

Current Chinese Economic Report Series

Ling Wang

Shao-ju Lee

Ping Chen

Xiao-mei Jiang

Bing-lian Liu *Editors*

Contemporary Logistics in China

New Horizon and New Blueprint



Springer

Current Chinese Economic Report Series

The Current Chinese Economic Reports series provides insights into the economic development of one of the largest and fastest growing economies in the world; though widely discussed internationally, many facets of its current development remain unknown to the English speaking world. All reports contain new data, which was previously unknown or unavailable outside of China. The series covers regional development, industry reports, as well as special topics like environmental or demographical issues.

More information about this series at <http://www.springer.com/series/11028>

Ling Wang • Shao-ju Lee • Ping Chen
Xiao-mei Jiang • Bing-lian Liu
Editors

Contemporary Logistics in China

New Horizon and New Blueprint

Editors

Ling Wang
Logistics Research Center
Nankai University
Tianjin, China

Shao-ju Lee
Logistics Research Center
Nankai University
Tianjin, China

Ping Chen
Business School
Nankai University
Tianjin, China

Xiao-mei Jiang
College of Management
Tianjin Normal University
Tianjin, China

Bing-lian Liu
Logistics Research Center
Nankai University
Tianjin, China

ISSN 2194-7937

ISSN 2194-7945 (electronic)

Current Chinese Economic Report Series

ISBN 978-981-10-1051-4

ISBN 978-981-10-1052-1 (eBook)

DOI 10.1007/978-981-10-1052-1

Library of Congress Control Number: 2016942095

© Springer Science+Business Media Singapore 2016

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made.

Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer Science+Business Media Singapore Pte Ltd.

Contents

1	Development of China’s Logistics Market.....	1
	Xiao-mei Jiang	
2	Logistics Facilities and Technological Development	33
	Fan Qin	
3	Policies and Plans Regarding Logistics Development in China.....	55
	Ling Wang	
4	Development of Regional Logistics Along the One Belt and One Road	77
	Jun Liu	
5	Logistics Development in Beijing-Tianjin-Hebei Region.....	103
	Lan-bing Li	
6	Logistic Development Along the Yangtze River Economic Belt.....	121
	Ya Xu	
7	Development of Railway Logistics in China	153
	Jian-hua Xiao	
8	Development of Air Logistics in China	177
	Ran Wei	
9	Development of China’s Pilot Free Trade Zones.....	191
	Jing-lei Yang	
10	Transformation and Upgrading Model of China’s Port and Its Outlook.....	219
	Yong Liu	

11	Service Mode and Development Trend of the “Last-Mile Delivery” of E-commerce Logistics.....	239
	Zhi-lun Jiao	
12	Development of Cold Chain Logistics in China	263
	Xiang Li	

Chapter 1

Development of China's Logistics Market

Xiao-mei Jiang

The domestic and overseas development environment of China's logistics industry was very complex in 2014. As the world's economy recovering slowly and China's domestic economy entering a new normal development stage, the overall growth rate of China's logistics market has slowed down to some extent. Meanwhile, the internet economy is being developed rapidly in China, the Chinese Government is vigorously promoting the "One Belt and One Road"¹ initiative, the Pilot Free Trade Zone and other major national development strategies; these actions have created new development potential for China's logistics industry.

In 2014, the major characteristics of China's logistics market are manifested in the following four aspects. First, the China-Europe freight rail lines, the cross-border e-commerce logistics, the urban distribution and rural logistics are developing rapidly, propelled jointly by the solid domestic demand and the favorable government policies. Second, China's logistics industry is highly regarded by the domestic and overseas investors; thus, online retail logistics, online food delivery, express and expedited delivery² and logistics property have become the investment hot spot. Third, the warehousing enterprises, express and distribution enterprises have actively brought in the mobile internet and big data technology to improve

¹"One Belt and One Road" is the abbreviation of the "Silk Road Economic Belt and the 21st Century Maritime Silk Road;" it is an ideal and proposal for cooperative development pronounced by the Chinese leaders. Borrowing from the historical symbol of ancient Chinese "Silk Road," and basing on the bilateral and multilateral mechanism between China and relevant countries, the initiative aims to jointly build the community of interest, fate, and responsibility, with mutual political trust, economic integration and culture tolerance.

²Expedited delivery refers to the delivery mode in between the express and the ordinary deliveries by highway transport. The weight of transported cargo of this mode is generally 30 kg–300 kg. The transport speed is slower than that of the express delivery, but faster than that of the ordinary delivery.

X.-m. Jiang (✉)

College of Management, Tianjin Normal University, Tianjin, People's Republic of China

e-mail: macro04@126.com

their operations efficiency. Fourth, the transformation and upgrading of China's logistics industry have been accelerated; this is reflected by (a) large highway logistics parks beginning to develop towards chain operations, (b) special-line enterprise³ of less-than-truck-load building various transportation enterprise alliances, (c) large local express enterprises aggressively transforming to integrated logistics enterprises, and (d) China Railway Corporation vigorously developing new freight products.

This chapter is divided into three sections. Section 1.1 describes the economic and policy environments of China's logistics industry in 2014. Section 1.2 introduces the general status of China's logistics market, including specifically the total expense of social logistics, the added value of logistics industry, the freight volume and freight turnover, the cargo throughput and container throughput of port, and other indicators. Section 1.3 summarizes the major characteristics of China's logistics market in 2014.

1.1 China's Logistics Development Environment

1.1.1 *Sluggish Recovery of World Economy*

In 2014, the global economy was still in the adjustment period after the global financial crisis and recovering slowly. In the developed economies, the upswing of U.S. economy was relatively apparent, and the growth rates in Euro zone and Japan had fluctuated at lower level. The economic growth of developing economies in South Africa, Brazil and others was decelerated. Table 1.1 shows the economic growth of major global economic blocks for 2012–2014.

In 2014, the global trade exhibited a state of low growth owing to the lethargic global demand. According to the United Nations' estimate, the volume of world trade in 2014 was expected to increase by 3.4 %, which was slightly higher than the previous year's growth of 3 %, but was way lower than the 7.0 % average level prior to the international financial crisis. The Baltic Dry Index (BDI) of the international shipping market is the direct index representing the prosperity of the international trade. In 2014, the BDI was generally below the balance point (2,000 points) of maritime transport, and falling erratically. It had slid down to 782 points on December 24 from the 2,113 points on January 2, dropping by 62.9 % over 1 year. Figure 1.1 shows the BDI for 2014.

Affected by the slow recovery of global economy, the weakening of low cost advantage in China, the declined foreign capital investment in manufacturing industry, and the continual falling of bulk commodity prices in the international market,

³Special-line enterprises of less-than-truck-load mainly engage in transporting goods following pre-set lines between designated cities, and the transport batch size of the cargo is generally 300 kg–3000 kg.

Table 1.1 Economic growth of major global economic blocks for 2012–2014

	Unit: %		
Country	2012	2013	2014
Global Average	2.4	2.5	2.6
USA	2.3	2.2	2.4
Eurozone	−0.7	−0.5	0.8
Japan	1.5	1.5	0.2
South Africa	2.5	1.9	1.4
Brazil	1.0	2.3	0.1
India	5.1	6.9	7.4
Russia	3.4	1.3	0.7
Mexico	4.0	1.4	2.1

Source: *World Economic Status: Retrospect for 2014 and Outlook for 2015*, the National Bureau of Statistics, the P.R.C., 2015-02-27
http://www.stats.gov.cn/tjsj/zxfb/201502/t20150227_686531.html

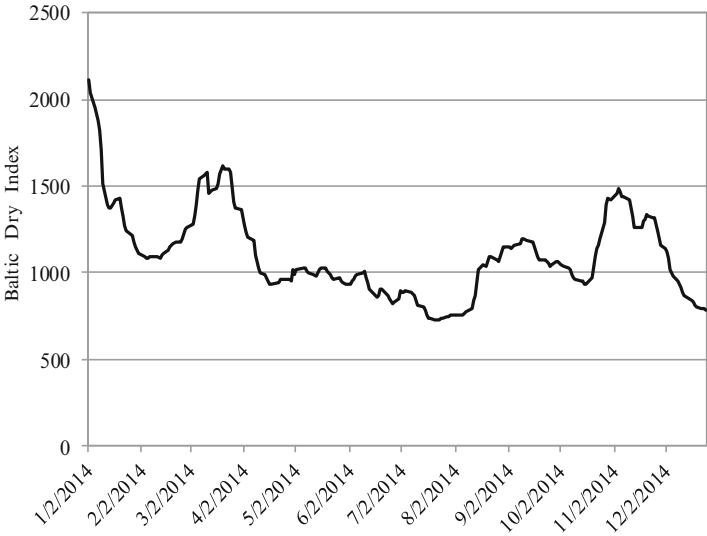


Fig. 1.1 Baltic dry index for 2014
Source: [Finance.ifeng.com](http://app.finance.ifeng.com/data/indu/jgzs.php?symbol=58?). Baltic Dry Index. <http://app.finance.ifeng.com/data/indu/jgzs.php?symbol=58?>; 2015-04-30

the overall growth rate of the China’s foreign trade in 2014 had dropped markedly. The total annual import and export volume was 4.3 trillion USD, showing a year-on-year growth of 3.4 %; this growth rate receded by 4.2 percentage points from that of 2013. Figure 1.2 shows China’s total amount of import and export and growth rate for 2006–2014.

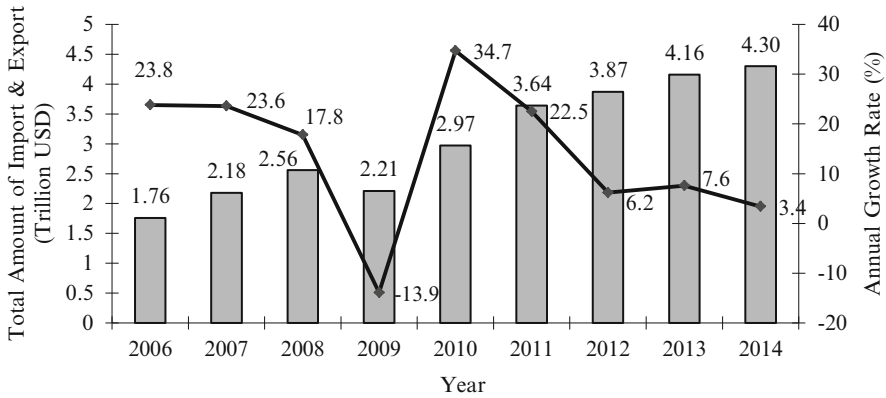


Fig. 1.2 China's total amount of import and export and growth rate for 2006–2014

Source: Compiled from the *China Statistical Yearbook (2014)*, and the *China Statistical Bulletin of National Economic and Social Development (2014)*, both published by the National Bureau of Statistics of China

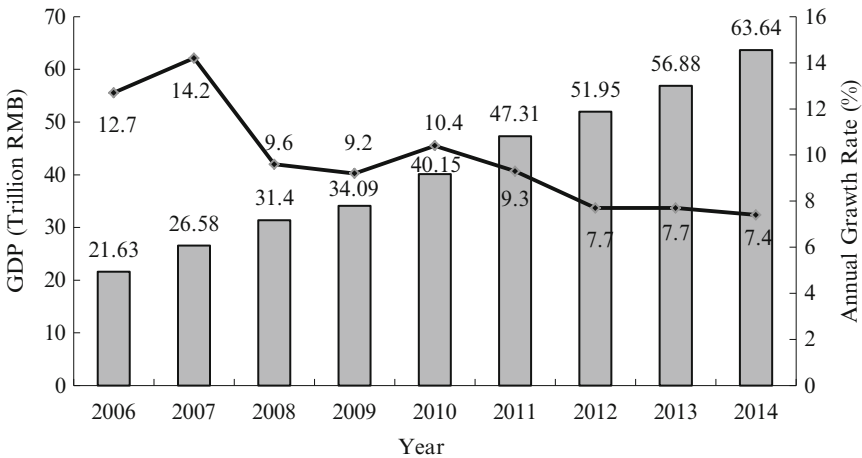


Fig. 1.3 China's GDP and growth rate for 2006–2014

Note: GDPs are computed per current price of each year; growth rates are computed based on constant price of the same base year

Source: Compiled from the *China Statistical Yearbook (2014)*, and the *China Statistical Bulletin of National Economic and Social Development (2014)*, both published by the National Bureau of Statistics of China

1.1.2 The “New Normal Stage” of China's Economy

In 2014, China's GDP (gross domestic product) was 63.64 trillion RMB, which represented a year-on-year growth of 7.4%, computed in accordance with the constant price. Figure 1.3 shows China's GDP and growth rate for 2006–2014.

Table 1.2 Nine features of China’s economy in the “new normal stage”

	Features
Consumer demand	The stage of waved emulative spending has basically ended; personalized and diversified consumption is gradually becoming the mainstream.
Investment demand	The traditional industries are relatively saturated; profuse investment opportunities for interconnected infrastructures, various new technologies, new products, new types of business, and new business modes are emerging.
Export and international balance of payment	“Bringing in” of high-level enterprises and “going abroad” on a large scale are occurring simultaneously.
Production capacity and mode of industrial organization	Capacity of traditional industries far exceeds the demand, so the industrial structure must be optimized and upgraded; merger and reorganization of enterprises and relatively more concentrated production are inevitable; the effect of emerging industry, service industry and small and micro-enterprises is more prominent; the miniaturization, intelligence and professionalization in production will become new features of the industrial organization.
Production factors	The advantage of low-cost labor force has weakened; economic growth will rely more on the quality of the human capital and technological advancement, therefore, innovation must become the new engine driving the development.
Market competition	Volume expansion and price competition are being gradually transformed into quality-oriented and differentiation-focused competition.
Resource and environmental constraints	The environmental bearing capacity has reached or is nearing the upper limit, therefore promoting the new form of green and low-carbon cyclic development is crucial.
Economic risk	It is controllable on the whole, but it will take some time to alleviate the various risks featured by high leverage and bursting bubble.
Resource allocation model and macro-control mode	The marginal effect of the comprehensive stimulation policy is obviously declining, therefore, the future industrial development direction must be explored through exercising the market mechanism.

Source: [xinhuanet.com](http://news.xinhuanet.com/fortune/2014-12/11/c_1113611795.htm). The Central Economic Working Conference of the Communist Party of China was held in Beijing
http://news.xinhuanet.com/fortune/2014-12/11/c_1113611795.htm.2014-12-11

Seeing from the development features, China’s economy had parted from the high-speed growth (above 9%) since 2012 and has entered the “New Normal Stage;” it has taken on many new features reflected specifically in nine aspects, as shown in Table 1.2.

The change in tendency after the economic development entered the New Normal Stage shows that, China’s economy is evolving towards the stage of more advanced form, more complicated division of labor, and more reasonable structure. China’s logistics industry needs to adapt to the altered characteristics of the new economic norm, so as to accelerate its development, and provide the support for promoting the transformation and upgrading of the economy and the service of the citizens’ livelihood.

1.1.3 Rapid Development of Internet Economy

2014 marks the 20th year of China's full accesses to the internet. In recent 20 years, internet has developed and grown rampantly in China, and permeated continuously into all industries, thus, begetting a host of new products, new types of business and new business modes, and has profoundly changed the production and life style.

1.1.3.1 Mobile Application of Innovative O2O⁴ and Abundant Market Opportunity

In 2014, China's mobile e-commerce experienced a robust development trend. Mobile internet, mobile payment, two-dimension code and other mobile internet technologies made marked breakthroughs in succession. The coupling of mobile internet technology with e-commerce has prompted the ushering of traditional industries in retail, catering, finance, tourism, medical treatment, education into the realm of internet; myriads of mobile applications and market opportunities of innovative O2O are produced.

The mobile shopping and catering O2O markets have grown rapidly. In 2014, China's online retail sales⁵ reached 2.79 trillion RMB, which ranked the highest in the world for two consecutive years. This amount represents a year-on-year growth of 49.7%, which is far higher than the 12.0% growth rate of the total amount of retail sales of consumer goods. The growth in market size of mobile shopping was more than 200%. The proportion of mobile terminal shopping accounts for 33.0% of all online shopping, increasing by 19 percentage points from that of 2013 (iResearch Inc 2015). The market size of O2O in the catering industry reached 94.37 billion RMB, increasing by 51.5% from that of 2013 (pintu360.com 2015). Figure 1.4 shows the scale and growth of China's mobile shopping market for 2011–2018.

1.1.3.2 Rapid Development of Cross-Border E-Commerce Market

After the international financial crisis, the demand of China's foreign trade had an apparent change. Export orders were changed from large orders and clumpy ordering to small orders and frequent ordering; domestic consumers showed increasing demands on high-quality imported products. Meanwhile, due to the popularization of internet and mobile internet, the disparity in commodity price at home and abroad and the quality information was diminished, giving rise to the basic conditions for cross-border transaction of small-sized and fragmented orders. These changes

⁴O2O, namely, Online To Offline, refers to the coupling of offline business opportunities and internet, so that the internet becomes the front desk of offline transaction.

⁵The online retail sales refers to the retail sales of the commodity and service realized through the transaction platform (including self-built websites and third-party platforms) on public network.

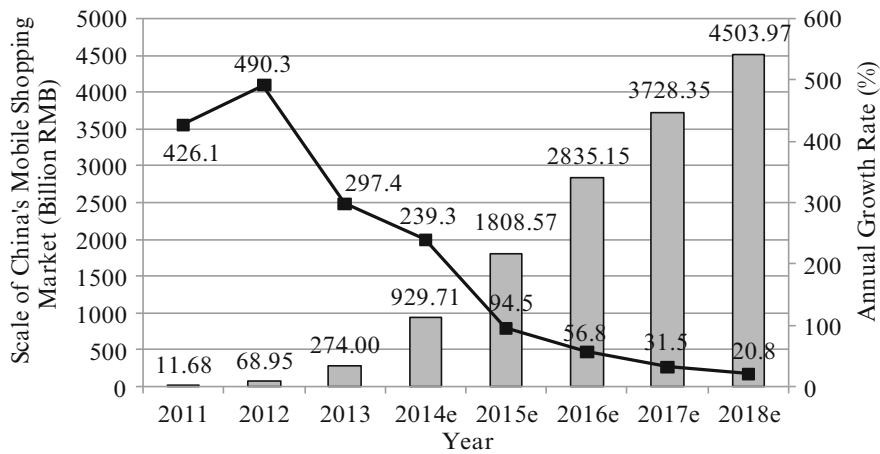


Fig. 1.4 Scale and growth of China's mobile shopping market for 2011–2018
Note: Sales for 2014–2018 are estimated values
Source: iResearch Inc. “The scale of China's mobile shopping market is 929.71 billion RMB.”
<http://report.iresearch.cn/html/20150202/245969.shtml>. 2 Feb. 2015

together with improvement on cross-border payment, logistics, and Customs’ supervision had jointly promoted the rapid development of the cross-border e-commerce market in China.

In 2014, the transaction scale of cross-border e-commerce in China was 4.2 trillion RMB, showing a year-on-year growth of 33.3 %. In which, cross-border export accounted for 85.4 %, and cross-border import accounted for 14.6 %; cross-border B2B trade accounted for 93.5 %, and B2C trade accounted for 6.5 % (China e-Business Research Center 2015). Cross-border e-commerce accounted for more than 10 % in the total volume of import and export trade, and became the prominent highlights of China’s foreign trade.

1.1.3.3 Internet Promoted the Transformation of China’s Manufacturing Industry

Internet greatly cuts down the information asymmetry between production and marketing, accelerates the close connection between the production end and the market end, and gives rise to the consumer-driven business mode. The consumer-driven mode requires that the production and manufacturing system to be highly flexible and personalized, and can respond swiftly to the market; these features are completely different from the standardized, batched, rigid and slow production mode under the traditional B2C business mode.

China’s manufacturing industry is being transformed under the impetus of the internet, and under two typical paths. Under the first path, internet technology is used by the manufacturing enterprise to develop multi-variety, small-lot production

and mass-customization. Take a furniture manufacturing company in Guangzhou as a typical case. With internet technology, the company built a C2Bmass-customization production mode similar to the “Dell Mode.” First, this company provides the virtual design of three-dimensional personalized furniture for hundreds of offline stores through its powerful 3D design software and cloud design resource integration capability, so that customers can purchase the “Virtual Product” by ordering in the stores. Then, the company tallies the data of the “Virtual Products” ordered by the customers, and sends them to the manufacturing plant. Finally, the digitized manufacturing plant dissects and combines the lists of orders by parts, so as to realize scale production.

Under the second path, some supply chain service companies carry out the online connection and integration of the consumers, retailers and manufacturers with internet technology, so as to gain commonality among the supply chain subjects and realize flexible production on the supply chain. Take one supply chain management company in Guangdong as atypical case. This company, in response to the “multi-variety, small-lot and fast-response” orders from an e-commerce retail clothing enterprise, utilizes the digitized total-process, all-through, data-sharing supply chain, to integrate the e-commerce apparel supply chain, and realizes the bona fide flexible production of clothing. One typical application context is as follows. When an e-commerce retail clothing enterprise launches a new style, a batch of 50–100 items would be used to test the market. The e-commerce retail enterprise carries out the sales forecast on this style of clothing by analyzing the customers’ data on clicking, collection, and shopping cart, and transmits the forecast data to the production factory in real time. Since the e-commerce retail enterprise is connected with the factory by the mutually built “Dynamic Replenishment-ERP” system, materials and capacity will be prepared in the factory according to the sales forecast and inventory status of the e-commerce retail enterprise. When the best-selling style is evidenced, the factory can provide the frequent and small-batched replenishments.

1.1.4 The “One Belt and One Road” Initiative and the Free Trade Zone Strategy

1.1.4.1 The “One Belt and One Road” Initiative Advocated by the Government

The “One Belt and One Road” initiative is a major initiative proposed by Chinese President Xi Jinping when he visited Central Asia and Southeast Asia countries in September and October of 2013, which was highly regarded by the international community. In 2014, China began actively promoting the “One Belt and One Road” Initiative, and had so far achieved notable progress.

China’s top leaders have actively promoted the “One Belt and One Road” Initiative. President Xi Jinping, Prime Minister Li Keqiang and other state leaders had successively visited more than 20 countries, attended the dialogue meetings for strengthening

the interconnection partnership, and the Sixth Ministerial Meeting of the China-Africa Cooperation Forum. They met with the heads of State and government officials of relevant countries for many times during their visits, expounded on the profound connotation and positive significance of the “One Belt and One Road” proposal with respect to the bilateral relationship and regional development, and had reached extensive consensus on the intention of co-building the “One Belt and One Road.”

China took the lead to establish the Asian Infrastructure Investment Bank and the Silk Road Fund. In October 2014, China proposed to establish the Asian Infrastructure Investment Bank (AIIB). AIIB is positioned as a multilateral development mechanism in the Asian region among the governments, to support key infrastructure constructions and promote regional cooperation and partnership. Up to March 31, 2015, 43 countries in Asia, Europe, America, Oceania and Africa officially filed applications to join AIIB. In November 2014, China announced it would invest 40 billion USD to establish the “Silk Road Fund,” as the strategic platform for China to implement capital export to the other countries, and to provide the investment and financing for infrastructure construction, resource development, and industry cooperation to countries along the “One Belt and One Road.”

In March 2015, the National Development and Reform Commission (NDRC), the Ministry of Foreign Affairs and the Ministry of Commerce jointly issued the *Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st Century Maritime Silk Road*, which stipulated the principle of co-construction, the framework and ideal, the highlights and mechanism for cooperation pertaining to the “One Belt and One Road” initiative.

In addition, China also signed the memorandum of cooperation of co-building the “One Belt and One Road” with some of the countries, and signed the memorandum on regional cooperation and border cooperation, as well as mid-term and long-term development plans with some adjacent countries. It has studied and compiled outlines of the regional cooperation plan with some adjacent countries, strengthened the communication and negotiation with the relevant countries along the Belt, and promoted some important cooperation projects on matters such as interconnection of the infrastructure, industrial investment, resource development, economic and trade cooperation, financial cooperation, cultural and educational exchange, ecological protection and maritime cooperation.

1.1.4.2 Further Promotion of the Free Trade Zone Strategy

After the China (Shanghai) Pilot Free Trade Zone was established in August 2013, the State Council approved expanding the area of the Shanghai Pilot Free Trade Zone from 28.78 km² to 120.72 km² in December 2014. To duplicate and popularize the experience of the Shanghai Pilot Free Trade Zone across the nation, it approved the establishment of three new FTZs in Guangdong, Tianjin and Fujian. It mandated that based on the contents of the Shanghai Pilot Free Trade Zone, the three new FTZs are to enrich the contents by each considering its own regional characteristics.

So far, the layout of the FTZs in the eastern coastal region corresponding to Pearl River Delta, Yangtze River Delta, Bohai Economic Rim and the Western Side of the Taiwan Straits in China has been completed. The four FTZs will take the lead in exploring the potential of the reform and solving the reform puzzles through building the new open economy system, leveraging the new regional economic cooperation mode, and constructing the legal business environment. In addition, based on the *Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st Century Maritime Silk Road*, the cities that the free trade zones are located, i.e. Shanghai, Tianjin, Guangzhou, Shenzhen, Fuzhou and Xiamen, will also become part of the “One Belt and One Road,” and especially as pacesetter and main force on the 21st Century Maritime Silk Road.

1.1.5 Two Regional Development Strategies

1.1.5.1 Advancement in the Beijing-Tianjin-Hebei Coordinated Development

The Beijing-Tianjin-Hebei region (Beijing and Tianjin Municipalities and Hebei Province) is one of the regions having the most development strength and potential in Eastern China. In February 2014, the State Council proposed the national strategy of the Beijing-Tianjin-Hebei Coordinated Development. By the end of 2014, the strategy has obtained many implementation achievements in the fields of traffic, industry and environment.

The regional transport integration was promoted in the early stage. The Ministry of Transport designated the leading group for promoting the transport integration in Beijing-Tianjin-Hebei region, and formulated the scheme for division of tasks. The governments of these three places also enhanced the construction of the regional intercity railways, perfected the regional expressway network, promoted the coordinated development of the ports and airports in the region, and advanced the interconnection of transportation infrastructures in the region.

The three places achieved positive progress in industrial transfer. Beijing has transferred more than 500 non-core investment projects⁶ to Tianjin. Hebei Province brought in the industries transferred out from Beijing and Tianjin, and arranged 40 industrial parks to receive these industries.

The regional environmental protection was promoted orderly. The three places founded the alliance for energy conservation, environmental protection and low-carbon consumption, built the joint control mechanism for water pollution emergency, and established the vehicle emission pollution monitoring platform in Beijing-Tianjin-Hebei region and the surrounding areas.

⁶The development of Beijing Municipality is positioned as the nation’s political center, cultural center, international exchange center, and technological innovation center. Any industry not conforming to the positioning of these four major centers is deemed as “non-core” industry, and will be successively transferred to Tianjin or Hebei.

1.1.5.2 Steady Promotion of the Yangtze River Economic Belt Development Strategy

The Yangtze River Economic Belt consists of eleven Municipalities and Provinces of Shanghai, Jiangsu, Zhejiang, Anhui, Jiangxi, Hubei, Hunan, Chongqing, Sichuan, Yunan, and Guizhou. The population and GDP of this Belt are more than 40 % of the nation's total. In March 2014, the State Council launched the national development strategy of Yangtze River Economic Belt.

Yangtze River channel is the most important east–west axis of the national territorial development in China, and holds an important strategic position in the overall pattern of regional development. Currently, China's economic development has entered the critical period of gradient migration from East to West. Building the Yangtze River Economic Belt, basing on the Yangtze River golden waterway, not only could directly drive the new development power of more than 1/5 of the nation's land and 600 million population, to close the discrepancies among the Eastern, Central and Western regions, but also could optimize the economic structure, and build the new economic supporting belt and new open cooperation platform with global influence.

In September 2014, the State Council also launched the guideline on developing the Yangtze River Economic Belt and transport planning. In the guideline, the Belt was positioned as: the inland river economic belt having global influence, the coordinated development belt of interactive cooperation among the Eastern, Central and Western regions, the comprehensively promoted internal and external open zone along the coast, the river and the bordering areas, and the advanced demonstration belt of ecological civilization establishment. It also advocated that the development of the Belt is promoted by improving the functions of the Yangtze River golden waterways, building the comprehensive three-dimensional traffic corridor, propelling the industry transformation and upgrading by innovation, comprehensively advancing the new-type urbanization, and cultivating the new advantage from complete opening to the external world. For traffic planning, it delineated the construction goals and key tasks of the comprehensive three-dimensional traffic corridor of the Belt.

1.2 The Overall Scale of China's Logistics Market

1.2.1 Total Value of Social Logistics

In 2014, the value of the total national social logistics⁷ remained in the state of tepid growth. The total value of social logistics was 213.5 trillion RMB, which represents a growth of 7.9 % computed at constant price; this growth rate declined by 1.6 per-

⁷The value of the total national social logistics is composed of five parts: ① total value of commodities of farming, forestry, animal husbandry and fishing products in social logistics field ("total

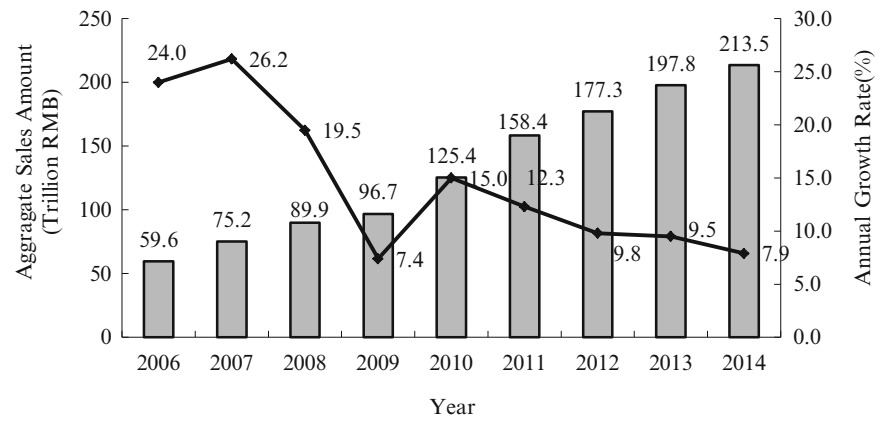


Fig. 1.5 Total value and growth rate of social logistics for 2006–2014
Note: the growth rates for 2006–2009 are nominal growth rates, and that for 2010–2014 are real growth rates
Source: Compiled from the *National Logistics Operations Bulletin for 2006–2014*, published by the National Development and Reform Commission, the National Bureau of Statistics, and the China Federation of Logistics and Purchasing

centage points from that of the previous year. Figure 1.5 shows the total value and growth rate of social logistics for 2006–2014. Table 1.3 shows the composition of total value of social logistics for 2009–2014.

1.2.2 Total Expense of Social Logistics

In 2014, the total national social logistics expense was 10.6 trillion RMB, increasing by 6.9% from that of last year. The total social logistics expense accounted for 16.6% of the DGP, which was 0.3percentage points lower than that of previous year. The change of the share of total social logistics expense in GDP was affected by the freight volume, freight turnover, adjustment of the GDP data, and was also the result of structural change in China’s economy. Table 1.4 shows the total logistics expense, the increment and the share in GDP for 2006–2014. Table 1.5 shows the composition of total expense of social logistics for 2014.

logistics amount of agricultural products” for short); ② total value of commodities of industrial products in social logistics field (“total logistics amount of industrial products” for short); ③ total logistics value of import goods; ④ total value of commodities of renewable resources in social logistics field (“total logistics amount of renewable resources” for short); ⑤ logistics value of goods from institutes and residents (including luggage in railway and air transport, parcels and letters in mailing service, various donations from all sectors of the society and handling, carrying and transportation of goods incurred by moving activities of institutes and residents.)

Table 1.3 Composition of total value of social logistics for 2009–2014

Indicator	2009			2010			2011			2012			2013			2014		
	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)	Value (trillion RMB)	Share (%)
Industrial products logistics	87.4	90.4	113.1	90.2	143.6	90.2	162.0	91.4	181.5	91.8	196.9	92.2						
Imported goods logistics	6.9	7.1	9.4	7.5	11.2	7.1	11.5	6.5	12.1	6.1	12.0	5.6						
Agricultural products logistics, etc.	2.4	2.5	2.9	2.3	3.6	2.7	3.8	2.1	4.2	2.1	4.6	2.2						
Total	96.7	100.0	125.4	100.0	158.4	100.0	177.3	100.0	197.8	100.0	213.5	100.0						

Source: Compiled from the *National Logistics Operations Bulletin for 2006–2014*, published by the National Development and Reform Commission, the National Bureau of Statistics, and the China Federation of Logistics and Purchasing

Table 1.4 Total logistics expense, increment and share in GDP for 2006–2014

Year	Total expense for social logistics cost (trillion RMB)	Increment from previous year (%)	Share in GDP (%)
2006	3.8	13.5	18.3
2007	4.5	18.2	18.4
2008	5.5	16.2	18.1
2009	6.1	7.2	18.1
2010	7.1	16.7	17.8
2011	8.4	18.5	17.8
2012	9.4	11.4	18.0
2013	10.2	9.3	16.9
2014	10.6	6.9	16.6

Note: In 2013, the Ministry of Transport adjusted the statistical scope of the freight volume and freight turnover, and the National Bureau of Statistics readjusted the total social logistics costs in 2013 and its share in GDP according to the freight volume and freight turnover under the new statistical scope. Values in this table are adjusted data

Source: Compiled from the *National Logistics Operations Bulletin for 2006–2014*, published by the National Development and Reform Commission, the National Bureau of Statistics, and the China Federation of Logistics and Purchasing

Table 1.5 Composition of total expense of social logistics in 2014

Indicator	Value (trillion RMB)	Increment from previous year (%)	Share (%)
Total expense of social logistics	10.6	6.9	100.0
Including:			
Transportation expense	5.6	6.6	52.9
Storage expense	3.7	7.0	34.9
Management expense	1.3	7.9	12.2

Source: Compiled from the *National Logistics Operations Bulletin for 2014*, published by the National Development and Reform Commission, the National Bureau of Statistics, and the China Federation of Logistics and Purchasing

1.2.3 Added Value of Logistics Industry

In 2014, the nation's total added value of logistics industry was 3.5 trillion RMB, with a year-on-year growth of 9.5 %. Added value of the transportation industry was 2.4 trillion RMB, showing a year-on-year growth of 8.3 %; added value of the trade logistics industry was 678.1 billion RMB, representing a year-on-year growth of 7.9 %; added value of warehousing industry and postal logistics industry increased by 4.8 % and 35.6 %, respectively. Table 1.6 shows the nationwide logistics added value and growth rate for 2006–2014.

Table 1.6 Nationwide logistics added value and growth rate for 2006–2014

Year	Added value of logistics industry (trillion RMB)	Growth rate (%)
2006	1.4	12.5
2007	1.7	20.3
2008	2.0	15.4
2009	2.3	7.3
2010	2.7	13.1
2011	3.2	13.9
2012	3.5	9.1
2013	3.9	8.5
2014	3.5	9.5

Note: In 2013, the Ministry of Transport adjusted the statistical scope of the freight volume and freight turnover, and the National Bureau of Statistics readjusted the total social logistics costs in 2013 and its share in GDP according to the freight volume and freight turnover under the new statistical scope. Values in this table are adjusted data

Source: Compiled from the *National Logistics Operations Bulletin for 2006–2014*, published by the National Development and Reform Commission, the National Bureau of Statistics, and the China Federation of Logistics and Purchasing

1.2.4 Freight Volume and Freight Turnover

In 2014, the freight volume completed by China was 43.91 billion tons, an increase of 7.1 % comparing with that of last year. The freight turnover was 18.46 trillion tons-km, which was increased by 9.9 % from the previous year. Table 1.7 shows the annual nationwide freight volume, freight turnover, and growth rate for 2006–2014.

In 2014, the railway transport was affected by the decelerated growth of relevant industries and diminishing cargos for bulk goods, the freight volume and freight turnover declined substantially; several other transportation modes had faster growth. Table 1.8 shows the freight volume, freight turnover and growth rate of various transportation modes in 2014.

1.2.5 Cargo Throughput and Container Throughput of Port

In 2014, affected by the slower growth of the macro economy and the adjustment of economic structure, the growth rates of cargo throughput and container throughput of port showed evident drop from previous year. Cargo throughput completed for the nationwide ports was 12.45 billion tons, showing a year-on-year growth of 5.8 %; this growth rate receded by 3.4 percentage points. The foreign-trade cargo throughput was 3.59 billion tons, representing a year-on-year growth of 6.9 %; this growth rate fell by 3.0 percentage points. Table 1.9 shows the nationwide cargo throughput and growth rate of port for 2006–2014.

Table 1.7 Annual nationwide freight volume, freight turnover, and growth rate for 2006–2014

Year	Freight volume		Freight turnover	
	Volume (billion ton)	Growth rate (%)	Freight turnover (trillion ton-km)	Growth rate (%)
2006	20.37	9.40	8.88	10.70
2007	22.76	11.70	10.14	14.20
2008	25.86	13.60	11.03	8.80
2009	28.25	9.20	12.21	10.70
2010	32.41	14.70	14.18	16.10
2011	36.97	14.10	15.93	12.30
2012	41.00	10.90	17.38	9.10
2013	40.99	—	16.80	—
2014	43.91	7.10	18.46	9.90

Note: In 2013, the Ministry of Transport conducted the special investigation of the transportation industry, and adjusted the statistical scope of highway and waterway transport volume. In the table, data before 2013 are based on the original statistical scope, and data for 2013 and 2014 are based on the new statistical scope

Source: Compiled from the *China Statistical Yearbook (2014)*, and the *China Statistical Bulletin of National Economic and Social Development (2014)*, both published by the National Bureau of Statistics of China

Table 1.8 Freight volume, freight turnover and growth rate of different transportation modes in 2014

Indicator	Volume	Growth rate (%)	Share (%)	Change of share (% point)
Total freight volume (billion ton)	43.91	9.90	—	—
Among which:				
Railway	3.81	−3.90	8.70	−0.10
Highway	33.43	8.70	76.10	−2.70
Waterway	5.96	6.40	13.60	2.70
Civil aviation (megaton)	5.93	5.70	—	—
Pipeline	0.69	5.20	1.60	0.10
Freight turnover (trillion ton-km)	18.46	9.90	—	—
Among which:				
Railway	2.75	−5.60	14.90	−2.50
Highway	6.11	9.70	33.10	−0.10
Waterway	9.19	15.70	49.80	2.50
Civil aviation (billion ton-km)	18,610	9.30	—	—
Pipeline	0.39	10.90	2.10	0.00

Source: Compiled from the *China Statistical Yearbook (2014)*, and the *China Statistical Bulletin of National Economic and Social Development (2014)*, both published by the National Bureau of Statistics of China

Table 1.9 Nationwide cargo throughput and growth rate of port for 2006–2014

Year	Nationwide cargo throughput of port		Share of cargo throughput of foreign trade	
	Volume (billion ton)	Growth rate (%)	Volume (billion ton)	Growth rate (%)
2006	5.57	14.80	1.61	18.10
2007	6.41	15.10	1.85	14.60
2008	7.02	9.60	1.99	7.40
2009	7.66	9.00	2.18	9.80
2010	8.93	16.70	2.50	14.70
2011	10.04	12.40	2.79	11.40
2012	10.78	7.30	3.06	9.70
2013	11.77	9.20	3.36	9.90
2014	12.45	5.80	3.59	6.90

Source: Compiled from the *Statistical Bulletin of Road and Waterway Transportation Industry for 2006–2014*, published by the Ministry of Transport

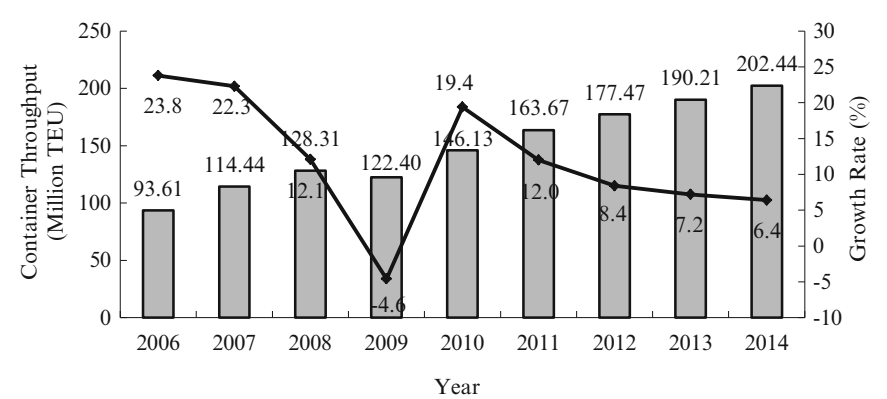


Fig. 1.6 Nationwide container throughput and growth rate for 2006–2014

Source: Compiled from the *Statistical Bulletin of Road and Waterway Transportation Industry for 2006–2014*, published by the Ministry of Transport

In 2014, the container transport market kept the steady growth momentum. The annual container throughput completed in the nationwide ports was 202.44 million TEUs, which increased by 6.4 % comparing with that of last year; this growth rate dipped 0.8 percentage points from that of previous year. Figure 1.6 shows the nationwide container throughput and growth rate for 2006–2014.

1.2.6 Cargo and Mail Throughput for Civil Airport

In 2014, the cargo and mail transport of the nation’s airports continued the trend of steady growth, with a higher growth rate. The total annual cargo and mail throughput completed was 13.561 million tons, which was increased by 7.8 % comparing

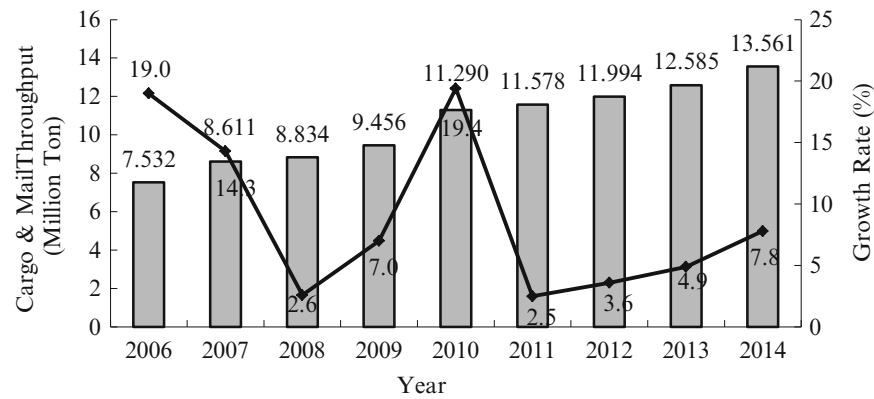


Fig. 1.7 Nationwide cargo and mail throughput and growth rate in civil airports for 2006–2014
Source: Compiled from the *Statistical Bulletin on the Productivity of National Airports for 2006–2014*, published by the Civil Aviation Administration

with that of previous year; the growth rate was 2.9 percentage points higher than that of 2013. Figure 1.7 shows the nationwide cargo and mail throughput and growth rate in civil airports for 2006–2014.

1.2.7 Business Volume of Express Industry

In recent years, driven by the rapid development of e-commerce, the business volume of express industry in China has kept a rapid pace of growth. In 2014, the annual business volume completed by the above-scale express enterprises was 13.96 billion items, chalking a year-on-year growth of 51.9%. Figure 1.8 shows the nationwide business volume of express delivery enterprises above the designated scale and the growth rate for 2008–2014.

The business structure and regional distribution of the express market in China have basically been stable in recent years. As for the business structure, the proportion of within-city business volume was kept within 25%; the proportion of out-of-city business volume remained above 70%, except for 2008; the proportion of business volume for international, Hong Kong, Macao and Taiwan dropped slightly. As for the regional distribution, the proportion of the business volume in the Eastern region maintained at about 80%, the proportion of the business volume in the Central region remained at about 10%, and the proportion of the business volume in the Western region had a slight decrease. Table 1.10 shows the business volume by categories of express delivery for 2008–2014. Table 1.11 shows the regional distribution of express delivery business for 2008–2014.

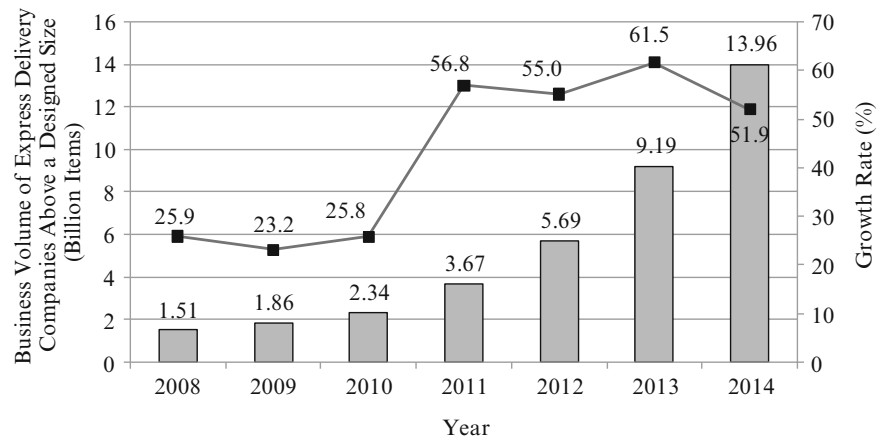


Fig. 1.8 Nationwide business volume of express delivery enterprises above the designated size and the growth rate for 2008–2014
Source: Compiled from the *Statistical Bulletin of Postal Service Industry for 2008–2014*, published by the State Post Bureau

Table 1.10 Distribution of business volume of express delivery by category for 2008–2014

			(Unit: %)
Year	Within-city	Out-of-city	International and Hong Kong, Macao and Taiwan
2008	26.6	66.4	7.0
2009	23.5	70.4	6.1
2010	22.9	71.5	5.6
2011	22.3	74.2	3.5
2012	23.1	73.7	3.2
2013	24.9	72.3	2.8
2014	25.4	72.3	2.3

Source: Compiled from the *Statistical Bulletin of Postal Service Industry for 2008–2014*, published by the State Post Bureau

Table 1.11 Distribution of business volume of express delivery by region for 2008–2014

Year	Eastern region	Central region	Western region
2008	78.5	11.5	10.0
2009	80.2	10.6	9.2
2010	79.3	11.6	9.1
2011	79.9	11.2	8.9
2012	81.9	10.5	7.6
2013	81.3	10.8	7.9
2014	82.0	10.6	7.4

Source: Compiled from the *Statistical Bulletin of Postal Service Industry for 2008–2014*, published by the State Post Bureau

1.3 Major Characteristics of China's Logistics Market

1.3.1 Development of Cross-Border Logistics System

1.3.1.1 China-Europe Freight Rail Lines

After the “One Belt and One Road” strategic concept was proposed, provinces along the paths in China actively embraced this strategy, and opened up a batch of China-Europe freight rail line⁸ within a short period of time. Currently, China-Europe freight rail lines have had three channels; they are, respectively, the Eastern Channel departing from the Manzhouli port of Inner Mongolia autonomous region, the Central Channel departing from the Erenhot port of Inner Mongolia autonomous region, and the Western Channel departing from the Alashankou port of Xinjiang Autonomous Region. The originating points of China-Europe freight rail lines in China include Chengdu, Chongqing, Wuhan, Zhengzhou, Suzhou, and Harbin cities. Chinese commodities departing from these originating cities can arrive at Moscow, Warsaw, Duisburg, Madrid and other European cities in about 15 days; this transport time is about one-third of that of marine transport.

According to the statistics of China Railway Corporation, a total of 308 arrays of China-Europe freight rail cars, hauling 26,070 containers, were set forth in 2014, which was 228 arrays more than that of the same period of last year, and an increase by 285 %. But while the China-Europe freight rail lines were developing rapidly, problems such as duplicate lines and shortage of goods on return trips were present. Therefore, China Railways Corporation organized, and coordinated the unified management on the lines, for the purpose of attaining the unification of “Brand name,” “Transportation organization,” “Whole course pricing,” “Service standards,” “Management team,” and “Coordination platform.”

1.3.1.2 Cross-Border E-Commerce Logistics

In order to adapt to the rapid development of cross-border e-commerce in China and improve the service level of cross-border e-commerce logistics, many local express enterprises in China actively developed international special logistics lines in 2014, and opened the transshipment service of overseas shopping. For example, China Postal Express opened four special lines (China-Kazakhstan-Russia) for international small packages. STO Express opened the special line to Japan, and cooperated with Pony Express and TNT Post to enter Europe. SF Express opened the special lines for small packages to Russia, and to Europe. The European Express service center and American service center of YUNDA Express officially began operation. YTO Express started the special line of “Russian Easy Mail.” Best

⁸China-Europe freight rail lines refer to the fast freight line from China to Europe, suitable for transporting freight containers.

Express opened its complete line of global express business. SF Express, China Post Express and YUNDA Express opened the US-China transshipment service, to provide consulting and inquiry services regarding warehousing, transshipment and cross-border logistics transportation in the US, for domestic online shopping customers in China and overseas Chinese.

The local large-scale cross-border e-commerce enterprises in China also accelerated the pace in setting up “overseas warehouses.” For example, Light in the Box in Europe began its overseas warehouse operation at the beginning of 2014, and it then opened overseas warehouses in North America at the beginning of 2015. At the beginning of 2015, AliExpress, which is the online trading platform subordinated to the Alibaba Group, also added nine overseas delivery depots in the US, England, Spain, France, Germany, Italy, Russia and Indonesia; sellers on AliExpress platform can provide local logistics service for consumers in these countries and neighboring areas.

1.3.2 Progress in Urban Distribution and Rural Logistics System

1.3.2.1 Urban Distribution

Since China's Ministry of Commerce and Ministry of Finance started the pilot test of joint distribution in urban areas in 2013, the three-tier distribution network, composed of distribution centers of logistics parks, public distribution centers and end-node distribution sites, has been preliminarily built in the first batch of 22 pilot cities; a batch of urban joint distribution information service platform was built, and a batch of urban joint distribution modes were implemented. Typical urban joint distribution include the following modes: (1) integrated trunk line and branch line mode developed by relying on logistics parks; (2) merchant's joint distribution mode developed by relying on professional wholesale markets; (3) “Online ordering and store pick-up (delivery)” mode developed by relying on community convenience stores, property management companies, and universities; (4) joint distribution mode developed by utilizing self-service delivery container cabinets.

The innovation of “last-mile delivery” of urban distribution has emerged in endless forms, and the “last-mile delivery” platforms of dozens of different modes were successively completed, such as SF Heike, Caijiao station, sposter. Popular “last-mile delivery” platform of O2O includes shbj.com, beequick, meishisong.

1.3.2.2 Countryside Logistics

In 2014, e-commerce giants Alibaba and Jingdong accelerated their layout of the rural e-commerce market. Under the impetus of rapid development of rural e-commerce, the two-way logistics network which sends the agricultural products

to the city and ships industrial products from the city to the countryside has been vigorously developed.

The Alibaba Group invested 2.21 billion RMB in Qingdao RRS Logistics in December 2013, so as to become the main logistics service provider of major household appliances on its subordinated Tmall website, and assist the Tmall merchants to expand their business to third-tier and fourth-tier cities which were difficult to penetrate previously. RRS has the sole large parcel logistics service network in China having the capability of delivering goods to the countryside plus the installation service for appliances. By the end of 2014, RRS has formed the complete logistics network composed of 90 logistics distribution centers, more than 2,800 county-level logistics distribution stations and more than 17,000 service provider posts. It has nearly 2 million m² of warehouse space and can achieve full coverage of 2,600 districts and counties within the country; it can realize “delivery within 24 h” in more than 155 districts and counties, and “deliver within 48 h” in 460 districts and counties.

In 2014, Jingdong rapidly expanded its county-level logistics distribution network by building the “Pioneer station” and the “Jingdongbang” service stores. “Pioneer station” is Jingdong’s self-run website; its couriers are selected from its current cadre of employees of urban distribution in first-tier and second-tier cities. These distribution employees are professionally trained and can undertake both merchandise sales and delivery work. In 2014, Jingdong founded a total of 192 Pioneer stations, added the coverage of 600 new districts and counties, making the total coverage of districts and counties to 1,900, which accounted for half of the total number the districts and counties in the country. “Jingdongbang” service shop adopts the franchise mode, and is mainly responsible for the distribution and installation of Jingdong’s major appliances in the countryside. The first “Jingdongbang” service shop was opened in November 2014, and it will reach 1,000 service shops by the end of 2017.

In addition, the local express delivery and expedite service enterprises in China are also accelerate their layout of rural network. In 2014, 5,000 new national rural express service nodes were added, which covered 48% of villages and towns in China. The leading enterprise of the local Less-than-Truck-Load Express companies, i.e. Deppon Express, added about 1,000 direct sales nodes in 2014, which were mainly set up in the third-tier and fourth-tier cities.

1.3.3 High Awareness of Investors on China logistics

1.3.3.1 Huge Overseas Financing for Large-Scale E-Commerce Enterprises in China

In May 2014, JD.com Inc was listed in NASDAQ in the US, and capitalized at 1.78 billion USD. Logistics is one of the core competitiveness of Jingdong, and logistics system construction is one of the main objects of its IPO financing. In