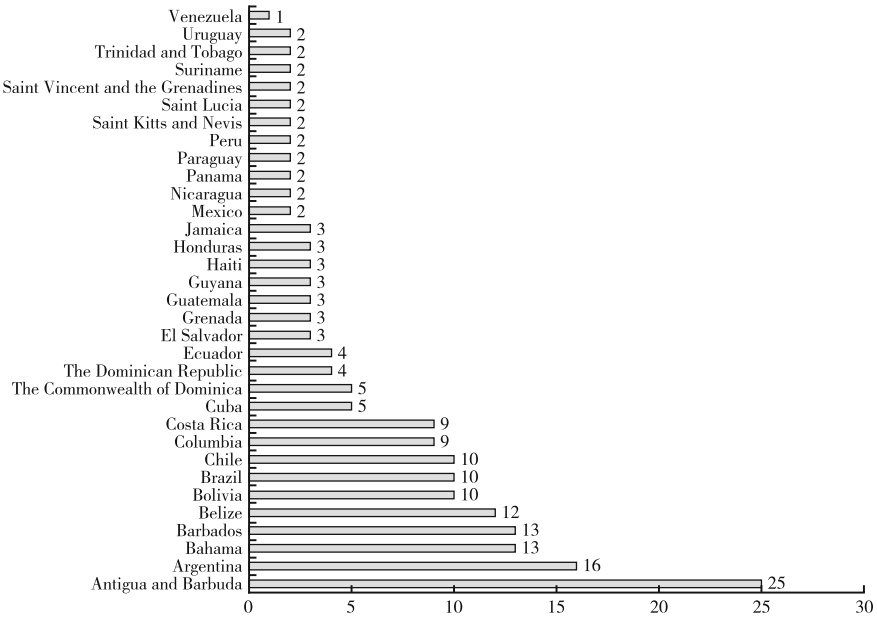

Fig. 2.2 Numberof regional trading arrangements by LAC countries. *Source* WTO database: http://www.wto.org/english/tratop_e/region_e/region_e.htm (retrieved on Feb 5th, 2015)

At the same time, China and Latin America have also felt the negative impacts of interregional cooperation. The USA-led TPP and TTIP between the USA and EU both show clear "anyone but China" (ABC) intentions; their high standards also effectively exclude most Latin American countries. Their implementation implies risks of decreasing exports to China and Latin American nations that are not member states thereof and who may be thrown to the bottom of the global value chain due to the outward movement of investments.

Therefore, forming a comprehensive cooperation system with the China-CELAC Forum as the core is a must for both China and Latin American nations in the context of global interregional cooperation trends. Such a system meets both sides' wish for participation in such interregional cooperation, and helps them respond to possible external impacts and be more of their own accord in global competition.

2.2.4 Comprehensive Sino-Latin American Cooperation Is Mutually Beneficial During Economic Transition

Over a decade of economic interaction has forged tight links between China and Latin American economies. The UN LAC Trade Commission estimates that every percentage point of Chinese economic growth is connected to 0.5% of Latin American

growth. Presently, both sides are restructuring their economies. Accordingly, their cooperation needs quality-oriented reforms, so as to move toward better growth. Consensus is needed and priorities should be identified between China and Latin American nations where new structural complementarity has emerged.

On the one hand, China's high-quality excessive production capacity can meet Latin American needs for diversified industries and upward movement along the value chain. In its "new normal", China has continued to increase foreign investment, combining capital and industries to bring its conventionally excessive production capacity (such as steel, concrete, textile, etc.), new excessive production capacity (such as photovoltaic power, wind power, etc.) and high-end equipment (such as high-speed railways and nuclear power) to Latin American countries, which often lack industrial infrastructure and products and therefore call for massive investments to diversify their industries. In 2014, China's FDI exceeded its investment inflow for the first time, making it an exporter of capital and marking China's shift from product export toward capital output backed by foreign economic cooperation. There is ample room for industrial cooperation between China and Latin America to be deepened via further contacts.

On the other hand, China's domestic consumer market is growing, creating a market for Latin American products and services. Today, Chinese consumers are no longer simply chasing the latest fashion trends. They have become increasingly concerned about cultivating their own individual tastes that distinguish them from others. In the future, the supply system will embrace more openness and diversity; witness more overseas consumption as well as more imports of goods and services. The Chinese government predicts that China will, in 5 years and import commodities worth over USD 10 trillion, invest over USD 500 billion, while over 500 million Chinese citizens will travel abroad, giving the world, including Latin America, more opportunities for markets, investments, collaboration and growth.

The connection between Chinese and Latin American industries and the changes in their demand structures may help generate new sources of investment and trade growth while accelerating the expansion and upgrade of their cooperation. The comprehensive cooperation system will help establish new multilateral coordination platforms and permanent mechanisms, besides tightening economic ties. More specialized dialogue mechanisms will follow, featuring the participation of other actors such as enterprises, think tanks and media, which will help strengthen communication and properly address disputes in collaboration. Comprehensive Sino-Latin American cooperation may go beyond national cooperation; promote flatter connections between both sides' flows of personnel, goods, finance and information; integrate policies, rules and standards; and allow both sides' economic restructuring to be mutually beneficial.

2.3 Comprehensive Sino-Latin American Cooperation: Planning and Principles

Sino-Latin American cooperation, represented by the China-CELAC Forum, covers politics, economy, trade, resources, energy, infrastructure, culture, science, technology, think tanks, youth, non-governmental exchanges, and many other areas, addressing common concerns such as development patterns, urbanization, ecological safety etc. Based on documents adopted at the First Ministerial Meeting of the China-CELAC Forum and the meeting between President Xi Jinping and LAC Leaders in Brasilia, a "five-dimension" cooperation plan between China and Latin America has been clearly defined. The objectives and basic principles that Sino-Latin American cooperation follows are:

First, mutual political trust between China and Latin America shall be reinforced alongside the principles of equality and mutual assistance. China and the Latin American region differ sharply in terms of political systems, values, and ideology. Overcoming such differences and building an inclusive bilateral relationship are challenges standing at the very foundation of the deepening Sino-Latin American cooperation. In his keynote speech at the China–Latin American and Caribbean Countries Leaders' Meeting, president Xi Jinping pointed out that "we should always treat each other as equals and support each other sincerely". At the First Ministerial Meeting of the China-CELAC Forum, Xi Jinping stressed again the "principle of acting as equal partners in cooperation". China and CELAC members, despite differences in size, strength and level of development, are equal members of the China-CELAC Forum family. They may come together under the vision of friendly consultation, joint development and outcome sharing, accommodate each other's interests and concerns, and build as much consensus as possible, so as to lay a solid political foundation for comprehensive cooperation.[24] With regard to deepening mutual political trust, the Cooperation Plan adopted at the First Ministerial Meeting proposes "more frequent visits and meetings on multilateral occasions between Chinese and CELAC leaders, as well as between China and CELAC's specific member states, alongside improved dialogues and various consultation mechanisms between both sides, so as to make full use of the China-CELAC Forum as a platform", the "further expansion of exchanges and collaboration between the National People's Congress of China and the legislative bodies and parliamentary organizations of CELAC countries", and the "consideration of exchanges between political parties, local governments and youth in both China and CELAC countries". Public diplomacy can increase one side's knowledge of the other side's political system and development path, and strengthen the sharing of governance experience. Both sides should deepen strategic mutual trust so as to continue to give each other understanding and support on

[24] Xi Jinping: *Jointly Write a New Chapter in the Partnership of Comprehensive Cooperation Between China and Latin America and the Caribbean—Address at the Opening Ceremony of the First Ministerial Meeting of The China-CELAC Forum*, 8 January 2015, http://www.gov.cn/xinwen/2015-01/08/content_2802290.htm (retrieved on Jan 20th, 2015).

issues concerning core interests and major concerns such as sovereignty, territorial integrity, stability and development.

Second, efforts should be made to explore methods to upgrade economic cooperation between China and Latin America in a mutually beneficial way. The dramatically increased business ties between China and the Latin American region has been the most eloquent achievement of the Sino-Latin American partnership. As the Chinese economy has steps into the "new normal", China and Latin America need to continue building on their economic complementarity for balanced and stable trade growth. China proposes that the two sides work together to develop a "1+3+6" cooperation framework to promote faster, broader and deeper cooperation for substantial results. The number "1" implies one plan. Both sides should develop the Cooperation Plan with the aim to achieve inclusive growth and sustainable development and properly align the two sides' respective development strategies. The number "3" implies "three engines", namely trade, investment and financial cooperation, which are the driving force for the all-round development of practical cooperation between China and Latin America and the Caribbean. The two sides should continue to give trade a role to play in driving economic growth, improve the trade mix, promote the exportation of Latin American and Caribbean traditionally competitive products and high value-added products to China, expand cooperation in service trade and e-commerce, and work toward the US$500 billion two-way trade objective in the next ten years. In addition, both sides should expand mutual investment, promote investment diversification, and channel more capital to productive sectors. To this end, China proposes to "strive to increase its investment stock in the Latin American region to US$250 billion in the coming decade" and focus particularly on sectors producing hi-tech and high-added-value goods. Both sides should enhance financial cooperation, encourage closer coordination and cooperation between central banks, expand the use of each nation's own currency in bilateral trades as well as currency swap, and encourage banks to set up branches within the each other's borders. The number "6" implies "six areas". Both sides should focus on cooperation in six areas, namely energy and resources, infrastructure building, agriculture, manufacturing, scientific and technological innovation, and information technologies. Both sides should be better coordinated in the industrial sector and deepen mutually beneficial cooperation.

To facilitate mutually beneficial cooperation with Latin American nations, China promises that it will launch a US$10 billion special loan for infrastructure projects and will, on that basis, further increase the loans to US$20 billion. Moreover, China will provide US$10 billion preferential loans to Latin American countries, and launch the Fund for Sino-Latin American Cooperation, where China pledges a contribution of US$5 billion primarily for cooperation in energy and resources, agriculture, manufacturing, hi-tech, sustainable development, as well as other areas. In addition, China will also formally launch a US$50 million special fund for agricultural cooperation, establish the "Science and Technology Partnership" and the "Young Scientists Exchange Program", and hold the first scientific and technological innovation forum when appropriate. The Cooperation Plan stresses making full use of the China-LAC Cooperation Fund, the China-LAC Special Loan for Infrastructure,

preferential loans offered by China as well as other financial resources, to support key cooperation projects between China and CELAC countries, in line with the social, economic and environmental needs of the CELAC region as well as the region's vision for sustainable development.

Third, public diplomacy between China and Latin America needs to be facilitated by way of stronger interaction and knowledge exchanges. Exchanges between governments, legislative bodies, political parties, and local entities in both China and Latin American countries will be expanded, and both sides' cooperation in education, culture, sports, media and tourism deepened. The Cooperation Plan suggests the promotion of exchanges in education, cooperation in mobility research programs, and cooperation between educational authorities and institutions. The Chinese side will provide CELAC countries with 6000 official scholarships, 6000 training opportunities and 400 opportunities for on-job master degree programs in China between the year 2015 and 2019. The Chinese side will officially launch the ten-year training program for 1000 young leaders in provenance of both sides under the 2015 "Bridge of the Future" initiative, and will continue with training programs for young cadres from Latin American nations. China will continue to promote the establishment and development of Confucius Institutes and Confucius Classrooms in CELAC countries. Both sides will make joint efforts to hold the "Year of Cultural Exchanges between China and Latin America and the Caribbean" preferably in 2016, as advocated by China.

Fourth, the shared interests of China and Latin America need to be maintained and international coordinated. Enhanced coordination and cooperation between China and Latin America and the Caribbean in global affairs will bring about more democratic international relations and a fairer, more just international order. At the meeting with LAC Leaders in Brasilia, president Xi Jinping stressed that China stands ready to work with Latin America and the Caribbean within the framework of the United Nations, the World Trade Organization, APEC, the G20, the G77 and other international and multilateral mechanisms, so as to safeguard the common interests of developing countries via better coordination and cooperation on global top concerns such as global governance, sustainable development, climate change and cyber security. In addition, China is willing to increase dialogue and cooperation with the Latin America regarding regional affairs in the Asia-Pacific region as well as in the Latin America and the Caribbean, so as to contribute to peace and prosperity in the two regions.

Fifth, the bilateral relationship between China and Latin America needs to be improved by way of extensive, comprehensive cooperation. As a governmental cooperation mechanism between China and CELAC members, the China-CELAC Forum covers politics, economy, trade, culture, social issues, science and technology, and many other areas. With this Forum, both sides have engaged in a collective dialogue, created new forms of cooperation and sought cooperation in potential areas, so as render cooperation more extensive and higher in terms of quality. In this way, both sides compensate for each other's weaknesses and achieve common development. In addition, the China-CELAC comprehensive cooperation and the individual bilateral cooperation between China and CELAC nations also add to each other. Within

the framework of the China-CELAC Forum and other relevant specific forums, it is possible to identify priorities and cooperation projects, and carry out both bilateral and multilateral cooperation in diversified ways that draw on China and Latin America's strengths. Moreover, China looks forward to increasing dialogue and cooperation with regional and sub-regional organizations in Latin America, so as to ensure success within the China-Caribbean Economic and Trade Cooperation Forum, thus creating a well-designed network for comprehensive cooperation.

2.4 Challenges Facing Comprehensive Sino-Latin American Cooperation

The Sino-Latin American cooperation reveals both sides' shared aspiration to have closer comprehensive cooperation. However, to build a "five-dimensional" partnership, China and Latin American countries should not only continue to explore new cooperation mechanisms, but also effectively cope with the challenges that may arise in cooperation.

2.4.1 Complex Geopolitics of the LAC Region

Since the 1990s, the LAC region in general has been steadily developing, but its geopolitical landscape remains complex. First, the LAC region has been plagued with internal affairs issues, non-traditional security issues, and historical issues, such as sovereignty and territorial disputes that sometimes trigger international armed conflicts. For example, in Central America, the border disputes between Nicaragua and Honduras as well as that between Guatemala and Belize remain unresolved. In the Andean area, disputes over territory and territorial waters remain between Venezuela, Columbia, Surinam, and Guyana; disputes over the territory in the estuary area at Bolivia remain between Bolivia, Chile, and Peru; disputes over territorial waters between Chile and Peru still sustain. In addition, the dispute between Argentina and Britain over the sovereignty of the Falklands remains unsolved, giving rise to occasional regional tensions.

Second, the US has adjusted its foreign policy toward the LAC region, which makes regional geopolitics more complex. The US has long been playing a key role in LAC politics, economy, society, and foreign affairs. Over the past decade, affected by the financial crisis in 2008 and its adjusted "Strategy in the Middle East" and "Strategy in the Asia-Pacific Region", the US's engagement and influence in the LAC region has remarkably decreased. Meanwhile, LAC economies have become less dependent on the US, and LAC countries are interacting more with other countries, sharing an ever-growing aspiration to achieve regional prosperity through joint efforts. In this context, both the US government and its academic community feel an increasing sense of

crisis. Some hold the view that, "similar to the case in Africa, China's interests in Latin America are complex, going far beyond the demand for raw materials".[25] Such an interpretation has pushed the US to adjust its strategies toward Latin America so as to further its influence in the region. In November of 2013, John Kerry, the US Secretary of State, declared "the end of the Monroe Doctrine era" and stressed the importance of "the relationship (that we have sought and that we have worked hard to foster) between all of our countries (American countries) should be based on equality and shared responsibilities". In December 2014, president Obama announced the normalization of US-Cuba diplomatic relations. These two inter-connected moves have sent a signal indicating that the Sino-Latin American relationship is becoming a key variable in the China-US relationship and US-LAC relationship. However, to protect its global strategic interests and maintain its competitive edges in the global market, the US intends to maintain its dominance in the LAC region and "keep a wary eye out" on China's growing engagements within the region. Objectively, the US remains a key factor affecting comprehensive Sino-Latin American cooperation.

Third, big countries outside the LAC region have become a new factor affecting regional geopolitics. As a large number of emerging economies are rising and South-South cooperation is on the rise, interactions between the LAC countries and other countries are increasing accordingly. Over the past decade, the India-LAC relationship has been growing remarkably, particularly the India-Brazil relationship. Within the framework of BRICS, BASIC, the IBSA Dialogue Forum (India, Brazil, and South Africa), the G4[26] and the G20, India and Brazil have held multiple strategic dialogues covering a large number of key global governance issues. With regard to comprehensive cooperation with Latin America, India has stepped ahead of China by holding its first foreign ministers dialogue with the "Troika" of CELAC in August 2012. Moreover, the groundwork for the India-LAC Business Council, the CEO Forum, the Energy Forum, the Science Forum, and the Agricultural Experts Group has been laid.[27] India intends to conquer the "last frontier" in terms of its diplomacy, turning Latin America into its new partner.[28] Meanwhile, Russia's presence in the LAC region has also greatly increased. In November 2008, the then Russian president Medvedev visited Peru, Brazil, Venezuela, and Cuba. He also announced to the public that he would "return to LAC". In May of 2013, Russia hosted a meeting of foreign ministers with the "Troika" of CELAC and planned to establish "a permanent mechanism for political dialogue and cooperation in a Russia-CELAC format". Russian media indicated that this move aimed at projecting Russia's influence around the world, especially in the LAC region where its influence

[25] Shannon Tiezzi, "China's Push Into 'America's Backyard'", *The Diplomat*, February 08, 2014, http://thediplomat.com/2014/02/chinas-push-into-americas-backyard/ (retrieved on Feb 12th, 2015).

[26] G4 refers to a temporary bloc comprising Japan, Germany, Brazil, and India which support each other's bids for permanent seats on the United Nations Security Council.

[27] Hari and CELAC: Beyond Commodities, *americasquarterly.com*, August 8th, 2012. http://www.americasquarterly.org/india-and-celac-beyond-commodities (Retrieved on Jan 10th, 2015).

[28] Ashok B Sharma, India to host India-CELAC Dialogue, The Indian Awaaz, July 11th, 2012. http://theindianawaaz.com/index.php?option=com_content&id=8338 (Retrieved on Jan 20th, 2015).

had declined.[29] Since the outbreak of the Ukraine crisis, Latin America has become one of the focuses of the Russian foreign policy. In July 2014, Russian president Putin visited four Latin American countries, strengthening Russia-LAC business ties and geopolitical relationship in response to the US attempt to isolate Russia. Moreover, both the EU and Japan have developed stronger policies on strengthening their ties with Latin America. For example, the EU-LAC summit has been held twice (the first EU-LAC summit was held in 1999). On June 2015, the third EU-CELAC summit will be held in Brussels. To strengthen the ties between LAC countries and the EU, Federica Mogherini, the European Union High Representative of Foreign Affairs and Security Policy and Vice-President of the European Commission, wrote an article titled *O Estado de São Paulo*, noting that "the EU-CELAC partnership is most valuable to us… This partnership between our two regions is very much needed in an ever-more complex world… We, together, can influence decisions on important issues that concern us all… The EU is the second largest trade partner and the biggest foreign investor in the CELAC region with an impressive current investment stock of €464 billion, bigger than EU investments in China, India and EU combined. I think it is fair also to define EU investments as quality investments that are socially responsible and bring added values in terms of job creation, technology transfer, research and innovation… The EU-CELAC partnership can truly make a difference on both shores of the Atlantic Ocean."[30] Japan has also shown political interest in the LAC region. In September 2013 when Fumio Kishida, the Japanese Minister of Foreign Affairs, met the representatives of the "Troika" of CELAC during the 68th General Assembly of the United Nations, he proposed establishing a mechanism for dialogues with CELAC so as to strengthen Japan-LAC coordination in different fields and to build win-win partnership. In addition, Japan established a mechanism for ministerial meetings with CELAC in 2000. The 4th Japan-CELAC Ministerial Meeting was held on November 6th 2014. In July of the same year, Shinzo Abe, the Prime Minister of Japan, visited Mexico, Brazil, Trinidad and Tobago, Columbia, and Chile. This was the first visit a Prime Minister of Japan had ever made to Latin America in the past decade. During the visit, Japan and the aforementioned five countries concluded a number of trade agreements, strengthening business ties.

In short, LAC geopolitics is increasingly complex, especially as the US is adjusting its foreign policy toward Latin America and as cooperation between LAC countries and other countries tends to be institutionalized. China may face a large number of potential competitors in the course of its comprehensive cooperation with Latin America. Moreover, as LAC countries adopt a "balance strategy" when dealing with big countries, China may face higher prices.

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[29]Ivan Nechepurenko, Russia seeks to restore influence in Latin America, *The Moscow Times*, May 30, 2013,http://in.rbth.com/world/2013/05/30/russia_seeks_to_restore_influence_in_latin_america_25591.html (Retrieved on Jan 16th, 2015).

[30]Federica Mogherini, "Um ano importante na relação UE-Celac", *O Estado de São Paulo*, 27 de janeiro, 2015.

2.4.2 Different Attitudes Toward Cooperation

Latin American countries hold different attitudes toward the comprehensive Sino-Latin American cooperation. Mexico, Chile, Peru, and Columbia tend to be more cooperative, as "strengthening cooperation with the Asia-Pacific Region and becoming a part of the Asia-Pacific production network" is a strategy shared by these countries. The institutionalization of the comprehensive Sino-Latin American cooperation has actually paved ways for these countries to build ties with the Asia-Pacific region. The Caribbean countries and Venezuela feel more uncertain. These countries are economically more dependent on China and they have established mechanisms for cooperation with China, such as the China-Caribbean Economic and Trade Cooperation Forum and the Joint China-Venezuela Fund. Therefore, they tend to worry that the wider-ranging comprehensive cooperation between China and the LAC region may reduce China's attention and cooperation with them. Cuba, Costa Rica, and Ecuador have shown great interest in the China-CELAC Forum. This is especially true of Cuba. Cuba has played a positive role in facilitating the establishment of the China-CELAC Forum. Although Costa Rica established diplomatic relations with China only recently, the China-Costa Rica relationship has been growing quickly. Costa Rica frequently interacts with China. Therefore, strengthening business ties between Costa Rica and China via the institutionalized China-CELAC Forum is in line with Costa Rica's foreign policy towards China. Ecuador looks forward to increasing cooperation in trade, investment, science, and technology with China via the China-CELAC Forum, especially valuing closer cooperation in terms of satellites. Brazil and Argentina hold more uncertain attitudes toward the comprehensive Sino-Latin American cooperation. Argentina has been suffering from economic downturns in recent years and it upholds trade protectionism. The China-Argentina relationship has experienced unhappy moments in recent years; therefore, Argentina is generally indifferent to the comprehensive Sino-Latin American cooperation. Brazil holds mixed views on the comprehensive Sino-Latin American cooperation. China is Brazil's largest trading partner as well as Brazil's greatest potential investor. As China's economy grows, it is imperative for China to increase its cooperation with Latin America. The Sino-Latin American cooperation will help to develop infrastructure in the LAC region, which is in line with its strategic goal of "interconnection". However, China's growing importance to the LAC region may reduce Brazil's influence in the region, which would disrupt Brazil's strategic plan in the region as it "seeks to lead the region". In general, countries with which China has not established diplomatic relations are more supportive of the China-CELAC Forum. A stable relationship between Mainland China and Taiwan has reduced the importance of these countries in China's foreign relations. However, the China-LAC cooperation mechanism has created more opportunities for these countries to increase cooperation with China. Such mechanism helps these countries to avoid "taking sides", thus helping them maximize national interests.

Despite the shared intention of Latin American countries to promote comprehensive Sino-Latin American cooperation, problems may arise as cooperation deepens.

First, since Latin American countries hold different attitudes toward the cooperation, it is difficult for them to make concerted efforts in promoting comprehensive cooperation with China. As a result, such cooperation might have to rely on China's efforts alone, which will put it under pressure probably much higher than what China faces in Africa. Second, China needs efficient partners in its promotion of the China-CELAC Forum. CELAC is only a young regional entity with loose interior bonds. Unlike African Union, CELAC can hardly facilitate the development of a cooperation mechanism. Third, disagreements are not uncommon within the LAC region. For example, South American countries tend to stress on the integration of South America, abandoning the idea of "Latin America" as a whole. Thus, CELAC-focused China-CELAC Forum seems to derail from regional integration trends. In addition, the diversified interests and pursuits of the LAC countries will pose a big challenge to the future of the China-CELAC Forum. For instance, Pacific countries wish to get further integrated within the Asian production network via the China-CELAC Forum, or to establish a free trade mechanism with China. ALBA (Bolivarian Alliance for the Peoples of Our America) countries, whose foreign policy toward China carries strong ideological and political overtones, strive for more financial assistance. Brazil calls for more Chinese investments in Latin American infrastructure. However, Brazil opposes further cooperation in trade between China and Latin America. It particularly doesn't appreciate China's potential trade expansion in South America, as this may further reduce Brazil's market share in the region and play down its leading role in the region.

2.4.3 Pressure on Bilateral Trade

Bilateral trade is a key part of the comprehensive Sino-Latin American cooperation. In July 2014, at the meeting with LAC Leaders, president Xi Jinping suggested "working toward a US$500 billion bilateral trade objective in the next ten years". The Cooperation Plan, adopted at the First Ministerial Meeting of the China-CELAC Forum held in January 2015, reaffirmed this goal guiding bilateral trade in the coming decade.

According to the goal, China-LAC trade volume should increase annually by 6.6% on average from 2015 to 2024. However, bilateral trade growth has slowed down over the past two years. The China-LAC trade volume only increased by 0.1% in 2013, and 1.05% in 2014. The continuous low growth over the past two years has fallen short of the expected goal, which implies a large number of challenges that need to be addressed (Fig. 2.3).

First, both China and Latin America suffer an economic slowdown, pressuring bilateral trade. Since 2012, the global economy has slowed down due to the financial crisis. In this context, both China and Latin America have in general suffered an economic slowdown. In 2014, China's GDP increased only by 7.4%, a record low since 1990 (3.8%). In the same year, Latin America grew at a rate of only 1.1%. The major economies of the LAC region have suffered an economic slowdown and

Fig. 2.3 Growth rates of China-LAC trade and China's foreign trade over Six months. *Source* Calculations based on data from CEIC (China Economic and Industry Data Database)

even recession. For instance, Brazil, Argentina and Venezuela registered respective growth rates of 0.2, −0.2 and −3%. The economic slowdown leads to a decrease in the import demand for both China and Latin America, reducing the bilateral trade volume. In the mid-and short-term, the Chinese economic structure will be constantly improved and upgraded, and its growth will be driven by innovation instead of input and investment. Thus the Chinese economy will shift gears from previous high speeds to a medium-to-high growth rate. China's GDP growth rate will edge down to 7% in the coming years, while Latin America faces the pressure of "re-industrialization" and its GDP growth rate falling below previous levels. As downward pressure on the economy is mounting, both China and Latin America will suffer from their declining purchasing power, which means bilateral trade growth will slow down.

Second, China-LAC trade is affected by the price decrease of global bulk commodities. Since 2003, the global bulk commodity super cycle had been driving the fast growth of China-LAC trade. However, since 2013, the downward prices of relevant products have disrupted bilateral trade between China and Latin American nations. In the coming years, as the Chinese economy slows down, the US dollar will appreciate, and agricultural and mining investment will decrease. The prices of global bulk commodities will hardly rise to their pre-2013 high levels and may even continue to fall. This will further reduce China's Latin American imports and slow China-LAC trade growth.

Third, excessive product limitations hinder China-LAC trade growth. China and Latin American nations are complementary to each other in trade. In 2013, in terms of Latin American exports to China, 73% were bulk commodities (accounting for 41% of total exports) and only 6% were low-, mid-, or high-tech products (accounting for 42% of total exports). At the same time, in terms of China's exports to LAC,

91% were technological products, much higher than the proportion of technological products in China's total exports (69%). Such trade structures render Chinese Latin American import prices quite elastic. In today's international economy, the growth of Chinese Latin American imports is limited. Such trade structures have increased the risk that Latin America may impose restrictions on Chinese goods. According to the WTO, the top ten countries taking anti-dumping actions against China include such major trade partners such as Brazil, Mexico, and Chile. These trade partners generally take stronger anti-dumping actions against China than other countries, which disrupt trade between China and these partners.

Fourth, market distribution is relatively concentrated, limiting China-LAC trade growth. China-LAC trade is confined to several markets. Three quarters of China-LAC trade takes place in Brazil, Mexico, Chile, Venezuela, and Columbia. Such market distribution, in addition to China-LAC trade's being inter-industrial and growing fast over the past decade, has caused the total volume of Chinese Latin American exports to approach an upper limit. In some markets, this problem is extremely severe. Therefore, a faster growth for Chinese Latin American export might not come in the future.

China and Latin American nations aim at non-binding trade. If this goal can be achieved, China-LAC trade will reach a significant milestone and a solid economic foundation for China and Latin America to carry out practical and continuous cooperation will have been laid. However, the aforesaid problems can hardly be solved in the near future. This means that there remains a long road ahead before achieving this goal. All in all, comprehensive Sino-Latin American cooperation is full of challenges and uncertainties.

2.4.4 The Complexity of the LAC Business Environment

Investment is at the core of the future development of the comprehensive Sino-Latin American cooperation. President Xi Jinping declared in the First Ministerial Meeting of the China-LAC Forum that direct Chinese investment in Latin America will reach USD 250 billion in the ensuing 10 years. According to this, the average annual growth rate of Chinese investment in Latin America should be higher than 11.2%. Judging from the previous investment growth rates of Chinese enterprises, this goal is highly attainable. However, the complicated business environment may be one of the major difficulties in achieving this goal since industrial investment represents the main future direction of Chinese investors in Latin America.

Business environment is mainly measured in three aspects. The first is convenience for business in terms of business regulations and the implementation of these regulations. The *Doing Business 2015: Go beyond Efficiency* report issued by the World Bank evaluated 189 economies on 10 aspects as per 52 indicators. These 10 aspects are: establishment of corporations, application for construction permits, availability of power supply, property right registration, availability of loans, protection of minority investors, tax payment, cross-border trade, implementation of contracts and

bankruptcy-related processes. In this report, Columbia, Peru, Mexico, Panama and Jamaica all rank at the top of the list, while Bolivia, Suriname, Haiti and Venezuela rank at the bottom of the list. Most of Latin America countries rank in-between. Correspondingly, although the comprehensive Latin American business environment is better than that of South Asia and Africa, while poorer than that of OECD countries, Europe, Central Asia, East Asia and the Pacific region (see Table 2.2). It has poor performance in terms of indicators for the establishment of corporations, protection of minority investors, tax payment and property right registration. Latin American nations have scored the lowest in terms of procedures and time consumption for applications for corporation establishment, procedures of property right registration, protection of minority investors, corporation transparency, information disclosure, time consumed for tax payment, proportion of profits tax and total payable tax. This indicates that there are considerable complicated procedures for corporation registration and tax payment in Latin America, which constitute obstacles for foreign enterprises to start businesses in this region. Meanwhile, Latin America does not provide sufficient protection for investors and lacks adequate supervision, leaving a negative impression on foreign investors.

The second is environment for productivity cultivation, including the policies, systems and other factors influencing productivity. The *Global Competitiveness Report 2014–2015* issued by the World Economic Forum evaluates the overall competitiveness of 144 economies around the world on 12 aspects as per 158 indicators. These 12 aspects are: institution, infrastructure, and stability of macro-economy health and basic education, higher education and training system, market efficiency of commodities, market efficiency of labor forces, maturity of financial market, technology availability, market size, business maturity and innovativeness. According to this evaluation, the majority of Latin American nations but Peru and Panama show limited competitiveness, and Venezuela and Haiti are even less competitive. Correspondingly, the average competitiveness of the Latin American region is only better than that of Sub-Saharan Africa as per region-specific global competitiveness indicators (see Fig. 2.4 for the details). It can be concluded, after evaluations covering indicators in Fig. 2.4, that the factors degrading the business environment of Latin American region include corruption, financing difficulties, inefficient bureaucracy, shortage of infrastructure supply, shortage of well-educated labor forces, etc.

The third is support for industry growth. Currently, only a few Latin American countries are getting involved in North American, European and Asia-Pacific value chains. Meanwhile, apart from Mexico, no other economy in Latin America has the capacity to supply intermediate products to the aforesaid three regions or import and consume the intermediate products from these three regions. Latin America also does not have effective synergies and support for industry growth. According to statistics, trade of intermediate products only accounts for about 10% of total trade in Latin America whereas the proportion in Asia is 30% and that in the North American Free Trade Area is 20%, indicating that the industry synergy in Latin America is poor and is unable to provide sufficient support for external investment.

In conclusion, the overall business environment of the Latin American region isn't sound, with great divergences between economies. This will not only increase the

Table 2.2 Score of convenience for business in global economies

	Establishment of corporation	Availability of power supply	Cross-border trade	Application of construction permits	Tax payment	Property right registration	Implementation of contracts	Availability of loans	Protection on minority investors	Bankruptcy-concerned processes
East Asia and the Pacific	77.19	78.76	73.54	74.39	74.24	60.49	55.10	48.60	49.87	39.76
Organization for Economic Cooperation and Development	91.24	81.83	86.12	76.03	81.03	76.93	69.82	61.77	63.06	76.88
Latin America	78.29	77.32	72.47	70.18	62.22	60.56	52.45	47.34	46.25	39.47
South Asia	83.29	62.47	53.11	60.66	63.40	55.09	40.95	41.88	52.50	32.28
Europe and Middle Asia	90.21	64.71	61.19	63.76	75.31	78.24	64.93	60.19	59.10	49.06
Sub-Saharan Africa	71.24	56.96	50.81	65.06	58.26	57.25	50.14	32.34	46.08	30.56
Middle East and North Africa	78.71	76.03	70.15	64.30	78.45	66.35	52.62	26.00	46.71	33.04

Note The score reflects gaps in performance between these regions and the best performance of all economies included in *Doing Business* concerning each indicator (from the time such indicator got included in *Doing Business*). The gap is quantified into figures from 0 to 100, where 0 represents the poorest performance and 100 represents the frontier level

Data source World Bank, *Doing Business 2015: Going Beyond Efficiency*.http://www.doingbusiness.org/reports/global-reports/doing-business-2015 (Retrieval on February 5th, 2015)

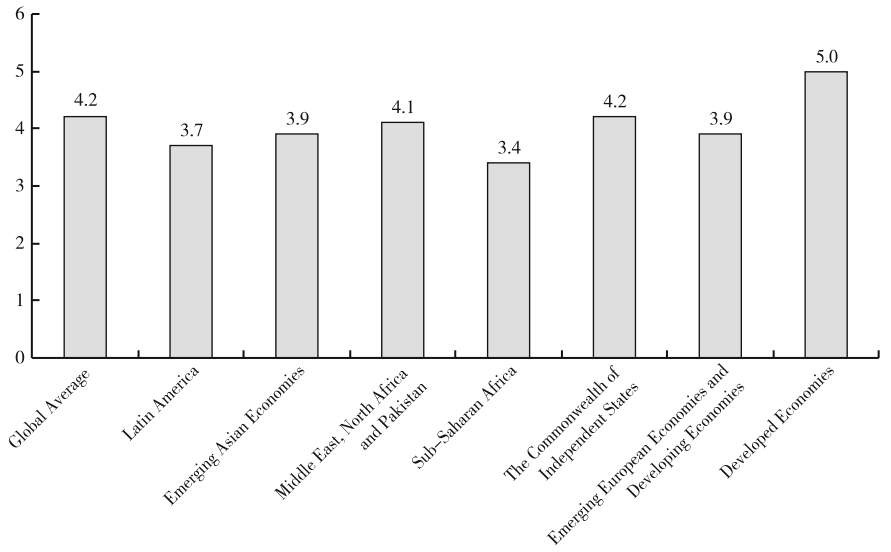

Fig. 2.4 (Region-specific) Global Competitiveness Indicators. *Source* WEF, *The Global Competitiveness Report 2014–2015*, Sep. 2014

difficulty for China's enterprises to enter the Latin American market but will also, to a certain extent, stand in the way of the realization of investment goals in the comprehensive Sino-Latin American cooperation.

2.4.5 Skillfully Managing the Chinese Relationship with Countries with Which China Has no Diplomatic Ties

Altogether, 12 Latin American countries have not established diplomatic relations with China, accounting for half of all countries not in diplomatic relations with China (24 in total). Undoubtedly, China and Latin American nations have to skillfully deal with relations involving these countries during comprehensive cooperation.

First, both China and Latin America have to make good plans ahead of time to deal with issues that might arise in the communication between China and the countries not in a diplomatic relation with China. Such plans should, in particular, cover communication mechanisms between China and said nations, so as to avoid problems that might arise when these hold the CELAC rotating presidency.

Second, the comprehensive Sino-Latin American cooperation comprehends countries not in a diplomatic relation with China, which may cause a chain reaction influencing the Taiwan Strait relation. The comprehensive cooperation must prioritize China's cross-strait relations when dealing with issues related to countries not in

diplomatic relations with China. The Taiwan Strait relations can be an important variable in the comprehensive Sino-Latin American cooperation. Therefore, effectively avoiding "problems caused by countries not in diplomatic relations with China" will be an issue that must be properly considered so as to deepen the comprehensive Sino-Latin American cooperation.

2.5 Implementing Comprehensive Sino-Latin American Cooperation

A gradualist approach should be adopted for implementing comprehensive Sino-Latin American cooperation. Therefore, it is necessary to identify procedures to complete short- and medium-term tasks and to explore target-oriented approaches as ways to carry out this cooperation. Such approaches must be implemented at every level, so as to guarantee the vigor and effects of the comprehensive Sino-Latin American cooperation.

2.5.1 Assembling the Double-Engine Drive of Economic and Trade Relations

Economic and trade cooperation is the most solid component of China-LAC relations. China is not only the second largest trade partner in the Latin American region but also the preferred trade partner of many countries in this region. Meanwhile, Chinese investment in Latin American shows rapid growth, with investors and areas of investment becoming increasingly diverse. Therefore, compared with other fields, economic and trade cooperation has a solid foundation and is the core of the in-depth bilateral cooperation. In response to this, China has put forward the new "1+3+6" cooperation framework. From the perspective of short- and medium-term development, trade and investment will be the pivotal point of the China-LAC economic and trade cooperation. In particular, investment will become the new driver of growth, and will gradually allow both sides to witness trade and investment going hand in hand. The growth of trade and investment will facilitate settlements with local currency and financial cooperation. Financial cooperation will not only facilitate trade and investment but also the reform of the global currency system. The preferred fields for short- and medium-term cooperations are supposedly energy and resources, infrastructure and agriculture. Infrastructure is supposed to be the major focus of China and Latin American nations, and can constitute a starting point for comprehensive Sino-Latin American cooperation. The *Joint Statement of Leaders of China-LAC and Caribbean States at the Brasilia Meeting* also clearly suggests that attention be paid to the role of infrastructure in facilitating smooth logistics, trade and economic growth, and emphasizes the importance of building and rebuilding railways, roads, ports,

airports, communication facilities and other infrastructures, on top of making the most of the China-LAC infrastructure-specific loans in enhancing interconnections between South America and Caribbean States as well as interconnection between Latin American nations and China. Promoting interconnection in Latin America cannot only enhance the confidence of Latin American states in Sino-Latin American cooperation but also be conducive to the deepening of future China-LAC economic and trade cooperation in the long term.

2.5.2 Opening Diverse Channels for Public Diplomacy

Although breakthroughs have been made in terms of the China-LAC economic and trade cooperation in the past decades, China and Latin America still lack enough mutual recognition and political trust. The growth of Sino-Latin American economic and trade relations has brought some to misinterpret them as "North-South Relations", spreading the "China Threat Theory" and fear of "neocolonialism" in Latin America. This misinterpretation puts China at blame for many issues in the Latin American economy. Although it does not withstand any careful analysis, such misinterpretation indeed harms the image of China and further influences the expansion of China's overseas interests. With the initiation of the comprehensive Sino-Latin American cooperation, it is necessary for China to intensify public diplomacy, correct misinterpretations by way of multiple channels (including public diplomacy), strengthen mutual recognition and understanding, and consolidate the foundation of the comprehensive Sino-Latin American cooperation in the short- and medium-term. The following approaches are recommended so that public diplomacy can help with China-LAC relations:

First, encourage student exchanges and think-tank exchanges. Strengthening student exchanges and think-tank exchanges is an imperative to improve China-LAC relations. Student exchanges and think-tank exchanges can directly enhance mutual understanding between ordinary people and decision makers, give full play to favorable factors, solve relevant problems, and settle disputes in ways that can satisfy both parties. Student exchanges and think-tank exchanges between China and Latin American nations started only recently and need further growth. These exchanges are still confined to higher learning institutions and only involve countries like Mexico and Cuba. Think-tank exchanges have increased in recent years and are expected to develop further. As to specific policies, the following can be considered as reference:

The establishment of Confucius Institutes needs be accelerated and their role as "intermediaries" strengthened. In accordance with the statistics of the Confucius Institute Headquarters, China had already established 31 Confucius Institutes and 10 Confucius Classes in 14 Latin American nations by December 2014. As important intermediaries in terms of China-LAC student exchange, Confucius Institutes should further introduce Chinese national conditions in their daily teaching and change their role from the "popularization platform of the Chinese language" to the "popularization medium of the national conditions of China".

The mutual recognition of academic credentials between both sides needs be accelerated. Currently, China has signed agreements for the mutual recognition of academic credentials with only a few Latin American countries. Mutual recognition of academic credentials is an important obstacle hindering education (especially higher education) exchanges between both parties. Although exchanges in higher education between both parties have increased in recent years, the programs are usually small. More Latin American students come to study in China than the other way around. With some Latin American nations' increased emphasis on education, science and technology (such as the "Sciences beyond Border" Plan of Brazil), the number of Latin American students studying in China may show trends of rapid growth. Therefore, accelerating mutual recognition of academic credentials follows the current trends in terms of education exchanges between China and Latin America.

Forms of think-tank exchanges between China and Latin America should be diversified. At present, China-LAC think-tank exchanges mainly consist in visiting scholar programs, jointly-held seminars, and so on. Few collaborative studies or joint publications have been carried out, and there are no adequate accompanying plans and mechanisms. Currently, there are mainly two dialogue mechanisms between Chinese and Latin American think-tanks. The first is the "Forum for Exchanges between Chinese and Latin American Think-tanks", which has been jointly held twice by the China Foundation for International Studies and the Chinese People's Institute of Foreign Affairs since the year 2010; the second is the "China-LAC High-level Academic Forum" which has been jointly held three times by the Social Sciences in China Press, the Institute of Latin American Studies of the Chinese Academy of Social Sciences and the Research Network for Chinese Issues in Latin America since 2012. The "China-LAC High-level Academic Forum", organized and undertaken in turn by China and Latin America, involves major Latin American nations such as Brazil, Argentina, Mexico, Chile, Ecuador, Peru and Bolivia. However, the participants don't include major Latin American think-tanks and so the forum should increase its academic elements. Given this, these two mechanisms can either be integrated to set up a dialogue forum for think-tanks with wider coverage, or be held in parallel to embrace a better quality via policy input. In addition, the think-tanks of both parties can, for instance, try to share information and develop long-term and continuous collaborative research projects to prevent think-tanks interchange mechanisms from becoming mere formalities.

Interaction between think-tanks, governments and enterprises should be strengthened. Funding is a major barrier for the current exchanges between Chinese and Latin American think-tanks. Some Latin American think-tanks members have set up certain connection mechanisms with governments and enterprises, where sponsorship from enterprises ensures that these think-tanks can undertake more target-oriented research projects, academic promotion and international exchanges. Comparatively, operation mechanisms for Chinese think-tanks are more restricted, and financing from the government is not sufficient for extensive exchanges between think-tanks. To solve the funding problem, think-tanks both in China and Latin America (especially in China) should strengthen interactions with governments, enterprises and international organizations. Such interaction can either take the form of framework

cooperation agreements or flexible project-specific agreements. In other words, think-tanks should strive for financial support from multiple channels in contexts of specific research or exchange projects. As for bilateral or multilateral cooperation, think-tanks should fully mobilize resources so as to harvest high-value project results and ensure effective and sustainable cooperation.

The role of the Institute of Latin American Studies of the Chinese Academy of Social Sciences should be strengthened in terms of China-LAC think-tank exchanges. The Institute of Latin American Studies of the Chinese Academy of Social Sciences plays an irreplaceable role in current China-LAC think-tank exchanges. On the one hand, the Institute and Latin American diplomatic delegations in China have set up extensively sound contacting mechanisms; on the other hand, the Institute has also formed good communication mechanisms with the Ministry of Foreign Affairs, the Ministry of Commerce and the International Department of the CPC as well as other governmental authorities. The Institute has undertaken many academic activities and research projects related to the Latin American region and has taken the initiative to design and participate in multilateral activities like the "Academic Summit of BRICK Countries". It also plays a real, active role in public diplomacy. Meanwhile, the Institute has been holding academic seminars promoting public diplomacy every year. In future China-LAC think-tank exchanges, further attention should be paid to the unique role of the Institute, so as to make it the cooperative partner of Latin American think-tanks. Emphasis should be laid on the coordinative role of the Institute in cooperation between Latin American and Chinese think-tanks.

Second, act as a "bridge" between expatriates. Expatriates are beneficiaries of and important players in both sides' public diplomacy. Generally speaking, expatriates hold comparatively objective understandings of the national conditions of both China and Latin American nations as well as of the status quo of China-LAC relations. Moreover, they have connections on both sides. Some of them even directly or indirectly take part in the decision-making processes of host nations. Therefore, both China and Latin American nations should re-evaluate the importance of such a demographic and pay attention to it. In this regard, on the one hand, the Overseas Chinese Affairs Office of the State Council should help enhance the connection between China's embassies and consular offices and Chinese associations in Latin American nations in order to better protect overseas Chinese citizens. Activities promoting mutual understanding between China and Latin America should also be carried out with the help of expatriates. On the other hand, the Chinese People's Association for Friendship with Foreign Countries and other authorities dealing with foreign affairs should improve their work with Latin American communities in China. Although existing Latin American communities in China are still quite small, their members are mostly officers of Latin American embassies and consulates, representatives of Latin American enterprises and Latin American students who have relatively objective and positive views of China. Hence, the importance of strengthening communication and contact with Latin Americans communities in China shouldn't be underestimated.

Third, strengthen exchanges between local governments. Thanks to efforts by the Chinese People's Association for Friendship with Foreign Countries, sister-city programs have been a main cooperation platform for local Chinese and Latin American

governments. Since the first sister-city program between Beijing and Lima in 1983, China has set up 151 sister-city (or sister-province/sister-state) programs in 95 cities in 56 provinces/states of 17 countries in the Latin American region.[31] In particular, China has set up 110 sister-city (or sister-province/sister-state) programs with Latin America since 2000. The first "Forum of Chinese and Latin American Sister-City Programs" was held as part of the China International Friendship City Conference in Shanghai in 2010. In addition, relevant Chinese cities have strengthened their direct contacts with Latin American counterparts by holding China-LAC business summits. For instance, Harbin, Chengdu, Hangzhou and Changsha have all successively hosted the China-LAC Business Summit. Local Latin American governments have also shown greater enthusiasm in terms of their relationship with China. For instance, in 2014, the governor of the Minas Gerais state of Brazil, Antonio Anastasia, led a visit delegation to China. The Academia Luventicus held the "China Week" activity; the governors of Durango and Chihuahua in Mexico visited China and a team of Columbian governors also visited China. Therefore, there is great room for exchanges and cooperation between local governments, which can play bigger roles.

Two aspects can be preferentially developed in the short- and medium-term: the first is exchange-student programs and the second is exchanges involving the academia and think tanks. From the perspective of past experiences, foreign students and scholars have comparatively objective and comprehensive understandings and play irreplaceable roles in correcting misunderstandings. In addition, some think-tanks members take part in decision-making processes. Therefore, they are of great help for both China and Latin America in terms of the better understanding of political trends, the coordination of different viewpoints and the enhancement of strategic mutual trust through institutionalized academic dialogues and exchanges, facilitating smooth cooperation in multiple fields.

2.5.3 Consolidating Relationships with LAC Nations, Regional Organizations and Sub-regional Organizations, and Effectively Supporting the Development of the Comprehensive Sino-Latin American Cooperation Mechanism

Bilateral relationships between China and Latin American nations, and relationship between China and Latin American regional organizations and sub-regional organization, are the important basis and core of the comprehensive Sino-Latin American cooperation. Without good and consolidated relationships of such, it is impossible for the comprehensive Sino-Latin American cooperation to nurture effective devel-

[31] China International Friendship Cities Association, http://www.cifca.org.cn/Web/WordGuanXiBiao.aspx.

opment. During the preliminary stage of the comprehensive Sino-Latin American cooperation, the bilateral relationship between China and Latin America, and the relationship between China and regional organizations and sub-regional organizations of Latin America, are important pillars. Meanwhile, the China-LAC forum, as part of the comprehensive cooperation mechanism, goes beyond bilateral relationships. The fields and items covered by the comprehensive cooperation are determined by stakeholders via negotiation. The comprehensive cooperation is not totally aligned with the "complementary advantages" principle usually adopted in bilateral cooperation. In other words, in the comprehensive Sino-Latin American cooperation, participants may directly compete with each other in specific projects, and negotiation and communication are needed to properly address such competition. Therefore, on the basis of the comprehensive cooperation mechanism, we need to facilitate the smooth operation of comprehensive Sino-Latin American cooperation by way of coordination with key countries. Also, we should properly cope with the challenges brought by the inevitable conflicts of interests in the cooperation process by using bilateral channels, so as to prevent partial interests from affecting the advancement of projects in the comprehensive Sino-Latin American cooperation. Meanwhile, China can also play a coordination role between different the viewpoints and interests of Latin American nations in comprehensive cooperation projects by using bilateral channels and making efforts to have both sides concentrate on comprehensive cooperation. In addition, since the comprehensive Sino-Latin American cooperation is built on the basis of the integration of the Latin American and Caribbean region, China can take advantage of the dialogue mechanisms that have been set up (such as the dialogue mechanism with Rio Group established in 1990, the dialogue mechanism with MERCOSUL set up in 1997, and the negotiation mechanism set up with CAN in 1999, etc.) to support the progress of the regional integration of CELAC, MERCOSUL, CAN, the Caribbean Community, the Rio Group, Union of South American Nations, ALBA and the Pacific Alliance, so as to help with the stable development of integration mechanisms of the Latin American and Caribbean region and formulate reasonable and detailed regional cooperation plans in accordance with the situations in specific sub-regions and realize gradual development.

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Chapter 3
Latin American Markets and Sino-Latin American Economic and Trade Cooperation Potential and Environment

Yunxia Yue

The 16th CPC National Congress stipulated that the first two decades of the 21st century are an "important period presenting strategic opportunities that China must tightly grasp to accomplish great deeds". During the first decade of this period, Sino-Latin America economic and trade cooperation transformed from an "incremental" to a "leap-forward" development. In the meanwhile, problems, like structural imbalance, emerged. China not only was faced with Latin American trade protectionism, but also was accused of "neocolonialism" by local people.

During the second decade of this period, Sino-Latin American economic and trade relation will enter in a new phase. Because exports play an important role in each country's economy, the key for balanced economic and trade cooperation is to transfer capacity by investment while China keeps on exporting.[1] This adjustment would establish effective industrial divisions between China and Latin America, which, on one hand, would help to resolve Latin America's problems in terms of inadequate productive investment and low added value of exports; on the other hand, it would satisfy China's demand for foreign investment (after its GNP per capita exceeds 4750 US dollars)[2] and industrial structure optimization.

The premise for such an adjustment is that Latin American markets are positioned to take in China's exports and investment. This thesis assesses the potential

[1] According to Deng Ning's "Investment Development Phase Theory", FDI flow is closely connected with each country's economic development. When one economy's GNP per capita exceeds 4750 US$, it enters into the fourth phase; its net FDI value shall be positive and in upward trend. Based on the World Bank's statistics, in 2011, China's GNP per capita is 4940 US dollars, which means that China enters into the fourth phase.

[2] Based on the UNCTAD Statistics, the author calculates RCA and China's advantageous products' market share. Hereinto, the global market share is each economy's imports' proportion in relevant global import total, not Chinese products' market share.

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and environment of these markets and tries to find appropriate economic and trade development channels for different regions and countries in Latin America.

3.1 Latin American Markets in the World Economy

In recent years, China has begun to underline the role of domestic demand in economic development in the hope to reduce dependency on exports and vulnerability to the negative impacts of external fluctuations. However, the external market, not only able to absorb excessive capacity, but also support the development of many traditional competitive sectors and industrial transfer, remains irreplaceable given China's huge demand.

Therefore, the 12th Five-Year Plan stresses "the establishment of a long-term mechanism to expand consumer demand" and meanwhile searches to "continue the stabilization and expansion of external demand". It also underlines continuing to combine "bringing in" and "going out" and "using the two markets and two resources more safely and effectively". It can be inferred that within medium and long term, stable export growth is still an important focus of China's economic growth, while, as an effective method to expand external markets, foreign investment will also become an important goal.

The potential of overseas markets decides the depth and width of China's exports and foreign investment. Latin America is the area where Chinese products and enterprises are emerging the fastest. It still has large potential to lift its market position, which is hugely a consequence of the changes in the international market and China's comparative advantages. Emerging markets are playing an increasingly important role where Latin American markets enjoy an obvious advantage. Based on UNCTAD statistics, developed markets saw their imports gradually reduced year by year from 1999 to 2011, whereas emerging countries and region enjoyed rising imports with their ratio in the global total increasing from 28.2 to 43.3%. Among emerging markets, Latin America, with a relatively large market capacity, ranks the second following Asia (China excluded). In terms of market potential, Latin America contributed 6% to the global total import in 2011, lower than the proportion of its economic volume (8%), population (8.5%), and middle class (over 10%). Latin America is the only developing region whose import proportion is less than the total of the other three categories. Its markets have better potential.

In terms of the international comparative advantages, Latin American is a market for the products for which China has comparative advantages. Based on the fourth edition of the Standard International Trade Classification (SITC), China has quite strong comparative advantages in 29 product categories (RCA $\geqq$ 2.5). Taking RCA and China's advantageous products' global market share[3] into consideration, Latin

[3]Based on the UNCTAD Statistics, the author calculates RCA and China's advantageous products' market share. Hereinto, the global market share is each economy's imports' proportion in relevant global import total, not Chinese products' market share.

America is the largest market for nine product categories including silk, chinaware, knitted or crocheted clothes, automatic data processing equipment, bags and suitcases, lighting equipment and accessories, and shoes. It is the second largest market for three product categories including ordinary cotton fabric, audio video equipment and cheap metal home appliances. It is the third largest market after Europe and the U.S. for 17 product categories including textile fabric garment, ordinary rayon fabric, buggies and toys, steam boiler, knives and construction material.

Based on the above analysis, it can be concluded that Latin America markets have comparative advantages to take in China's advantageous exports because of its large market capacity. Therefore, keeping and expanding the Latin America market is significant for China's exports and industrial outbound transfer.

3.2 Assessment of the Potential and Environment of Chinese Exports to Latin America

Chinese exports to Latin America are highly concentrated. After nearly 10 years of market expansion, different countries have different "tolerances" toward Chinese exports; some countries are even "saturated". In the meanwhile, different Latin American countries impose different trade barriers. Therefore, it is essential to categorize Latin American countries based on market conditions, and implement corresponding trade policies to consolidate and expand Chinese exports.

3.2.1 The Real Potential of Chinese Exports in Latin America

Export potential is influenced by many factors, such as the economic volume and trade costs of trade partners, which can be calculated via the Gravity Model. This thesis collected the trade flow panel data of 66 trade partners (including 33 Latin American countries), accounting for over 90% of China's total exports from 2000 to 2011, simulated the Gravity Model of China's export expansion, and further used this model to assess the real and potential growth of Chinese exports to Latin America (refer to appendix for the deduction of Gravity Model).

In Table 3.1 is calculated the total and sector potential of Chinese exports to Latin America. From it, we can see that generally in nearly a decade of rapid growth total Chinese exports to Latin America have nearly "saturated" the market and the potential to expand exportation in the future is limited. The potential of different sectors[4] potential is different. The sector classification shows that "inadequate trade" exits for miscellaneous products, where there is huge room for further development; other manufacturing sectors' potential is limited. In terms of the classification on

[4]The classification is based on Bin and Liao: China's trade flow and export potential: A study based on gravity model. *World Economy*, 2004(2): 3–12.

technology, Chinese exportation of high-technology intensive products is lower than it should be. Exportation of ordinary technology intensive products however nearly "saturated" the market, and exportation of other manufactured products has limited growth potential.

Table 3.1 shows that based on China's export potential, Latin America countries can be classified into three types. This thesis referred to Liu and Jiang (2002),[5] and classified export destinations as "potential-to-redevelop", "potential-to-develop", and "great-potential" according to 2011 data and a comparison between real gross exports and theoretical export volume.

Potential-to-redevelop countries (the ratio is over or equal to 1.20, 12 countries): China's aggregate exports to these countries has saturated, so it is difficult to further expand exportation as it is very likely to be opposed by anti-dumping trade protection measure. Sector classification shows however that structural adjustment helps to alleviate existing trade pressure and friction. On the industrial level, the above countries exported too many machinery and transportation equipment; the miscellaneous product industry still has market opportunities in many countries. On the technological level, many countries' exportation of high-technology intensive products is lower than it should be; the exportation of medium-and-low technology products and labor-intensive products has limited potential left.

Potential-to-develop countries (the ratio is between 1.20 and 0.80, 7 countries): The markets of countries in this category are not saturated yet and still enjoy development potential on different levels. Exportation is expected to expand by way of structural adjustment. Hereinto, miscellaneous products have the largest potential in most countries; there are only a few exportation opportunities for chemicals and related products; while the market capacity for other manufactured products is "saturated". On the technological level, high-technology intensive products have great market potential and other manufactured products are, to different extents, "overly saturated".

Great-potential countries (ratio is less than or equal to 0.80, 14 countries): In these countries, Chinese exports are far below their potential level, thus there is huge room for further development. It is needed to further explore these countries' market potential in terms of various industries and on the technological level.

3.2.2 The Growth of China's Export to Latin America

The above analysis demonstrates the characteristics of China's exports to Latin America in 2011. However, as far as policy adjustment in the phase of strategic opportunities is concerned, it is prospective and needs to take market growth into account.

[5]Liu and Jiang: China's bilateral trade plan: Based on gravity model, *Zhejiang Social Sciences*, 2002(6).

Table 3.1 China's Export Potential to Latin America (2011)

	Aggregate export	5	6	7	8	B	C	D	E
Antigua and Barbuda	14.7	0.8	0.8	45.6	0.3	0.5	76.6	0.7	0.0
Panama	11.6	2.4	4.7	8.6	32.1	6.2	15.3	3.7	0.8
Saint Vincent and the Grenadines	2.5	1.8	6.8	1.6	0.2	0.6	6.2	2.0	0.1
Chile	2.1	1.9	1.9	1.5	3.8	2.0	1.4	1.6	0.6
Uruguay	2.1	3.3				2.1	0.9	2.6	0.8
Bahamas	1.9	1.9	0.8	3.7	0.7	0.3	7.9	0.7	0.1
Paraguay	1.8	3.1	1.8	2.3	1.6	1.8	1.2	2.6	0.8
Nicaragua	1.3	0.8	4.2	0.6	0.8	11.1	0.7	0.6	0.2
Peru	1.2	1.2	1.5	1.3	1.0	1.5	1.4	1.4	0.4
The Commonwealth of Dominica	1.2	4.7	2.9	1.5	2.1	4.2	1.0	2.4	0.3
Argentina	1.2	2.2	0.8	1.4	0.9	1.0	0.8	1.4	0.6
Haiti	1.2	0.5	2.4	1.2	1.4	4.0	1.4	1.3	0.2
Brazil	1.1	1.5	1.0	1.2	0.5	0.8	1.0	1.4	0.6
Ecuador	1.1	1.2	1.8	1.2	0.8	1.3	1.7	1.7	0.2
Venezuela	1.0	0.6				0.6	1.1	1.5	0.3
Guyana	1.0	0.9	1.6	1.4	1.6	2.1	1.3	1.9	0.1
Barbados	1.0	0.4	0.6	2.3	0.5	0.7	4.2	0.4	0.0
Guatemala	0.9	1.1	1.7	0.6	0.9	2.9	0.9	0.6	0.2
Colombia	0.9	1.1	1.3	0.9	0.6	1.1	1.2	1.1	0.4
Surinam	0.8	1.4	1.6	0.6	1.4	1.9	0.8	1.2	0.1
Mexico	0.8	0.5	0.7	0.8	0.8	0.5	0.3	0.6	0.5
Costa Rica	0.7	1.2	0.8	0.7	0.8	1.0	0.7	0.7	0.2
Jamaica	0.7	0.8	1.4	0.3	1.8	1.8	0.5	1.0	0.1
Belize	0.7	0.6	0.8	0.4	1.9	0.6	0.4	0.6	0.1
Bolivia	0.6	0.4	0.4	1.0	0.3	0.3	0.3	1.3	0.2
Cuba	0.6	1.4	1.1	0.6	0.5	0.9	1.1	1.1	0.2
The Dominican Republic	0.6	1.1	1.0	0.5	0.6	1.3	0.6	0.7	0.2
El Salvador	0.6	0.7	1.2	0.3	0.8	2.4	0.4	0.4	0.1

(continued)

Table 3.1 (continued)

	Aggregate export	5	6	7	8	B	C	D	E
Honduras	0.6	0.5	1.0	0.5	0.8	1.4	0.7	0.6	0.1
Trinidad and Tobago	0.3	0.5	0.7	0.2	0.5	0.6	0.4	0.4	0.0
Grenada	0.2	0.2	0.6	0.1	0.5	0.7	0.2	0.4	0.0
Saint Kitts and Nevis	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.3	0.1
Saint Lucia	0.2	0.1	0.4	0.2	0.4	0.6	0.1	0.5	0.0
Latin America in total	1.2	1.1	1.0	1.0	0.9	1.0	1.1	1.2	0.5

Note industrial classification
(5) chemical and relevant products industry
(6) light textile, robber products, mining products and its manufactured products
(7) machinery and transportation equipment industry
(8) miscellaneous products industry
Technological classification
(B) labor and resource intensive products
(C) low technology products
(D) medium technology intensive products
(E) high technology intensive products
Source Based on the gravity model and calculated by the author

Therefore, this thesis referred to Zhang and Tang (2012),[6] calculated the theoretical value of China's exports to Latin American in 2017 based on the International Monetary Fund's (IMF) forecast data on economic growth and the UNCTAD's forecast data on population growth,[7] and assessed the medium-and-long term growth potential of China's exports to Latin America.[8]

According to the growth rate of Chinese exports in Latin America from 2011 to 2017, it can be found that Chinese exports to different Latin American countries are polarized. The potential markets of Argentina, the Bahamas and the Commonwealth of Dominica are small; the growth and potential markets of Costa Rica, Surinam, Bolivia, the Dominican Republic, EI Salvador, Honduras, Trinidad and Tobago, Grenada, and Saint Kitts and Nevis are huge; other countries' potential market sizes stand at a comprehensive level.

[6]Zhang and Tang: China's export potential: Aggregate calculation, area distribution and prospect forecast, *Journal of International Trade*, 2012(1).

[7]IMF, World Economic Outlook database, http://www.imf.org/external/pubs/ft/weo/2012/02/weodata/index.aspx. October, 2012.

[8]To avoid the statistical difference of GDP between IMF and UNCTAD, this thesis uses IMF's economic growth data. In addition, due to the availability of data, research subject's trade opening degree was measured by 2011 data and supposed not to change.

In the meanwhile, China's export to Latin America has also seen differential growth across sectors. At the low end is the growth and growth potential for chemicals and related products low. Other products and sectors occupy an intermediate range. In terms technological level, high-tech products show both high growth and high growth potential, but other products score in intermediate range.

3.2.3 Assessment of Latin America's Trade Environment

Trade environment reflects trade freedom and convenience, which is mainly demonstrated by tariff levels, quotes, laws, prices, customs procedures, investment restrictions, and government interventions as well as non-tariff barriers. The Heritage Foundation published a "Trade Freedom Index" calculated from the "Index of Economic Freedom". This index reflects how free a trade environment is: the higher the index, the less trade regulations.

Table 3.2 lists Latin American countries' trade freedom index and their global ranking in 2012. Judged from the table, Latin America's trade freedom index is about 73.3, lower than the global average of 74.5, which shows that Latin America's trade restrictions are a little bit higher than the global average.

As far as countries are concerned, Latin American countries are greatly different in terms of trade freedom. To be specific, the involved 184 countries are classified into 3 levels: the top 1/3 of countries have quite a high level of trade freedom; the 1/3 of countries in the middle enjoy a medium level of trade freedom; the bottom 1/3 countries have a lower level of trade freedom. Hereinto, Latin American countries' trade environment can be classified into three categories: trade freedom levels for Costa Rica, Peru, Nicaragua, Guatemala, Paraguay and Uruguay are high; trade freedom levels for Chile, the Dominican Republic, Salvador, Belize, Honduras, Haiti, Panama, Bolivia, the Commonwealth of Dominica, Saint Vincent and the Grenadines, Mexico, Columbia, Jamaica and Saint Lucia are generally the same as the world average; trade freedom levels for Trinidad and Tobago, Brazil, Ecuador, Argentina, Surinam, Cuba, Barbados, Venezuela and Bahamas are low.

These assessment of Latin American market indicates that Latin America's overall market potential is limited when it comes to absorbing China's export, and trade conditions are less favourable than the global average. In the meanwhile, China faces different export conditions in Latin American countries. To be specific, in countries like Argentina and the Bahamas, there is little room for taking in more Chinese exports, as trade freedom levels are low. The many regulations in these countries make it difficult for China to access the local market and potentially increase the possibility for trade friction. It is thus essential for China to control the speed and scale of exports to these countries, which should be restructured based on the growth potential of individual sectors. In countries with huge market potentials like Costa Rica and Honduras, which enjoy high levels of trade freedom, there is huge room for the growth of Chinese exports. China can further increase exports, especially exportation of more products likely to reach more consumers. In other countries,

Table 3.2 Latin American Countries' Trade Freedom Index and Global Ranking

Country	Trade freedom	Global ranking	Country	Trade freedom	Global ranking
Costa Rica	85.1	42	Saint Vincent and the Grenadines	73.3	107
Peru	85.0	44	Mexico	72.9	110
Nicaragua	84.9	46	Colombia	72.2	115
Guatemala	84.6	48	Jamaica	72.1	117
Uruguay	82.9	54	Saint Lucia	71.9	118
Paraguay	82.7	56	Guyana	71.5	121
Chile	82.0	65	Trinidad and Tobago	69.9	126
Dominican Republic	80.1	73	Brazil	69.7	127
EI Salvador	79.0	81	Ecuador	68.1	134
Belize	78.1	85	Argentina	67.6	136
Honduras	77.1	89	Surinam	66.3	140
Haiti	74.8	96	Cuba	62.7	152
Panama	74.8	97	Barbados	60.5	158
Bolivia	74.3	99	Venezuela	58.8	163
Commonwealth of Dominic	74.3	100	Bahamas	42.2	178

Source The Heritage Foundation, "2012 Index of Economic Freedom". http://www.heritage.org/index/

comprehensive conditions for exports are becoming neutral, thus exportation can be further expanded, especially in terms of market shares for products with large growth potential.

3.3 Assessment of the Investment Environment in Latin America

As China's export potential in Latin America is dropping, investment becomes the choice for enterprises to maintain and expand local market shares. Especially given the fact that export conditions in Latin American countries differ from one to another, investment is not only a major solution for the retainment of market shares, but also an effective way to avoid export conflicts. To this purpose, it is necessary to assess Latin America's investment environment, which can be analyzed using three factors, namely investment freedom, investment facilitation, and investment protection.

Table 3.3 Latin American Countries' Investment Freedom Index and Global Ranking

Country	Investment freedom index	Country	Investment freedom index
Colombia	90.0	Jamaica	55.0
Haiti	85.0	Saint Lucia	55.0
Trinidad and Tobago	70.0	Guyana	55.0
Costa Rica	65.0	Cuba	55.0
Nicaragua	65.0	Barbados	55.0
Ecuador	65.0	Bahamas	55.0
Paraguay	60.0	El Salvador	50.0
Honduras	60.0	Bolivia	50.0
Panama	60.0	Commonwealth of Dominica	45.0
Surinam	60.0	Brazil	40.0
Venezuela	60.0	Chile	30.0
Peru	55.0	Argentina	30.0
Uruguay	55.0	Guatemala	25.0
Belize	55.0	Saint Vincent and the Grenadines	20.0
Mexico	55.0		

Source The Heritage Foundation, "2012 Index of Economic Freedom". http://www.heritage.org/index/

3.3.1 Investment Freedom Assessment

Investment freedom reflects how open a market is to foreign funds, and measures systems like market access, foreign exchange control, profit repatriation, and labour utilization. The investment freedom index of the Heritage Foundation reflects how free an investment environment is.

Table 3.3 lists the investment freedom index for Latin American countries. As far as the whole region is concerned, Latin America's index is 54.5 on average, higher than the global average 50.7. Therefore, Latin America level is better than the global average level. The reason for this is that many countries allow foreign funds to enter the majority of the national economy sectors, and laws confer foreign funds national treatment.

Investment freedom in Latin American countries differs from one to another. To be specific, Latin American countries can be classified into three classes based on their investment freedom indexes:

The indexes of Columbia, Haiti and Trinidad and Tobago are higher than 70; their investment access level is high and investment control is relatively loose;

The indexes of Costa Rica, Nicaragua, Ecuador, Paraguay, Honduras, Panama, Surinam, Venezuela, Peru, Uruguay, Belize, Mexico, Jamaica, Saint Lucia, Guyana, Cuba, Barbados, Bahamas, El Salvador, Bolivia, and the Commonwealth of

Dominica are between 45 and 70, where investment freedom is at an intermediate level and some form of foreign capital control exists.

The indexes of Brazil, Chile, Argentina, Guatemala and Saint Vincent and the Grenadines are below 45. Control on foreign funds is strict.

3.3.2 Investment Facilitation Assessment

Investment facilitation reflects a market's operating conditions, and measures the efficiency of market conditions and regulations, such as taxes, credit, trade, investor protection and infrastructure supply in investment recipient countries. The World Bank's *Doing Business Report* evaluated the investment facilitation index for main global economies based on 10 sectors.

Latin America's ranking in the *Doing Business Report* 2013[9] shows that among the 185 contestant economies, Latin American countries averagely rank at No. 99, generally below the average level. Investment facilitation in Latin America is not as good as in developed economies and Asia and other emerging economies.

As far as individual countries are concerned, the business environment in six countries including Chile, Peru, Colombia, Mexico, Saint Lucia and Panama is advantageous. Antigua and Barbuda, the Commonwealth of Dominica, Trinidad and Tobago, Saint Vincent and the Grenadines, Bahamas, Barbados, Uruguay, Jamaica, Guatemala, Saint Kitts and Nevis, Grenada, Paraguay, Belize, Costa Rica, El Salvador, Guyana, the Dominican Republic and Nicaragua' s business environments are at an intermediate level and generally similar to the global average. Argentina, Honduras, Brazil, Ecuador, Bolivia, Surinam, Haiti and Venezuela's business environments are below the global average level and investment facilitation in these countries is low.

The sum of 10 sub-indicators reflects the bottom 1/3 Latin American countries in every sub-indicator. It can be found that Latin America's investment facilitation conditions or business environment are not favourable, which is embodied in areas including taxpaying, bankruptcy, property registration, business-setup, contract execution and investment protection. Among these countries, half of the indicators for ten countries such as Bolivia, Haiti, Venezuela, Costa Rica, Surinam, Argentina, Belize, Ecuador, Honduras and Salvador are ranked among the world's bottom 1/3. Moreover, Brazil's poor business environment can be explained by indicators for license application, tax payments and bankruptcy applications, which all rank at the bottom.

[9]Source: the World Bank, *Doing business* 2013. http://www.worldbank.org.

3.3.3 Investment Protection Assessment

Foreign direct investors and their investments face risks in terms of political changes, political and regulatory risks, and disputes caused by government's regulations, such as government default, nationalization and expropriation, exchange restriction or forbiddance, war or unrest in host countries, and others. It is essential to adopt effective methods to solve international investment disputes, avoid political and regulatory risks in host countries, resolve investment disputes between investors and host countries, and protect and improve foreign direct investment.

Investment protection is the legal protection framework for investor rights, which is based on multilateral and bilateral agreement. On the multilateral level, Latin American countries are all members of multilateral investment guarantee agencies, which, to some extent, can prevent the incidence of systematic political risks for foreign investors. On the bilateral level, by June 2012, China had signed free trade agreements with Chile, Peru and Costa Rica respectively, which included bilateral investment protection issues; China signed bilateral investment protection agreements respectively with 14 countries, including Bolivia, Argentina, Uruguay, Chile, Peru, Jamaica, Cuba, Barbados, Trinidad and Tobago, Guyana, Colombia, Bahamas, Ecuador and Mexico; it signed agreements on the avoidance of double taxation respectively with Brazil, Jamaica, Barbados, Cuba, Venezuela, Trinidad and Tobago and Mexico. Chinese enterprises' investments in the above Latin American countries are under the protection of sound legal systems.

For China, Latin American investment freedom, facilitation, and protection generally stand at the intermediary level, and restrictions in terms of investment facilitation are outstanding. In the meanwhile, the investment environment in Latin America differs from one country to another. As for overseas markets where Chinese enterprises maintain and expand competitive products, Peru, Colombia, Mexico, Trinidad and Tobago and Panama are ideal investment destinations. There are many obstacles in Argentina, Brazil, Bolivia, and Venezuela's in terms of investment environment, and other Latin American countries have set up medium-level investment barriers.

3.4 Judgment and Classification of Latin American Markets

Based on a comprehensive assessment of export conditions and investment environments, a general judgment can be made in terms of the Latin American market. As for market conditions, the Latin American market capacity is large, thus providing enough room for Chinese exports. They also have the capacity to absorb China's industrial transfer. Therefore, the Latin American market will remain a major overseas market for the last 10 years of the period of strategic opportunities. As for market environment, Latin American trade environment and investment environment stand at or even below the global average level, but the situations are different

Table 3.4 Latin American Market's Environment Matrix

	Trade-oriented (2)	Investment-oriented (2)
Trade-oriented (1)	Brazil, Bolivia, Costa Rica, Ecuador, Honduras, Guatemala, Surinam and Venezuela	Argentina, Belize, Cuba, Dominican Republic, EI Salvador, Grenada, Guyana, Saint Vincent and the Grenadines, Haiti, Saint Lucia, Saint Kitts and Nevis
Investment-oriented (1)	Antigua and Barbuda, Barbados, Chile, Commonwealth of Dominica, Mexico, Nicaragua, Jamaica, Panama, Paraguay and Uruguay	Bahamas, Colombia, Peru, Trinidad and Tobago

Note 1. (1) and (2) represent ranking of export and investment strategy. (1) represents that the strategy ranks near the top
2. For the market's demand, each country needs to choose an export or investment strategy. When one country's export environment assessment and investment environment assessment are similar, it prioritizes export
3. The judgment basis is China's advantageous products and industry
Source by the author

in different countries. Different countries' market potential and environment are distinctive. Based on various assessments, the "Latin American market environment matrix" can be drawn (Table 3.4).

Hereby, Latin American countries can be classified into four categories: investment-oriented countries (four countries) i.e. countries with advantageous investment environments but limited export potential or low trade freedom levels, including Panama, Colombia, Peru, and Trinidad and Tobago; export-prone countries (eight countries) i.e. countries with quite a few investment barriers but large export potential and high trade freedom levels, including Brazil, Bolivia, Costa Rica, Ecuador, Honduras, Guatemala, Surinam and Venezuela; investment-oriented countries (10 countries) i.e. countries with intermediate amounts of investment barriers, limited potential and low trade freedom levels, including Antigua and Barbuda, Barbados, Chile, the Commonwealth of Dominica, Mexico, Nicaragua, Jamaica, Panama, Paraguay and Uruguay; and export-dominated countries (11 countries) i.e. export-to-develop countries with neutral investment barriers and moderate trade freedom levels, including Argentina, Belize, Cuba, the Dominican Republic, El Salvador, Grenada, Guyana, Saint Vincent and the Grenadines, Haiti, Saint Lucia, and Saint Kitts and Nevis.

3.5 Development Prospects and Models for Sino-Latin American Economic and Trade Cooperation

During the first half of the period featuring strategic opportunities, Sino-Latin American economic and trade cooperation developed fast mainly in the form of bilateral trade between China and highly concentrated Latin American countries. During the second half of this period, this kind of cooperation model became unsuitable, especially during the 2012 economic slowdown when Sino-Latin American economic and trade cooperation witnessed changes and China suffered from export growth slowdown and trade conflicts. Therefore, China needs to clearly understand Latin American markets and adjust its cooperation methods.

The position of the Latin American market can be analyzed in two ways. On one hand, the Latin American market has strong comparative advantages over other regions and can provide quite a large market for China's comparative products. On the other hand, the study of the market's own export potential and growth shows that after 10 years of fast growth, and especially after the quick recovery following the temporary slowdown in 2009, the Latin American market is, in general, nearly "saturated". The absolute advantages of the market decreased but individual countries and sectors still show distinctive situations. "Excessive trade" and "inadequate trade" co-exist. Considering these two aspects, during the second half of the period featuring strategic opportunities, the Latin American market is still the focus of China's foreign trade cooperation, but direction and method will be adjusted as follows.

First, while China retains its market shares in Latin America, it should gradually expand investment. China's investment and exports to the Latin American market should be based on economic development and market condition. In 2011, China's rapid foreign direct investment slowed down for the first time. Its total export to Latin American countries was over "saturation" threshold levels for the first time. Under such conditions, expanding investment in Latin America not only facilitates China's economic development, but also helps China better adapt to Latin American markets. Therefore, on the medium and long terms, China will strengthen production integration with Latin America and maintain enterprises and products' comprehensive shares in the regional market by way of selective industrial transfer.

Second, China will gradually adjust the structure of its export to and investment in Latin America. Based on trade and development potentials of different sectors, China will implement differentiated cooperation models to maintain and expand market shares and diminish trade conflicts. On the industrial level, it will expand exports of miscellaneous products and moderately control the export growth of other manufactured products, especially chemicals and relevant products, so as to gradually replace investment by exportation. On the technological level, it shall further expand the export of high-technology intensive products, control the export growth of products at other technological levels as well as resource intensive products, replace the export of medium and low technology products by investment as early as possible, and achieve labour division and cooperation by way of industrial transfer to Latin America.

Third, Sino-Latin American economic and trade cooperation will adapt to market diversity and individuality. Based on Latin America's different investment and trade capacities, China's economic and trade cooperation will be regionally differentiated. To be specific, investment-oriented countries will become its main investment destinations, as China gradually replaces products export by capital exports, transfers domestic excessive production capacity, and realizes local production and sales. In investment-dominated countries, it will stabilize its market shares and gradually expand investment. In export-dominated countries, it will control export growth and moderately expand market shares as well as gradually replace the exportation of conflicting products by investment. It will take export-prone countries as destinations to further expand exportation and speed up market exploitation to increase market shares in the short term.

Fourth, China will overcome the adverse conditions in Latin American market's investment environment. The risks and challenges of China's investment in Latin America, to a large extent, derive from disadvantages in the local investment environment. Therefore, China will avoid risks by safeguarding and improving investment and protection systems. On one hand, it shall pay more attention to the cultivation of the Latin American market. In order to improve business efficiency, Chinese enterprises will moderately invest in logistics, harbour, transportation and other infrastructure in key markets (investment-prone countries and export-prone countries with large market capacities) while investing in or exporting to Latin America to reduce long-term operation costs. On the other hand, it shall stress the construction of an investment protection system, further expand its partners in terms of bilateral free trade agreements, investment protection agreements, and agreements of avoidance of double taxation, so as to provide legal guarantee for economic and trade cooperation.

Appendix: Gravity Model Calculation of China's Export to Latin America

Models and Variables

Generally speaking, the trade volume between two countries is decided by the economic scale, transportation costs, and other factors promoting or hindering trade. Based on this study's research target and previous relevant studies, this thesis uses difference in per capita GDP, population, difference in endowment, openness and integration, among other factors, and analyzes their integrated impact on trade flow. By introducing the above new explanatory variables, the gravity model of China's export expansion can be deducted as follows:

$$\begin{aligned}\ln EX_{cjt} = {} & \alpha_0 + \alpha_1 \ln GDP_{ct} + \alpha_2 \ln GDP_{jt} + \alpha_3 \mathrm{IIT}_{ct} + \alpha_4 \ln POP_{ct} + \alpha_5 \ln POP_{jt} \\ & + \alpha_6 \ln DIS_{cj} + \alpha_7 \ln \mathrm{OPEN}_{jt} + \alpha_8 \mathrm{RTA}_{jt} + U_{cjt} \end{aligned} \tag{3.1}$$

The model shows EX_{cjt} is China's export volume (unit: million US dollars). The annexed Table 3.5 summarizes each explanatory variable and its expected symbol and theoretical explanations.

Sample and Data

Sample Countries

This thesis uses 66 economies accounting for over 90% of China's aggregate exports from 2000 to 2011 as subjects,[10] and deducts the gravity model equation of China's export by way of panel data simulation. The aforementioned 66 economies include 33 independent Latin American countries and following countries and regions: Australia, Bangladesh, Belgium, Canada, Hong Kong (China), Taiwan (China), Czech, France, Germany, India, Indonesia, Iran, Italy, Japan, Kazakhstan, South Korea, Malaysia, Holland, Nigeria, Pakistan, Philippines, Poland, Russia, Saudi Arabia, Singapore, South Africa, Spain, Thailand, Turkey, UAE, the U.K., the U.S. and Vietnam. Therefore, this study's theoretical sample capacity is of 792 observed values (66 * 12 = 792).

Industrial and Sector Classification

In order to observe the industrial structure of China's export, this study simulates the industrial sample in two ways:

First, in concordance with the United Nations' Standard International Trade Classification (SITC 4)'s one-digit classification rules, China's export trade is classified into 10 industries. Classes 0–4 are preliminary products; classes 5–9 are finished products. Considering that finished products dominate China's exports, this study mainly uses class 5–8 as subjects.

Second, referring to UNCTAD's (2002)[11] classification standard, SITC4's three-digit classified products can be divided into six categories according to factor intensity and technological difference: (a) preliminary products; (b) labour and resource intensive products; (c) low technology intensive products; (d) medium technology intensive products; (e) high technology intensive products; (f) other products. Taking China's actual exports into consideration, this thesis mainly uses classes b to e as subjects.

[10] Estimated based on UNCTAD's statistical database.

[11] Source: UNCTAD, *Trade and Development Report*. New York, 2002, pp. 87–92.

Table 3.5 Explanatory variable's expected symbol and theoretical explanation

Explanatory variables	Definitions	Unit	Expected symbols	Theoretical explanations
GDP_{ct}	China's GDP	Million US dollars	+	Reflecting China's supplying capability for export; the higher the value is, the larger the export potential is
GDP_{jt}	Importers' GDP	Million US dollars	+	Reflecting importers' demand; the higher the value, the larger the demand
IIT_{ct}	The absolute value of the natural logarithm difference between the per capita GDP of China and its exporting regions		±	Reflecting the relative economic level of both countries. Due to the dual effects of comparative advantages and the "Linda effect", its impact on trade flow is uncertain
POP_{ct}	China's population	Thousand	±	Reflecting China's export supply, exerting dual effects on export: the higher the value is, the larger the domestic demand is and the smaller the export volume is; the higher the value is, the stronger the capability to produce exports is, and the larger the export volume is
$\text{PO}P_{jt}$	The population of importing economies	Thousand	+	Reflecting the market scale of importing economies; the higher the value is, the larger the export potential is

(continued)

Table 3.5 (continued)

Explanatory variables	Definitions	Unit	Expected symbols	Theoretical explanations
DIS_{cj}	The distance between China and its exporting regions	Thousand kilometers	−	Reflecting transportation costs, the main factor hindering trade flow
OPEN_{jt}	Openness		±	Reflecting the dependence level of importing economy on trade in goods; the higher the openness level is, the more it participates in the world trade system, the more important its import and export's position is. Because both import and export are included, its impact on the importing economy's intentions is not clear
RTA_{jt}	Regional Trade Agreements		+	Reflecting the economic integration level between China and exporting economies. It is a dummy variable. When both parties belong to the same integration organization, the value is 1 and the trade between both parties can expand. Otherwise, the value is 0

Note the "expected symbol" row represents theoretical conclusion. "+" means that China's export positively correlates with this factor; "-" means that China's export negatively correlates with this factor; "±" means that the correlation can be positive or negative

Data Source

Each sample country's data in terms of Chinese exports, GDP, GDP per capita, and population all come from the UNCTAD's statistical database.[12] The openness degree is calculated from relevant data taken from the UNCTAD's statistical database. Distance data comes from the CEPII's geography and distance database[13] and refers to the weighted average distance between China and its partners' main cities (Head and Mayer 2002). Regional trade agreement data is based on the WTO's regional trade agreement database.[14]

Gravity Model's Regression Result

Based on the characteristics of the collected data, this study uses the random utility model to do a regression analysis on stationary processed data with the software Stata 12.0. On the basis of Eq. (2), the study uses the "backward scheme", i.e. gradually eliminating unobvious or less obvious explanatory variables. This thesis finally obtains the expanded equation, which can be applied to aggregate export and various industries and technological sectors (Annexed Table 3.6).

The regression results show that the final explanatory variables are all highly significant; the regression coefficient symbol is generally the same as the expected symbols; the imitative effect and test statistics are also ideal, which show that the extended gravity model's estimation achieves the expected goal and conforms to economic significance, finely explaining the situation of Chinese exports.

Estimate of China's Export Potential to Latin America

Based on the extended gravity model in annexed Table 3.6, this study assesses China's export to Latin America on two levels. The first level is the assessment of the current situation based on the Liu and Jiang (2002) model to determine Latin American countries' trade potential. The second level is prediction, which uses the Zhang and Tang (2012) method to estimate China's theoretical export volume to Latin America and determines the room for further growth in the medium-and-long term.[15]

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[12] http://unctadstat.unctad.org/.

[13] http://www.cepii.fr/anglaisgraph/bdd/distances.htm.

[14] http://www.cepii.fr/anglaisgraph/bdd/distances.htm.

[15] To avoid the statistical difference between IMF and UNCTAD, this thesis uses IMF's economic growth data. In addition, limited by the availability of data, the study objects' open is supposed not to change during the estimation and uses the 2011s data.

Table 3.6 Regression results of the gravity model

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Total export	5	6	7	8	B	C	D	E
LnGDP_{jt}	0.901^{***}	0.563^{***}	0.982^{***}	0.980^{***}	1.004^{***}	1.047^{***}	0.872^{***}	0.971^{***}	0.873^{***}
	(15.24)	(7.21)	(19.29)	(13.95)	(18.76)	(16.35)	(11.27)	(23.41)	(9.33)
$LnGDP_{ct}$	0.792^{***}	1.030^{***}	0.805^{***}	1.206^{***}	0.389^{***}	0.323^{***}	1.159^{***}	1.053^{***}	1.074^{***}
	(8.33)	(12.29)	(11.99)	(8.96)	(5.09)	(3.36)	(9.38)	(14.02)	(11.85)
$LnPOP_{jt}$		0.487^{***}							
		(3.98)							
$LnPOP_{ct}$	3.355^{*}				9.771^{**}	7.372^{***}			0.283^{*}
	(2.34)				(4.94)	(3.33)			(1.98)
$LnDIS_{cj}$	-0.797^{***}	-0.636^{***}	-0.524^{**}	-0.804^{***}	-0.610^{*}	-0.491^{*}	-0.545^{***}	-0.586^{***}	-0.818^{***}
	(−4.77)	(−4.24)	(−3.23)	(−4.81)	(−2.54)	(−2.27)	(−3.57)	(−3.86)	(−4.13)
LnOPEN$_{jt}$	0.400^{*}	0.534^{***}	0.612^{**}	0.543^{***}		0.528^{*}	0.619^{**}	0.633^{***}	0.537^{*}
	(2.26)	(3.47)	(3.05)	(2.41)		(2.57)	(3.14)	(3.64)	(2.46)
Constant term	-49.37^{*}	-11.31^{***}	-8.156^{***}	-10.83^{***}	-136.6^{***}	-106.2^{***}	-12.62^{***}	-11.48^{***}	-10.77^{***}
	(−2.55)	(−4.93)	(−4.10)	(−6.24)	(−5.07)	(−3.61)	(−7.34)	(−6.50)	(−3.79)

(continued)

Table 3.6 (continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
N	789	785	765	762	765	789	786	789	784
R2	0.8382	0.7881	0.8455	0.8323	0.8203	0.8055	0.7498	0.8323	0.7815
Wald	1557.26	886.30	1076.45	1155.26	725.24	886.30	1076.45	1155.26	725.24

Note Inside the brackets is t's value
* represents that the value reaches the significant level of 5%
** represents that the value reaches the significant level of 1%
*** represents that the value reaches the significant level of 0.1%

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Chapter 4
China's Direct Investment in Latin America

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This paper analyzes the situation of China's direct investment in Latin America from three macro perspectives. First of all, the paper presents China's investment in Latin America in the past decade, and especially in recent years. Then, it analyzes main problems that occurred in the course of Sino-Latin American trade and economic cooperation, especially in terms of China's investment in Latin America. Finally, the paper looks into the prospects of Chinese investment in Latin America.

4.1 Current Situation of China's Direct Investment in Latin America

First, China has become the main investor in Latin America. The past ten years saw the "leap-forward" development of Sino-Latin American trade and economic cooperation. Statistics show that bilateral trade volume exceeded 263.6 billion US dollars in the year of 2014. By the end of 2013, China's direct investment in Latin America exceeded 83 billion US dollars. The accumulated value of newly signed contracts by Chinese engineering contractors in Latin America has reached 94.6 billion US dollars, with an actual turnover of 54.4 billion US dollars.[1] At present, China is Latin America's second largest trading partner and the third biggest investor in Latin America. At the same time, Latin America has become an important overseas engineering contract market for China. See Fig. 4.1.

Second, investment in Latin America takes a rising proportion in Chinese foreign direct investment (FDI). Latin America has become one of the main Chinese investment destinations. According to Chinese foreign direct investment statistics, by the end of 2013, Latin America received 13% of the total Chinese investment made in six

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[1] Sources: CEIC database.

Y. Chai and Y. Yue (eds.), *Sino-Latin American Economic and Trade Relations* ,
Research Series on the Chinese Dream and China's Development Path,
https://doi.org/10.1007/978-981-13-3405-4_4

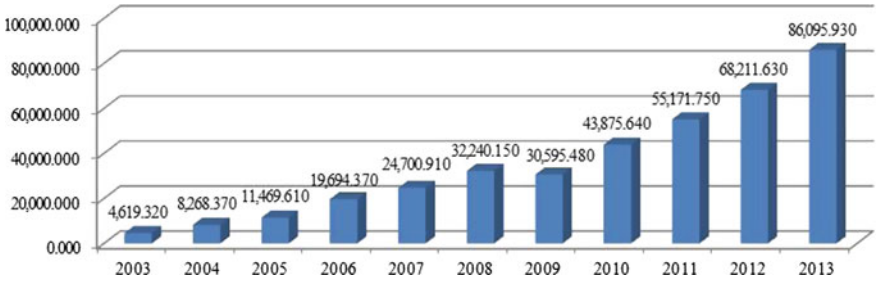

Fig. 4.1 China's direct investment in Latin America from year 2003 to 2013 (unit: million US dollar). *Sources* CEIC database

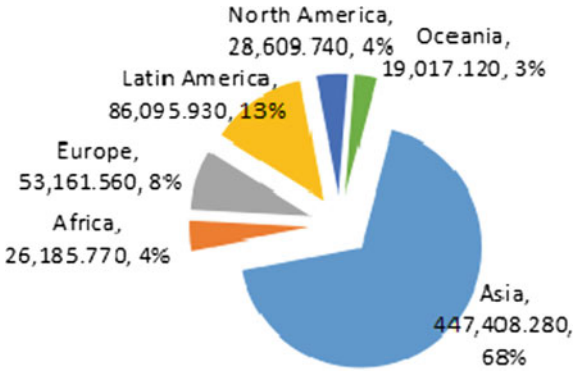

Fig. 4.2 Amount and proportion of Chinese direct investment in different regions by the end of 2013 (unit: million US dollars; %). *Sources* CEIC database

regions including Asia, Africa, Latin America, Europe, North America and Oceania, second to Asia which received 68% of Chinese total FDI. The third biggest receiver, Europe, received 8% of Chinese FDI. The proportion of investment in Latin America in terms of Chinese FDI is significantly higher than that of Africa (4%), North America (4%) and Oceania (3%). However, though Latin America ranked second in terms of investment received from China, there was still a big gap between Chinese direct investment in Latin America and that in Asia, as Fig. 4.2 shows.[2]

Third, direct investment in specific Latin American regions needs to be analyzed objectively. It is worth noting that though direct investment in Latin America has been developing relatively fast in these years, with an annual growth rate exceeding 20% from year 2005 to year 2013, most of the investment has flown to the British Virgin Islands and Cayman Islands. Take year 2013 as an example: in 2013 China invested over 14.36 billion US dollars in Latin America, a record high, with a year-on-year growth of more than 132.7%. However, during the same period, investment in the British Virgin Islands and Cayman Islands grew at a rate of 306.8%. Therefore, the increase in Latin American investment could largely be attributed to the increase of

[2]China's Ministry of Commerce: Report on Development of China's Outward Investment and Economic Cooperation 2014, http://fec.mofcom.gov.cn/article/tzhzcj/tzhz/.

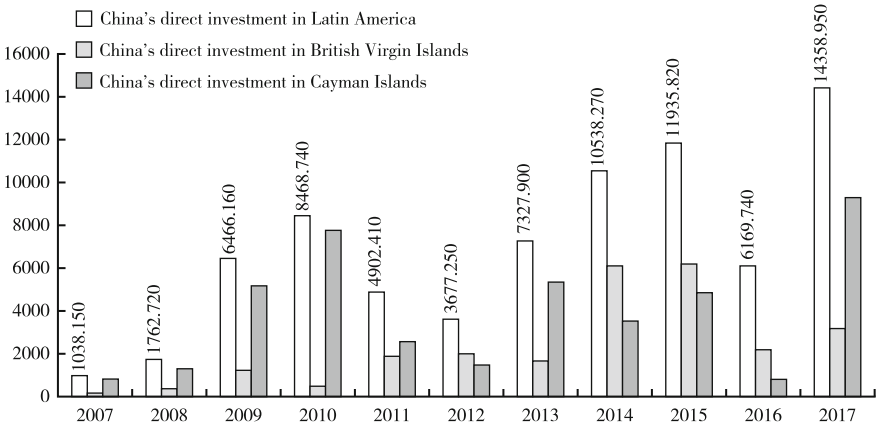

Fig. 4.3 China's direct investment in Latin America from 2003 to 2013 (unit: million US dollars). *Sources* CEIC database

investment in these two regions. In fact, if these two regions are not accounted for, China's investment in Latin America only amounted to 1.88 billion dollars, down 39.3% year-on-year.[3] In this sense, the result is different or even opposite, depending on whether we take the above two offshore financial centers into consideration or not. See Fig. 4.3.

Although the amount of China's direct investment in Latin America decreased in 2013 because of the decrease investments in the South American mining industry, the energy and mineral resource industries remained a hot spot for Chinese investment in 2014. Associated enterprises such as Minmetals Resources bought Peruvian Las Bambas Copper for 5.85 billion dollars, making it one of the most important breakthroughs Chinese enterprises have made during overseas merger and acquisitions. According to the latest statistics, Chinese foreign direct investment in 2014 kept growing; non-financial foreign direct investment exceeded 102.8 billion dollars, a 14.1% year-on-year increase.[4]

4.2 Important Issues in Sino-Latin American Investment Cooperation

First, investment in regions and industries is not evenly distributed. The uneven distribution of investment lies in two aspects: regional uneven distribution and industrial uneven distribution. Regional uneven distribution shows in the following two

[3] See Footnote 2.

[4] China's Ministry of Commerce: Ministry of Commerce's news briefing on business operation situation from January to April of Year 2015, http://www.scio.gov.cn/xwfbh/gbwxwfbh/fbh/Document/1434135/1434135.htm.

aspects: one is that the two offshore financial centers, the British Virgin Islands and Cayman Islands, if taken into consideration, absorbed most of Chinese investments; the other is that if the above two offshore financial centers are not taken into consideration, most of Chinese direct investment in Latin America went to South America rather than Central America or the Caribbean Region.

As a matter of fact, the concentration of China's direct investment in South America or in its energy industry has something to do with the complementarity between both sides' economy and resource endowment, which determines China's "seeking for resource" investment mode in South America, a region that happens to be rich in mineral resource. According to relevant statistics, South America received 66% of China's non-financial direct investment from 2003 to 2010. The proportion could be as high as 81% if Venezuela was counted. However, in recent years, China has extended its investment in Latin America to industries such as leasing and commercial service, banking and wholesale and retail. In 2013, the China Construction Bank purchased 72% of Brazil's bank's (BIC) stock shares for 720 million US dollars, an obvious example of China's extension of its investment in Latin America.

Second, the corporate social responsibility of enterprises should be further enhanced. As resource-seeking investment is closely related to the sustainability of local economies, societies and environments, it could also raise the excessive concern of people in host countries. Therefore, raising awareness on local ecosystem protection and valuing the livelihood of local people become the urgent corporate social responsibilities of Chinese enterprises. A few large Chinese enterprises have been role models in doing this. PetroChina, as the first Chinese enterprise that entered the field of oil development in Latin America, has excellently fulfilled its corporate social responsibilities for the last 20-odd years. It published a report, *CNPC in Latin America*, detailing its experience and practice.[5] In fact, other Chinese enterprises have enhanced their fulfillment of corporate social responsibilities in recent years. In 2014, Chinalco constructed a sewage plant before it started its copper project in Peru, which solved the water pollution problems the local people had been facing by for 70 years. It also invested 200 million US dollars in constructing series of modern urban facilities for the mining area. Meanwhile, Chinese enterprises also paid much attention to integrated development in the interest of local enterprises. In 2014, the Baha Mar Resorts project undertaken by China State Construction has, in total, awarded contract worth 350 million US dollars to local contractors and suppliers, accounting for 20% of the total contract value.[6]

Third, attention should be paid to the prevention and elimination of possible investment risk. In general, Latin America has a stable political, economic and social situation, which brings a relatively ideal investment environment. However, the utmost attention should be given to possible investment risks in certain countries or timeframes. As the "going global" strategy of Chinese enterprises deepens, Chinese enterprises (including private enterprises) with strength of capital and tech-

[5]PetroChina: CNPC in Latin America. http://www.cnpc.com.cn/cnpc/cnpczqq/201404/0222d7bfe7e043c78d266f7c4c0a6150/files/75c79a048aea444b8b25042bbfd6e744.pdf.

[6]See Footnote 2.

nology show great interest in investing in the field of infrastructure construction in Latin America. However, other than large investments, long payback periods, and high risks, some countries' policy adjustment may also become sources of loss for investors. Twists and turns in Chinese enterprises' bidding for the Mexican High-Speed Railway construction since 2014 should draw due concerns.

Besides, Chinese state-owned enterprises are not the only ones investing in Latin America; Chinese private enterprises are also eager to go global as they develop and grow. Though their independent investment behavior is irrelevant to government background, departments concerned remain subject to possible risks. For instance, relevant enterprises taking part in the Nicaragua canal project caused wide public concern. It is reported that the warning against possible risks by departments concerned is still in effect, even though investment behavior is totally independent of the government.[7]

4.3 Investment Prospects for China in Latin America

First, investment has become the main engine to boost bilateral economic cooperation. The "1 + 3 + 6" (i.e. 1 plan + 3 engines + 6 cooperation fields) cooperation framework put forward by China points to the future of Sino-Latin American investment and cooperation. Among the 3 engines comprising trade, investment and finance, trade has been the main engine driving bilateral cooperation with great achievements. Statistics show that from 2001 to 2013, trade volume between China and Latin America increased from 14.9 billion US dollars to 261.571 billion US dollars, a 16.6 fold growth, accounting for 6.3% of China's foreign trade volume, higher than 2.9% in 2001. It took 7 years to increase the bilateral trade volume from 10 billion US dollars in 2000 to 100 billion US dollars in 2007, and only took 4 years to bring that number up to 200 billion US dollars. Latin America has become the region with the fastest growth rate in terms of global exports to China, as shown in Fig. 4.4.

However, since the financial crisis broke out, and especially in the last 3 years, bilateral trade volume had seen a drop in its growth rate, though it is still growing. It is therefore urgent to come up with a new "engine" to strengthen the drive of bilateral trade and economic cooperation, keep it sustainable and stable. Investment and finance are slowly becoming new highlights.

Second, the cooperation mechanism is the important guarantee for Chinese investment in Latin America. At present, abundant capital is one of the biggest Chinese advantages. It is a new cooperation opportunity to combine the advantage of China's huge foreign exchange reserve (3.8 trillion US dollars) with Latin America's huge demand in fields like infrastructure construction and industrial upgrading. Both

[7] China's Ministry of Foreign Affairs: Director-General Zhu Qingqiao of Department of Latin American and Caribbean Affairs: New start for Sino-Latin American relations (Interview record of Meet the Diplomats).

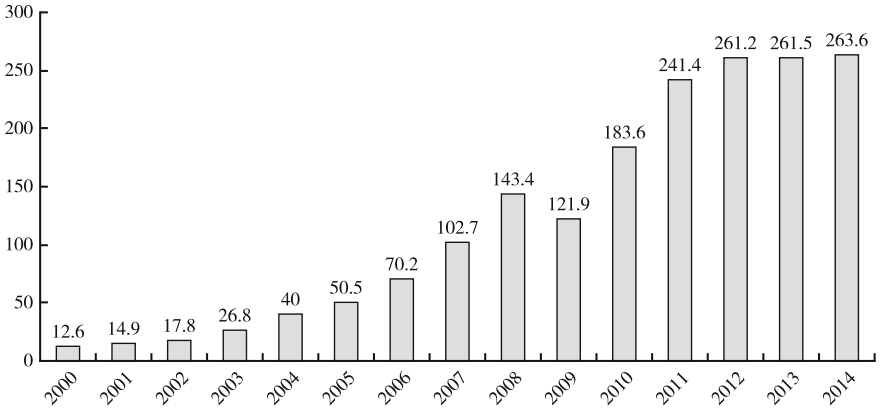

Fig. 4.4 Bilateral trade volume between China and Latin America from 2000 to 2014 (unit: billion US dollars). *Sources* CEIC database

sides have adopted new ways of cooperation, such as currency exchange and cooperation funds, making great contributions to help both sides get over the financial crisis and restore economic growth, which is the highlight and growth point of cooperation between the two sides.

Major cooperation projects are forming or have formed in 6 major Sino-Latin American cooperation areas: energy resource, infrastructure construction, agriculture, manufacturing, technological innovation and information technology. Meanwhile, the *Sino-Latin American and Caribbean Cooperation Plan (2015–2019)* established the objective of jointly constructing industrial parks, special economic zones and high-tech industrial parks, especially in areas of research and development, so as to form industrial investment and industrial value chain. The above investment cooperation came to be because China put forward specific initiatives and mechanisms. Among them, the $20 billion special loan for Sino-Latin American infrastructure construction, the $10 billion preferential loan, the $5 billion Sino-Latin American cooperation fund and the $50 million special fund for Sino-Latin American agricultural cooperation have been activated to provide a guarantee for Chinese investment in Latin America.[8]

Third, three Chinese actors work together for cooperation with Latin America. These three "actors", i.e. the Chinese government, quasi-government organizations, and enterprises, being complementary to one another, all play important roles in the process of investment in Latin America as they provide important guarantees for the development of mutual investment and particularly that of Chinese investment in Latin America. Among the three actors, the Chinese government plays a "top-level design" role, issuing policy documents of principles concerning cooperation with Latin America and the Caribbean regions, as it also introduces a series of

[8]Xinhua: Sino-Latin American and Caribbean Cooperation Plan (2015–2019), http://news.xinhuanet.com/world/2015-01/09/c_1113944648.htm.

specific measures and platforms to plan for cooperation between both sides. Through they have established the China-Latin America Business Council and hold regular China-LAC Business Summits, some Chinese quasi-government organizations (for example, the China Council for the Promotion of International Trade, CCPIT),[9] on the one hand cooperate with the Chinese government's policies and guide enterprises in their cooperation with Latin America, while they on the other hand set up platforms for enterprises and send their information back. Chinese enterprises of various kinds (including state-owned and private) are the main body that cooperates and invests in Latin America. They also play significant roles in cooperation with Latin America, because they are the active practitioners of "going global", having learned lessons and gained experiences in the course of their Latin American investments and share them with China's policymakers who can thus fine-tune their policies accordingly. The relationship between the three actors is shown in Fig. 4.5.

Last, economic development on both sides has great potential for investment opportunities. At present, external uncertainty and economic developmental challenges faced by countries all around the world still exist. According to statistics, the average economic growth rate in Latin America and the Caribbean regions in 2014 was only 1.1%, the lowest in recent 5 years.[10] As the Chinese economy steps into its "new normal" phase, the "restructuring and transferring" of the economy become the main content of the deepened reform. However, even though faced with challenges, the stable Chinese economy, keeping a medium-high economic growth rate, will provide Latin America with more market, growth, investment, and cooperation opportunities of market. It is estimated that in the future 10 years; bilateral trade volume will reach 500 billion US dollars, with Chinese foreign direct investment in Latin America running up to 250 billion US dollars,[11] as is shown in Fig. 4.6.

It is foreseeable that China accelerating the pace of its investment in Latin America will benefit both sides. As China increases its direct investment in Latin America, more job opportunities and income will be brought to local Latin American people. China's investment in Latin American infrastructure will not only enable Latin American people to have access to high-quality transportation and communication infrastructure, but also enhance Latin America's competitive power. Moreover, with the establishment of a series of funds and the deepening of communication programs put forward by China, more and more Latin American people, particularly young people, will have access to more employment and training opportunities. Meanwhile, many competitive Chinese enterprises with core technologies, such as high-speed railways and communication enterprises will enter Latin America and get more opportunities for engineering projects.

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[9]CPIT, China Council for the promotion of international Trade (CCPIT) n.d. (a) About CCPIT. Online: http://bizchinanow.com/aboutCCPIT/aboutCCPIT.htm.

[10]CEPAL, Balance Preliminar de las Economías de América Latina y el Caribe 2014, http://www.cepal.org.

[11]Xinhua News Agency 2015. China-CELAC Cooperation Plan 2015–2019, Online: http://news.xinhuanet.com/world/2015-01/09/c_1113944648.htm.

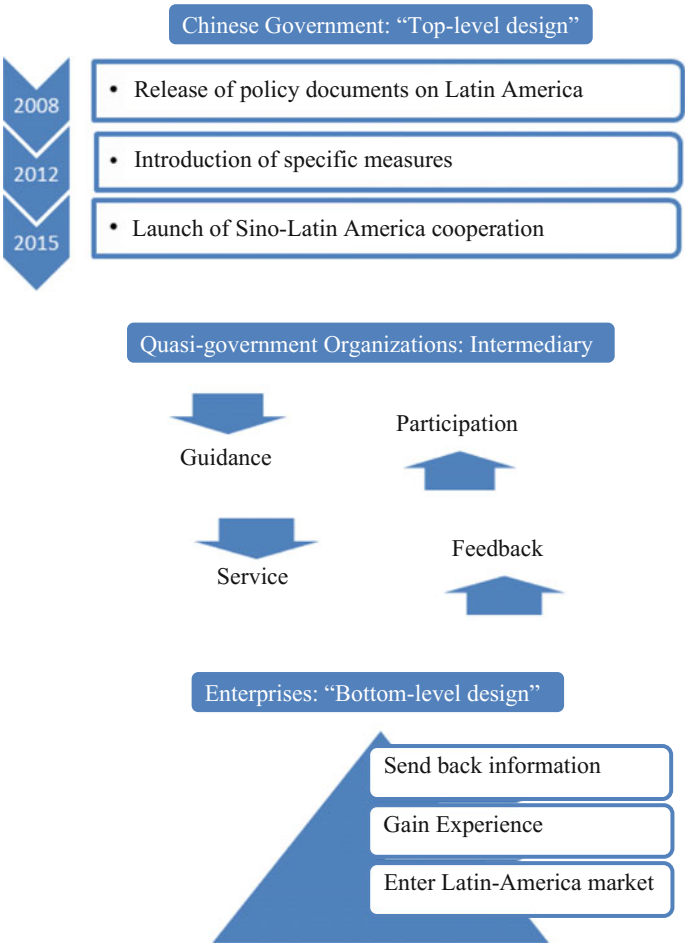

Fig. 4.5 Roles of three actors: Chinese government, Quasi-government organizations and Enterprises

4.4 Conclusion

The acceleration of China's investment in Latin America is the result of Chinese economic development reaching a certain level, as well as what Sino-Latin American economic and trade cooperation really needs. With the changing international economic environment, all countries around the globe including China and Latin American countries are faced with challenges and new tasks. Therefore, as Chinese economic development steps into the "new normal" phase and undergoes structural adjustments, Latin American countries are undergoing their own, which provides new bilateral opportunities to have new and upgraded cooperation patterns. At present,

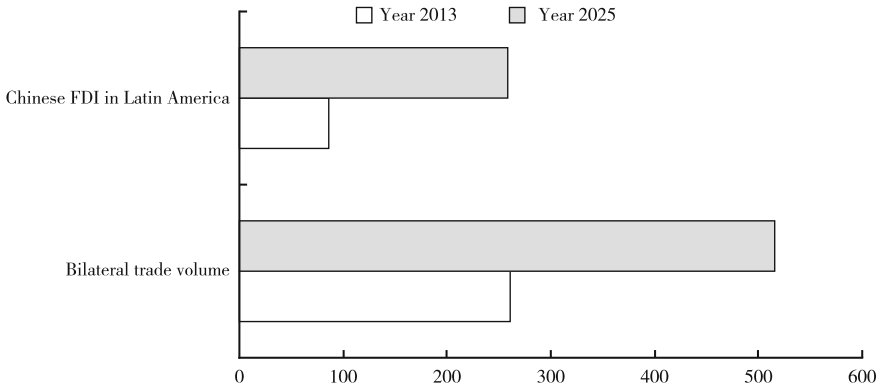

Fig. 4.6 Bilateral trade volume and Chinese FDI in Latin America in future 10 years (unit: billion US dollars). *Sources* China Customs; document of the first ministerial conference of Sino-Latin American cooperation forum

China's investment in Latin America is not only blessed with cooperation platforms and ongoing projects, but also good prospect. As they invest in Latin America, Chinese investors need to take into careful consideration opportunities and how to seize them, mechanisms and how to employ them, and possible risks and how to avoid them.

Bibliography

Foreign Ministry of the PRC (2014) Xi Jinping Attends China-Latin America and the Caribbean Summit and Delivers Keynote Speech, Comprehensively Expounding China's Policies and Propositions Toward Latin America, Announcing Establishment of China-Latin America Comprehensive Cooperative Partnership of Equality, Mutual Benefit and Common Development, and Establishment of China-CELAC Forum (18 July 2014), Online: http://www.fmprc.gov.cn/mfa_eng/wjb_663304/zzjg_663340/ldmzs_664952/xwlb_664954/t1176650.shtml. Accessed on 1 Feb 2015

MOFCOM (2015) Report on Development of China's Outward Investment and Economic Cooperation, Online: http://fec.mofcom.gov.cn/uploadfile/duiwaitouzihezuofazhanbaogao2014.pdf. Retrieved on 14 Feb 2015

Xinhua News Agency (2015) China-CELAC cooperation plan 2015–2019, Online: http://news.xinhuanet.com/world/2015-01/09/c_1113944648.htm

Xinhua: China-CELAC Cooperation Plan 2015–2019, http://news.xinhuanet.com/world/2015-01/09/c_1113944648.htm

PetroChina: CNPC in Latin America. http://www.cnpc.com.cn/cnpc/cnpczqq/201404/0222d7bfe7e043c78d266f7c4c0a6150/files/75c79a048aea444b8b25042bbfd6e744.pdf

China's Ministry of Commerce: Ministry of Commerce's news briefing on business operation situation from January to April of Year 2015, http://www.scio.gov.cn/xwfbh/gbwxwfbh/fbh/Document/1434135/1434135.htm

China's Ministry of Commerce: Report on Development of China's Outward Investment and Economic Cooperation 2014, http://fec.mofcom.gov.cn/article/tzhzcj/tzhz/

China's Ministry of Foreign Affairs: Director-General Zhu Qingqiao of Department of Latin American and Caribbean Affairs: New start for Sino-Latin American relations (Interview record of Meet the Diplomats)

CCPIT, China Council for the promotion of international Trade (CCPIT) n.d. (a) About CCPIT. Online: http://bizchinanow.com/aboutCCPIT/aboutCCPIT.htm

CEPAL, Balance Preliminar de las Economías de América Latina y el Caribe 2014, http://www.cepal.org

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Chapter 5
Internationalization of the RMB in Latin America: An Overview

Chai Yu

5.1 Introduction

There is a widely-accepted idea in the nation-state system initiated in the 17th century, which states that national sovereignty as reflected in finance is monetary issuance[1]; only a single currency can be circulated and used in one country.[2] The rise of military powers and tax systems ensure that feature. The state monopolizes its currency and others are excluded. The state persists in its adequate claims for real resources (e.g. goods and services), while on the other hand home currency plays the role of mighty tool to control national economic operations.

Nowadays, world economic globalization promotes interdependency among economic entities. Meanwhile, the competition between main market players has greatly increased as it happens in bigger and deeper market. Marketization competition changed the organization of currency space and obviously omitted state monopoly. When led by states, political borders ruled currency, as it could only be circulated within the borders of the territory of governance. Common currency markets were divided because of circulation territories and currency interest fights between nations, which could hardly be avoided.[3] Today, currency space cannot be formed by politics

[1] Fred Hirsch, *Money International,* London: Penguin, 1969.

[2] In fact, currency cross-region circulation was common before modern national state.

[3] Zhang Yuyan, Zhang Jingchun, "Nature of Currency and the future selection of RMB-Also on Asian Currency Cooperation", in "Contemporary Asia-Pacific Studies", pp. 9–43 Press 2, 2008.

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any longer, but rather by an invisible hand, or a currency's effectiveness and authority (power).[4] Currency in one country is no longer monopolized but oligopoly.

Although both exist in imperfect competitive market structures,[5] monopoly and oligopoly have different economic implications. Oligopoly has greatly changed the relationship between countries issuing currency and therefore the competitive revenue model. In such a market, the extension of transaction networks increases the importance of currency demanders. Research on currency internationalization pays little attention to currency demanders. There are two possible reasons for this. First, competition in terms of currency internationalization mainly exists between countries issuing currencies, be it competition between international currencies or local ones. The extension of territories for currency circulation can be clearly explained by the issuers' economic scale, stability, capital market development, etc. The existing literature includes research on the requirements and realization of currency internationalization from the aforementioned perspective and the relationship between strong currencies like the Dollar and the Euro has been thoroughly studied. Second, in the development and maturing process of currency internationalization, demanders have little impact on issuers. This process happens in the changing economic situation of the world along with the rise of issuing countries in global competition, especially in limited regions. To a large extent, it could be correct to analyze the issue from the perspective of the economic strength and influence of issuers, but effectiveness and authority have their specified objects. In the international economic field, no single currency could be put into forced usage by any super-national power, as this field is dominated by the decisions and actions of a country's public or private market agents.[6] With the change of currency competition patterns, the expansion of trade networks, the relationship between currency demanders and economic trade partners are getting more complex. An extreme case in point is the selection of alternative currencies, which will be profoundly affected by the economic development and fundamentals of currency demanders. Meanwhile, there are great differences in the depth and width of economic and trade relations between countries because of imbalances brought about by globalization. Developing countries used to rely mainly on developed ones, especially in the fields of markets, technologies and products. But now developing countries are inter-dependent, thus providing more opportunities for cooperation and the integration of currencies.

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[4]Benjamin J. Cohen, *The Geography of Money*, Cornell University Press, 1998, p. 5; C. A. E. Goodhart, "What is the essence of Money?", *Cambridge Journal of Economics*, Vol 29, Issue 5, 2005. The latter pointed out that the right size of relative power was the determinant.

[5]There are four types in market structure, and they are perfect competition, perfect monopoly, monopolistic competition, and oligopoly. The feature of oligopoly market is, rare manufacturers control the market structure of produce and sale of some industry. The less the manufacturers are, the harder to get in or out the business, the stronger interdependence between them. The reasons could be economy size, advanced technology, bigger investment, and government special permission. The typical industries are petroleum, automobile, steel, etc.

[6]Jiang Boke, Zhang Qinglong, *Currency Internalization: Academic Review of its Terms and Impact, NEW FINANCE*, p. 6, volume 8, 2005.

In the recent two decades, there was a dramatic economic and trade development between Latin America and China. Since, bilateral trade between Latin America and China has increased at an annual rate of over 30%, surpassing Chinese comprehensive foreign trade growth. China has become the major investor in Latin America. There have been remarkable achievements in terms of cooperation in the fields of natural and energy resources, infrastructure, high-tech, agriculture, etc. Development in the real economy raised new requirements for financial cooperation. China and Argentina signed a currency swap agreement in 2009 and there was motion on a currency swap arrangement with Brazil. At the G20 international economic forum, China cooperated with Latin America on the international financial system reform. Under these circumstances, the possibility for Latin America to become a target region for the internationalization of the RMB has become an important issue for scholars.

Taking Latin America as the major region for currency circulation, this paper is going to explore the possibility of RMB internationalization and regionalization in Latin America so as to add new variables for research on the status of the RMB in different regions. The introduction will be followed by a second part discussing the features of the competition between different currencies, its impact on circulation areas, and the RMB internationalization requirements from the perspective of currency issuers. Part three will focus on the Latin American region and discuss the possibility of expanding RMB circulation in Latin America based on its economic situations and currencies. The final part will be a conclusion on practical implications based on the research.

5.2 International Currency Competition, Currency Circulation and Conditions to Achieve the Internationalization of the RMB

In the era of economic globalization, the RMB is facing fierce international competition. The RMB must qualify in terms of basic international conditions so as to come out at the forefront of competitors. International currency competition means that there will be constraints on the expansion of currency circulation, and the internationalization of RMB is the progress of enhancing its competitive strength, as well as breaking these constraints.

5.2.1 Study on International Currency Competition and Currency Circulation

The research on currency competition could start with market structures, so as to figure out the major features of the competition by exploring different competition models, profit resources and potential influences. More attention should be put on the

origin of competitiveness, the conditions for competition and demands in circulation areas for currencies like the Dollar, the Euro and the Yen, although competition among the above three currencies is not the priority of the research.

5.2.1.1 Introduction of the Development and Features of International Currency Competition

Currency competition, as clearly defined by Philipp Hartmann (1998), refers to non-natives accepting and using a currency.[7] Currency competition happens when the legal currencies of sovereign states compete with each other, pursuing to expand and stabilize their circulation and trying to achieve monopoly. The international monetary system is naturally an instable oligopoly.[8] Therefore, the essence of currency competition lies in the competition between circulation areas.

The development of the international currency system is a process which featured the expansion of circulation areas, which are known in fact as the market of a certain currency. Competition for circulation areas is similar to businesses competing for market shares in commodity markets. Perfect competition among currencies exists in the following two situations[9]: first, domestic competition among private issuers before the right of issuing currency is handed over to the government; second, international currency competition under the international gold coin standard system before metal coins are replaced by paper money, a credit currency. Thus since the replacement, currencies in the world have started a period of imperfect competition.[10] The study of monopolistic competition focused on a market condition featuring low entry barriers, similar but differentiated products, and large numbers of competitors. International currency competition obviously fails to meet the above features, because the main competitors issuing currencies are sovereign states instead of enterprises. The barrier to participate in the international currency competition is quite high, and it depends on various complicated factors, including national will, economic and political strength, national credit, currency stability and transaction networks, etc.

In retrospect of its development path, the international currency system was regarded as perfect competition during the Gold Standard period. The gold was cast and converted freely all over the world, playing the role of global currency. Even bank notes were denominated based on how much gold they could be exchanged for. With the development of the industrial revolution and the foundation of the European colonial system in the UK and other countries, the Pound served as the

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[7] Philipp Hartmann, *Currency Competition and Foreign Exchange Markets: The Dollar, the Yen and the Euro*, Cambridge University Press, 1998.

[8] Zhang Yuyan, Zhang Jingchun, "Nature of Currency and the future selection of RMB-Also on Asian Currency Cooperation", in "Contemporary Asia-Pacific Studies", pp. 9–43 volume 2, 2008.

[9] The Perfectly Competitive Market defines the four assumptions including Prices Established, Product Homogeneity, free flow of resources and complete information. Without any of them, the market is imperfectly competitive.

[10] Pan Liquan: "Oligopoly international Currency System and Strategic choice in RMB internationalization", Volume 1, 2007.

leading currency in the world for quite a long period. The Bretton Woods system, after World War II, established the monopoly of the US dollar,[11] then the only global currency in addition to gold. Large amounts of dollars flew around the world by way of donation, credit, purchase of foreign commodities and labor, so as to meet currency requirements and expand purchasing power. Furthermore, the US dollar had maintained its stability as the hegemonic currency because it could be converted to gold and many countries adopted an adjustable currency system pegged to the US dollar. After the Bretton Woods system and the Jamaica system came the times of economic globalization.[12] Starting from the late 1980, the floating exchange rate system was implemented, the capital market was expanded (especially with the IT revolution), the liberalization of trade and investment was progressively impelled, and the regional integration boomingly developed,[13] all of which has driven currency competition to become the focus of studies. Economic globalization put an end to worldwide market fragmentation, caused by the separated issuance of currencies by sovereign state, thus making it possible to compete in a relatively unified global market. In 1999, the Euro, officially released by the EU, integrated the different currencies in Europe, thus acting as a new player in currency competition. Since then, the international currency system has entered into a new stage of competition led by the hegemony of the US Dollar in competition with several key currencies including the Euro and the Japanese Yen, which reflects the characteristics of oligopoly.

Under these monopolistic patterns, the government is the only authority to issue currency, and the cost is paid and income is gained by the state. Profits under the monopoly reached their highest level in comparison with other market structures. The appearance of nation-states in the 17th century showed the isolation of the currency market, away from the impacts of other markets in the same country. Meanwhile, it was also in the period of the Bretton Wood system that the US Dollar maintained its monopoly and obtained monopoly income by acting as a medium for international payment and reserves. However, this monopoly also led to the disintegration of the Bretton Woods system. In the 1960s and 1970s, the dollar crisis broke out repeatedly due to the expansion of the US financial deficit, imbalances in international income and payment, and the deteriorated credit of US currency. After that, US dollars couldn't be converted to gold freely, and the fixed exchange rate system was abolished. With the US Dollar being the single reserve currency in the world, the US faced a tradeoff between maintaining domestic balances and providing global liquidity. No matter what choice the US made, it would definitely have led to economic fluctuations.

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[11] After World War I, with the gradual rise of the United States, Monroe Doctrine and Pan American Doctrine have become the major guiding ideology. Joined with more than 20 Latin American countries, the US has become the center of Economic Community to construct "the Dollar Bloc", and the US dollar currency area has been taken into shape.

[12] Qifted a few characteristics of monopolistic competition, but the barriers block heavily, long-term cost curve remained unchanged approximately.

[13] Yu Wanlin, Zhu Yan: "Analysis on alternative mechanism of monetary in currency competition", in "Finance and Economy" Volume 9, 2005.

Perfect monopoly patterns were rooted in the limits of market entrance. As a part of national power, according to the law, it is strictly forbidden for any private organization and social associations to release currency. Viewed from an international perspective, only the US Dollar was authorized to be pegged to gold, thus playing a role as a settlement and reserved currency. Oligopoly patterns rely on the size of economies. The few oligarchs controlled the international currency market, and competed intensely with each other. Because of the powerful oligarchs and the large scale of initial investments, the original players dominated the initial market, effectively blocking latecomers.

Different from traditional market, the oligopoly of the international currency market plays a more important role and exerts more profound influences.

Leading International Currencies Have a Great Impact on World Economies

Based on the functional analysis framework,[14] as well as the theory of international currency and its different roles in circulation, it has been found that key currencies, like the Dollar, the Euro, the Japanese Yen, etc., play an important role in the world currency market.

In terms of exchange mediums and valuation units,[15] the Dollar has maintained itself as the leading currency in international trade transactions and the security issuance; meanwhile the impact of the Euro and other currencies keep rising.[16] Statistics in Kamp (2006) showed that the proportion of import trade settled in dollars reached as high as 93.6% (Indonesia) around year of 2003, 90.3% (the US) and 82.5% (Indonesia) in export trade; 62.6% of import trade and 61.1% of export trade (Spain) was denominated in Euro. Many international securities and notes are issued in US dollars, euros, yens and Canadian dollars. According to circulation volumes, it's been discovered that the majority of international securities and notes were issued

[14] Chinn, M, Frankel, J, 2005. "Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency?" in *G7 Current Account Imbalances: Sustainability and Adjustment*, ed. By Richard Clarida, Chicago: University of Chicago Press.

[15] See Footnote 14.

[16] Due to limited data and few literature on studies of settlement currency, the outstanding literatures in recent years are from Goldberg (2005) and Kamps (2006). Goldberg indicated, the Dollar is the leading currency in settling import and export business. Generally speaking, Eurozone countries will impose 1/3 export settlement by the Dollar, and 40% in import, similar situation will occur in UK, which share 26% in export currency settlement and 37% in import. Goldberg, Linda S., and Cedric Tille, 'Vehicle Currency use in International Trade'. NBER Working Paper 11127. NBER, 2005; MA. Goldberg, Linda S., 'Trade invoicing in the Accession Countries: Are They Suited to the Euro?' NBER Working Paper 11653, 2005. Kamps made correction and improvement on the theory of Goldberg and Tille (2005), calculating the market share of various currencies in 42 countries for settlement in import and export, which clearly brought an intuitive understanding on competitiveness. Kamps, A., "The Euro as invoicing Currency in International Trade", pp. 43–50, ECB Working Paper Series, No. 665, 2006.

in euros from 2010 to 2012,[17] followed by the US dollar and the UK pound.[18] The issuance volume of international securities and notes reflect the demand from foreign countries; the more demand, the more issuance, the more competitive a currency is, and vice versa. By measuring the comprehensive market amount of financial derivatives using the open interest total nominal amount, the important position of the dollar, the euro and the Japanese yen is clearly perceivable. From the status of daily transactions in foreign exchange,[19] the dollar maintained 80% of market shares. The above four currencies almost account for 52.31% of total foreign exchange reserves (reserves of fixed currency included).

These international currencies provide the basic liquidity in worldwide economic activities and impact greatly economic operations.[20] On the one hand, tempted by huge profits in coin taxes, each player wants to issue more currency, which would result in world economic inflation. On the other hand, inadequate release would lead to a lack of international liquidity, causing economic recession to occur worldwide.

The Intense Competition Between International Currencies

In an oligopolistic market, the economic aggregate of major currency issuers ranks among the top in the world. The currencies they issue have similar functions and are replaceable despite some differences.

In terms of value maintenance, the Dollar is still predominant but faces challenges from the Euro and the Yen, which increasingly complicates the currency competition situation. According to the COFER data[21] released by the IMF, there has been a sharp drop in developed economies' total foreign exchange reserves shares from 2001 to date and a surge in that of emerging and developing economies, from 39.18 to 66.69%. The Dollar, the Euro, the Yen and the Pound are still major international reserve currencies. There was a decline in the status of the US dollar, which share of world reserve currencies dropped from 54.77 to 34.39% in 2011, followed by that of the Yen. The Euro and the Pound have also lost some of their shares, though to a different extent. However, other international reserve currencies have embraced an increase in their shares.[22]

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[17] BIS, Securities statistics and syndicated loans, Dec, 2012; BIS Quarterly Review, December 2012.

[18] Peter Kenen, The Euro versus the Dollar: Will There Be a Struggle for Dominance? [J]. *Journal of Policy Modeling*, V24, Issue 4, pp. 347–354, 2002.

[19] BIS, Triennial Central Bank Survey, Report on global foreign exchange market activity in 2010, Monetary and Economic Department, December 2010.

[20] Ye Fang, Du Chaoyun: "Currency Competition under the present international monetary system—Analysis on Dual Oligopoly Model", in "Shanghai Finance", Press 4, 2012, pp. 45–49.

[21] http://www.imf.org/external/np/sta/cofer/eng/index.htm. Calculation based on foreign exchange reserves of identified currencies.

[22] It is worth mentioning that reserves in unidentified currencies are not taken into consideration, including the foreign exchange reserves of non-IMF members and unpublished foreign reserves of IMF members. Recent years have seen an increase in the share of reserves in unidentified currencies in the total reserves of developing economies, from 44.4 to 61.3% in 2011.

The Power of International Currency Oligarchs Outweighs Their Responsibilities

In addition to obvious profits like seigniorage, profits that international currency oligarchs obtain from issuing international currencies also include exemption from risks generated by fluctuation in the exchange rate, access to global resource allocation, and immunity to the restraints imposed by the balance of international payment and budget. Moreover, the oligarchs are able to reduce deficit by absorbing foreign capital, leaving other countries to bear the consequences.

Decision-Making on Money Supply of the Oligarchs Is Interdependent and Relatively Stable

Since each of the economies has a large economic scale, one economy's decision will inevitably influence the others' currencies. In an oligopolistic market, if one economy adopts quantitative easing policies, the market shares of its currency will significantly increase, which may force other economies to follow suit. This, however, will reduce the profits of each economy. Therefore, whenever an economy adopts a policy, it has to consider and predict the other economies' reactions and estimate the long-term impacts of such reactions on its profits. Meanwhile, since it is difficult to fathom the behaviors of rivals, currency-issuing economies generally do not easily change the existing market equilibrium. In the light of the strong dependence and restraint between economies against the backdrop of economic globalization, each economy shoulders compelling obligations for the stable development of the international monetary system. That is why there is coordination and cooperation between international currency oligarchs on the improvement and stability of international monetary systems.

Analysis based on the Cournot model on the behaviors of competitors in the oligopolistic situation yields two implications. One is that the price of international currencies is in negative correlation to the currency supply. In other words, greater supplies of an international currency lead to lower prices for that currency, which means less income from seigniorage. This is the economical foundation on which is based the coordination and cooperation between international currency oligarchs. The other is that, with regard to followers, there are two means to expand money supplies (that is, market shares). As indicated by the reaction function, the first way is to reduce marginal costs, such as enlarging economic scales, expanding transaction networks, and reducing costs of issuance and transaction. Any impediment to cost reduction in a certain target area will be disadvantageous to the internationalization of the currency in this area. The other way is to lessen the possibility of being substituted by dominant international currencies by sharpening the currency's competitiveness, including enhancing stability, improving the yield of relevant assets, strengthening

the accessibility to utilization of such assets,[23] etc. This implication provides a new perspective for the following study on the internationalization of the RMB.

5.2.2 *Conditions for the Internationalization of the RMB*

With the rapid development of the Chinese economy, China is constantly improving its role and position in international economic affairs and playing an irreplaceable part in maintaining the stability and growth of global and regional economies. In the meantime, as the international financial crisis has undermined the international influence of developed economies, emerging and developing economies have increasingly appealed to the reform of the international economic system. The reform of the international financial system is mainly decided by the changes in the relative strengths of major great powers. However, there are no fundamental changes in the international economic and financial situations; nor is there significant enhancement in the intervention capacity of emerging markets and developing countries. In this case, the internationalization of the RMB is not only a new subject variable in international currency competition, but a new way to improve China's power of persuasion and restraint in the international financial governance.

Studies by Chinese scholars[24] point out that theoretically speaking, the internationalization of the RMB is of general necessity. However, in reality, whether the RMB as an international currency is in a good position for internationalization needs to be further explored.[25] International studies focus on two aspects, namely: compre-

[23] Ye Fang & Du Chaoyun. "Currency Competition under the Current International Currency System—Analysis based on the Duopoly Model". *Shanghai Finance*. 4 (2012). In the paper, the Hotelling model is applied to discuss the stability of international currencies. Current studies on RMB internationalization expose that stability is a higher goal to attain.

[24] Current studies focus on four aspects. First, the mutual dependence and mutual influence between China's economy and world economy render RMB internationalization an essential way to protect economic development environment. See Wang Yuanlong. "Study on Several Problems about RMB Internationalization". *Finance & Trade Economics*. 7 (2009). Bin, Xia. China's Development and International Financial Order". *Theoretical Horizon*. 1 (2011). Second, it is necessary for the RMB to acquire the power of international currency in order to improve the quality of China's international financial discourse power. See Zhang Yihao, Pei Ping, & Fang Xianming. "International Financial Discourse Power and China's Strategy". *World Economics and Politics*. 1 (2012). Third, RMB internationalization will effectively address appreciation pressure and high saving rate. See Ma Guangming. "On the Unequal Appreciation Pressure on the Currencies of Developing Countries—Discussion on the Necessity of REM Internationalization". *Economic Review*. 4 (2009). Zhang Qunfa. "Dollar Hegemony and REM Internationalization". *Economic Survey*. 2 (2008). Fourthly, RMB internationalization is the inevitable choice in order to accommodate to the regional transfer of international production efficiency and get over monetary system mismatch. See Li Xingong. "Regional Transfer of International Production Efficiency and Monetary System Mismatch: RMB Internationalization." *Shanghai Finance*. 3 (2009).

[25] Especially whether currency demanders accept the "landing" of international currency. Relevant discussions will be presented in the later sections.

hensive political and economic strength and influence of currency issuing countries,[26] and the functions of currency. With regard to international currencies' functions as mediums of exchange, potential and rational holders of international currencies seek to minimize relevant transaction costs. Existing studies concentrate on the transaction costs of currency swaps in the hope of unveiling the conditions for lowering such costs and turning a currency into an international currency. Studies related to transaction costs also cover costs of carry,[27] information costs,[28] search costs,[29] etc. Transaction costs are bound up with transaction networks and economies of scale. Once the externality of an international currency comes into being, the currency will be subject to historical inertia. Such a self-reinforcement mechanism of international currencies will set up formidable barriers to the entry of other currencies. From the perspective of store of value, international currencies embody the recognition of the economic strength of the issuing countries and the confidence in their purchasing power. Other relevant studies are done from such angles as economic scale, currency stability, openness, breadth and depth of the financial market, net foreign asset positions of issuing countries, etc.[30] Studies on economic scale cover all the functions of international currencies and highlight their importance. As a measurement for prices, a currency is chosen based on factors including exchange rate risk, inflation, national trade scale, robustness of the financial market, price elasticity of the demand for commodities, share of the target markets, herd behavior,[31] etc. The official representation of the price measurement function is anchor currency.

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[26] C. F. Bergstern, *The Dilemma of The Dollar: The Economics and Politics of United States International Monetary Policy*, New York University Press, 1975; B. J. Cohen, *The Geography of Money*, Cornell University Press, 1998; R. A. Mundell, 'The International Financial System and Outlook for Asia Currency Collaboration', *The Journal of Finance*, 2003, 58(4):3–7; G. S. Talvas, "internationalization of currencies: the case of US dollar and its challenger Euro", *International Executive*, 39(5) 581–597, 1997.

[27] A. Swoboda & R. A. Mundell. *Monetary Problems of the International Economy.* University of Chicago Press, 1969. In the book, it is pointed out traders have the demand for reducing the large amount of various kinds of cash that they are forced to hold, which generates higher transaction costs. Currencies with high mobility and low transaction cost are most likely to become international currencies.

[28] Karl Brunner and Allan MeltZer, "The Use of Money", The Ameriean Economie Review, 1971(December), (61), pp. 784–805; Mckinnon, R, 'Private and official International Money: The-Case for the Dollar', *Essays in intemational Finance*, Prineeton University. 1969, Issue 74.

[29] Chrystal, Alec, K, "Demand for international media of exchange", *The American Economic Review* 67(5):840–850, 1984. It analyzed that in the interbank exchange market, the indirect transaction via vehicle currency will produce the least search costs. Thus in the preliminary period of trading, it was the most important currency to act as vehicle currency: Matsuyama, yotakiand Matsui. "Toward a Theory of Intemational Curreney", *Review of Eeonomic Studies,* 6(2):283–320, 1993, by utilizing the search models of money, It was discovered several factors to determine the international currency selection, like giant economic scope, the extent of openness, the degree of economic integration, etc.

[30] Sun Haixia: "Studies on the condition of currency Internationalization—Three functions of International currency", Ph.D. Thesis in Fudan University, 2011.

[31] See Footnote 30.

According to the findings of existing studies, there are at least four key conditions for currency internationalization, namely: economic scale (including trade scale and openness, economies of scale and transaction networks), currency stability (inflation and exchange rates), the depth, breadth and degree of freedom of a financial market, and the institutional environment (including political status).

5.2.2.1 Economic Scale

China's thirty-year economic growth and its economic scale that ranks second in the world[32] have granted its credit money pay-back value, which helps reduce the impact from fluctuation in the international economy,[33] secures the national economic stability and security of international traders holding RMB, and lays a foundation for the internationalization of the RMB. In the meantime, invoicing and settlement of commodities show an actual demand for international currencies. With total imports and exports ranking second in the world in 2011,[34] China's opening-up indexes have exceeded theoretical levels, and are far higher than those of many Latin American economic powers.[35] This is the basic driver for the expansion of the circulation area.

The externality of transaction networks is an embodiment of the features of currency as a public good. At present, the RMB transaction network is emerging. The recent decade has seen China actively engage in regional financial frameworks and become one of the capital providers for the Chiang Mai Initiatives, the biggest bilateral currency swap arrangement. The RMB can be used either as a payment currency for bilateral swap arrangements or as invoicing currency for the issuance of local currency bonds by the Asian Bond Fund. The steady progress of China in bilateral currency swaps worldwide indicates that the RMB has become a vehicle currency. Additionally, the RMB has been used in a limited manner in the regional bond market. Continual progress has also been seen in the issuance of RMB bonds in China by international development institutes, investments in bond markets by the Asian

[32]China's economic scale had already ranked second in the world in 2010, 3.4 times of that of Brazil which ranked first among Latin American countries. Its percentage of the world economic scale increased from around 2% in early 1990s to 12.2% in 2012 (predicted figures). Based on data from IMF, World Economic Outlook, Oct, 2012. Many economists predicted that with the current growth rate, China will catch up with or exceed the US in terms of economic scale and become the largest economic power in the world. See Brzezinski, Zbigniew. *The Grand Chessboard: American Primacy and Its Geostrategic Imperatives*. Translated by Hu Angang, and Zou Zhizhuang. Shanghai: Shanghai People's Publishing House, 1998.

[33]Bergstern calls it the independence standard of international currencies. Bergstern, C. F. *The Dilemma of the Dollar: The Economics and Politics of United States International Monetary Policy*. New York University Press, 1975.

[34]China's total trade is more than five times of that of Mexico, the highest among Latin American countries. According to the data on international balance of payment from the US Department of Commerce in 2012, China has surpassed the US to be the largest trading country in the world. Data is quoted from WTO, Statistics Database Online, Sep, 2012.

[35]Chai Yu. "Study on Trade Openness of Latin American Countries". *Journal of Latin American Studies*. 4 (2011).

Bond Fund and the QFII in China, and issuance of RMB bonds in Hong Kong by mainland financial institutes.[36] Consequently, offshore RMB deposits rose by 400 and 90% respectively in 2010 and 2011. Moreover, the RMB cross-border trade settlement pilot project covers 20 Chinese provinces (districts and cities) and will be extended nationwide; overseas settlement of cross-border trade accounts in RMB will also be extended to all countries and regions. An RMB transaction network, which covers neighboring countries of China, including Mongolia, Vietnam, Laos, Cambodia, Nepal and Myanmar, as well as Hong Kong, Macao and Taiwan, is gradually forming, with a growing circulation scale.[37] In East Asia, the RMB has become a new settlement currency, ranking right behind the Dollar, the Euro and the Yen. The overseas RMB derivatives market is developing faster. In offshore markets, there have been several kinds of RMB derivatives, of which NDF (Non-Deliverable Forward) is the most active one.[38] These new progresses have promoted the offshore use and transaction of the RMB,[39] in terms of both geographical scope and business

[36] Under the framework of the Executives' Meeting of East Asia-Pacific, ABF2 issues local currency bonds in eight countries, with seed money adding up to 2 billion dollars. According to BIS statistics, it reached about 1.5 billion dollars in the middle of 2011. See EMEAP, "Local Currency Bond Markets and the Asian Bond Fund 2 Initiative", 14 July 2011, BIS. By the end of November 2011, the RMB bonds issued in Hong Kong had exceeded 100 billion yuan; issuers include 78 transnational enterprises and international financial institutions. See "RMB Bonds Issued in Hong Kong Exceeds 100 Billion Yuan." People.com.cn, December 15, 2011. An HSBC research report believes that RMB deposits in Hong Kong will hit 1 trillion yuan by the end of 2012 and 3.2 trillion yuan by the end of 2015. In the meantime, the proportion of RMB deposits to total deposits in Hong Kong will increase from 9 to 30%. See "RMB Business Slacks, Hong Kong Banks Attract Deposit". China Business News. August 10, 2012. Factors like changes in RMB appreciation expectation and decline in trade have caused fluctuation in RMB deposits in Hong Kong since the end of 2011. Swift (Society for Worldwide Interbank Financial Telecommunication) points out that RMB has replaced Russian ruble and Danish krone and become the 13th international payment currency in the world. Swift stated that in January 2013, international payment in RMB had increased by 171% year on year and its proportion to total payment reached a record high of 0.63%. The development of offshore RMB trading centers in Hong Kong, Singapore and London has significantly boosted the increase in payment in RMB. See "The Wall Street Journal", March 12, 2013, http://cn.wsj.com/gb/20130227/frx175541.asp.

[37] Some Chinese scholars have probed into the scale of circulation. See Jing, Li, Tao, Guan, & Fan, He. "Cross-border Circulation of RMB and its Influence on China's Economy". Management World. 2004 (9). However, the real situation is hard to clarify.

[38] Since the RMB cannot be converted freely, NDF allows transactions on RMB forward exchange rate without using RMB for settlement; major convertible international currencies are used for quotation and delivery instead. Since 1996, RMB NDF has been applied in Hong Kong, Singapore, Japan and Taiwan. It was not active at the beginning. However, along with RMB appreciation, the daily turnover surged. Other products include non-deliverable options, non-deliverable swap, etc. Expectations for the appreciation of the RMB exchange rate in terms of these products impose certain pressure on the official exchange rate.

[39] According to the RMB Globalization Index launched by Standard Chartered in November 2012, RMB use in the international trade has increased by 50% in 2012. In the face of the waning of global demand, instability of global finance, and lack of RMB appreciation expectation, the RMB Globalization Index still goes up by 50% in 2012. The index covers three markets which dominate the offshore RMB business: Hong Kong, London, and Singapore. It measures business growth in four key areas: deposits (denoting store of wealth), Dim Sum bonds and Certificate of Deposits (as

lines and depth. In this way, they enhance the role of the RMB in reducing exchange risks and losses in times of fluctuations in the foreign exchange market. They also boost the economies of scale in RMB use as well as the networks and convenience of transaction, accumulating experience for the internationalization of the RMB.

5.2.2.2 Currency Stability

Currency stability is reflected in two aspects, namely, inflation and exchange rate. From 2000 to 2011, China has maintained an inflation rate lower than 8%, presenting a basically stable state.[40] The absence of virulent inflation in China means that total social demand does not exceed total supply and that there is no excessive supply of paper money and credit money. As for the exchange rate, in 2011 one dollar could be converted to 6.46 yuan, down from 8.28 yuan in 2000 (28.17%).[41] Internationally, the purchasing power of the RMB is increasing. Its appreciation brings confidence to people around the globe, and this phenomenon will directly facilitate the international expansion of its area of circulation.

5.2.2.3 Breadth, Depth and Openness of the Financial Market

China's current financial market, which comprises its currency market, capital market, foreign exchange market, gold market and future markets, features multiple trading levels, a rich transaction variety, and diversified trading mechanisms. It plays an essential part in boosting the national economy, improving the formation mechanism of the RMB exchange rate, preventing systematic financial risk and maintaining financial stability. Currency market has become an important platform for macroeconomic control by the Central Bank as well as the major venues where financial institutions adjust fund positions, manage mobility and carry out asset investment. The capital market is expanding its scale, enriching transaction variety, enhancing the market operation mechanism and strengthening its resource allocation function.[42] Along with the reform of China's foreign exchange management system and

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vehicles for capital raising), trade settlement and other international payments (unit of international commerce) and foreign exchange (unit of exchange). See http://www.standardchartered.com/en/news-and-media/news/global/2012-11-14-global-renminbi-index-launched.html.

[40] Since 2010, there has been a slight increase in the inflation rate of China, surpassing the medium-income countries, Latin American countries and the world average. This is one of the reactions of the Chinese government's economic stimulus package. Calculate based on the World Development Indicators (WDI) of the World Bank. Inflation is measured by the annual growth rate of the GDP implicit deflator.

[41] Based on the World Development Indicators (WDI) of the World Bank.

[42] By the end of 2012, there had been 2494 listed countries in Shenzhen and Shanghai. Investors had opened more than 200 million accounts, with total market value up to 2.18 trillion yuan. Stock value of the capital market in Chinese mainland ranked third in the world and first in Asia. Latest ranking from the World Federation of Exchanges. *Jiefang Daily*. November 8, 2012.

the improvements in the exchange rate formation mechanism, the foreign exchange market basically combines the foreign exchange retail market and the interbank wholesale market, adopts two mutually complementary transaction means, namely bidding and enquiry, and covers such foreign exchange instruments as spot, forward and swap, thus laying a foundation for the stability of the RMB exchange rate.[43]

It should be noted that there is a considerable gap between China's financial market and those of developed countries in terms of transaction variety, pricing mechanism and management mechanism. In order to further develop its financial market, China needs to reinforce its adaptability and self-regulation and address problems like the inadequate development of the bond market, the financial market's reliance on the Central Bank for more supply of mobility, etc.[44]

China has steadily advanced the opening-up of its financial market over the recent decade. At present, the current accounts have basically been opened. As specified in the *Report of the 18th National Congress of CPC*, China will preliminarily boost capital account convertibility.[45] With the development of cross-border RMB settlements, the amount of RMB held by overseas entities is increasing. The opening of bond market to overseas investors and financing entities will be sped up. The international board of the stock market will gradually open up. Based on bilateral economic and trade contacts, transactions between the RMB and other currencies held by interbank foreign exchange market will develop steadily.

5.2.2.4 Institutional Environment

Institutional environment refers to the policy environment for the RMB to expand in terms of areas of circulation and the influence of China's international status. In this

[43] From 2007 to 2011, trading in foreign exchange market in China grew annually by 40.3%. By the end of 2011, trading in foreign exchange market in China hit 14.2 trillion dollars, with an average daily trading of 58.1 billion yuan, four times of that in 2006. *Shanghai Securities News*. February 15, 2012.

[44] According to Edward Shaw's standards, there are three indicators for financial deepening, namely, financial stocks (reflecting the financial development of a certain point in time), financial flow (reflecting the financial development of a certain period of time), and financial asset price (reflecting the development with various prices in the financial market). Measuring China's financial deepening in the recent decade with the first indicator, that is, M2 as percentage of GDP, reveals that the percentage of China, the UK and Japan are higher than that of the US who boasts a full-fledged financial market. It shows that people are willing to hold financial assets which feature high mobility instead of physical assets. This is the representation of financial deepening. On the other hand, it also indicates that the capital efficiency of currency is so low that people choose to deposit their money in the banking systems in the face of financial depression and underdeveloped financial market. Capital efficiency can be improved through methods like expanding direct financing, including raising IPO limit, increasing issuance of corporate bonds, expanding local government financing and promote trust finance. See *The Economic Observer*, January 23, 2011.

[45] According to IMF's standards in classification of capital account transactions, RMB capital accounts with partial, basic and full convertibility amount to 75% of all the capital accounts. For more details, visit IMF websites and see RMB Capital Accounts Equipped with Conditions for convertibility", *Beijing Business Today*, November 26, 2012.

section, light will be shed on the changes in China's international political and economic status. Kenneth N. Waltz argues that the structure of the international system is decided by the distribution of capabilities across units. Countries use comprehensive strength to protect their interest. This comprehensive strength is decided by each country's score in terms of: population, territory, resource endowment, economic strength, military power, political stability and competence.

First of all, the rise in China's international economic status is conducive to the expansion of China's influence in the international political arena. China has evolved into a major investor among developing countries, with a continuously growing domestic market. China and other developing countries have made contributions to the improvement of the international economic order through activities like the G20 and the World Bank reform. China has become an indispensable force that exerts great influence on the world economic situation. Though it enjoys impressive economic strength, China still remains a developing economy in terms of per capita economic strength. Second, China ranks top in the world in terms of military strength. According to the analyses of several international military research institutes, China ranks third, after the US and Russia, in terms of global military power.[46] Third, with political stability, China's governance is making progress. As the UN governance database reveals, the effectiveness of the Chinese government's governance and the indicators of legal rules in 2011 have significantly improved compared with those of a decade ago. It is by no mean a feat to maintain political stability in a world with diversified values, but the relatively stable international and national environment of this period has created valuable strategic opportunities for China's economic development.

Analysis on the conditions for the internationalization of the RMB indicates that the RMB, first of all, has been armed with the necessary economic and trade scale. Its transaction network and a financial market are under construction, with sound currency stability. In addition, there has been eye-catching progress in the creation of the institutional environment. However, since export commodities are labor-intensive, with low added value and competitive strengths facing challenges from East Asian countries. In the meantime, there is a great demand for the importation of bulk commodities, the pricing power of which is controlled by big transnational corporations. In this sense, the power to decide currency for invoicing and settlement is constrained. Second, the RMB transaction network is still at its early stage, which means higher currency holding and transaction costs, and hinders the expansion of the RMB's area of circulation. Third, China's financial market has not been fully opened up and China is lagging behind the current international currency issuing countries in terms of the development of the financial market and business. Hence, in spite of China's rapid economic development having created conditions for the internationalization of the RMB, currently China is still in the process of accumulating strength, laying a foundation and constructing a network. Such a process may be divided into three steps, including expansion in the neighboring countries, regional expansion and international expansion. At each step, the RMB can develop at three levels: first as a currency for foreign trade and settlement, then as a financing currency, and lastly as a reserve

[46] Such as the world military strength rankings of Jane's Defense Weekly and Global Firepower.

currency. Currently, there has been evident progress in terms of trade and settlement in RMB in surrounding countries, which is attributed not only to the accessibility of these bordering countries but to the strong demand for RMB owing and the further development of border trade. As to regional expansion, with an increasing influence in Asia, the RMB may become one of the essential anchor currencies in the region and rise to be a dominating currency or a reserve currency in the region. On the other hand, the area of circulation of the RMB has not been expanded to other regions, especially those with huge mutual trading and high economic dependencies, where the RMB's influence and scale of economic and trade contacts are hysteretic. Latin America is one of such regions. As a target region for the internationalization of the RMB, whether Latin America has the potential of becoming an area of circulation for the RMB is the focus of analysis in the following sections.

5.3 Latin America as an Object of Study

A prominent feature of currency in Latin America throughout its development is the dominant role of the Dollar as a result of currency competition. Whether the RMB will be widely accepted in Latin America will be decided by whether it can replace the current currencies. In addition, domestic currency or international currency in Latin America is determined based on economic and financial development in the region.

5.3.1 Currency Substitution and Dollarization in Latin America

There are two forms of currency substitution.[47] One is symmetrical currency substitution. For instance, the Euro replaced the original domestic currencies of the EU members. The other form is asymmetrical currency substitution, also known as "dollarization". It is quite normal in developing countries for home demand for a desirable foreign currency to far outstrip the foreign demand for the domestic currency. Asymmetrical currency substitution is caused by already high or surging inflation, which leads to the decreasing purchasing power of domestic currencies both at home and abroad. To combat inflation, citizens prefer to hold stable foreign currencies so as to maintain the value of their deposits; some may use a foreign currency as unit of account or medium of exchange. In this way, foreign currencies become the financial "sanctuary" for the public, which is actually a convenient way to resist to their government's abuse of power to issue money.[48] Hence, the occurrence of asymmetrical currency substitution happens on the basis of two preconditions: a strong domestic

[47] J. Benjamin Cohen, *The Geography of Money*, Cornell University Press, 1998, p. 94.

[48] Cohen, J. Benjamin. *The Geography of Money*, Cornell University Press, 1998, p. 94.

demand for a foreign currency and a strong enough foreign currency to bear relevant responsibilities.

During the evolution of international monetary systems, every country has been seeking for an exchange rate regime that could secure a stable and prosperous economy. After the collapse of the Bretton Woods System, some countries adopted a policy called hard pegs, which included currency board system, currency union system and dollarization, usually referring to the replacement of the domestic currency with a foreign currency. However, other countries used a policy called soft peg, that is, a more flexible floating exchange rate regime. In the late 1990s, soft peg was deserted in South Asia and Latin America, giving rise to the growing prominence of dollarization.

From the demand side, currency substitution can be understood in two ways. First, in terms of system, currency substitution is the decision of the monetary authority. Second, it can also be seen as market-based monetary reform.[49] In the second sense, currency substitution is consistent with monetary competition and reveals the nature of the current international currency situation.

Most studies on currency substitution focus on Latin America, where there are plenty of practices of dollarization,[50] and use dollarization as a synonym for currency substitution. However, there are few national empirical studies,[51] except Panama.

There are two motivations for the demand for foreign currency assets. One is currency substitution where foreign assets are used as means of payment and unit of account. Currency substitution tends to occur when the public seeks for and uses an alternative currency after high inflation. The other motivation is asset substitution. Based on the comparison between the risks and earnings between domestic assets and foreign assets, unstable prices and long-term recession promote the use of foreign currency assets. In this way, foreign currencies become reserves of value.

Substitution of domestic currency by foreign currency can be classified into three kinds of situations.[52]

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[49]For the former: R. Lamdany and J. Dorlhiac, 'The Dollarization of a Small Economy', *Scandinavian Journal of Economics*, 89(1), pp. 91–102, 1987; For the latter: M. Melvin, 'The Dollarization of Latin America as a Market-Enforced Monetary Reform: Evidence and Implications', *Economic Development and Culture Change,* 36, pp. 543–557, 1988.

[50]Giovanini, Alberto, and Turtelboom, Bart, "Currency Substitution", NBER4232, Dec 1992. Calvo and Vegh believe that currency substitution is the last stage of dollarization. See G. A. Calvo and C. A. Vegh, "Currency Substitution in Developing Countries: an Introduction", *Revista de AnalisisEconomico,* 7(1), pp. 1–38, 1992.

[51]Luis I. JácomeandÅkeLönnberg, "Implementing Official Dollarization", WP10106, IMF. For study on Panama, see Moreno-Villalaz, J. L., "Lessons from the Monetary Experience of Panama: A Dollar Economy with Financial Integration," *Cato Journal*, Vol. 18, No. 3 (Winter), pp. 421–439, 1999 and Goldfajn, I. and G. Olivares, "Full Dollarization: The Case of Panama," *Economia*, Vol 1, No. 2 (spring), pp. 101–155, 2001.

[52]Duma, Nombulelo, 'Dollarization in Cambodia: Causes and Policy Implications', WP11/49, IMF, 2010.

First, there is enormous macroeconomic imbalance and high inflation. This is the case for Chile, Columbia and Peru where the Dollar has substituted domestic currencies.[53]

Second, there is financial repression and capital control. In Nigeria, Venezuela and many Sub-Saharan African Countries, the launch of policies on financial repression and capital control brought about dollarization.[54]

Third, dollar is used as anchor currency to stabilize the macro-economy. For instance, Argentina and Ecuador adopted the Dollar as legal tender to cope with grave economic and political crises and to tackle long-standing problems about policies on currency and exchange rate.[55]

Dollarization is a reliable nominal anchor with which developing countries address currency mismatches and fight inflation. It is able to boost economic stability in the short run. However, dollarized economies may become more vulnerable when confronted with real risks, like Argentine for instance. In the face of huge asymmetric shocks, Argentine doesn't have effective policy instruments to counter domestic recession and the overvaluation of the real exchange rate.[56] To achieve long-term economic growth and development, a dollarized country must first of all clear away structure and system obstacles.[57]

Currency substitution starts by substituting the domestic currency's role in value storage, which is probably its weakest part. Next, real estate, automobile and other durable goods begin to be denominated in foreign currencies. Then, transactions are done in foreign currencies, especially the transfer of large amounts of capital. During

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[53]Galindo, A., L. Leiderman, 2005, "Living with Dollarization and the Route to Dedollarization," Inter-American Development Bank Working Paper No. 526, New York.; Herrera, L., and R. Valdés, 2005, "De-dollarization, Indexation and Nominalization: the Chilean Experience," *The Journal of Policy Reform,* Vol. 8, No. 4, 281–312, December; Kokenyne, A., J. Ley, and R. Veyrune, 2010, "Dedollarization," IMF Working Paper No. 188, 2010; Reinhart, C., K. Rogoff, and M. Savastano, 2003, "Addicted to Dollars," NBER Working Paper 10015.

[54]Reinhart, C., K. Rogoff, and M. Savastano, 2003, "Addicted to Dollars," NBER Working Paper 10015.

[55]Andrew Berg, Eduardo Borensztein, 'Full Dollarization:The Pros and Cons', *Economic Issures 24,* IMF, 2000.

[56]Dollarization may aggravate economic crisis. The prominent currency mismatch further weakens balance sheet effects. In 2002, the currency board of Argentina collapsed which resulted in severe political and economic consequences and undermined the country's passion for a super-fixed exchange rate regime. It was the same case with Uruguay in the same year. See Morris Goldstern, *Managed Floating Plus*, IIE, 2002, p. 41.

[57]The cost of official dollarization includes but not limited to (i) seigniorage loss; (ii) limited or lack of capacity to provide banks in need with lender-of-last-resort (LOLR) assistance; (iii) failure to buffer impact with exchange rate; (iv) lack of capacity to lower the value of financing commitments denominated in domestic currency by means of large-scale exchange rate devaluation or inflation. On the contrary, official dollarization have the following benefits: (i) domestic inflation gets closer to international inflation; (ii) it dissolves currency risks and lowers domestic interest rate; (iii) stable inflation and lower interest rate give rise to better investment environment; (iv) there is no so-called "original sin". When currency mismatch on the balance sheet is gone, the national risks will be reduced. See Jácome, Luis I. and Lönnberg, Åke. Implementing Official Dollarization, WP10106, IMF.

Table 5.1 Some of the officially dollarized countries

Country	Year	Currency	Whether domestic coin was issued 2/	GDP (in billion (of U.S. dollar) 3/	Whether there was a domestic currency
Ecuador	2000	U.S. dollar	Yes	45.79	Yes
Salvador	2001	U.S. dollar	No	20.37	Yes
Kiribati 4/	1979	Australian dollar	No 5/	0.067/	No 5
Kosovo	1999	Euro 6/	No	4.688	No
Marshall Archipelago 4/	1986	U.S. dollar	No	0.163	No
Micronesia 4/	1986	U.S. dollar	No	0.232	No
Montenegro	1999 5/	Euro 6/	No	3.49	No
Palai 4/	1994	U.S. dollar	No	0.164	No
Panama	1904	U.S. dollar	Special case 7/	19.74	Special case 7/
San Marino	1999	Euro	Special case 8/	1.7	No
East Timor	2000	U.S. dollar	Yes	0.46	No

Note Excluding member states of the Economic and Monetary Union
Data source Luis I. Jácome and Åke Lönnberg, *Implementing Official Dollarization,* WP10/106, p. 5, IMF; Annual Report on Exchange Arrangements and Exchange Restrictions, 2009, IMF

these processes, the domestic currency remains a unit of account and medium of exchange for non-durable goods.[58] It is difficult to eliminate dollarization when it becomes fixed. Public memory about macroeconomic instability and high inflation will stay so long that foreign currency assets (nominal value) will even survive the period of macroeconomic stability.[59] It is an important prerequisite for recovering public confidence in domestic currency that macro-economy stays stable for a certain period, securing greater exchange-rate flexibility and mitigating currency devaluation. Meanwhile, prudent rules should be adopted to ensure that costs related to dollarization are completely incorporated into the financing contracts (Table 5.1).[60]

The period between 1990 and 2001 witnessed the rapid expansion of dollarization in Latin America. Dollarization was to some extent boosted in both already highly dollarized countries like Bolivia and Uruguay and less dollarized countries including Costa Rica, Dominica, Honduras, Nicaragua and Paraguay. Ecuador and Salvador embarked on their journey to dollarization in September 2000 and January 2001 respectively. By the time Salvador adopted the Dollar as its official currency, the country enjoyed sound macroeconomic fundamentals, low and stable inflation, a

[58]Calvo, Guillermo A, and Vegh, Carlos, *Currency substitution in developing countries: an introduction*, WP/92/40, IMF.

[59]Annamaria Kokenyne, Jeremy Leyand Romain Veyrune, *Dedollarization*, WP/10/188, IMF.

[60]Robert Rennhackand Masahiro Nozaki, *Financial Dollarization in Latin America1*, WP/06/7, IMF.

Table 5.2 Degree of dollarization of Latin American countries (Ratio of foreign currency loan to total loan and ratio of foreign currency deposits to total deposits in 2000, 2005 and 2009, %)

	Foreign currency loans to total loans (%)			Foreign currency deposits to total deposits (%)		
	2000	2005	2009	2000	2005	2009
Argentina	69.6	14.0	13.0	58.9	9.0	16.1
Bolivia	–	–	–	–	92.8	63.1
Peru	80.4	66.6	46.2	–	–	–

Source Prepared by the authors on the basis of official figures
Data source Luis Felipe Jiménez and Sandra Manuelito, Latin America: financial systems and financing of investment. Diagnostics and proposals, *CEPAL Review*, No. 103, p. 50

growing economy, controllable public debt and foreign debt, and a crisis-free banking system. The move was intended to strengthen the economic connection between the country and the United States and stimulate foreign investment, trade and economic growth.[61] Instead of full dollarization, some countries embraced partial dollarization.

Currently, dollarization is mainly adopted by small developing countries. Neither Ecuador nor Salvador is large Latin American countries in terms of population and economy.[62] Hence, we cannot apply their experiences to Brazil, Mexico or China.[63] Although they have suffered from severe macroeconomic problems between 1980 and 2001, Brazil, Chile, Columbia, Mexico and Venezuela all avoided prominent dollarization. They secured a demand for domestic currencies via effective economic policies, index-based financial instruments and legal restrictions on dollarized transactions. Residents in these countries—except in Venezuela—kept their foreign currency assets abroad. However, their aggregate foreign currency deposits (including offshore savings) were still lagging behind those of highly dollarized countries. Moreover, depositing foreign currencies abroad well blocks the risks brought by domestic banking systems and dollarization. Since 2001, some Latin American countries have become less dollarized. For instance, residents in Argentina are now required to use Peso. While Bolivia, Peru and Uruguay have a slight decrease in foreign currency deposits, there is a sharp fall in Paraguay. In spite of that, there is still a high degree of dollarization in these countries (Table 5.2).

From the perspective of currency demand, the following factors have an impact on currency substitution in the target area. The first factor is inflation. High inflation

[61] AndrewSwiston, *Official Dollarization as a Monetary Regime: Its Effects on El Salvador*, WP/11/129, June 2011; Hinds, M., 1999, Prepared Testimony for U.S. Senate Banking Committee, Hearing on Official Dollarization in Emerging-Market Countries. Available on the internet at: http://banking.senate.gov/99_07hrg/071599/hinds.htm; Hinds, M, 2002, "Why Dollarize? The Case of El Salvador," Presentation at Summit of the Americas Center, March. Available on the internet at: http://www.americasnet.net/events/Dollarization/presentations/why_dollarizing.pps. At that time, two thirds of Salvador's export go to the United States, with an annual remittance of 2 billion dollars.

[62] In 1904, Panama became the first Latin American country to use dollar as official currency.

[63] Morris Goldstern, *Managed Floating Plus*, IIE, 2002, p. 34.

tends to eclipse the credit of domestic currencies and strengthen the demand for foreign currencies. The second factor is macroeconomic instability, which refers to a situation where there is financial deficit, public debt, and huge foreign debt, combined with severe external imbalance. Financial liberalization is reinforced along with the devaluation of domestic currencies so as to redress external imbalances and prevent losses in international reserves. Close trade and investment connections are the third factor, which is well explained in the case of Salvador. The fourth factor is effective legal restrictions on the dollarization of countries with low inflation rate and efficient index mechanisms. For highly dollarized countries, restrictive regulations may help promote offshore financial savings, resulting in high of economic adjustment costs. The fifth factor is exchange rate policy. Inflexible exchange rate policies favorable to devaluation will lead to higher degrees of dollarization. The last factor is imperfect systems and financial markets.[64]

5.3.2 Latin America as a Regional Variable

This section will shed light on the possibility of a new round of currency substitution in Latin America, the target area of circulation for the RMB, based on analyzing the key factors in the area. Analysis on international currency competition has revealed that the Dollar still remains more competitive than other currencies. Objectively speaking, the RMB stands little chance to surpass the Dollar in the short run. However, considering its increasing international expansion, the RMB enjoys enormous prospects in the long term. Hence, studies on the target area of Latin America are also carried out in terms of currency demand, to explore the space[65] potential for the international expansion of the RMB based on practices concerning currency.

5.3.2.1 Macroeconomic Stability

Macroeconomic stability plays a decisive role in the adoption of a foreign currency. In this section, the stability of the actual economic growth rates of Latin American countries in the recent ten years is measured with the fluctuation coefficient. To make things simpler, fluctuation coefficient here refers to the ratio of the standard deviation of real economic growth rate (GDP growth rate) to the average value of the actual economic growth rate. The greater the absolute value of the coefficient is, the further the actual economic growth rate of each year deviates from its average value, and thus the more unstable the economic growth (Fig. 5.1).

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[64] Robert Rennhack and Masahiro Nozaki, *Financial Dollarization in Latin America*, WP/06/7, IMF.

[65] In addition to its geographical sense, here space also refers to market thickness. Only when the market is thick enough can new traders and new transactions be admitted. Here, relevant countries are assumed to have been equipped with the capacity for currency substitution.

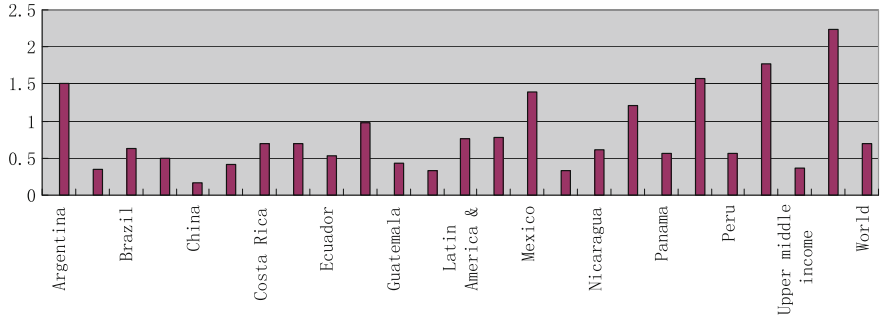

Fig. 5.1 Indicators of the stability of economic growth of Latin America and other economies (2000–2011). *Note* From left to right, the economies are Argentina, Bolivia, Brazil, Chile, China, Columbia, Costa Rica, Cuba, Ecuador, Salvador, Guatemala, India, Latin America and Caribbean (including all income levels), Latin America and Caribbean (developing countries only), Mexico, middle-income economies, Nicaragua, OECD member states, Panama, Paraguay, Peru, Uruguay, upper and middle income economies, Venezuela, and the world. *Data source* based on the actual GDP growth rate (current price) from the *World Development Indicators* released by the World Bank in January 2013

As the figure shows, Latin American countries have higher actual fluctuation coefficients than China, India, OECD member states and the middle-income economies. The coefficients of fluctuation of China and India are 0.17 and 0.33 respectively, while those of Venezuela, Uruguay, Paraguay, Mexico and Argentina reach 2.23, 1.78, 1.57, 1.50, and 1.38. The latter group is subject to higher economic fluctuation, which generates strong impact on domestic currencies.

5.3.2.2 Inflation

Inflation is one of the most powerful economic forces capable of damaging citizens' confidence in domestic currency. During the one decade since 2000, Brazil, Chile, Columbia, Mexico and Peru set targets for controlling inflation, and as a result no double-digit inflation rate was seen (Fig. 5.2).

Figure 5.3 provides a clear picture of the average inflation rates of some economies between 2000 and 2011. As shown, Venezuela had the highest average inflation rate at 26.19%, followed by Argentina with 12.37%. The average inflation rate of other countries, including Paraguay, Costa Rica, Brazil, and Columbia, all exceeded 8%. China, India, the US and Japan had an average inflation rate of 4.27, 5.67, 2.24 and −1.36% respectively. In spite of generally higher inflation rates, most Latin American countries managed to control them within 10%. Currently, the economic base is so sound that there is no possibility for shaking the citizen confidence in the existing currency and substituting it with another.

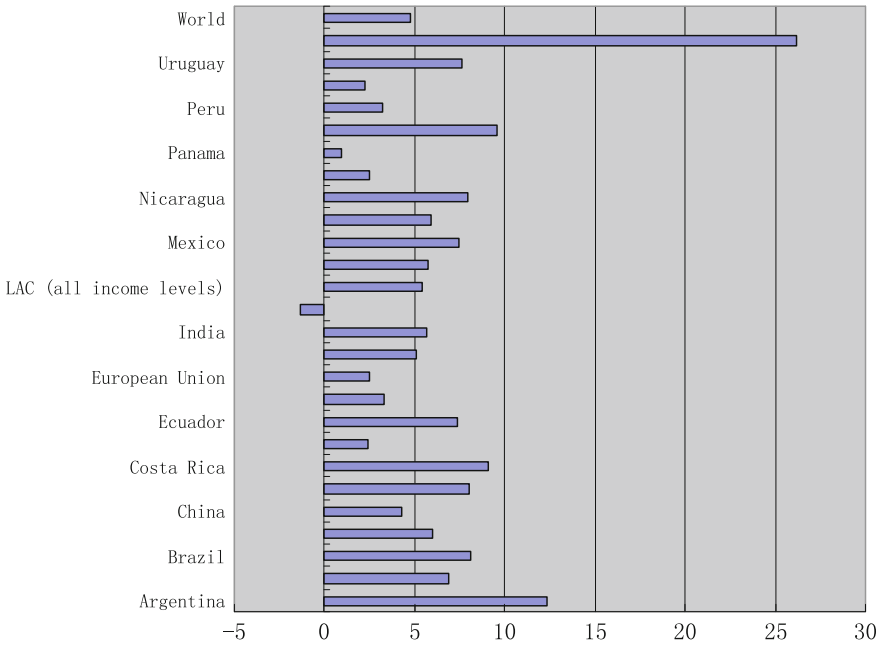

Fig. 5.2 Inflation in Latin America and other economies in the recent decade (2000–2011). *Note* From bottom to top, the economies are Argentina, Bolivia, Brazil, Chile, China, Columbia, Costa Rica, Cuba, Ecuador, Salvador, EU, Guatemala, India, Japan, Latin America and Caribbean (including all income levels), Latin America and Caribbean (developing countries only), Mexico, middle-income economies, Nicaragua, OECD member states, Panama, Paraguay, Peru, the US, Uruguay, Venezuela, and the world. *Data source* based on the inflation rate (GDP deflator) from the *World Development Indicators* released by the World Bank in January 2013

5.3.2.3 Debt

Debt to some extent reflects the risks of foreign debt for a country. With a large amount of foreign debt, the principal and interest that a country needs to pay amount to a large proportion of the gross output and gets hold of the share of input for expanded reproduction. In some severe cases, it may place a country on the brink of bankruptcy.

According to international conventions, the main indicators for measuring a country's risks of foreign debt include the ratio of public and publicly guaranteed debt to exports, the debt-to-GDP ratio, the ratio of short-term foreign debt to total external debt, the total debt service ratio, and the ratio of total debt service to GNI. Take the total debt service ratio as an example to determine the risks of foreign debt in Latin America. Total debt service as percentage of exports of goods, services and income indicates the scale of foreign debt and the solvency of a country. The warning line of this indicator is at 20% for general countries and 25% for developing countries. The danger line is at 30%. When the total debt service ratio of a country exceeds

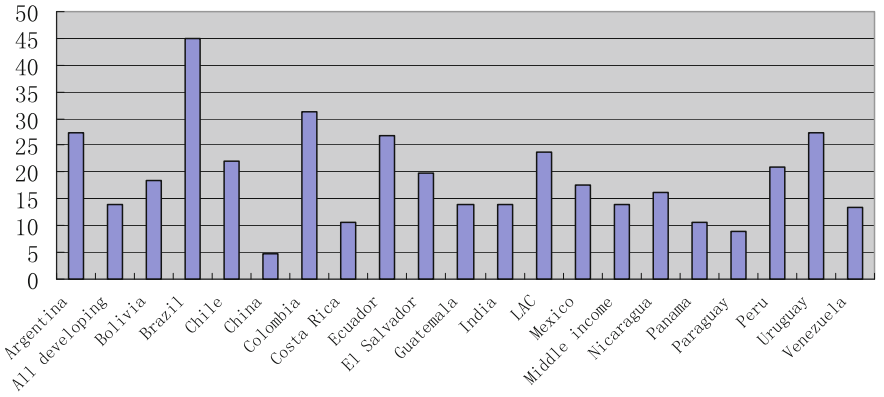

Fig. 5.3 Debt service ratio of Latin America and other economies. *Note* From left to right, the economies are Argentina, all developing economies, Bolivia, Brazil, Chile, China, Columbia, Costa Rica, Ecuador, Salvador, Guatemala, India, Latin America and Caribbean (including all income levels), Mexico, middle-income economies, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. *Data source* based on data on foreign debt from the *World Development Indicators* released by the World Bank in January 2013

25%, it means that the country shoulders so great a burden of principal and interest that a debt crisis may break out. As the figure shows, the total debt service ratios of most Latin American countries are lower than 25% and many are higher than the average of developing economies. Several countries go beyond the warning line of 25%, such as Brazil, Columbia, Argentina, Ecuador and Uruguay. Among them, Brazil and Columbia surpass the danger line of 30%. On the whole, Asian countries are "safer". China has a total debt service ratio lower than 5% and India at around 15%.

5.3.2.4 Financial Market Development

Compared with developed countries, or even with countries that have similar per capita income, Latin America has less developed financial systems and markets. This is mirrored by the absence of a complex system of financial innovation and availability, and the lack of well-developed instruments and markets for transferring and coping with credit exposure and financial risk (including bond securitization, option and other derivatives). As commercial banks dominate financial markets, asset portfolios share most of loan risks; savings and bonds become the main source of financing. The international financial system also contributes in parts. Institutional investors that achieve significant development are only found in a few countries.[66]

[66]Luis Felipe Jiménez and Sandra Manuelito, Latin America: financial systems and financing of investment. Diagnostics and proposals, *CEPAL Review*, No. 103, pp. 45–71.

Studies on nominal financial openness are done from the perspective of capital account liberalization. Observation on multiple exchange rates, regulation on current account, regulation on capital account, and whether submission of export earnings is required indicate[67] that Latin American countries have higher nominal financial openness than Asian countries between 1995 and 2009. However, it is the other way round when it comes to actual financial openness based on the observation of the activities of market subjects. This means that although Latin American countries started financial liberalization earlier, the import substitution model, which has a strong lingering influence on the activities of market subjects, prevents trade openness from driving financial openness. This provides a different light on the features of the Latin American financial market.

A financial market in want of development paves the way for the decline in confidence in domestic currencies and thus currency substitution.

5.3.2.5 Trade and Investment Relations

Trade and investment relations in Latin America have undergone tremendous changes in the recent decade. China is gaining importance in the trade and investment relations of Latin America.

The following data from the United Nations Economic Commission for Latin America and the Caribbean shows the important status of China in the foreign trade of Latin America (Fig. 5.4).

As the figure discloses, over the past decade, the ratio of Latin America's exports to the US to total exports dropped almost by half, from the former 59.7% to the current 30% or so. Its exports to the EU remain stable. However, its exports to China grew from 1% in 2000 to the current 10% or so, which is close to its current exports to the EU. Of its total exports to the Asian and Pacific countries, 47.26% went to China, its biggest trade partner in the Asia-Pacific region. A similar case is found in terms of imports. It has become an inevitable trend that the status of the US in the imports and exports of Latin America is declining while that of China is rising. Furthermore, as long as there is no big economic impact, the trend will continue.

In terms of bilateral trade between China and Latin America over the years, China had maintained a surplus with most Latin American countries, which allows it to increase foreign exchange reserves through exports and boost the international community's confidence in China's economy, as well as generate appreciation expectation of the RMB. However, it is adverse to the expansion of the RMB.

In terms of investment, China ranked 6th in foreign direct investment flow and 13th in stock among countries (regions) around the globe in 2011.[68] Since 2009, China's

[67] Chai Yu. Trade Openness of Latin America. *Journal of Latin American Studies*. No. 4, 2011. Yu Chai & Shengang Li. "Economic Openness of Latin America" (draft), December 2012. This is a subproject of the major CASS project "Economic Trends of Latin America and Path Choice for Sino-Latin American Economic and Trade Cooperation".

[68] World Investment Report 2012, UNCTAD.

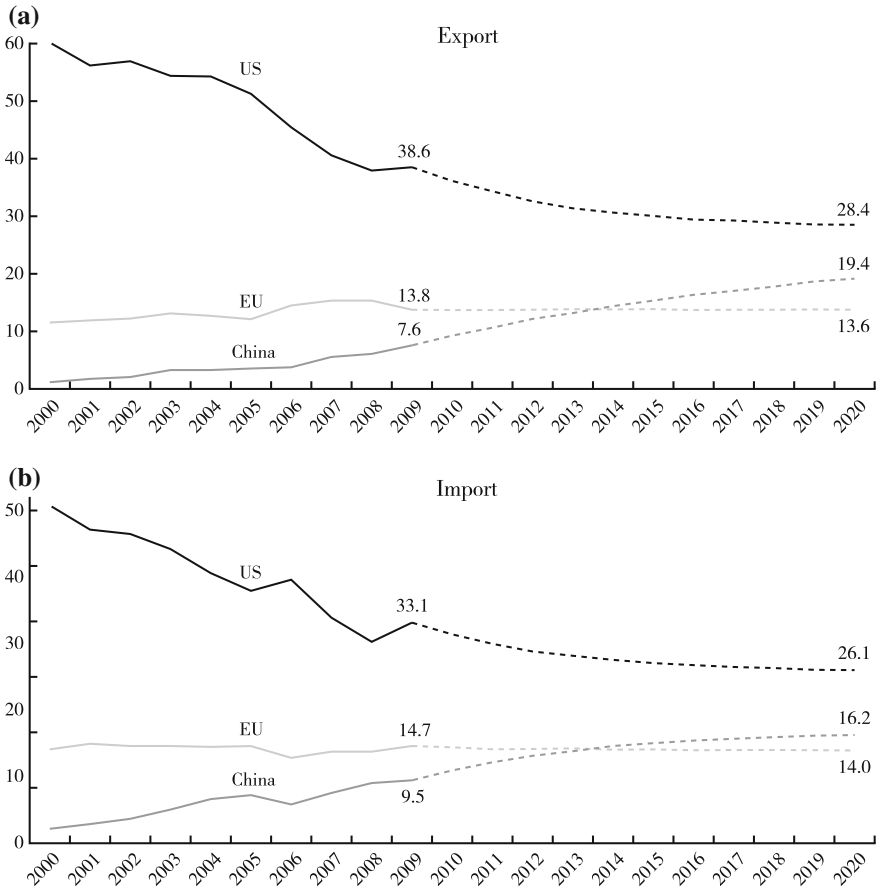

Fig. 5.4 Latin America and the Caribbean: trade shares of major trade partners (2000–2020) (This figure is quoted from: Osvaldo Rosales. Improve Economic and Trade Relations between Latin America and China. *CEPAL Review*, Chinese Edition. China Development Press, 2012. p. 28)

direct investment in Latin America and the Caribbean has surged. In 2011, China's foreign direct investment to Hong Kong, the Virgin Islands and the Cayman Islands took up 60%. The latter two have been China's focus for investment in Latin America over the years. In recent years, China has sped up its investment in other regions of Latin America, including Brazil, Peru, Argentina, Venezuela, Mexico and Ecuador. 90% of investment went to the development of oil and gas and natural resources; the rest was invested in telecommunications, automobile and other industries.

The United States remains an important source of investment in Latin America in recent years,[69] despite a decrease between 2006 and 2010 (from 25 to 17%).

[69]This figure is quoted from: Osvaldo Rossles. Improve Economic and Trade Relations between Latin America and China. *CEPAL Review*, Chinese Edition. China Development Press, 2012. p. 34.

Investment that came from the Netherlands and Japan rose from 4 to 13% and 2 to 3% respectively. However, there is one significant change: China's investment in Latin America hit 9% in 2010, making it the third major source of investment in the region following the US and Europe.

Business cycle transmission is another essential perspective for measuring economic relations between economies. According to the 2011 study[70] of the Inter-American Development Bank, Sino-Latin American trade relations have greatly changed the international business cycle transmission mechanism of Latin America. A study on five large Latin American countries using the GVAR model shows that, from the mid-1990s to the present, the long-term influence of China's GDP on Latin American economies has tripled, while that of the United States' GDP halved. China's GDP exerts influence not by increasing direct bilateral trade based on the surge in bulk commodity prices, but by affecting the traditional trade partners of Latin America.

This is best demonstrated by international trade settlements. For a long time, international trade has mainly been settled in Dollars. However, the financial crisis of the recent years gave rise to a dollar gap, which resulted in rising financing costs for trade in Dollars. Against such a backdrop, the RMB offers as a new choice for trade settlements between China and other countries.

Trade and investment relations between China and Latin America has been greatly enhanced over the last decade, which has won the RMB wider recognition and adoption in Latin America, boosted people's confidence in the RMB and expanded its region of circulation. However, it is hard to tell at the moment whether the relations will be so strong as to induce a country to use the RMB as legal tender instead of its domestic currency or the Dollar.

5.3.2.6 Exchange Rate Policies of Latin America

Fixed exchange rate policies tend to give rise to currency substitution or dollarization. According to the latest De Facto *Classification of Exchange Rate Regimes and Monetary Policy Framework*[71] released by the IMF, in addition to the officially dollarized countries, including Panama, Salvador and Ecuador, there are nearly 15 countries that have basically fixed exchange rate policies, including Venezuela and Argentina. Some countries have adopted a crawling peg against dollar, such as Bolivia, Nicaragua and Costa Rica. Columbia, Guatemala, Peru, Uruguay and Paraguay, use a managed float regime, while Brazil, Chile and Mexico employ a completely independent float regime. It turns out that countries with a fixed exchange rate regime either have begun currency substitution or are ready for it.

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[70] AmbrogioCesa-Bianchi, M. Hashem Pesaran, Alessandro Rebucci, Xu Teng Teng *China's Emergencein the World Economy and Business Cyclesin Latin America*, IDB-WP-266, Inter-American Development Bank, September 2011.

[71] IMF, De Facto *Classification of Exchange Rate Regimes and Monetary Policy Frameworks*, Data as of April 31, 2008.

Table 5.3 Indicators of state governance in Latin America

Country	Voice and accountability	Political stability	Government effectiveness	Regulatory quality	Rule of law	Control of corruption
Argentina	57.7	53.8	48.8	25.1	33.3	42.2
Brazil	63.8	46.2	55.5	55.9	55.4	63
Chile	81.2	65.1	83.9	93.4	88.3	91.9
Columbia	44.6	12.3	62.6	61.1	47.9	46.4
Cuba	7	57.5	46	4.3	35.2	69.2
Dominica	50.7	49.1	34.6	46	26.3	22.3
Ecuador	37.6	22.6	35.1	15.6	13.6	21.3
Mexico	53.5	25.5	63.5	60.7	39	45.5
Peru	51.6	25.9	49.3	68.7	32.4	54
Venezuela	24.4	10.4	13.3	6.2	1.4	7.6

Data source Worldwide Governance Indicators (WGI), worldbank, 2013

5.3.2.7 Quality of Institution and Government Governance

De la Torre and Schmulker (2004)[72] believe that imperfect institutions leave people in doubts about the execution of contracts and encourage residents to shorten contract terms or conduct transactions offshore in a more secure legal framework. In the Worldwide Governance Indicators (WGI) project initiated by the World Bank in 1996, Kaufmann et al. studied government governance with data from 32 independent sources of 30 organizations and six categories of indicators (Table 5.3).[73]

Some Latin American countries, including Venezuela, Ecuador, Cuba and Columbia, have lowering global rankings in terms of institutional quality and governance, which means these countries still need to improve governance. At the same time, ideological factors should also be taken into consideration, because many of these countries have disagreements with the United States. It is not clear whether this factor has affected the development of indicators.

A study on Latin America as a regional variable reveals that, over the recent decade, Latin American countries have sustained stable economic development and a controllable inflation rate and maintained close trade and investment relations with the United States. For some countries, although factors regarding exchange rate

[72] Augusto de la Torreand Sergio Schmukler, "Coping with Risks Through Mismatches: Domestic and International Financial Contracts for Emerging Economies", *International Finance*, 7:3, 349–390, 2004.

[73] The six categories are (1) Voice and Accountability, which measure political rights, civil rights and human rights; (2) Political Instability and Violence, which measure the possibility of violence threat on government or a change of government, including terrorism. (3) Government Effectiveness, which measures the competence of bureaucracy and quality of public service. (4) Regulatory Quality, which measures the occurrence rate of policies adverse to the market. (5) Rule of Law, which measures the quality of contract execution, police and the court, including judicial independence and crime rate. (6) Control of Corruption, which measures abuse of power for personal gain, including petty and serious corruption (the privileged stratum captures state power).

policies and governance may influence citizen confidence in domestic currencies, on the whole there is no solid regional economic base for the substitution of domestic currencies or existing currency (mainly the Dollar) with another currency. There are no mature conditions for many Latin American countries to substitute domestic currencies or existing currencies for the RMB. It is inevitable that the expansion of the circulation of the RMB in Latin America will be confined by restrictive conditions in terms of demand.

5.4 RMB Internationalization and Sino-Latin Financial Cooperation

The internationalization of the RMB in international monetary competition is a development process of gradual perfection. With the graduated maturation of the conditions for the internationalization of the RMB and financial markets, the regional and global RMB circulation and its influence will be expanded day by day. In Latin American areas, the internationalization of the RMB must consider the development of the internationalization of the USD. Currently, the conditions for making the RMB a substitutable currency should be further perfected; meanwhile, attention should be paid to the economic developmental status of Latin America itself and opportunities corresponding to the RMB. The realistic choice for the internationalization of the RMB toward Latin America as a regional object is to improve the scale effect and competitiveness of the RMB in Latin America by means of Sino-Latin monetary cooperation and the gradual expansion and deepening of RMB transaction networks, as well as to enlarge the monetary circulation domains. The RMB would then be able to assume the important role of regional public product as long as the right time comes.

5.4.1 Intensifying Financial Cooperation with Latin-American Areas

Regional financial cooperation is an important step for the expansion of RMB recognition and influence. Now, Hong Kong, Macao and the neighboring countries of China are main territorial scopes for RMB circulation. The economic development levels of Latin America make it stand at a very high position among developing countries: its ideologies are presented with diversified features, particularly, USD internationalization features are very distinctive; the regional compensation monetary system and the virtual currency Sucre are also gradually developing, and these features have increased the realistic difficulties for the expansion of RMB circulation in this area.

Under such circumstances, actively undertaking financial cooperation with Latin America is feasible for the promotion of the regionalization of the RMB. This cooperation is divided on two levels: one is the multilateral international field, where China has been boosting the construction and improvement of the international financial order with countries such as Brazil, and seek more financial support and economic development spaces for the developing countries; the other is that of the regional field, where China has been involved in the Inter-American Development Bank and in regional development financial activities. Meanwhile, China is actively accelerating currency swap in bilateral fields, intensifying financial supervision and perfection of mutual assistance mechanisms, and strengthening the all-dimensional and multilevel cooperation with the Central Bank and commercial banks in Latin American countries. Currently, China has conducted currency swaps with Brazil and Argentina, but the contract with Argentina has not been renewed yet upon expiration, and substantial operations have not been done yet in currency swap with Brazil. China has established RMB settlement banks in Hong Kong, Taiwan and Singapore, and the offshore RMB market in London is also rapidly developing. Although a leapfrog development has been realized in Sino-Latin trade relation, institutional arrangements for RMB-related businesses have not been put into place in Latin American. Therefore, financial cooperation with Latin American countries is still at its start, development orientation and tasks have been clearly defined, but more political wisdom is still required for substantial acceleration.

5.4.2 Strengthening Trade Investment Relations with the Latin American Region

Currently, trade investment relations with Latin American regions keep growing rapidly, which will be helpful to the accumulation of scale advantages and cost advantages in terms of taking the RMB as a pricing and settlement currency. But the problems are very distinctive as well and mainly reflected on the following aspects: first, trade protectionism and trade frictions in Latin American regions are very distinctive. Countries like Argentina, Chile, Mexico and Brazil, etc., are among the countries with the most anti-dumping lawsuits against China every year. Second, trade imbalances remain a major concern of Latin American countries. Except for some individual countries, China still maintains a trade surplus with most Latin American countries. Third, Latin American countries are dissatisfied about trade structure. China imports many resource products, while it imports less other products due to the industry competitiveness in Latin American countries. Fourth, trade convenience and investment convenience in Latin American countries is not high enough; on the contrary there exists many trade investment barriers, which have impeded the steps of Chinese enterprises going out. Currently, China and Latin America still lack a cooperation mechanism like the Sino-African cooperation mechanism. China and Latin American countries should consider the overall situation of the Sino-Latin

trade relations, should seek common points while reserving differences, and should explore pragmatically to set win-win resolutions and solve these problems. From the unilateral Chinese perspective, some measures should be put on the agenda and more efforts should be offered for support; for example, support the usage of the RMB for settlement, pricing and direct investments between enterprises; support domestic commercial banks to provide buyers of RMBs credit for overseas importers; and invest and assist the use of the RMB as contract object, etc.

5.4.3 Expanding RMB Transaction Networks in Latin American Regions

The expansion of RMB transaction networks reduces circulation and transaction costs and improves the scale economy of currencies. However, the expansion of transaction networks is not a subjective stipulation, but a result of market choices. The following strategies and tactics should be considered in order to expand the transaction networks of the RMB: first, gradually reduce regulations on RMB capital accounts transactions, gradually realize complete convertibility, and boost the extensive acceptance of the RMB; second, accelerate RMB circulation growth in Latin American regions, realize settlement, pricing and other functions of the RMB where possible, and gradually increase RMB utilization frequency; third, issue RMB bonds and launch other financial products priced in RMB on local Latin American markets, and allow overseas citizens to use overseas RMB for investments in domestic securities market, and so on; fourth, enhance the liquidity of the RMB, reduce the carrying, holding and information costs of the RMB, increase the maximum amount of RMB to be carried by citizens traveling to Latin America, support RMB Union Pay cards in Latin America, and vigorously promote the cooperation of bank card businesses in various Latin American countries, etc., while endeavoring to be one of the most important medium currencies in initial exchange demands from foreign exchange traders, and reduce search costs; fifth, accelerate the generation of the route trust equalization or lock-in effect of the RMB by providing long-term and sustainable transaction conveniences. The regional status of the RMB will be gradually stabilized as long as a lock-in effect is achieved, and it might be possible to carry forward conditional currency substitution on this basis.

5.4.4 Improving RMB Stability

The fundamental element for the establishment of the RMB's regional status is the stability of the RMB itself and its capability to create monetary confidence. Enhancing China's political, economic and financial stability will benefit the intensification of stability in the internationalization process of the RMB. Yet stability is more diffi-

cult to realize than scale and liquidity.[74] Preparations should be made to face stricter challenges on future political, economic and social developments in China. In the long run, there are certain conflicts between the objectives of RMB stability and competitiveness. The stability objective takes domestic currency appreciation as a feature, and is helpful to price stability but bad for economic growth. The competitiveness objective takes domestic currency depreciation as a feature, and is helpful to export and economic growth, but might aggravate the pressure on domestic inflation. The orientation of the exchange rate target could be determined shortly.

An important concern for the holding of RMBs and relevant assets is the maintenance of its value and appreciation, as well as whether or not the most extensive and safest choices can be offered to the investors. If the answer is positive, then the RMB will be competitive in international trade settlements, investments and reserves. The assets return rate and richness of assets varieties, the capacity of the financial market to attract and dissolve risks, the growth of RMB itself and the prospects for economic growth in China are closely related to each other, particularly in terms of the depth and breadth of industrial development. An ideal state is the continuous expansion of the Chinese import market to help the exportation of the RMB. Foreign countries holding RMB could purchase products needed from China, and hence establish a smooth RMB export and backflow mechanism. Therefore, the sustainable development and stable growth of the Chinese economy will be the most fundamental factor in determining the expanded circulation domains of the RMB in Latin American regions.

[74] For example, the United States has become the largest economic entity in the world in about 1870, but it only exceeds the United Kingdom on three indicators in 1920, and becomes a real international currency. Refer to The Economist, March 24, 2013. http://www.economist.com/debate/days/view/752.

Chapter 6
The Prospect of Grain Production Increase in Latin America and Key Areas of Sino-Latin American Agricultural Cooperation

Wenze Xie

6.1 General Situation of Agricultural Farming in Latin America

According to statistics from the United Nations Food and Agriculture Organization (hereinafter referred to as Food and Agriculture Organization, FAO),[1] the total annual harvest area of soybean, corn, wheat and rice in 20 Latin American countries from 2010 to 2012 was approximately 91 million ha and total output was about 300 million tons, accounting respectively for 13.8% of the total harvest area and 12.3% of the world total crop output.

The agricultural industry in Latin America has the following obvious characteristics.

First, great differences exist between countries. According to calculations using constant U.S. dollar prices from 2004 to 2006, the total output value of agricultural cultivation in Brazil in 2011 was about $54.7 billion; Argentina was $22.7 billion; Mexico was $16.5 billion; while Panama was only $400 million.

Second, the four crops are highly centralized. The average annual crop harvest area in the 20 countries was about 110 million ha from 2010 to 2012, of which 83% was rice, corn, wheat and soybean. Average annual harvest area for soybean was the largest, up to about 48 million ha, followed by corn, about 28.70 million ha; wheat and rice were about 8.20 million and 5.10 million ha. Corn and wheat mainly grow in Brazil, Mexico and Argentina and their total outputs accounts for 87 and 81% of the region's total output. Soybean mainly grows in Brazil, Argentina and Paraguay

[1] FAO statistics database (updated in August, 2013): http://faostat.fao.org/. If there are no other footnotes in the paper, the data sources are FAO statistical data or calculated according to the data.

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and accounts for 95% of the total output of the total area. Rice is mainly concentrated in Brazil, Peru and Columbia, accounting for about 60% of the total output in the region.

Third, land distribution is unfair. There are about 18.60 million agricultural households in Latin America (units for agricultural production), about 4.50 million in Mexico and about 10.68 million in South America. About 60%[2] of the households are small farmers with about 30% of the arable land of the whole area mainly meeting household consumption and domestic market oriented. About 40% are large and medium-sized farmers with about 70% of the arable land of the whole area. They are highly commercialized and outward; most are farms or plantations.

Fourth, the vast majority of countries are not able to be self-sufficient in grain. Although the Latin American region is known as the barn of the world, many countries are not self-sufficient in grains, except for Argentina, Uruguay and Paraguay. The average annual grain imports in the Latin American region was 53 million tons from 2010 to 2012, of which 26 million tons was for South America, 17 million tons for Mexico, and 5 million tons for both Central America and the Caribbean.

Fifth, the agriculture industry in Latin America has a long way to go. First, the task of increasing grain productivity is heavy, as grain production needs to increase by about 50% in order to meet the regional internal consumption growth levels and the international demand from 2012 to 2030. Second, the task of poverty alleviation is difficult. On the one hand, about half of the rural population is impoverished, making agriculture the main source for living security and income for these people; on the other hand, food consumption accounts for 50–80% of the income in poor families and low-income families, which means that rise in grain price would have great impact and influence on these families.[3] Third, maintaining grain security is also a hard mission. In 33 Latin American countries, there are 30 countries that cannot be self-sufficient in grain. At the same time, 52.5 million people in the region are suffering from food shortage, accounting for 9% of the total population of the region.[4]

6.2 Prospects of Grain Production Increase in Latin America, 2012–2030

About 570 million ha of land in Latin America is suitable for growing maize, wheat, rice and soybeans, which means that in the medium and long term there are about 480 million ha of land that can be used to expand the planting area of the four crops.

[2]Octavio Sotomayor, Adrián Rodríguez, Mônica Rodrigues, *Competitividad, sostenibilidad e inclusión social en la agricultura: Nuevas direcciones en el diseño de políticas en América Latina y el Caribe*, CEPAL, Santiago de Chile, diciembre de 2011, p. 47.

[3]Inter-American Development Bank, "Agriculture in Latin America by the numbers", 2012. www.iadb.org.

[4]FAO, *Panorama de la seguridad alimentaria y nutricional de América Latina y el Caribe 2011*.

6.2.1 Potential of Grain Production

The production potential of the four crops is up to two billion tons.

Estimation in accordance with the medium input level[5] and the average per unit area yield in Latin America from 2010 to 2012 shows that there are 90 million ha of land suitable for planting corn with a potential corn production of 390 million tons in 20 countries, 70 million ha of land suitable for planting wheat with a potential wheat production of 200 million tons, 250 million ha of land suitable for planting soybean with a potential soybean production of 700 million tons and 160 million ha of land suitable for planting rice with a potential rice production of 750 million tons.

The average annual harvest area for corn in the 20 countries accounted for 32% of the developable land from 2010 to 2012 and the average annual yield of corn (about 120 million tons) accounted for 31% of the production potential; the average annual harvest area for wheat accounted for 12% of the developable land and the average annual yield (about 27 million tons) accounted for 13.5% of the production potential; the average annual harvest area for soybean accounted for 19% of the developable land and the average annual yield (about 130 million tons) accounted for 19% of the production potential; the average annual harvest area for rice accounted for only 3% of the developable land and the average annual yield (about 25.8 million tons) accounted for only 3.4% of production potential.[6]

6.2.2 Trends in Grain Production Increase in the Medium and Long Term (2012–2030)

The increase of population (especially the increase of urban population) is the fundamental factor for increasing grain output from the perspective of the interior of a country or a region. From the point of view of the world, global population growth not only brings a growth in grain demand, but also stimulates countries or regions with richer agricultural resources to increase grain production as well as promotes grain production increase in grain importing countries (regions) that are able to increase production.

Based on the FAO's statistics from 1990 to 2012 and the forecast data from 2013 to 2030, the author made a forecast for grain production using the SPSS 17.0 linear regression analysis method with grain yield as dependent variable and total country population, urban population, agricultural population[7] and world population as vari-

[5]FAO, *AEZ—Agro-ecological Zoning System (Release 2002)*, Spreadsheet 3. FAO assessed the arable land area based on the low, middle and high levels of investment. However, these were only the relative level instead of the level of quantification.

[6]FAO, *AEZ—Agro-ecological Zoning System (Release 2002)*.

[7]The agricultural population refers to the population living in rural areas and mainly engaged in agricultural production activities. The Food and Agriculture Organization of the United Nations has predicted the number of agricultural population before year 2020 in countries and regions. In

ables. Forecast on grain consumption was also carried on with grain consumption as a dependent variable, and total population, urban population, per capita GDP[8] as independent variables.

Prediction results in Table 6.1 shows that in 20 countries, except Panama and Jamaica, other countries show an increasing trend. Countries with more output growth are Brazil, Argentina, Paraguay, Mexico, Guatemala, Bolivia, Uruguay, Peru, Venezuela, Cuba and Colombia.

From 2012 to 2020, grain output in these 20 countries will increase from 300 million tons to 390 million tons, an increase of about 90 million tons; grain consumption will increase from 200 million tons to 240 million tons, an increase of about 40 million tons. From 2020 to 2030, grain output will rise from 390 million tons to 460 million tons, increasing by about 70 million tons; grain consumption is about to increase by about 40 million tons from 240 million tons to 280 million tons.

6.3 Main Restrictive Factors of Grain Production Increase

Land, agricultural population, investment, infrastructure, climate change and environment, land system and policy are the main factors that affect grain production increase.

6.3.1 Land

The distribution of land resources in Latin America is not balanced. Land that is suitable for growing grain and crops is mainly distributed in three major grain producing areas. The first comprises central and southern Mexico as well as Central America. The second includes the Andean region of Ecuador, Colombia and Venezuela, and the last is constituted of the Mercosur countries (Brazil, Argentina, Paraguay and Uruguay) and Bolivia. The vast lands of northeastern, central and southwestern Brazil, southeastern Bolivia, Paraguay and Uruguay, central and northern Argentina are large grain producing areas of which about 440 million ha of land is suitable for growing grain and crops.

Due to the diversity of topography and climate, the differences in terms of agricultural production conditions are great. In terms of irrigation, land can be divided into dry land and irrigated land. Cultivated land in Latin America is mainly dry

this paper, with the total population and urban population as the independent variables and the agricultural population as the dependent variable, the number of agricultural population in Latin American countries from 2021 to 2030 was predicted using SPSS17.0 regression analysis.

[8]The average annual growth rate of per capita GDP in various countries from 2012 to 2030 is calculated according to their respective annual growth rate of GDP per capita from 1990 to 2011 the source of which is: CEPAL, AnuarioEstad, stico de Am Rica Latina y el Caribe 2012.

Table 6.1 Forecast on grain production and consumption growth in Latin America from 2020 to 2030[a]

	Average annual output (10,000 tons)			Average annual consumption (10,000 tons)			Average annual output/Annual domestic consumption (%)		
	Base period	Forecast period		Base period	Forecast period		Base period	Forecast period	
	2010–2012	2020–2022	2028–2030	2010–2012	2020–2022	2028–2030	2010–2012	2020–2022	2028–2030
Paraguay	1196	2351	3534	186	250	304	643	940	1163
Argentina	8514	10292	11272	1350	1535	1692	631	670	666
Uruguay	455	675	835	125	137	151	364	493	553
Bolivia	380	586	787	202	242	275	188	242	286
Brazil	14,699	18,944	22,064	8820	10,605	12,102	167	179	182
Nicaragua	93	126	152	119	156	184	78	81	83
Ecuador	262	343	399	372	486	570	70	59	52
Mexico	2582	2841	3030	3948	4642	5026	65	61	60
Venezuela	390	578	731	653	804	909	60	72	80
Peru	466	662	841	852	1153	1405	55	57	60
Salvatore	87	101	105	161	200	236	54	51	44
Chile	302	329	347	573	702	799	53	47	43
Guatemala	180	364	601	402	859	1500	45	42	40
Columbia	423	485	532	989	1265	1452	43	38	37

(continued)

Table 6.1 (continued)

	Average annual output (10,000 tons)			Average annual consumption (10,000 tons)			Average annual output/Annual domestic consumption (%)		
	Base period	Forecast period		Base period	Forecast period		Base period	Forecast period	
	2010–2012	2020–2022	2028–2030	2010–2012	2020–2022	2028–2030	2010–2012	2020–2022	2028–2030
Honduras	61	76	99	156	241	331	39	32	30
Panama	35	34	32	93	104	106	38	33	30
Dominican	88	112	130	279	351	415	32	32	31
Cuba	86	158	274	343	419	538	25	38	51
Costa Rica	26	37	51	140	190	229	19	19	22
Jamaica	1	1	1	46	63	92	2	2	1
Total	30,326	39,042	45,719	19,809	24,411	28,328			

[a]SPSS 17 linear regression analysis as the forecast method

Data sources FAO, statistical data and the forecast data of total population, urban population and the world population from 1990 to 2030; statistical data and forecast data of the agricultural population from 1990 to 2020; yield and consumption data of corn, wheat, rice and soybean from 1990 to 2012

CEPAL, per capita GDP statistics of Latin American countries from 1990 to 2011 (calculated by U.S. dollar constant price in 2005)

land (about 550 million ha) which can be classified into three grades, I, II and III, according to natural conditions.

Grade I dry land is flat. With good conditions in terms of water, soil, light and heat, the soil is fertile. As a result, high yield can be achieved with less input; grade II dry land needs to be improved and the more the input, the higher the yield; grade III dry land needs large-scale farmland infrastructure or soil improvement as its yield is low and unstable. Among the dry land that is suitable for the cultivation of the four crops, 11% is Grade I (about 60 million ha), 38% is Grade II (about 210 million ha) and 51% is Grade III (about 280 million ha).

Corn yield is much more restricted by the land factor. About 13 million ha of Grade I dry land is suitable for planting corn, only accounting for 42% of the current corn harvest area in 20 countries. For most countries, Grade II and Grade III dry land are the main types of land available to increase corn yield. Jamaica, Costa Rica, Panama and Colombia almost have no Grade I dry land is suitable for planting corn; the number of Grade I dry land in countries such as the Dominican Republic, Guatemala, Ecuador and Peru is limited; Grade I dry land in Brazil, Mexico, Cuba, Guatemala and Paraguay has been exhausted. Only Argentina, Bolivia, Uruguay and other countries have undeveloped Grade I dry land (about 2 million, 700 thousand and 500 thousand ha).

Grade I dry land suitable for growing wheat amounts to about 19 million ha among which 5 million has been cultivated. Central America and the Caribbean are not suitable for growing wheat. Consequently, There is hardly any Grade I dry land suitable for growing wheat in Brazil and Paraguay; Grade I dry land suitable for growing wheat in Venezuela and Columbia amounts to less than 20 thousand ha; Grade I dry land suitable for growing wheat in Chile, Peru, Ecuador and Bolivia are 0.15 million to 0.35 million ha respectively; there are respectively 9.7 million, 2.5 million and 0.95 million ha of Grade I dry land in Argentina, Uruguay and Mexico that is not cultivated with wheat.

Grade I dry land suitable for growing rice is about nine million hectares among which 3.5 million has been cultivated. This kind of cultivated land is mainly distributed in Brazil, Mexico, Bolivia, Columbia, Venezuela, Cuba and other countries.

Grade I dry land suitable for growing soybean is about 21 million ha and is mainly distributed in Argentina, Brazil, Mexico, Bolivia and Venezuela. Grade I dry land in Argentina, Brazil, Paraguay and other major soybean producing countries has been developed, thus these countries mainly rely on Grade II and even Grade III dry land to expand harvesting areas. Grade II dry land accounts for about 60% of the soybean harvest area in Argentina and 70% of that in Brazil. Grade III dry land accounts for about 70% of the soybean harvest area in Paraguay.

6.3.2 Agricultural Population

The distribution of cultivated land resources in Latin America is basically consistent with the distribution of population. Nevertheless, due to the high urbanization levels

and the already small size of the agricultural population, the latter tends to decrease in most Latin American countries. Only a few countries like Bolivia, Guatemala and Paraguay show a growth trend. The United Nations Food and Agriculture Organization predicted that from 2012 to 2020, Bolivia's agricultural population would increase from 4 million to about 4.3 million, Guatemala from 6.2 million to 7 million and Paraguay from 1.9 million to 2 million. The increase in the agricultural population will contribute to grain output growth in these three countries.

Brazil, Mexico, Colombia, Venezuela, Peru, Ecuador, Argentina and Cuba have witnessed an obvious decrease in agricultural population; in terms of the former three countries, agricultural population is expected to reduce respectively by about 4.4 million, 2.8 million and 800 thousand; agricultural population in the latter five countries has reduced by 200 thousand to 300 thousand. The decrease in agricultural population is not conducive to the increase of grain production in these countries.

6.3.3 Input

Grain production in Mexico, Central America, and the Caribbean and Andean region requires more investment, while investment in Mercosur countries and Bolivia is even less conclusive. According to relevant statistical data from the United Nations Food and Agriculture Organization and the United Nations Economic Commission (CEPAL),[9] the average development costs per 1 ha of arable land is about $8000 for Chile; $6200 for Ecuador; $4400 for Columbia; $2000 to $3000 for Mexico, Costa Rica, Venezuela and Peru; $1000 to $2000 for Mara Guatemala, Cuba, Nicaragua, El Salvador and Honduras; and $820, $620, $500 and $450 for Brazil, Bolivia, Paraguay and Argentina, when calculating using the U.S. dollar's constant price in 2005.

In terms of investment in agricultural machinery, Chile's level is about $2300 per ha, $1200 for Costa Rica, $500 to $1000 for Jamaica, Venezuela, Colombia, Cuba and Panama, $300 to $500 for Brazil, Uruguay, Argentina and other countries.

As of investment in crop cultivation, it is of about $2500 to $3100 per ha for El Salvador and Costa Rica, Colombia, Mexico and Ecuador; $500 to $1000 per ha for Guatemala, Jamaica, Venezuela, Chile, Panama, the Dominican Republic and Nicaragua; $100 to $300 per ha for Brazil, Bolivia and other countries; $68 and $45 per ha for Uruguay and Argentina.

For Mexico and countries in Central America, the Caribbean, and the Andean region, higher input costs have inhibited increase in grain production. On the one hand, imported grain prices are below the cost of domestic production; on the other hand, domestic grain and agriculture products are lowly profitable or even unprofitable. Consequently, the enthusiasm for grain production is low. For Bolivia and the

[9] Agricultural investment data in Latin America is relatively limited. FAO data on land development, agricultural machinery, crop planting and other inputs are calculated by the total capital stock and net capital stock. This article uses the former. The latest data on the total arable land in the Latin American countries by United Nations Economic Commission for Latin America is until the end of 2009 and the data is from CEPAL, *AnuarioEstadístico de América Latina y el Caribe 2012*.

four Mercosur countries, the lower input in agriculture has also inhibited the increase in grain production. Corn, soybeans, etc., crops suitable for field operations, mostly are extensively operated.

6.3.4 Infrastructure

Irrigation facilities are one of the most important infrastructures. Latin America has more than 100 million ha of dry land that can be irrigated. As of 2009, total area amounts to about 20.48 million ha of irrigated land, accounting for about 14% of the total arable land, yet it accounts for only 3.5% of the amount of cultivated land (570 million ha). It is mainly distributed in Mexico, Brazil, Chile, Argentina, Peru, Ecuador, Colombia, Cuba, Venezuela and other countries.[10]

Inadequate transport facilities and warehousing facilities are important factors restricting grain production in Brazil, Argentina, Paraguay, Bolivia and other countries with greater potential to increase production. As agricultural development has been pushing inland, the grain output of central and Western Brazil, the northeast and northwest region of Argentina has increased rapidly. Freight relies mainly on railways. Although the railway networks in the two countries are relatively perfect, transportation for mineral products and industrial manufactured goods occupies most of the transport capacity and only a small portion of the transport capacity is allocated to grain. As Bolivia and Paraguay are landlocked with small population sizes, the potential of grain production increase will be greatly suppressed without adequate capacity of export and outside transportation. To a certain extent, the long-term grain production increase of the four countries depends on transport capacity.

6.3.5 Environment and Climate Change

Agricultural production will directly and indirectly increase carbon emissions. Surface soil organic carbon content (as a percentage of the weight of the soil) in Latin America is relatively high. The South America average is 3.1%, while it is 2.1% in Central America and 2.4% in the Caribbean. All are higher than the world average of 1.9%. Direct carbon emissions from agricultural production in these areas are great. Take organic soil for example. According to the estimates of the Food and Agriculture Organization of the United Nations, organic soil in South America, Central America and the Caribbean amounts to about 220 thousand ha with net carbon emissions of about four billion tons and average net emissions of about 18,300 tons per ha.

Agricultural production also consumes energy, machinery, chemical fertilizers, etc., indirectly increasing carbon emissions. Agricultural production in Latin America consumes more energy. In terms of the proportion of energy consumed by agri-

[10]CEPAL, *Anuario Estadístico de América Latina y el Caribe 2012*.

cultural production in total energy consumption from 2005 to 2009, the Caribbean region figured 4.7%, South America 4%; Mexico figured 3% and Central America 2.6%. All of these proportions were higher than the world average level of 2.2%. The use of fertilizer has increased significantly since the 1990s. The use of fertilizer in the whole area was amounted to 8 million tons from 1990 to 1993 and it rose to 17 million tons from 2005 to 2008 (see Footnote 10). Due to these reasons, the implied carbon emissions of organic land in South America, Central America and the Caribbean was about 18.4 tons per ha, which was much higher than the world average of 11.5 tons.

The increase in the acreage of grain crops is done at the expense of grassland and forest. From 1990 to 1992, the average annual planting area of the four crops was about 59 million ha, which increased by 32 million ha to 91 million from 2010 to 2012, mainly as a result of the sharp increase in soybean acreage. Soybean total exports[11] in Brazil were about 40 million tons and Argentina was about 32 million tons, accounting respectively for 57 and 63% of their domestic soybean production from 2010 to 2012.[12] The expansion of domestic acreage in order to meet the needs of the international market has given rise to reflections and vigilance in the two countries.

In terms of climate change, according to the forecast, temperatures will rise one degree Celsius in northern Argentina from 2020 to 2040, thus evaporation will increase, making drought and soil desertification tend to deteriorate; precipitations in the northeast and the Andean will be reduced; summer and autumn precipitations in central region will increase and floods will be more frequent.[13] Climate change is not conducive to the increase of grain yield in most Latin American countries because dry land is used for main grain production.

6.3.6 Land System and Policy

At present, Latin American countries (except for Cuba) have basically implemented land privatization systems. In spite of this, most of the land can be divided into three categories, namely, private land, state-owned land and collective land (the latter including mainly Indian community land and parts of village land in Mexico). In addition, there is a certain amount of land with unclear property rights in Brazil and Argentina. In Brazil, proportions of total land area is about 73% for private land, about 12% for collective land and about 15% for public land; the concentration of private land is high, as 1% of the population possesses 45% of the land. Some

[11] Soybean total exports = soybean + soybean oil/0.2. Calculated according to the oil rate of 20%, one ton of soybean oil is equivalent to five tons of soybeans. In order to avoid repeated calculation, soybean meal is no longer translated and included in the total amount of exports.

[12] Data of soybean oil export of Brazil and Argentina from 2010 to 2012 is from *United Nations Commodity Trade Statistics Database*, http://comtrade.un.org.

[13] World Bank, "Country Note on Climate Change Aspects in Agriculture: Argentina", December, 2009.

farmers (mainly small farmers) operate on land without property rights, aggravating land disputes.[14] In Argentina, private land accounts for about 87% of total land area and state-owned or public land accounts for about 13%. It is worth noting that about 12% of land property is unknown.[15] In this case, the land market is not developed, thus the sale and lease of non-regular land is more common.

In order to curb the momentum due to the great number of land purchase by foreign capital, Argentina, Brazil and other countries have developed restrictive policies. For example, the federal government of Argentina ruled that the largest area of land that can be purchased by foreign investments is 2000 ha; land sold to foreign investors by states shall not exceed 20% of the total arable land in the state (see Footnote 14); the federal government of Brazil ruled that the largest area of purchase land for foreign investment is 5000 ha; land sold to foreign investors by states shall not exceed 25% of the total arable land in the state (see Footnote 14). In 2012, the United Nations Food and Agriculture Organization adopted the "Voluntary Guidelines for the Management of Land, Fisheries and Forest Management Authority in the Scope of National Food Security", which aimed to improve the management of rights. The guidelines are conducive to improving land property rights and the land market in the long term, but may also increase land cost for foreign investors looking to enter the agricultural industry in Latin America.

6.4 Focuses of Sino-Latin American Agricultural Cooperation

For a long time, Latin America mainly relied on the expansion of its harvest areas to increase grain production. For example, the contribution rate of harvest areas to soybean yields from 1990 to 2012 in Argentina was 93% and the rate of per unit yield was only 7%; the rates were 68 and 32% for soybean production in Brazil.[16] The United Nations Food and Agriculture Organization predicted that the contribution rate of expanding areas of cultivated land to grain yield increase would be 34% from 2012 to 2030, and the contribution rate to per unit yield increase would be 66%.[17] In spite of this, there is a big difference between countries.

[14] USAID, "Property Rights and Resource Governance: Brazil", 2011.

[15] Marcelo Sili, Luciana Soumoulou, "The Issue of Land in Argentina: Conflicts and Dynamics of Use, Holdings and Concentration", International Fund for Agricultural Development (IFAD), Rome, Italy, 2011.

[16] According to FAO statistical data.

[17] JelleBruinsma(Edited), *World agriculture towards 2015/2030:An FAO Perspective*, Earthscan Publications Ltd., London, 2003.

6.4.1 Two Types of Production Increase

Land is classified as export-oriented or domestic demand-oriented according to the output ratio and domestic consumption. If the ratio is greater than 100%, it generally means that there is a surplus production for export. The larger the ratio, the greater the export potential; on the contrary, if the ratio is below 100%, it means that domestic supply is insufficient, thus there is a need to import grain to make up the shortfall. The smaller the ratio is, the bigger the gap will be.

As shown in Table 6.1, the ratios in the cases of Paraguay, Argentina, Uruguay, Bolivia and Brazil not only are well above 100% but also tend to rise; the ratio in Paraguay from 2028 to 2030 may be even over 1000%. The increase in grain yield is mainly not because of the increase in domestic consumption, but because of the growth in international demand; thus it is export-oriented in terms of production increase.

The ratios of the other 15 countries are below 95%[18] and the ratio of Jamaica is even less than 2%. The ratios of Nicaragua, Venezuela, Peru, Cuba and Costa Rica will increase, but they are far from reaching the safety line; ratios of other countries will decline. It is difficult to significantly improve grain security. Grain production is basically used for domestic consumption, thus it is domestic demand oriented in terms of production increase.

6.4.2 Three Groups of Countries

Forecast was carried out using the linear regression analysis method, with crop planting area as the dependent variable and grain yield and agricultural population[19] as the independent variables. The 20 Latin American countries can be divided into three groups according to the change in crop planting area.

Countries in the first group are export-oriented countries which planting area will show larger increases. Planting areas in Brazil, Argentina, Paraguay, Uruguay and Bolivia will increase by about 8 million 300 thousand, 4 million 300 thousand, 3 million 500 thousand, 600 thousand and 500 thousand ha from 2012 to 2020. Planting areas for the four crops in these 5 countries are expected to increase by 5.5 million, 2.5 million, 3.5 million, 600 thousand and 300 thousand ha from 2020 to 2030.

Countries in the second group are domestic-demand-oriented countries which planting area will increase, such as Guatemala, Venezuela, Peru, Honduras, Dominica, Nicaragua, Columbia, Costa Rica and Cuba. The acreages of Guatemala, Venezuela and Peru are expected to increase by 1 million 300 thousand, 600 thousand and 400 thousand ha respectively from 2012 and 2030.

[18] It is generally believed that 95% is the safety line for grain. Number that is below 95% will be regarded as unsafe.

[19] The numbers of grain yield and agricultural population are predictive values.

The third group includes domestic-demand-oriented countries which planting area will not increase or decrease, such as Jamaica, Salvatore, Panama, Chile, Ecuador and Mexico. Mexico's acreage is expected to reduce nearly 900 thousand ha from 2012 to 2020 and nearly 800 thousand ha from 2020 to 2030.

6.4.3 Agricultural Cooperation with Domestic-Demand-Oriented Countries

Grain production increase in countries of this type mainly depends on increasing per unit yield. The main factors that restrict the improvement of per unit yield are production patterns, production costs, the reduction of agricultural population, etc. In these countries, small farmers are mainly engaged in grain production. They use Grade II and III dry land to grow grain and crops and the production costs are high. Except for Guatemala and a few other countries, agricultural population tends to reduce in different degrees.

Based on the factors of dry land, small scale, high cost and labor reduction, the focuses of agricultural cooperation are the promotion of dry farming and small and medium sized farm machinery in order to improve the production efficiency and yield level of farmers as well as to reduce unit cost.

Venezuela and Cuba have better conditions for rice planting and potential to increase production is great. Small and medium-sized mechanized operations should be the focus of rice cooperation.

6.4.4 Agricultural Cooperation with Export-Oriented Countries

Grain production increase for this type of countries mainly depends on the expansion of the planting area, and the main factors restricting the expansion of this area are the investment and infrastructure. Therefore, trade, warehousing and transportation are the focuses of agricultural cooperation here.

At present, soybean trade is the main element of agricultural cooperation between China and Brazil and Argentina. In 2012, 51% of China's imported soybean came from these two countries. Chinese soybean imports from Brazil and Argentina increased by nearly five times from 5.15 million tons to 29.79 million tons from 2000 to 2012.[20] Increase in soybean imports are closely related to China's urbanization process and the growth of GDP per capita. In the medium and long term, China's soybean imports from South America will continue to increase significantly. Soybean imports in 2020 and 2030 are expected to reach 41 million and 59 million

[20]Data of 2000–2010 is from FAO statistical data; data of 2011–2012 is from United Nations Commodity Trade Statistics Database, http://comtrade.un.org.

tons.[21] Soybean trade will remain the main body of agricultural trade and cooperation. Whether grain production increases or trade grows, both require a corresponding growth in warehousing and transportation strength.

It is worth noting that, although the yield ratio for the four crops and domestic consumption in Brazil is over 180%, the main kinds are soybean and corn (22% of the corn output was exported from 2010 to 2012[22]). The total output of the four kinds of crops in Brazil from 2010 to 2012 was about 150 million tons, of which soybean accounted for 47%; corn was 41% while rice and wheat were only 8% and 4%; internal supply of wheat was insufficient in this period and average annual imports of wheat were about 4 million and 170 thousand tons.[23] Wheat production on dry land is also one of the focuses of bilateral agricultural cooperation between China and Brazil. Development Trends in Sino-Latin American Agricultural Trade and Investment.

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[21] Linear regression analysis, with soybean import as the independent variable and per capita GDP (U.S. dollar constant price in 2005) and urbanization rate as the independent variables. The average annual growth rate of GDP per capita was calculated as 6% from 2012 to 2030. The average increase rate of annual urbanization was calculated as 1% from 2012 to 2020 and 0.8% from 2020 to 2030.

[22] The average annual export of corn in Brazil from 2010 to 2012 was 13 million 370 thousand tons of corn and the data is from *United Nations Commodity Trade Statistics Database*, http://comtrade.un.org; During this period, the average annual production of corn was 60 million 770 thousand tons and the data is from the FAO statistical data.

[23] *United Nations Commodity Trade Statistics Database*, http://comtrade.un.org, calculated by the relevant statistical data.

Chapter 7
Development Trends in Sino-Latin American Agricultural Trade and Investment

Yong Zhang

In the era of economic globalization, the economic and trade relations among China, Latin America and the Caribbean (referred to as the China-Latin America economic and trade relations) have received the world's attention. Since the global financial crisis of 2008 in particular, the center of global economic growth has shifted from "the Atlantic" to "the Pacific", and cooperation between Asia and Latin America, where the largest number of emerging markets can be found, has been gradually transforming the world's economic patterns. This change signifies not only the rising status of emerging economies, but also the strengthening economic ties between emerging economies and developing countries through the development of trade and investment amid the "South-South" cooperation.

Against this backdrop, agricultural trade and investment between China and Latin America are also developing rapidly. The momentum is even clearer since the then Premier of the State Council of the PRC Wen Jiabao visited South American countries including Brazil, Uruguay, Argentina and Chile in June 2012, and addressed the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC) in the Chilean capital of Santiago and. In the speech Wen articulated the importance of "safeguarding food security through agricultural cooperation". His initiative, which is of significant importance for the promotion of China-Latin America agricultural cooperation, signifies a new phase in the cooperation.

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7.1 Introduction of Agricultural Resources in Latin America

Favorable geographic and climatic conditions bestow Latin America abundant agricultural resources. Here, the author will brief readers on the agricultural resources of Latin America in four major aspects, namely agricultural land resources, yield of main crops, foreign trade of agricultural products, and FDI of the Latin American agricultural sector.

7.1.1 Latin America Enjoys Abundant Agricultural Land and Cultivated Land Resources, but Internal Distribution Is Imbalanced

According to the statistics of the FAOSTAT (Food and Agriculture Organization Corporate Statistical Database), the total area of world agricultural land in 2011 was 4.912 billion ha, of which Latin America held 741 million, accounting for 15%, ranking 3rd in the world behind Asia (33%) and Africa (24%). In Latin America, the area of agricultural land of Brazil, Argentina and Mexico was 275, 148 and 103 million ha, accounting for 37, 20 and 14% of the total respectively. As we can see, the aggregate area of agricultural land owned by the three countries accounts for as high as 71% in Latin America's total (Fig. 7.1).

In 2011, the world's total cultivated land area was 1.396 billion ha, of which Latin America shared 168 million, accounting for 12% behind Asia, Europe, Africa and North America but possessing huge growth potential. Within Latin America, the cultivated land area of Brazil, Argentina and Mexico was of 72, 38 and 25 million ha, accounting for 43, 23 and 15% of the world total respectively. Their aggregate cultivated land area accounts for a surprising 81% in Latin America (Fig. 7.2).

7.1.2 The Main Crops of Latin America Hold an Important Status in the World

According to the FAOSTAT, main crops produced in Latin America such as corn and soybean hold an important status in the world. In 2012, the whole world produced 872 million tons of corn; Latin America produced 133 million tons, accounting for 15% of the world's total and ranking 3rd in the world behind Asia (33%) and North America (33%).[1] The total yield of soybean in the same year was 242 million tons,

[1]Calculated by the author based on data of FAOSTAT, http://faostat3.fao.org/faostat-gateway/go/to/download/Q/QC/E.

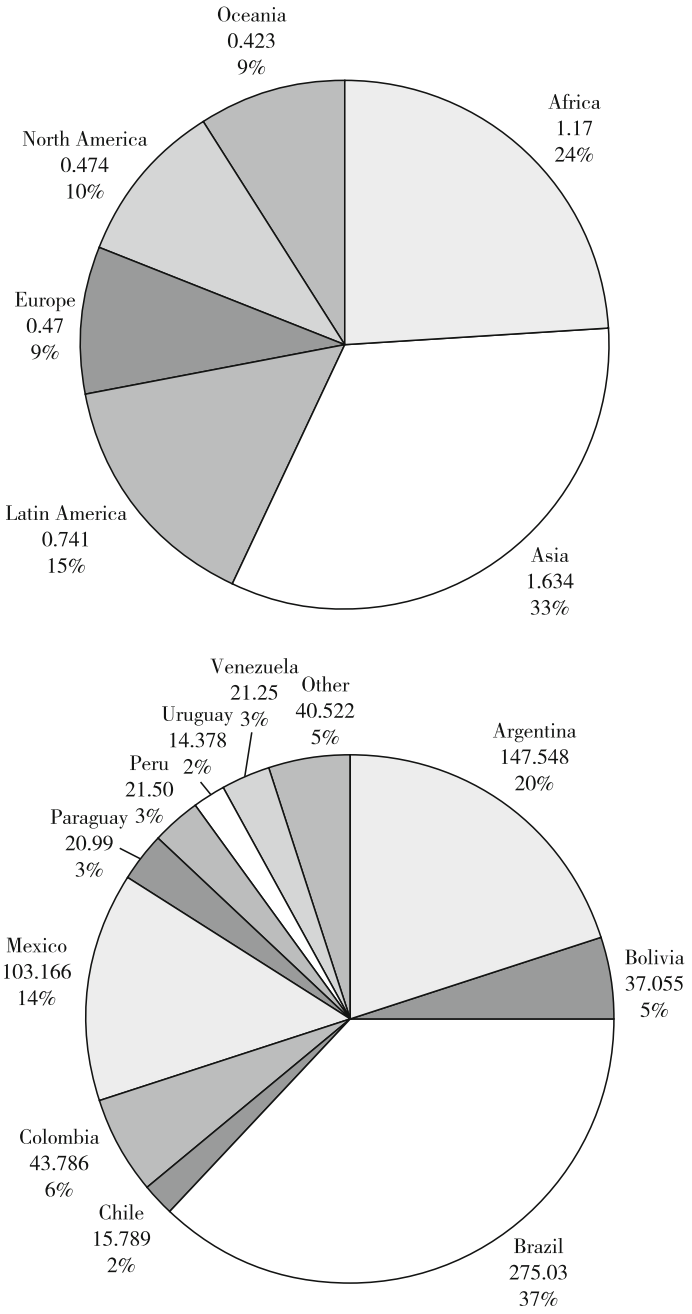

Fig. 7.1 Proportion of agricultural land of Latin America in the world (billion hectares, %); internal distribution of agricultural land in Latin America (million hectares, %). *Source* http://faostat3.fao.org/faostat-gateway/go/to/download/R/RL/E (entry time: March 17, 2014)

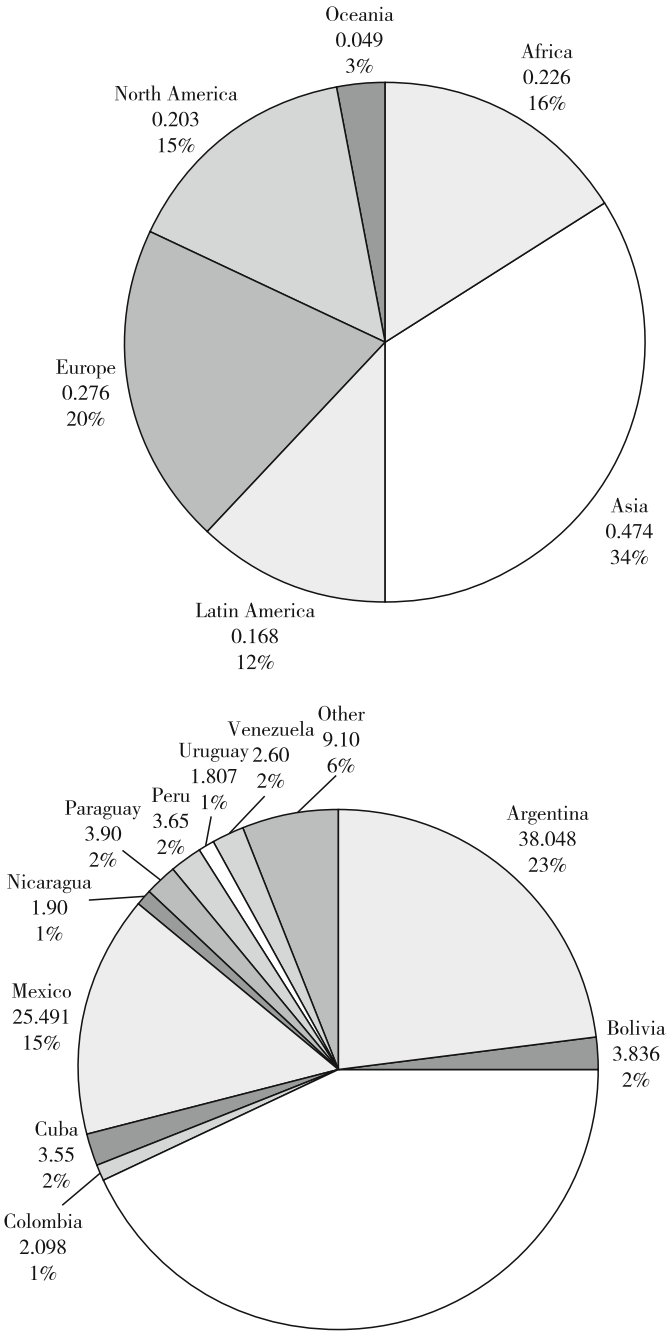

Fig. 7.2 Proportion of cultivated land of Latin America in the world (billion hectares, %); internal distribution of cultivated land in Latin America (million hectares, %). *Source* http://faostat3.fao.org/faostat-gateway/go/to/download/R/RL/E (entry time: March 17, 2014)

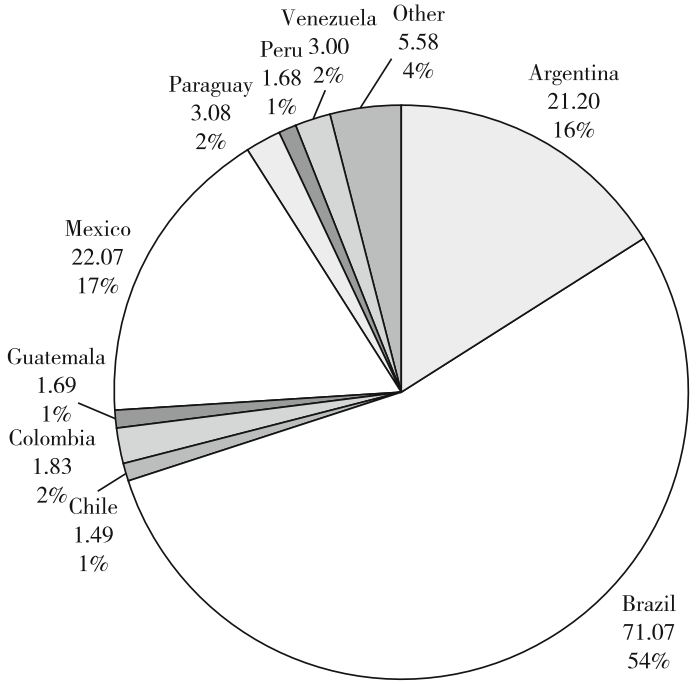

Fig. 7.3 Production of corn in Latin America, 2012 (million ton). *Source* FAOSTAT

of which Latin America produced 120 million tons, ranking 1st in the world and nearly 14% higher than North America (35.9%), the world's 2nd (see Footnote 1).

In 2012, the corn production of Brazil, Mexico and Argentina was of 71.07, 22.07 and 21.20 million tons respectively, and accounted for 87% of the total yield of Latin America (see Fig. 7.3). In 2012, the output of soybean of Brazil and Argentina was 65.85 and 40.10 million tons respectively and accounted for 88% of Latin America's total yield (see Fig. 7.4).

7.1.3 Obvious Differences Exist in the Trade of the Agricultural Products of Latin American Sub-regions

Since the beginning of the 21st century, the proportion of agricultural exports in Europe, North America and Oceania has been dropping, while that of Asia and Latin America has been on the rise. Thanks to rich agricultural resources, the trade of agricultural products in Latin America has also been developing rapidly. From 2000 to 2011, Latin America's share of agricultural exports in the world grew from

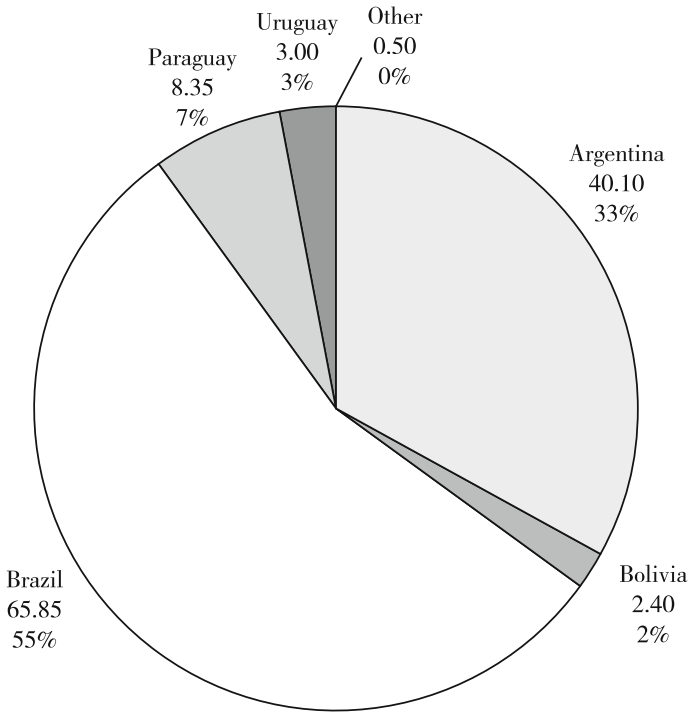

Fig. 7.4 Production of soybean in Latin America, 2012 (million ton). *Source* FAOSTAT

12 to 15%, while the proportion of Europe decreased from 46 to 43% and that of North America from 18 to 14%.[2] In general, Latin America has been a net exporter of agricultural products. During the same period, the Latin American surplus in agricultural product trade rose from USD 20.39 billion to USD 115.23 billion, an increase of 465%. South America maintained a trade surplus throughout the whole period, contributing over 100% to the surplus of the whole Latin American region. The Caribbean had always been a net importer of agricultural products, and Central America was in a trade deficit for most of the years during the period (see Table 7.1).

7.1.4 An Uneven Distribution of FDI Exits in Agriculture and the Agricultural Processing Industry

Although accurate data is hard to find, according to a research made by the World Bank in 2010, interest in purchasing or leasing agricultural land multiplied in the

[2]Calculated by the author based on data of FAOSTAT (entry time: March 18, 2014). http://faostat3.fao.org/faostat-gateway/go/to/download/T/TP/E.

Table 7.1 Foreign trade of agricultural products of Latin America, 2000–2011 (billion US dollars)

	Latin America			South America			Central America			The Caribbean		
	Export	Import	Balance	Export	Import	Balance	Export	Import	Balance	Export	Import	Balance
2000	48.83	28.44	20.39	33.97	12.56	21.41	12.61	12.24	0.37	2.24	3.64	−1.4
2001	52.21	29.38	22.83	37.61	11.66	25.95	12.11	13.98	−1.87	2.49	3.75	−1.26
2002	53.17	29.44	23.73	38.84	10.73	28.11	12.19	14.91	−2.72	2.15	3.8	−1.65
2003	62.61	31.77	30.84	47.24	12.11	35.13	13.35	15.71	−2.36	2.01	3.95	−1.94
2004	75.24	35.81	39.43	57.84	13.87	43.97	15.32	17.48	−2.16	2.09	4.46	−2.37
2005	84.72	37.8	46.92	65.85	14.04	51.81	16.97	18.3	−1.33	1.9	5.46	−3.56
2006	95.87	44.27	51.6	73.43	17.66	55.77	20.21	20.9	−0.69	2.23	5.72	−3.49
2007	118.03	56.36	61.67	92.85	24.18	68.67	22.83	25.28	−2.45	2.34	6.9	−4.56
2008	14.74	74.73	72.67	119.26	35.49	83.77	25.69	30.59	−4.9	2.45	8.64	−6.19
2009	134.55	60.51	74.04	106.99	28.22	78.77	25.01	24.9	0.11	2.55	7.39	−4.84
2010	156.13	67.8	88.33	125.03	32.35	92.68	28.29	27.68	0.61	2.8	7.78	−4.98
2011	196.86	81.63	115.23	158.93	38.04	120.89	34.97	35.34	−0.37	2.96	8.25	−5.29

Source Calculated by the author based on statistics of FAOSTAT (entry time: March 18, 2014), http://faostat3.fao.org/faostat-gateway/go/to/download/T/TP/E

past ten years. In this context, FDI made in Latin America's agricultural sector also rocketed, especially since the global food crisis during 2007 and 2008. According to ECLAC,[3] FDI made in major Latin American nations reached a total of USD 10.325 billion during 2005–2011. However, these investments mainly went to three countries, Brazil, Uruguay and Argentina, which absorbed over 70% of total investments. This means that Latin American countries' potential in terms of attracting investment differs. Countries (such as Brazil, Uruguay and Argentina) with abundant water resources and usable lands are more competitive. In addition, the agricultural processing industry, which produces intermediate products or final products with agricultural raw material, attracts more FDI. From 2005 to 2011, the agricultural processing industry in main Latin American countries attracted an aggregate USD 48.423 billion worth of FDI, the most of which were made in Brazil and Mexico, whose combined shares accounted for 87% thanks to their higher industrialization level, larger market capacity and relatively advanced technology. Therefore, economic structure, diversity of agricultural land and public policy will be the main factors for attracting FDI in agriculture and the agricultural processing industry (Table 7.2).

In conclusion, Latin America possesses abundant agricultural resources, but also faces unbalanced distribution of cultivated land and unbalanced output of main crops. 81% of cultivated land of Latin America lies in Brazil, Argentina and Mexico, which combined yield 87% of the whole continent's corn. Also, Brazil and Argentina account for 88% of Latin America's soybean output. Thus Latin America's agricultural sector is polarized. On the one hand, South American countries possess rich agricultural resources and are important agricultural exporters. One the other hand, however, countries in Central America and the Caribbean are confronted with the task of meeting an increasing food demand at home through a more effective utilization of limited resources and the improved efficiency of agricultural production. Therefore, while carrying out cooperation with Latin America, China is taking the two situations into comprehensive consideration, rather than merely importing certain agricultural products from the continent.

7.2 Development Trend and Features of China-Latin America Agricultural Products Trade

In general, China and Latin America, which are intensely complementary in trade, tend to form a trade pattern where "China exports manufactured products and Latin America sells primary goods". Agricultural products are an important part of primary

[3] About FDI in agriculture and agricultural processing industry, different countries have different data classification method. Thus their utilizability differs. Some countries didn't categorize those data; while some countries which did record categorized data did so basing themselves on different standards. For example, some listed data of agriculture and other primary activities (such as fishery) into the same category, while others contained FDI of the mining sector into data of agriculture.

Table 7.2 FDI in agriculture and agricultural processing industry of Latin America, 2005–2011

Country	Agriculture[a]		Agricultural processing industry[b]		
	Amount (million USD)	Proportion (%)	Country	Amount (million USD)	Proportion (%)
Brazil	4177.9	40.5	Brazil	24,183.7	49.9
Uruguay	2069.2	20.0	Mexico	18,143.4	37.5
Argentina	1325.1	12.8	Argentina	5339	11.0
Chile	671.9	6.5	Uruguay	517.1	1.1
Costa Rica	662.1	6.4	Paraguay	125.4	0.3
Guatemala	502.3	4.9	Costa Rica	114.7	0.2
Colombia	344.4	3.3	Total	48,423.3	100.0
Mexico	247.5	2.4			
Ecuador	176.4	1.7			
Honduras	147.8	1.4			
Total	10324.6	100.0			

Note [a]The data for forestry is included in the total amount of FDI attracted by agriculture. For Colombia and Ecuador, FDI data defined based on economic sector contain the data of the fishery industry. For Guatemala, the comprehensive data cover mining industry. Chile's FDI data based on economic sector were issued by the national accounts of its central bank as late as in 2009, data before 2009 were estimated and provided by the International Trade Center

[b]The data mainly cover industries of food, beverage and tobacco, and do not include agricultural machinery industry and bio-fuel processing industry

Source ECLAC, *2012 Foreign Direct Investment in Latin America and the Caribbean* (Briefing paper), 2012, pp. 86, 90

goods. Therefore, as China's foreign trade is rapidly growing, its agricultural products trade with Latin America is also taking a great leap forward and has the following features.

7.2.1 Agricultural Products Trade with Latin America Plays an Important Role in China's Foreign Trade of Agricultural Products

Since the mid-1990s, the trade volume of agricultural products between China and Latin America has been on a continuous rise. At the beginning of 2003, in particular, bilateral trade volume entered into a fast growth period, in which it rose from USD 5.277 billion to USD 35.334 billion from 2003 to 2013, an average annual growth rate of 21%. During the same period, the trade volume of China's comprehensive agricultural trade rose form USD 40.136 billion to USD 185 billion, growing at 16.5% per year on average, which is obviously lower than that of China-Latin America agricultural products trade. China's imports from Latin America increased by 558%,

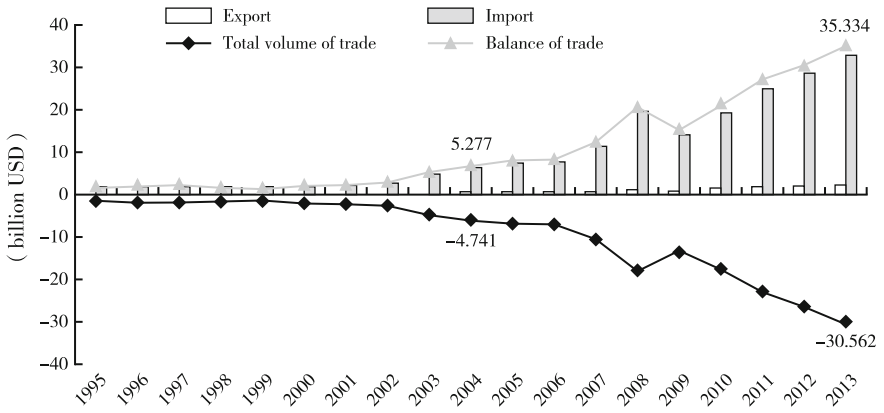

Fig. 7.5 Trend of China-Latin America Agricultural Products Trade, 1995–2013. *Source* Drawn by the author through analyzing the data of agricultural products trade of Department of Foreign Trade, Ministry of Commerce of the PRC. http://wms.mofcom.gov.cn/article/ztxx/ncpmy/

from USD 5.009 billion to USD 32.948 billion, during 2003 and 2013; its exports to Latin America rose from USD 268 million to USD 2.386 billion, an increase of 790%.

In terms of the significance of different regions, Latin America's trade with China in its total volume of agricultural products rose from 13 to 19% from 2003 to 2013, indicating that Latin America had already become an important supplier of agricultural products for China. Meanwhile, it is also obvious that although the trade volume between Latin America and China has been on the rise, China has always been in deficit (see Fig. 7.5). After the transitional point in 2004 when China's trade surplus turned to deficit, the deficit against Latin America was further expanded. From 2004 to 2013, the deficit increased from USD 6.187 billion to USD 30.562 billion, an increase rate of 394%. Moreover, China's deficit against Latin America is a major reason for China's total trade deficit in agricultural products (see Table 7.3).

7.2.2 High Concentration of Certain Trade Partners and Products

China's imports from Latin America mainly come from Brazil and Argentina, which are major exporters and producers of soybeans. In 2013, China imported USD 22.5 billion and USD 5 billion of agricultural products from Brazil and Argentina respectively, accounting for 68.3 and 15.1% of China's total agricultural imports from Latin America. The two exporters combined accounted for 83.4% of Latin America's total agricultural exports to China. In contrast to the high concentration of its importers, China exports to a larger number of nations or regions in Latin America.

Table 7.3 Agricultural products trade status of China and Latin America, 2003–2013 (billion USD; %)

	Comprehensive situation in China's agricultural products trade			Agricultural products trade between China and Latin America				
	Total export (1)	Total import (2)	Trade balance	Export to Latin America		Import from Latin America		Trade balance
				Amount (3)	Proportion (3)/(1)	Amount (4)	Proportion (4)/(2)	
2003	21.243	18.893	2.35	0.268	1.3	5.009	26.5	−4.741
2004	23.09	27.973	−4.883	0.403	1.7	6.59	23.6	−6.187
2005	27.18	28.65	−1.47	0.522	1.9	7.531	26.3	−7.009
2006	31.03	31.99	−0.96	0.808	2.6	7.682	24.0	−6.874
2007	36.62	40.97	−4.35	0.893	2.4	11.535	28.2	−10.642
2008	40.22	58.33	−18.11	1.314	3.3	19.485	33.4	−18.171
2009	39.21	52.17	−12.96	1.077	2.7	14.216	27.2	−13.139
2010	48.88	71.92	−23.04	1.626	3.3	19.485	27.1	−17.859
2011	60.13	93.91	−33.78	2.101	3.5	225.122	26.8	−23.021
2012	62.5	111.44	−48.94	2.062	3.3	28.542	25.6	−26.48
2013	67.1	117.91	−50.81	2.386	3.6	32.948	27.9	−30.562

Source Calculated by the author based on the data of agricultural products trade of Department of Foreign Trade, Ministry of Commerce of the PRC, http://wms.mofcom.gov.cn/article/ztxx/ncpmy/

In its export list to Latin America, China sees 15 countries or regions holding over 1% (1% included) of its export proportion. Brazil and Mexico are the two biggest destinations for Chinese exports, which combined contribute for 61.4% of the total volume. In terms of Chinese importers on the continent, only 5 countries possess over 1% of the total volume (see Table 7.4).

According to the statistics of ECLAC, exports from Latin America to China mainly come from a small number of countries and have focused on limited products in recent years. As shown in Table 7.5, the total value of Argentina's exported soybean and soybean oil account for 78.5% of the country's total agricultural products exported to China; while for Brazil, its exported soybean and soybean oil account for 30%. For Peru, its exported fishmeal makes up 33%, and for Cuba, its sugarcane account for as high as 85.5%.

China mainly imports Latin American land-intensive products such as soybean, and exports labor-intensive products like garlic. In 2013, China exported USD 1.78 billion worth of garlic to overseas markets, especially Indonesia, the USA and Brazil, the biggest importers of Chinese garlic accounting for 19.5, 12.3 and 8.5% respectively. In the same year, China imported USD 37.97 billion of soybean mainly from the three biggest suppliers, Brazil, USA and Argentina, which accounted for 50.4%

Table 7.4 Distribution of agricultural trade among China and Latin American countries (Regions), 2013

Country (region)	China's agricultural exports to Latin America		Country (Region)	China's agricultural imports from Latin America	
	Amount (million USD)	Proportion (%)		Amount (million USD)	Proportion (%)
Argentina	37.215	1.6	Argentina	4990.54	15.1
Brazil	857.034	35.9	Brazil	22,501.14	68.3
Chile	189.678	7.9	Chile	1410.806	4.3
Colombia	110.353	4.6	Cuba	229.791	0.7
Costa Rica	45.043	1.9	Ecuador	167.197	0.5
Cuba	50.492	2.1	Guatemala	157.097	0.5
Dominica	49.363	2.1	Mexico	238.469	0.7
Ecuador	31.744	1.3	Peru	1137.904	3.5
Haiti	24.542	1.0	Uruguay	2041.27	6.2
Mexico	607.956	25.5	Others	74.179	0.2
Panama	51.401	2.2	Latin America	32,948.39	100.0
Peru	58.635	2.5			
Puerto Rico	45.678	1.9			
Uruguay	30.157	1.3			
Venezuela	85.347	3.6			
Others	111.812	4.7			
Latin America	2386.45	100.0			

Source Calculated by the author based on the data of agricultural products trade of Department of Foreign Trade, Ministry of Commerce of the PRC. *Monthly statistics Report on China's Import and Export: Agricultural Products*, December, 2013, http://wms.mofcom.gov.cn/article/ztxx/ncpmy/

(USD 19.12 billion), 35% (USD 13.28 billion) and 9.6% (USD 3.66 billion) respectively. China imported USD 1.28 billion of soybean oil, of which Argentina USD 690 million and Brazil USD 460 million were the two largest exporters, accounting for 89.8% in total. Also in 2013, China imported USD 1.67 billion of fishmeal which is used as feed for farm animals, of which Chile and Peru were the largest suppliers, accounting for 60.5%. China also imported USD 2.07 billion of sugar, whose three biggest exporters—Brazil, Cuba and Guatemala—made up 87%.[4]

[4]Calculated by the author based on the data of agricultural products trade of Department of Foreign Trade, Ministry of Commerce of the PRC. http://wms.mofcom.gov.cn/article/zt_ncp/table/2013_12.pdf.

Table 7.5 Main products of Latin American countries exported to China

Country	Coding products according to 2–4 of SITC (accounting for 5%)	Number of product	Proportion in total export volume (%)
Argentina	Soybean (47.6%), soybean oil (30.9%), petroleum (5.6%)	3	84.10
Bolivia	Tin concentrate (88.4%)	1	88.4
Brazil	Iron concentrate (26.6%), soybean (24%), iron ore (6.4%), soybean oil (6.2%)	3	56.8
Chile	Copper (54.2%), copper concentrate (24%), wood pulp (9.3%)	3	85.2
Peru	Fishmeal (32.9%), copper (26%), iron concentrate (9.8%), ferroalloy (7%), copper alloy (5.1%)	5	79.9
Costa Rica	Micro electronic component (92.4%)	1	92.4
Mexico	Electronic component (15.1%), microcircuit (15.3%), copper concentrate (6.2%), compressed-iron-core coil (5.8%), waste and scrap of other ferrous metals (5.4%)	5	47.8
Guatemala	Sugarcane (46.6%), waste and scrap of other ferrous metals (36.2%), refined sugar (6.5%)	3	89.3
Cuba	Sugarcane (85.5%), copper (13.5%)	2	99

Source Osvaldo Rosales, "*Trade and Investment relations between Latin America and China with special reference to agri-products*", Workshop on Agricultural Trade Linkages between Latin America and China, FAO, September 27–28, 2011, Rome

7.3 Status Quo of China's Investment in Latin America's Agricultural Sector

7.3.1 China's Investment in Latin American Agricultural Sector Is Questioned Despite of Its Low Proportion

Along with rapidly growing China-Latin America trade, China's direct investment in Latin America skyrocketed in 2010. However, 90% of China's investments have been made in gas, oil and mining industries, whereas investments in the agricultural sector have been relatively small.

Such imbalanced investment arouses concerns among governments, business and academic circles in Latin America. First, investment in natural resources exploitation will hamper local industrial development and technological upgrade, fostering "deindustrialization". Second, Chinese SOEs (state-owned enterprises) have been

the major players engaging in big deals for Latin American natural resources. That is why the Latin American side is worried that assets Chinese companies gained through trade will finally be controlled by the Chinese government. In their opinion, different from what the USA has done to Chinese companies, few Latin American countries set investment barriers for Chinese SOEs for the sake of national security. However, since the global food crisis during 2007 and 2008, there has been a tendency for Latin American countries to limit the purchase of local lands with foreign capital. Third, while doing business in Latin America, Chinese companies rarely pay attention to local environmental issues and assume CSR, hence causing repeated labor and environmental disputes. Fourth, China's investments in local agriculture are usually integrated in their own industrial value chain. Therefore, added value of investment left in Latin American countries has been reduced, which is disadvantageous to local poverty alleviation. In conclusion, while going global, Chinese companies should give full attention to the above-mentioned issues.

7.3.2 Influenced by Changed Policies, the "Access to the Local" Strategy of Chinese Companies Has Been Transferred from Direct Purchase of Land to the "Tenancy" Plan

In August 2010, the Brazilian government signed a decree prescribing a 5000 ha limit on the area of land that a single foreign individual or foreign company can purchase. According to the decree, all Brazilian companies which are controlled by foreigners or foreign companies shall declare to the local government the land they own in every quarter, and land controlled by foreigners or foreign companies must be equivalent to less than 25% of the total land area of the city or town where they do business. In 2011, the Brazilian government issued a new decree prohibiting foreigners, foreign companies and Brazilian companies held by foreign capital to purchase, merge and acquire Brazilian companies with land ownership. The new decree can be seen as an upgraded version of the purchase restriction policy. On December 22nd 2011, the National Congress of Argentina passed an act which also imposes restrictions on foreigners buying local land. According to the act, cultivated land purchasable by foreign institutions and individuals must be no larger than 15% of Argentina's total agricultural land area. Moreover, land to be purchased by foreign buyers of a single country must be equivalent to less than 30% of the total area allowed to be sold to foreigners. In addition, the act stipulates that each and every foreign legal person or natural person can only buy 1000 ha of land at most in Argentina; land that possesses large amount of water resources are not allowed to be sold to foreigners; for foreigners, purchasing land will no longer be deemed as investment behavior. Due to the fact that countries like Brazil and Argentina have issued restrictions on land purchase, Chinese investors have already changed their strategy to replace direct investment in land.

7.3.3 *Investment in "Big Agriculture" Faces Three Types of Risk*

Agriculture in a narrow sense only refers to crop planting, which involves land policy issues, while in a broad sense, agriculture means investment in the whole industrial chain, covering planting, storage, processing, transport and sale. It requires corresponding policies and measures targeting each step. For investment in the industrial chain of "big agriculture", Chinese companies normally have four types of investment. The first is investment in projects of logistics infrastructure for agricultural products. The second is investment in agricultural development through credit and supply contract, in which the Chinese side offers credit funds in return for Latin America's agricultural products. The third is to become a shareholder in local companies through mergers and acquisitions so as to obtain a share in profit from sale and export of agricultural products. The last is to engage in further processing of agricultural products through the establishment of joint ventures. Currently, Chinese companies are confronted with three major types of risk while investing in Latin America's agricultural sector.

First, the risk posed by changed policies. As mentioned above, Latin American countries have strengthened their restrictions on land purchase by foreign capital since the global food crisis of 2007 and 2008. Thus Chinese investors have no choice but to change investment strategies.

Second, Chinese companies are faced with labor issues, which can be summarized as follows. Latin American workers don't observe contracts strictly, and often ask for wage increase and benefits improvement based on almost any reason. Labor unions in Latin American have always been strong and are used to intervene in labor disputes. They usually support workers' appeal for wage increase and benefits improvement unconditionally, making ordinary labor disputes complicated. Besides, labor laws as well as the rules and regulations of related systems are far too complicated and cumbersome in Latin America. Therefore, it is very hard for Chinese companies to thoroughly comprehend and apply all laws and rules in the short term. Once entering judicial procedures, a labor dispute case can often be delayed for 2–3 years. What is even worse is that all local parties, such as judicial departments, labors' advisers, attorneys and labor unions, take sides with laborers. What's more, labor market in Latin America has long been divided into two parts, formal employment and informal employment. Due to the government's insufficient investment in vocational training schemes, local laborers usually lack professional competence.

Lastly, Chinese companies are faced with environmental risks. In Latin America, people have quite strong awareness in terms of environmental protection, and active NGOs exert enormous social influence. For instance, in spite of having been approved by governments or national legislative institutions, investment projects that aren't accepted by environmental protection NGOs usually face high risks upon implementation. In addition, should a project launch in settlements of local Indians,

it may face the opposition of locals, or its investors may not be welcome due to the unique culture or tradition of native Americans. All of these mean unpredictable risks for Chinese investors.

7.4 Conclusion and Lessons

Today, the underlying influence of the international financial crisis has still not been eliminated, bringing many uncertain factors when it comes to world economic recovery. The development of the world's agricultural industry is not going so smoothly, and is accompanied by a severe situation in the global food security. Against this background, in order to improve economic development and sustainable development in China and Latin America and even in the whole world, it is of great significance to further enhance agricultural exchange and cooperation between China and Latin America, so as to realize win-win results and simultaneously improve both countries' ability in agricultural production and protecting food security.

In the perspective of trade, although trade volume between China and Latin America has been on the rise, their trade structure takes on an imbalanced relationship. This imbalance is mainly manifests in 3 aspects. First, China's import from Latin America is 12–15 times larger than its export to the continent, a major cause for China's comprehensive deficit in global agricultural products trade. Moreover, imported agricultural products from Latin America account for a very large proportion of China's total agricultural imports. By contrast, however, agricultural exports from China to Latin America only account for a minor proportion among China's total agricultural imports. Second, China imports from only a few Latin American countries while exporting to a larger number of Latin American countries, which means that China should further enhance the diversification of its import nations and products. Third, a distinct feature is that most of China's imported products are land-intensive while most exported products are labor-intensive. This is a result of both parties' comparative advantages, but with the transformation of the economy, this static comparative advantage should develop toward dynamic advantages and competitive advantages.

Compared with investment in energy and mineral industries, China will gain a larger marginal utility by way of its investment in the Latin American agriculture industry. In China and Latin America, agriculture is a primary industry with both economic and social effects, which are more obvious in the fight against the global food crisis and poverty alleviation. In the future, on the basis of their current cooperation, China and Latin America should work together to strengthen regional food security and realize millennial development goals.

Since Latin American countries have different national conditions, resource endowments and investment risks, and Chinese corporations vary in terms of business abilities, China should carry out agricultural investment in Latin America progressively and with clearer focuses. First, at the beginning, China can participate in agricultural infrastructure construction in Latin American countries. The main objective is to help Latin American countries with underdeveloped infrastructure to undertake

integrated infrastructure projects. Second, agricultural product storage and logistics systems can be established to control agricultural marketing networks. The focus here is on richly endowed agricultural countries in Latin America. Third, China should encourage more corporations to invest in the Latin American agriculture industry. Industrial cooperation mechanisms should also be built in order to promote industrial fusion and integration. Fourth, with enhanced cooperation between China and Latin America, China can build up agricultural technological research centers, agricultural processing demonstration parks and agricultural investment and development zones, in order to promote investment into the whole agriculture chain.

China and Latin American countries have built up excellent partnership in terms of agricultural exchange. As of 2013, China had signed bilateral agricultural cooperation agreements with 16 Latin American countries and established fixed bilateral cooperation mechanism with 12 countries. China has been focusing on the sharing of agricultural information and exchange of technicians and experts, and carrying out vigorous cooperation, actively promoting agricultural production and facilitating agricultural trade. It has been proven that an enhanced partnership serves both parties' fundamental benefits and drives forward both parties' economic development. Therefore, China and Latin America should preserve this kind of momentum.

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Chapter 8
Competition for Export Share in American Market Between China and Major Latin American Countries: 2001–2010

Wang Fei

8.1 Introduction

The economy of China and that of Latin America and the Caribbean region[1] have achieved rapid development since the beginning of the 21st century. China's economy grew at an average annual rate of 9%, and its total economy surpassed that of Japan in 2010 to become the second largest economy in the world. After Latin America climbed out of Argentina's crisis in 2003, it has maintained 6 consecutive years of rapid economic growth with stable macro-economy, as well as steadily declining unemployment rates and inflation rates until the outbreak of the global financial crisis in 2008. In recent years, the "Chinese factor" has received widespread attention in terms of the economic development of Latin America. As a result of China's strong demand for imports, prices for primary products and exports volume have risen, which helps Latin American countries to achieve economic growth and quickly emerge from the global financial crisis. However, concerns are growing about the competition from China, especially about the fact that China's exports have crowed out Latin America in the American market.

China and Latin America are the major exporters of the world. In 2010, China's total exports reached $1578.3 billion, 87 times what they were 1980, with an average annual growth of 17.2% and accounting for 10.46% of the world's total exports, thus making it the world's largest exporter.[2] China not only exports a large number of labor-intensive products and low tech products, but also more and more knowledge intensive and high-tech products, covering almost all fields of industry, from

[1] Hereafter refer to as "Latin America".

[2] Data of 1980 is from Ministry of Commerce of the People's Republic of China: China Commerce Yearbook 2004, Beijing, 2005. Data of 2010 is from the 2011 report of UNCOMETRADE (UNCOMETRADE, http://comtrade.un.org).

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textiles to products with high added values. Latin America is the world's major commodity exporting area since its independence. Latin America received 12.4% of the world's total exports in 1950. Since 1980, Latin American countries have gradually terminated its import substitution strategy and began to reform the structure of export trade. Consequently, the total export volume significantly increased. Since the beginning of 21st century, world economic growth has stabilized. China's strong demand for imported raw materials began to drive up Latin America's exports. Trade export growth in the Latin American region in the first 10 years of the 21st century was 7.4%. Due to the huge differences between countries in Latin America, the average growth rate cannot reflect the specific performance of individual countries. Specifically on the national and regional level, the South Common Market and the Andean Community countries performed significantly better than other countries in the region with an export average annual growth rate remaining over 10%.

As a rapidly emerging market, China has seen a rapid rise of its proportion in the world's total exports, making Latin America, a region depending heavily on exports consider China as a big rival. On one hand, the United States has been the main export destination of China since the turn of the 21st century. China is very dependent on its exports to the United States. On the other hand, the United States has also been a main export destination for Latin America since the end of World War II. Therefore, China and Latin America's export competition in the U.S. market is valued by the academic circles and in recent years, more and more discussions support that the rise of China will make it compete ever fiercely with Latin America in terms of exports. Some people believe that China has a significant crowding-out effect on Latin America's market share in the US market.

China's economy is largely driven by its strong export growth. The United States is China's largest trading partner; the expansion of China's market share in the United States is bound to be accompanied by loss of market shares in other countries and regions. 70% of total Latin American exports go to the United States, so the study of Latin American trade competition in the U.S. market is necessary. In the previous studies, foreign scholars used the extended CMS method, the gravity model and the econometric model of substitution elasticity. Almost all literature holds that China's export growth has a negative impact on Latin American exports in third-party markets. The mainstream view is that China, to a certain extent, has crowded out the export share of Latin American countries. Only Lederman et al. (2006) pointed out that China did not occupy the Latin American share in third-party markets. Lidoy (2007) studied 34 economies on their competition with China (including 15 Latin American countries) in 1998–2004 using a database containing 620 different kinds of goods. He found that there was no trade competition between China and Latin America in the American market as China is a net importer of raw materials and an exporter of manufactured products; therefore, Latin American countries, which mainly export primary products, face little competition from China. Hanson and Robertson studied the situation of four countries, namely Mexico, Brazil, Argentina and Chile. While explaining the reasons for declining market Latin American export shares in the world, competition from China is only considered as a secondary factor.

8.2 Comparison Between China and Latin American Countries on Exports

Since China's accession to the WTO in 2001, it has quickly enhanced its import and export trade by making full use of globalization and of the rules of the WTO. China has made particularly great achievements in the production of low-tech products. As Latin America's exports are pretty large in size, we will first compare changes in total trade volume and respective proportion in the world's total trade volume. China's total exports exceeded that of Latin America in 2002, and the difference between the two regions has been growing since then. In 2003 China's total export volume was 60 billion U.S. dollars higher than that of Latin America, and in 2010 this figure rose to over 700 billion, more than a tenfold increase. The rapid increase in China's trade exports means that they take a larger proportion of the world's total export; this proportion had exceeded 10% in 2010. Although the trade volume of Latin America also increased during the same period, the increase in the proportion was very small in comparison to that of China. Given the proportion of respective export volumes in the world's total for the two regions, Latin America is relatively stable, close to 6%. It is safe to say that export trade in Latin America develops simultaneously with world export trade, and no significant increase or decrease is found.

In terms of the structure of export commodities, China's exports are concentrated in manufactured goods. China's top 10 exports products from 2008 to 2010 were all SITC commodities under code 7, except for liquid crystal devices. According to the data in Table 8.1, we can see that the most important feature of China's export commodities structure is the sharp decline in the proportion of primary products (from 50.3% in 1980 to 5.2% in 2010). The proportion of manufactured goods increased significantly (from 49.7% in 1980 to 94.8% in 2010). It can be said that China has basically achieved the optimization of its export structure in the last 30 years of reform and opening up.

We can see in Table 8.2 among Latin America's top 10 exported products; there are 6 primary products and crude oil accounting for the largest proportion, which is basically maintaining itself at over 10%. In the first decade of the 21st century, Latin America was dependent on exports of primary products. The optimization and upgrading of the export structure was not achieved yet.

China and Latin America have a variety of export destination. The EU, the United States, Japan and ASEAN have become the main export destinations of China. The proportion of Latin American exports to the United States is declining, and China has become one of its new export destinations. However, this situation is not balanced in the whole Latin American region. Regional powers are far more successful than Central American and Caribbean countries in terms of trade diversification. Brazil's exports to developing countries have exceeded its total exports to developed countries (EU, USA and Japan) since 2008, and its export growth in non-traditional markets (Africa, the Middle East and Asia) has surpassed that in traditional markets. Mexico's exports are concentrated in the United States and Canada, of which exports to the

Table 8.1 Structure of China's export commodities during the period of 1980–2010 (USD 100 million)

	1980		1990		2000		2010	
	Volume	%	Volume	%	Volume	%	Volume	%
Export volume	181.2	100	620.9	100	2492.1	100	15,777.5	100
Primary products	91.1	50.3	158.9	25.6	254.6	10.2	817.2	5.2
Industrial manufactured goods	90.1	49.7	461.8	74.4	2237.5	89.8	14,962.2	94.8
Mechanical and Electrical Products*	13.9	7.7	110.9	17.9	1053.1	42.3	9334.3	59.5
High-tech Products*	–	–	–	–	370.4	14.9	4924.1	31.2

Notes Mechanical and electrical products and high-tech products contain some overlapping products
Data source China Customs Statistics, http://www.customs.gov.cn/publish/portal0

former account for more than 80% of its total exports. However this value has been reducing and dropped to 79.97% in 2010.

We see that the United States is the main common export destination for China and Latin America. As the United States is the largest import country in the world and is the most important trading partner of Latin American and Caribbean countries, it is necessary to carry out quantitative analysis on export competition between China and Latin America in the United States market.

8.3 Export Competitiveness Analysis of China and Latin America

This part uses the two indicators, market share and trade intensity, to analyze the general export competition between China and the major countries in Latin America. These two indicators are measured in terms of the trade volume of the countries from different angles. Although it cannot be specifically refined to every commodity, a qualitative analysis to determine the existence of competition is possible.

8.3.1 Market Share

Market Share (MS) refers to the percentage a specific country's export volume to the US against the total import volume of the US during a certain period of time. Market share index reflects the general level of competitiveness of the target export country.

Table 8.2 Proportion of Latin American Exports Products (%)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crude oil	10	12.1	12.9	11.9	14.5	15.7	9.3	10.6	8.7	10
Bus	5.6	5	4.2	3.4	3.3	3.6	3.9	3.8	3.5	4.1
Iron ore	–	–	–	–	–	–	–	2.1	2.2	4
Refined copper	1.5	–	–	2.1	2.2	3	3.4	3	2.8	3.4
Television broadcasting receiver	1.9	2	1.8	1.7	1.9	2.5	3.2	2.9	3	2.7
Ore & concentrate copper	–	–	–	–	1.6	2.4	2.9	2.3	2.1	2.6
Soybean	–	–	1.8	1.7	1.5	–	1.7	2.2	2.4	2.4
Telephone & telegraph equipment	–	–	–	–	–	–	1.8	2.2	2.7	2.4
Oil products	3.5	2.1	2.3	3.8	4.7	4.7	2.8	4.3	3.1	2
Components of motor Vehicles	1.7	2	1.9	1.9	1.8	1.8	2.3	–	–	1.8
Total	24.2	23.2	24.9	26.5	31.5	33.7	31.3	33.4	30.5	35.4

Data source ECLAC,*Statistic Yearbook for Latin America and Caribbean 2011*, Santiago, Chile, 2011

$$MS_r^t = \frac{\sum_i \mathrm{Im}\, porst_{ri}^t}{\sum_i \sum_c \mathrm{Im}\, porst_{Ci}^t} \quad (1)$$

t represents a period of time, usually a year; i represents the type of goods, r represents the target country, c stands for all the countries that export to the United States market, $r \in c$. In Formula (1), the molecular represents all the exports from the target country to the United States in period t and the denominator represents all the total goods the United States imports during the period t.

Clearly, the increase in market share represents an increase in export competitiveness. America is the world's largest importer. According to the American National Bureau of Statistics, the U.S. imports of goods amounted to $536.53 billion in 1992. This figure reached $1230.57 billion in 2000. In 2011 the annual import volume of the United States was $2235.28 billion.[3] Looking back at the past 20 years, for almost every decade, the United States of America doubled its imports. How to make good use of the United States' market has become a strategic theme for every country.

The degree of exports from China and Latin America's seven largest countries to the United States each year is different. China and Mexico rank among the top; Brazil, Columbia and Venezuela are in the middle, and the other countries rank at the bottom. Thus we can take a look at the shares of these countries from the classification's point of view.

We first look at the competition between China and Mexico. As Mexico is a member of the North American Free Trade Area, most of its exports go to the United States (80%). We can say that the United States is the most important trading partner of Mexico. According to Fig. 8.1, the share China accounted for in U.S. imports exceeded that of Mexico in 2003. The gap between the two countries has been widening since then. In 2000 the United States had 6.9% of its total imports in provenance from China and 9.38% from Mexico; by 2011, China's share rose to 15%, but Mexico's still remained at the same level. Over these 10 years, Mexico's exports accounted for a relatively stable market share in the United States, while China's share increased year by year. We do not see China in the U.S. market crowding out Mexico.

Now let's look at other countries. As these countries are more diversified than Mexico, the amount of exports to the United States accounts for a smaller share in the US. In the 10 years from 2000 to 2011, although there were some rises and falls, they occurred a very small range. Except for Argentina whose market share in the US in 2011 was a little less than what it was in 2000, the rest of the country achieved a slight increase in terms of market shares (Fig. 8.2). So we can come to the same conclusion as in the Mexican case: that the increase in the market share of China in the United States is not a threat to major Latin American countries, as seen from the total amount of trade.

[3] American National Bureau of Statistics, http://www.census.gov/foreign-trade/Press-Release/current_press_release/.

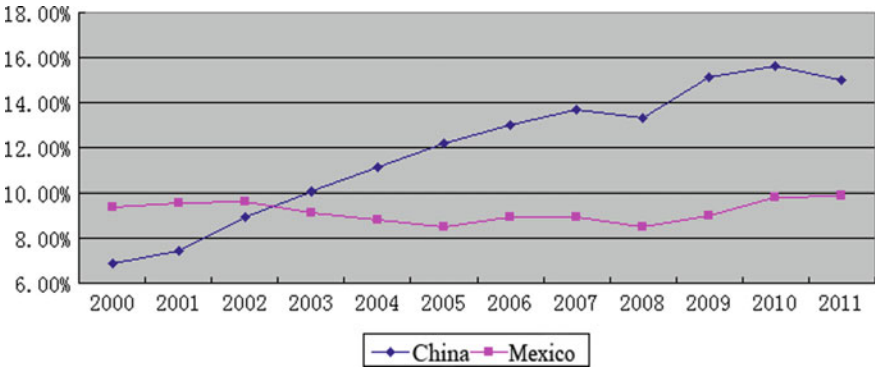

Fig. 8.1 Shares China and Mexico r in the US imports. *Data source* American National Bureau of Statistics, http://www.census.gov

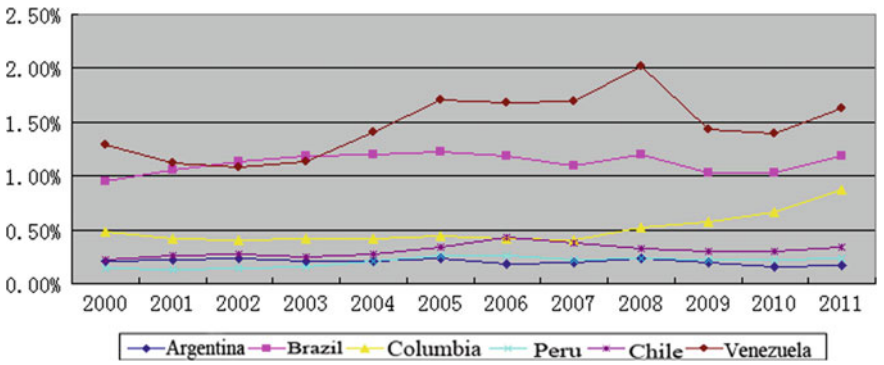

Fig. 8.2 Shares other Latin American countries in the US imports. *Data source* American National Bureau of Statistics, http://www.census.gov

8.3.2 Trade Intensity

The market share index can reflect the export performance of a country compared to other countries exporting to the United States. Trade Intensity (TI) measures whether the export shares of an exporter to the US market has comparatively reached the expected level This index describes the competitiveness of an exporter in a relative sense, that is, whether a country's competitiveness in a certain export market has reached an average level in terms of the global market. Trade intensity reflects how closely the exports of a country are linked to the US market in comparison to the world market, or in other words, how open the market of a country is to the US market. The formula is as follows:

$$TI_{ij} = \frac{X_{ij}/X_{iw}}{M_{jw}/M_{ww}} \tag{2}$$

X represents export, M stands for import, I represents the export country, j stands for the USA. X_{ij} stands for country i's export volume to the US. X_{iw} represents country i's export volume to the world market, M_{jw} stands for the import volume of the US, M_{ww} stands for the total import volume of the world. If the result is greater than 1, it indicates that the exports of the exporter to the United States are greater than its expected share based on its share in the world trade, or that the development of the country in the U.S. market is higher than its average level of development in the global market.

Table 8.4 reflects the trade intensity of China and seven major Latin American powers in the US market during the period of 2002–2010. The export intensity values of Mexico, Venezuela, Columbia, China, Peru and Brazil were more than 1 (in recent years, the export intensity of the latter two countries have declined: Peru dropped slightly to below 1 and Brazil was less than 1 for 4 consecutive years from 2007), showing that the shares of these countries in the US market have exceeded the expected level of their respective shares in the world's export markets. In other words, the development of these countries in the U.S. market is very significant. Among them, Mexico, Venezuela and Columbia have made full use of their geographical advantages, and thus their trade intensities are above that of China. In addition, the trade intensities of Chile and Argentina's exports to the United States are relatively low. Trade intensities of Peru and Brazil in recent years have dropped to below 1. So from the point of view of trade intensity, the seven largest countries in Latin America are divided into two groups in accordance with their geographical positions. These two groups show different intensities of trade in terms of exports to the United States while China has played the role of a dividing line.

By comparing the absolute indexes, we get a general idea of the exports intensity of these countries to the United States. Changes in the intensity of trade each year should also be examined. Figure 8.3 shows the evolution of trade intensity for various countries in recent years. We can clearly see that Mexico, Venezuela and Columbia were the top 3 and that their trade intensity values remained stable. There were some increases in value since 2002, among which the value of Mexico was the biggest and the gaps between it and the other countries were widening. In contrast to these three countries, the trade intensity of China, Brazil, Peru, Chile and Argentina in American market had been weakening. In 2010, except for China, the values of trade intensity of the other four Latin American countries were reduced to below 1. The trade intensity index of China's exports to the United States fell from 1.79 in 2002 to 1.49 in 2010. Chile and Argentina's trade intensities were below 1, indicating that the two countries do not consider the United States as their most important export market. From an historical perspective, the export areas of the two countries also prove diversifying.

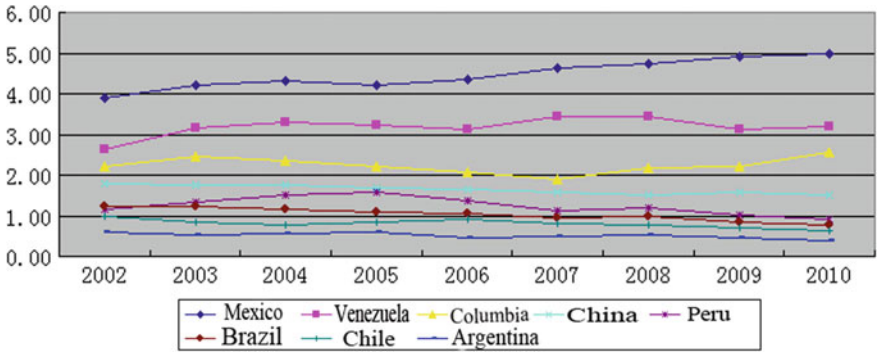

Fig. 8.3 Changes in trade intensities of China and seven major Latin American countries (2002–2010). *Data sources* Calculated and plotted according to the relevant data in the 2011 Report of the United Nations Trade Commodity Statistics Database (http://comtrade.un.org) and National Bureau of Statistics of the United States of America (http://www.census.gov/)

8.4 An Empirical Study on China's Export to the United States Crowding Out Latin America in the US Market

After examining the degree of competition between China and major Latin American countries in terms of their total amount of trade exports, it is necessary to make a quantitative analysis on the competition between China and Latin American countries in terms of export market share at the commodity level. After the industrial adjustments made during China's reform and opening up, exports of primary products fell, while Latin America is still dependent on these exports of primary products. Recently, re-industrialization was re-proposed by many Latin American countries. Therefore, more manufactured goods will be exported by Latin America as it endeavors to upgrade its export and restructure its industries. This part mainly focuses on how many market shares for manufactured goods have been taken by China.

8.4.1 The Theoretical Basis of the CMS Model

The Constant Market Share Model (CMS) was first applied in the analysis of international trade by Tyson in 1951. In recent decades, it has become an effective tool to measure the competitiveness of a country's export. In the analysis framework of this model, changes in a country's export are divided into four factors: the international total export growth factor, the market factor, the products factor and the competitiveness factor. The CMS model assumes that if a country's competitiveness remains unchanged, the country's share in the target market should remain constant. The

difference between export growth calculated by the CMS method and actual growth can be attributed to the influence of competitiveness. In the four factors of changes, the first three represent the constant export share a country maintains in a market; collectively they are referred to as the structural level. The last factor gives rise to the change in exports share, which is called the competitiveness level.[4] The price factor can be used to describe competitiveness, which means that the changes in the export shares in the target country market of different countries are due to the differences in prices; that is to say, demand is a function of price.

Consequently, the change of the relationship between the export prices and the export market share is the theoretical basis of this model. Assume that there are two countries that export to one market at the same time, and they both export the same product; the export demand of the export countries competing with each other in the third party market can be expressed as[5]:

$$\frac{q_1}{q_2} = f\left(\frac{p_1}{p_2}\right) \tag{3}$$

q_1 stands for the export volume of country 1, p_1 stands for the export price of country 1. For the same reason, the price and export volume of country 2 take the same forms. Thus this function shows how the products of the two countries can be alternative to each other. Trade competition is in essence price competition. Of course, this price reflects the competitiveness of a country's exports, including endowments, technology, transportation costs and other elements. We also need to further modify the formula.

$$\frac{p_1 q_1}{p_2 q_2} = \frac{p_1}{p_2} \times f\left(\frac{p_1}{p_2}\right) \tag{4}$$

$$\Rightarrow \frac{p_1 q_1}{p_1 q_1 + p_2 q_2} = \left(1 + \frac{p_2 q_2}{p_1 q_1}\right)^{-1} = \left\{1 + \left[\frac{p_1}{p_2} \times f(\frac{p_1}{p_2})\right]^{-1}\right\}^{-1} = g\left(\frac{p_1}{p_2}\right) \tag{5}$$

$p_1 q_1/(p_1 q_1 + p_2 q_2)$ is the exports share of country 1 in the third market and $g(p_1/p_2)$ is a function that takes the export price ratio between the two countries as the independent variable. So we can take the exports share of country 1 in the third party market as a function of the relative price of the two countries. This means that unless the relative commodity price changes between the two countries, otherwise the exports share of country 1 in the third party market remains unchanged.

[4]Merkies, A. & Meer T, "A Theoretical Foundation for Constant Market Share Analysis", *Empec 1988*, Vol. 13 pp. 65–88.

[5]Xiaodan, S. (2007). Research on the dynamic structure and growth of international trade of agricultural products, Beijing: Chinese Academy of Agricultural Sciences.

8.4.2 Improvement of the Model

The improved Constant Market Share model is used to measure whether a country is crowded out by another country through trade competition in a third country. After decades of development, there has been a very complete and mature model internationally. This paper uses the Constant Market Share model proposed by Batista in 2008.[6] Compared with the traditional model, this model divides the changes of one country's total share of exports in another country in a certain period of time into two parts: competition effect and product composition effect.

$$\Delta K_H = \Sigma X_{Hi}^{t} \times \Delta m_i + \Sigma M_i^{t+1} \times \Delta K_{Hi} \tag{6}$$

K_H	represents the share country H accounts for in the total amount of exports of the US
X_H	stands for the trade volume country H exports to the US
m_i	stands for the share commodity i accounts for in total imports volume of the US
M_i	stands for the trade volume of commodity i the US imports
t and $t+1$	stand for the year.

In Formula (6), the first part is the effect of commodity composition, and the second part represents the competition effect.

If there are only two exporters competing in the third country market, then the increase in the share of one country's exports is bound to be at the expense of another country's export share. In reality, trade competition in the market of the United States exists among many countries, thus some countries will increase their market shares with enhanced export competitiveness while other countries will lose export shares because of weakened export competitiveness. It is necessary to further analyze the market share loss of a country to see which country one country is crowded out by.

Batista believed that the original model does not take into account the export growth rate of the country's exports in the third party market and therefore he improved the model. He put forward a new method taking the increase of the export growth rate of the two countries into the composition of the competition effect. In other words, if one country's exports to the United States increase slower than another country, then the loss of the country's share of exports could be the increase of the shares of another country. Market share of commodity i of country (H) occupied by China (C) can be expressed as:

$$\Delta K_{HCi} = \Delta K_{Hi} \times K_{Ci}^{t} - \Delta K_{Ci} \times K_{Hi}^{t} \tag{7}$$

[6]Chami Batista, "Competition between Brazil and other Exporting Countries in the US Import Market: A New Extension of Constant-Market-Shares Analysis", *Applied Economics,* Vol. 40, No. 19, pp. 2477–78, 2008.

Add the above formula and we can get the market share lost to China in all the categorizes:

$$\Sigma \Delta K_{HCi} = \Sigma \Delta K_{Hi} \times K_{Ci}^{t} - \Sigma \Delta K_{Ci} \times K_{Hi}^{t} \tag{8}$$

Formula (7) can be rewritten into:

$$\Delta K_{HCi} = \left(\frac{\Delta K_{Hi}}{K_{Hi}^{t}} - \frac{\Delta K_{Ci}}{K_{Ci}^{t}} \right) \times K_{Hi}^{t} \times K_{Ci}^{t} \tag{9}$$

Because $x_{Hi}^{t} = \frac{X_{Hi}^{t}}{M_{H}^{t}}$, and $K_{Hi}^{t} = \frac{X_{Hi}^{t}}{M_{i}^{t}} = x_{Hi}^{t} \times \frac{M_{H}^{t}}{M_{i}^{t}}$
Bring this result into the Formula (9), we can get:

$$\Delta K_{HCi} = \left(\frac{\Delta K_{Hi}}{K_{Hi}^{t}} - \frac{\Delta K_{Ci}}{K_{Ci}^{t}} \right) \times x_{Hi}^{t} \times \frac{M_{H}^{t}}{M_{i}^{t}} \times K_{Ci}^{t} \tag{10}$$

And then it can be rewritten into:

$$\frac{M_{i}^{t}}{M_{H}^{t}} \times \Delta K_{HCi} = \left(\frac{\Delta K_{Hi}}{K_{Hi}^{t}} - \frac{\Delta K_{Ci}}{K_{Ci}^{t}} \right) \times x_{Hi}^{t} \times K_{Ci}^{t} \tag{11}$$

Finally add all the goods:

$$\frac{1}{M_{H}^{t}} \times \Sigma M^{t} \times \Delta K_{HCi} = \Sigma \left(\frac{\Delta K_{Hi}}{K_{Hi}^{t}} - \frac{\Delta K_{Ci}}{K_{Ci}^{t}} \right) \times x_{Hi}^{t} \times K_{Ci}^{t} \tag{12}$$

8.4.3 Empirical Analysis

8.4.3.1 Selection of Target Countries

There are 33 countries in Latin America and their specialization in terms of exports and regional structure is not the same. In general Latin America can be divided into three regions:

(1) South American countries: the main representatives are Brazil, Argentina, and Chile. The level of economic development of these countries is higher, and the structure of commodity exports and regional structure is more diversified. Their total trade volume accounts for more than half of Latin America.
(2) Central American region: mainly refers to the Central American countries and their representatives, Costa Rica and Nicaragua. These countries are rich in natural resources and much dependent on the United States in terms of economic development. They have a certain industrial production capacity and the export of manufactured goods is taking shape.

(3) The Caribbean region. The region's economic strength is very small. Due to the region's close distance from the United States, industrial products are mainly exported to the United States. Because of its small trade size in comparison to the first two groups, this group is not the focus of this study.

According to the actual situation of the sub region of Latin America, along with the trade relations and cooperation with China, we selected the seven largest countries in the regions as representatives. They are: Brazil, Argentina, Peru, Chile, Colombia, Mexico and Venezuela. These countries contain major South American and Central American countries, including members of the North American Free Trade area. We also need to select two Central American countries to ensure that the data is comprehensive. Costa Rica is an important trade partner of China. Among the global 10 countries and regions that have set up free trade areas with China, Costa Rica is the third signatory in Latin America after Chile and Peru. Many countries in Latin America have also maintained "diplomatic relations" with Taiwan, so we choose Nicaragua that has not yet established diplomatic ties with China as the representative of such countries.

8.4.3.2 Data Selection

Based on the statistics of the United Nations Trade Commodity (Comtrade) and according to the United Nations SITC third edition of classification standards, this paper focuses on the competition on the manufactured product (5–8 SITC) market between China and Latin America. Calculated by the two bitcodes of SITC, the data for the year 2001, the year 2007 and the year 2010 were selected. China became a member of the World Trade Organization in December 2001, so that year's data represents the situation before China's deepest opening up in trade. The data for the year 2007 represents a situation prior to the global financial crisis and the data for the year 2010 is the latest available data. Of course, we know that imports from Latin American countries generally declined because of the depression in America's own economy after the global financial crisis, but the trade volumes of Columbia and Costa Rica to the United States have increased. This paper does not pay attention to the situation during the period of 2008–2009, since Latin America's exports have been restored after the financial crisis. Instead, the paper focuses on the situation in 2010 and then compares it with that of the year 2007 to see the changes before and after the crisis.

In terms of data categories, according to the traditional H-O trade theory, a country should focus on producing the products with relative advantages, and make full use of the benefits of scale economy to increase general benefits. Latin America is rich in natural resources and specialized in the production of resource intensive products. The amount of exports is large. China's initial trade openness is also resource intensive, but because of China's special national conditions, the strength of trade is driven by the export of labor-intensive industrial products. In recent years, the technical content of China's exported products has strengthened. In 2010 exports of

primary products accounted for only 5.2% of total exports. Other scholars have suggested that an effective way for Latin America to emerge from the current financial crisis is to take the road of technological innovation, to comprehensively improve the level of domestic productivity and optimize the export structure, so this paper only compares the competition on manufactured goods between China and Latin American countries in the United States market.

8.4.3.3 Empirical Results

The left side of Formula (12) states the total exports share loss of country H in the United States market caused by China, the part in brackets on the right states the changes of the exports share of China and country H in the US market during the period of t. When China's market share increases and the growth rate of China's market share is more than that of country H, the value of this part is negative.

China's exports, especially manufactured goods, to the United States have rapidly increased since its accession to the WTO in 2001, in terms of both total volume and proportion. Thanks to China's relatively cheap labor advantage and low price competition, the proportion of manufactured goods in the total exports to the United States is increasing. Table 8.3 shows the market share loss of manufactured goods of the representative countries in the United States market because of China calculated in accordance with the Formula (12).

Nicaragua took up some of China's market share in two periods from the perspective of mutual occupation of trade share, which means that the market share increase in exports of manufactured goods of Nicaragua in the US market came at the expense of a corresponding reduction in China's share. Columbia and Costa Rica were squeezed out by China during the first period, but after the global financial crisis, they succeeded in crowding out China. The values for the rest of the countries

Table 8.3 Market Shares Loss of Manufactured Goods of Latin American Countries in the US Market Because of China (%)

	2001–2007	2007–2010
Argentina	−5.40	−0.94
Brazil	−9.40	−6.42
Chile	−0.84	−1.90
Columbia	−1.80	0.43
Costa Rica	−11.33	21.06
Mexico	−11.53	−1.43
Nicaragua	4.17	0.82
Peru	−3.68	−4.32
Venezuela	−1.07	−0.22

Data source Calculated according to the 2011 Report of the United Nations Trade Commodity Statistics Database, http://comtrade.un.org

Table 8.4 Market Share of Manufactured Goods of Latin American Countries Crowed out by China in US Market under SITC code (%)

Code	2001–2007				2007–2010			
	SITC5	SITC 6	SITC 7	SITC 8	SITC 5	SITC 6	SITC 7	SITC 8
Argentina	−0.06	−2.24	−0.35	−2.76	−0.31	0.90	−0.59	−0.94
Brazil	−0.03	−1.18	−5.37	−2.81	−0.10	−1.76	−3.27	−1.29
Chile	−0.20	−0.06	−0.01	−0.57	−0.11	−1.54	−0.13	−0.13
Columbia	−0.02	−0.70	−0.16	−0.92	−0.03	0.03	0.02	0.41
Costa Rica	0.01	−0.20	−2.66	−8.48	−0.15	0.12	22.37	−1.29
Mexico	−0.03	−0.63	−7.68	−3.19	−0.03	−0.01	−1.20	−0.20
Nicaragua	0.00	−0.02	1.32	2.88	0.00	0.02	1.01	−0.21
Peru	−0.01	−2.01	−0.03	−1.62	0.00	−2.24	−0.03	−2.06
Venezuela	−0.09	−0.68	−0.21	−0.10	−0.08	−0.07	−0.06	−0.02

Data source Calculated according to the 2011 Report of the United Nations Trade Commodity Statistics Database, http://comtrade.un.org

are negative; that is, they were squeezed out of the market share by China in the two periods.

During the two periods, although Nicaragua outperformed China, the market share taken by Nicaragua from China declined. Both Costa Rica and Columbia were squeezed out by China during the period of 2001–2007 and more of Costa Rica's share (11.33%) was taken by China. After the global financial crisis, the two countries achieved increase in shares, especially Costa Rica, which crowded out China by a share of 21.06%. Except for Chile and Peru, the shares squeezed out of the rest of the countries have declined, of which Mexico was confronted with the largest decline (a decline of about 10%). Argentina and Venezuela during the period of 2007–2010 were hardly crowded out by China.

We have a general grasp of the overall picture of manufactured products. However, it is more important to make empirical study on the market shares of specific commodities. It helps to have a more in-depth understanding of Latin American countries in terms of which country takes a larger market share of which product. Table 8.4 shows the squeezed shares of major Latin American countries in the United States market by China based on a product-specific level.

First let's look at Nicaragua, which took the market share of China in terms of SITC 7 and 8 products before the global financial crisis. Nine out of the top ten export products of China belongs to the category of SITC 7, so we say that Nicaragua has brought about competition to China, although the competition is not fierce. After the financial crisis, Nicaragua only squeezed out China's share of SITC 7. Next let's look at Costa Rica. After the financial crisis, Costa Rica grabbed in total 21.06% of China's market share in the US market. However, when we take a look at specific commodities, we find that most of the market share for SITC 5 and 8 products were

still taken by China, although Costa Rica grabbed a staggering 22.37% of China's share in terms of SITC 7 products.

Countries in each of categories of goods having been squeezed out by China are Brazil, Chile, Mexico, Peru and Venezuela. Argentina and Columbia are not crowded out by China in some large category of individual goods. No matter in which period, the shares of the selected countries crowded out by China under SITC 5 can be ignored, that is, in this category China hardly squeezes out Latin American countries. The most prominent extrusion sector is SITC 7 (excluding Nicaragua), which also fully confirms the theory of comparative advantage, because China has a higher comparative advantage in this sector.

8.5 Conclusions

Through the calculation of China's market share crowding out Latin American countries in the United States market, we found that China doesn't occupy too much of the market share of Latin American countries. Especially in the aftermath of the global financial crisis, the market share taken by China from Latin American countries declined. It can be said that during the period from 2007 to 2010, Argentina, Colombia, Mexico, Costa Rica, Nicaragua and Venezuela were not affected by competition from China in terms of manufactured products. Different from previous research, Mexico is faced with little competition from China. In addition, Nicaragua, Costa Rica and Columbia have all crowded out China's share. Nicaragua has not established diplomatic relations with China; Costa Rica has built a FTA with China. The same results in the two countries are enough to represent the specific competition and cooperation between countries in Latin America and China.

Factors that affect the competitiveness of a country's exports include price and non-price factors. The price factor is comparative cost advantages. Specifically they are endowment, scale economy and transportation costs. Non-price factor include product quality, marketing strategy and government policy. When analyzing trade competition, we have to start from the theory of comparative advantages. The basis of international trade is the relative difference of production technology and the difference of relative costs. Each country should focus on producing and exporting its products with "comparative advantages" and importing the products with "comparative disadvantages".

First of all, it is worth to pay attention to endowment. Although there is a lack of resources in a country like Singapore, it has achieved the success of economic development through the re-export trade, but endowment is still the most important foundation of independent growth. China is rich in natural resources, but the per capita level is behind the world average, let alone in comparison with Latin American countries with rich resources. China has the largest population in the world, and has a labor force of 640 million. Based on this labor advantage, Chinese workers' wages are relatively low, so the products are able to participate in the competition in the world market with relatively low prices. While Latin American countries have very

powerful trade unions, coupled with the historical influence of the "elite" mode, the wage level is much higher than in China. It is clear that the competitive advantage of Chinese products in the market is supported by the comparative advantage of labor factors.

We then turn to productivity, that is, the level of technological development. Traditionally, the low wage levels in China reflect the low labor productivity of the Chinese manufactured goods sectors. Compared with the two major Latin American countries of Mexico and Brazil, China's labor productivity is much lower. However, China's growth rate is significantly faster than that of Latin American countries in terms of the changing trends in the level of productivity.[7] Following these trends, China will catch up with other countries in the near future in terms of the level of productivity of some products.

Finally we come to the economies of scale and the role of government. As the world's second largest economy, China's share of exports is also increasing. China has fully utilized the advantages of economies of scale, especially in the production of capital and technology intensive products. It can give full play to the role of the upstream and downstream production chain, save production costs and improve economic efficiency. The learning effect is realized under the background of "learning by doing", and the profits of R&D investment are directly reflected in the production of the product. The difference in total economic output has also played a different role in absorbing FDI for China and Latin America and FDI has a spillover effect on export trade. The government as a "visible hand" involved in running the macro economy is able to press the economic fluctuations and maintain the stability of economic growth. A good macroeconomic environment can ensure the competitiveness of the country's exports. The Chinese government has made full use of fiscal and monetary policies to reverse the course of economic trends and realize the "soft landing" of the macro economy in different periods. Measures designed to "ensure growth and promote employment" put in place after the global financial crisis have been effective in helping China maintain the competitiveness of its exports.

In Latin American countries, as a result of their own economic development strategy, their governments did not begin to tackle macroeconomic instability by deploying counter cyclical policies until the beginning of the 21st century. The international economic cycle also had an impact on Latin America, whose exports were badly hit after the global financial crisis. More recently trade protectionism has been making a comeback in the region, suggesting that a return to reliance on domestically manufactured goods may be a real possibility. Trade in Latin American countries still faces many sources of uncertainty.

China's development will likely offer Latin America an opportunity to be weaned of its long-time economic dependence on the export of a single kind of commodity. In the face of competition from China, Latin American countries can continue to improve the quality of goods and their comprehensive exports competitiveness, thus ensuring the share of exports in the U.S. market. At the same time, Mexico and

[7]Rhys Jenkins, "The Impact of China on Latin America and the Caribbean", *World Development,* 36(2), 235–253, 2008.

Central American countries should take advantage of their short distance from the U.S. market to speed up infrastructure construction and improve the efficiency of roads, ports, railway and airport to reduce the transaction and transportation costs.

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